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# **CATALOG OF SPACE SHUTTLE EARTH OBSERVATIONS HANDHELD PHOTOGRAPHY**

## **SPACE TRANSPORTATION SYSTEM 37 (STS-37)**

**Mission Dates: April 5 Through 11, 1991**

**Flight Science Support Office  
Solar System Exploration Division  
Space and Life Sciences Directorate**



**National Aeronautics and  
Space Administration  
Lyndon B. Johnson Space Center  
Houston, Texas 77058**

**91-09355**



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**LESC-29483**

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**Job Order J4-S10**



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**Lockheed Engineering & Sciences Company**

**For**

**Flight Science Support Office  
Solar System Exploration Division  
Space and Life Sciences Directorate**

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
LYNDON B. JOHNSON SPACE CENTER  
HOUSTON, TEXAS 77058**

**August 1991**

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SPACE TRANSPORTATION SYSTEM 37 (STS-37)

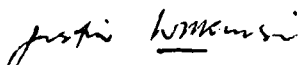
Mission Dates: April 5 Through 11, 1991

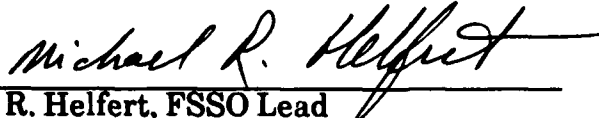
Job Order J4-S10

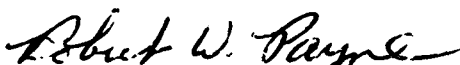
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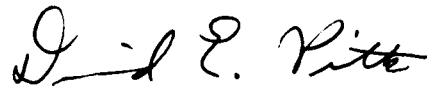
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August 1991

## **PREFACE**

**This document catalogs Space Shuttle handheld Earth observations photography acquired during the Space Transportation System 37 (STS-37) Mission flown April 5 through 11, 1991. The country, geographic location, general quality, cloud coverage, and other descriptors of each frame are provided. The catalog is a product of the Flight Science Support Office at the National Aeronautics and Space Administration, Lyndon B. Johnson Space Center, Houston, Texas.**

**The Flight Science Support Office wishes to acknowledge those STS-37 astronauts who acquired the photographs cataloged in this document: *Steven R. Nagel*, commander; *Kenneth D. Cameron*, pilot; and *Jerome Apt*, *Linda M. Godwin*, and *Jerry L. Ross*, mission specialists.**

**Any reviewer of this catalog who has questions or inquiries about the catalog, the data listings, or the Earth observations program should contact the program manager:**

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**Inquiries regarding the techniques, cameras, and other details related to Earth observations aboard STS-37 should be forwarded to the lead mission scientist at the address below:**

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## **ACRONYMS AND ABBREVIATIONS**

|             |                                                      |
|-------------|------------------------------------------------------|
| <b>a.m.</b> | <b>ante meridiem</b>                                 |
| <b>ASA</b>  | <b>American Standards Association</b>                |
| <b>DRM</b>  | <b>data recording module</b>                         |
| <b>EDT</b>  | <b>eastern daylight time</b>                         |
| <b>EROS</b> | <b>Earth Resources Observation Systems</b>           |
| <b>ESIC</b> | <b>Earth Sciences Information Center</b>             |
| <b>FSSO</b> | <b>Flight Science Support Office</b>                 |
| <b>GMT</b>  | <b>Greenwich mean time</b>                           |
| <b>in.</b>  | <b>inch</b>                                          |
| <b>JSC</b>  | <b>Lyndon B. Johnson Space Center</b>                |
| <b>km</b>   | <b>kilometer</b>                                     |
| <b>mm</b>   | <b>millimeter</b>                                    |
| <b>NASA</b> | <b>National Aeronautics and Space Administration</b> |
| <b>nmi</b>  | <b>nautical mile</b>                                 |
| <b>OV</b>   | <b>orbital vehicle</b>                               |
| <b>PDT</b>  | <b>Pacific daylight time</b>                         |
| <b>STS</b>  | <b>Space Transportation System</b>                   |

# **1. INTRODUCTION**

## **1.1 EARTH OBSERVATIONS PHOTOGRAPHY**

In support of the acquisition of Earth observations photography by Shuttle astronauts, the Flight Science Support Office (FSSO) at the National Aeronautics and Space Administration, Lyndon B. Johnson Space Center (NASA-JSC) coordinates and trains crews in Earth and environmental sciences, provides real-time mission support, and catalogs the handheld photography. Space Shuttle crews are briefed on geological and environmental phenomena of scientific interest and on the basic techniques used to acquire photography over specific sites. During each mission, scientists monitor the Earth for events of special interest (such as hurricanes or other major storms, floods, ice packs, fires, and active volcanoes), as well as for environmental conditions of specific interest. Messages to the Shuttle crew requesting photography of an event are coordinated through Mission Control at NASA-JSC.

Specific mission data for Space Transportation System 37 (STS-37) are listed in table 1-1.

## **1.2 CATALOGING AND INDEXING**

This document catalogs Space Shuttle handheld Earth observations photography acquired during Mission STS-37. The country, geographic location, general quality, cloud coverage, and other descriptors of each frame are listed by roll number and by geographic name in section 4, tables 4-3 and 4-4, respectively. This catalog is a product of the FSSO, Solar System Exploration Division, Space and Life Sciences Directorate at NASA-JSC, Houston, Texas. Support has been provided by Lockheed Engineering & Sciences Company, Houston, Texas, under Contract NAS 9-17900.

Cataloging of Earth-looking photography from this mission was accomplished by R. M. Nelson, K. J. Willis, W. J. Daley, and F. R. Brumbaugh of Lockheed Engineering & Sciences Company. Additional contributors to this report include V. S. Whitehead, D. L. Amsbury, M. R. Helfert, K. P. Lulla, and D. E. Pitts of NASA-JSC, and L. P. Boedeker, S. G. Ackleson, C. A. Evans, and M. J. Wilkinson of Lockheed Engineering & Sciences Company.

**TABLE 1-1.- MISSION DATA FOR STS-37**

|                     |                                                                                             |                             |
|---------------------|---------------------------------------------------------------------------------------------|-----------------------------|
| <b>Launch:</b>      | <b>April 5, 1991; 1422 GMT (10:22 a.m. EDT); from John F. Kennedy Space Center, Florida</b> |                             |
| <b>Landing:</b>     | <b>April 11, 1991; 1355 GMT (6:55 a.m. PDT); at Edwards Air Force Base, California</b>      |                             |
| <b>Orbits:</b>      | <b>91</b>                                                                                   |                             |
| <b>Vehicle:</b>     | <b>Atlantis (OV-104)</b>                                                                    |                             |
| <b>Altitude:</b>    | <b>243 nmi (445 km) nominal</b>                                                             |                             |
| <b>Inclination:</b> | <b>28.5°</b>                                                                                |                             |
| <b>Crew:</b>        | <b>Commander</b>                                                                            | <b>- Steven R. Nagel</b>    |
|                     | <b>Pilot</b>                                                                                | <b>- Kenneth D. Cameron</b> |
|                     | <b>Mission specialists</b>                                                                  | <b>- Jerome Apt</b>         |
|                     |                                                                                             | <b>- Linda M. Godwin</b>    |
|                     |                                                                                             | <b>- Jerry L. Ross</b>      |

## 2. ACQUISITION OF EARTH OBSERVATIONS PHOTOGRAPHY

The photography described in this catalog was obtained using three types of cameras: Hasselblad, Linhof, and Nikon F4. The NASA-modified Hasselblad 500 EL/M 70-mm cameras (figure 2-1) were equipped with Zeiss 50-mm CF Distagon f 4.0, 100-mm CF Planar f 3.5, and 250-mm CF Sonnar f 5.6 lenses. Kodak Ektachrome Professional 5017 [American Standards Association (ASA) 64] standard base film and Kodak Aerochrome Color Infrared 2443 (ASA 160) film were used in the Hasselblad cameras. The Linhof Aero Technika camera (figure 2-2) was equipped with interchangeable Linhof 90-mm Super Angulon f 5.6 and 250-mm Tele-Arlon f 5.6 lenses. The film used for the latter camera was 5-in. Kodak Ektachrome QX 868 (ASA 64), natural color (5017 emulsion), thin base.<sup>1</sup> The Nikon F4 35-mm camera was provided with interchangeable 35-to-70-mm zoom, 28-mm f 2.8, and 20-mm f 2.8 autofocus lenses. The film used in the Nikon F4 was 35-mm Kodak Ektachrome Professional 5017 standard base film. All photographs were taken through the windows of the Shuttle Orbiter (figure 2-3).

Data recording modules (DRM's) were installed on the camera magazines. The Hasselblad and Linhof DRM's recorded the date, time to the nearest second in Greenwich mean time (GMT), DRM number, frame number, and mission number. These modules can be removed by the crew and reinstalled on other magazines when magazines are flown without a module. The DRM on the Nikon F4 camera magazine, however, recorded only the day, hour, and minute.

The date and time imaged on each photograph by the DRM are used in conjunction with orbital mechanics data recorded during the mission to compute the Orbiter nadir position in latitude and longitude, the orbit, the altitude, and the sun elevation and azimuth for each camera exposure. The data for the Hasselblad and Linhof are computed for each second of time, while the data for the Nikon F4 can be determined only for each minute (zero seconds). Consequently, the frames recorded by the Nikon F4 during the period of the same minute have the same data. The data are described further in section 4, table 4-2, and are listed in tables 4-3 and 4-4.

---

<sup>1</sup> QX 868 has the same emulsion as Professional 5017 film, except it is coated on a thin base material to provide more frames per roll.



**Figure 2-1.- NASA-modified Hasselblad 500 EL/M camera.**

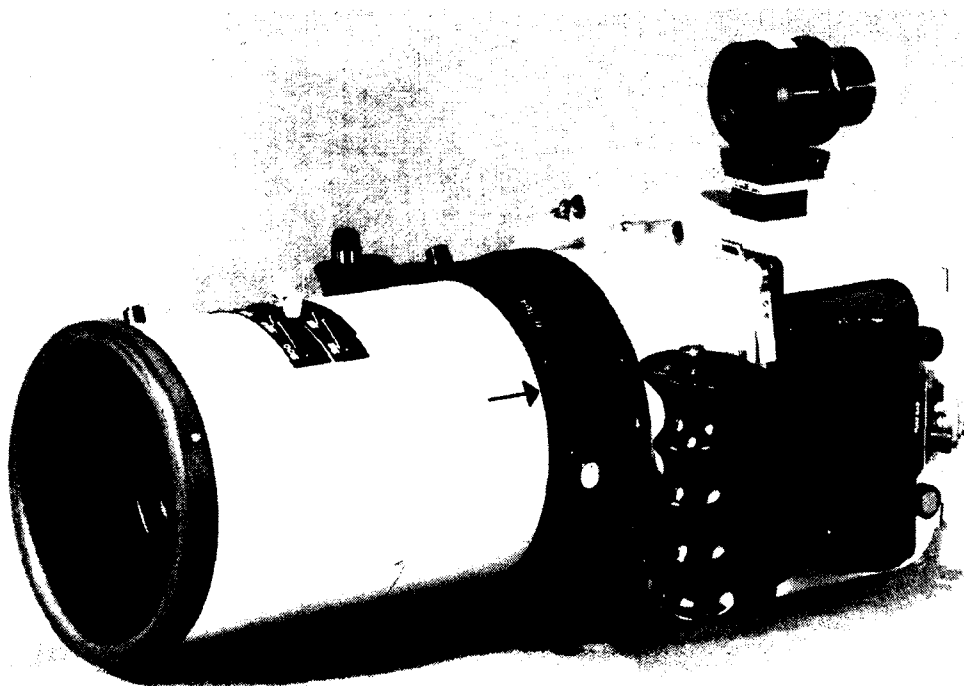


**Figure 2-2.- Linhof Aero Technika camera.**

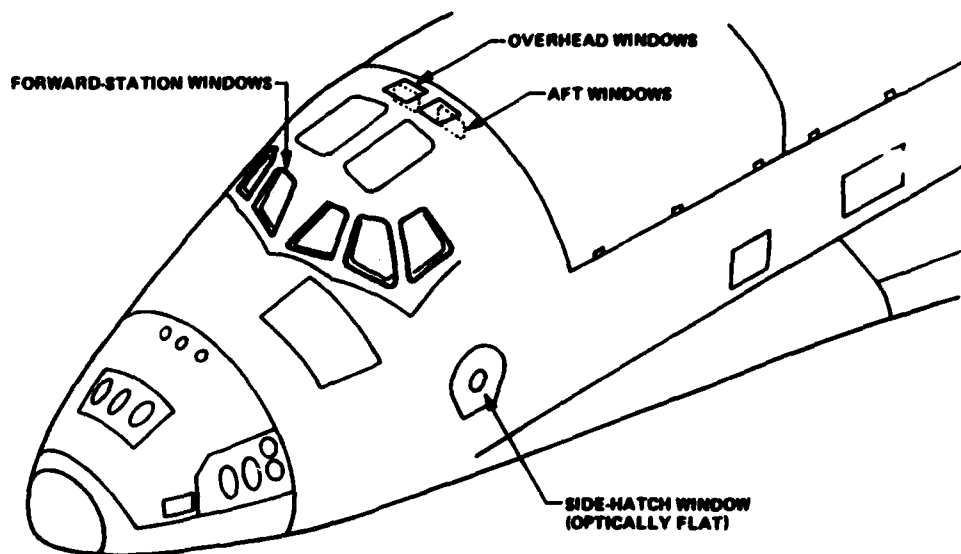


**Figure 2-3.- Location of windows in the Shuttle Orbiter.**

### **3. PHOTOGRAPHY NUMBERING, SOURCES, AND ORDERING PROCEDURES**

#### **3.1 NUMBERING OF PHOTOGRAPHY**

Photographs are ordered using the mission, roll, and frame numbers as listed in section 4, tables 4-3 and 4-4. For example, STS-37-74-51 is the photo-ordering number for frame 51 of roll 74 from Mission STS-37.

#### **3.2 PHCTOGRAPHY SOURCES AND ORDERING PROCEDURES**

Earth-viewing Shuttle photography may be obtained from the following sources:

U.S. Geological Survey  
EROS Data Center  
Sioux Falls, SD 57198  
Telephone: (605) 594-6151

Technology Applications Center  
University of New Mexico  
Albuquerque, NM 87131  
Telephone: (505) 277-3622

Media Services Branch  
Still Photography Library  
NASA Lyndon B. Johnson Space Center  
P.O. Box 58425, Mail Code AP3  
Houston, TX 77258  
Telephone: (713) 483-4231

The FSSO recommends that you visit a viewing center to select the image best satisfying your requirements before ordering a photograph. In addition to the sources listed above, table 3-1 provides a list of viewing centers. The Earth Sciences Information Center (ESIC), U.S. Geological Survey, has six branches currently equipped with Shuttle photography microfilm and catalogs. Other organizations similarly equipped are the NASA Ames Research Center, California; the Library of Congress; the University of California at Santa Barbara; the Lunar and Planetary Institute, Houston; and the Smithsonian Institution. These centers provide excellent browse/viewing capabilities helpful in ordering photographs.

### **TABLE 3-1.- PHOTOGRAPHY VIEWING CENTERS**

**[All of these centers receive microfilm and catalogs.]**

#### **NASA - NASA DATA FACILITY**

Bldg. 240, Rm. 219 (M.S. 240-6)  
NASA Ames Research Center  
Moffett Field, CA 94305  
(415) 604-6252

#### **U.S. GOVERNMENT - LIBRARY OF CONGRESS**

Geography & Map Division  
Rm. B-01, Library of Congress  
Madison Memorial Bldg.  
1st and C Streets SE  
Washington, D.C. 20540  
(202) 707-6277

#### **UNIVERSITY ESIC AFFILIATE**

Map and Image  
Laboratory and Library  
University of California  
Santa Barbara, CA 93106  
(805) 893-2779/(805) 893-4049

#### **LUNAR AND PLANETARY INSTITUTE**

Planetary Image Center  
3303 NASA Rd. 1  
Houston, TX 77058  
(713) 486-2136

#### **SMITHSONIAN INSTITUTION**

Air and Space Museum  
Archives Division, Rm. 3100  
6th and Independence Ave., SW  
Washington, D.C. 20560  
(202) 357-3133

#### **EARTH SCIENCE INFORMATION CENTERS (ESIC'S)**

##### **U.S. GEOLOGICAL SURVEY**

##### **Anchorage-ESIC**

4230 University Dr.  
Rm. 101  
Anchorage, AK 99508-4664  
(907) 786-7011/FTS (907) 271-4320

##### **Lakewood-ESIC**

Box 25046, Federal Center (M.S. 504)  
Denver, CO 80225  
(303) 236-5829/FTS 776-5829

##### **Menlo Park-ESIC**

Rm. 3128, Bldg. 3 (M.S. 532)  
345 Middlefield Rd.  
Menlo Park, CA 94025  
(415) 329-4390/FTS 459-4390

##### **Reston-ESIC**

507 National Center  
Reston, VA 22092  
(703) 648-6045/FTS 959-6045

##### **Rolla-ESIC**

1400 Independence Rd.  
Rolla, MO 65401  
(314) 341-0851/FTS 759-0851

##### **Stennis Space Center-ESIC**

Bldg. 3101  
Stennis Space Center, MS 39529  
(601) 688-3544/FTS 494-3544

## **4. FILM AND CATALOG LISTINGS**

A diagram illustrating time sequence per roll of film exposed during Mission STS-37 is presented in figure 4-1, and a compact photographic summary correlating roll numbers with film used during the mission is provided in table 4-1.

The photography is cataloged and presented in two listings, with table 4-2 providing an explanation of the column headings used in the listings in tables 4-3 and 4-4. Table 4-3 is listed by roll/frame sequence, and table 4-4 is listed by geographic name.

As depicted in figure 4-1, many of the rolls were exposed during the same time period, generally over the same subject area, often with different focal length lenses, and occasionally with different types of film. Therefore, a user can easily search table 4-3 or 4-4 either to correlate different focal length photography taken at approximately the same time over the same subject or to compare natural color with color infrared film.

**TABLE 4-1.- PHOTOGRAPHIC SUMMARY  
FOR MISSION STS-37**

| <b>ROLL<br/>NUMBERS</b>                          | <b>TYPE OF<br/>FILM</b>                                                        | <b>COMMENTS</b>                                            |
|--------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------|
| <b>HASSELBLAD CAMERAS WITH DRM</b>               |                                                                                |                                                            |
| <b>71-86<br/>93-99</b>                           | Kodak natural color<br>Ektachrome Professional 5017,<br>ASA 64, standard base  | Rolls 84, 94,<br>and 96 had no<br>time data.               |
| <b>87-92</b>                                     | Kodak Aerochrome Color<br>Infrared 2443, ASA 160                               |                                                            |
| <b>LINHOF CAMERA WITH DRM</b>                    |                                                                                |                                                            |
| <b>151-153</b>                                   | Kodak natural color<br>Ektachrome QX 868 (5017<br>emulsion), ASA 64, thin base |                                                            |
| <b>NIKON F4 CAMERA WITH DRM</b>                  |                                                                                |                                                            |
| <b>8-10,<br/>12-16,<br/>38-42,<br/>44-46, 56</b> | Kodak natural color<br>Ektachrome Professional 5017,<br>ASA 64, standard base  | Only frames<br>with Earth<br>observations<br>were plotted. |

**NOTE:** Of the total 4486 frames of Hasselblad, Linhof, and Nikon photography acquired during Mission STS-37, 4283 frames were Earth viewing.

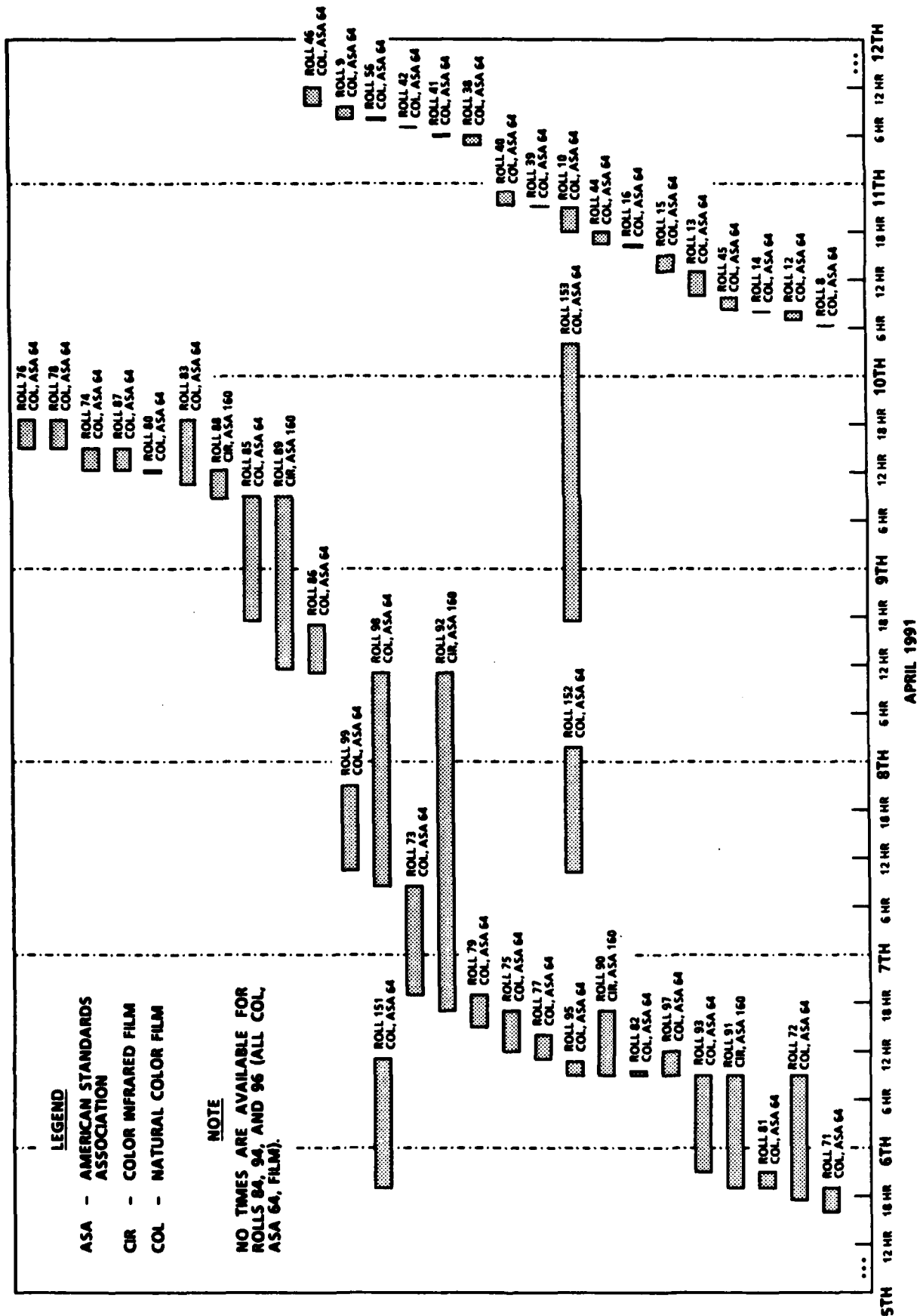


Figure 4-1.- Mission STS-37 time sequence per roll of film.

**TABLE 4-2.- EXPLANATION OF COLUMN HEADINGS USED  
IN TABLES 4-3 AND 4-4**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>RL</b><br/>Number assigned to each roll of film</p> <p><b>FR</b><br/>Frame number for the photograph</p> <p><b>GEOGRAPHIC NAME</b><br/>Usually the country where the center point of the photograph is located; may also be the name of an island chain, ocean, sea, or a single island if that is the only land in the photograph</p> <p><b>FEATURE</b><br/>Feature of interest within the photograph (e.g., name of a specific landform, cloud pattern, etc.)</p> <p><b>CENTER LAT, LON</b><br/>Latitude and longitude, determined to the nearest tenth to full degree, of the center point of the photograph</p> <p><b>NADIR LAT, LON</b><br/>Coordinates, determined to the nearest tenth of a degree, of the point directly beneath the spacecraft</p> <p><b>CC</b><br/>Percentage of cloud cover</p> <p><b>TL</b><br/>Tilt of the camera from Shuttle nadir:<br/>             HO - High oblique (includes the horizon)<br/>             LO - Low oblique<br/>             NV - Near vertical</p> | <p><b>FL</b><br/>Focal length of lens used:<br/>             Hasselblad - 50 mm, 100 mm, 250 mm<br/>             Linhof - 90 mm, 250 mm<br/>             Nikon F4 - 35-to-70-mm zoom, 28 mm, 20 mm</p> <p><b>E</b><br/>Photographic exposure:<br/>             O - Overexposed<br/>             N - Normal exposure<br/>             U - Underexposed<br/>             F - Unsharp focus</p> <p><b>S</b><br/>Possibility of a stereopair, either adjacent frames or frames relatively near on the same roll of film:<br/>             N - No<br/>             Y - Yes</p> <p><b>DATE</b><br/>Year, month, and day the photograph was taken</p> <p><b>GMT</b><br/>Greenwich mean time of photographic acquisition</p> <p><b>AL</b><br/>Shuttle altitude in nautical miles</p> <p><b>SUN AZ</b><br/>At the Shuttle nadir, the horizontal angle (azimuth) measured from north clockwise to the Sun</p> <p><b>SUN EL</b><br/>Sun elevation angle at Shuttle nadir (measured from horizontal)</p> <p><b>OR</b><br/>Orbit number</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | LONG   | NADIR<br>LAT | LONG   | CC | TL | FL | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|---------------------------|---------------|--------|--------------|--------|----|----|----|---|---|----------|--------|-----|-----|-----------|----|
| 8  | 1  | ALGERIA         | AHAGGAR MTNS, HAZY        |               | 28.6N  | 0.1E         | 10     | LO | 35 | N  | N | N | 19910410 | 063427 | 244 | 87  | 11        | 73 |
| 8  | 2  | ALGERIA         | AHAGGAR MTNS, HAZY        |               | 28.6N  | 0.8E         | 0      | LO | 35 | N  | N | N | 19910410 | 063437 | 244 | 87  | 12        | 73 |
| 8  | 3  | ALGERIA         | TINRHERT PLATEAU          |               | 28.6N  | 1.4E         | 0      | LO | 35 | N  | N | N | 19910410 | 063446 | 244 | 88  | 12        | 73 |
| 8  | 4  | ALGERIA         | PANORAMA, TINRHERT PLAT.  |               | 28.6N  | 3.5E         | 5      | HO | 35 | N  | N | N | 19910410 | 063517 | 244 | 89  | 14        | 73 |
| 8  | 5  | LIBYA           | UBARI & MURZUK SAND SEAS  |               | 28.4N  | 7.0E         | 20     | LO | 35 | N  | N | N | 19910410 | 063608 | 244 | 90  | 17        | 73 |
| 8  | 6  | ALGERIA         | TINRHERT PLAT. AREA       |               | 28.3N  | 8.2E         | 10     | HO | 35 | N  | N | N | 19910410 | 063626 | 244 | 91  | 19        | 73 |
| 8  | 7  | ALGERIA         | TINRHERT PLAT. AREA       |               | 28.3N  | 8.9E         | 40     | LO | 35 | N  | N | N | 19910410 | 063636 | 244 | 91  | 19        | 73 |
| 8  | 8  | LIBYA           | MARZUQ DESERT AREA        | 26.0N         | 12.5E  | 28.2N        | 10.3E  | 10 | LO | 35 | N | N | 19910410 | 063657 | 244 | 92  | 21        | 73 |
| 8  | 9  | LIBYA           | MARZUQ DESERT AREA        | 26.2N         | 13.2E  | 27.9N        | 13.1E  | 5  | LO | 35 | N | N | 19910410 | 063738 | 245 | 93  | 23        | 73 |
| 8  | 10 | CHAD            | TIBESTI MTN. AREA         | 22.0N         | 15.0E  | 27.6N        | 15.4E  | 0  | HO | 35 | N | N | 19910410 | 063812 | 245 | 94  | 25        | 73 |
| 8  | 11 | LIBYA           | EL HARUJ EL ASWAD AREA    | 27.0N         | 17.0E  | 27.4N        | 16.8E  | 0  | LO | 35 | N | N | 19910410 | 063832 | 245 | 95  | 27        | 73 |
| 8  | 12 | CHAD            | TIBESTI MTNS AREA         | 21.0N         | 18.5E  | 27.2N        | 18.4E  | 40 | HO | 35 | N | N | 19910410 | 063857 | 245 | 96  | 28        | 73 |
| 8  | 13 | LIBYA           | LIBYAN DESERT             |               | 26.8N  | 21.0E        | 0      | LO | 35 | N  | N | N | 19910410 | 063935 | 245 | 97  | 31        | 73 |
| 8  | 14 | CHAD            | TIBESTI, OVEREXPOSED      |               | 26.5N  | 22.3E        | 0      | HO | 35 | N  | N | N | 19910410 | 063955 | 245 | 98  | 32        | 73 |
| 8  | 15 | LIBYA           | LIBYAN DESERT             | 26.0N         | 23.0E  | 26.4N        | 23.1E  | 0  | LO | 35 | N | N | 19910410 | 064008 | 245 | 98  | 33        | 73 |
| 8  | 16 | CHAD            | TIBESTI AREA              |               | 26.1N  | 24.5E        | 70     | HO | 35 | N  | N | N | 19910410 | 064028 | 245 | 98  | 34        | 73 |
| 8  | 17 | LIBYA           | REBIANA SAND SEA          |               | 25.8N  | 26.0E        | 5      | LO | 35 | N  | N | N | 19910410 | 064052 | 245 | 99  | 36        | 73 |
| 8  | 18 | EGYPT           | PANORAMA, NILE VALLEY     | 28.0N         | 32.0E  | 25.3N        | 28.0E  | 10 | HO | 35 | N | N | 19910410 | 064122 | 245 | 100 | 38        | 73 |
| 8  | 19 | EGYPT           | PANORAMA, NILE VALLEY     | 25.0N         | 34.0E  | 25.2N        | 28.5E  | 5  | HO | 35 | N | N | 19910410 | 064130 | 246 | 100 | 38        | 73 |
| 8  | 20 | EGYPT           | PANORAMA, ARABIAN DESERT  | 23.0N         | 36.0E  | 25.1N        | 28.7E  | 5  | HO | 35 | N | N | 19910410 | 064133 | 246 | 100 | 38        | 73 |
| 8  | 21 | EGYPT           | GILF KEBIR PLATEAU, NILE  | 24.0N         | 30.0E  | 24.9N        | 29.6E  | 0  | LO | 35 | N | N | 19910410 | 064148 | 246 | 101 | 39        | 73 |
| 8  | 22 | EGYPT           | GILF KEBIR PLATEAU        | 23.0N         | 26.0E  | 24.8N        | 30.0E  | 0  | LO | 35 | N | N | 19910410 | 064153 | 246 | 101 | 39        | 73 |
| 8  | 23 | SUDAN           | NUBIAN DESERT AREA, NILE  | 19.0N         | 28.0E  | 24.7N        | 30.5E  | 40 | HO | 35 | N | N | 19910410 | 064202 | 246 | 101 | 40        | 73 |
| 8  | 24 | EGYPT           | NILE, ASWAN DAM AREA      | 25.5N         | 30.0E  | 24.3N        | 31.9E  | 0  | LO | 35 | N | N | 19910410 | 064224 | 246 | 101 | 41        | 73 |
| 8  | 25 | EGYPT           | NILE, N. ASWAN DAM AREA   | 25.5N         | 33.0E  | 24.2N        | 32.5E  | 0  | LO | 35 | N | N | 19910410 | 064233 | 246 | 102 | 42        | 73 |
| 8  | 26 | SUDAN           | OVEREXPOSED, BEND IN NILE |               | 23.8N  | 33.8E        | 0      | HO | 35 | N  | N | N | 19910410 | 064254 | 246 | 102 | 43        | 73 |
| 8  | 27 | EGYPT           | S. ARABIAN DESERT         | 23.0N         | 34.0E  | 23.7N        | 34.2E  | 5  | LO | 35 | N | N | 19910410 | 064300 | 246 | 102 | 44        | 73 |
| 8  | 28 | RED SEA         | SE EGYPT, HIJAZ MASSIVE   | 26.0N         | 35.5E  | 23.5N        | 34.7E  | 5  | LO | 35 | N | N | 19910410 | 064308 | 246 | 102 | 44        | 73 |
| 8  | 29 | RED SEA         |                           | 24.0N         | 37.0E  | 23.4N        | 35.3E  | 5  | LO | 35 | N | N | 19910410 | 064317 | 246 | 103 | 45        | 73 |
| 8  | 30 | RED SEA         | HIJAZ MASSIVE             | 25.0N         | 37.0E  | 23.1N        | 36.2E  | 0  | LO | 35 | N | N | 19910410 | 064332 | 246 | 103 | 46        | 73 |
| 8  | 31 | RED SEA         | HIJAZ MASSIVE             | 24.0N         | 37.0E  | 22.8N        | 37.0E  | 5  | LO | 35 | N | N | 19910410 | 064345 | 246 | 103 | 47        | 73 |
| 8  | 32 | RED SEA         | HIJAZ MASSIVE             | 24.0N         | 37.0E  | 22.7N        | 37.5E  | 5  | LO | 35 | N | N | 19910410 | 064353 | 246 | 103 | 47        | 73 |
| 8  | 33 | SUDAN           | PANORAMA                  |               | 22.2N  | 38.8E        | 40     | HO | 35 | N  | N | N | 19910410 | 064414 | 246 | 104 | 48        | 73 |
| 8  | 34 | SAUDI ARABIA    | N. HIJAZ MASSIVE          | 26.0N         | 38.0E  | 21.7N        | 40.3E  | 40 | HO | 35 | N | N | 19910410 | 064439 | 246 | 104 | 50        | 73 |
| 8  | 35 | RED SEA         | PANORAMA, N. SUDAN        |               | 21.5N  | 41.1E        | 30     | HO | 35 | N  | N | N | 19910410 | 064451 | 246 | 104 | 51        | 73 |
| 8  | 36 | SUDAN           | E. NUBIAN DESERT          | 19.0N         | 35.0E  | 21.1N        | 42.0E  | 40 | LO | 35 | N | N | 19910410 | 064506 | 246 | 105 | 52        | 73 |
| 8  | 37 |                 | BLANK FRAME               |               |        |              |        |    |    |    |   |   |          |        |     |     |           |    |
| 9  | 1  | AUSTRALIA-SA    | AREA W. OF LAKE EYRE      | 28.0S         | 134.0E | 28.0S        | 133.2E | 20 | LO | 35 | N | N | 19910411 | 081348 | 245 | 284 | 8         | 89 |
| 9  | 2  | AUSTRALIA-SA    | AREA W. OF LAKE EYRE      | 28.0S         | 134.0E | 28.0S        | 133.4E | 20 | LO | 35 | N | N | 19910411 | 081351 | 245 | 284 | 8         | 89 |
| 9  | 3  | AUSTRALIA-SA    | AREA W. OF LAKE EYRE      | 28.0S         | 135.0E | 28.0S        | 134.1E | 0  | LO | 35 | N | N | 19910411 | 081401 | 245 | 283 | 7         | 89 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME  | FEATURE                      | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|----|------------------|------------------------------|---------------|---------------|--------------|--------------|----|----|----|---|---|----------|--------|-----|-----|-----------|----|
| 9  | 4  | AUSTRALIA-SA     | LAKE EYRE AREA               | 28.5S         | 137.4E        | 28.2S        | 135.7E       | 0  | LO | 35 | N | N | 19910411 | 081425 | 245 | 282 | 6         | 89 |
| 9  | 5  | AUSTRALIA-SA     | AREA NE. LAKE EYRE           | 27.0S         | 138.0E        | 28.3S        | 137.1E       | 0  | LO | 35 | N | N | 19910411 | 081445 | 245 | 282 | 4         | 89 |
| 9  | 6  | AUSTRALIA-SA     | AREA NE. LAKE EYRE           | 27.0S         | 138.0E        | 28.3S        | 137.5E       | 0  | LO | 35 | N | N | 19910411 | 081452 | 245 | 282 | 4         | 89 |
| 9  | 7  | AUSTRALIA-SA     | AREA E. OF LAKE EYRE         | 28.0S         | 140.0E        | 28.4S        | 138.6E       | 0  | LO | 35 | N | N | 19910411 | 081507 | 245 | 281 | 3         | 89 |
| 9  | 8  | AUSTRALIA-SA     | AREA E. OF LAKE EYRE         | 28.0S         | 140.0E        | 28.4S        | 139.5E       | 0  | LO | 35 | N | N | 19910411 | 081520 | 245 | 281 | 2         | 89 |
| 9  | 9  | AUSTRALIA-SA     | LAKE FROME AREA              | 30.3S         | 140.0E        | 28.5S        | 140.0E       | 0  | LO | 35 | N | N | 19910411 | 081528 | 245 | 280 | 2         | 89 |
| 9  | 10 | AUSTRALIA-SA     | AREA S. OF LAKE YAMMA        | 27.5S         | 142.0E        | 28.5S        | 141.4E       | 0  | LO | 35 | N | N | 19910411 | 081549 | 245 | 280 | 0         | 89 |
| 9  | 20 | ATMOSPHERIC LIMB | CLOUDS                       |               |               | 26.0N        | 21.3W        | 99 | HO | 35 | N | N | 19910411 | 090940 | 245 | 94  | 27        | 90 |
| 9  | 21 | WESTERN SAHARA   | PANORAMIC VIEW               | 23.0N         | 14.0W         | 25.9N        | 20.4W        | 20 | HO | 35 | N | N | 19910411 | 090954 | 245 | 94  | 28        | 90 |
| 9  | 22 | WESTERN SAHARA   | PANORAMIC VIEW               | 21.0N         | 13.0W         | 25.5N        | 18.8W        | 30 | HO | 35 | N | N | 19910411 | 091019 | 245 | 95  | 29        | 90 |
| 9  | 23 | MAURITANIA       | PANORAMIC VIEW               | 20.0N         | 12.0W         | 25.0N        | 16.9W        | 5  | HO | 35 | N | N | 19910411 | 091048 | 245 | 96  | 31        | 90 |
| 9  | 24 | CANARY ISLANDS   | CLOUDS, VORTICES             |               |               | 24.6N        | 15.3W        | 99 | LO | 35 | N | N | 19910411 | 091113 | 245 | 96  | 33        | 90 |
| 9  | 25 | CANARY ISLANDS   | CLOUDS, VORTICES             |               |               | 24.3N        | 14.1W        | 95 | HO | 35 | N | N | 19910411 | 091131 | 245 | 96  | 34        | 90 |
| 9  | 26 | WESTERN SAHARA   | COASTAL AREA                 | 24.0N         | 14.0W         | 24.0N        | 13.0W        | 70 | LO | 35 | N | N | 19910411 | 091149 | 245 | 97  | 35        | 90 |
| 9  | 27 | WESTERN SAHARA   | NW. MAURITANIA               |               |               | 23.4N        | 10.9W        | 0  | HO | 35 | N | N | 19910411 | 091223 | 246 | 97  | 37        | 90 |
| 9  | 28 | WESTERN SAHARA   | NW. MAURITANIA               |               |               | 22.7N        | 8.6W         | 0  | LO | 35 | N | N | 19910411 | 091259 | 246 | 98  | 39        | 90 |
| 9  | 29 | MAURITANIA       | N CENTRAL AREA               |               |               | 20.8N        | 3.1W         | 0  | LO | 35 | N | N | 19910411 | 091430 | 246 | 99  | 45        | 90 |
| 9  | 30 | MALI             | N CENTRAL AREA               |               |               | 19.9N        | 0.7W         | 0  | LO | 35 | N | N | 19910411 | 091510 | 246 | 100 | 48        | 90 |
| 9  | 31 | MALI             | NIGER RIVER, NE. INCL. DELTA | 18.0N         | 1.0W          | 19.1N        | 1.5E         | 0  | LO | 35 | N | N | 19910411 | 091546 | 246 | 100 | 50        | 90 |
| 9  | 33 | CHAD             | LAKE CHAD, VRY CLDY          | 13.0N         | 14.0E         | 15.1N        | 10.5E        | 80 | LO | 35 | N | N | 19910411 | 091824 | 247 | 100 | 60        | 90 |
| 9  | 34 | ZAIRE            | PART OF LAKE ALBERT          | 2.0N          | 31.0E         | 4.4N         | 30.4E        | 95 | LO | 35 | N | N | 19910411 | 092433 | 248 | 66  | 80        | 90 |
| 9  | 35 | UGANDA           | N. EDGE OF LAKE VICTORIA     | 0.1N          | 33.0E         | 3.2N         | 32.6E        | 95 | LO | 35 | N | N | 19910411 | 092514 | 248 | 51  | 82        | 90 |
| 9  | 36 | UGANDA           | N. EDGE OF LAKE VICTORIA     | 0.4S          | 33.0E         | 2.8N         | 33.1E        | 90 | LO | 35 | N | N | 19910411 | 092525 | 248 | 47  | 82        | 90 |
| 9  | 37 | TANZANIA         | LAKE NATRON AREA             | 2.0S          | 35.0E         | 1.8N         | 34.8E        | 95 | HO | 35 | N | N | 19910411 | 092557 | 248 | 32  | 82        | 90 |
| 10 | 1  | BRAZIL           | SAO TOME CAPE                | 22.0S         | 40.0W         | 23.1S        | 35.5W        | 30 | HO | 35 | N | N | 19910410 | 180625 | 246 | 293 | 27        | 80 |
| 10 | 2  | BRAZIL           | SAO TOME CAPE                | 23.0S         | 39.0W         | 23.2S        | 35.1W        | 30 | HO | 35 | N | N | 19910410 | 180631 | 246 | 293 | 27        | 80 |
| 10 | 3  | USA-HI           | HAWAIIAN ISLANDS             | 21.0N         | 158.0W        | 26.2N        | 167.2W       | 35 | HO | 35 | N | N | 19910410 | 190807 | 245 | 96  | 30        | 81 |
| 10 | 4  | USA-HI           | OAHU, KAUAI, MOLOKAI         | 21.0N         | 158.0W        | 24.2N        | 158.7W       | 35 | LO | 35 | N | N | 19910410 | 191019 | 245 | 99  | 38        | 81 |
| 10 | 5  | USA-HI           | OAHU, MOLOKAI, MAUI          | 21.0N         | 157.0W        | 23.9N        | 157.7W       | 30 | LO | 35 | N | N | 19910410 | 191036 | 245 | 100 | 39        | 81 |
| 10 | 6  | USA-HI           | BIG ISLAND OF HAWAII         | 20.0N         | 156.0W        | 22.9N        | 154.3W       | 35 | LO | 35 | N | N | 19910410 | 191129 | 246 | 101 | 43        | 81 |
| 10 | 7  | USA-HI           | BIG ISLAND OF HAWAII         | 20.0N         | 155.0W        | 22.5N        | 153.1W       | 35 | LO | 35 | N | N | 19910410 | 191149 | 246 | 101 | 44        | 81 |
| 10 | 8  | USA-HI           | HAWAIIAN ISLANDS             | 21.0N         | 157.0W        | 22.4N        | 152.7W       | 35 | HO | 35 | N | N | 19910410 | 191156 | 246 | 101 | 44        | 81 |
| 10 | 9  | PERU             | COAST NEAR MOLLENDO          | 17.0S         | 73.0W         | 18.9S        | 71.1W        | 20 | LO | 35 | N | N | 19910410 | 193641 | 247 | 299 | 40        | 81 |
| 10 | 10 | PERU             | COAST NEAR MOLLENDO          | 18.0S         | 72.0W         | 19.0S        | 70.8W        | 20 | LO | 35 | N | N | 19910410 | 193647 | 247 | 298 | 40        | 81 |
| 10 | 11 | PERU             | COAST NEAR MOLLENDO          | 18.0S         | 72.0W         | 19.2S        | 70.3W        | 20 | LO | 35 | N | N | 19910410 | 193655 | 247 | 298 | 39        | 81 |
| 10 | 12 | BOLIVIA          | LAKE POPOO                   | 19.0S         | 67.0W         | 19.7S        | 68.1W        | 65 | LO | 35 | N | N | 19910410 | 193715 | 247 | 298 | 38        | 81 |
| 10 | 13 | BOLIVIA          | UYUNI SALAR                  | 20.0S         | 68.0W         | 19.9S        | 68.6W        | 55 | LO | 35 | N | N | 19910410 | 193724 | 247 | 297 | 37        | 81 |
| 10 | 14 | BOLIVIA          | EAST CENTRAL ANDES           | 20.0S         | 65.0W         | 20.7S        | 66.5W        | 65 | LO | 35 | N | N | 19910410 | 193759 | 247 | 296 | 35        | 81 |
| 10 | 15 | CHILE            | S. VIEW OF ANDES MTNS.       |               |               | 21.2S        | 65.1W        | 60 | HO | 35 | N | N | 19910410 | 193822 | 247 | 296 | 34        | 81 |
| 10 | 16 | ARGENTINA        | PILCOMAYO RIVER              |               |               | 21.7S        | 63.6W        | 80 | LO | 35 | N | N | 19910410 | 193847 | 247 | 295 | 32        | 81 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC    | TL     | FL | E  | S  | DATE     | GMT    | AL       | AZ     | SUN<br>EL | OR  |    |    |
|----|----|-----------------|---------------------------|----------------------|---------------------|-------|--------|----|----|----|----------|--------|----------|--------|-----------|-----|----|----|
| 10 | 17 | PARAGUAY        | CHACO PLAIN, DARK         | 23.0S                | 59.7W               | 55    | L0     | 35 | U  | N  | 19910410 | 193951 | 247      | 293    | 28        | 81  |    |    |
| 10 | 18 | PARAGUAY        | CHACO PLAIN, DARK         | 23.2S                | 59.0W               | 40    | L0     | 35 | U  | N  | 19910410 | 194002 | 247      | 293    | 27        | 81  |    |    |
| 10 | 19 | PARAGUAY        | CHACO PLAIN, DARK         | 23.6S                | 57.6W               | 25    | L0     | 35 | U  | N  | 19910410 | 194024 | 247      | 292    | 26        | 81  |    |    |
| 10 | 20 | BRAZIL          | THUNDERSTORMS             | 24.0S                | 56.5W               | 65    | L0     | 35 | U  | N  | 19910410 | 194042 | 247      | 292    | 25        | 81  |    |    |
| 10 | 21 | BRAZIL          | THUNDERSTORMS             | 24.1S                | 56.0W               | 75    | L0     | 35 | U  | N  | 19910410 | 194049 | 247      | 292    | 24        | 81  |    |    |
| 10 | 22 | BRAZIL          | PARANA BASIN              | 24.3S                | 55.4W               | 60    | L0     | 35 | N  | N  | 19910410 | 194059 | 247      | 291    | 24        | 81  |    |    |
| 10 | 23 | BRAZIL          | PARANA BASIN, CLOUDS      | 24.8S                | 53.3W               | 90    | L0     | 35 | N  | N  | 19910410 | 194132 | 246      | 290    | 22        | 81  |    |    |
| 10 | 24 | BRAZIL          | PARANA BASIN, CLOUDS      | 25.7S                | 49.3W               | 85    | L0     | 35 | N  | N  | 19910410 | 194233 | 246      | 288    | 18        | 81  |    |    |
| 10 | 25 | BRAZIL          | EASTERN BRAZIL HIGHLANDS  | 25.9S                | 48.7W               | 50    | L0     | 35 | N  | N  | 19910410 | 194243 | 246      | 288    | 17        | 81  |    |    |
| 10 | 26 | ATLANTIC OCEAN  | SUNGLINT, CLOUDS          | 28.1S                | 33.7W               | 45    | H0     | 35 | N  | N  | 19910410 | 194628 | 245      | 281    | 3         | 81  |    |    |
| 10 | 27 | ATLANTIC OCEAN  | SUNGLINT, CLOUDS          | 28.6S                | 26.1W               | 40    | H0     | 35 | N  | N  | 19910410 | 194818 | 245      | 277    | -4        | 81  |    |    |
| 12 | 1  | SAUDI ARABIA    | EMPTY QUARTER             | 16.0N                | 46.0E               | 20.1N | 44.9E  | 5  | L0 | 35 | N        | N      | 19910410 | 064554 | 246       | 105 | 55 | 73 |
| 12 | 2  | RED SEA         | STRAIT OF MANDEB, G. ADEN | 13.0N                | 44.0E               | 19.9N | 45.5E  | 10 | H0 | 35 | N        | N      | 19910410 | 064604 | 246       | 106 | 56 | 73 |
| 12 | 3  | SAUDI ARABIA    | DISSECTED PLAT., G. ADEN  | 15.0N                | 48.0E               | 19.5N | 46.5E  | 5  | H0 | 35 | N        | N      | 19910410 | 064621 | 247       | 106 | 57 | 73 |
| 12 | 4  | SAUDI ARABIA    | EMPTY QUARTER, G. ADEN    | 17.0N                | 52.0E               | 19.2N | 47.0E  | 5  | H0 | 35 | N        | N      | 19910410 | 064630 | 247       | 106 | 57 | 73 |
| 12 | 5  | OMAN            | EMPTY QUARTER             | 20.0N                | 55.0E               | 19.0N | 47.6E  | 5  | H0 | 35 | O        | N      | 19910410 | 064640 | 247       | 106 | 58 | 73 |
| 12 | 6  | OMAN            | WAHIBA SANDS, OMAN MTNS.  | 23.0N                | 56.0E               | 18.9N | 47.8E  | 35 | H0 | 35 | N        | N      | 19910410 | 064643 | 247       | 106 | 58 | 73 |
| 12 | 7  | GULF OF ADEN    | STRAIT OF MANDEB          | 12.0N                | 46.0E               | 18.6N | 48.7E  | 10 | H0 | 35 | O        | N      | 19910410 | 064659 | 247       | 106 | 59 | 73 |
| 12 | 8  | SAUDI ARABIA    | EMPTY QUARTER             | 16.0N                | 48.0E               | 18.2N | 49.6E  | 0  | L0 | 35 | N        | N      | 19910410 | 064714 | 247       | 106 | 59 | 73 |
| 12 | 9  | OMAN            | EMPTY QUARTER, SALALAH    | 17.0N                | 53.0E               | 17.7N | 50.8E  | 5  | L0 | 35 | N        | N      | 19910410 | 064735 | 247       | 106 | 61 | 73 |
| 12 | 10 | OMAN            | EMPTY QUARTER, SALALAH    | 17.0N                | 54.0E               | 17.5N | 51.1E  | 5  | L0 | 35 | N        | N      | 19910410 | 064740 | 247       | 106 | 62 | 73 |
| 12 | 11 | OMAN            | EMPTY QUARTER, SALALAH    | 18.0N                | 53.0E               | 17.2N | 51.8E  | 5  | L0 | 35 | N        | N      | 19910410 | 064752 | 247       | 106 | 62 | 73 |
| 12 | 12 | OMAN            | EMPTY QUARTER, SALALAH    | 19.0N                | 54.0E               | 16.7N | 53.0E  | 5  | L0 | 35 | N        | N      | 19910410 | 064813 | 247       | 107 | 64 | 73 |
| 12 | 13 | GULF OF ADEN    | HORN OF AFRICA, SOCOTRA   | 12.0N                | 51.0E               | 16.6N | 53.3E  | 10 | H0 | 35 | O        | N      | 19910410 | 064819 | 247       | 107 | 64 | 73 |
| 12 | 14 | ARABIAN SEA     | OMAN COAST, MASIRAH IS.   | 18.0N                | 58.0E               | 16.2N | 54.0E  | 10 | H0 | 35 | N        | N      | 19910410 | 064832 | 247       | 107 | 65 | 73 |
| 12 | 15 | SOMALIA         | HORN OF AFRICA, SOCOTRA   | 11.0N                | 50.0E               | 15.9N | 54.7E  | 10 | H0 | 35 | O        | N      | 19910410 | 064843 | 247       | 107 | 66 | 73 |
| 12 | 16 | OMAN            | EMPTY QUARTER, SALALAH    | 18.0N                | 56.0E               | 15.6N | 55.5E  | 10 | H0 | 35 | N        | N      | 19910410 | 064857 | 247       | 107 | 67 | 73 |
| 12 | 21 | AUSTRALIA-WA    | EIGHTY MILE BEACH         | 20.0S                | 122.0E              | 20.1S | 123.0E | 30 | L0 | 35 | N        | N      | 19910410 | 070944 | 246       | 294 | 33 | 73 |
| 12 | 22 | AUSTRALIA-WA    | EIGHTY MILE BEACH         | 21.0S                | 123.0E              | 20.6S | 124.3E | 35 | H0 | 35 | N        | N      | 19910410 | 071005 | 246       | 294 | 32 | 73 |
| 12 | 23 | AUSTRALIA-WA    | GREAT SANDY DESERT        | 22.0S                | 124.0E              | 20.9S | 125.2E | 35 | H0 | 35 | N        | N      | 19910410 | 071020 | 246       | 294 | 31 | 73 |
| 12 | 24 | AUSTRALIA-WA    | GIBSON D., L. DISAPPOINT  | 24.0S                | 123.0E              | 21.7S | 127.4E | 30 | H0 | 35 | N        | N      | 19910410 | 071057 | 246       | 293 | 29 | 73 |
| 12 | 25 | AUSTRALIA-WA    | L. EYRE, SIMPSON DESERT   | 27.0S                | 137.0E              | 24.5S | 136.6E | 5  | L0 | 35 | N        | N      | 19910410 | 071216 | 245       | 290 | 24 | 73 |
| 12 | 27 | AUSTRALIA-SA    | L. EYRE BASIN, SIMPSON D  | 28.0S                | 139.0E              | 24.7S | 137.5E | 20 | L0 | 35 | N        | N      | 19910410 | 071338 | 245       | 288 | 19 | 73 |
| 12 | 28 | AUSTRALIA-SA    | L. EYRE BASIN, SIMPSON D  | 28.0S                | 139.0E              | 25.7S | 141.5E | 30 | L0 | 35 | N        | N      | 19910410 | 071440 | 245       | 286 | 15 | 73 |
| 12 | 29 | AUSTRALIA-SA    | ANTI ATLAS MTNS.          | 29.0N                | 9.0W                | 27.2N | 5.6W   | 35 | H0 | 35 | N        | N      | 19910410 | 081223 | 245       | 95  | 28 | 74 |
| 12 | 35 | MOROCCO         | IGUIDI D., HIGH ATLAS     | 30.0N                | 5.0W                | 26.9N | 3.5W   | 5  | L0 | 35 | N        | N      | 19910410 | 081254 | 245       | 96  | 30 | 74 |
| 12 | 36 | ALGERIA         | IGUIDI DESERT             | 27.0N                | 4.0W                | 26.0N | 2.3W   | 0  | L0 | 35 | N        | N      | 19910410 | 081313 | 245       | 97  | 31 | 74 |
| 12 | 37 | ALGERIA         | LAKE IRO REGION           | 11.0N                | 19.0E               | 11.3N | 16.3E  | 10 | L0 | 35 | N        | N      | 19910410 | 095830 | 247       | 102 | 75 | 75 |
| 13 | 1  | CHAD            | LAKE IRO REGION           | 10.0N                | 19.0E               | 13.4N | 18.0E  | 10 | L0 | 35 | N        | N      | 19910410 | 095901 | 247       | 100 | 77 | 75 |
| 13 | 2  | CHAD            | LAKE IRO REGION           | 10.0N                | 19.0E               | 13.4N | 18.0E  | 10 | L0 | 35 | N        | N      | 19910410 | 095901 | 247       | 100 | 77 | 75 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME      | FEATURE                  | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|----------------------|--------------------------|---------------|---------------|--------------|--------------|----|----|----|---|---|----------|--------|-----|-----|-----------|----|
| 13 | 3  | CENTRAL AFRICAN REP. | CLOUDS                   |               |               | 9.7N         | 19.3E        | 45 | HO | 35 | N | N | 19910410 | 095928 | 247 | 98  | 79        | 75 |
| 13 | 4  | CENTRAL AFRICAN REP. | CLOUDS                   |               |               | 8.6N         | 21.2E        | 50 | LO | 35 | N | N | 19910410 | 100002 | 248 | 94  | 81        | 75 |
| 13 | 5  | ZAIRE                | CLOUDS                   |               |               | 6.5N         | 25.0E        | 50 | LO | 35 | U | N | 19910410 | 100113 | 248 | 74  | 85        | 75 |
| 13 | 6  | ZAIRE                | CLOUDS                   |               |               | 4.8N         | 28.0E        | 70 | LO | 35 | U | N | 19910410 | 100210 | 248 | 30  | 86        | 75 |
| 13 | 7  | UGANDA               | LAKE VICTORIA REGION     | 0.0N          | 32.0E         | 3.5N         | 30.2E        | 70 | LO | 35 | N | N | 19910410 | 100252 | 248 | 353 | 86        | 75 |
| 13 | 8  | KENYA                | LAKE RUDOLPH/TURKANA     | 3.0N          | 36.0E         | 2.7N         | 31.6E        | 65 | HO | 35 | N | N | 19910410 | 100319 | 248 | 338 | 84        | 75 |
| 13 | 9  | UGANDA               | LAKE VICTORIA, KYOGA     | 1.0N          | 34.0E         | 1.9N         | 32.9E        | 60 | LO | 35 | N | N | 19910410 | 100344 | 248 | 330 | 83        | 75 |
| 13 | 10 | KENYA                | LAKE NATRON, RIFT VALLEY | 2.0S          | 37.0E         | 0.5N         | 35.2E        | 55 | HO | 35 | N | N | 19910410 | 100428 | 248 | 321 | 81        | 75 |
| 13 | 11 | KENYA                | EASTERN KENYA, L. NATRON | 3.0S          | 38.0E         | 0.2N         | 35.8E        | 55 | HO | 35 | N | N | 19910410 | 100439 | 248 | 319 | 80        | 75 |
| 13 | 12 | KENYA                | FORMOSA BAY, COAST       | 2.0S          | 41.0E         | 1.7S         | 39.1E        | 50 | HO | 35 | N | N | 19910410 | 100542 | 248 | 314 | 76        | 75 |
| 14 | 1  |                      | OVEREXPOSED              |               |               | 24.0N        | 5.8E         |    | LO |    | O |   | 19910410 | 081517 | 246 | 100 | 39        | 74 |
| 14 | 2  | ALGERIA              | TINRHERT PLAT., MARZUQ D | 26.0N         | 8.0E          | 24.4N        | 7.8E         | 15 | LO | 35 | N | N | 19910410 | 081548 | 246 | 101 | 41        | 74 |
| 14 | 3  | ALGERIA              | TINRHERT PLAT., MARZUQ D | 23.0N         | 10.0E         | 24.2N        | 8.3E         | 5  | HO | 35 | N | N | 19910410 | 081556 | 246 | 101 | 41        | 74 |
| 14 | 4  | LIBYA                | MARZUQ D., AS-SABAH HILL | 26.0N         | 17.0E         | 24.1N        | 8.7E         | 5  | HO | 35 | N | N | 19910410 | 081603 | 246 | 101 | 42        | 74 |
| 14 | 5  | LIBYA                | MARZUQ D., TIBESTI MTS.  | 25.0N         | 13.0E         | 23.7N        | 10.1E        | 0  | HO | 35 | N | N | 19910410 | 081625 | 246 | 102 | 43        | 74 |
| 14 | 6  | LIBYA                | EL HARUJ EL ASWAD PLAT.  | 26.0N         | 18.0E         | 23.1N        | 12.3E        | 0  | HO | 35 | N | N | 19910410 | 081700 | 246 | 103 | 45        | 74 |
| 14 | 7  | LIBYA                | MARZUQ DESERT            | 25.0N         | 13.0E         | 22.8N        | 13.2E        | 0  | LO | 35 | N | N | 19910410 | 081714 | 246 | 103 | 46        | 74 |
| 14 | 8  | CHAD                 | TIBESTI MASSIF           | 21.0N         | 18.0E         | 22.4N        | 14.4E        | 0  | HO | 35 | N | N | 19910410 | 081733 | 246 | 103 | 47        | 74 |
| 14 | 9  | CHAD                 | TIBESTI MASSIF           | 21.0N         | 18.0E         | 21.7N        | 16.6E        | 0  | LO | 35 | N | N | 19910410 | 081809 | 246 | 104 | 50        | 74 |
| 14 | 10 | LIBYA                | REBIANA SAND SEA         | 24.0N         | 21.0E         | 21.5N        | 17.1E        | 15 | LO | 35 | N | N | 19910410 | 081818 | 246 | 104 | 50        | 74 |
| 14 | 11 | EGYPT                | GILF KEBIR PLATEAU       | 22.0N         | 25.0E         | 21.0N        | 18.6E        | 15 | HO | 35 | N | N | 19910410 | 081842 | 246 | 104 | 52        | 74 |
| 14 | 16 |                      | OVEREXPOSED              |               |               | 18.3N        | 25.3E        |    |    |    |   |   | 19910410 | 082036 | 247 | 106 | 59        | 74 |
| 14 | 17 | SUDAN                | NILE R., NUBIAN DESERT   | 19.0N         | 31.0E         | 18.0N        | 26.2E        | 5  | HO | 35 | N | N | 19910410 | 082052 | 247 | 106 | 60        | 74 |
| 14 | 18 | SUDAN                | NILE R., KHARTOUM        | 16.0N         | 32.0E         | 17.8N        | 26.7E        | 15 | HO | 35 | N | N | 19910410 | 082100 | 247 | 106 | 61        | 74 |
| 14 | 19 | SUDAN                | NILE R., NUBIAN DESERT   | 20.0N         | 32.0E         | 17.6N        | 27.2E        | 5  | HO | 35 | N | N | 19910410 | 082108 | 247 | 106 | 61        | 74 |
| 14 | 20 | SUDAN                | NILE R., NUBIAN DESERT   | 20.0N         | 30.0E         | 17.0N        | 28.3E        | 5  | HO | 35 | N | N | 19910410 | 082128 | 247 | 106 | 62        | 74 |
| 14 | 21 | SUDAN                | NILE R., KHARTOUM        | 17.0N         | 32.0E         | 16.7N        | 29.1E        | 10 | LO | 35 | N | N | 19910410 | 082142 | 247 | 106 | 63        | 74 |
| 14 | 22 | SUDAN                | NILE R., KHARTOUM        | 15.0N         | 30.0E         | 16.3N        | 30.1E        | 10 | LO | 35 | N | N | 19910410 | 082159 | 247 | 106 | 64        | 74 |
| 14 | 23 | SUDAN                | NILE R., KHARTOUM        | 17.0N         | 34.0E         | 15.9N        | 30.8E        | 5  | LO | 35 | N | N | 19910410 | 082212 | 247 | 106 | 65        | 74 |
| 14 | 24 | SUDAN                | NILE R., RED SEA         | 15.0N         | 36.0E         | 15.5N        | 31.7E        | 10 | HO | 35 | N | N | 19910410 | 082227 | 247 | 106 | 66        | 74 |
| 14 | 25 | ETHIOPIA             | L. TANA, DANAKIL DEPRESS | 15.0N         | 38.0E         | 15.2N        | 32.3E        | 15 | HO | 35 | N | N | 19910410 | 082238 | 247 | 106 | 67        | 74 |
| 14 | 26 | ETHIOPIA             | L. TANA, DANAKIL DEPRESS | 14.0N         | 41.0E         | 14.6N        | 33.5E        | 15 | HO | 35 | N | N | 19910410 | 082300 | 247 | 106 | 68        | 74 |
| 14 | 27 | SUDAN                | SUDAN AG., NILE RIVER    | 14.0N         | 35.0E         | 14.2N        | 34.5E        | 5  | LO | 35 | N | N | 19910410 | 082317 | 247 | 106 | 69        | 74 |
| 14 | 28 | ETHIOPIA             | DANAKIL DEP., ERTA ALE   | 13.0N         | 42.0E         | 13.5N        | 35.8E        | 20 | HO | 35 | N | N | 19910410 | 082341 | 247 | 105 | 71        | 74 |
| 14 | 29 | DJIBOUTI             | AFAR REGION, ERTA ALE    | 12.0N         | 43.0E         | 12.9N        | 37.0E        | 15 | HO | 35 | N | N | 19910410 | 082402 | 247 | 105 | 72        | 74 |
| 14 | 30 | ETHIOPIA             | HIGHLANDS, ERTA ALE VOL. | 14.0N         | 39.0E         | 12.4N        | 38.1E        | 20 | LO | 35 | N | N | 19910410 | 082422 | 247 | 104 | 73        | 74 |
| 14 | 31 | GULF OF ADEN         | AFAR REGION, RIFT VALLEY | 13.0N         | 46.0E         | 11.5N        | 39.7E        | 15 | HO | 35 | N | N | 19910410 | 082452 | 247 | 103 | 75        | 74 |
| 14 | 32 | DJIBOUTI             | AFAR REGION, L. ASSAL    | 12.0N         | 43.0E         | 11.0N        | 40.7E        | 15 | LO | 35 | N | N | 19910410 | 082511 | 247 | 102 | 76        | 74 |
| 14 | 33 | SOMALIA              | GULF OF ADEN, SOCOTRA    | 11.0N         | 50.0E         | 10.3N        | 42.0E        | 15 | HO | 35 | N | N | 19910410 | 082534 | 247 | 101 | 78        | 74 |
| 14 | 34 | SOMALIA              | EAST COAST, ARABIAN SEA  | 8.0N          | 50.0E         | 9.7N         | 43.0E        | 30 | HO | 35 | N | N | 19910410 | 082554 | 247 | 99  | 79        | 74 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME       | FEATURE                  | CENTER |       | MADIR |       | CC | TL | FL | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|----|-----------------------|--------------------------|--------|-------|-------|-------|----|----|----|---|---|----------|--------|-----|-----|-----|----|----|
|    |    |                       |                          | LAT    | LONG  | LAT   | LONG  |    |    |    |   |   |          |        |     |     |     |    |    |
| 14 | 35 | SOMALIA               | EAST COAST, ARABIAN SEA  | 8.0N   | 49.0E | 9.4N  | 43.6E | 30 | HO | 35 | N | N | 19910410 | 082605 | 247 | 98  | 80  | 74 |    |
| 14 | 36 | SOMALIA               | CARCAR MTS.              | 10.0N  | 47.0E | 8.5N  | 45.3E | 30 | LO | 35 | N | N | 19910410 | 082636 | 247 | 94  | 82  | 74 |    |
| 14 | 37 | SOMALIA               | EAST COAST, ARABIAN SEA  | 6.0N   | 49.0E | 7.7N  | 46.8E | 35 | LO | 35 | N | N | 19910410 | 082704 | 247 | 88  | 83  | 74 |    |
| 15 | 1  | ATLANTIC OCEAN        | UNIQUE CLOUD FORMATION   |        |       | 12.2N | 33.2W | 95 | LO | 35 | N | N | 19910410 | 130455 | 247 | 102 | 72  | 77 |    |
| 15 | 2  | BOTSWANA              | OKAVANGO SWAMP, SHUA PAN | 20.0S  | 23.0E | 16.1S | 17.9E | 0  | LO | 35 | N | N | 19910410 | 132053 | 247 | 300 | 46  | 77 |    |
| 15 | 3  | NAMIBIA               | NAMIB DESERT             | 24.0S  | 15.0E | 16.3S | 18.4E | 5  | HO | 35 | N | N | 19910410 | 132102 | 247 | 300 | 45  | 77 |    |
| 15 | 4  | NAMIBIA               | WESTERN KALAHARI DESERT  | 22.0S  | 19.0E | 16.4S | 18.6E | 0  | LO | 35 | N | N | 19910410 | 132105 | 247 | 300 | 45  | 77 |    |
| 15 | 5  | BOTSWANA              | OKAVANGO SWAMP, SHUA PAN | 20.0S  | 25.0E | 16.6S | 19.0E | 0  | LO | 35 | N | N | 19910410 | 132112 | 247 | 299 | 44  | 77 |    |
| 15 | 6  | NAMIBIA               | NAMIB DES., KARAS MTS.   | 27.0S  | 18.0E | 16.8S | 19.6E | 5  | HO | 35 | N | N | 19910410 | 132123 | 247 | 298 | 44  | 77 |    |
| 15 | 7  | ANGOLA                | CAPRIVI STRIP            | 17.0S  | 23.0E | 17.6S | 21.4E | 5  | LO | 35 | N | N | 19910410 | 132154 | 247 | 298 | 42  | 77 |    |
| 15 | 8  | BOTSWANA              | MAKGADIKGADI PANS        | 21.0S  | 25.0E | 18.3S | 22.9E | 0  | LO | 35 | N | N | 19910410 | 132220 | 246 | 298 | 40  | 77 |    |
| 15 | 9  | NAMIBIA               | ETOSHA PAN, NW KALAHARI  | 20.0S  | 18.0E | 18.7S | 24.0E | 0  | HO | 35 | N | N | 19910410 | 132239 | 246 | 297 | 39  | 77 |    |
| 15 | 10 | NAMIBIA               | CAPRIVI STRIP            | 18.0S  | 24.0E | 19.0S | 24.8E | 0  | LO | 35 | N | N | 19910410 | 132252 | 246 | 297 | 38  | 77 |    |
| 15 | 11 | BOTSWANA              | ZAMBEZI, LINYANTI RIVERS | 18.0S  | 25.0E | 19.2S | 25.1E | 0  | LO | 35 | N | N | 19910410 | 132257 | 246 | 297 | 38  | 77 |    |
| 15 | 12 | BOTSWANA              | ZAMBEZI, LINYANTI RIVERS | 18.0S  | 25.0E | 19.4S | 25.7E | 0  | LO | 35 | N | N | 19910410 | 132307 | 246 | 297 | 37  | 77 |    |
| 15 | 13 | SWAZILAND             | ESCARPMENT               | 26.0S  | 32.0E | 19.9S | 27.0E | 10 | HO | 35 | N | N | 19910410 | 132330 | 246 | 296 | 36  | 77 |    |
| 15 | 14 | MOZAMBIQUE            | OVEREXPOSED              |        |       | 20.2S | 27.6E |    | HO | 35 | O | N | 19910410 | 132340 | 246 | 296 | 35  | 77 |    |
| 15 | 15 | SWAZILAND             | LAND USE, ESCARPMENT     | 27.0S  | 32.0E | 20.3S | 28.0E | 5  | LO | 35 | N | N | 19910410 | 132347 | 246 | 296 | 35  | 77 |    |
| 15 | 16 | SWAZILAND             | LAND USE, ESCARPMENT     | 27.0S  | 31.0E | 20.6S | 28.9E | 0  | LO | 35 | N | N | 19910410 | 132402 | 246 | 295 | 34  | 77 |    |
| 15 | 17 | MOZAMBIQUE            | LIMPOPO RIVER            | 22.0S  | 33.0E | 20.9S | 29.6E | 5  | LO | 35 | N | N | 19910410 | 132414 | 246 | 295 | 33  | 77 |    |
| 15 | 18 | MOZAMBIQUE            | LOURENCO MARQUES BAY     | 26.0S  | 33.0E | 21.4S | 31.0E | 25 | HO | 35 | N | N | 19910410 | 132437 | 246 | 294 | 31  | 77 |    |
| 15 | 19 | REPUBLIC SOUTH AFRICA | NORTHERN DRakensBURG     |        |       | 22.0S | 32.6E | 25 | LO | 35 | N | N | 19910410 | 132503 | 246 | 294 | 30  | 77 |    |
| 15 | 20 | REPUBLIC SOUTH AFRICA | NORTHERN DRakensBURG     |        |       | 22.1S | 33.1E | 50 | LO | 35 | N | N | 19910410 | 132511 | 246 | 293 | 29  | 77 |    |
| 15 | 21 | REPUBLIC SOUTH AFRICA | NORTHERN DRakensBURG     |        |       | 22.4S | 33.9E | 60 | LO | 35 | N | N | 19910410 | 132524 | 246 | 293 | 28  | 77 |    |
| 15 | 22 | MOZAMBIQUE            | BAZARUTO IS., SAVE RIVER | 21.0S  | 35.0E | 22.9S | 35.6E | 35 | LO | 35 | N | N | 19910410 | 132551 | 246 | 292 | 27  | 77 |    |
| 15 | 23 | MOZAMBIQUE            | BAZARUTO IS., SAVE RIVER | 22.0S  | 35.0E | 23.0S | 35.9E | 25 | LO | 35 | N | N | 19910410 | 132556 | 246 | 292 | 26  | 77 |    |
| 15 | 24 | MOZAMBIQUE            | POELELA LAKE, COAST      | 25.0S  | 35.0E | 23.8S | 38.5E | 25 | LO | 35 | N | N | 19910410 | 132637 | 245 | 291 | 24  | 77 |    |
| 15 | 25 | MADAGASCAR            | SW COAST                 |        |       | 24.2S | 40.0E | 75 | HO | 35 | N | N | 19910410 | 132701 | 245 | 290 | 22  | 77 |    |
| 15 | 26 | MADAGASCAR            | SW COAST, LINTA RIVER    | 25.0S  | 44.0E | 24.5S | 40.9E | 75 | LO | 35 | N | N | 19910410 | 132716 | 245 | 290 | 21  | 77 |    |
| 15 | 27 | MADAGASCAR            | SW COAST, MENARANDRA R.  | 25.0S  | 45.0E | 25.1S | 43.4E | 70 | LO | 35 | N | N | 19910410 | 132755 | 245 | 289 | 19  | 77 |    |
| 15 | 28 | MADAGASCAR            | S. MADAGASCAR MOUNTAINS  |        |       | 25.4S | 44.8E | 70 | LO | 35 | N | N | 19910410 | 132816 | 245 | 288 | 17  | 77 |    |
| 15 | 29 | MADAGASCAR            | S. MADAGASCAR MOUNTAINS  |        |       | 25.6S | 45.4E | 70 | LO | 35 | N | N | 19910410 | 132825 | 245 | 288 | 17  | 77 |    |
| 15 | 30 | INDIAN OCEAN          | LINEAR CLOUD FORMATION   |        |       | 26.4S | 49.3E | 85 | HO | 35 | N | N | 19910410 | 132926 | 245 | 286 | 13  | 77 |    |
| 15 | 31 | INDIAN OCEAN          | LINEAR CLOUD FORMATION   |        |       | 26.8S | 51.4E | 90 | HO | 35 | N | N | 19910410 | 132957 | 245 | 285 | 11  | 77 |    |
| 15 | 32 | INDIAN OCEAN          | THUNDERSTORM             |        |       | 28.3S | 64.0E | 75 | LO | 35 | N | N | 19910410 | 133304 | 244 | 278 | -1  | 77 |    |
| 15 | 33 | NAMIBIA               | BRANDBERG STRUCTURE      | 21.0S  | 14.0E | 23.7S | 14.2E | 0  | LO | 35 | N | N | 19910410 | 145959 | 246 | 291 | 25  | 78 |    |
| 15 | 34 | NAMIBIA               | BRANDBERG STRUCTURE      | 21.0S  | 15.0E | 24.0S | 15.3E | 0  | LO | 35 | N | N | 19910410 | 150017 | 246 | 291 | 23  | 78 |    |
| 15 | 35 | NAMIBIA               | NAMIB DESERT             | 22.0S  | 15.0E | 24.1S | 15.6E | 0  | LO | 35 | N | N | 19910410 | 150021 | 245 | 291 | 23  | 78 |    |
| 15 | 36 | NAMIBIA               | NAMIB DESERT             | 24.0S  | 16.0E | 24.2S | 16.1E | 0  | LO | 35 | N | N | 19910410 | 150030 | 245 | 290 | 23  | 78 |    |
| 15 | 37 | NAMIBIA               | NAMIB DESERT             | 25.0S  | 15.0E | 24.4S | 16.8E | 0  | LO | 35 | N | N | 19910410 | 150041 | 245 | 290 | 22  | 78 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT' LONG | MADIR<br>LAT' LONG | CC | TL | FL | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|--------------------------|---------------------|--------------------|----|----|----|---|---|----------|--------|-----|-----|-----------|----|
| 16 | 1  | USA-CA          | IMPERIAL VAL., SAN DIEGO | 34.0N 116.0W        | 26.0N 118.4W       | 10 | HO | 35 | N | N | 19910410 | 160125 | 245 | 97  | 32        | 79 |
| 16 | 2  | USA-CA          | VIEW N. OF CALIF. COAST  | 35.0N 121.0W        | 25.8N 117.2W       | 15 | HO | 35 | N | N | 19910410 | 160143 | 245 | 97  | 33        | 79 |
| 16 | 3  | MEXICO          | N. BAJA PEN., COL. RIVER | 31.0N 116.0W        | 25.5N 115.9W       | 15 | LO | 35 | N | N | 19910410 | 160203 | 245 | 98  | 34        | 79 |
| 16 | 4  | USA-NV          | VIEW N. OF GREAT BASIN   | 37.0N 115.0W        | 25.0N 113.9W       | 15 | HO | 35 | N | N | 19910410 | 160235 | 246 | 99  | 36        | 79 |
| 16 | 5  | MEXICO          | CENTRAL BAJA CALIFORNIA  | 26.0N 112.0W        | 24.5N 112.0W       | 5  | LO | 35 | N | N | 19910410 | 160305 | 246 | 99  | 38        | 79 |
| 16 | 6  | MEXICO          | SIERRA MADRE OCCIDENTAL  | 28.0N 109.0W        | 24.2N 111.0W       | 0  | LO | 35 | N | N | 19910410 | 160320 | 246 | 100 | 39        | 79 |
| 16 | 7  | MEXICO          | SIERRA MADRE OCCIDENTAL  | 28.0N 108.0W        | 24.1N 110.7W       | 5  | HO | 35 | N | N | 19910410 | 160325 | 246 | 100 | 39        | 79 |
| 16 | 8  | MEXICO          | GULF OF CALIFORNIA       | 28.0N 112.0W        | 23.5N 108.4W       | 10 | HO | 35 | N | N | 19910410 | 160402 | 246 | 101 | 42        | 79 |
| 16 | 9  | MEXICO          | LAKE CHAPEL, FIRES       | 20.0N 103.0W        | 23.2N 107.5W       | 10 | LO | 35 | N | N | 19910410 | 160416 | 246 | 101 | 43        | 79 |
| 16 | 10 | MEXICO          | SIERRA MADRE OCCIDENTAL  | 26.0N 109.0W        | 22.8N 106.3W       | 10 | HO | 35 | N | N | 19910410 | 160436 | 246 | 101 | 44        | 79 |
| 16 | 11 | MEXICO          | CENTRAL MEXICAN PLATEAU  | 29.0N 106.0W        | 22.5N 105.2W       | 5  | HO | 35 | N | N | 19910410 | 160453 | 246 | 102 | 45        | 79 |
| 16 | 12 | MEXICO          | BAJA PEN., G. OF CALIF.  | 27.0N 112.0W        | 22.2N 104.3W       | 20 | HO | 35 | N | N | 19910410 | 160508 | 246 | 102 | 46        | 79 |
| 16 | 13 | MEXICO          | SIERRA MADRE OCCIDENTAL  | 23.0N 105.0W        | 21.5N 102.4W       | 20 | HO | 35 | N | N | 19910410 | 160539 | 246 | 102 | 48        | 79 |
| 16 | 14 | MEXICO          | SIERRA MADRE ORIENTAL    | 24.0N 100.0W        | 21.3N 101.8W       | 60 | LO | 35 | N | N | 19910410 | 160548 | 246 | 102 | 49        | 79 |
| 16 | 15 | MEXICO          | EAST MEXICAN COAST       | 25.0N 98.0W         | 20.6N 99.7W        | 60 | HO | 35 | N | N | 19910410 | 160623 | 246 | 103 | 51        | 79 |
| 16 | 16 | MEXICO          | WESTERN MEXICO           | 25.0N 106.0W        | 20.4N 99.1W        | 20 | HO | 35 | N | N | 19910410 | 160633 | 246 | 103 | 51        | 79 |
| 16 | 17 | MEXICO          | LAKE CHAPEL, VOLCANOES   | 21.0N 102.0W        | 20.0N 98.2W        | 0  | LO | 35 | N | N | 19910410 | 160649 | 247 | 103 | 52        | 79 |
| 16 | 18 | MEXICO          | MEXICO CITY, SMOG        | 20.0N 99.0W         | 19.2N 96.3W        | 5  | LO | 35 | N | N | 19910410 | 160721 | 247 | 104 | 54        | 79 |
| 16 | 19 | MEXICO          | COLIMA VOL., L. CHAPEL   | 19.0N 101.0W        | 19.1N 95.9W        | 10 | LO | 35 | N | N | 19910410 | 160727 | 247 | 104 | 55        | 79 |
| 16 | 20 | MEXICO          | SIERRA MADRE DEL SUR     | 17.0N 97.0W         | 17.0N 90.9W        | 20 | HO | 35 | N | N | 19910410 | 160854 | 247 | 104 | 60        | 79 |
| 16 | 21 | MEXICO          | YUCATAN PENINSULA        | 20.0N 89.0W         | 16.8N 90.5W        | 35 | LO | 35 | N | N | 19910410 | 160901 | 247 | 104 | 61        | 79 |
| 16 | 22 | MEXICO          | E. COAST YUCATAN PENIN.  | 19.0N 88.0W         | 16.5N 89.7W        | 55 | LO | 35 | N | N | 19910410 | 160914 | 247 | 104 | 82        | 79 |
| 16 | 23 | MEXICO          | YUCATAN PENINSULA        | 20.0N 88.0W         | 15.8N 88.3W        | 40 | LO | 35 | N | N | 19910410 | 160940 | 247 | 104 | 63        | 79 |
| 16 | 24 | MEXICO          | S. MEXICO, EL CHICHON V. | 16.0N 92.0W         | 15.6N 87.9W        | 35 | HO | 35 | N | N | 19910410 | 160947 | 247 | 104 | 64        | 79 |
| 16 | 25 | CUBA            | ISLE OF PINES, W. CUBA   | 22.0N 83.0W         | 15.2N 87.0W        | 55 | HO | 35 | O | N | 19910410 | 161002 | 247 | 104 | 65        | 79 |
| 16 | 26 | MEXICO          | YUCATAN PENINSULA        | 19.0N 89.0W         | 14.5N 85.5W        | 45 | HO | 35 | N | N | 19910410 | 161029 | 247 | 103 | 66        | 79 |
| 16 | 27 | CUBA            | OVEREXPOSED              | 22.0N 80.0W         | 13.8N 84.1W        | 40 | HO | 35 | O | N | 19910410 | 161055 | 247 | 103 | 68        | 79 |
| 16 | 28 | CUBA            | JAMAICA, CAYMAN ISLANDS  | 20.0N 78.0W         | 11.5N 79.7W        | 35 | HO | 35 | N | N | 19910410 | 161215 | 247 | 100 | 73        | 79 |
| 16 | 29 | GUYANA          | ESSEQUIBO RIVER MOUTH    | 7.0N 58.0W          | 2.1N 62.9W         | 70 | HO | 35 | N | N | 19910410 | 161731 | 248 | 350 | 84        | 79 |
| 16 | 30 | BRAZIL          | AMAZON, TAPAJOS RIVERS   | 2.0S 55.0W          | 3.5S 53.3W         | 60 | LO | 35 | N | N | 19910410 | 162035 | 248 | 315 | 74        | 79 |
| 16 | 31 | BRAZIL          | AMAZON RIVER             | 2.0S 53.0W          | 3.7S 53.1W         | 75 | LO | 35 | N | N | 19910410 | 162039 | 248 | 315 | 74        | 79 |
| 16 | 32 | BRAZIL          | AMAZON RIVER DELTA       | 0.0S 49.0W          | 4.5S 51.8W         | 70 | LO | 35 | N | N | 19910410 | 162105 | 248 | 313 | 72        | 79 |
| 16 | 33 | BRAZIL          | NEAR SAN MARCOS BAY      | 3.0S 43.0W          | 8.8S 44.1W         | 65 | LO | 35 | N | N | 19910410 | 162330 | 247 | 307 | 63        | 79 |
| 16 | 34 | BRAZIL          | NEAR SAO FRANCISCO BASIN |                     | 9.7S 42.4W         | 85 | LO | 35 | N | N | 19910410 | 162402 | 247 | 306 | 61        | 79 |
| 16 | 35 | BRAZIL          | NEAR SAO FRANCISCO BASIN |                     | 10.2S 41.6W        | 85 | LO | 35 | N | N | 19910410 | 162417 | 247 | 306 | 60        | 79 |
| 16 | 36 | BRAZIL          | SAO FRANCISCO RESERVOIR  | 10.0S 42.0W         | 10.8S 40.5W        | 60 | LO | 35 | N | N | 19910410 | 162438 | 247 | 305 | 59        | 79 |
| 16 | 37 | BRAZIL          | SAO FRANCISCO RESERVOIR  | 10.0S 42.0W         | 10.9S 40.2W        | 65 | LO | 35 | N | N | 19910410 | 162443 | 247 | 305 | 58        | 79 |
| 38 | 1  | EGYPT           | SINAI PEN., JET STREAM   | 29.0N 31.0E         |                    | 25 | HO | 35 | N | N |          |        |     |     |           |    |
| 38 | 2  | EGYPT           | GREAT SAND SEA           | 27.0N 29.0E         | 28.6N 26.8E        | 10 | LO | 35 | N | N | 19910411 | 042325 | 243 | 84  | 6         | 87 |
| 38 | 3  | EGYPT           | GULF OF SUEZ, MILE RIVER | 29.0N 33.0E         | 28.5N 29.5E        | 20 | LO | 35 | N | N | 19910411 | 042404 | 243 | 85  | 8         | 87 |

TABLE 4.3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC  | TL | FL | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|----|-----------------|---------------------------|---------------|---------------|--------------|--------------|-----|----|----|---|---|----------|--------|-----|-----|-----------|----|
| 38 | 4  | EGYPT           | AL-FAYYUM AG. AREA        | 28.0N         | 31.0E         | 28.5N        | 30.6E        | 5   | LO | 35 | N | N | 19910411 | 042421 | 243 | 86  | 9         | 87 |
| 38 | 5  | EGYPT           | SUEZ CANAL                | 30.0N         | 32.0E         | 28.5N        | 30.9E        | 25  | LO | 35 | N | N | 19910411 | 042424 | 243 | 86  | 10        | 87 |
| 38 | 6  | SAUDI ARABIA    | NAFUD DESERT, SMOKE PL.   | 30.0N         | 43.0E         | 28.3N        | 34.6E        | 20  | HO | 35 | N | N | 19910411 | 042518 | 244 | 88  | 13        | 87 |
| 38 | 7  | IRAQ            | BAGHDAD REGION            | 33.0N         | 43.0E         | 27.6N        | 40.9E        | 40  | HO | 35 | N | N | 19910411 | 042651 | 244 | 91  | 19        | 87 |
| 38 | 8  | IRAQ            | BASRA REG., KUWAIT FIRES  | 31.0N         | 47.0E         | 27.6N        | 41.5E        | 10  | HO | 35 | N | N | 19910411 | 042700 | 244 | 91  | 20        | 87 |
| 38 | 9  | PERSIAN GULF    | KUWAIT OIL WELL FIRES     | 29.0N         | 49.0E         | 27.4N        | 42.4E        | 20  | LO | 35 | N | N | 19910411 | 042714 | 244 | 91  | 20        | 87 |
| 38 | 10 | PERSIAN GULF    | KUWAIT OIL WELL FIRES     | 28.0N         | 49.0E         | 27.3N        | 43.6E        | 15  | HO | 35 | N | N | 19910411 | 042732 | 244 | 92  | 22        | 87 |
| 38 | 11 | PERSIAN GULF    | KUWAIT OIL WELL FIRES     | 28.0N         | 49.0E         | 27.2N        | 44.0E        | 10  | LO | 35 | N | N | 19910411 | 042738 | 244 | 92  | 22        | 87 |
| 38 | 12 | PERSIAN GULF    | KUWAIT OIL WELL FIRES     | 29.0N         | 49.0E         | 26.9N        | 45.8E        | 10  | LO | 35 | N | N | 19910411 | 042804 | 244 | 93  | 24        | 87 |
| 38 | 13 | PERSIAN GULF    | KUWAIT OIL WELL FIRES     | 29.0N         | 50.0E         | 26.7N        | 47.1E        | 10  | LO | 35 | N | N | 19910411 | 042825 | 245 | 93  | 25        | 87 |
| 38 | 14 | PERSIAN GULF    | KUWAIT OIL WELL FIRES     | 29.0N         | 49.0E         | 26.6N        | 47.5E        | 5   | LO | 35 | N | N | 19910411 | 042831 | 245 | 94  | 25        | 87 |
| 38 | 15 | PERSIAN GULF    | KUWAIT OIL WELL FIRES     | 30.0N         | 49.0E         | 26.6N        | 47.7E        | 10  | LO | 35 | N | N | 19910411 | 042833 | 245 | 94  | 25        | 87 |
| 38 | 16 | PERSIAN GULF    | KUWAIT OIL WELL FIRES     | 30.0N         | 50.0E         | 26.5N        | 47.9E        | 5   | LO | 35 | N | N | 19910411 | 042836 | 245 | 94  | 26        | 87 |
| 38 | 17 | PERSIAN GULF    | KUWAIT OIL WELL FIRES     | 30.0N         | 49.0E         | 26.1N        | 49.9E        | 5   | LO | 35 | N | N | 19910411 | 042907 | 245 | 94  | 28        | 87 |
| 38 | 19 | PERSIAN GULF    | KUWAIT OIL WELL FIRES     | 30.0N         | 49.0E         | 25.9N        | 51.0E        | 5   | LO | 35 | N | N | 19910411 | 042924 | 245 | 95  | 29        | 87 |
| 38 | 20 | PERSIAN GULF    | KUWAIT OIL WELL FIRES     | 30.0N         | 50.0E         | 25.8N        | 51.5E        | 5   | LO | 35 | N | N | 19910411 | 042932 | 245 | 95  | 29        | 87 |
| 38 | 21 | SAUDI ARABIA    | AB-JABAYL, DHAHRAN        | 26.0N         | 50.0E         | 25.7N        | 51.9E        | 5   | LO | 35 | N | N | 19910411 | 042938 | 245 | 95  | 30        | 87 |
| 38 | 22 | IRAN            | ZAGROS MTS., BAKHTEGAN L  | 30.0N         | 54.0E         | 25.6N        | 52.3E        | 5   | LO | 35 | N | N | 19910411 | 042944 | 245 | 95  | 30        | 87 |
| 38 | 23 | IRAN            | ZAGROS MTS.               | 28.0N         | 54.0E         | 25.5N        | 53.0E        | 30  | LO | 35 | N | N | 19910411 | 042954 | 245 | 96  | 31        | 87 |
| 38 | 24 | GULF OF OMAN    | SHIP WAKES                | 24.0N         | 60.0E         | 25.3N        | 53.8E        | 60  | LO | 35 | N | N | 19910411 | 043006 | 245 | 96  | 31        | 87 |
| 38 | 25 | OMAN            | EMPTY QUARTER, SAND DUNES | 23.0N         | 56.0E         | 24.7N        | 56.1E        | 5   | LO | 35 | N | N | 19910411 | 043042 | 245 | 97  | 34        | 87 |
| 38 | 26 | OMAN            | WAHIBA SANDS, ALLUV. FAN  | 22.0N         | 57.0E         | 24.5N        | 56.8E        | 0   | LO | 35 | N | N | 19910411 | 043053 | 245 | 97  | 34        | 87 |
| 38 | 27 | OMAN            | OMAN MTS., WAHIBA SANDS   | 22.0N         | 58.0E         | 24.4N        | 57.2E        | 10  | LO | 35 | N | N | 19910411 | 043100 | 245 | 97  | 35        | 87 |
| 38 | 28 | IRAN            | S. ZAGROS MTHS.           | 26.0N         | 58.0E         | 24.3N        | 57.7E        | 35  | LO | 35 | N | N | 19910411 | 043107 | 245 | 97  | 35        | 87 |
| 38 | 29 | GULF OF OMAN    | STRAIT OF HORMUZ          | 25.0N         | 57.0E         | 23.8N        | 59.4E        | 55  | LO | 35 | N | N | 19910411 | 043135 | 246 | 98  | 37        | 87 |
| 38 | 33 | EGYPT           | NILE RIVER VALLEY         | 28.0N         | 31.0E         | 25.5N        | 29.0E        | 15  | HO | 35 | N | N | 19910411 | 060322 | 245 | 95  | 30        | 88 |
| 38 | 34 | EGYPT           | NILE R., ARABIAN DESERT   | 27.0N         | 32.0E         | 25.3N        | 29.6E        | 20  | LO | 35 | N | N | 19910411 | 060331 | 245 | 96  | 31        | 88 |
| 38 | 35 | EGYPT           | NILE RIVER, SINAI PEN.    | 28.0N         | 33.0E         | 25.1N        | 30.6E        | 20  | HO | 35 | N | N | 19910411 | 060346 | 245 | 96  | 32        | 88 |
| 38 | 36 | EGYPT           | NILE R., VALLEY OF KINGS  | 25.0N         | 33.0E         | 24.9N        | 31.4E        | 25  | LO | 35 | N | N | 19910411 | 060359 | 245 | 96  | 32        | 88 |
| 38 | 37 | RED SEA         | ARABIAN D., SINAI PEN.    | 25.0N         | 36.0E         | 24.6N        | 32.6E        | 35  | LO | 35 | N | N | 19910411 | 060417 | 245 | 97  | 34        | 88 |
| 38 | 38 | EGYPT           | NILE RIVER VALLEY         | 26.0N         | 32.0E         | 23.2N        | 37.4E        | 0   | LO | 35 | N | N | 19910411 | 060534 | 246 | 98  | 39        | 88 |
| 39 | 5  | PACIFIC OCEAN   | DYING THUNDERSTORM        |               |               | 9.0S         | 115.4W       | 35  | LO | 35 | N | N | 19910410 | 210404 | 248 | 309 | 64        | 82 |
| 39 | 6  | PACIFIC OCEAN   | OCEAN FEATURES            |               |               | 13.6S        | 106.7W       | 10  | LO | 35 | N | N | 19910410 | 210643 | 248 | 304 | 54        | 82 |
| 39 | 7  | PACIFIC OCEAN   | CLOUD FORMATIONS          |               |               | 17.5S        | 98.3W        | 100 | LO | 35 | N | N | 19910410 | 210912 | 248 | 300 | 44        | 82 |
| 39 | 8  | PACIFIC OCEAN   | CLOUD FORMATIONS          |               |               | 19.3S        | 94.0W        | 55  | LO | 35 | N | N | 19910410 | 211026 | 247 | 299 | 39        | 82 |
| 39 | 9  | PACIFIC OCEAN   | CLOUD FORMATIONS          |               |               | 22.5S        | 85.2W        | 90  | LO | 35 | N | N | 19910410 | 211253 | 247 | 294 | 30        | 82 |
| 39 | 10 | PACIFIC OCEAN   | VORTICES OVER HUMBOLDT C  |               |               | 25.3S        | 75.2W        | 80  | LO | 35 | N | N | 19910410 | 211531 | 246 | 290 | 20        | 82 |
| 39 | 11 | CHILE           | ATACAMA DESERT            | 25.0S         | 70.0W         | 25.7S        | 73.3W        | 15  | LO | 35 | N | N | 19910410 | 211601 | 246 | 289 | 18        | 82 |
| 39 | 12 | CHILE           | ATACAMA DESERT            | 25.0S         | 69.0W         | 25.8S        | 73.1W        | 5   | LO | 35 | N | N | 19910410 | 211604 | 246 | 289 | 18        | 82 |
| 39 | 13 | CHILE           | ATACAMA DESERT            | 24.0S         | 69.0W         | 25.8S        | 72.9W        | 5   | LO | 35 | N | N | 19910410 | 211607 | 246 | 288 | 18        | 82 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | LONG   | MADIR<br>LAT | LONG   | CC | TL | FL | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|--------------------------|---------------|--------|--------------|--------|----|----|----|---|---|----------|--------|-----|-----|-----------|----|
| 39 | 14 | CHILE           | ATACAMA DESERT           | 23.0S         | 70.0W  | 26.0S        | 72.2W  | 20 | L0 | 35 | N | N | 19910410 | 211618 | 246 | 288 | 17        | 82 |
| 39 | 15 | CHILE           | VIEW SOUTH OF ANDES MTS. | 29.0S         | 69.0W  | 26.1S        | 71.7W  | 35 | L0 | 35 | N | N | 19910410 | 211625 | 246 | 288 | 17        | 82 |
| 39 | 16 | CHILE           | VIEW SOUTH OF ANDES MTS. | 27.0S         | 69.0W  | 26.2S        | 71.2W  | 45 | L0 | 35 | N | N | 19910410 | 211633 | 246 | 288 | 16        | 82 |
| 39 | 17 | CHILE           | ATACAMA DESERT, ANDES    | 25.0S         | 68.0W  | 26.2S        | 71.0W  | 25 | L0 | 35 | N | N | 19910410 | 211636 | 246 | 288 | 16        | 82 |
| 39 | 18 | CHILE           | ANDES MTS., SOCOMPA VOL. | 25.0S         | 68.0W  | 26.3S        | 70.8W  | 5  | L0 | 35 | N | N | 19910410 | 211639 | 246 | 287 | 16        | 82 |
| 39 | 19 | CHILE           | ANDES MTS., SOCOMPA VOL. | 26.0S         | 68.0W  | 26.3S        | 70.7W  | 5  | L0 | 35 | N | N | 19910410 | 211641 | 246 | 287 | 16        | 82 |
| 39 | 20 | CHILE           | ANDES MTS., ATACAMA DES. | 26.0S         | 69.0W  | 26.3S        | 70.4W  | 5  | L0 | 35 | N | N | 19910410 | 211645 | 246 | 287 | 15        | 82 |
| 39 | 21 | CHILE           | ANDES MTS., ATACAMA DES. | 26.0S         | 69.0W  | 26.4S        | 70.3W  | 5  | L0 | 35 | N | N | 19910410 | 211647 | 246 | 287 | 15        | 82 |
| 39 | 22 | CHILE           | ANDES MTS., ATACAMA DES. | 24.0S         | 70.0W  | 26.4S        | 70.0W  | 5  | L0 | 35 | N | N | 19910410 | 211651 | 246 | 287 | 15        | 82 |
| 39 | 23 | ARGENTINA       | ANDES, ARIZARO SALAR     | 25.0S         | 68.0W  | 26.5S        | 69.5W  | 5  | L0 | 35 | N | N | 19910410 | 211658 | 246 | 287 | 15        | 82 |
| 39 | 24 | ARGENTINA       | ANDES, ANTOFALLA SALAR   | 26.0S         | 68.0W  | 26.5S        | 69.5W  | 10 | L0 | 35 | N | N | 19910410 | 211659 | 246 | 287 | 14        | 82 |
| 39 | 25 | ARGENTINA       | ANDES, ANTOFALLA SALAR   | 27.0S         | 68.0W  | 26.5S        | 69.4W  | 15 | L0 | 35 | N | N | 19910410 | 211700 | 246 | 287 | 14        | 82 |
| 39 | 26 | ARGENTINA       | ANDES, HOMBRE MUERTO SAL | 26.0S         | 67.0W  | 26.5S        | 69.3W  | 25 | L0 | 35 | N | N | 19910410 | 211702 | 246 | 287 | 14        | 82 |
| 39 | 27 | ARGENTINA       | ANDES, ARIZARO SALAR     | 26.0S         | 67.0W  | 26.7S        | 68.4W  | 20 | L0 | 35 | N | N | 19910410 | 211715 | 246 | 286 | 13        | 82 |
| 39 | 28 | ARGENTINA       | ANDES MTS.               | 27.0S         | 67.0W  | 26.8S        | 67.6W  | 50 | L0 | 35 | N | N | 19910410 | 211727 | 246 | 286 | 13        | 82 |
| 39 | 29 | ARGENTINA       | ANDES MTS.               | 26.0S         | 67.0W  | 26.9S        | 67.5W  | 45 | L0 | 35 | N | N | 19910410 | 211729 | 246 | 286 | 13        | 82 |
| 39 | 30 | ARGENTINA       | ANDES MTS.               | 27.0S         | 68.0W  | 26.9S        | 67.0W  | 35 | L0 | 35 | N | N | 19910410 | 211736 | 246 | 286 | 12        | 82 |
| 39 | 31 | ARGENTINA       | ANDES MTS.               | 26.0S         | 68.0W  | 27.0S        | 67.0W  | 55 | L0 | 35 | N | N | 19910410 | 211737 | 246 | 286 | 12        | 82 |
| 39 | 32 | ARGENTINA       | ANDES MTS.               | 26.0S         | 67.0W  | 27.0S        | 66.9W  | 50 | L0 | 35 | N | N | 19910410 | 211738 | 246 | 285 | 12        | 82 |
| 39 | 33 | ARGENTINA       | VIEW WEST OF ANDES MTS.  | 25.0S         | 68.0W  | 27.4S        | 64.4W  | 50 | H0 | 35 | N | N | 19910410 | 211816 | 246 | 284 | 10        | 82 |
| 39 | 34 | ARGENTINA       | VIEW WEST OF ANDES MTS.  | 27.0S         | 68.0W  | 27.6S        | 62.5W  | 55 | H0 | 35 | N | N | 19910410 | 211843 | 245 | 283 | 8         | 82 |
| 39 | 35 | ARGENTINA       | VIEW WEST OF ANDES MTS.  | 25.0S         | 67.0W  | 27.8S        | 61.3W  | 65 | H0 | 35 | N | N | 19910410 | 211901 | 245 | 283 | 7         | 82 |
| 39 | 36 | ARGENTINA       | CLOUDS, SUNSET           |               |        | 28.6S        | 50.3W  | 75 | H0 | 35 | N | N | 19910410 | 212142 | 245 | 277 | -4        | 82 |
| 39 | 37 | ARGENTINA       | CLOUDS, SUNSET           |               |        | 28.6S        | 47.2W  | 75 | H0 | 35 | N | N | 19910410 | 212228 | 244 | 276 | -7        | 82 |
| 40 | 7  | CHINA           | VIEW E. TOWARD TERMINAT. |               |        | 28.5N        | 115.0E | 85 | H0 | 35 | N | N | 19910410 | 220743 | 243 | 81  | 1         | 83 |
| 40 | 8  | CHINA           | CLOUDS OVER E. CHINA SEA |               |        | 28.6N        | 118.3E | 85 | L0 | 35 | N | N | 19910410 | 220831 | 243 | 83  | 4         | 83 |
| 40 | 9  | PACIFIC OCEAN   | CLOUDS, OCEAN FEATURES   |               |        | 27.4N        | 138.1E | 40 | L0 | 35 | N | N | 19910410 | 221320 | 244 | 92  | 22        | 83 |
| 40 | 10 | PACIFIC OCEAN   | SUNGLINT, EDDIES         |               |        | 26.6N        | 142.9E | 35 | L0 | 35 | N | N | 19910410 | 221432 | 244 | 94  | 27        | 83 |
| 40 | 11 | PACIFIC OCEAN   | SUNGLINT, EDDIES         |               |        | 26.3N        | 144.4E | 30 | L0 | 35 | N | N | 19910410 | 221456 | 245 | 95  | 28        | 83 |
| 40 | 12 | PACIFIC OCEAN   | SUNGLINT, EDDIES         |               |        | 25.6N        | 147.8E | 30 | L0 | 35 | N | N | 19910410 | 221548 | 245 | 96  | 32        | 83 |
| 40 | 13 | PACIFIC OCEAN   | THUNDERSTORM             |               |        | 8.7N         | 169.9W | 75 | L0 | 35 | N | N | 19910410 | 222749 | 248 | 92  | 77        | 83 |
| 40 | 14 | PACIFIC OCEAN   | CHRISTMAS ISLAND, WAKES  | 2.0N          | 157.0W | 3.8N         | 161.4W | 25 | L0 | 35 | N | N | 19910410 | 223030 | 248 | 44  | 84        | 83 |
| 40 | 15 | PACIFIC OCEAN   | MARQUESAS ISLANDS        | 9.0S          | 140.0W | 7.1S         | 142.7W | 35 | L0 | 35 | N | N | 19910410 | 223628 | 248 | 313 | 68        | 83 |
| 40 | 16 | PACIFIC OCEAN   | VIEW W. TOWARD SUNSET    |               |        | 28.6S        | 71.9W  | 70 | H0 | 35 | N | N | 19910410 | 225545 | 245 | 276 | -5        | 83 |
| 40 | 17 | PACIFIC OCEAN   | SUNSET TERMINATOR        |               |        | 27.6S        | 55.3W  | H0 | 35 | N  | N | N | 19910410 | 225947 | 243 | 268 | -21       | 83 |
| 40 | 18 | PACIFIC OCEAN   | SUNSET TERMINATOR        |               |        | 27.6S        | 55.3W  | H0 | 35 | N  | N | N | 19910410 | 225948 | 243 | 268 | -21       | 83 |
| 40 | 19 | PACIFIC OCEAN   | SUNSET TERMINATOR        |               |        | 27.6S        | 55.3W  | H0 | 35 | N  | N | N | 19910410 | 225948 | 243 | 268 | -21       | 83 |
| 40 | 20 | PACIFIC OCEAN   | SUNSET TERMINATOR        |               |        | 27.6S        | 55.2W  | H0 | 35 | N  | N | N | 19910410 | 225949 | 243 | 268 | -21       | 83 |
| 40 | 21 | PACIFIC OCEAN   | SUNSET TERMINATOR        |               |        | 27.6S        | 55.1W  | H0 | 35 | N  | N | N | 19910410 | 225951 | 243 | 268 | -21       | 83 |
| 40 | 22 | PACIFIC OCEAN   | SUNSET TERMINATOR        |               |        | 27.6S        | 55.0W  | H0 | 35 | N  | N | N | 19910410 | 225952 | 243 | 268 | -21       | 83 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL | E        | S        | DATE   | GMT | AL  | AZ | SUN<br>EL | OR |
|----|----|-----------------|--------------------------|----------------------|---------------------|----|----|----|----------|----------|--------|-----|-----|----|-----------|----|
| 40 | 23 |                 | SUNSET TERMINATOR        |                      | 27.6S 55.0W         | HO | 35 | N  | 19910410 | 225952   | 243    | 268 | -21 | 83 |           |    |
| 40 | 24 |                 | SUNSET TERMINATOR        |                      | 27.6S 54.9W         | HO | 35 | N  | 19910410 | 225953   | 243    | 268 | -21 | 83 |           |    |
| 40 | 25 |                 | SUNSET TERMINATOR        |                      | 27.6S 54.9W         | HO | 35 | N  | 19910410 | 225953   | 243    | 268 | -21 | 83 |           |    |
| 40 | 26 |                 | SUNSET TERMINATOR        |                      | 27.5S 54.7W         | HO | 35 | N  | 19910410 | 225957   | 243    | 268 | -21 | 83 |           |    |
| 40 | 27 |                 | SUNSET TERMINATOR        |                      | 27.5S 54.6W         | HO | 35 | N  | 19910410 | 225958   | 243    | 268 | -21 | 83 |           |    |
| 40 | 28 |                 | SUNSET TERMINATOR        |                      | 27.5S 54.6W         | HO | 35 | N  | 19910410 | 225958   | 243    | 268 | -21 | 83 |           |    |
| 40 | 29 |                 | SUNSET TERMINATOR        |                      | 27.5S 54.4W         | HO | 35 | N  | 19910410 | 230001   | 243    | 268 | -22 | 83 |           |    |
| 40 | 30 |                 | SUNSET TERMINATOR        |                      | 27.5S 54.3W         | HO | 35 | N  | 19910410 | 230002   | 243    | 268 | -22 | 83 |           |    |
| 40 | 31 |                 | SUNSET TERMINATOR        |                      | 27.5S 54.3W         | HO | 35 | N  | 19910410 | 230002   | 243    | 268 | -22 | 83 |           |    |
| 40 | 32 |                 | SUNSET TERMINATOR        |                      | 27.4S 54.0W         | HO | 35 | N  | 19910410 | 230007   | 243    | 268 | -22 | 83 |           |    |
| 40 | 33 |                 | SUNSET TERMINATOR        |                      | 26.8S 50.2W         | HO | 35 | N  | 19910410 | 230104   | 243    | 266 | -26 | 83 |           |    |
| 41 | 1  | OMAN            | CITY OF SALALAH          | 17.0N 54.0E          | 18.1N 51.6E         | 5  | LO | 35 | N        | 19910411 | 060929 | 247 | 101 | 53 | 88        |    |
| 41 | 2  | OMAN            | SALALAH, EMPTY QUARTER   | 18.0N 52.0E          | 17.3N 53.4E         | 10 | LO | 35 | N        | 19910411 | 061000 | 247 | 101 | 55 | 88        |    |
| 41 | 3  | OMAN            | OMAN MTS., WAHIBA SANDS  | 22.0N 57.0E          | 15.8N 56.8E         | 15 | HO | 35 | N        | 19910411 | 061100 | 247 | 100 | 59 | 88        |    |
| 41 | 4  | OMAN            | OMAN MTS., WAHIBA SANDS  | 22.0N 60.0E          | 15.4N 57.6E         | 20 | HO | 35 | N        | 19910411 | 061115 | 247 | 100 | 60 | 88        |    |
| 41 | 5  | SAUDI ARABIA    | EMPTY QUARTER            | 23.0N 54.0E          | 14.8N 58.8E         | 15 | HO | 35 | N        | 19910411 | 061136 | 247 | 100 | 61 | 88        |    |
| 41 | 6  | SAUDI ARABIA    | EMPTY QUARTER            | 19.0N 51.0E          | 14.7N 59.0E         | 5  | HO | 35 | N        | 19910411 | 061140 | 247 | 100 | 61 | 88        |    |
| 41 | 7  | OMAN            | EMPTY QUARTER, MASIRAH I | 23.0N 56.0E          | 14.5N 59.4E         | 15 | HO | 35 | N        | 19910411 | 061146 | 247 | 100 | 62 | 88        |    |
| 41 | 8  | OMAN            | EMPTY QUARTER, MASIRAH I | 14.2N 60.0E          | 14.2N 60.0E         | 20 | HO | 35 | O        | 19910411 | 061157 | 247 | 100 | 63 | 88        |    |
| 41 | 9  | ARABIAN SEA     | OIL SLICKS               | 13.1N 62.4E          | 13.1N 62.4E         | 15 | LO | 35 | N        | 19910411 | 061240 | 247 | 99  | 65 | 88        |    |
| 41 | 10 | ARABIAN SEA     | OIL SLICKS               | 12.8N 63.0E          | 12.8N 63.0E         | 10 | LO | 35 | N        | 19910411 | 061251 | 247 | 98  | 66 | 88        |    |
| 41 | 11 | MALDIVES        | MALCOLM ATOLL            | 7.0N 73.0E           | 7.9N 72.1E          | 5  | LO | 35 | N        | 19910411 | 061540 | 248 | 88  | 76 | 88        |    |
| 41 | 12 | MALDIVES        | THAVANDIFFULU ATOLL      | 7.0N 73.0E           | 7.0N 73.6E          | 10 | LO | 35 | N        | 19910411 | 061608 | 248 | 84  | 77 | 88        |    |
| 41 | 13 | MALDIVES        | MALE, ARI, FELIDU ATOLLS | 4.0N 73.0E           | 6.7N 74.1E          | 25 | LO | 35 | N        | 19910411 | 061618 | 248 | 82  | 78 | 88        |    |
| 41 | 14 | MALDIVES        | MALE, ARI, FELIDU ATOLLS | 3.0N 74.0E           | 5.4N 76.5E          | 25 | LO | 35 | N        | 19910411 | 061703 | 248 | 73  | 80 | 88        |    |
| 41 | 15 | SRI LANKA       | VIEW OF WHOLE ISLAND     | 7.0N 81.0E           | 3.2N 80.2E          | 25 | LO | 35 | N        | 19910411 | 061814 | 248 | 48  | 83 | 88        |    |
| 41 | 16 | SRI LANKA       | VIEW OF WHOLE ISLAND     | 8.0N 81.0E           | 3.1N 80.5E          | 30 | LO | 35 | N        | 19910411 | 061819 | 248 | 46  | 83 | 88        |    |
| 41 | 17 | INDONESIA       | EASTERN END OF JAVA      | 10.0S 115.0E         | 15.8S 114.6E        | 55 | LO | 35 | N        | 19910411 | 062900 | 248 | 305 | 51 | 88        |    |
| 41 | 18 | INDONESIA       | EASTERN END OF JAVA      | 10.0S 116.0E         | 16.4S 115.9E        | 60 | HO | 35 | N        | 19910411 | 062923 | 248 | 304 | 49 | 88        |    |
| 41 | 19 | AUSTRALIA-WA    | EIGHTY MILE BEACH        | 19.0S 122.0E         | 17.7S 119.0E        | 40 | LO | 35 | N        | 19910411 | 063016 | 248 | 303 | 46 | 88        |    |
| 41 | 20 | AUSTRALIA-WA    | EIGHTY MILE BEACH        | 20.0S 121.0E         | 17.8S 119.2E        | 30 | LO | 35 | N        | 19910411 | 063019 | 248 | 303 | 46 | 88        |    |
| 41 | 21 | AUSTRALIA-WA    | EIGHTY MILE BEACH        | 20.0S 121.0E         | 17.9S 119.3E        | 35 | LO | 35 | N        | 19910411 | 063022 | 248 | 303 | 46 | 88        |    |
| 41 | 22 | AUSTRALIA-WA    | CAPE KERAUDREN           | 20.0S 120.0E         | 18.0S 119.7E        | 30 | LO | 35 | N        | 19910411 | 063028 | 248 | 302 | 45 | 88        |    |
| 41 | 23 | AUSTRALIA-WA    | GREAT SANDY DESERT       | 20.0S 122.0E         | 18.4S 120.4E        | 45 | LO | 35 | N        | 19910411 | 063041 | 248 | 302 | 44 | 88        |    |
| 41 | 24 | AUSTRALIA-WA    | COAST, KIMBERLY PLAT.    | 17.0S 123.0E         | 18.5S 120.7E        | 75 | LO | 35 | N        | 19910411 | 063046 | 248 | 302 | 44 | 88        |    |
| 41 | 25 | AUSTRALIA-WA    | FORESTIER IS. AREA       | 21.0S 118.0E         | 18.7S 121.4E        | 30 | LO | 35 | N        | 19910411 | 063057 | 248 | 302 | 43 | 88        |    |
| 41 | 26 | AUSTRALIA-WA    | GREAT SANDY DESERT       | 19.0S 121.9E         | 19.0S 121.9E        | 65 | LO | 35 | N        | 19910411 | 063107 | 248 | 301 | 43 | 88        |    |
| 41 | 27 | AUSTRALIA-WA    | GREAT SANDY DESERT       | 21.0S 123.0E         | 19.2S 122.4E        | 65 | LO | 35 | N        | 19910411 | 063115 | 248 | 301 | 42 | 88        |    |
| 41 | 28 | AUSTRALIA-WA    | GREAT SANDY/GIBSON DES.  | 19.4S 122.9E         | 19.4S 122.9E        | 65 | HO | 35 | N        | 19910411 | 063124 | 248 | 301 | 42 | 88        |    |
| 41 | 29 | AUSTRALIA-WA    | GREAT SANDY/GIBSON DES.  | 21.0S 124.0E         | 19.6S 123.4E        | 70 | LO | 35 | N        | 19910411 | 063132 | 248 | 301 | 41 | 88        |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT LON | NADIR<br>LAT LON | CC    | TL | FL | E  | S | DATE     | GMT      | AL     | AZ  | SUN<br>EL | OR |    |
|----|----|-----------------|--------------------------|-------------------|------------------|-------|----|----|----|---|----------|----------|--------|-----|-----------|----|----|
| 41 | 30 | AUSTRALIA-WA    | GREAT SANDY/GIBSON DES.  |                   | 19.8S 124.0E     | 60    | L0 | 35 | N  | N | 19910411 | 063142   | 248    | 300 | 40        | 88 |    |
| 41 | 31 | AUSTRALIA-WA    | GREAT SANDY/GIBSON DES.  |                   | 20.0S 124.5E     | 75    | L0 | 35 | N  | N | 19910411 | 063151   | 247    | 300 | 40        | 88 |    |
| 41 | 32 | AUSTRALIA-WA    | GREAT SANDY/GIBSON DES.  |                   | 20.2S 124.9E     | 80    | L0 | 35 | N  | N | 19910411 | 063157   | 247    | 300 | 40        | 88 |    |
| 41 | 33 | AUSTRALIA-WA    | LAKE DORA, GIBSON DESERT | 22.0S 123.0E      | 20.4S 125.5E     | 45    | L0 | 35 | N  | N | 19910411 | 063207   | 247    | 299 | 39        | 88 |    |
| 41 | 34 | AUSTRALIA-WA    | L. BLANCHE GIBSON DESERT | 23.0S 123.0E      | 20.5S 125.7E     | 35    | L0 | 35 | N  | N | 19910411 | 063211   | 247    | 299 | 39        | 88 |    |
| 41 | 35 | AUSTRALIA-WA    | LAKE DORA, GIBSON DESERT | 22.0S 123.0E      | 21.2S 127.7E     | 40    | L0 | 35 | N  | N | 19910411 | 063243   | 247    | 298 | 37        | 88 |    |
| 41 | 36 | AUSTRALIA-WA    | PERCIVAL LAKES           | 21.0S 126.0E      | 21.7S 129.2E     | 20    | L0 | 35 | N  | N | 19910411 | 063309   | 247    | 298 | 35        | 88 |    |
| 41 | 37 | AUSTRALIA-WA    | GIBSON DESERT            | 23.0S 124.0E      | 22.1S 130.4E     | 35    | L0 | 35 | N  | N | 19910411 | 063328   | 247    | 297 | 34        | 88 |    |
| 42 | 1  | MOROCCO         | W. LOOKING VIEW ATLAS M. | 30.0N             | 8.0W 28.4N       | 15    | H0 | 35 | N  | N | 19910411 | 073138   | 243    | 86  | 10        | 89 |    |
| 42 | 2  | MOROCCO         | ANTI-ATLAS MTNS.         | 30.0N             | 7.0W 28.2N       | 15    | L0 | 35 | N  | N | 19910411 | 073221   | 244    | 87  | 13        | 89 |    |
| 42 | 3  | MOROCCO         | ANTI-ATLAS MTNS.         | 31.0N             | 6.0W 28.2N       | 10    | L0 | 35 | N  | N | 19910411 | 073229   | 244    | 88  | 13        | 89 |    |
| 42 | 4  | MOROCCO         | HIGH ATLAS MTNS.         | 31.0N             | 7.0W 28.0N       | 9.7W  | 5  | L0 | 35 | N | N        | 19910411 | 073307 | 244 | 89        | 15 | 89 |
| 42 | 5  | MOROCCO         | HIGH ATLAS MTNS.         | 32.0N             | 6.0W 27.9N       | 8.8W  | 15 | L0 | 35 | N | N        | 19910411 | 073320 | 244 | 89        | 16 | 89 |
| 42 | 6  | MOROCCO         | HIGH ATLAS MTNS.         | 31.0N             | 8.0W 27.8N       | 8.4W  | 0  | L0 | 35 | N | N        | 19910411 | 073326 | 244 | 89        | 17 | 89 |
| 42 | 7  | MOROCCO         | ANTI-ATLAS MTNS.         | 31.0N             | 7.0W 27.8N       | 7.9W  | 5  | L0 | 35 | N | N        | 19910411 | 073334 | 244 | 90        | 17 | 89 |
| 42 | 8  | MOROCCO         | TELL ATLAS MTNS.         | 35.0N             | 5.0W 27.7N       | 7.3W  | 35 | H0 | 35 | N | N        | 19910411 | 073342 | 244 | 90        | 18 | 89 |
| 42 | 9  | ALGERIA         | GRAND ERG WEST           |                   | 27.5N            | 6.2W  | 0  | L0 | 35 | N | N        | 19910411 | 073359 | 244 | 90        | 19 | 89 |
| 42 | 10 | ALGERIA         | IGUIDI DESERT            | 29.0N             | 3.0W 27.5N       | 5.7W  | 0  | L0 | 35 | N | N        | 19910411 | 073406 | 244 | 91        | 19 | 89 |
| 42 | 11 | ALGERIA         | SAHARAN ATLAS MTNS.      | 32.0N             | 1.0W 27.2N       | 4.0W  | 15 | H0 | 35 | N | N        | 19910411 | 073432 | 244 | 91        | 21 | 89 |
| 42 | 12 | ALGERIA         | WESTERN GRAND ERG        | 31.0N             | 3.0E 25.8N       | 3.6E  | 15 | H0 | 35 | N | N        | 19910411 | 073627 | 245 | 95        | 28 | 89 |
| 42 | 13 | ALGERIA         | EASTERN GRAND ERG        | 30.0N             | 4.0E 25.8N       | 3.9E  | 5  | L0 | 35 | N | N        | 19910411 | 073631 | 245 | 95        | 28 | 89 |
| 42 | 14 | ALGERIA         | EASTERN GRAND ERG        | 29.0N             | 5.0E 25.7N       | 4.3E  | 0  | L0 | 35 | N | N        | 19910411 | 073637 | 245 | 95        | 29 | 89 |
| 42 | 15 | ALGERIA         | TADEMAIT PLATEAU         | 28.0N             | 6.0E 25.5N       | 5.0E  | 0  | L0 | 35 | N | N        | 19910411 | 073648 | 245 | 95        | 30 | 89 |
| 42 | 16 | ALGERIA         | IRARRAREN DUNES          | 28.0N             | 7.0E 25.5N       | 5.2E  | 5  | L0 | 35 | N | N        | 19910411 | 073652 | 245 | 95        | 30 | 89 |
| 42 | 17 | ALGERIA         | IRARRAREN DUNES, E. ERG  | 29.0N             | 7.0E 25.4N       | 5.6E  | 5  | L0 | 35 | N | N        | 19910411 | 073658 | 245 | 95        | 30 | 89 |
| 42 | 18 | ALGERIA         | IRAGGAR MTNS.            | 23.0N             | 11.0E 24.5N      | 9.1E  | 5  | L0 | 35 | N | N        | 19910411 | 073752 | 245 | 97        | 34 | 89 |
| 42 | 19 | NIGER           | TCHIGAI PLATEAU          | 22.0N             | 12.0E 24.4N      | 9.4E  | 0  | L0 | 35 | N | N        | 19910411 | 073757 | 245 | 97        | 34 | 89 |
| 42 | 20 | NIGER           | TCHIGAI PLATEAU          | 23.0N             | 13.0E 24.4N      | 9.6E  | 0  | L0 | 35 | N | N        | 19910411 | 073800 | 245 | 97        | 34 | 89 |
| 42 | 21 | NIGER           | TCHIGAI PLATEAU          | 22.0N             | 14.0E 24.3N      | 9.8E  | 0  | L0 | 35 | N | N        | 19910411 | 073803 | 245 | 97        | 34 | 89 |
| 42 | 22 | ALGERIA         | MARZUQ DESERT            | 24.0N             | 13.0E 24.2N      | 10.1E | 0  | L0 | 35 | N | N        | 19910411 | 073807 | 245 | 97        | 35 | 89 |
| 42 | 23 | ALGERIA         | MARZUQ DESERT            | 24.0N             | 14.0E 24.2N      | 10.2E | 0  | L0 | 35 | N | N        | 19910411 | 073810 | 245 | 97        | 35 | 89 |
| 42 | 24 | ALGERIA         | MARZUQ DESERT            | 24.0N             | 15.0E 24.0N      | 10.9E | 0  | L0 | 35 | N | N        | 19910411 | 073820 | 245 | 97        | 35 | 89 |
| 42 | 25 | NIGER           | TCHIGAI PLATEAU          | 23.0N             | 13.0E 23.8N      | 11.6E | 0  | L0 | 35 | N | N        | 19910411 | 073832 | 245 | 97        | 36 | 89 |
| 42 | 26 | CHAD            | TIBESTI SANDS            | 23.0N             | 15.0E 23.6N      | 12.2E | 0  | L0 | 35 | N | N        | 19910411 | 073841 | 245 | 98        | 37 | 89 |
| 42 | 27 | LIBYA           | AREA N. OF TIBESTI MTNS. | 24.0N             | 16.0E 23.6N      | 12.4E | 0  | L0 | 35 | N | N        | 19910411 | 073845 | 246 | 98        | 37 | 89 |
| 42 | 28 | LIBYA           | TIBESTI MTS.,UAUEN NAMUS | 24.0N             | 18.0E 23.3N      | 13.3E | 15 | H0 | 35 | N | N        | 19910411 | 073859 | 246 | 98        | 38 | 89 |
| 42 | 29 | LIBYA           | TIBESTI MTS.,UAUEN NAMUS | 25.0N             | 18.0E 23.2N      | 13.8E | 10 | H0 | 35 | N | N        | 19910411 | 073906 | 246 | 98        | 38 | 89 |
| 42 | 30 | LIBYA           | UAU EN NAMUS             | 26.0N             | 16.0E 22.8N      | 15.0E | 0  | H0 | 35 | N | N        | 19910411 | 073926 | 246 | 98        | 40 | 89 |
| 42 | 31 | LIBYA           | NE TIBESTI MTS.          | 24.0N             | 20.0E 22.5N      | 15.8E | 20 | H0 | 35 | N | N        | 19910411 | 073939 | 246 | 99        | 40 | 89 |
| 42 | 32 | CHAD            | TIBESTI MASSIF           | 21.0N             | 18.0E 22.3N      | 16.5E | 10 | L0 | 35 | N | N        | 19910411 | 073950 | 246 | 99        | 41 | 89 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME   | FEATURE                   | CENTER |       | MADIR |       | CC | TL | FL | E | S | DATE     | GMT    | AL  | SUN | EL | OR |
|----|----|-------------------|---------------------------|--------|-------|-------|-------|----|----|----|---|---|----------|--------|-----|-----|----|----|
|    |    |                   |                           | LAT    | LONG  | LAT   | LONG  |    |    |    |   |   |          |        |     | AZ  |    |    |
| 42 | 33 | LIBYA             | UAU EN NAMUS              | 25.0N  | 17.0E | 22.2N | 16.9E | 0  | HO | 35 | N | N | 19910411 | 073957 | 246 | 98  | 41 | 89 |
| 42 | 34 | LIBYA             | AREA NE OF TIBESTI        | 22.0N  | 21.0E | 22.0N | 17.5E | 5  | LO | 35 | N | N | 19910411 | 074007 | 246 | 99  | 42 | 89 |
| 42 | 35 | LIBYA             | AREA NE OF TIBESTI        | 23.0N  | 21.0E | 21.4N | 19.0E | 10 | LO | 35 | N | N | 19910411 | 074032 | 246 | 99  | 44 | 89 |
| 42 | 36 | LIBYA             | AREA NE OF TIBESTI        | 22.0N  | 21.0E | 21.1N | 19.8E | 5  | LO | 35 | N | N | 19910411 | 074046 | 246 | 99  | 45 | 89 |
| 42 | 37 | CHAD              | EASTERN TIBESTI MTS.      | 21.0N  | 20.0E | 20.9N | 20.6E | 5  | LO | 35 | N | N | 19910411 | 074057 | 246 | 100 | 45 | 89 |
| 44 | 1  | BRAZIL            | RIO SAO FRANCISCO RESERV  | 9.0S   | 38.0W | 12.2S | 37.8W | 60 | LO | 35 | N | Y | 19910410 | 162526 | 247 | 304 | 56 | 79 |
| 44 | 2  | BRAZIL            | RIO SAO FRANCISCO RESERV  | 9.0S   | 38.0W | 12.2S | 37.7W | 60 | LO | 35 | N | Y | 19910410 | 162529 | 247 | 304 | 55 | 79 |
| 44 | 3  | BRAZIL            | RIO SAO FRANCISCO RESERV  | 10.0S  | 37.0W | 12.4S | 37.3W | 60 | LO | 35 | N | N | 19910410 | 162536 | 247 | 304 | 55 | 79 |
| 44 | 4  | BRAZIL            | RIO ITAPICURU             | 10.5S  | 38.0W | 12.6S | 37.0W | 50 | LO | 35 | N | N | 19910410 | 162541 | 247 | 304 | 55 | 79 |
| 44 | 5  | BRAZIL            | RIO ITAPICURU             | 11.0S  | 38.5W | 12.8S | 36.6W | 60 | LO | 35 | N | Y | 19910410 | 162548 | 247 | 304 | 54 | 79 |
| 44 | 6  | BRAZIL            | RIO ITAPICURU             | 11.0S  | 38.0W | 12.9S | 36.3W | 60 | LO | 35 | N | Y | 19910410 | 162554 | 247 | 303 | 54 | 79 |
| 44 | 7  | BRAZIL            | RIO ITAPICURU, COAST      | 11.5S  | 37.5W | 13.1S | 36.0W | 50 | LO | 35 | N | Y | 19910410 | 162559 | 247 | 303 | 53 | 79 |
| 44 | 7A | BRAZIL            | RIO ITAPICURU, COAST      | 10.5S  | 37.0W |       |       | 40 | LO | 35 | N | Y |          |        |     |     |    |    |
| 44 | 8  | BRAZIL            | BORBOREMA PLAT, EAST CST. | 7.0S   | 37.0W | 13.5S | 35.3W | 60 | HO | 35 | N | N | 19910410 | 162613 | 247 | 303 | 53 | 79 |
| 44 | 9  | BRAZIL            | PANORAMA-RIO FRANC.BASIN  | 10.0S  | 42.0W | 13.8S | 34.7W | 75 | HO | 35 | N | N | 19910410 | 162624 | 247 | 303 | 52 | 79 |
| 44 | 10 | GALAPAGOS ISLANDS | PANORAMA                  | 0.5S   | 89.0W | 2.4N  | 87.3W | 15 | LO | 35 | N | N | 19910410 | 175050 | 248 | 359 | 84 | 80 |
| 44 | 11 |                   | CARGO BAY                 |        |       | 1.0N  | 85.0W |    |    | 70 | N | N | 19910410 | 175134 | 248 | 340 | 83 | 80 |
| 44 | 12 | PERU              | COAST                     | 5.0S   | 80.0W | 1.7S  | 80.4W | 50 | HO | 70 | N | N | 19910410 | 175302 | 248 | 322 | 78 | 80 |
| 44 | 13 | ECUADOR           | RIO NAPO, RIO COCA, ANDES | 1.0S   | 77.0W | 2.3S  | 79.4W | 75 | LO | 70 | N | N | 19910410 | 175322 | 248 | 320 | 77 | 80 |
| 44 | 14 | PERU              | RIO NAPO, CLOUDS          | 1.0S   | 75.0W | 2.7S  | 78.6W | 75 | LO | 70 | N | N | 19910410 | 175337 | 248 | 319 | 76 | 80 |
| 44 | 15 | PERU              | AMAZON BASIN, CLOUDS      |        |       | 3.4S  | 77.6W | 80 | HO | 70 | N | N | 19910410 | 175357 | 248 | 317 | 75 | 80 |
| 44 | 16 | PERU              | RIO AMAZON, CLOUDS        | 4.0S   | 72.0W | 5.3S  | 74.2W | 75 | LO | 70 | N | Y | 19910410 | 175502 | 248 | 313 | 71 | 80 |
| 44 | 17 | PERU              | RIO AMAZON, CLOUDS        | 4.0S   | 72.0W | 5.5S  | 73.9W | 75 | LO | 70 | N | Y | 19910410 | 175507 | 248 | 313 | 70 | 80 |
| 44 | 18 | BRAZIL            | AMAZON BASIN, CLOUDS      |        |       | 6.6S  | 72.0W | 80 | HO | 35 | N | N | 19910410 | 175543 | 248 | 311 | 68 | 80 |
| 44 | 19 | BRAZIL            | AMAZON BASIN, CLOUDS      |        |       | 8.7S  | 68.2W | 80 | LO | 35 | N | N | 19910410 | 175655 | 248 | 308 | 64 | 80 |
| 44 | 20 | BRAZIL            | RIO TIETE, CLOUDS         | 21.0S  | 50.5W | 18.5S | 48.2W | 80 | LO | 35 | N | Y | 19910410 | 180255 | 247 | 299 | 41 | 80 |
| 44 | 21 | BRAZIL            | RIO PARANA, JUPIA RESERV. | 20.5S  | 50.5W | 18.6S | 48.0W | 80 | LO | 35 | N | Y | 19910410 | 180258 | 247 | 299 | 41 | 80 |
| 44 | 22 | BRAZIL            | RIO PARANAIBA/RESERVOIR   | 19.0S  | 49.0W | 18.7S | 47.7W | 75 | LO | 35 | N | N | 19910410 | 180303 | 247 | 298 | 40 | 80 |
| 44 | 23 | BRAZIL            | RIO PARANAIBA/RESERVOIR   | 18.5S  | 47.5W | 18.8S | 47.5W | 60 | LO | 35 | N | Y | 19910410 | 180307 | 247 | 298 | 40 | 80 |
| 44 | 24 | BRAZIL            | HILLS, CLOUDS             | 18.0S  | 47.0W | 18.9S | 47.2W | 60 | LO | 35 | N | Y | 19910410 | 180312 | 247 | 298 | 40 | 80 |
| 44 | 25 | BRAZIL            | RIO PARANAIBA, CLOUDS     | 18.0S  | 50.0W | 19.1S | 46.8W | 70 | LO | 35 | N | N | 19910410 | 180319 | 247 | 298 | 39 | 80 |
| 44 | 26 | BRAZIL            | TRES MARIAS RESERVOIR     | 19.0S  | 45.0W | 19.3S | 46.3W | 40 | LO | 35 | N | N | 19910410 | 180327 | 246 | 298 | 39 | 80 |
| 44 | 27 | BRAZIL            | DE PEIXOTO RESERVOIR      | 20.5S  | 47.0W | 19.4S | 46.0W | 75 | LO | 35 | N | N | 19910410 | 180331 | 246 | 298 | 38 | 80 |
| 44 | 28 | BRAZIL            | TRES MARIAS RESERVOIR     | 18.0S  | 44.5W | 19.8S | 45.0W | 50 | LO | 35 | N | Y | 19910410 | 180349 | 246 | 297 | 37 | 80 |
| 44 | 29 | BRAZIL            | TRES MARIAS RESERVOIR     | 18.5S  | 45.0W | 19.9S | 44.6W | 40 | LO | 35 | N | Y | 19910410 | 180355 | 246 | 297 | 37 | 80 |
| 44 | 30 | BRAZIL            | RIO DOCE, CLOUDS          | 19.5S  | 42.5W | 20.5S | 43.2W | 60 | LO | 35 | N | N | 19910410 | 180419 | 246 | 296 | 35 | 80 |
| 44 | 31 | BRAZIL            | CABO SAO TOME, CABO FRIO  | 22.0S  | 42.0W | 20.7S | 42.6W | 50 | LO | 35 | N | Y | 19910410 | 180429 | 246 | 296 | 35 | 80 |
| 44 | 32 | BRAZIL            | CABO SAO TOME, COAST      | 20.5S  | 41.5W | 20.8S | 42.4W | 50 | LO | 35 | N | Y | 19910410 | 180433 | 246 | 296 | 34 | 80 |
| 44 | 33 | BRAZIL            | RIO DOCE-MOUTH, COAST     | 19.5S  | 41.0W | 21.0S | 41.9W | 60 | LO | 35 | N | N | 19910410 | 180441 | 246 | 296 | 34 | 80 |
| 44 | 36 | BRAZIL            | CABO SAO TOME, CAMPOS     | 21.5S  | 41.5W | 21.0S | 41.6W | 30 | LO | 35 | N | N | 19910410 | 180445 | 246 | 296 | 34 | 80 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME    | FEATURE                     | CENTER<br>LAT | LONG   | MADIR<br>LAT | LONG   | CC | TL | FL | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|--------------------|-----------------------------|---------------|--------|--------------|--------|----|----|----|---|---|----------|--------|-----|-----|-----------|----|
| 44 | 37 | BRAZIL             | TRES MARIAS RESERVOIR       | 19.0S         | 45.0W  | 21.2S        | 41.2W  | 60 | L0 | 35 | N | N | 19910410 | 180452 | 246 | 295 | 33        | 80 |
| 44 | 38 | BRAZIL             | CABO FRIO, COAST, CLOUDS    | 22.5S         | 42.5W  | 21.3S        | 40.8W  | 50 | L0 | 35 | N | N | 19910410 | 180459 | 246 | 295 | 33        | 80 |
| 45 | 1  |                    | CARGO BAY                   |               |        | 11.6S        | 80.5E  |    |    | 35 | O | N | 19910410 | 083744 | 247 | 302 | 55        | 74 |
| 45 | 2  |                    | CARGO BAY                   |               |        | 11.9S        | 81.2E  |    |    | 35 | O | N | 19910410 | 083756 | 247 | 302 | 54        | 74 |
| 45 | 3  |                    | CARGO BAY                   |               |        | 12.2S        | 81.7E  |    |    | 35 | O | N | 19910410 | 083806 | 247 | 302 | 53        | 74 |
| 45 | 4  | AUSTRALIA-WA       | EXMOUTH PENINSULA/BAY       | 23.0S         | 115.0E | 24.4S        | 112.2E | 30 | H0 | 35 | N | Y | 19910410 | 084644 | 245 | 289 | 20        | 74 |
| 45 | 5  | AUSTRALIA-WA       | EXMOUTH PENINSULA/BAY       | 24.0S         | 115.0E | 24.4S        | 112.4E | 30 | L0 | 35 | N | Y | 19910410 | 084647 | 245 | 289 | 20        | 74 |
| 45 | 6  | AUSTRALIA-WA       | NW COAST                    | 25.0S         | 115.0E | 24.5S        | 112.8E | 30 | L0 | 35 | N | Y | 19910410 | 084654 | 245 | 289 | 20        | 74 |
| 45 | 7  | AUSTRALIA-WA       | NW COAST                    | 25.0S         | 114.0E | 24.7S        | 113.7E | 40 | L0 | 35 | N | Y | 19910410 | 084707 | 245 | 288 | 19        | 74 |
| 45 | 8  | AUSTRALIA-WA       | EXMOUTH PENINSULA/BAY       | 23.0S         | 115.0E | 25.0S        | 114.7E | 30 | L0 | 35 | N | Y | 19910410 | 084723 | 245 | 288 | 18        | 74 |
| 45 | 28 | MAURITANIA         | RICHAT STRUCTURE            | 22.0N         | 10.0W  | 22.6N        | 10.2W  | 0  | L0 | 35 | N | N | 19910410 | 095051 | 246 | 103 | 46        | 75 |
| 45 | 29 | ALGERIA            | ERG CHECH, EGLAB MASSIF     | 24.0N         | 3.0W   | 22.1N        | 8.6W   | 0  | L0 | 35 | N | N | 19910410 | 095117 | 246 | 103 | 48        | 75 |
| 45 | 30 | MALI               | L. FAGUIBINE, IRGUJ AZOUAD  | 19.0N         | 2.0W   | 20.1N        | 2.9W   | 0  | L0 | 35 | N | N | 19910410 | 095251 | 247 | 105 | 54        | 75 |
| 45 | 31 | NIGER              | TALAK DESERT, TENERE DES.   | 20.0N         | 7.0E   | 18.3N        | 1.5E   | 5  | H0 | 35 | N | N | 19910410 | 095406 | 247 | 105 | 59        | 75 |
| 45 | 32 | NIGER              | AIR MTNS, MARZUQ SAND SEA   | 19.0N         | 10.0E  | 17.1N        | 4.3E   | 20 | H0 | 35 | N | N | 19910410 | 095455 | 247 | 106 | 62        | 75 |
| 45 | 33 | CHAD               | L. CHAD, CHARI R, CONGO BAS | 9.0N          | 18.0E  | 15.2N        | 8.6E   | 70 | H0 | 35 | O | N | 19910410 | 095610 | 247 | 105 | 67        | 75 |
| 45 | 34 | CHAD               | BODELE DES, L. CHAD, TIBEST | 17.0N         | 17.0E  | 14.3N        | 10.4E  | 30 | H0 | 35 | N | N | 19910410 | 095643 | 247 | 105 | 69        | 75 |
| 45 | 35 | CHAD               | L. CHAD, CHARI R, CONGO BAS | 9.0N          | 19.0E  | 13.9N        | 11.1E  | 30 | H0 | 35 | N | N | 19910410 | 095655 | 247 | 105 | 69        | 75 |
| 45 | 36 | CHAD               | BODELE DES, CHARI R, BASIN  | 14.0N         | 17.0E  | 13.8N        | 11.3E  | 40 | H0 | 35 | N | N | 19910410 | 095659 | 247 | 105 | 70        | 75 |
| 45 | 37 | CHAD               | BODELE DES, TIBESTI MTNS    | 18.0N         | 17.0E  | 13.6N        | 11.8E  | 30 | H0 | 35 | N | N | 19910410 | 095708 | 247 | 105 | 70        | 75 |
| 45 | 38 | CHAD               | LAKE CHAD                   | 13.0N         | 15.0E  | 13.4N        | 12.1E  | 30 | H0 | 35 | N | N | 19910410 | 095713 | 247 | 105 | 71        | 75 |
| 46 | 1  | TANZANIA           | ZANZIBAR I., PEMBA I., CST  | 7.0S          | 39.0E  | 2.5S         | 42.2E  | 60 | H0 | 35 | N | N | 19910411 | 092819 | 248 | 340 | 79        | 90 |
| 46 | 2  | MOZAMBIQUE CHANNEL | SULUY, CURRENT BOUND, SGLT  |               |        | 4.0S         | 44.8E  | 40 | L0 | 35 | N | N | 19910411 | 092909 | 249 | 331 | 76        | 90 |
| 46 | 3  | MOZAMBIQUE CHANNEL | SULUY, CURRENT BOUND, SGLT  |               |        | 4.1S         | 45.0E  | 30 | L0 | 35 | N | Y | 19910411 | 092912 | 249 | 331 | 76        | 90 |
| 46 | 4  | MOZAMBIQUE CHANNEL | SULUY, CURRENT BOUND, SGLT  |               |        | 4.3S         | 45.2E  | 30 | L0 | 35 | N | Y | 19910411 | 092917 | 249 | 330 | 76        | 90 |
| 46 | 5  | MOZAMBIQUE CHANNEL | SULUY, CURRENT BOUND, SGLT  |               |        | 4.4S         | 45.4E  | 40 | L0 | 35 | N | Y | 19910411 | 092921 | 249 | 329 | 75        | 90 |
| 46 | 6  | MOZAMBIQUE CHANNEL | SULUY, CURRENT BOUND, SGLT  |               |        | 4.6S         | 45.7E  | 30 | L0 | 35 | N | Y | 19910411 | 092927 | 249 | 329 | 75        | 90 |
| 46 | 7  | MOZAMBIQUE CHANNEL | SULUY, CURRENT BOUND, SGLT  |               |        | 4.7S         | 46.0E  | 40 | L0 | 35 | N | Y | 19910411 | 092932 | 249 | 328 | 75        | 90 |
| 46 | 8  | MOZAMBIQUE CHANNEL | SULUY, CURRENT BOUND, SGLT  |               |        | 4.9S         | 46.2E  | 30 | L0 | 35 | N | Y | 19910411 | 092936 | 249 | 327 | 75        | 90 |
| 46 | 9  | MOZAMBIQUE CHANNEL | SULUY, CURRENT BOUND, SGLT  |               |        | 5.0S         | 46.4E  | 30 | L0 | 35 | N | Y | 19910411 | 092940 | 249 | 327 | 74        | 90 |
| 56 | 1  | SUDAN              | KHARTOUM, NILE RIVER        | 16.0N         | 33.0E  | 16.2N        | 32.0E  | 5  | L0 | 35 | N | N | 19910411 | 074412 | 247 | 100 | 57        | 89 |
| 56 | 2  | SUDAN              | SUDAN AGRICULTURE REGION    | 14.0N         | 32.0E  | 16.1N        | 32.2E  | 0  | L0 | 35 | N | N | 19910411 | 074416 | 247 | 100 | 58        | 89 |
| 56 | 3  | SUDAN              | SUDAN AGRICULTURE REGION    | 15.0N         | 33.0E  | 16.1N        | 32.3E  | 0  | L0 | 35 | N | N | 19910411 | 074418 | 247 | 100 | 58        | 89 |
| 56 | 4  | SUDAN              | SUDAN AGRICULTURE REGION    | 14.0N         | 33.0E  | 15.9N        | 32.6E  | 5  | L0 | 35 | N | N | 19910411 | 074424 | 247 | 100 | 58        | 89 |
| 56 | 5  | SUDAN              | NILE RIVER VALLEY           | 19.0N         | 33.0E  | 15.7N        | 33.0E  | 5  | L0 | 35 | N | N | 19910411 | 074431 | 247 | 100 | 59        | 89 |
| 56 | 6  | SUDAN              | SUDAN AGRICULTURE REGION    | 14.0N         | 34.0E  | 14.6N        | 35.4E  | 0  | L0 | 35 | N | N | 19910411 | 074514 | 247 | 100 | 61        | 89 |
| 56 | 7  | ETHIOPIA           | BLUE NILE RIVER             | 10.0N         | 36.0E  | 14.4N        | 35.8E  | 30 | L0 | 35 | N | N | 19910411 | 074521 | 247 | 99  | 62        | 89 |
| 56 | 8  | ETHIOPIA           | MT. RASDAJAN                | 13.0N         | 38.0E  | 13.7N        | 37.2E  | 10 | L0 | 35 | N | N | 19910411 | 074545 | 247 | 99  | 63        | 89 |
| 56 | 9  | SAUDI ARABIA       | EMPTY QUARTER               | 17.0N         | 46.0E  | 12.5N        | 39.5E  | 15 | H0 | 35 | N | N | 19910411 | 074628 | 247 | 98  | 66        | 89 |
| 56 | 10 | RED SEA            | VIEW NORTH                  | 19.0N         | 39.0E  | 12.3N        | 40.0E  | 15 | H0 | 35 | N | N | 19910411 | 074637 | 248 | 98  | 66        | 89 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER |        | MADIR |        | CC | TL | FL  | E   | S   | DATE     | GMT    | AL       | AZ     | SUM | OR  |    |   |
|----|-----|-----------------|---------------------------|--------|--------|-------|--------|----|----|-----|-----|-----|----------|--------|----------|--------|-----|-----|----|---|
|    |     |                 |                           | LAT    | LON    | LAT   | LON    |    |    |     |     |     |          |        |          |        | EL  |     |    |   |
| 56 | 11  | SAUDI ARABIA    | DISSECTED PLATEAU         | 16.0N  | 47.0E  | 11.8N | 41.0E  | 5  | HO | 35  | N   | N   | 19910411 | 074655 | 248      | 97     | 68  | 89  |    |   |
| 56 | 12  | SAUDI ARABIA    | EMPTY QUARTER             | 17.0N  | 46.0E  | 11.5N | 41.5E  | 5  | LO | 35  | N   | N   | 19910411 | 074704 | 248      | 97     | 68  | 89  |    |   |
| 56 | 13  | SAUDI ARABIA    | HIJAZ MASSIF              | 15.0N  | 45.0E  | 11.4N | 41.7E  | 20 | LO | 35  | N   | N   | 19910411 | 074707 | 248      | 96     | 68  | 89  |    |   |
| 56 | 14  | SAUDI ARABIA    | HIJAZ MASSIF, ADEN        | 14.0N  | 44.0E  | 10.6N | 43.2E  | 20 | LO | 35  | N   | N   | 19910411 | 074736 | 248      | 95     | 70  | 89  |    |   |
| 56 | 15  | SOMALIA         | HORN OF AFRICA            | 10.0N  | 50.0E  | 8.7N  | 46.8E  | 15 | LO | 35  | N   | N   | 19910411 | 074842 | 248      | 90     | 74  | 89  |    |   |
| 56 | 24  | AUSTRALIA-WA    | SHARK BAY                 | 26.0S  | 114.0E | 24.4S | 114.0E | 25 | LO | 35  | N   | N   | 19910411 | 080857 | 247      | 294    | 27  | 89  |    |   |
| 56 | 25  | AUSTRALIA-WA    | SHARK BAY                 | 25.0S  | 114.0E | 24.5S | 114.4E | 25 | LO | 35  | N   | N   | 19910411 | 080903 | 247      | 293    | 26  | 89  |    |   |
| 56 | 26  | AUSTRALIA-WA    | KENNEDY RANGE, LYONS R.   | 24.0S  | 116.0E | 24.8S | 115.5E | 0  | LO | 35  | N   | N   | 19910411 | 080920 | 247      | 293    | 25  | 89  |    |   |
| 56 | 27  | AUSTRALIA-WA    | LOCKIER RANGE             | 25.0S  | 116.0E | 25.0S | 116.3E | 10 | LO | 35  | N   | N   | 19910411 | 080933 | 247      | 292    | 24  | 89  |    |   |
| 56 | 28  | AUSTRALIA-WA    | LOCKIER RANGE             | 25.0S  | 116.0E | 25.3S | 117.5E | 5  | LO | 35  | N   | N   | 19910411 | 080952 | 247      | 292    | 23  | 89  |    |   |
| 56 | 29  | AUSTRALIA-WA    | HAMERSLEY RANGES          | 25.0S  | 118.0E | 25.4S | 117.9E | 5  | LO | 35  | N   | N   | 19910411 | 080958 | 246      | 292    | 23  | 89  |    |   |
| 56 | 30  | AUSTRALIA-WA    | HAMERSLEY RANGES          | 26.0S  | 120.0E | 25.5S | 118.4E | 5  | LO | 35  | N   | N   | 19910411 | 081006 | 246      | 291    | 22  | 89  |    |   |
| 56 | 31  | AUSTRALIA-WA    | HAMERSLEY RANGES          | 25.0S  | 119.0E | 25.6S | 119.0E | 55 | LO | 35  | N   | N   | 19910411 | 081014 | 246      | 291    | 22  | 89  |    |   |
| 56 | 32  | AUSTRALIA-WA    | W. GIBSON DESERT          | 26.0S  | 120.0E | 25.7S | 119.5E | 40 | LO | 35  | N   | N   | 19910411 | 081023 | 246      | 291    | 21  | 89  |    |   |
| 56 | 33  | AUSTRALIA-WA    | GIBSON DES., L. WAY       | 27.0S  | 120.0E | 25.9S | 120.2E | 5  | LO | 35  | N   | N   | 19910411 | 081033 | 246      | 290    | 20  | 89  |    |   |
| 56 | 34  | AUSTRALIA-WA    | GIBSON DES., L. CARNEGIE  | 26.0S  | 123.0E | 26.2S | 122.0E | 0  | LO | 35  | N   | N   | 19910411 | 081100 | 246      | 289    | 19  | 89  |    |   |
| 56 | 35  | AUSTRALIA-WA    | GREAT VICTORIA DESERT     | 28.0S  | 124.0E | 26.8S | 124.8E | 25 | LO | 35  | N   | N   | 19910411 | 081143 | 246      | 288    | 16  | 89  |    |   |
| 56 | 36  | AUSTRALIA-WA    | GREAT VICTORIA DESERT     | 30.0S  | 125.0E | 27.3S | 128.3E | 15 | LO | 35  | N   | N   | 19910411 | 081235 | 246      | 286    | 13  | 89  |    |   |
| 56 | 37  | AUSTRALIA-WA    | MULLARBOR PLAIN           | 31.0S  | 129.0E | 27.5S | 129.3E | 45 | LO | 35  | N   | N   | 19910411 | 081251 | 246      | 286    | 12  | 89  |    |   |
| 71 | 0 B |                 | EXTERNAL TANK             |        |        |       |        |    |    | 250 | N   | N   |          |        |          |        |     |     |    |   |
| 71 | 0 C |                 | EXTERNAL TANK             |        |        |       |        |    |    | HO  | 250 | N   | Y        |        |          |        |     |     |    |   |
| 71 | 0 D |                 | EXTERNAL TANK             |        |        |       |        |    |    | HO  | 250 | N   | Y        |        |          |        |     |     |    |   |
| 71 | 0 E |                 | EXTERNAL TANK             |        |        |       |        |    |    | HO  | 250 | N   | Y        |        |          |        |     |     |    |   |
| 71 | 0 F |                 | EXTERNAL TANK             |        |        |       |        |    |    | 10  | HO  | 250 | N        | Y      |          |        |     |     |    |   |
| 71 | 0 G |                 | EXTERNAL TANK             |        |        |       |        |    |    | 20  | HO  | 250 | N        | Y      |          |        |     |     |    |   |
| 71 | 0 H |                 | EXTERNAL TANK             |        |        |       |        |    |    | 25  | HO  | 250 | N        | Y      |          |        |     |     |    |   |
| 71 | 0 J |                 | EXTERNAL TANK             |        |        |       |        |    |    | 25  | HO  | 250 | N        | N      |          |        |     |     |    |   |
| 71 | 0 K |                 | EXTERNAL TANK             |        |        |       |        |    |    | 25  | HO  | 250 | N        | N      |          |        |     |     |    |   |
| 71 | 0 L |                 | EXTERNAL TANK             |        |        |       |        |    |    | 30  | HO  | 250 | N        | N      |          |        |     |     |    |   |
| 71 | 0 M |                 | EXTERNAL TANK, SPACE DEBR |        |        |       |        |    |    | HO  | 250 | N   | N        |        |          |        |     |     |    |   |
| 71 | 0 N |                 | EXTERNAL TANK, SOACE DEBR |        |        |       |        |    |    | HO  | 250 | N   | N        |        |          |        |     |     |    |   |
| 71 | 0 P |                 | MEANDERING RIVER          |        |        |       |        |    |    | 70  | LO  | 250 | N        | Y      |          |        |     |     |    |   |
| 71 | 0 Q |                 | MEANDERING RIVER          |        |        |       |        |    |    | 65  | LO  | 250 | N        | Y      |          |        |     |     |    |   |
| 71 | 1   |                 | CARGO BAY-GRO             |        |        | 24.2N | 137.4W |    |    | 250 | N   | N   | 19910405 | 155204 | 246      | 88     | 11  | 2   |    |   |
| 71 | 2   |                 | CARGO BAY-GRO             |        |        | 24.9N | 134.7W |    |    | 250 | N   | N   | 19910405 | 155246 | 246      | 89     | 14  | 2   |    |   |
| 71 | 3   | MEXICO          | GUADALUPE ISLAND          | 29.0N  | 118.5W | 28.0N | 116.7W |    |    | 0   | LO  | 250 | N        | N      | 19910405 | 155717 | 246 | 100 | 30 | 2 |
| 71 | 4   | MEXICO          | GUADALUPE I.-DARK FRAME   | 29.0N  | 118.5W | 28.0N | 116.3W |    |    | 0   | LO  | 250 | N        | N      | 19910405 | 155723 | 246 | 100 | 31 | 2 |
| 71 | 5   | MEXICO          | LAGUNA SALADA-SALTON SEA  | 32.5N  | 115.5W | 28.2N | 114.5W |    |    | 0   | LO  | 250 | N        | N      | 19910405 | 155750 | 246 | 101 | 32 | 2 |
| 71 | 6   |                 | BLACK                     |        |        | 28.2N | 113.7W |    |    |     |     |     | 19910405 | 155802 | 246      | 102    | 33  | 2   |    |   |
| 71 | 7   | BAHAMAS         | GREAT BAHAMA BK., EXUMA I | 23.5N  | 76.0W  | 24.8N | 75.4W  |    |    | 20  | LO  | 250 | N        | Y      | 19910405 | 160729 | 245 | 141 | 66 | 2 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                     | CENTER<br>LAT LON | NADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|----|-----------------|-----------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 71 | 8  | BAHAMAS         | GREAT BAHAMA BK., EXUMA I   | 23.5N 75.5W       | 24.8N 75.3W      | 20 | LO | 250 | N | Y | 19910405 | 180731 | 245 | 141 | 66        | 2  |
| 71 | 9  | BAHAMAS         | GREAT BAHAMA BK., EXUMA I   | 23.5N 75.5W       | 24.8N 75.2W      | 20 | LO | 250 | N | Y | 19910405 | 180733 | 245 | 142 | 67        | 2  |
| 71 | 10 | BAHAMAS         | EXUMA I.-VERY DARK FRAME    | 23.5N 75.5W       | 24.7N 75.0W      | 20 | LO | 250 | N | Y | 19910405 | 180735 | 245 | 142 | 67        | 2  |
| 71 | 11 | BAHAMAS         | EXUMA I.-VERY DARK FRAME    | 23.5N 75.5W       | 24.7N 74.9W      | 20 | LO | 250 | N | Y | 19910405 | 180737 | 245 | 142 | 67        | 2  |
| 71 | 12 | USA-HI          | KAUAI-CLOUD COVERED         | 22.5N 159.5W      | 24.7N 159.1W     | 40 | LO | 250 | F | N | 19910405 | 172604 | 246 | 89  | 13        | 3  |
| 71 | 13 | USA-HI          | KAUAI, KAUAI                | 22.0N 160.0W      | 24.8N 158.6W     | 40 | LO | 250 | N | Y | 19910405 | 172611 | 246 | 89  | 13        | 3  |
| 71 | 14 | USA-HI          | MAUI, LANAI, KAHOOLOAWE     | 21.0N 156.5W      | 25.0N 158.0W     | 40 | LO | 250 | N | Y | 19910405 | 172621 | 246 | 89  | 14        | 3  |
| 71 | 15 | USA-HI          | MAUI, LANAI, KAHOOLOAWE     | 21.0N 156.5W      | 25.0N 156.5W     | 35 | LO | 250 | N | Y | 19910405 | 172645 | 246 | 90  | 15        | 3  |
| 71 | 16 | USA-HI          | MAUI, LANAI, KAHOOLOAWE     | 21.0N 156.5W      | 25.5N 155.7W     | 35 | LO | 250 | F | N | 19910405 | 172656 | 246 | 91  | 16        | 3  |
| 71 | 17 | USA-HI          | HAWAII, MAUI, KAHOOLOAWE    | 20.0N 156.0W      | 25.7N 155.0W     | 35 | LO | 250 | N | Y | 19910405 | 172707 | 246 | 91  | 17        | 3  |
| 71 | 18 | MEXICO          | SHUTTLE TAIL-GRO            | 24.5N 112.0W      | 27.5N 113.7W     | 10 | LO | 250 | N | Y | 19910405 | 173535 | 246 | 114 | 48        | 3  |
| 71 | 19 | MEXICO          | BAJA-MAGDALENA BAY          | 23.5N 110.0W      | 27.4N 112.8W     | 10 | LO | 250 | N | Y | 19910405 | 173717 | 246 | 121 | 54        | 3  |
| 71 | 20 | MEXICO          | BAJA-SOUTHERN TIP           | 24.5N 110.5W      | 27.4N 112.3W     | 10 | LO | 250 | N | Y | 19910405 | 173730 | 246 | 122 | 55        | 3  |
| 71 | 21 | MEXICO          | BAJA-LA PAZ BAY             | 26.0N 111.0W      | 27.3N 112.1W     | 0  | LO | 250 | N | Y | 19910405 | 173741 | 246 | 123 | 55        | 3  |
| 71 | 22 | MEXICO          | BAJA-CARMEN I.-SUNGLINT     | 27.0N 112.0W      | 27.3N 111.7W     | 0  | NV | 250 | N | Y | 19910405 | 173746 | 246 | 123 | 56        | 3  |
| 71 | 23 | MEXICO          | BAJA-CHIVATO POINT          | 27.0N 113.0W      | 27.2N 111.5W     | 5  | LO | 250 | N | Y | 19910405 | 173749 | 246 | 123 | 56        | 3  |
| 71 | 24 | MEXICO          | BAJA-LAGUNA SAN IGNACIO     | 28.0N 114.5W      | 27.2N 111.2W     | 0  | LO | 250 | F | N | 19910405 | 173754 | 246 | 124 | 56        | 3  |
| 71 | 25 | MEXICO          | BAJA-SEBASTIAN VIZCAINO     | 26.0N 108.0W      | 27.1N 110.3W     | 5  | LO | 250 | N | Y | 19910405 | 173807 | 246 | 124 | 57        | 3  |
| 71 | 26 | MEXICO          | RIO SINALOA-CANALS          | 25.0N 106.5W      | 26.9N 109.2W     | 5  | LO | 250 | N | Y | 19910405 | 173824 | 246 | 126 | 58        | 3  |
| 71 | 27 | MEXICO          | MNT FIRES-SOMALOMA RIVER    | 25.0N 106.5W      | 26.7N 108.2W     | 5  | LO | 250 | U | Y | 19910405 | 173839 | 246 | 127 | 59        | 3  |
| 71 | 28 | MEXICO          | MNT FIRES-LORENZO RIVER     | 25.0N 108.0W      | 26.6N 107.9W     | 20 | LO | 250 | N | Y | 19910405 | 173844 | 246 | 127 | 59        | 3  |
| 71 | 29 | MEXICO          | COAST-TACHICHTLITE I.       | 25.5N 108.0W      | 26.5N 106.8W     | 5  | LO | 250 | N | Y | 19910405 | 173900 | 246 | 129 | 60        | 3  |
| 71 | 30 | MEXICO          | GUAMUCHII, RESERVOIR        | 25.5N 109.0W      | 26.4N 106.5W     | 5  | LO | 250 | N | Y | 19910405 | 173904 | 246 | 129 | 60        | 3  |
| 71 | 31 | MEXICO          | OHVIRA BAY-FUZZY FOCUS      | 24.5N 107.0W      | 26.2N 105.5W     | 5  | LO | 250 | N | Y | 19910405 | 173920 | 246 | 130 | 61        | 3  |
| 71 | 32 | MEXICO          | LORENZO R.-RESERVOIR        | 25.0N 107.0W      | 26.2N 105.3W     | 5  | LO | 250 | N | Y | 19910405 | 173923 | 246 | 131 | 61        | 3  |
| 71 | 33 | MEXICO          | BADIRAGUATO R.-RESERVOIR    | 25.0N 100.5W      | 25.9N 103.8W     | 60 | LO | 250 | N | Y | 19910405 | 173946 | 246 | 133 | 62        | 3  |
| 71 | 34 | MEXICO          | SIERRA MADRE ORIENTAL       | 19.5N 95.5W       | 23.4N 94.2W      | 50 | LO | 250 | N | Y | 19910405 | 174216 | 245 | 151 | 70        | 3  |
| 71 | 35 | MEXICO          | BAY OF CAMPECHE             | 18.5N 94.5W       | 23.3N 93.9W      | 20 | LO | 250 | N | Y | 19910405 | 174220 | 245 | 151 | 70        | 3  |
| 71 | 36 | MEXICO          | BAY OF CAMPECHE             | 19.0N 92.5W       | 23.3N 93.7W      | 15 | LO | 250 | N | Y | 19910405 | 174224 | 245 | 152 | 70        | 3  |
| 71 | 37 | MEXICO          | B. OF CAMPECHE, FRONTERA    | 19.0N 91.5W       | 23.2N 93.5W      | 20 | LO | 250 | N | Y | 19910405 | 174226 | 245 | 152 | 71        | 3  |
| 71 | 38 | MEXICO          | B. CAMPECHE, L. DE TERMINOS | 20.0N 91.0W       | 23.2N 93.4W      | 40 | LO | 250 | N | Y | 19910405 | 174229 | 245 | 153 | 71        | 3  |
| 71 | 39 | MEXICO          | YUCATAN P. B. OF CAMPECHE   | 21.0N 90.5W       | 23.1N 93.1W      | 60 | LO | 250 | N | Y | 19910405 | 174233 | 245 | 154 | 71        | 3  |
| 71 | 40 | MEXICO          | YUCATAN PENINSULA           | 21.5N 90.0W       | 23.0N 92.9W      | 60 | LO | 250 | N | Y | 19910405 | 174237 | 245 | 154 | 71        | 3  |
| 71 | 41 | MEXICO          | YUCATAN PENINSULA           | 19.0N 87.5W       | 22.7N 91.8W      | 60 | LO | 250 | F | N | 19910405 | 174254 | 245 | 157 | 72        | 3  |
| 71 | 42 | MEXICO          | CHINCHORRO BANK             | 21.5N 87.0W       | 22.4N 90.9W      | 25 | LO | 250 | N | Y | 19910405 | 174308 | 245 | 160 | 72        | 3  |
| 71 | 43 | MEXICO          | YUCATAN PEN.-NW TIP         | 21.5N 87.0W       | 22.1N 89.9W      | 25 | LO | 250 | N | Y | 19910405 | 174325 | 245 | 163 | 73        | 3  |
| 71 | 44 | MEXICO          | YUCATAN PEN.-NW TIP         | 20.5N 87.0W       | 21.8N 89.0W      | 60 | LO | 250 | N | Y | 19910405 | 174339 | 245 | 166 | 73        | 3  |
| 71 | 45 | MEXICO          | YUCATAN PEN.-COZUMEL        | 21.0N 87.5W       | 21.7N 88.7W      | 60 | NV | 250 | N | Y | 19910405 | 174344 | 245 | 167 | 74        | 3  |
| 71 | 46 | MEXICO          | YUCATAN PEN.-NW TIP         | 21.5N 88.0W       | 21.6N 88.5W      | 45 | NV | 250 | N | Y | 19910405 | 174347 | 245 | 168 | 74        | 3  |
| 71 | 47 | MEXICO          | YUCATAN PEN.-NORTH TIP      | 21.5N 88.0W       | 21.6N 88.5W      | 45 | NV | 250 | N | Y | 19910405 | 174347 | 245 | 168 | 74        | 3  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | LONG   | NADIR<br>LAT | LONG   | CC | IL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|----------------------------|---------------|--------|--------------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 71 | 48 | MEXICO          | YUCATAN PEN.-NORTH TIP     | 21.5N         | 88.5W  | 21.5N        | 88.2W  | 50 | NV | 250 | N | Y | 19910405 | 174352 | 245 | 189 | 74        | 3  |
| 71 | 49 | MEXICO          | CAMPECHE-YUCATAN PEN.      | 20.0N         | 90.5W  | 21.3N        | 87.5W  | 45 | LO | 250 | N | Y | 19910405 | 174404 | 245 | 171 | 74        | 3  |
| 71 | 50 | MEXICO          | YUCATAN PEN.-WESTERN PART  | 20.5N         | 90.5W  | 21.2N        | 87.4W  | 60 | LO | 250 | N | Y | 19910405 | 174406 | 245 | 172 | 74        | 3  |
| 71 | 51 | MEXICO          | MERIDA-YUCATAN PENINSULA   | 21.0N         | 89.5W  | 21.2N        | 87.3W  | 65 | LO | 250 | N | Y | 19910405 | 174408 | 245 | 172 | 74        | 3  |
| 71 | 52 | MEXICO          | YUCATAN PEN.-NE TIP        | 21.5N         | 88.0W  | 21.0N        | 86.9W  | 45 | LO | 250 | N | Y | 19910405 | 174414 | 245 | 174 | 75        | 3  |
| 71 | 53 | MEXICO          | COZUMEL-FUZZY FOCUS        | 20.5N         | 87.0W  | 20.9N        | 86.6W  | 20 | NV | 250 | F | N | 19910405 | 174419 | 245 | 175 | 75        | 3  |
| 71 | 54 | BELIZE          | AMBERGRIS CAY              | 18.0N         | 88.0W  | 20.8N        | 86.2W  | 45 | LO | 250 | N | Y | 19910405 | 174425 | 245 | 177 | 75        | 3  |
| 71 | 55 | BELIZE          | CHETUMAL BAY               | 18.5N         | 88.0W  | 20.6N        | 85.8W  | 45 | LO | 250 | N | Y | 19910405 | 174433 | 245 | 179 | 75        | 3  |
| 71 | 56 | BELIZE          | TURNER ISLANDS             | 17.5N         | 87.5W  | 20.5N        | 85.5W  | 45 | LO | 250 | N | Y | 19910405 | 174437 | 245 | 180 | 75        | 3  |
| 71 | 57 | BELIZE          | COAST, REEFS, SHOALS       | 17.0N         | 88.0W  | 20.2N        | 84.7W  | 45 | LO | 250 | N | Y | 19910405 | 174451 | 245 | 183 | 75        | 3  |
| 71 | 58 | BELIZE          | AMBERGRIS, CORKER CAYS     | 18.0N         | 88.0W  | 19.9N        | 83.8W  | 50 | LO | 250 | N | Y | 19910405 | 174505 | 245 | 187 | 76        | 3  |
| 71 | 59 | BELIZE          | AMBERGRIS CAY              | 18.0N         | 88.0W  | 19.7N        | 83.2W  | 55 | LO | 250 | N | Y | 19910405 | 174515 | 244 | 190 | 76        | 3  |
| 71 | 60 | MEXICO          | ESPIRITO SANTO BAY         | 19.0N         | 88.0W  | 19.6N        | 83.1W  | 60 | LO | 250 | N | Y | 19910405 | 174517 | 244 | 190 | 76        | 3  |
| 71 | 61 | MEXICO          | YUCATAN PEN.-ASCENSION B   | 20.0N         | 87.5W  | 19.6N        | 83.0W  | 55 | LO | 250 | N | Y | 19910405 | 174519 | 244 | 191 | 76        | 3  |
| 71 | 62 | CAYMAN ISLANDS  | GRAND CAYMAN               | 19.5N         | 81.5W  | 19.3N        | 82.2W  | 15 | NV | 250 | N | Y | 19910405 | 174533 | 244 | 195 | 76        | 3  |
| 71 | 63 | CAYMAN ISLANDS  | GRAND CAYMAN               | 19.5N         | 81.5W  | 19.1N        | 81.8W  | 15 | NV | 250 | N | Y | 19910405 | 174540 | 244 | 197 | 76        | 3  |
| 71 | 64 | CAYMAN ISLANDS  | CAYMAN BRAC                | 19.5N         | 80.0W  | 18.8N        | 81.1W  | 20 | NV | 250 | N | Y | 19910405 | 174552 | 244 | 200 | 76        | 3  |
| 71 | 65 | JAMAICA         | EASTERN END                | 18.0N         | 76.0W  | 17.0N        | 76.8W  | 15 | NV | 250 | N | Y | 19910405 | 174706 | 244 | 221 | 75        | 3  |
| 71 | 66 | JAMAICA         | KINGSTON                   | 18.0N         | 76.5W  | 16.9N        | 76.5W  | 20 | LO | 250 | N | Y | 19910405 | 174710 | 244 | 222 | 75        | 3  |
| 71 | 67 | JAMAICA         | KINGSTON                   | 18.0N         | 77.0W  | 16.8N        | 76.3W  | 25 | LO | 250 | N | Y | 19910405 | 174714 | 244 | 223 | 75        | 3  |
| 71 | 68 | JAMAICA         | WESTERN END                | 18.0N         | 78.0W  | 16.7N        | 76.1W  | 25 | LO | 250 | N | Y | 19910405 | 174718 | 244 | 224 | 75        | 3  |
| 71 | 69 | CARIBBEAN SEA   | CIRRUS & LOW CLOUDS        |               |        | 15.8N        | 74.1W  | 25 | LO | 250 | N | N | 19910405 | 174753 | 244 | 232 | 74        | 3  |
| 71 | 70 | VENEZUELA       | GULF OF VENEZUELA          | 11.0N         | 71.5W  | 14.7N        | 71.7W  | 65 | LO | 250 | N | Y | 19910405 | 174835 | 244 | 241 | 73        | 3  |
| 71 | 71 | VENEZUELA       | MARACAIBO                  | 11.0N         | 71.5W  | 14.5N        | 71.3W  | 65 | LO | 250 | N | Y | 19910405 | 174842 | 244 | 242 | 72        | 3  |
| 71 | 72 | COLOMBIA        | PEN. DELA GUAJIRA          | 12.5N         | 71.5W  | 14.2N        | 70.8W  | 80 | LO | 250 | N | N | 19910405 | 174852 | 244 | 244 | 72        | 3  |
| 71 | 73 | BRAZIL          | RIO UACA, CABO ORANGE      | 4.5N          | 51.5W  | 3.6N         | 51.2W  | 20 | LO | 250 | N | N | 19910405 | 175455 | 243 | 275 | 53        | 3  |
| 71 | 74 | BRAZIL          | AMAZON R. DELTA/EFFLUENT   | 1.0N          | 50.0W  | 2.7N         | 49.7W  | 20 | LO | 250 | N | N | 19910405 | 175525 | 243 | 276 | 51        | 3  |
| 71 | 75 | ATLANTIC OCEAN  | AMAZON R.-OCEAN INTERFAC   |               |        | 2.2N         | 48.8W  | 20 | LO | 250 | N | N | 19910405 | 175541 | 243 | 276 | 50        | 3  |
| 71 | 76 | USA-HI          | FRENCH FRIGATE SHOALS      | 24.0N         | 166.0W | 28.0N        | 164.4W | 45 | LO | 250 | N | N | 19910405 | 190411 | 246 | 99  | 30        | 4  |
| 71 | 77 | MEXICO          | BAJA-SOUTHERN TIP          | 23.0N         | 109.5W | 23.5N        | 118.3W | 5  | LO | 250 | N | Y | 19910405 | 191538 | 245 | 149 | 70        | 4  |
| 71 | 78 | MEXICO          | BAJA-LA PAZ BAY            | 24.0N         | 110.5W | 23.4N        | 118.0W | 5  | LO | 250 | N | Y | 19910405 | 191543 | 245 | 150 | 70        | 4  |
| 71 | 79 | MEXICO          | BAJA-MAGDALENA BAY         | 24.5N         | 111.5W | 23.4N        | 117.8W | 5  | LO | 250 | N | Y | 19910405 | 191546 | 245 | 150 | 70        | 4  |
| 71 | 80 | PACIFIC OCEAN   | WAVES                      |               |        | 23.2N        | 117.2W | 0  | LO | 250 | N | N | 19910405 | 191556 | 245 | 152 | 70        | 4  |
| 71 | 81 | MEXICO          | BAJA-SAN CRISTOBAL BAY     | 27.0N         | 115.0W | 22.8N        | 115.9W | 0  | LO | 250 | N | N | 19910405 | 191617 | 245 | 155 | 71        | 4  |
| 71 | 82 | MEXICO          | BAJA-LAGUNA SAN IGNACIO    | 26.5N         | 113.5W | 22.7N        | 115.6W | 5  | LO | 250 | N | N | 19910405 | 191622 | 245 | 156 | 72        | 4  |
| 71 | 83 | MEXICO          | BAJA-MAGDALENA BAY         | 24.5N         | 112.0W | 22.5N        | 115.1W | 0  | LO | 250 | N | N | 19910405 | 191630 | 245 | 157 | 72        | 4  |
| 71 | 84 | PACIFIC OCEAN   | S. GLINT-OIL SL., OC FRONT |               |        | 21.9N        | 113.3W | 0  | LO | 250 | N | N | 19910405 | 191659 | 245 | 163 | 73        | 4  |
| 71 | 85 | PACIFIC OCEAN   | SUNGLINT-OCEAN EDDIES      |               |        | 20.3N        | 108.8W | 10 | LO | 250 | N | N | 19910405 | 191813 | 245 | 180 | 75        | 4  |
| 71 | 86 | MEXICO          | BANDERAS BAY               | 20.5N         | 105.5W | 18.1N        | 103.3W | 55 | LO | 250 | N | N | 19910405 | 191947 | 244 | 207 | 76        | 4  |
| 72 | 1  | PACIFIC OCEAN   | CLOUDS-CLOUD LINE          |               |        | 28.3N        | 122.1W | 60 | LO | 100 | N | N | 19910405 | 173513 | 246 | 113 | 46        | 3  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME    | FEATURE                  | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | SUN | EL | OR |
|----|----|--------------------|--------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|----|----|
|    |    |                    |                          | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     | AZ  |    |    |
| 72 | 2  | MEXICO             | SIERRA MADRE OCC.-FIRES  | 22.0N  | 105.0W | 26.5N | 107.3W | 15 | LO | 100 | N | N | 19910405 | 173853 | 246 | 128 | 59 | 3  |
| 72 | 3  | MEXICO             | SIERRA MADRE ORIENTAL    | 25.5N  | 100.5W | 25.3N | 101.4W | 40 | LO | 100 | N | Y | 19910405 | 174023 | 245 | 136 | 64 | 3  |
| 72 | 4  | MEXICO             | SIERRA MADRE ORIENTAL    | 24.5N  | 101.5W | 25.2N | 100.7W | 10 | NV | 100 | N | Y | 19910405 | 174034 | 245 | 137 | 65 | 3  |
| 72 | 5  | MEXICO             | COAST-GULF OF MEXICO     | 23.0N  | 98.0W  | 25.0N | 99.9W  | 65 | LO | 100 | N | N | 19910405 | 174046 | 245 | 138 | 65 | 3  |
| 72 | 6  | MEXICO             | YUCATAN PEN-COZUMEL      | 21.0N  | 87.0W  | 21.6N | 88.5W  | 45 | LO | 100 | N | Y | 19910405 | 174348 | 245 | 167 | 74 | 3  |
| 72 | 7  | MEXICO             | YUCATAN PEN-COZUMEL      | 21.5N  | 87.0W  | 21.4N | 87.9W  | 45 | NV | 100 | N | Y | 19910405 | 174358 | 245 | 169 | 74 | 3  |
| 72 | 8  | MEXICO             | YUCATAN P-COZUMEL-BRIGHT | 21.5N  | 87.0W  | 21.2N | 87.3W  | 45 | NV | 100 | N | Y | 19910405 | 174407 | 245 | 171 | 74 | 3  |
| 72 | 9  | MEXICO             | TURNER ISLANDS           | 17.0N  | 87.5W  | 20.1N | 84.4W  | 50 | LO | 100 | N | N | 19910405 | 174455 | 245 | 183 | 75 | 3  |
| 72 | 10 | CUBA               | GULF OF BATABANO         | 22.0N  | 82.5W  | 19.8N | 83.5W  | 45 | LO | 100 | N | Y | 19910405 | 174511 | 244 | 187 | 76 | 3  |
| 72 | 11 | CUBA               | CORTES BAY               | 22.0N  | 84.0W  | 19.6N | 83.0W  | 60 | LO | 100 | N | Y | 19910405 | 174520 | 244 | 190 | 76 | 3  |
| 72 | 12 | CUBA               | PEN. DE ZAPATA           | 22.5N  | 81.5W  | 19.4N | 82.7W  | 60 | LO | 100 | N | Y | 19910405 | 174525 | 244 | 191 | 76 | 3  |
| 72 | 13 | CAYMAN ISLANDS     | GRAND CAYMAN             | 19.5N  | 81.0W  | 18.9N | 81.4W  | 15 | NV | 100 | N | N | 19910405 | 174547 | 244 | 197 | 76 | 3  |
| 72 | 14 | CUBA               | MIDDLE-SOUTHERN PART     | 21.5N  | 79.5W  | 18.8N | 80.9W  | 45 | LO | 100 | N | Y | 19910405 | 174554 | 244 | 199 | 76 | 3  |
| 72 | 15 | CUBA               | MIDDLE-NORTHERN PART     | 22.5N  | 79.0W  | 18.4N | 80.1W  | 50 | LO | 100 | N | Y | 19910405 | 174608 | 244 | 203 | 76 | 3  |
| 72 | 16 | JAMAICA            | WHOLE ISLAND-CLOUDS      | 18.0N  | 77.5W  | 17.8N | 78.6W  | 30 | NV | 100 | N | N | 19910405 | 174634 | 244 | 211 | 76 | 3  |
| 72 | 17 | JAMAICA            | PEDRO CAYS-VERY BRIGHT   | 17.0N  | 77.5W  | 17.4N | 77.8W  | 20 | NV | 100 | N | Y | 19910405 | 174648 | 244 | 215 | 76 | 3  |
| 72 | 18 | HAITI              | DU SUC CHANNEL           | 18.5N  | 73.5W  | 16.4N | 76.5W  | 35 | LO | 100 | N | N | 19910405 | 174728 | 244 | 225 | 75 | 3  |
| 72 | 19 | CUBA               | EASTERN END              | 20.5N  | 76.5W  | 16.1N | 74.8W  | 45 | LO | 100 | N | N | 19910405 | 174741 | 244 | 228 | 75 | 3  |
| 72 | 20 | DOMINICAN REPUBLIC | LAKE ENRIQUILLO          | 18.5N  | 71.5W  | 15.3N | 73.1W  | 40 | LO | 100 | N | Y | 19910405 | 174810 | 244 | 235 | 74 | 3  |
| 72 | 21 | DOMINICAN REPUBLIC | COAST-CARIBBEAN SEA      | 18.0N  | 70.5W  | 15.1N | 72.7W  | 40 | LO | 100 | N | Y | 19910405 | 174817 | 244 | 236 | 73 | 3  |
| 72 | 22 | VENEZUELA          | RIO ORINOCO              | 8.5N   | 62.5W  | 8.9N  | 60.6W  | 85 | LO | 100 | N | Y | 19910405 | 175158 | 243 | 265 | 63 | 3  |
| 72 | 23 | VENEZUELA          | RIO GRANDE DELTA         | 9.0N   | 60.5W  | 8.4N  | 59.7W  | 70 | NV | 100 | N | Y | 19910405 | 175215 | 243 | 266 | 62 | 3  |
| 72 | 24 | PACIFIC OCEAN      | OPEN CONVECTION CELLS    |        |        | 28.4N | 157.1W | 90 | LO | 100 | N | N | 19910405 | 190557 | 246 | 104 | 36 | 4  |
| 72 | 25 | PACIFIC OCEAN      | TRADE WINDS CLOUDS       |        |        | 28.5N | 156.0W | 85 | HO | 100 | N | N | 19910405 | 190613 | 246 | 105 | 37 | 4  |
| 72 | 26 | PACIFIC OCEAN      | TRADE WINDS CLOUDS       |        |        | 28.5N | 154.3W | 40 | LO | 100 | N | Y | 19910405 | 190639 | 246 | 106 | 38 | 4  |
| 72 | 27 | PACIFIC OCEAN      | TRADE WINDS CLOUDS       |        |        | 28.5N | 151.8W | 40 | LO | 100 | N | Y | 19910405 | 190714 | 246 | 108 | 41 | 4  |
| 72 | 28 | PACIFIC OCEAN      | TRADE WINDS CLOUDS       |        |        | 28.4N | 147.3W | 70 | LO | 100 | N | N | 19910405 | 190820 | 246 | 111 | 45 | 4  |
| 72 | 29 | PACIFIC OCEAN      | CLOSED CONVECTION CLOUDS |        |        | 26.7N | 131.8W | 90 | LO | 100 | N | N | 19910405 | 191210 | 246 | 126 | 58 | 4  |
| 72 | 30 | USA-CA             | SALTON SEA-CA COAST      | 33.5N  | 116.5W | 24.9N | 123.5W | 20 | HO | 100 | N | Y | 19910405 | 191417 | 245 | 138 | 65 | 4  |
| 72 | 31 | USA-CA             | CA COAST-SAN CLEMENTE I. | 34.0N  | 117.0W | 24.7N | 122.8W | 20 | HO | 100 | N | Y | 19910405 | 191427 | 245 | 139 | 66 | 4  |
| 72 | 32 | USA-CA             | SALTON SEA-CA COAST      | 33.5N  | 116.0W | 24.2N | 121.0W | 10 | HO | 100 | N | N | 19910405 | 191456 | 245 | 142 | 67 | 4  |
| 72 | 33 | MEXICO             | BAJA-SANTA ROSALIA BAY   | 28.5N  | 114.0W | 24.1N | 120.3W | 10 | HO | 100 | N | N | 19910405 | 191507 | 245 | 144 | 68 | 4  |
| 72 | 34 | MEXICO             | SIERRA MADRE OCCID.-BAJA |        |        | 23.3N | 117.6W | 20 | HO | 100 | N | N | 19910405 | 191549 | 245 | 150 | 70 | 4  |
| 72 | 35 | MEXICO             | COAST-SIERRA MADRE OCCID | 21.5N  | 104.5W | 20.6N | 109.7W | 45 | HO | 100 | N | Y | 19910405 | 191759 | 245 | 175 | 75 | 4  |
| 72 | 36 | MEXICO             | MEXICAN PLATEAU          |        |        | 20.2N | 108.5W | 25 | HO | 100 | N | N | 19910405 | 191819 | 245 | 180 | 75 | 4  |
| 72 | 37 | MEXICO             | COAST-SIERRAMADRE DELSUR | 17.0N  | 99.0W  | 18.9N | 105.3W | 20 | LO | 100 | N | N | 19910405 | 191913 | 244 | 195 | 76 | 4  |
| 72 | 38 | HONDURAS           | COAST-FONSECA GULF       | 13.0N  | 87.5W  | 18.2N | 103.4W | 45 | LO | 100 | N | Y | 19910405 | 191945 | 244 | 204 | 76 | 4  |
| 72 | 39 | NICARAGUA          | LAGO DE NICARAGUA        | 11.0N  | 85.5W  | 12.9N | 92.0W  | 35 | LO | 100 | N | Y | 19910405 | 192306 | 244 | 250 | 71 | 4  |
| 72 | 40 | PANAMA             | LAGUNA DE CHIRIQUI       | 8.5N   | 82.5W  | 11.4N | 89.2W  | 50 | LO | 100 | N | Y | 19910405 | 192358 | 243 | 257 | 68 | 4  |
| 72 | 41 | PANAMA             | LAGUNA DE CHIRIQUI       | 9.0N   | 82.0W  | 10.0N | 86.4W  | 30 | LO | 100 | N | Y | 19910405 | 192449 | 243 | 262 | 66 | 4  |

TABLE 4.3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|----|-----------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 72 | 42 | PANAMA          | CERRO SANTIAGO            | 8.5N 82.0W           | 8.6N 80.6W          | 40 | L0 | 100 | M | Y | 19910405 | 192637 | 243 | 270 | 60        | 4  |
| 72 | 43 | PANAMA          | BAY OF PANAMA             | 9.0N 79.5W           | 6.3N 79.7W          | 70 | L0 | 100 | M | Y | 19910405 | 192655 | 243 | 271 | 59        | 4  |
| 72 | 44 | PANAMA          | BAY OF PANAMA             | 8.5N 79.5W           | 5.9N 79.1W          | 70 | L0 | 100 | M | Y | 19910405 | 192706 | 243 | 271 | 58        | 4  |
| 72 | 45 | PANAMA          | BAY OF PANAMA-BRIGHT      |                      | 5.0N 79.6W          | 80 | L0 | 100 | O | Y | 19910405 | 192716 | 243 | 272 | 57        | 4  |
| 72 | 46 | PANAMA          | BAY OF PANAMA-BRIGHT      |                      | 5.2N 77.9W          | 80 | L0 | 100 | O | Y | 19910405 | 192729 | 243 | 272 | 57        | 4  |
| 72 | 47 | PANAMA          | BAY OF PANAMA-BRIGHT      |                      | 4.9N 77.3W          | 80 | L0 | 100 | O | Y | 19910405 | 192740 | 243 | 273 | 56        | 4  |
| 72 | 48 | PANAMA          | BAY OF PANAMA-BRIGHT      |                      | 4.6N 76.8W          | 90 | L0 | 100 | O | Y | 19910405 | 192750 | 243 | 273 | 55        | 4  |
| 72 | 49 | PANAMA          | BAY OF PANAMA-BRIGHT      |                      | 4.2N 73.1W          | 90 | L0 | 100 | O | Y | 19910405 | 192802 | 243 | 274 | 55        | 4  |
| 72 | 50 | PANAMA          | CIRRUUS, CUMULUS CLOUDS   |                      | 1.7N 71.8W          | 90 | L0 | 100 | M | N | 19910405 | 192924 | 243 | 277 | 50        | 4  |
| 72 | 51 | SOUTH AMERICA   | STORM CELL, RIVER         |                      | 0.2N 89.3W          | 80 | L0 | 100 | M | N | 19910405 | 193013 | 243 | 278 | 47        | 4  |
| 72 | 52 | BRAZIL          | ARAGUAIA R. DEFORESTATION | 10.0S 50.5W          | 8.3S 54.3W          | 25 | L0 | 100 | M | Y | 19910405 | 193457 | 242 | 281 | 29        | 4  |
| 72 | 53 | BRAZIL          | ARAGUAIA R.-AGRICULTURE   | 9.5S 50.0W           | 8.9S 53.3W          | 20 | L0 | 100 | M | Y | 19910405 | 193516 | 242 | 281 | 28        | 4  |
| 72 | 54 | BRAZIL          | RIO ARAGUAIA              | 9.0S 49.5W           | 9.8S 51.6W          | 20 | L0 | 100 | M | Y | 19910405 | 193548 | 242 | 281 | 26        | 4  |
| 72 | 55 | BRAZIL          | RIO TOCANTINS             | 12.5S 47.5W          | 10.5S 50.4W         | 15 | L0 | 100 | M | Y | 19910405 | 193611 | 242 | 281 | 25        | 4  |
| 72 | 56 | BRAZIL          | RIO PARANA                | 13.5S 47.0W          | 10.8S 49.8W         | 15 | L0 | 100 | M | Y | 19910405 | 193622 | 242 | 281 | 24        | 4  |
| 72 | 57 | BRAZIL          | RIO TOCANTINS             | 9.0S 48.0W           | 12.5S 46.5W         | 35 | L0 | 100 | M | Y | 19910405 | 193722 | 243 | 281 | 20        | 4  |
| 72 | 58 | BRAZIL          | RIO TOCANTINS             | 8.5S 48.0W           | 12.7S 46.0W         | 45 | L0 | 100 | M | Y | 19910405 | 193730 | 243 | 281 | 20        | 4  |
| 72 | 59 | BRAZIL          | NE OF TOCANTINS R. & 8.0S |                      | 13.3S 44.8W         | 40 | L0 | 100 | M | N | 19910405 | 193752 | 243 | 281 | 19        | 4  |
| 72 | 60 | BRAZIL          | RIO SAO FRANCISCO, RES.   | 10.5S 42.5W          | 13.9S 43.8W         | 20 | L0 | 100 | M | Y | 19910405 | 193811 | 243 | 281 | 17        | 4  |
| 72 | 61 | BRAZIL          | RIO SAO FRANCISCO, RES.   | 10.0S 42.0W          | 14.2S 43.1W         | 20 | L0 | 100 | M | Y | 19910405 | 193823 | 243 | 281 | 17        | 4  |
| 72 | 62 | BRAZIL          | RIO SAO FRANCISCO, RES.   | 11.0S 42.5W          | 14.5S 42.5W         | 20 | L0 | 100 | M | Y | 19910405 | 193834 | 243 | 280 | 16        | 4  |
| 72 | 63 | BRAZIL          | RIO SAO FRANCISCO, RES.   | 10.0S 41.5W          | 14.7S 42.0W         | 20 | L0 | 100 | M | Y | 19910405 | 193843 | 243 | 280 | 15        | 4  |
| 72 | 64 | BRAZIL          | BAIA DE TODOS OS SANTOS   | 13.0S 38.5W          | 15.8S 39.3W         | 20 | L0 | 100 | M | Y | 19910405 | 193930 | 243 | 280 | 12        | 4  |
| 72 | 65 | BRAZIL          | SALVADOR-COAST            | 13.0S 38.5W          | 16.2S 38.8W         | 20 | L0 | 100 | M | Y | 19910405 | 193939 | 243 | 280 | 12        | 4  |
| 72 | 66 | BRAZIL          | SALVADOR-COAST            | 13.0S 39.0W          | 16.4S 38.2W         | 25 | L0 | 100 | M | Y | 19910405 | 193949 | 243 | 280 | 11        | 4  |
| 72 | 67 | BRAZIL          | CLOUDS-HALF FRAME EXPOSE  |                      | 18.2S 34.1W         | 95 | L0 | 100 | M | N | 19910405 | 194101 | 243 | 278 | 7         | 4  |
| 72 | 68 | PHILIPPINES     | BUSUANGA I.-SHUTTLE TAIL  | 19.7N 113.7E         | 19.7N 113.7E        | 90 | H0 | 100 | M | Y | 19910405 | 220211 | 245 | 81  | -4        | 6  |
| 72 | 69 | PHILIPPINES     | BUSUANGA I.-SHUTTLE TAIL  | 19.9N 114.1E         | 19.9N 114.1E        | 90 | H0 | 100 | M | Y | 19910405 | 220217 | 245 | 82  | -3        | 6  |
| 72 | 70 | PHILIPPINES     | BUSUANGA I.-SHUTTLE TAIL  | 20.0N 114.4E         | 20.0N 114.4E        | 90 | H0 | 100 | M | Y | 19910405 | 220223 | 245 | 82  | -3        | 6  |
| 72 | 71 | PHILIPPINES     | SHUTTLE TAIL-UNDEREXPOSED | 20.1N 114.8E         | 20.1N 114.8E        | 90 | H0 | 100 | U | Y | 19910405 | 220229 | 245 | 82  | -3        | 6  |
| 72 | 72 | PHILIPPINES     | SHUTTLE TAIL-CLOUDS       | 20.2N 114.8E         | 20.2N 114.8E        | 90 | H0 | 100 | U | Y | 19910405 | 220230 | 245 | 82  | -3        | 6  |
| 72 | 73 | PHILIPPINES     | SHUTTLE TAIL-CLOUDS       | 20.6N 116.0E         | 20.6N 116.0E        | 95 | H0 | 100 | N | Y | 19910405 | 220250 | 245 | 82  | -1        | 6  |
| 72 | 74 | PHILIPPINES     | SHUTTLE TAIL-CLOUDS       | 20.8N 116.5E         | 20.8N 116.5E        | 80 | H0 | 100 | N | Y | 19910405 | 220257 | 245 | 82  | -1        | 6  |
| 72 | 75 | PHILIPPINES     | SHUTTLE TAIL-CLOUDS       | 20.9N 116.9E         | 20.9N 116.9E        | 80 | H0 | 100 | N | Y | 19910405 | 220305 | 245 | 83  | -0        | 6  |
| 72 | 76 | PHILIPPINES     | SHUTTLE TAIL-CLOUDS       | 21.2N 117.6E         | 21.2N 117.6E        | 80 | H0 | 100 | O | Y | 19910405 | 220316 | 245 | 83  | -0        | 6  |
| 72 | 77 |                 | GRO-MANIPULATOR ARM       | 26.1N 135.1E         | 26.1N 135.1E        | 90 | H0 | 100 | N | Y | 19910405 | 220753 | 246 | 91  | 17        | 6  |
| 72 | 78 |                 | GRO-MANIPULATOR ARM       | 26.3N 136.3E         | 26.3N 136.3E        | 90 | H0 | 100 | N | Y | 19910405 | 220812 | 246 | 92  | 18        | 6  |
| 72 | 79 | PACIFIC OCEAN   | CLOUDS                    | 19.2N 177.5W         | 19.2N 177.5W        | 30 | L0 | 100 | N | N | 19910405 | 235922 | 245 | 186 | 76        | 7  |
| 72 | 80 | ASIA            | LARGE STORM CELLS         | 25.1N 83.1E          | 25.1N 83.1E         | 95 | H0 | 100 | O | N | 19910406 | 011341 | 246 | 88  | 12        | 8  |
| 72 | 81 | CHINA           | HSI-HSIA PANG MA MNTS.    | 28.5N 86.0E          | 25.3N 83.7E         | 70 | L0 | 100 | N | Y | 19910406 | 011350 | 246 | 89  | 12        | 8  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME   | FEATURE                    | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-------------------|----------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 72 | 82  | CHINA             | TIBET PLATEAU              | 29.0N         | 87.0E         | 25.4N        | 84.3E        | 85 | LO | 100 | N | Y | 19910406 | 011359 | 246 | 89  | 13        | 8  |
| 72 | 83  | CHINA             | NA-MU LAKE                 | 31.5N         | 91.0E         | 26.1N        | 87.4E        | 20 | HO | 100 | N | Y | 19910406 | 011447 | 246 | 91  | 16        | 8  |
| 72 | 84  | CHINA             | CH'L-LIN LAKE              | 32.0N         | 89.5E         | 26.2N        | 87.8E        | 15 | HO | 100 | N | Y | 19910406 | 011453 | 246 | 91  | 16        | 8  |
| 72 | 85  | CHINA             | TIBET PLATEAU-CHEKU LAKE   | 28.5N         | 92.0E         | 26.3N        | 88.7E        | 45 | LO | 100 | N | Y | 19910406 | 011508 | 246 | 91  | 17        | 8  |
| 72 | 86  | CHINA             | BRAMAPUTRA RIVER           | 29.5N         | 91.0E         | 26.6N        | 90.3E        | 15 | LO | 100 | N | Y | 19910406 | 011530 | 246 | 92  | 19        | 8  |
| 72 | 87  | CHINA             | PANORAMA TIBETAN PLATEAU   |               |               | 26.8N        | 91.2E        | 30 | HO | 100 | N | Y | 19910406 | 011544 | 246 | 93  | 19        | 8  |
| 72 | 88  | SHUTAN            | G.HIMALAYA RAN.-P'U-MU L   | 28.0N         | 91.0E         | 27.1N        | 93.1E        | 10 | LO | 100 | N | Y | 19910406 | 011613 | 246 | 94  | 21        | 8  |
| 72 | 89  | CHINA             | CHE KU LAKE-HIMALAYAS      | 28.5N         | 92.5E         | 27.2N        | 94.1E        | 25 | LO | 100 | N | Y | 19910406 | 011628 | 246 | 94  | 22        | 8  |
| 72 | 90  | CHINA             | NIEN CH'ING T'ANG KU MNT   | 31.0N         | 93.0E         | 27.4N        | 95.1E        | 20 | LO | 100 | N | Y | 19910406 | 011643 | 246 | 95  | 23        | 8  |
| 72 | 91  | CHINA             | NIEN CH'ING T'ANG KU MNT   | 29.5N         | 90.5E         | 27.5N        | 95.7E        | 10 | HO | 100 | N | Y | 19910406 | 011651 | 246 | 95  | 24        | 8  |
| 72 | 92  | CHINA             | GREAT HIMALAYA RANGE       |               |               | 28.1N        | 101.9E       | 25 | HO | 100 | N | Y | 19910406 | 011823 | 246 | 99  | 29        | 8  |
| 72 | 93  | CHINA             | GREAT HIMALAYA RANGE       |               |               | 28.2N        | 102.3E       | 30 | HO | 100 | N | Y | 19910406 | 011829 | 246 | 99  | 30        | 8  |
| 72 | 94  | CHINA             | FOLDED MOUNTAINS           |               |               | 28.3N        | 104.0E       | 50 | LO | 100 | N | Y | 19910406 | 011853 | 246 | 100 | 31        | 8  |
| 72 | 95  | CHINA             | FOLDED MOUNTAINS           |               |               | 28.3N        | 104.7E       | 70 | HO | 100 | N | Y | 19910406 | 011904 | 246 | 101 | 32        | 8  |
| 72 | 96  | CHINA             | FOLDED MOUNTAINS-KARST     |               |               | 28.4N        | 105.8E       | 50 | LO | 100 | N | Y | 19910406 | 011920 | 246 | 101 | 33        | 8  |
| 72 | 97  | CHINA             | FOLDED MOUNTAINS-KARST     |               |               | 28.5N        | 109.5E       | 50 | LO | 100 | N | Y | 19910406 | 012013 | 246 | 104 | 36        | 8  |
| 72 | 98  | INDIA             | MANGALORE-SUNGLINT         | 13.0N         | 74.5E         | 13.6N        | 75.7E        | 10 | NV | 100 | N | Y | 19910406 | 075013 | 244 | 240 | 75        | 12 |
| 72 | 99  | INDIA             | BHADRA RESERVOIR           | 13.5N         | 75.5E         | 13.3N        | 76.2E        | 15 | NV | 100 | N | Y | 19910406 | 075023 | 244 | 242 | 75        | 12 |
| 72 | 100 | INDIA             | KHRISHNARAJA SAGARA        | 12.5N         | 77.0E         | 12.9N        | 77.1E        | 45 | NV | 100 | N | Y | 19910406 | 075038 | 244 | 245 | 74        | 12 |
| 72 | 101 | INDIA             | PALAR RIVER                | 13.5N         | 79.0E         | 12.1N        | 78.6E        | 40 | LO | 100 | N | Y | 19910406 | 075106 | 244 | 250 | 73        | 12 |
| 72 | 102 | INDIA             | PALAR RIVER                | 12.5N         | 79.5E         | 11.7N        | 79.4E        | 40 | NV | 100 | N | Y | 19910406 | 075121 | 244 | 252 | 72        | 12 |
| 72 | 103 | INDIA             | COAST-SUNGLINT-PALAR R.    | 11.5N         | 80.5E         | 10.9N        | 81.0E        | 25 | NV | 100 | N | Y | 19910406 | 075149 | 244 | 256 | 71        | 12 |
| 72 | 104 | ALGERIA           | HAMADA DU GUIR             | 30.5N         | 3.0W          | 28.5N        | 7.5W         | 10 | LO | 100 | N | Y | 19910406 | 090759 | 247 | 104 | 36        | 13 |
| 72 | 105 | ALGERIA           | SARAHAN ATLAS              | 33.0N         | 2.0W          | 28.5N        | 7.1W         | 15 | HO | 100 | N | Y | 19910406 | 090805 | 247 | 104 | 37        | 13 |
| 72 | 106 | ALGERIA           | KAHAL TABELBALA            | 29.0N         | 1.0W          | 28.5N        | 5.0W         | 0  | LO | 100 | N | Y | 19910406 | 090836 | 247 | 106 | 38        | 13 |
| 72 | 107 | ALGERIA           | ATLAS MOUNTAINS            | 34.0N         | 2.5W          | 28.5N        | 4.5W         | 10 | LO | 100 | N | Y | 19910406 | 090843 | 247 | 106 | 39        | 13 |
| 73 | 1   |                   | CARGO BAY, DARK.           |               |               | 22.9S        | 19.4W        | LO | 50 | N   | N | Y | 19910406 | 190608 | 243 | 277 | 0         | 19 |
| 73 | 2   |                   | BLANK                      |               |               | 27.9S        | 6.6E         | LO | 50 | N   | N | Y | 19910406 | 191244 | 243 | 264 | -24       | 19 |
| 73 | 3   | GALAPAGOS ISLANDS | ISABELA, FERNANDINA ISLS.  | 0.4S          | 91.4W         | 1.6N         | 93.5W        | 60 | LO | 100 | N | Y | 19910406 | 202430 | 243 | 279 | 57        | 20 |
| 73 | 4   | GALAPAGOS ISLANDS | ISLA SAN CRISTOBAL         | 0.8S          | 89.5W         | 0.1N         | 90.9W        | 30 | LO | 250 | N | Y | 19910406 | 202520 | 243 | 281 | 54        | 20 |
| 73 | 5   | GALAPAGOS ISLANDS | ISLA SANTA CRUZ            | 0.6S          | 90.4W         | 0.0N         | 90.8W        | 50 | LO | 250 | N | Y | 19910406 | 202523 | 243 | 281 | 54        | 20 |
| 73 | 6   | GALAPAGOS ISLANDS | ISLA ISABELA               | 0.8S          | 91.1W         | 0.2S         | 90.5W        | 60 | LO | 250 | N | Y | 19910406 | 202527 | 243 | 281 | 54        | 20 |
| 73 | 7   | GALAPAGOS ISLANDS |                            |               |               | 0.4S         | 90.1W        | 15 | LO | 250 | N | Y | 19910406 | 202535 | 243 | 281 | 53        | 20 |
| 73 | 8   | PERU              | CHICLAYO, COAST, AGRICULT. | 6.8S          | 79.5W         | 6.5S         | 79.6W        | 60 | LO | 250 | N | Y | 19910406 | 202855 | 243 | 284 | 41        | 20 |
| 73 | 9   | PERU              | VERY CLOUDY                |               |               | 6.7S         | 79.3W        | 99 | LO | 250 | N | Y | 19910406 | 202901 | 243 | 284 | 41        | 20 |
| 73 | 10  | PERU              | E. ANDES MTNS., HUALLAGA R | 6.8S          | 76.8W         | 6.9S         | 78.9W        | 50 | LO | 250 | N | Y | 19910406 | 202908 | 243 | 284 | 40        | 20 |
| 73 | 11  | PERU              | E. ANDES MTNS., HUALLAGA R | 7.5S          | 76.6W         | 7.0S         | 78.7W        | 60 | LO | 250 | N | Y | 19910406 | 202913 | 243 | 284 | 40        | 20 |
| 73 | 12  | PERU              | HUALLAGA R., YURIMAGUAS    | 6.3S          | 75.8W         | 7.2S         | 78.4W        | 60 | LO | 250 | N | Y | 19910406 | 202919 | 243 | 284 | 39        | 20 |
| 73 | 13  | PERU              | HUALLAGA R., YURIMAGUAS    | 5.3S          | 75.7W         | 7.7S         | 77.5W        | 70 | LO | 250 | N | Y | 19910406 | 202936 | 243 | 284 | 38        | 20 |
| 73 | 14  | PERU              | HUALLAGA & MARANON RIOS    | 5.0S          | 75.5W         | 8.1S         | 76.7W        | 60 | LO | 250 | N | Y | 19910406 | 202950 | 243 | 284 | 37        | 20 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME      | FEATURE                  | CENTER |        | NADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|----|----------------------|--------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |    |                      |                          | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 73 | 15 | PERU                 | UCAVALI & PACHITEA RIOS  | 8.9S   | 74.6W  | 8.3S  | 76.3W  | 60 | LO | 250 | N | N | 19910406 | 202957 | 243 | 284 | 37  | 20 |    |
| 73 | 16 | PERU                 | RIO UCAYALI              | 9.5S   | 74.3W  | 8.4S  | 76.1W  | 50 | LO | 250 | N | N | 19910406 | 203001 | 243 | 284 | 37  | 20 |    |
| 73 | 17 | PERU                 | TAMBO & URUBAMBA RIOS    | 10.8S  | 73.8W  | 8.5S  | 76.0W  | 60 | LO | 250 | N | N | 19910406 | 203004 | 243 | 284 | 37  | 20 |    |
| 73 | 18 | PERU                 | RIO UCAYALI & PUCALLPA   | 8.0S   | 74.7W  | 9.2S  | 74.7W  | 60 | LO | 250 | N | N | 19910406 | 203027 | 243 | 284 | 35  | 20 |    |
| 73 | 19 | PERU                 | RIO UCAYALI              | 7.9S   | 74.6W  | 9.4S  | 74.4W  | 80 | LO | 250 | N | N | 19910406 | 203034 | 243 | 284 | 35  | 20 |    |
| 73 | 20 | PERU                 | RAINFOREST               |        |        | 9.5S  | 74.2W  | 70 | LO | 250 | N | N | 19910406 | 203037 | 243 | 284 | 35  | 20 |    |
| 73 | 21 | PERU                 | RAINFOREST               |        |        | 9.6S  | 73.9W  | 80 | LO | 250 | N | N | 19910406 | 203042 | 243 | 284 | 34  | 20 |    |
| 73 | 22 | PERU                 | RAINFOREST               |        |        | 10.0S | 73.2W  | 70 | LO | 250 | N | N | 19910406 | 203055 | 243 | 284 | 33  | 20 |    |
| 73 | 23 | PERU                 | RAINFOREST               |        |        | 10.2S | 72.9W  | 60 | LO | 250 | N | N | 19910406 | 203101 | 243 | 284 | 33  | 20 |    |
| 73 | 24 | PERU                 | RAINFOREST               |        |        | 10.4S | 72.5W  | 70 | LO | 250 | N | N | 19910406 | 203108 | 243 | 284 | 33  | 20 |    |
| 73 | 25 | PERU                 | RAINFOREST               |        |        | 10.9S | 71.5W  | 90 | LO | 250 | N | N | 19910406 | 203127 | 243 | 284 | 31  | 20 |    |
| 73 | 26 | PERU                 |                          |        |        | 11.3S | 70.8W  | 60 | LO | 250 | N | N | 19910406 | 203140 | 243 | 284 | 31  | 20 |    |
| 73 | 27 | PERU                 | EAST LOWLANDS            |        |        | 11.4S | 70.5W  | 60 | LO | 250 | N | N | 19910406 | 203145 | 243 | 284 | 30  | 20 |    |
| 73 | 28 | PERU                 | EAST LOWLANDS            |        |        | 11.6S | 70.1W  | 60 | LO | 250 | N | N | 19910406 | 203152 | 243 | 284 | 30  | 20 |    |
| 73 | 29 | PERU                 | MOUNTAINOUS TERRAIN      |        |        | 12.5S | 68.4W  | 70 | LO | 250 | N | N | 19910406 | 203223 | 243 | 284 | 28  | 20 |    |
| 73 | 30 | BOLIVIA              | SWAMPY LOWLANDS          |        |        | 16.5S | 60.1W  | 70 | LO | 250 | N | N | 19910406 | 203452 | 243 | 283 | 18  | 20 |    |
| 73 | 31 | BOLIVIA              | SWAMPY LOWLANDS          |        |        | 16.9S | 59.2W  | 90 | LO | 250 | N | N | 19910406 | 203507 | 243 | 282 | 18  | 20 |    |
| 73 | 32 | USA-HI               | MIDWAY ISLANDS           | 28.2N  | 177.3W | 26.5N | 176.9W | 30 | LO | 250 | N | N | 19910406 | 214052 | 246 | 117 | 53  | 21 |    |
| 73 | 33 | USA-HI               | KURE & GREEN ISLANDS     | 28.4N  | 176.2W | 26.2N | 175.4W | 10 | LO | 250 | N | N | 19910406 | 214111 | 246 | 118 | 54  | 21 |    |
| 73 | 34 | USA-HI               | LISANSKI IS., NEVA SHOAL | 26.0N  | 174.0W | 25.9N | 173.4W | 10 | LO | 250 | N | N | 19910406 | 214138 | 246 | 120 | 56  | 21 |    |
| 73 | 35 | USA-HI               | LISANSKI IS., NEVA SHOAL |        |        | 25.4N | 171.6W | 30 | LO | 250 | N | N | 19910406 | 214208 | 246 | 121 | 58  | 21 |    |
| 73 | 36 | USA-HI               | FRENCH FRIGATE SHOALS    | 23.8N  | 166.2W | 24.6N | 168.3W | 20 | LO | 250 | N | N | 19910406 | 214300 | 246 | 125 | 61  | 21 |    |
| 73 | 37 | USA-HI               | FRENCH FRIGATE SHOALS    | 23.8N  | 166.2W | 24.1N | 166.3W | 20 | LO | 250 | N | N | 19910406 | 214330 | 246 | 127 | 63  | 21 |    |
| 73 | 38 | USA-HI               | KAUIA                    | 21.9N  | 160.2W | 22.5N | 160.9W | 20 | LO | 250 | N | N | 19910406 | 214457 | 245 | 134 | 68  | 21 |    |
| 73 | 39 | USA-HI               | KAUIA                    | 22.0N  | 159.5W | 22.2N | 160.0W | 50 | LO | 250 | N | N | 19910406 | 214512 | 245 | 136 | 69  | 21 |    |
| 73 | 40 | USA-HI               | OAHUA                    | 21.5N  | 158.0W | 21.3N | 157.5W | 50 | LO | 250 | N | N | 19910406 | 214553 | 245 | 141 | 71  | 21 |    |
| 73 | 41 | USA-HI               | OAHUA                    | 21.5N  | 158.0W | 21.3N | 157.2W | 50 | LO | 250 | N | N | 19910406 | 214557 | 245 | 141 | 71  | 21 |    |
| 73 | 42 | USA-HI               | MAUI                     | 20.9N  | 156.6W | 20.6N | 155.4W | 60 | LO | 250 | N | N | 19910406 | 214627 | 245 | 145 | 73  | 21 |    |
| 73 | 43 | USA-HI               | HAWAII                   | 19.5N  | 155.6W | 20.2N | 154.4W | 50 | LO | 250 | N | N | 19910406 | 214644 | 245 | 148 | 74  | 21 |    |
| 73 | 44 | IRAQ                 | BAGHDAD                  | 33.4N  | 43.8E  | 25.5N | 44.9E  | 0  | LO | 250 | N | N | 19910407 | 070240 | 246 | 117 | 55  | 27 |    |
| 73 | 45 | IRAQ                 | SO. OF BAGHDAD           | 32.0N  | 45.6E  | 25.4N | 45.5E  | 0  | LO | 250 | N | N | 19910407 | 070250 | 246 | 118 | 56  | 27 |    |
| 73 | 46 | IRAQ                 | BASRAH AREA              | 30.5N  | 47.8E  | 25.1N | 46.7E  | 0  | LO | 250 | N | N | 19910407 | 070308 | 246 | 119 | 57  | 27 |    |
| 73 | 47 | KUWAIT               | OIL WELL FIRES           | 29.1N  | 48.0E  | 24.3N | 49.7E  | 0  | LO | 250 | N | N | 19910407 | 070355 | 246 | 122 | 60  | 27 |    |
| 73 | 48 | BAHRAIN              | BAHRAIN, SAUDI ARABIA    | 25.9N  | 51.2E  | 23.9N | 51.1E  | 20 | LO | 250 | N | N | 19910407 | 070418 | 246 | 123 | 61  | 27 |    |
| 73 | 49 | SAUDI ARABIA         | BAHRAIN AREA             | 26.6N  | 50.1E  | 23.7N | 52.1E  | 10 | LO | 250 | N | N | 19910407 | 070433 | 246 | 124 | 62  | 27 |    |
| 73 | 50 | UNITED ARAB EMIRATES | COAST                    | 24.3N  | 52.7E  | 23.3N | 53.4E  | 40 | LO | 250 | N | N | 19910407 | 070454 | 246 | 126 | 63  | 27 |    |
| 73 | 51 | UNITED ARAB EMIRATES | ASH SHARIQAH AREA        |        |        | 22.6N | 55.5E  | 80 | LO | 250 | N | N | 19910407 | 070527 | 246 | 128 | 65  | 27 |    |
| 73 | 52 | OMAN                 | PIPELINES AND ROADS      |        |        | 21.9N | 57.7E  | 0  | LO | 250 | N | N | 19910407 | 070603 | 246 | 131 | 67  | 27 |    |
| 73 | 53 | SAUDI ARABIA         | E. TIP RUB AL KHALI      |        |        | 21.5N | 59.0E  | 0  | LO | 250 | N | N | 19910407 | 070624 | 246 | 133 | 69  | 27 |    |
| 73 | 54 | OMAN                 | AL MASIRAH AREA          | 20.5N  | 58.9E  | 20.4N | 62.0E  | 10 | LO | 250 | N | N | 19910407 | 070715 | 246 | 138 | 72  | 27 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|----|-----------------|----------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |    |                 |                            | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 73 | 55 | AUSTRALIA-NT    | LAKE WOODS                 | 18.0S  | 132.0E | 16.9S | 133.7E | 20 | NV | 250 | N | N | 19910407 | 072911 | 243 | 284 | 21  | 27 |    |
| 73 | 56 | AUSTRALIA-NT    | LAKE WOODS                 | 18.0S  | 134.0E | 17.0S | 133.9E | 30 | NV | 250 | N | N | 19910407 | 072915 | 243 | 284 | 20  | 27 |    |
| 73 | 57 | AUSTRALIA-NT    |                            | 18.5S  | 134.5E | 17.4S | 134.9E | 60 | NV | 250 | N | N | 19910407 | 072931 | 243 | 284 | 19  | 27 |    |
| 73 | 58 | AUSTRALIA-NT    | EDWARD PELLEW GROUP ISLS   | 16.0S  | 137.2E | 18.5S | 137.4E | 20 | LO | 250 | N | N | 19910407 | 073015 | 243 | 283 | 17  | 27 |    |
| 73 | 59 | AUSTRALIA-NT    | COAST, SE. OF VANDERLIN    | 16.5S  | 138.0E | 18.6S | 137.7E | 20 | LO | 250 | N | N | 19910407 | 073019 | 243 | 283 | 16  | 27 |    |
| 73 | 60 | AUSTRALIA-Q     | COAST, W. OF WELLESLEY IS. | 16.7S  | 138.6E | 18.7S | 138.1E | 20 | LO | 250 | N | N | 19910407 | 073026 | 243 | 283 | 16  | 27 |    |
| 73 | 61 | AUSTRALIA-Q     | SO. WELLESLEY ISLANDS      | 17.0S  | 139.2E | 18.9S | 138.4E | 60 | LO | 250 | N | N | 19910407 | 073032 | 243 | 283 | 16  | 27 |    |
| 73 | 62 | AUSTRALIA-Q     | WAGABOONIAH MTN. RANGE     |        |        | 19.3S | 139.5E | 60 | LO | 250 | N | N | 19910407 | 073050 | 243 | 282 | 14  | 27 |    |
| 73 | 63 | AUSTRALIA-Q     | WAGABOONIAH MTN. RANGE     |        |        | 19.4S | 139.7E | 50 | LO | 250 | N | N | 19910407 | 073054 | 243 | 282 | 14  | 27 |    |
| 73 | 64 | AUSTRALIA-Q     | PAROO MTN. RANGE           |        |        | 19.5S | 140.0E | 40 | LO | 250 | N | N | 19910407 | 073059 | 243 | 282 | 14  | 27 |    |
| 73 | 65 | AUSTRALIA-Q     | STANDISH, SELWYN RANGES    |        |        | 19.6S | 140.3E | 50 | LO | 250 | N | N | 19910407 | 073103 | 243 | 282 | 14  | 27 |    |
| 73 | 66 | AUSTRALIA-Q     | STANDISH, SELWYN RANGES    |        |        | 19.7S | 140.5E | 50 | LO | 250 | N | N | 19910407 | 073107 | 243 | 282 | 13  | 27 |    |
| 73 | 67 | AUSTRALIA-Q     | STANDISH, SELWYN RANGES    |        |        | 20.0S | 141.3E | 40 | LO | 250 | N | N | 19910407 | 073120 | 243 | 282 | 13  | 27 |    |
| 73 | 68 | AUSTRALIA-Q     | CLONCURRY AREA             |        |        | 20.1S | 141.6E | 40 | LO | 250 | N | N | 19910407 | 073125 | 243 | 282 | 12  | 27 |    |
| 73 | 69 | AUSTRALIA-Q     | AREA E. OF CLONCURRY       |        |        | 20.2S | 141.9E | 40 | LO | 250 | N | N | 19910407 | 073131 | 243 | 281 | 12  | 27 |    |
| 73 | 70 | AUSTRALIA-Q     | N. CENTRAL QUEENSLAND      |        |        | 20.6S | 142.7E | 30 | LO | 250 | N | N | 19910407 | 073144 | 243 | 281 | 11  | 27 |    |
| 73 | 71 | AUSTRALIA-Q     | N. CENTRAL QUEENSLAND      |        |        | 20.6S | 142.9E | 30 | LO | 250 | N | N | 19910407 | 073147 | 243 | 281 | 11  | 27 |    |
| 73 | 72 | AUSTRALIA-Q     | N. CENTRAL QUEENSLAND      |        |        | 20.7S | 143.3E | 20 | LO | 250 | N | N | 19910407 | 073153 | 243 | 281 | 10  | 27 |    |
| 73 | 73 | AUSTRALIA-Q     | N. CENTRAL QUEENSLAND      |        |        | 21.2S | 144.6E | 40 | LO | 250 | N | N | 19910407 | 073216 | 243 | 281 | 9   | 27 |    |
| 73 | 74 | ALGERIA         | NW ALGERIA, MTNS TERRAIN   |        |        | 28.5N | 7.3W   | 10 | LO | 250 | N | N | 19910407 | 082907 | 246 | 98  | 28  | 28 |    |
| 73 | 75 | ALGERIA         | HAMADA TOUNASSINE AREA     |        |        | 28.5N | 6.1W   | 0  | LO | 250 | N | N | 19910407 | 082925 | 247 | 99  | 30  | 28 |    |
| 73 | 76 | ALGERIA         | HAMADA TOUNASSINE AREA     |        |        | 28.5N | 3.0W   | 0  | LO | 250 | N | N | 19910407 | 083009 | 247 | 101 | 32  | 28 |    |
| 73 | 77 | ALGERIA         | KAHAL TABELBALA AREA       | 29.5N  | 2.3W   | 28.5N | 2.3W   | 0  | LO | 250 | N | N | 19910407 | 083019 | 247 | 101 | 33  | 28 |    |
| 73 | 78 | ALGERIA         | MAJOR N-S TRADE ROUTE      |        |        | 28.4N | 1.2W   | 0  | LO | 250 | N | N | 19910407 | 083035 | 247 | 102 | 34  | 28 |    |
| 73 | 79 | ALGERIA         | MAJOR N-S TRADE ROUTE      |        |        | 28.4N | 0.9W   | 0  | LO | 250 | N | N | 19910407 | 083040 | 247 | 102 | 34  | 28 |    |
| 73 | 80 | ALGERIA         | TADEMAIT PLATEAU           | 27.6N  | 1.5E   | 28.3N | 1.6E   | 0  | NV | 250 | N | N | 19910407 | 083117 | 247 | 103 | 37  | 28 |    |
| 73 | 81 | ALGERIA         | TADEMAIT PLATEAU           |        |        | 28.2N | 3.3E   | 0  | LO | 250 | N | N | 19910407 | 083141 | 247 | 104 | 38  | 28 |    |
| 73 | 82 | ALGERIA         | TADEMAIT PLATEAU           |        |        | 28.1N | 4.0E   | 0  | LO | 250 | N | N | 19910407 | 083151 | 247 | 105 | 39  | 28 |    |
| 73 | 83 | ALGERIA         | TINRHERT PLATEAU           |        |        | 27.9N | 5.9E   | 0  | LO | 250 | N | N | 19910407 | 083219 | 247 | 106 | 41  | 28 |    |
| 73 | 84 | ALGERIA         | TINRHERT PLATEAU           |        |        | 27.8N | 6.9E   | 0  | LO | 250 | N | N | 19910407 | 083235 | 247 | 107 | 42  | 28 |    |
| 73 | 85 | ALGERIA         | TINRHERT PLATEAU           |        |        | 27.8N | 7.7E   | 0  | LO | 250 | N | N | 19910407 | 083246 | 247 | 107 | 42  | 28 |    |
| 73 | 86 | LIBYA           | STONEVY DESERT AREA        |        |        | 27.6N | 9.0E   | 0  | LO | 250 | N | N | 19910407 | 083305 | 247 | 108 | 43  | 28 |    |
| 73 | 87 | LIBYA           | HAMMADAT MARZUQ, CTR PVT   | 26.5N  | 13.0E  | 27.2N | 12.2E  | 0  | LO | 250 | N | N | 19910407 | 083353 | 246 | 110 | 46  | 28 |    |
| 73 | 88 | LIBYA           | HAMMADAT MARZUQ, CTR PVT   |        |        | 27.0N | 13.0E  | 0  | LO | 250 | N | N | 19910407 | 083405 | 246 | 111 | 47  | 28 |    |
| 73 | 89 | LIBYA           | RAMLA EL MARZUCHIA         | 26.2N  | 15.2E  | 26.8N | 14.6E  | 0  | LO | 250 | N | N | 19910407 | 083429 | 246 | 112 | 49  | 28 |    |
| 73 | 90 | LIBYA           | RAMLA EL MARZUCHIA         | 26.2N  | 15.2E  | 26.7N | 15.1E  | 0  | LO | 250 | N | N | 19910407 | 083437 | 246 | 112 | 49  | 28 |    |
| 73 | 91 | LIBYA           | QUR AL FARID               |        |        | 26.5N | 16.4E  | 0  | LO | 250 | N | N | 19910407 | 083456 | 246 | 113 | 50  | 28 |    |
| 73 | 92 | LIBYA           | VOLCANO OF THE FLIES       |        |        | 26.2N | 17.8E  | 0  | LO | 250 | N | N | 19910407 | 083517 | 246 | 114 | 52  | 28 |    |
| 73 | 93 | LIBYA           |                            |        |        | 25.8N | 19.5E  | 0  | LO | 250 | N | N | 19910407 | 083544 | 246 | 116 | 53  | 28 |    |
| 73 | 94 | LIBYA           | AL JAWF, CTR. PIVOT IR     | 24.2N  | 23.3E  | 25.1N | 22.7E  | 0  | LO | 250 | N | N | 19910407 | 083633 | 246 | 118 | 56  | 28 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                           | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC    | TL    | FL  | E  | S   | DATE     | GMT      | AL     | SUN<br>AZ | EL  | OR |    |
|----|-----|-----------------|-----------------------------------|----------------------|---------------------|-------|-------|-----|----|-----|----------|----------|--------|-----------|-----|----|----|
| 73 | 95  | LIBYA           | SE., JABAL ARKENU                 | 24.6N                | 24.7E               | 0     | LO    | 250 | N  | N   | 19910407 | 083704   | 246    | 120       | 58  | 28 |    |
| 73 | 96  | SUDAN           | NW SUDAN                          | 23.7N                | 27.9E               | 40    | LO    | 250 | N  | N   | 19910407 | 083754   | 246    | 123       | 61  | 28 |    |
| 73 | 97  | EGYPT           | SINAI, RED SEA, GU. AQABA         | 29.5N                | 34.6E               | 23.1N | 30.0E | 0   | HO | 250 | N        | 19910407 | 083828 | 246       | 125 | 63 | 28 |
| 73 | 98  | EGYPT           | SINAI, RED SEA, GU. AQABA         | 28.5N                | 34.8E               | 22.9N | 30.8E | 0   | HO | 250 | N        | 19910407 | 083840 | 246       | 126 | 64 | 28 |
| 73 | 99  | EGYPT           | NILE RIVER                        | 26.0N                | 32.0E               | 22.5N | 31.9E | 0   | LO | 250 | N        | 19910407 | 083858 | 246       | 127 | 65 | 28 |
| 73 | 100 | EGYPT           | NILE RIVER                        | 26.0N                | 32.8E               | 22.0N | 33.4E | 0   | LO | 250 | N        | 19910407 | 083923 | 246       | 129 | 67 | 28 |
| 73 | 101 | SUDAN           | E. COAST, RAS ABU SHAGARA         | 21.1N                | 37.2E               | 21.4N | 35.3E | 10  | LO | 250 | N        | 19910407 | 083954 | 246       | 132 | 69 | 28 |
| 73 | 102 | SUDAN           | GULF OF AQIQ                      | 18.1N                | 38.5E               | 20.2N | 38.6E | 10  | LO | 250 | N        | 19910407 | 084048 | 246       | 137 | 72 | 28 |
| 73 | 103 | RED SEA         | SHIP WAKES, OIL SLICKS            | 19.8N                | 39.8E               |       |       | 20  | LO | 250 | N        | 19910407 | 084108 | 245       | 140 | 73 | 28 |
| 73 | 104 | RED SEA         | SUN GLINT, SURFACE PATTERN        | 19.6N                | 40.1E               |       |       | 20  | LO | 250 | N        | 19910407 | 084113 | 245       | 140 | 73 | 28 |
| 74 | 1   | MALAWI          | LAKE CHILWA AREA                  | 15.4S                | 35.7E               | 15.7S | 39.3E | 60  | LO | 250 | N        | 19910409 | 122525 | 245       | 294 | 42 | 61 |
| 74 | 2   | MALAWI          | LAKE CHILWA AREA                  | 15.0S                | 35.9E               | 15.8S | 39.5E | 70  | LO | 250 | N        | 19910409 | 122528 | 245       | 294 | 42 | 61 |
| 74 | 3   | MALAWI          | LAKE CHILWA AREA                  | 14.9S                | 36.0E               | 15.9S | 39.9E | 70  | LO | 250 | N        | 19910409 | 122535 | 245       | 294 | 42 | 61 |
| 74 | 4   | MOZAMBIQUE      |                                   | 16.2S                | 40.6E               |       | 40.6E | 60  | LO | 250 | N        | 19910409 | 122547 | 245       | 294 | 41 | 61 |
| 74 | 5   | MOZAMBIQUE      | COASTLINE, SEDIMENT               | 17.0S                | 42.3E               |       | 42.3E | 70  | LO | 250 | N        | 19910409 | 122617 | 245       | 294 | 39 | 61 |
| 74 | 6   | MOZAMBIQUE      | COASTLINE, SEDIMENT               | 17.3S                | 42.9E               |       | 42.9E | 70  | LO | 250 | N        | 19910409 | 122627 | 245       | 293 | 39 | 61 |
| 74 | 7   | MOZAMBIQUE      | COASTLINE, SEDIMENT               | 17.8S                | 44.1E               |       | 44.1E | 70  | LO | 250 | N        | 19910409 | 122648 | 245       | 293 | 37 | 61 |
| 74 | 8   | MOZAMBIQUE      | BELO SUR TSIRIBIHINA              | 19.6S                | 44.6E               | 19.7S | 48.8E | 70  | LO | 250 | N        | 19910409 | 122808 | 245       | 292 | 32 | 61 |
| 74 | 9   | MOZAMBIQUE      | TSIRIBIHINA RIVER                 | 19.5S                | 45.3E               | 19.8S | 49.1E | 70  | LO | 250 | N        | 19910409 | 122813 | 245       | 291 | 32 | 61 |
| 74 | 10  | MOZAMBIQUE      | TSIRIBIHINA RIVER                 | 19.7S                | 45.3E               | 19.9S | 49.5E | 70  | LO | 250 | N        | 19910409 | 122820 | 245       | 291 | 31 | 61 |
| 74 | 11  | MADAGASCAR      | CENTRAL, MTNS.                    | 20.2S                | 45.2E               | 20.0S | 49.7E | 50  | LO | 250 | N        | 19910409 | 122824 | 245       | 291 | 31 | 61 |
| 74 | 12  | MADAGASCAR      | ANTANANARIVO AREA                 | 19.1S                | 47.5E               | 20.3S | 50.6E | 60  | NV | 250 | N        | 19910409 | 122838 | 245       | 291 | 30 | 61 |
| 74 | 13  | MADAGASCAR      | SO. OF ANTANANARIVO               | 20.5S                | 50.9E               |       | 50.9E | 90  | LO | 250 | N        | 19910409 | 122843 | 245       | 291 | 30 | 61 |
| 74 | 14  | MADAGASCAR      | CSTL MTNS. NEAR MAHANORO          | 20.6S                | 51.4E               |       | 51.4E | 90  | LO | 250 | N        | 19910409 | 122851 | 245       | 291 | 29 | 61 |
| 74 | 15  | MADAGASCAR      | CSTL MTNS. NEAR MAHANORO          | 20.9S                | 52.2E               |       | 52.2E | 90  | LO | 250 | N        | 19910409 | 122905 | 245       | 290 | 28 | 61 |
| 74 | 16  | REUNION         | VRY CLDY OVER ISLAND              | 21.0S                | 55.5E               | 22.6S | 57.2E | 60  | LO | 250 | N        | 19910409 | 123027 | 245       | 289 | 23 | 61 |
| 74 | 17  | REUNION         | VRY CLDY OVER ISLAND              | 21.0S                | 55.5E               | 22.7S | 57.5E | 60  | LO | 250 | N        | 19910409 | 123032 | 245       | 288 | 23 | 61 |
| 74 | 18  | REUNION         | VRY CLDY OVER ISLAND              | 21.0S                | 55.5E               | 23.0S | 58.3E | 60  | LO | 250 | N        | 19910409 | 123045 | 245       | 288 | 22 | 61 |
| 74 | 19  | REUNION         | VRY CLDY OVER ISLAND              | 21.0S                | 55.5E               | 23.1S | 58.7E | 60  | LO | 250 | N        | 19910409 | 123050 | 245       | 288 | 22 | 61 |
| 74 | 20  | MAURITIUS       | VRY CLDY OVER ISLAND              | 20.5S                | 57.6E               | 23.5S | 60.2E | 60  | LO | 250 | N        | 19910409 | 123115 | 245       | 287 | 20 | 61 |
| 74 | 21  |                 | STORM OVER TEXAS                  | 28.4N                | 101.5W              |       |       | 100 | HO | 250 | N        | 19910409 | 132529 | 244       | 85  | 8  | 62 |
| 74 | 22  |                 | STORM OVER TEXAS                  | 28.5N                | 101.3W              |       |       | 100 | HO | 250 | N        | 19910409 | 132532 | 244       | 86  | 8  | 62 |
| 74 | 23  |                 | STORM OVER TEXAS                  | 28.5N                | 101.1W              |       |       | 100 | HO | 250 | N        | 19910409 | 132535 | 244       | 86  | 8  | 62 |
| 74 | 24  |                 | STORM OVER TEXAS                  | 28.5N                | 100.2W              |       |       | 100 | HO | 250 | N        | 19910409 | 132547 | 245       | 86  | 9  | 62 |
| 74 | 25  |                 | STORM OVER TEXAS                  | 28.5N                | 100.0W              |       |       | 100 | HO | 250 | N        | 19910409 | 132550 | 245       | 86  | 9  | 62 |
| 74 | 26  |                 | STORM OVER TEXAS                  | 28.5N                | 99.8W               |       |       | 100 | HO | 250 | N        | 19910409 | 132553 | 245       | 86  | 9  | 62 |
| 74 | 27  | GULF OF MEXICO  | VRY H <sub>2</sub> O <sub>2</sub> | 28.5N                | 95.4W               |       |       | 60  | HO | 250 | N        | 19910409 | 132658 | 245       | 89  | 14 | 62 |
| 74 | 28  | GULF OF MEXICO  |                                   | 28.5N                | 94.6W               |       |       | 90  | HO | 250 | N        | 19910409 | 132709 | 245       | 89  | 14 | 62 |
| 74 | 29  | CUBA            | EASTERN CUBA                      | 20.5N                | 75.5W               | 4.7N  | 18.6W | 60  | LO | 250 | N        | 19910409 | 133349 | 245       | 102 | 40 | 62 |
| 74 | 30  | CUBA            | EASTERN CUBA                      | 20.5N                | 76.5W               | 4.8N  | 18.7W | 70  | LO | 250 | N        | 19910409 | 133352 | 245       | 102 | 40 | 62 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME    | FEATURE                   | CENTER |       | NADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN |
|----|----|--------------------|---------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|
|    |    |                    |                           | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     | EL  |
| 74 | 31 | BAHAMAS            | MAYAGUANA IS.             | 22.5N  | 73.4W | 4.8N  | 18.8W | 50 | LO | 250 | N | N | 19910409 | 133355 | 245 | 102 | 40  |
| 74 | 32 | BAHAMAS            | MAYAGUANA IS.             | 22.4N  | 73.0W | 4.8N  | 18.8W | 30 | LO | 250 | N | N | 19910409 | 133357 | 245 | 102 | 40  |
| 74 | 33 | BAHAMAS            | PROVIDENCIALES            | 21.9N  | 72.0W | 4.9N  | 19.0W | 60 | LO | 250 | N | N | 19910409 | 133402 | 245 | 102 | 41  |
| 74 | 34 | HAITI              | NORTHERN PENINSULA        | 19.7N  | 73.0W | 4.9N  | 19.1W | 30 | LO | 250 | N | N | 19910409 | 133407 | 245 | 103 | 41  |
| 74 | 35 | HAITI              | OBLIQUE VIEW OF HAITI     | 19.3N  | 72.2W | 5.0N  | 19.2W | 40 | LO | 250 | N | N | 19910409 | 133411 | 245 | 103 | 41  |
| 74 | 36 | DOMINICAN REPUBLIC | SW. CENTRAL               | 19.0N  | 71.0W | 5.0N  | 19.3W | 40 | LO | 250 | N | N | 19910409 | 133413 | 245 | 103 | 42  |
| 74 | 37 | DOMINICAN REPUBLIC | CENTRAL                   | 18.9N  | 70.3W | 5.0N  | 19.5W | 80 | LO | 250 | N | N | 19910409 | 133418 | 245 | 103 | 42  |
| 74 | 38 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.8N  | 69.8W | 5.1N  | 19.6W | 90 | LO | 250 | N | N | 19910409 | 133421 | 245 | 103 | 42  |
| 74 | 39 | PUERTO RICO        | ISLAND CLOUDY             | 18.0N  | 66.5W | 6.1N  | 22.2W | 60 | LO | 250 | N | N | 19910409 | 133544 | 245 | 105 | 47  |
| 74 | 40 | VIRGIN ISLANDS     | VIEQUES TO ANEGADA ISLES  | 18.4N  | 65.0W | 6.2N  | 22.4W | 50 | LO | 250 | N | N | 19910409 | 133549 | 245 | 105 | 48  |
| 74 | 41 | LESSER ANTILLES    | ST. MARTIN & ANGUILLA IS. | 18.0N  | 63.0W | 6.3N  | 22.6W | 40 | LO | 250 | N | N | 19910409 | 133557 | 245 | 106 | 48  |
| 74 | 42 | LESSER ANTILLES    | ANTIGUA & BARBUDA IS.     | 17.6N  | 61.8W | 6.3N  | 22.8W | 50 | LO | 250 | N | N | 19910409 | 133601 | 245 | 106 | 48  |
| 74 | 43 | LESSER ANTILLES    | ANTIGUA & BARBUDA IS.     | 17.5N  | 62.0W | 6.5N  | 23.2W | 40 | LO | 250 | N | N | 19910409 | 133616 | 245 | 106 | 49  |
| 74 | 44 | SENEGAL            | GAMBIA, GUINEA BISSAU     |        |       | 2.6N  | 17.9W | 0  | HO | 250 | N | N | 19910409 | 134825 | 245 | 300 | 83  |
| 74 | 45 | GUINEA BISSAU      | SENEGAL                   |        |       | 2.2N  | 17.3W | 5  | HO | 250 | N | N | 19910409 | 134837 | 245 | 300 | 82  |
| 74 | 46 | GUINEA             | VRY HIGH OBLIQUE          |        |       | 2.0N  | 16.9W | 5  | HO | 250 | N | N | 19910409 | 134844 | 245 | 300 | 82  |
| 74 | 47 | ANGOLA             | BENGUELA AREA             | 12.4S  | 13.7E | 13.4S | 10.8E | 50 | LO | 250 | N | N | 19910409 | 135725 | 245 | 296 | 48  |
| 74 | 48 | ANGOLA             | AREA S. OF BENGUELA       | 12.7S  | 13.3E | 13.5S | 10.9E | 20 | LO | 250 | N | N | 19910409 | 135727 | 245 | 296 | 48  |
| 74 | 49 | ANGOLA             | SERRA DA NEVI AREA        | 13.4S  | 13.2E | 13.6S | 11.0E | 5  | LO | 250 | N | N | 19910409 | 135730 | 245 | 296 | 48  |
| 74 | 50 | ANGOLA             | HUILA PLATEAU AREA        | 14.5S  | 13.0E | 13.6S | 11.1E | 0  | LO | 250 | N | N | 19910409 | 135732 | 245 | 296 | 48  |
| 74 | 51 | ANGOLA             | HUILA PLATEAU AREA        | 14.7S  | 12.5E | 13.7S | 11.3E | 0  | LO | 250 | N | N | 19910409 | 135734 | 245 | 296 | 48  |
| 74 | 52 | ANGOLA             | HUILA PLATEAU AREA        | 15.2S  | 12.4E | 13.7S | 11.4E | 0  | LO | 250 | N | N | 19910409 | 135736 | 245 | 296 | 48  |
| 74 | 53 | ANGOLA             | PORTO ALEXANDRE AREA      | 15.7S  | 12.2E | 13.8S | 11.5E | 0  | LO | 250 | N | N | 19910409 | 135738 | 245 | 296 | 48  |
| 74 | 54 | ANGOLA             | DESERT DE MOCAMEDES       | 16.6S  | 12.0E | 13.9S | 11.6E | 0  | LO | 250 | N | N | 19910409 | 135741 | 245 | 296 | 47  |
| 74 | 55 | NAMIBIA            | BORDER WITH ANGOLA        | 17.6S  | 12.2E | 13.9S | 11.8E | 0  | LO | 250 | N | N | 19910409 | 135743 | 245 | 296 | 47  |
| 74 | 56 | NAMIBIA            | BORDER WITH ANGOLA        | 18.3S  | 12.3E | 14.0S | 12.0E | 0  | LO | 250 | N | N | 19910409 | 135747 | 245 | 296 | 47  |
| 74 | 57 | NAMIBIA            | SKELTON COAST             | 18.7S  | 12.8E | 14.1S | 12.1E | 0  | HO | 250 | N | N | 19910409 | 135749 | 245 | 296 | 47  |
| 74 | 58 | ANGOLA             | HUILA PLATEAU             |        |       | 15.5S | 15.0E | 0  | LO | 250 | N | N | 19910409 | 135841 | 244 | 295 | 43  |
| 74 | 59 | ANGOLA             | HUILA PLATEAU             |        |       | 15.5S | 15.1E | 0  | LO | 250 | N | N | 19910409 | 135843 | 244 | 295 | 43  |
| 74 | 60 | ANGOLA             | NAMIBIA BORDER            | 17.0S  | 14.7E | 15.6S | 15.2E | 0  | LO | 250 | N | N | 19910409 | 135845 | 244 | 295 | 43  |
| 74 | 61 | ANGOLA             | RIO CUENE AREA            | 16.5S  | 15.3E | 15.6S | 15.3E | 0  | LO | 250 | N | N | 19910409 | 135847 | 244 | 295 | 43  |
| 74 | 62 | NAMIBIA            | ETOSHA PAN AREA           | 17.6S  | 15.7E | 15.7S | 15.6E | 0  | LO | 250 | N | N | 19910409 | 135851 | 244 | 295 | 43  |
| 74 | 63 | NAMIBIA            | ETOSHA PAN AREA           | 17.8S  | 16.2E | 15.8S | 15.7E | 0  | LO | 250 | N | N | 19910409 | 135853 | 244 | 295 | 43  |
| 74 | 64 | ANGOLA             |                           |        |       | 16.7S | 17.7E | 0  | LO | 250 | N | N | 19910409 | 135928 | 244 | 294 | 40  |
| 74 | 65 | BOTSWANA           | OKAVANGO DELTA, CUBANGO R | 19.0S  | 21.0E | 16.8S | 18.0E | 0  | LO | 250 | N | N | 19910409 | 135933 | 244 | 294 | 40  |
| 74 | 66 | ANGOLA             | SE ANGOLA                 |        |       | 17.0S | 18.4E | 5  | LO | 250 | N | N | 19910409 | 135941 | 244 | 294 | 40  |
| 74 | 67 | ANGOLA             | SE ANGOLA                 |        |       | 17.6S | 19.8E | 5  | LO | 250 | N | N | 19910409 | 140005 | 244 | 294 | 38  |
| 74 | 68 | ANGOLA             | SE ANGOLA                 |        |       | 17.7S | 20.1E | 0  | LO | 250 | N | N | 19910409 | 140010 | 244 | 293 | 38  |
| 74 | 69 | BOTSWANA           | OKAVANGO DELTA, SALT PANS | 20.0S  | 23.4E | 17.9S | 20.4E | 0  | LO | 250 | N | N | 19910409 | 140016 | 244 | 293 | 37  |
| 74 | 70 | ZIMBABWE           | VIEW TOWARDS LAKE KARIBA  |        |       | 18.0S | 20.7E | 10 | HO | 250 | N | N | 19910409 | 140021 | 244 | 293 | 37  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME       | FEATURE                    | CENTER<br>LAT<br>LAT | LONG<br>LON | NADIR<br>LAT<br>LAT | LONG<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|-----------------------|----------------------------|----------------------|-------------|---------------------|-------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 74 | 71  | BOTSWANA              | MAKGADIKGADI PANS          | 20.4S                | 25.5E       | 18.2S               | 21.1E       | 0  | LO | 250 | N | N | 19910409 | 140028 | 244 | 293 | 37        | 62 |
| 74 | 72  | BOTSWANA              | MAKGADIKGADI PANS          | 20.5S                | 25.3E       | 18.4S               | 21.8E       | 5  | LO | 250 | N | N | 19910409 | 140039 | 244 | 293 | 36        | 62 |
| 74 | 73  | ZAMBIA                |                            |                      |             | 18.5S               | 22.0E       | 5  | LO | 250 | N | N | 19910409 | 140043 | 244 | 293 | 36        | 62 |
| 74 | 74  | ZAMBIA                | RHODESIA AREA, KARIBA LK.  |                      |             | 18.7S               | 22.4E       | 30 | HO | 250 | N | N | 19910409 | 140049 | 244 | 293 | 35        | 62 |
| 74 | 75  | BOTSWANA              | MAKGADIKGADI PANS AREA     |                      |             | 18.8S               | 22.8E       | 30 | HO | 250 | N | N | 19910409 | 140057 | 244 | 293 | 35        | 62 |
| 74 | 76  | ZAMBIA                | RHODESIA AREA              |                      |             | 18.9S               | 23.1E       | 30 | HO | 250 | N | N | 19910409 | 140101 | 244 | 293 | 34        | 62 |
| 74 | 77  | ZIMBABWE              | E. COAST LAKE KARIBA       |                      |             | 19.1S               | 23.5E       | 60 | HO | 250 | N | N | 19910409 | 140108 | 244 | 292 | 34        | 62 |
| 74 | 78  | BOTSWANA              | AREA E. MAKGADIKGADI PANS  |                      |             | 19.2S               | 23.8E       | 50 | HO | 250 | N | N | 19910409 | 140113 | 244 | 292 | 34        | 62 |
| 74 | 79  | BOTSWANA              | MAKGADIKGADI PANS AREA     | 20.0S                | 26.0E       | 19.5S               | 24.4E       | 0  | LO | 250 | N | N | 19910409 | 140124 | 244 | 292 | 33        | 62 |
| 74 | 80  | ZIMBABWE              | HWANGE NATIONAL PARK AREA  | 19.0S                | 27.0E       | 19.5S               | 24.6E       | 0  | LO | 250 | N | N | 19910409 | 140127 | 244 | 292 | 33        | 62 |
| 74 | 81  | ZIMBABWE              | LAKE KARIBA AREA           | 18.0S                | 28.0E       | 19.7S               | 25.0E       | 0  | LO | 250 | N | N | 19910409 | 140133 | 244 | 292 | 32        | 62 |
| 74 | 82  | ZIMBABWE              | SW. ZIMBABWE AREA          |                      |             | 19.9S               | 25.4E       | 20 | LO | 250 | N | N | 19910409 | 140141 | 244 | 292 | 32        | 62 |
| 74 | 83  | ZAMBIA                |                            |                      |             | 19.9S               | 25.6E       | 5  | LO | 250 | N | N | 19910409 | 140144 | 244 | 292 | 32        | 62 |
| 74 | 84  | ZAMBIA                |                            |                      |             | 20.1S               | 26.0E       | 10 | LO | 250 | N | N | 19910409 | 140150 | 244 | 292 | 31        | 62 |
| 74 | 85  | ZAMBIA                |                            |                      |             | 20.3S               | 26.5E       | 50 | LO | 250 | N | N | 19910409 | 140158 | 244 | 291 | 31        | 62 |
| 74 | 86  | ZAMBIA                |                            |                      |             | 20.5S               | 27.1E       | 30 | LO | 250 | N | N | 19910409 | 140208 | 244 | 291 | 30        | 62 |
| 74 | 87  | ZIMBABWE              |                            |                      |             | 20.6S               | 27.4E       | 30 | LO | 250 | N | N | 19910409 | 140214 | 244 | 291 | 30        | 62 |
| 74 | 88  | ZIMBABWE              |                            |                      |             | 20.9S               | 28.3E       | 30 | LO | 250 | N | N | 19910409 | 140229 | 244 | 291 | 29        | 62 |
| 74 | 89  | ZIMBABWE              |                            |                      |             | 21.3S               | 29.3E       | 40 | LO | 250 | N | N | 19910409 | 140246 | 244 | 290 | 28        | 62 |
| 74 | 90  | ZIMBABWE              | E. END OF LAKE KARIBA      | 16.3S                | 29.1E       | 21.7S               | 30.4E       | 30 | LO | 250 | N | N | 19910409 | 140304 | 244 | 290 | 27        | 62 |
| 74 | 91  | ZIMBABWE              | MTNS. AREA                 |                      |             | 22.6S               | 33.4E       | 50 | LO | 250 | N | N | 19910409 | 140352 | 244 | 289 | 24        | 62 |
| 74 | 92  | ZIMBABWE              | MTNS. AREA                 |                      |             | 22.7S               | 33.8E       | 50 | LO | 250 | N | N | 19910409 | 140358 | 244 | 289 | 23        | 62 |
| 74 | 93  | MOZAMBIQUE            | BORDER AREA, ZIMBABWE      |                      |             | 23.4S               | 36.1E       | 0  | LO | 250 | N | N | 19910409 | 140435 | 244 | 288 | 21        | 62 |
| 74 | 94  | MOZAMBIQUE            | BORDER AREA, ZIMBABWE      |                      |             | 23.5S               | 36.4E       | 5  | LO | 250 | N | N | 19910409 | 140440 | 244 | 288 | 20        | 62 |
| 74 | 95  | MOZAMBIQUE            |                            |                      |             | 24.1S               | 38.4E       | 0  | HO | 250 | N | N | 19910409 | 140511 | 244 | 287 | 18        | 62 |
| 74 | 96  | MOZAMBIQUE            | COASTAL AREA               |                      |             | 24.1S               | 38.6E       | 0  | LO | 250 | N | N | 19910409 | 140515 | 244 | 287 | 18        | 62 |
| 74 | 97  | MOZAMBIQUE            | COASTAL AREA               |                      |             | 24.2S               | 39.0E       | 0  | HO | 250 | N | N | 19910409 | 140521 | 244 | 287 | 18        | 62 |
| 74 | 98  | REPUBLIC SOUTH AFRICA | NEAR SWAZILAND             | 28.0S                | 31.3E       | 24.5S               | 39.8E       | 0  | LO | 250 | N | N | 19910409 | 140534 | 244 | 286 | 17        | 62 |
| 74 | 99  | REPUBLIC SOUTH AFRICA | NEAR SWAZILAND             | 26.8S                | 31.5E       | 24.5S               | 40.0E       | 5  | LO | 250 | N | N | 19910409 | 140537 | 244 | 286 | 17        | 62 |
| 74 | 100 | SWAZILAND             | REP. S. AFRICA, MOZIAMB    | 26.5S                | 31.5E       | 24.6S               | 40.5E       | 5  | LO | 250 | N | N | 19910409 | 140545 | 244 | 286 | 16        | 62 |
| 74 | 101 | USA-CA                | MOJAVE DESERT AREA         | 35.2N                | 117.8W      | 28.4N               | 117.1W      | 0  | LO | 250 | N | N | 19910409 | 150049 | 244 | 89  | 15        | 63 |
| 74 | 102 | USA-CA                | S. END SAN JACQUIN VALLY   | 35.2N                | 119.0W      | 28.4N               | 116.8W      | 0  | LO | 250 | N | N | 19910409 | 150054 | 244 | 89  | 15        | 63 |
| 74 | 103 | USA-CA                | SIERRA NEVADA MTNS         | 36.0N                | 118.2W      | 28.4N               | 115.7W      | 10 | LO | 250 | N | N | 19910409 | 150110 | 244 | 90  | 16        | 63 |
| 74 | 104 | USA-CA                | SIERRA NEVADA MTNS         |                      |             | 28.4N               | 115.5W      | 20 | HO | 250 | N | N | 19910409 | 150113 | 244 | 90  | 17        | 63 |
| 74 | 105 | USA-CA                | AREA NW. LOS ANGELES       | 35.2N                | 120.0W      | 28.4N               | 115.3W      | 0  | LO | 250 | N | N | 19910409 | 150116 | 244 | 90  | 17        | 63 |
| 74 | 106 | USA-CA                | MOJAVE, L.A. AREA          | 34.5N                | 118.0W      | 28.3N               | 115.1W      | 0  | LO | 250 | N | N | 19910409 | 150119 | 244 | 90  | 17        | 63 |
| 74 | 107 | USA-CA                | LOS ANGELES BASIN          | 34.2N                | 116.8W      | 28.3N               | 114.9W      | 0  | LO | 250 | N | N | 19910409 | 150122 | 244 | 90  | 17        | 63 |
| 75 | 1   | ATLANTIC OCEAN        | LG STORM, CLOUD FORMATION  |                      |             | 28.5N               | 58.0W       | 90 | HO | 250 | N | N | 19910406 | 121358 | 246 | 101 | 32        | 15 |
| 75 | 2   | ATLANTIC OCEAN        | LG STORM, CLOUD FORMATION  |                      |             | 28.5N               | 58.2W       | 90 | LO | 250 | N | N | 19910406 | 121409 | 247 | 101 | 33        | 15 |
| 75 | 3   | MAURITANIA            | RICHAT, LTD. VIEW OF EARTH |                      |             | 23.8N               | 21.9W       | 0  | HO | 250 | N | N | 19910406 | 122312 | 246 | 134 | 66        | 15 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | NADIR<br>LAT | CC    | TL | FL  | E   | S | DATE     | GMT    | AL  | SUN<br>AZ | EL | OR |
|----|----|-----------------|----------------------------|---------------|--------------|-------|----|-----|-----|---|----------|--------|-----|-----------|----|----|
| 75 | 4  | MALI            | NIGER R., LTD VIEW EARTH   | 22.9N         | 19.0W        | 0     | H0 | 250 | N   | N | 19910406 | 122359 | 245 | 139       | 68 | 15 |
| 75 | 5  | TANZANIA        | S. SHORE LAKE VICTORIA     | 2.2S          | 32.0E        | 70    | L0 | 250 | N   | N | 19910406 | 123901 | 243 | 281       | 49 | 15 |
| 75 | 6  | TANZANIA        | S. SHORE LAKE VICTORIA     | 1.5S          | 32.2E        | 80    | L0 | 250 | N   | N | 19910406 | 123904 | 243 | 281       | 48 | 15 |
| 75 | 7  | TANZANIA        | S. SHORE LAKE VICTORIA     | 1.7S          | 31.4E        | 80    | L0 | 250 | N   | N | 19910406 | 123906 | 243 | 281       | 48 | 15 |
| 75 | 8  | TANZANIA        | S. SHORE LAKE VICTORIA     | 1.5S          | 33.1E        | 80    | L0 | 250 | N   | N | 19910406 | 123909 | 243 | 281       | 48 | 15 |
| 75 | 9  | TANZANIA        | S. SHORE LAKE VICTORIA     | 1.6S          | 33.0E        | 70    | L0 | 250 | N   | N | 19910406 | 123912 | 243 | 281       | 48 | 15 |
| 75 | 10 | TANZANIA        | S. SHORE LAKE VICTORIA     | 2.0S          | 33.0E        | 70    | L0 | 250 | N   | N | 19910406 | 123915 | 243 | 281       | 48 | 15 |
| 75 | 11 | TANZANIA        | LK. NATRON                 | 2.5S          | 35.4E        | 80    | L0 | 250 | N   | N | 19910406 | 123929 | 242 | 282       | 47 | 15 |
| 75 | 12 | TANZANIA        | LK. NATRON                 | 2.4S          | 35.4E        | 80    | L0 | 250 | N   | N | 19910406 | 123934 | 242 | 282       | 47 | 15 |
| 75 | 13 | TANZANIA        | LK. NATRON                 | 2.4S          | 36.0E        | 70    | L0 | 250 | N   | N | 19910406 | 123944 | 242 | 282       | 46 | 15 |
| 75 | 14 | TANZANIA        | C. RIFT, LK. MANYARA       | 3.2S          | 36.0E        | 70    | L0 | 250 | N   | N | 19910406 | 123958 | 242 | 282       | 45 | 15 |
| 75 | 15 | TANZANIA        | C. RIFT, LK. MANYARA       | 3.8S          | 35.8E        | 80    | L0 | 250 | N   | N | 19910406 | 124001 | 242 | 282       | 45 | 15 |
| 75 | 16 | TANZANIA        | C. RIFT, LKS MANYARA, NTRN | 3.1S          | 36.0E        | 80    | L0 | 250 | N   | N | 19910406 | 124004 | 242 | 282       | 45 | 15 |
| 75 | 17 | TANZANIA        | C. RIFT, LKS MANYARA, NTRN | 3.1S          | 36.0E        | 80    | L0 | 250 | N   | N | 19910406 | 124012 | 242 | 282       | 44 | 15 |
| 75 | 18 | TANZANIA        | C. RIFT, LK. NATRON        | 2.3S          | 36.0E        | 70    | L0 | 250 | N   | N | 19910406 | 124022 | 242 | 282       | 44 | 15 |
| 75 | 19 | TANZANIA        | C. RIFT, LK. NATRON        | 2.5S          | 36.5E        | 70    | L0 | 250 | N   | N | 19910406 | 124025 | 242 | 282       | 43 | 15 |
| 75 | 20 | TANZANIA        | C. RIFT AREA, E. OF NATRON | 4.4S          | 36.0E        | 80    | L0 | 250 | N   | N | 19910406 | 124034 | 242 | 283       | 43 | 15 |
| 75 | 21 | TANZANIA        | C. RIFT AREA, E. OF NATRON | 4.6S          | 36.4E        | 80    | L0 | 250 | N   | N | 19910406 | 124041 | 242 | 283       | 42 | 15 |
| 75 | 22 | TANZANIA        | C. RIFT AREA, LK. NATRON   | 4.7S          | 36.6E        | 70    | L0 | 250 | N   | N | 19910406 | 124045 | 242 | 283       | 42 | 15 |
| 75 | 23 | TANZANIA        | C. RIFT AREA, E. OF NATRON | 4.8S          | 36.9E        | 70    | L0 | 250 | N   | N | 19910406 | 124050 | 242 | 283       | 42 | 15 |
| 75 | 24 | TANZANIA        | TANGA AREA, COAST          | 4.9S          | 37.0E        | 80    | L0 | 250 | N   | N | 19910406 | 124053 | 242 | 283       | 42 | 15 |
| 75 | 25 | TANZANIA        | TANGA AREA, COAST, KENYA   | 5.0S          | 37.2E        | 80    | L0 | 250 | N   | N | 19910406 | 124056 | 242 | 283       | 41 | 15 |
| 75 | 26 | KENYA           | COAST                      | 5.1S          | 37.3E        | 70    | L0 | 250 | N   | N | 19910406 | 124058 | 242 | 283       | 41 | 15 |
| 75 | 27 | TANZANIA        | LAKE NATRON                | 2.7S          | 36.5E        | 50    | L0 | 250 | N   | N | 19910406 | 124105 | 242 | 283       | 41 | 15 |
| 75 | 28 | TANZANIA        | ZANZIBAR ISLAND            | 6.3S          | 39.3E        | 50    | L0 | 250 | N   | N | 19910406 | 124136 | 242 | 283       | 39 | 15 |
| 75 | 29 | TANZANIA        | ZANZIBAR, PENBA ISLANDS    | 5.8S          | 39.4E        | 50    | L0 | 250 | N   | N | 19910406 | 124139 | 242 | 283       | 39 | 15 |
| 75 | 30 | TANZANIA        | COAST, KENYA               | 6.6S          | 39.9E        | 50    | L0 | 250 | N   | N | 19910406 | 124147 | 242 | 283       | 38 | 15 |
| 75 | 31 | TANZANIA        | VERY CLOUDY                | 8.3S          | 42.9E        | 70    | L0 | 250 | N   | N | 19910406 | 124244 | 242 | 283       | 35 | 15 |
| 75 | 32 | TANZANIA        | MAFIA ISLAND, SUN GLINT    | 8.0S          | 39.8E        | 60    | L0 | 250 | N   | N | 19910406 | 124247 | 242 | 283       | 35 | 15 |
| 75 | 33 | MOZAMBIQUE      | HIGH OBLIQUE, VRY CLOUDY   | 8.7S          | 43.8E        | 95    | H0 | 250 | N   | N | 19910406 | 124301 | 242 | 283       | 34 | 15 |
| 75 | 34 | MOZAMBIQUE      | HIGH OBLIQUE, VRY CLOUDY   | 9.0S          | 44.3E        | 95    | H0 | 250 | N   | N | 19910406 | 124311 | 242 | 283       | 33 | 15 |
| 75 | 35 | MADAGASCAR      | STORM CLOUD, N. END IS.    | 10.6S         | 47.3E        | 95    | H0 | 250 | N   | N | 19910406 | 124406 | 242 | 283       | 30 | 15 |
| 75 | 36 | MADAGASCAR      | STORM CLOUD, N. END IS.    | 11.0S         | 48.1E        | 95    | H0 | 250 | N   | N | 19910406 | 124420 | 242 | 283       | 29 | 15 |
| 75 | 37 | MADAGASCAR      | STORM CLOUD, N. END IS.    | 11.4S         | 48.7E        | 95    | H0 | 250 | N   | N | 19910406 | 124432 | 242 | 283       | 28 | 15 |
| 75 | 38 | MADAGASCAR      | STORM CLOUD, N. END IS.    | 11.5S         | 49.0E        | 95    | H0 | 250 | N   | N | 19910406 | 124437 | 242 | 283       | 27 | 15 |
| 75 | 39 | MADAGASCAR      | STORM CLOUD, N. END IS.    | 12.2S         | 49.2E        | 80    | L0 | 250 | N   | N | 19910406 | 124446 | 242 | 283       | 27 | 15 |
| 75 | 40 | MEXICO          | LAKE CHAPALA, SMOKE PLUMS  | 26.1N         | 103.3W       | 60    | L0 | 250 | N   | N | 19910406 | 134220 | 246 | 89        | 13 | 16 |
| 75 | 41 | MEXICO          | LAKE CHAPALA, SMOKE PLUMS  | 26.3N         | 102.5W       | 80    | H0 | 250 | N   | N | 19910406 | 134233 | 246 | 89        | 14 | 16 |
| 75 | 42 | USA-FL          | CENTRAL FL., CLDY, HAZEY   | 28.5N         | 81.5W        | 77.1W | 80 | L0  | 250 | N | 19910406 | 134848 | 247 | 104       | 37 | 16 |
| 75 | 43 | USA-FL          | CENTRAL FL., CLDY, HAZEY   | 28.5N         | 81.5W        | 76.4W | 80 | L0  | 250 | N | 19910406 | 134858 | 247 | 105       | 38 | 16 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME    | FEATURE                  | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC  | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|--------------------|--------------------------|----------------------|---------------------|-----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 75 | 44 | USA-FL             | CENTRAL FL.,CLDY,HAZEY   | 28.4N                | 74.9W               | 90  | HO | 250 | N | N | 19910406 | 134919 | 246 | 106 | 39        | 16 |
| 75 | 45 | USA-FL             | CENTRAL FL.,CLDY,HAZEY   | 28.3N                | 72.5W               | 90  | HO | 250 | N | N | 19910406 | 134954 | 246 | 107 | 41        | 16 |
| 75 | 46 | DOMINICAN REPUBLIC | HISPANIOLA,VRY HI OBLIQ  | 27.5N                | 64.1W               | 80  | HO | 250 | N | N | 19910406 | 135158 | 246 | 114 | 49        | 16 |
| 75 | 47 | DOMINICAN REPUBLIC | HISPANIOLA,VRY HI OBLIQ  | 27.4N                | 63.3W               | 80  | HO | 250 | N | N | 19910406 | 135210 | 246 | 114 | 50        | 16 |
| 75 | 48 | ANGOLA             | VIEW ALONG SW COAST AFRC | 6.3S                 | 15.5E               | 90  | HO | 250 | N | N | 19910406 | 141504 | 242 | 283 | 39        | 16 |
| 75 | 49 | ANGOLA             | VIEW ALONG SW COAST AFRC | 6.6S                 | 16.0E               | 90  | HO | 250 | N | N | 19910406 | 141513 | 242 | 283 | 39        | 16 |
| 75 | 50 | ANGOLA             | VRY CLDY                 | 6.8S                 | 16.5E               | 95  | LO | 250 | N | N | 19910406 | 141522 | 242 | 283 | 38        | 16 |
| 75 | 51 | ANGOLA             | VRY CLDY                 | 8.6S                 | 19.6E               | 95  | LO | 250 | N | N | 19910406 | 141621 | 242 | 284 | 35        | 16 |
| 75 | 52 | ZAMBIA             | CLDY,HOLES OVER RIVERS   | 9.6S                 | 21.6E               | 90  | HO | 250 | N | N | 19910406 | 141657 | 242 | 284 | 32        | 16 |
| 75 | 53 | ZAMBIA             | CLDY,HOLES OVER RIVERS   | 10.1S                | 22.5E               | 90  | HO | 250 | N | N | 19910406 | 141715 | 242 | 284 | 31        | 16 |
| 75 | 54 | ZAMBIA             | CLDY,HOLES OVER RIVERS   | 10.5S                | 23.3E               | 90  | LO | 250 | N | N | 19910406 | 141729 | 242 | 284 | 30        | 16 |
| 75 | 55 | ZAMBIA             | LAKE KARIBA              | 17.2S                | 27.6E               | 70  | LO | 250 | N | N | 19910406 | 141822 | 242 | 283 | 27        | 16 |
| 75 | 56 | ZAMBIA             | LUKANGA SWAMP            | 12.4S                | 26.9E               | 70  | LO | 250 | N | N | 19910406 | 141835 | 242 | 283 | 26        | 16 |
| 75 | 57 | ZIMBABWE           | LAKE KARIBA              | 18.0S                | 29.0E               | 60  | LO | 250 | N | N | 19910406 | 141909 | 242 | 283 | 24        | 16 |
| 75 | 58 | MOZAMBIQUE         | ZAMBESI R.,MEGA FAN      | 13.7S                | 29.4E               | 60  | HO | 250 | N | N | 19910406 | 141921 | 242 | 283 | 23        | 16 |
| 75 | 59 | MOZAMBIQUE         | ZAMBESI R.,MEGA FAN      | 13.8S                | 29.8E               | 60  | HO | 250 | N | N | 19910406 | 141927 | 242 | 283 | 23        | 16 |
| 75 | 60 | MOZAMBIQUE         | ZAMBESI R.,MEGA FAN      | 14.1S                | 30.3E               | 60  | HO | 250 | N | N | 19910406 | 141936 | 242 | 283 | 22        | 16 |
| 75 | 61 | MOZAMBIQUE         | ZAMBESI R.,MEGA FAN      | 14.8S                | 31.8E               | 60  | LO | 250 | N | N | 19910406 | 142003 | 242 | 283 | 21        | 16 |
| 75 | 62 | ZIMBABWE           | LUNDI,SABI,& SAVE RIVERS | 14.9S                | 32.1E               | 40  | LO | 250 | N | N | 19910406 | 142008 | 242 | 282 | 20        | 16 |
| 75 | 63 | MOZAMBIQUE         | LUNDI,SABI,& SAVE RIVERS | 15.4S                | 33.0E               | 60  | LO | 250 | N | N | 19910406 | 142024 | 242 | 282 | 19        | 16 |
| 75 | 64 | MOZAMBIQUE         | COAST                    | 15.7S                | 33.7E               | 50  | HO | 250 | N | N | 19910406 | 142038 | 242 | 282 | 18        | 16 |
| 75 | 65 | MOZAMBIQUE         | COAST,SAVE & PUNGUE RVS. | 20.2S                | 34.2E               | 0   | LO | 250 | N | N | 19910406 | 142046 | 242 | 282 | 18        | 16 |
| 75 | 66 | MOZAMBIQUE         | COAST,MEGA FANS          | 21.2S                | 35.5E               | 0   | LO | 250 | N | N | 19910406 | 142112 | 242 | 282 | 16        | 16 |
| 75 | 67 | MOZAMBIQUE         | PUNGUE RV. DELTA         | 20.0S                | 36.0E               | 0   | LO | 250 | N | N | 19910406 | 142138 | 242 | 281 | 15        | 16 |
| 75 | 68 |                    | ORB.TAIL,CLOUDS          | 18.3S                | 39.6E               | 100 | HO | 250 | N | N | 19910406 | 142219 | 242 | 281 | 12        | 16 |
| 75 | 69 |                    | ORB.TAIL,CLOUDS          | 18.4S                | 39.9E               | 100 | HO | 250 | N | N | 19910406 | 142225 | 242 | 281 | 12        | 16 |
| 75 | 70 | USA-CA             | SALTON SEA AREA          | 27.8N                | 116.5W              | 60  | HO | 250 | N | N | 19910406 | 151826 | 246 | 94  | 22        | 17 |
| 75 | 71 | USA-CA             | SALTON SEA AREA          | 27.9N                | 115.7W              | 40  | HO | 250 | N | N | 19910406 | 151838 | 246 | 95  | 23        | 17 |
| 75 | 72 | MEXICO             | BAJA CALIFORNIA          | 28.3N                | 109.8W              | 40  | HO | 250 | N | N | 19910406 | 152005 | 246 | 98  | 29        | 17 |
| 75 | 73 | MEXICO             | WEST OF CHIHUAHUA        | 28.4N                | 108.4W              | 0   | LO | 250 | N | N | 19910406 | 152025 | 246 | 99  | 30        | 17 |
| 75 | 74 | MEXICO             | WEST OF CHIHUAHUA        | 28.4N                | 107.7W              | 10  | HO | 250 | N | N | 19910406 | 152035 | 246 | 100 | 30        | 17 |
| 75 | 75 | MEXICO             | WEST OF CHIHUAHUA        | 28.5N                | 107.0W              | 0   | LO | 250 | N | N | 19910406 | 152045 | 246 | 100 | 31        | 17 |
| 75 | 76 | MEXICO             | NW MEXICO                | 28.5N                | 106.5W              | 20  | HO | 250 | N | N | 19910406 | 152053 | 246 | 100 | 32        | 17 |
| 75 | 77 | MEXICO             | ORB.TAIL,BAJA CALIFORNIA | 28.5N                | 105.7W              | 30  | HO | 250 | N | N | 19910406 | 152104 | 246 | 101 | 32        | 17 |
| 75 | 78 | MEXICO             | ORB.TAIL,BAJA CALIFORNIA | 28.5N                | 104.2W              | 20  | HO | 250 | N | N | 19910406 | 152126 | 246 | 102 | 34        | 17 |
| 75 | 79 | USA-TX             | AMISTAD RES.,VRY CLDY    | 29.5N                | 101.0W              | 90  | LO | 250 | N | N | 19910406 | 152237 | 246 | 105 | 38        | 17 |
| 75 | 80 | NAMIBIA            | HAZY,OVER EXPOSED        | 14.4S                | 7.0E                | 70  | HO | 250 | N | N | 19910406 | 155313 | 243 | 283 | 22        | 17 |
| 75 | 81 | NAMIBIA            | ETOSHA PAN AREA          | 18.8S                | 16.5E               | 60  | LO | 250 | N | N | 19910406 | 155500 | 243 | 282 | 15        | 17 |
| 75 | 82 | NAMIBIA            | ETOSHA PAN AREA          | 18.8S                | 16.5E               | 60  | LO | 250 | N | N | 19910406 | 155505 | 243 | 282 | 15        | 17 |
| 75 | 83 | NAMIBIA            | CLDY, HAZY               | 18.4S                | 16.0E               | 60  | LO | 250 | N | N | 19910406 | 155550 | 243 | 281 | 12        | 17 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME    | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|--------------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 75 | 84  | NAMIBIA            | CLDY, HAZY                |                      | 18.8S 17.1E         | 60 | LO | 250 | N | N | 19910408 | 155609 | 243 | 280 | 11        | 17 |
| 75 | 85  | PACIFIC OCEAN      | CLDS. N. OF HAWAII IS.    |                      | 25.1N 155.7W        | 80 | LO | 250 | N | N | 19910408 | 164801 | 246 | 86  | 7         | 18 |
| 75 | 86  | PACIFIC OCEAN      | CLDS. N. OF HAWAII IS.    |                      | 25.2N 155.3W        | 80 | LO | 250 | N | N | 19910408 | 164808 | 246 | 86  | 8         | 18 |
| 75 | 87  | PACIFIC OCEAN      | CLDS. N. OF HAWAII IS.    |                      | 25.4N 154.4W        | 80 | LO | 250 | N | N | 19910408 | 164822 | 246 | 87  | 9         | 18 |
| 75 | 88  | MEXICO             | IS. WAKES, BAJA CALIF.    |                      | 28.4N 122.4W        | 80 | LO | 250 | N | N | 19910408 | 165616 | 246 | 105 | 38        | 18 |
| 75 | 89  | PACIFIC OCEAN      | CLOUDS & WATER            |                      | 28.2N 118.4W        | 60 | LO | 250 | N | N | 19910408 | 165714 | 246 | 108 | 42        | 18 |
| 75 | 90  | MEXICO             | BAJA CA., VIZCAINO DESERT | 28.0N 113.0W         | 28.1N 116.9W        | 20 | LO | 250 | N | N | 19910408 | 165735 | 246 | 109 | 43        | 18 |
| 75 | 91  | MEXICO             | YUCATAN, NE TIP           | 20.0N 86.0W          | 21.0N 84.8W         | 70 | LO | 250 | N | N | 19910408 | 170552 | 245 | 147 | 73        | 18 |
| 75 | 92  | VENEZUELA          | ISLA DE MARGARITA         | 11.0N 64.0W          | 11.2N 63.0W         | 80 | LO | 250 | N | N | 19910408 | 171213 | 244 | 252 | 74        | 18 |
| 75 | 93  | VENEZUELA          | ORINOCO RIVER DELTA       |                      | 10.6N 61.8W         | 95 | LO | 250 | N | N | 19910408 | 171235 | 244 | 256 | 73        | 18 |
| 75 | 94  | VENEZUELA          | ORINOCO RIVER DELTA       |                      | 10.4N 61.4W         | 95 | LO | 250 | N | N | 19910408 | 171242 | 244 | 257 | 73        | 18 |
| 75 | 95  | VENEZUELA          | ORINOCO RIVER DELTA       | 10.0N 62.5W          | 10.3N 61.2W         | 90 | LO | 250 | N | N | 19910408 | 171247 | 244 | 258 | 73        | 18 |
| 75 | 96  | VENEZUELA          | ORINOCO RIVER DELTA       | 10.0N 62.5W          | 10.0N 60.6W         | 90 | LO | 250 | N | N | 19910408 | 171257 | 244 | 259 | 72        | 18 |
| 75 | 97  | VENEZUELA          | ORINOCO RIVER DELTA       | 9.0N 59.7W           | 8.8N 58.5W          | 60 | LO | 250 | N | N | 19910408 | 171336 | 244 | 264 | 70        | 18 |
| 75 | 98  | GUYANA             | COAST, BDR. SURINAM       | 7.0N 56.5W           | 8.5N 57.9W          | 60 | LO | 250 | N | N | 19910408 | 171347 | 244 | 265 | 70        | 18 |
| 75 | 99  | SURINAM            | PARAMARIBO AREA           | 7.0N 55.0W           | 7.6N 56.3W          | 60 | LO | 250 | N | N | 19910408 | 171418 | 244 | 268 | 68        | 18 |
| 75 | 100 | SURINAM            | PARAMARIBO AREA           | 7.0N 55.0W           | 6.7N 54.7W          | 60 | LO | 250 | N | N | 19910408 | 171447 | 243 | 270 | 66        | 18 |
| 75 | 101 | SURINAM            | PARAMARIBO AREA           | 4.6N 55.0W           | 6.5N 54.3W          | 95 | LO | 250 | N | N | 19910408 | 171456 | 243 | 271 | 66        | 18 |
| 75 | 102 | FRENCH GUIANA      | KOUROU AREA, COAST        | 6.0N 52.3W           | 5.5N 52.5W          | 60 | LO | 250 | N | N | 19910408 | 171530 | 243 | 273 | 64        | 18 |
| 75 | 103 | FRENCH GUIANA      | BORDER WITH BRAZIL        | 5.2N 51.8W           | 5.2N 52.1W          | 70 | LO | 250 | N | N | 19910408 | 171537 | 243 | 273 | 63        | 18 |
| 75 | 104 | BRAZIL             | MOUTH AMAZON RIVER        | 2.0N 49.5W           | 3.9N 49.8W          | 90 | LO | 250 | N | N | 19910408 | 171620 | 243 | 276 | 61        | 18 |
| 76 | 1   | USA                |                           |                      | 25.7N 95.2W         | 50 | HO | 250 | N | N | 19910409 | 150615 | 245 | 102 | 39        | 63 |
| 76 | 2   | USA-FL             | AREA E. OF PANAMA CITY    | 30.0N 85.0W          | 6.1N 44.7W          | 50 | LO | 250 | N | N | 19910409 | 150729 | 245 | 104 | 44        | 63 |
| 76 | 3   | USA-FL             | CENTRAL FL., VRY CLDY     | 28.5N 81.5W          | 5.4N 43.4W          | 90 | LO | 250 | N | N | 19910409 | 150808 | 245 | 105 | 46        | 63 |
| 76 | 4   | USA-FL             | CENTRAL FL., VRY CLDY     |                      | 4.9N 42.6W          | 90 | LO | 250 | N | N | 19910409 | 150853 | 245 | 106 | 49        | 63 |
| 76 | 5   | BAHAMAS            | ANDROS ISLAND             | 24.3N 77.8W          | 4.8N 42.5W          | 70 | LO | 250 | N | N | 19910409 | 150917 | 245 | 107 | 51        | 63 |
| 76 | 6   | BAHAMAS            | ANDROS ISLAND             | 24.3N 77.8W          | 4.8N 42.5W          | 70 | LO | 250 | N | N | 19910409 | 150932 | 245 | 107 | 52        | 63 |
| 76 | 7   | BAHAMAS            | TONGUE OF OCEAN AREA      | 24.2N 75.4W          | 4.8N 42.6W          | 60 | LO | 250 | N | N | 19910409 | 150945 | 245 | 107 | 53        | 63 |
| 76 | 8   | BAHAMAS            | TONGUE OF OCEAN AREA      | 24.7N 75.8W          | 4.8N 42.7W          | 70 | LO | 250 | N | N | 19910409 | 150957 | 245 | 107 | 53        | 63 |
| 76 | 9   | BAHAMAS            | CAT ISLAND                | 24.4N 75.5W          | 5.8N 45.4W          | 60 | LO | 250 | N | N | 19910409 | 151159 | 245 | 110 | 61        | 63 |
| 76 | 10  | BAHAMAS            | CROOKED & ACKLINS IS.     | 22.8N 73.8W          | 6.0N 45.7W          | 60 | LO | 250 | N | N | 19910409 | 151210 | 245 | 110 | 62        | 63 |
| 76 | 11  | BAHAMAS            | ACKLINS ISLAND            | 23.0N 73.5W          | 6.1N 46.0W          | 60 | LO | 250 | N | N | 19910409 | 151217 | 245 | 110 | 62        | 63 |
| 76 | 12  | BAHAMAS            | MAYAGUANA IS.             | 22.6N 72.8W          | 6.2N 46.1W          | 60 | LO | 250 | N | N | 19910409 | 151222 | 244 | 110 | 63        | 63 |
| 76 | 13  | HAITI              | MASSIF DU SUD             | 18.3N 74.0W          | 6.7N 47.3W          | 60 | LO | 250 | N | N | 19910409 | 151300 | 244 | 111 | 65        | 63 |
| 76 | 14  | HAITI              | MASSIF DU SUD             | 18.3N 73.3W          | 6.7N 47.4W          | 60 | LO | 250 | N | N | 19910409 | 151303 | 244 | 111 | 65        | 63 |
| 76 | 15  | HAITI              | PORT AU PRINCE AREA       | 18.3N 72.3W          | 6.8N 47.5W          | 30 | LO | 250 | N | N | 19910409 | 151305 | 244 | 111 | 65        | 63 |
| 76 | 16  | HAITI              | PORT AU PRINCE AREA       | 18.3N 72.0W          | 6.8N 47.5W          | 30 | LO | 250 | N | N | 19910409 | 151307 | 244 | 111 | 66        | 63 |
| 76 | 17  | HAITI              | PORT AU PRINCE AREA       | 18.7N 72.8W          | 6.8N 47.6W          | 30 | LO | 250 | N | N | 19910409 | 151310 | 244 | 111 | 66        | 63 |
| 76 | 18  | HAITI              | PORT AU PRINCE AREA       | 19.0N 72.3W          | 6.9N 47.7W          | 20 | LO | 250 | N | N | 19910409 | 151313 | 244 | 111 | 66        | 63 |
| 76 | 19  | DOMINICAN REPUBLIC | SIERRA DE BAORUCO         | 18.0N 71.5W          | 6.9N 47.9W          | 20 | LO | 250 | N | N | 19910409 | 151317 | 244 | 111 | 66        | 63 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME    | FEATURE                   | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|----|--------------------|---------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |    |                    |                           | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 76 | 20 | DOMINICAN REPUBLIC | RIFT AREA, BARAHONA       | 18.2N  | 71.2W | 7.0N  | 48.0W | 10 | LO | 250 | N | N | 19910409 | 151320 | 244 | 111 | 66  | 63 |    |
| 76 | 21 | DOMINICAN REPUBLIC | RIFT AREA, BARAHONA       | 18.2N  | 70.8W | 7.0N  | 48.0W | 10 | LO | 250 | N | N | 19910409 | 151322 | 244 | 111 | 67  | 63 |    |
| 76 | 22 | DOMINICAN REPUBLIC | CORDILLERA CENTRAL        | 18.8N  | 71.2W | 7.0N  | 48.1W | 20 | LO | 250 | N | N | 19910409 | 151325 | 244 | 111 | 67  | 63 |    |
| 76 | 23 | DOMINICAN REPUBLIC | RIFT VALLEY               | 18.8N  | 71.7W | 7.1N  | 48.2W | 20 | LO | 250 | N | N | 19910409 | 151328 | 244 | 111 | 67  | 63 |    |
| 76 | 24 | HAITI              | NORTH CENTRAL AREA        | 19.2N  | 72.1W | 7.1N  | 48.3W | 20 | LO | 250 | N | N | 19910409 | 151332 | 244 | 112 | 67  | 63 |    |
| 76 | 25 | HAITI              | NORTHWEST AREA            | 19.5N  | 72.5W | 7.2N  | 48.5W | 20 | LO | 250 | N | N | 19910409 | 151337 | 244 | 112 | 68  | 63 |    |
| 76 | 26 | HAITI              | NORTHWEST AREA            | 19.3N  | 72.2W | 7.3N  | 48.6W | 20 | LO | 250 | N | N | 19910409 | 151340 | 244 | 112 | 68  | 63 |    |
| 76 | 27 | HAITI              | NORTHEAST AREA            | 19.3N  | 71.9W | 7.3N  | 48.7W | 30 | LO | 250 | N | N | 19910409 | 151343 | 244 | 112 | 68  | 63 |    |
| 76 | 28 | DOMINICAN REPUBLIC | NORTHWEST AREA            | 19.4N  | 71.5W | 7.3N  | 48.8W | 30 | LO | 250 | N | N | 19910409 | 151346 | 244 | 112 | 68  | 63 |    |
| 76 | 29 | DOMINICAN REPUBLIC | CENTRAL AREA              | 19.0N  | 70.7W | 7.4N  | 48.8W | 60 | LO | 250 | N | N | 19910409 | 151348 | 244 | 112 | 68  | 63 |    |
| 76 | 30 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.6N  | 69.0W | 7.6N  | 49.4W | 60 | LO | 250 | N | N | 19910409 | 151406 | 244 | 112 | 69  | 63 |    |
| 76 | 31 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.6N  | 69.4W | 7.7N  | 49.5W | 60 | LO | 250 | N | N | 19910409 | 151411 | 244 | 112 | 70  | 63 |    |
| 76 | 32 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.6N  | 69.8W | 7.8N  | 49.7W | 70 | LO | 250 | N | N | 19910409 | 151418 | 244 | 112 | 70  | 63 |    |
| 76 | 33 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.8N  | 69.8W | 7.8N  | 49.9W | 70 | LO | 250 | N | N | 19910409 | 151424 | 244 | 112 | 71  | 63 |    |
| 76 | 34 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.0N  | 68.0W | 7.9N  | 50.1W | 60 | LO | 250 | N | N | 19910409 | 151431 | 244 | 112 | 71  | 63 |    |
| 76 | 35 | PUERTO RICO        | MONA PASSAGE              | 18.0N  | 67.7W | 8.1N  | 50.5W | 50 | LO | 250 | N | N | 19910409 | 151446 | 244 | 112 | 72  | 63 |    |
| 76 | 36 | PUERTO RICO        | WESTERN 2/3 ISLAND        | 18.2N  | 66.8W | 8.1N  | 50.5W | 50 | LO | 250 | N | N | 19910409 | 151449 | 244 | 112 | 72  | 63 |    |
| 76 | 37 | PUERTO RICO        |                           | 18.0N  | 66.4W | 8.2N  | 50.6W | 50 | LO | 250 | N | N | 19910409 | 151452 | 244 | 113 | 72  | 63 |    |
| 76 | 38 | PUERTO RICO        | EASTERN HALF IS.          | 18.2N  | 65.8W | 8.2N  | 50.7W | 50 | LO | 250 | N | N | 19910409 | 151457 | 244 | 113 | 73  | 63 |    |
| 76 | 39 | VIRGIN ISLANDS     | ST THOMAS & JOHN ISLANDS  | 18.4N  | 64.9W | 8.4N  | 51.0W | 60 | LO | 250 | N | N | 19910409 | 151508 | 244 | 113 | 73  | 63 |    |
| 76 | 40 | VIRGIN ISLANDS     | ST THOMAS & JOHN ISLANDS  | 18.4N  | 64.8W | 8.4N  | 51.2W | 50 | LO | 250 | N | N | 19910409 | 151517 | 244 | 113 | 74  | 63 |    |
| 76 | 41 | VIRGIN ISLANDS     | ST THOMAS & JOHN ISLANDS  | 18.3N  | 64.8W | 8.5N  | 51.4W | 50 | LO | 250 | N | N | 19910409 | 151528 | 244 | 113 | 75  | 63 |    |
| 76 | 42 | LESSER ANTILLES    | ST VINCENT                | 13.2N  | 61.2W | 8.7N  | 51.8W | 30 | NV | 250 | N | N | 19910409 | 151549 | 244 | 113 | 76  | 63 |    |
| 76 | 43 | LESSER ANTILLES    | ST LUCIA                  | 13.7N  | 60.9W | 8.7N  | 51.8W | 40 | LO | 250 | N | N | 19910409 | 151552 | 244 | 113 | 76  | 63 |    |
| 76 | 44 | LESSER ANTILLES    | MARTINIQUE, CLDY OVR ISL. | 14.5N  | 61.0W | 8.8N  | 51.9W | 40 | LO | 250 | N | N | 19910409 | 151600 | 244 | 113 | 77  | 63 |    |
| 76 | 45 | LESSER ANTILLES    | ST. CHRISTOPHER, NEVI IS. | 17.1N  | 62.6W | 8.8N  | 52.0W | 50 | LO | 250 | N | N | 19910409 | 151606 | 244 | 113 | 77  | 63 |    |
| 76 | 46 | LESSER ANTILLES    | BARBUDA, ANTIQUA IS.      | 17.1N  | 61.9W | 8.8N  | 52.1W | 50 | LO | 250 | N | N | 19910409 | 151611 | 244 | 113 | 77  | 63 |    |
| 76 | 47 | LESSER ANTILLES    | BARBADOS                  | 13.2N  | 59.8W | 8.9N  | 52.3W | 60 | LO | 250 | N | N | 19910409 | 151635 | 244 | 113 | 79  | 63 |    |
| 76 | 48 | NAMIBIA            | BRANDBERG AREA            | 21.5S  | 15.0E | 23.3S | 11.6E | 0  | LO | 250 | N | N | 19910409 | 153745 | 245 | 287 | 19  | 63 |    |
| 76 | 49 | NAMIBIA            | BORDER WITH REP. S. AFRIA | 23.7S  | 15.0E | 24.0S | 14.0E | 0  | LO | 250 | N | N | 19910409 | 153824 | 245 | 286 | 16  | 63 |    |
| 76 | 50 | NAMIBIA            | NAMIB DESERT              | 24.6S  | 15.5E | 24.1S | 14.4E | 0  | LO | 250 | N | N | 19910409 | 153830 | 245 | 286 | 16  | 63 |    |
| 76 | 51 | NAMIBIA            | NAMIB DESERT              | 24.8S  | 15.8E | 24.2S | 14.9E | 0  | LO | 250 | N | N | 19910409 | 153838 | 245 | 286 | 15  | 63 |    |
| 76 | 52 | NAMIBIA            | NAMIB DESERT              | 25.2S  | 16.0E | 24.2S | 15.1E | 0  | LO | 250 | N | N | 19910409 | 153841 | 245 | 285 | 15  | 63 |    |
| 76 | 53 | NAMIBIA            | NAMIB DESERT              | 25.5S  | 16.0E | 24.3S | 15.4E | 0  | LO | 250 | N | N | 19910409 | 153845 | 245 | 285 | 15  | 63 |    |
| 76 | 54 | NAMIBIA            | NAMIB DESERT              | 25.5S  | 15.5E | 24.4S | 15.6E | 0  | LO | 250 | N | N | 19910409 | 153849 | 245 | 285 | 15  | 63 |    |
| 76 | 55 | NAMIBIA            | NAMIB DESERT              | 26.0S  | 15.5E | 24.4S | 15.8E | 0  | LO | 250 | N | N | 19910409 | 153852 | 245 | 285 | 14  | 63 |    |
| 76 | 56 | NAMIBIA            | NAMIB DESERT              | 26.1S  | 16.0E | 24.5S | 16.0E | 0  | LO | 250 | N | N | 19910409 | 153855 | 245 | 285 | 14  | 63 |    |
| 76 | 57 | NAMIBIA            | RUGGED MTNS E. NAMIB DSRT | 25.5S  | 16.5E | 24.5S | 16.2E | 0  | LO | 250 | N | N | 19910409 | 153858 | 245 | 285 | 14  | 63 |    |
| 76 | 58 | NAMIBIA            | RUGGED MTNS E. NAMIB DSRT | 25.8S  | 16.8E | 24.6S | 16.4E | 0  | LO | 250 | N | N | 19910409 | 153902 | 245 | 285 | 14  | 63 |    |
| 76 | 59 | NAMIBIA            | RUGGED MTNS E. NAMIB DSRT | 25.6S  | 16.4E | 24.6S | 16.6E | 0  | LO | 250 | N | N | 19910409 | 153904 | 245 | 285 | 14  | 63 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME       | FEATURE                    | CENTER<br>LAT | LONG  | MADIR<br>LAT | LONG  | CC | TL  | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------------|----------------------------|---------------|-------|--------------|-------|----|-----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 76 | 60 | NAMIBIA               | RUGGED MTNS E. NAMIB       | 26.5S         | 17.0E | 24.7S        | 16.8E | 0  | LO  | 250 | N | N | 19910409 | 153907 | 245 | 285 | 13        | 63 |
| 76 | 61 | NAMIBIA               | LARGE AREA SALT FLATS      | 25.0S         | 17.0E | 24.8S        | 17.3E | 0  | LO  | 250 | N | N | 19910409 | 153915 | 245 | 285 | 13        | 63 |
| 76 | 62 | NAMIBIA               | RUGGED HTLS                | 24.0S         | 16.0E | 25.0S        | 17.9E | 0  | LO  | 250 | N | N | 19910409 | 153925 | 245 | 284 | 12        | 63 |
| 76 | 63 | NAMIBIA               | NAUKLUFBERGE               | 24.2S         | 16.2E | 25.2S        | 18.8E | 0  | LO  | 250 | N | N | 19910409 | 153939 | 245 | 284 | 11        | 63 |
| 76 | 64 | NAMIBIA               | LEWERRIVIER, W. EDGE KALAH | 25.1S         | 17.8E | 25.2S        | 19.1E | 0  | LO  | 250 | N | N | 19910409 | 153944 | 245 | 284 | 11        | 63 |
| 76 | 65 | NAMIBIA               | MARIENTAL AREA             | 24.9S         | 18.1E | 25.3S        | 19.5E | 0  | LO  | 250 | N | N | 19910409 | 153950 | 245 | 283 | 11        | 63 |
| 76 | 66 | NAMIBIA               | AREA NNW OF KEETMANSHOOP   | 26.2S         | 18.0E | 25.4S        | 19.7E | 0  | LO  | 250 | N | N | 19910409 | 153953 | 245 | 283 | 10        | 63 |
| 76 | 67 | NAMIBIA               | AREA N OF KEETMANSHOOP     | 26.2S         | 18.2E | 25.4S        | 19.9E | 0  | LO  | 250 | N | N | 19910409 | 153955 | 245 | 283 | 10        | 63 |
| 76 | 68 | NAMIBIA               | AREA S. OF KEETMANSHOOP    | 27.3S         | 18.5E | 25.5S        | 20.1E | 0  | LO  | 250 | N | N | 19910409 | 153959 | 245 | 283 | 10        | 63 |
| 76 | 69 | NAMIBIA               | HAKSKEEN PAN AREA          | 27.2S         | 20.3E | 25.6S        | 20.6E | 0  | OO  | 250 | N | N | 19910409 | 154007 | 245 | 283 | 10        | 63 |
| 76 | 70 | REPUBLIC SOUTH AFRICA | S. KALAHARI DESERT         | 27.5S         | 20.8E | 25.6S        | 21.0E | 0  | LO  | 250 | N | N | 19910409 | 154012 | 245 | 283 | 9         | 63 |
| 76 | 71 | REPUBLIC SOUTH AFRICA | MOLOPO RIVER               | 26.6S         | 22.1E | 25.7S        | 21.4E | 0  | LO  | 250 | N | N | 19910409 | 154018 | 245 | 283 | 9         | 63 |
| 76 | 72 | REPUBLIC SOUTH AFRICA | JUNCTION NOSSOB, MOLOPO R  | 26.8S         | 20.9E | 25.9S        | 22.1E | 0  | LO  | 250 | N | N | 19910409 | 154030 | 245 | 282 | 8         | 63 |
| 76 | 73 | REPUBLIC SOUTH AFRICA |                            |               | 26.0S | 22.6E        | 22.6E | 0  | LO  | 250 | N | N | 19910409 | 154037 | 245 | 282 | 8         | 63 |
| 76 | 74 | REPUBLIC SOUTH AFRICA |                            |               | 26.0S | 22.7E        | 22.7E | 0  | LO  | 250 | N | N | 19910409 | 154039 | 245 | 282 | 8         | 63 |
| 76 | 75 | REPUBLIC SOUTH AFRICA |                            |               | 26.1S | 22.9E        | 22.9E | 0  | LO  | 250 | N | N | 19910409 | 154042 | 245 | 282 | 7         | 63 |
| 76 | 76 | REPUBLIC SOUTH AFRICA |                            |               | 26.1S | 23.1E        | 23.1E | 0  | LO  | 250 | N | N | 19910409 | 154045 | 245 | 282 | 7         | 63 |
| 76 | 77 | MEXICO                | SMOKE VALLEYS S. MEXICO    |               | 17.6N |              | 94.4W | 50 | LO  | 250 | N | N | 19910409 | 164622 | 245 | 110 | 64        | 64 |
| 76 | 78 | MEXICO                | PRESA DE LA ANGOSTURA      | 6.2N          | 92.0W | 17.4N        | 94.0W | 30 | LO  | 250 | N | N | 19910409 | 164630 | 245 | 111 | 65        | 64 |
| 76 | 79 | NICARAGUA             | MANAGUA AREA, HAZY         | 12.2N         | 86.3W | 16.0N        | 90.8W | 70 | LO  | 250 | N | N | 19910409 | 164726 | 245 | 111 | 69        | 64 |
| 76 | 80 | NICARAGUA             | HONDURAS BORDER            |               | 15.6N |              | 90.0W | 95 | LO  | 250 | N | N | 19910409 | 164740 | 245 | 111 | 69        | 64 |
| 76 | 81 | CARIBBEAN SEA         | UNIDENTIFIED CAYS          |               | 13.8N |              | 86.2W | 40 | LO  | 250 | N | N | 19910409 | 164847 | 245 | 112 | 74        | 64 |
| 76 | 82 | BRAZIL                | AREA NEAR SALVADOR         |               | 12.8S |              | 38.2W | 80 | LO  | 250 | N | N | 19910409 | 170350 | 245 | 296 | 47        | 64 |
| 76 | 83 | BRAZIL                | AREA NEAR SALVADOR         |               | 13.3S |              | 37.1W | 95 | LO  | 250 | N | N | 19910409 | 170409 | 245 | 296 | 46        | 64 |
| 76 | 84 | BRAZIL                | NEAR SALVADOR, COAST       |               | 13.8S |              | 36.1W | 70 | LO  | 250 | N | N | 19910409 | 170427 | 245 | 296 | 45        | 64 |
| 76 | 85 | BRAZIL                | NEAR SALVADOR, COAST       |               | 13.9S |              | 35.9W | 95 | LO  | 250 | N | N | 19910409 | 170430 | 245 | 296 | 45        | 64 |
| 76 | 86 | ECUADOR               | COAST, S OF MANTA          | 2.2S          | 80.4W |              | 82.8W | 90 | LO  | 250 | N | N | 19910409 | 183046 | 245 | 301 | 73        | 65 |
| 76 | 87 | ECUADOR               | NEAR MANTA                 |               | 1.4S  |              | 82.6W | 95 | LO  | 250 | N | N | 19910409 | 183050 | 245 | 301 | 73        | 65 |
| 76 | 88 | PERU                  | HIGH OBLIQUE, W. COAST     |               | 1.9S  |              | 81.8W | 80 | HO  | 250 | N | N | 19910409 | 183106 | 245 | 301 | 71        | 65 |
| 76 | 89 | ECUADOR               | NEAR MANTA, COAST          |               | 2.5S  |              | 80.9W | 70 | LO  | 250 | N | N | 19910409 | 183123 | 245 | 301 | 70        | 65 |
| 76 | 90 | ECUADOR               | PUNTA SANTA ELENA AREA     | 2.2S          | 80.4W |              | 80.7W | 70 | LO  | 250 | N | N | 19910409 | 183127 | 245 | 301 | 70        | 65 |
| 76 | 91 | PERU                  | COAST, NEAR TUMBES         |               | 2.7S  |              | 80.4W | 70 | LO  | 250 | N | N | 19910409 | 183132 | 245 | 301 | 70        | 65 |
| 76 | 92 | PERU                  | SECHURA DESERT             | 4.8S          | 81.0W |              | 80.1W | 30 | LO  | 250 | N | N | 19910409 | 183137 | 245 | 301 | 70        | 65 |
| 76 | 93 | PERU                  | SECHURA DESERT             | 5.2S          | 80.8W |              | 80.0W | 20 | LO  | 250 | N | N | 19910409 | 183140 | 245 | 301 | 69        | 65 |
| 76 | 94 | PERU                  | SECHURA DESERT             | 5.5S          | 80.8W |              | 79.9W | 10 | LO  | 250 | N | N | 19910409 | 183142 | 245 | 301 | 69        | 65 |
| 77 | 1  | SOMALIA               | CENTRAL COAST              |               | 3.0N  |              | 47.4E | 30 | LO  | 250 | N | N | 19910406 | 110308 | 243 | 277 | 57        | 14 |
| 77 | 2  | SOMALIA               | CENTRAL COAST              |               | 2.9N  |              | 47.5E | LO | 250 | N   | N | N | 19910406 | 110311 | 243 | 277 | 57        | 14 |
| 77 | 3  | SOMALIA               | CENTRAL COAST              |               | 2.8N  |              | 47.6E | LO | 250 | N   | N | N | 19910406 | 110313 | 243 | 277 | 57        | 14 |
| 77 | 4  | SOMALIA               | CENTRAL COAST              |               | 2.7N  |              | 47.8E | LO | 250 | N   | N | N | 19910406 | 110317 | 243 | 277 | 56        | 14 |
| 77 | 5  | SOMALIA               | CENTRAL COAST              |               | 2.6N  |              | 48.0E | 20 | LO  | 250 | N | N | 19910406 | 110320 | 243 | 277 | 56        | 14 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME      | FEATURE                     | CENTER<br>LAT LON | MADIR<br>LAT LON | CC  | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL OR |
|----|----|----------------------|-----------------------------|-------------------|------------------|-----|----|-----|---|---|----------|--------|-----|-----|--------------|
| 77 | 6  | SOMALIA              | CENTRAL COAST               |                   | 2.3N 48.4E       | 20  | LO | 250 | N | N | 19910406 | 110328 | 243 | 277 | 56 14        |
| 77 | 7  |                      | CARGO BAY                   |                   | 26.9N 75.0W      |     | LO | 500 | N | N | 19910406 | 121001 | 246 | 91  | 17 15        |
| 77 | 8  |                      | CARGO BAY                   |                   | 27.1N 73.8W      |     | LO | 50  | N | N | 19910406 | 121022 | 246 | 92  | 19 15        |
| 77 | 9  |                      | CARGO BAY                   |                   | 27.3N 72.2W      |     | LO | 50  | N | N | 19910406 | 121043 | 246 | 93  | 20 15        |
| 77 | 10 | MAURITANIA           | BAIE DU LEVRIER AREA        |                   | 21.0N 16.8W      | 5   | LO | 250 | N | N | 19910406 | 122434 | 245 | 143 | 70 15        |
| 77 | 11 | MAURITANIA           | RICHAT STRUCTURE            |                   | 21.8N 12.3W      | 0   | LO | 250 | N | N | 19910406 | 122520 | 245 | 150 | 73 15        |
| 77 | 12 | MAURITANIA           | RICHAT STRUCTURE            |                   | 21.8N 12.3W      | 0   | LO | 250 | N | N | 19910406 | 122534 | 245 | 152 | 73 15        |
| 77 | 13 | MAURITANIA           | DESERT                      |                   | 19.0N 7.9W       | 0   | LO | 250 | N | N | 19910406 | 122702 | 245 | 171 | 77 15        |
| 77 | 14 | MALI                 | NIGER RIVER                 |                   | 17.3N 3.9W       | 0   | LO | 250 | N | N | 19910406 | 122810 | 244 | 192 | 78 15        |
| 77 | 15 | MALI                 | INLAND DELTA AREA           |                   | 4.0N 16.5W       | 0   | LO | 250 | N | N | 19910406 | 122822 | 244 | 198 | 78 15        |
| 77 | 16 | MALI                 | NIGER RIVER AREA            |                   | 17.0N 1.5W       |     | LO | 250 | N | N | 19910406 | 122837 | 244 | 201 | 79 15        |
| 77 | 17 | MALI                 | SE. MALI                    |                   | 16.0N 1.0W       |     | LO | 250 | N | N | 19910406 | 122902 | 244 | 210 | 78 15        |
| 77 | 18 | NIGER                | DALLOL BOSSO AREA           |                   | 13.8N 3.0E       | 10  | LO | 250 | N | N | 19910406 | 122938 | 244 | 222 | 78 15        |
| 77 | 19 | NIGERIA              | KAINJI LAKE AREA            |                   | 10.7N 4.5E       | 80  | LO | 250 | N | N | 19910406 | 122951 | 244 | 226 | 78 15        |
| 77 | 20 | NIGERIA              | SOKOTO AREA                 |                   | 13.0N 5.0E       | 0   | LO | 250 | N | N | 19910406 | 123037 | 244 | 238 | 76 15        |
| 77 | 21 | NIGERIA              | NIGER BORDER AREA           |                   | 13.0N 5.2E       | 0   | LO | 250 | N | N | 19910406 | 123053 | 244 | 242 | 76 15        |
| 77 | 22 | NIGERIA              | NIGER BORDER AREA           |                   | 12.4N 6.4E       | 0   | LO | 250 | N | N | 19910406 | 123114 | 244 | 246 | 75 15        |
| 77 | 23 | NIGERIA              | LARGE RESERVOIR, UNMAPPED   |                   | 10.1N 10.7E      | 40  | LO | 250 | N | N | 19910406 | 123233 | 244 | 259 | 71 15        |
| 77 | 24 | NIGERIA              | LARGE RESERVOIR, UNMAPPED   |                   | 9.6N 11.7E       | 40  | LO | 250 | N | N | 19910406 | 123252 | 243 | 261 | 70 15        |
| 77 | 25 | CHAD                 | LAKE CHAD AREA              |                   | 13.0N 14.5E      | 40  | LO | 250 | N | N | 19910406 | 123341 | 243 | 266 | 68 15        |
| 77 | 26 | CHAD                 | LAKE CHAD AREA              |                   | 13.2N 14.5E      | 40  | LO | 250 | N | N | 19910406 | 123352 | 243 | 267 | 67 15        |
| 77 | 27 | CENTRAL AFRICAN REP. | BORDER AREA WITH ZAIRE      |                   | 5.0N 20.0E       | 50  | NV | 250 | N | N | 19910406 | 123458 | 243 | 272 | 63 15        |
| 77 | 28 | CENTRAL AFRICAN REP. | BORDER AREA WITH ZAIRE      |                   | 5.0N 20.5E       | 50  | NV | 250 | N | N | 19910406 | 123513 | 243 | 273 | 62 15        |
| 77 | 29 | CENTRAL AFRICAN REP. | BORDER AREA WITH ZAIRE      |                   | 5.1N 19.8E       | 40  | LO | 250 | N | N | 19910406 | 123524 | 243 | 273 | 62 15        |
| 77 | 30 | CENTRAL AFRICAN REP. | BORDER AREA WITH ZAIRE      |                   | 4.9N 20.1E       | 50  | LO | 250 | N | N | 19910406 | 123529 | 243 | 274 | 61 15        |
| 77 | 31 | ZAIRE                | NORTHERN BORDER W C.A.R.    |                   | 4.6N 20.6E       | 60  | LO | 250 | N | N | 19910406 | 123539 | 243 | 274 | 61 15        |
| 77 | 32 | ZAIRE                |                             |                   | 2.8N 23.7E       | 80  | LO | 250 | N | N | 19910406 | 123639 | 243 | 277 | 57 15        |
| 77 | 33 | ZAIRE                | VRY CLOUDY                  |                   | 0.6N 27.5E       | 100 | LO | 250 | N | N | 19910406 | 123752 | 243 | 279 | 53 15        |
| 77 | 34 | UGANDA               | LAKE VICTORIA               |                   | 1.0S 33.0E       | 0   | LO | 250 | N | N | 19910406 | 123820 | 243 | 280 | 51 15        |
| 77 | 35 | KENYA                | WE LAKE VICTORIA            |                   | 0.5S 34.0E       | 60  | LO | 250 | N | N | 19910406 | 123827 | 243 | 280 | 51 15        |
| 77 | 36 | TANZANIA             | S. LAKE VICTORIA            |                   | 1.8S 33.4E       | 60  | LO | 250 | N | N | 19910406 | 123832 | 243 | 280 | 50 15        |
| 77 | 37 | TANZANIA             | S.L.K. VICTORIA, SPEKE GULF |                   | 2.4S 33.0E       | 40  | LO | 250 | N | N | 19910406 | 123839 | 243 | 281 | 50 15        |
| 77 | 38 | KENYA                | NE.L.K. VICTORIA, KAVIRONDO |                   | 0.0S 34.0E       | 60  | LO | 250 | N | N | 19910406 | 123849 | 243 | 281 | 49 15        |
| 77 | 39 | KENYA                | NE.L.K. VICTORIA, KAVIRONDO |                   | 0.8S 34.1E       | 60  | LO | 250 | N | N | 19910406 | 123855 | 243 | 281 | 49 15        |
| 77 | 40 | TANZANIA             | LK NATRON AREA              |                   | 2.4S 36.1E       | 60  | LO | 250 | N | N | 19910406 | 123911 | 243 | 281 | 48 15        |
| 77 | 41 | TANZANIA             | LK MANYARA                  |                   | 3.6S 35.8E       | 60  | LO | 250 | N | N | 19910406 | 123916 | 242 | 281 | 48 15        |
| 77 | 42 | TANZANIA             | AFRICAN RIFT AREA           |                   | 2.2S 32.3E       | 60  | LO | 250 | N | N | 19910406 | 123923 | 242 | 281 | 47 15        |
| 77 | 43 | TANZANIA             | AFRICAN RIFT AREA           |                   | 2.7S 33.1E       | 60  | LO | 250 | N | N | 19910406 | 123938 | 242 | 282 | 46 15        |
| 77 | 44 | TANZANIA             | KIKULETWA LK AREA           |                   | 3.6S 37.4E       | 60  | LO | 250 | N | N | 19910406 | 123945 | 242 | 282 | 46 15        |
| 77 | 45 | TANZANIA             | KIKULETWA LK AREA           |                   | 4.4S 37.5E       | 60  | LO | 250 | N | N | 19910406 | 123949 | 242 | 282 | 46 15        |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME    | FEATURE                    | CENTER<br>LAT<br>LON | MADR<br>LAT<br>LON | CC    | TL    | FL | E  | S   | DATE | GMT      | AL     | AZ  | EL  | SUM |
|----|----|--------------------|----------------------------|----------------------|--------------------|-------|-------|----|----|-----|------|----------|--------|-----|-----|-----|
| 77 | 46 | TANZANIA           | UNMAPIED LAKE/RESVR.       | 5.1S                 | 39.1E              | 3.2S  | 34.1E | 70 | LO | 250 | N    | 19910406 | 123957 | 242 | 282 | 45  |
| 77 | 47 | TANZANIA           | PEMBA ISLAND, TANGA AREA   | 5.1S                 | 39.1E              | 3.5S  | 34.6E | 80 | LO | 250 | N    | 19910406 | 124006 | 242 | 282 | 45  |
| 77 | 48 | TANZANIA           | PEMBA ISLAND, TANGA AREA   | 5.2S                 | 39.6E              | 4.1S  | 35.6E | 50 | LO | 250 | N    | 19910406 | 124026 | 242 | 282 | 43  |
| 77 | 49 | TANZANIA           | ZANZIBAR ISLAND            | 6.3S                 | 39.5E              | 4.2S  | 35.8E | 40 | LO | 250 | N    | 19910406 | 124030 | 242 | 282 | 43  |
| 77 | 50 | TANZANIA           | PEMBA ISLAND               | 5.3S                 | 39.8E              | 4.8S  | 36.9E | 40 | LO | 250 | N    | 19910406 | 124050 | 242 | 283 | 42  |
| 77 | 51 | TANZANIA           | ZANZIBAR ISLAND            | 6.4S                 | 39.4E              | 5.0S  | 37.1E | 40 | LO | 250 | N    | 19910406 | 124054 | 242 | 283 | 42  |
| 77 | 52 | TANZANIA           | MAFIA ISLAND               | 7.8S                 | 39.8E              | 5.2S  | 37.5E | 50 | LO | 250 | N    | 19910406 | 124102 | 242 | 283 | 41  |
| 77 | 53 | TANZANIA           | MATONDOMI AREA, COAST      | 2.1S                 | 41.0E              | 5.5S  | 37.9E | 30 | LO | 250 | N    | 19910406 | 124110 | 242 | 283 | 41  |
| 77 | 54 | AFRICA             | SE COAST                   |                      |                    | 6.6S  | 40.0E | 60 | HO | 250 | N    | 19910406 | 124149 | 242 | 283 | 38  |
| 77 | 55 | INDIAN OCEAN       | AREA NW. OF MADAGASCAR     |                      |                    | 9.1S  | 44.5E | 20 | LO | 250 | N    | 19910406 | 124314 | 242 | 283 | 33  |
| 77 | 56 | INDIAN OCEAN       | SEYCHELLES                 | 9.8S                 | 47.6E              | 10.7S | 47.5E | 40 | LO | 250 | N    | 19910406 | 124409 | 242 | 283 | 29  |
| 77 | 57 | MADAGASCAR         | NW COAST, VRY CLDY, DARK   |                      |                    | 11.1S | 48.2E | 80 | LO | 250 | N    | 19910406 | 124423 | 242 | 283 | 29  |
| 77 | 58 | MADAGASCAR         | NW COAST, VRY CLDY, DARK   |                      |                    | 11.4S | 48.8E | 80 | LO | 250 | N    | 19910406 | 124433 | 242 | 283 | 28  |
| 77 | 59 | USA-FL             | CENTRAL FL, VRY CLDY       | 28.5N                | 81.0W              | 28.5N | 78.0W | 90 | LO | 250 | N    | 19910406 | 134834 | 247 | 104 | 36  |
| 77 | 60 | USA-FL             | CENTRAL FL, VRY CLDY       | 28.5N                | 81.0W              | 28.5N | 77.5W | 90 | LO | 250 | N    | 19910406 | 134842 | 247 | 104 | 37  |
| 77 | 61 | USA-FL             | TAMPA AREA, VRY CLDY       | 27.8N                | 81.5W              | 28.5N | 76.0W | 80 | LO | 250 | N    | 19910406 | 134904 | 247 | 105 | 38  |
| 77 | 62 | BAHAMAS            | ANDROS ISLAND, CLDY        | 24.5N                | 77.8W              | 28.4N | 74.5W | 40 | LO | 250 | N    | 19910406 | 134925 | 246 | 106 | 39  |
| 77 | 63 | CAPE VERDE ISLANDS | FOGO, BRAVA, IS. WAKES     | 14.9N                | 24.4W              | 15.3N | 23.4W | 0  | LO | 250 | N    | 19910406 | 140253 | 244 | 218 | 78  |
| 77 | 64 | CAPE VERDE ISLANDS | SANTIAGO                   | 15.0N                | 23.6W              | 15.2N | 23.2W | 0  | LO | 250 | N    | 19910406 | 140257 | 244 | 218 | 78  |
| 77 | 65 | CAPE VERDE ISLANDS | SANTIAGO, MATO ISLANDS     | 15.3N                | 23.4W              | 15.0N | 22.8W | 0  | LO | 250 | N    | 19910406 | 140305 | 244 | 220 | 78  |
| 77 | 66 | CAPE VERDE ISLANDS | BOA VISTA, CLD WAKE        | 16.1N                | 22.7W              | 14.9N | 22.6W | 20 | LO | 250 | N    | 19910406 | 140308 | 244 | 221 | 78  |
| 77 | 67 | CAPE VERDE ISLANDS | BOA VISTA, SAL, CLD WAKES  | 16.3N                | 22.8W              | 14.7N | 22.1W | 40 | LO | 250 | N    | 19910406 | 140316 | 244 | 224 | 78  |
| 77 | 68 | CAPE VERDE ISLANDS | BOA VISTA, SAL, CLD WAKES  | 16.1N                | 22.8W              | 14.0N | 20.7W | 60 | LO | 250 | N    | 19910406 | 140342 | 244 | 231 | 77  |
| 77 | 69 | SENEGAL            | COAST AREA, CASAMANCE      | 12.6N                | 16.5W              | 12.4N | 17.5W | 0  | LO | 250 | N    | 19910406 | 140439 | 244 | 245 | 75  |
| 77 | 70 | GUINEA BISSAU      | COAST AREA, RIO CACHEU     |                      |                    | 12.2N | 17.1W | 0  | LO | 250 | N    | 19910406 | 140447 | 244 | 247 | 75  |
| 77 | 71 | GUINEA BISSAU      | ARQUIPELAGO DOS BIJAGOS    | 11.5N                | 15.9W              | 12.1N | 16.9W | 0  | LO | 250 | N    | 19910406 | 140451 | 244 | 248 | 75  |
| 77 | 72 | GUINEA BISSAU      | ARQUIPELAGO DOS BIJAGOS    | 11.5N                | 16.2W              | 12.0N | 16.8W | 0  | LO | 250 | N    | 19910406 | 140453 | 244 | 248 | 75  |
| 77 | 73 | GUINEA BISSAU      | ARQUIPELAGO DOS BIJAGOS    |                      |                    | 11.8N | 16.3W | 0  | LO | 250 | N    | 19910406 | 140502 | 244 | 250 | 74  |
| 77 | 74 | GUINEA BISSAU      | SUNGLINT COASTAL WATERS    |                      |                    | 11.3N | 15.3W | 0  | LO | 250 | N    | 19910406 | 140519 | 244 | 253 | 74  |
| 77 | 75 | GUINEA BISSAU      | SUNGLINT COASTAL WATERS    |                      |                    | 11.0N | 14.9W | 0  | LO | 250 | N    | 19910406 | 140528 | 244 | 254 | 73  |
| 77 | 76 | GUINEA BISSAU      | SUNGLINT COASTAL WATERS    |                      |                    | 10.6N | 14.0W | 0  | LO | 250 | N    | 19910406 | 140543 | 244 | 256 | 72  |
| 77 | 77 | GUINEA             | CONAKRY AREA, HAZY         | 9.5N                 | 13.8W              | 10.3N | 13.4W | 5  | LO | 250 | N    | 19910406 | 140554 | 244 | 258 | 72  |
| 77 | 78 | GUINEA             | COASTAL AREA N. OF CONAKRY | 10.0N                | 14.6W              | 9.9N  | 12.6W | 0  | LO | 250 | N    | 19910406 | 140609 | 244 | 260 | 71  |
| 77 | 79 | SIERRA LEONE       | HAZY, CLDY                 |                      |                    | 9.5N  | 11.9W | 60 | LO | 250 | N    | 19910406 | 140623 | 243 | 262 | 70  |
| 77 | 80 | LIBERIA            | HAZY, CLDY, T-STORM        |                      |                    | 8.5N  | 10.2W | 80 | LO | 250 | N    | 19910406 | 140655 | 243 | 265 | 69  |
| 77 | 81 | LIBERIA            | HAZY, CLDY                 |                      |                    | 7.8N  | 8.9W  | 80 | LO | 250 | N    | 19910406 | 140718 | 243 | 267 | 67  |
| 77 | 82 | LIBERIA            | HAZY, CLDY, COASTLINE      |                      |                    | 6.4N  | 6.4W  | 80 | LO | 250 | N    | 19910406 | 140806 | 243 | 271 | 65  |
| 77 | 83 | LIBERIA            | HAZY, CLDY, COASTLINE      |                      |                    | 6.1N  | 5.9W  | 80 | LO | 250 | N    | 19910406 | 140816 | 243 | 272 | 64  |
| 77 | 84 | GABON              | CLDY, COASTLINE            | 2.8S                 | 10.2E              | 2.4S  | 8.7E  | 70 | LO | 250 | N    | 19910406 | 141255 | 242 | 282 | 47  |
| 77 | 85 | GABON              | T-STORM, CLDY              |                      |                    | 2.5S  | 8.9E  | 80 | LO | 250 | N    | 19910406 | 141258 | 242 | 282 | 47  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM | EL | OR |
|----|-----|-----------------|--------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |     |                 |                          | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 77 | 86  | ZAIRE           |                          | 3.0S   | 9.8E   |       |        | 90 | LO | 250 | N | N | 19910406 | 141315 | 242 | 282 | 46  | 16 |    |
| 77 | 87  | ZAIRE           |                          | 3.5S   | 10.6E  |       |        | 90 | LO | 250 | N | N | 19910406 | 141330 | 242 | 282 | 45  | 16 |    |
| 77 | 88  | ZAIRE           |                          | 4.5S   | 12.3E  |       |        | 80 | LO | 250 | N | N | 19910406 | 141403 | 242 | 283 | 43  | 16 |    |
| 77 | 89  | ZAIRE           |                          | 4.7S   | 12.7E  |       |        | 80 | LO | 250 | N | N | 19910406 | 141410 | 242 | 283 | 43  | 16 |    |
| 77 | 90  | AFRICA          | OBLIQUE, SKELETON COAST  | 6.4S   | 15.8E  |       |        | 70 | HO | 250 | N | N | 19910406 | 141509 | 242 | 283 | 39  | 16 |    |
| 77 | 91  | AFRICA          | OBLIQUE, SKELETON COAST  | 7.0S   | 16.8E  |       |        | 60 | HO | 250 | N | N | 19910406 | 141529 | 242 | 283 | 38  | 16 |    |
| 77 | 92  | ANGOLA          | ZAMBEZI RIVER BASIN      | 8.4S   | 19.4E  |       |        | 70 | LO | 250 | N | N | 19910406 | 141616 | 242 | 284 | 35  | 16 |    |
| 77 | 93  | ANGOLA          | ZAMBEZI RIVER BASIN      | 8.8S   | 20.0E  |       |        | 90 | LO | 250 | N | N | 19910406 | 141628 | 242 | 284 | 34  | 16 |    |
| 77 | 94  | ANGOLA          | ZAMBEZI RIVER BASIN      | 9.7S   | 21.7E  |       |        | 80 | LO | 250 | N | N | 19910406 | 141700 | 242 | 284 | 32  | 16 |    |
| 77 | 95  | ANGOLA          | ZAMBEZI RIVER BASIN      | 10.2S  | 22.6E  |       |        | 70 | LO | 250 | N | N | 19910406 | 141717 | 242 | 284 | 31  | 16 |    |
| 77 | 96  | ZAMBIA          | ZAMBEZI RIVER BASIN      | 10.3S  | 22.8E  |       |        | 70 | LO | 250 | N | N | 19910406 | 141721 | 242 | 284 | 31  | 16 |    |
| 77 | 97  | ZAMBIA          | ZAMBEZI RIVER            | 15.0S  | 23.0E  | 10.4S | 23.1E  | 70 | LO | 250 | N | N | 19910406 | 141725 | 242 | 284 | 31  | 16 |    |
| 77 | 98  | ZAMBIA          | LAKE KARIBA              | 16.8S  | 28.0E  | 12.2S | 26.4E  | 60 | LO | 250 | N | N | 19910406 | 141826 | 242 | 283 | 27  | 16 |    |
| 77 | 99  | ZAMBIA          | LAKE KARIBA              | 17.0S  | 27.7E  | 12.3S | 26.8E  | 60 | LO | 250 | N | N | 19910406 | 141830 | 242 | 283 | 26  | 16 |    |
| 77 | 100 | BOTSWANA        | MAKGADIKGADI PANS        | 20.5S  | 25.6E  | 12.7S | 27.5E  | 40 | LO | 250 | N | N | 19910406 | 141846 | 242 | 283 | 25  | 16 |    |
| 77 | 101 | BOTSWANA        | MAKGADIKGADI PANS        | 20.5S  | 25.6E  | 13.0S | 28.1E  | 40 | LO | 250 | N | N | 19910406 | 141857 | 242 | 283 | 25  | 16 |    |
| 77 | 102 | ZIMBABWE        | LAKE KARIBA, E. END      | 16.7S  | 28.3E  | 13.4S | 28.8E  | 30 | LO | 250 | N | N | 19910406 | 141910 | 242 | 283 | 24  | 16 |    |
| 77 | 103 | ZIMBABWE        | LAKE KARIBA, MIDDLE      | 16.9S  | 28.0E  | 13.5S | 29.0E  | 30 | LO | 250 | N | N | 19910406 | 141914 | 242 | 283 | 24  | 16 |    |
| 77 | 104 | ZIMBABWE        | LAKE KARIBA, W. END      | 17.5S  | 27.4E  | 13.6S | 29.3E  | 40 | LO | 250 | N | N | 19910406 | 141918 | 242 | 283 | 23  | 16 |    |
| 77 | 105 | MOZAMBIQUE      | MOUNTAINOUS, HAZY        | 14.7S  | 31.5E  |       |        | 20 | LO | 250 | N | N | 19910406 | 141958 | 242 | 283 | 21  | 16 |    |
| 78 | 1   | USA-CA          | SALTON SEA, IMP. VALLEY  | 32.5N  | 115.5W | 28.2N | 113.2W | 0  | LO | 250 | N | N | 19910409 | 150146 | 244 | 93  | 22  | 63 |    |
| 78 | 2   | USA-CA          | SALTON SEA, MOJAVE DES.  | 33.5N  | 116.0W | 28.2N | 113.0W | 0  | LO | 250 | N | N | 19910409 | 150149 | 244 | 93  | 22  | 63 |    |
| 78 | 3   | USA-CA          | MOJAVE DES., DEATH VAL.  | 35.0N  | 116.5W | 28.2N | 112.7W | 0  | LO | 250 | N | N | 19910409 | 150153 | 244 | 93  | 23  | 63 |    |
| 78 | 4   | USA-NV          | LAKE MEAD, LAS VEGAS     | 36.5N  | 115.0W | 28.2N | 112.5W | 0  | HO | 250 | N | N | 19910409 | 150156 | 244 | 93  | 23  | 63 |    |
| 78 | 5   | USA-CA          | SO. CAL. COAST/MTNS.     | 33.0N  | 116.0W | 28.2N | 112.1W | 0  | LO | 250 | N | N | 19910409 | 150202 | 244 | 94  | 23  | 63 |    |
| 78 | 6   | MEXICO          | COLORADO RIVER DELTA     | 32.5N  | 115.0W | 28.1N | 111.9W | 0  | LO | 250 | N | N | 19910409 | 150206 | 244 | 94  | 23  | 63 |    |
| 78 | 7   | MEXICO          | GRAND DESERT, PINACATES  | 31.5N  | 113.5W | 28.1N | 111.6W | 0  | LO | 250 | N | N | 19910409 | 150209 | 244 | 94  | 24  | 63 |    |
| 78 | 8   | USA-AZ          | SW ARIZONA DESERT        | 33.0N  | 112.5W | 28.1N | 111.4W | 0  | LO | 250 | N | N | 19910409 | 150212 | 244 | 94  | 24  | 63 |    |
| 78 | 9   | USA-AZ          | SONORAN DESERT           | 33.5N  | 114.0W | 28.1N | 111.2W | 0  | LO | 250 | N | N | 19910409 | 150216 | 244 | 94  | 24  | 63 |    |
| 78 | 10  | USA-AZ          | L. MEAD, GRAND CANYON    | 35.5N  | 114.0W | 28.1N | 110.8W | 0  | HO | 250 | N | N | 19910409 | 150221 | 244 | 94  | 24  | 63 |    |
| 78 | 11  | USA-AZ          | L. MEAD, GRAND CANYON    | 35.5N  | 113.0W | 28.0N | 110.6W | 0  | HO | 100 | N | N | 19910409 | 150224 | 244 | 94  | 25  | 63 |    |
| 78 | 12  | USA-AZ          | PHOENIX, GRAND CANYON    | 35.0N  | 112.5W | 28.0N | 110.3W | 0  | LO | 250 | N | N | 19910409 | 150229 | 244 | 95  | 25  | 63 |    |
| 78 | 13  | USA-AZ          | GRAND CANYON             | 36.0N  | 113.0W | 28.0N | 110.0W | 0  | HO | 250 | N | N | 19910409 | 150233 | 244 | 95  | 25  | 63 |    |
| 78 | 14  | USA-AZ          | PHOENIX REGION           | 33.5N  | 112.0W | 27.9N | 109.3W | 0  | LO | 250 | N | N | 19910409 | 150244 | 244 | 95  | 26  | 63 |    |
| 78 | 15  | USA-AZ          | SAN FRANCISCO VOL. AREA  | 35.0N  | 112.0W | 27.9N | 109.1W | 0  | LO | 250 | N | N | 19910409 | 150247 | 244 | 95  | 26  | 63 |    |
| 78 | 16  | USA-AZ          | COLORADO PLATEAU         | 35.5N  | 110.5W | 27.9N | 108.9W | 15 | HO | 250 | N | N | 19910409 | 150250 | 244 | 95  | 26  | 63 |    |
| 78 | 17  | USA-AZ          | PAINTED DESERT           | 35.5N  | 111.0W | 27.8N | 108.7W | 10 | HO | 250 | N | N | 19910409 | 150253 | 244 | 95  | 26  | 63 |    |
| 78 | 18  | USA-AZ          | CHUSKA MTNS. PAINTED DES | 34.5N  | 110.0W | 27.8N | 108.5W | 10 | HO | 250 | N | N | 19910409 | 150256 | 244 | 95  | 27  | 63 |    |
| 78 | 19  | USA-AZ          | MOGOLLON RIM             | 33.0N  | 109.0W | 27.8N | 108.1W | 0  | LO | 250 | N | N | 19910409 | 150301 | 244 | 96  | 27  | 63 |    |
| 78 | 20  | USA-NM          | SW N. MEXICO NEAR DEMING | 32.5N  | 108.5W | 27.7N | 107.6W | 0  | LO | 250 | N | N | 19910409 | 150309 | 244 | 96  | 27  | 63 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME    | FEATURE                  | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|--------------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 78 | 21 | USA-NM             | WHITE SANDS, LAS CRUCES  | 33.0N 106.5W         | 27.7N 107.4W        | 0  | L0 | 250 | N | N | 19910409 | 150312 | 244 | 96  | 28        | 63 |
| 78 | 22 | USA-NM             | N. RIO GRANDE RIFT VAL.  | 35.5N 106.0W         | 27.7N 107.1W        | 0  | H0 | 250 | N | N | 19910409 | 150316 | 244 | 96  | 28        | 63 |
| 78 | 23 | USA-CO             | SANGRE DE CRISTO MTS.    | 37.0N 105.0W         | 27.6N 106.8W        | 5  | H0 | 250 | N | N | 19910409 | 150320 | 244 | 96  | 28        | 63 |
| 78 | 24 | USA-NM             | GUADALUPE MTS.           | 32.0N 105.0W         | 27.6N 106.4W        | 0  | L0 | 250 | N | N | 19910409 | 150326 | 244 | 96  | 29        | 63 |
| 78 | 25 | MEXICO             | SIERRA MADRE ORIENTAL    | 25.5N 100.5W         | 26.3N 98.5W         | 15 | NV | 250 | N | N | 19910409 | 150525 | 245 | 100 | 36        | 63 |
| 78 | 26 | GULF OF MEXICO     | ALACRAN REEF             | 22.5N 89.5W          | 5.1N 42.9W          | 0  | L0 | 250 | N | N | 19910409 | 150830 | 245 | 105 | 48        | 63 |
| 78 | 27 | USA-FL             | CAPE CANAVERAL           | 28.5N 80.5W          | 4.8N 42.5W          | 60 | L0 | 250 | N | N | 19910409 | 150928 | 245 | 107 | 52        | 63 |
| 78 | 28 | USA-FL             | CENT. FLORIDA, SARASOTA  | 27.5N 80.0W          | 4.9N 42.8W          | 50 | L0 | 250 | N | N | 19910409 | 151004 | 245 | 108 | 54        | 63 |
| 78 | 29 | CUBA               | ZAPATA PEN., BAY OF PIGS | 22.5N 81.5W          | 5.0N 43.4W          | 25 | L0 | 250 | N | N | 19910409 | 151041 | 245 | 109 | 56        | 63 |
| 78 | 30 | CUBA               | RIO CAQMAO RESERVOIR     | 21.5N 78.0W          | 5.2N 43.6W          | 15 | L0 | 250 | N | N | 19910409 | 151054 | 245 | 109 | 57        | 63 |
| 78 | 31 | CUBA               | GULF OF GUACANAYABO      | 20.5N 77.0W          | 5.5N 44.4W          | 35 | L0 | 250 | N | N | 19910409 | 151126 | 245 | 109 | 59        | 63 |
| 78 | 32 | CUBA               | GULF OF GUACANAYABO      | 20.0N 77.5W          | 5.5N 44.5W          | 15 | L0 | 250 | N | Y | 19910409 | 151129 | 245 | 109 | 59        | 63 |
| 78 | 33 | CUBA               | SIERRA MAESTRA           | 20.0N 76.5W          | 5.5N 44.6W          | 20 | L0 | 250 | N | N | 19910409 | 151133 | 245 | 110 | 60        | 63 |
| 78 | 34 | CUBA               | GUANTANAMO BAY           | 20.0N 75.0W          | 5.8N 45.4W          | 25 | L0 | 250 | N | N | 19910409 | 151158 | 245 | 110 | 61        | 63 |
| 78 | 35 | CUBA               | PTS. DEL FRAILE, CALETA  | 20.5N 74.5W          | 5.9N 45.4W          | 30 | L0 | 250 | N | S | 19910409 | 151200 | 245 | 110 | 61        | 63 |
| 78 | 36 | CUBA               | POINT CABANAS            | 20.5N 75.0W          | 5.9N 45.5W          | 30 | L0 | 250 | N | S | 19910409 | 151203 | 245 | 110 | 62        | 63 |
| 78 | 37 | CUBA               | NIPE BAY, PT. GARCIA     | 21.0N 75.5W          | 5.9N 45.6W          | 25 | L0 | 250 | N | Y | 19910409 | 151205 | 245 | 110 | 62        | 63 |
| 78 | 38 | HAITI              | GOMAVE IS., CAPE ST MARC | 19.0N 73.0W          | 6.2N 46.3W          | 15 | NV | 250 | N | Y | 19910409 | 151228 | 244 | 111 | 63        | 63 |
| 78 | 39 | HAITI              | GULF OF GOMAVE           | 19.5N 73.0W          | 6.3N 46.4W          | 10 | L0 | 250 | N | Y | 19910409 | 151231 | 244 | 111 | 63        | 63 |
| 78 | 40 | HAITI              | TORTURE IS. CAPE MOLE    | 20.0N 73.0W          | 6.3N 46.5W          | 5  | L0 | 250 | N | Y | 19910409 | 151234 | 244 | 111 | 64        | 63 |
| 78 | 41 | HAITI              | TORTURE IS. CAPE HAITIEN | 20.0N 72.5W          | 6.4N 46.7W          | 10 | L0 | 250 | N | Y | 19910409 | 151240 | 244 | 111 | 64        | 63 |
| 78 | 42 | HAITI              | MANZANILLO BAY           | 20.0N 72.0W          | 6.4N 46.8W          | 20 | L0 | 250 | N | Y | 19910409 | 151243 | 244 | 111 | 64        | 63 |
| 78 | 43 | DOMINICAN REPUBLIC | CENTRAL RANGE            | 19.5N 71.5W          | 6.5N 46.9W          | 30 | L0 | 250 | N | Y | 19910409 | 151246 | 244 | 111 | 64        | 63 |
| 78 | 44 | DOMINICAN REPUBLIC | CENTRAL RANGE            | 19.0N 71.0W          | 6.5N 47.0W          | 20 | NV | 250 | N | Y | 19910409 | 151249 | 244 | 111 | 65        | 63 |
| 78 | 45 | DOMINICAN REPUBLIC | LAKE ENRIQUILLO          | 18.5N 71.5W          | 6.6N 47.0W          | 15 | NV | 250 | N | Y | 19910409 | 151251 | 244 | 111 | 65        | 63 |
| 78 | 46 | DOMINICAN REPUBLIC | NEIBA, OCOA BAYS         | 18.5N 71.0W          | 6.6N 47.2W          | 5  | NV | 250 | N | Y | 19910409 | 151255 | 244 | 111 | 65        | 63 |
| 78 | 47 | DOMINICAN REPUBLIC | NEIBA, OCOA BAYS         | 18.0N 71.0W          | 6.7N 47.4W          | 5  | NV | 250 | N | Y | 19910409 | 151302 | 244 | 111 | 65        | 63 |
| 78 | 48 | DOMINICAN REPUBLIC | SAONA IS., YUMA BAY      | 18.5N 68.5W          | 7.1N 48.2W          | 35 | L0 | 250 | N | N | 19910409 | 151328 | 244 | 112 | 67        | 63 |
| 78 | 49 | PUERTO RICO        | PONCE, WEST HALF OF IS.  | 18.5N 66.5W          | 7.7N 49.6W          | 30 | L0 | 250 | N | N | 19910409 | 151415 | 244 | 112 | 70        | 63 |
| 78 | 50 | PUERTO RICO        | ROOSEVELT ROADS, VIEQUES | 18.0N 65.5W          | 7.8N 49.8W          | 25 | L0 | 250 | N | N | 19910409 | 151420 | 244 | 112 | 70        | 63 |
| 78 | 51 | LESSER ANTILLES    | ST CHRISTOPHER, NEVIS IS | 17.0N 62.5W          | 8.5N 51.2W          | 40 | L0 | 250 | N | N | 19910409 | 151519 | 244 | 113 | 74        | 63 |
| 78 | 52 | LESSER ANTILLES    | ANTIGUA AND BARBUDA IS.  | 17.5N 62.0W          | 8.5N 51.4W          | 30 | L0 | 250 | N | N | 19910409 | 151526 | 244 | 113 | 75        | 63 |
| 78 | 53 | MEXICO             | MAGDALENA BAY IN SUNGLIN | 25.0N 111.5W         | 24.8N 115.4W        | 0  | L0 | 250 | N | Y | 19910409 | 164038 | 246 | 103 | 43        | 64 |
| 78 | 54 | MEXICO             | LA PAZ BAY IN SUNGLINT   | 24.0N 110.5W         | 24.7N 114.9W        | 0  | L0 | 250 | N | Y | 19910409 | 164045 | 246 | 103 | 43        | 64 |
| 78 | 55 | MEXICO             | LA PAZ BAY IN SUNGLINT   | 23.5N 110.0W         | 24.5N 114.4W        | 0  | L0 | 250 | N | Y | 19910409 | 164054 | 246 | 103 | 44        | 64 |
| 78 | 56 | MEXICO             | SIERRA DE LA GIGANTA     | 23.5N 110.0W         | 24.4N 114.0W        | 0  | L0 | 250 | N | Y | 19910409 | 164100 | 246 | 104 | 44        | 64 |
| 78 | 57 | MEXICO             | SIERRA DE LA GIGANTA     | 23.0N 109.5W         | 24.3N 113.5W        | 0  | L0 | 250 | N | Y | 19910409 | 164108 | 246 | 104 | 44        | 64 |
| 78 | 58 | MEXICO             | MIGUEL HIDALGO RES.      | 27.0N 109.0W         | 23.3N 110.0W        | 0  | L0 | 250 | N | N | 19910409 | 164203 | 246 | 105 | 48        | 64 |
| 78 | 59 | MEXICO             | MIGUEL HIDALGO RES.      | 26.5N 108.0W         | 23.2N 109.6W        | 0  | L0 | 250 | N | N | 19910409 | 164209 | 246 | 105 | 48        | 64 |
| 78 | 60 | MEXICO             | SIERRA MADRE OCCIDENTAL  | 22.5N 104.5W         | 22.8N 108.4W        | 65 | L0 | 250 | N | N | 19910409 | 164229 | 246 | 106 | 50        | 64 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 78 | 61  | MEXICO          | SIERRA MADRE OCCIDENTAL  | 23.0N 104.0W         | 22.7N 108.1W        | 45 | LO | 250 | N | N | 19910409 | 164233 | 246 | 106 | 50        | 64 |
| 78 | 62  | MEXICO          | SMOKE PALL               |                      | 21.9N 105.7W        | 35 | HO | 250 | N | N | 19910409 | 164313 | 246 | 107 | 52        | 64 |
| 78 | 63  | MEXICO          | SMOKE PALL               |                      | 21.9N 105.4W        | 35 | HO | 250 | N | N | 19910409 | 164317 | 246 | 107 | 53        | 64 |
| 78 | 64  | MEXICO          | MALINCHE VOL., PUEBLA    |                      | 19.5N 98.5W         | 5  | NV | 250 | N | Y | 19910409 | 164440 | 246 | 109 | 58        | 64 |
| 78 | 65  | MEXICO          | APIZACO                  |                      | 19.5N 98.0W         | 15 | LO | 250 | N | Y | 19910409 | 164446 | 246 | 109 | 58        | 64 |
| 78 | 66  | MEXICO          | INFIERILLO RES., SMOKE   |                      | 18.5N 102.5W        | 40 | HO | 250 | N | N | 19910409 | 164456 | 246 | 109 | 59        | 64 |
| 78 | 67  | BRAZIL          | RIO SAO FRANCISCO BASIN  |                      | 11.5S 43.5W         | 60 | LO | 250 | N | N | 19910409 | 170143 | 245 | 298 | 55        | 64 |
| 78 | 68  | BRAZIL          | RIO SAO FRANCISCO BASIN  |                      | 10.0S 41.5W         | 65 | LO | 250 | N | N | 19910409 | 170146 | 245 | 298 | 55        | 64 |
| 78 | 69  | BRAZIL          | RIO SAO FRANCISCO BASIN  |                      | 9.0S 40.0W          | 55 | LO | 250 | N | N | 19910409 | 170149 | 245 | 298 | 55        | 64 |
| 78 | 70  | BRAZIL          | RIO SAO FRANCISCO BASIN  |                      | 9.0S 39.0W          | 60 | HO | 250 | N | N | 19910409 | 170159 | 245 | 298 | 54        | 64 |
| 78 | 71  | BRAZIL          | RIO SAO FRANCISCO BASIN  |                      |                     |    |    |     |   |   |          |        |     |     |           |    |
| 78 | 72  | BRAZIL          | ESPERANCA RESERVOIR      |                      | 7.0S 43.0W          | 60 | HO | 250 | N | N | 19910409 | 170203 | 245 | 298 | 54        | 64 |
| 78 | 73  | BRAZIL          | ESPERANCA RESERVOIR      |                      | 7.0S 44.0W          | 70 | LO | 250 | N | Y | 19910409 | 170221 | 245 | 297 | 53        | 64 |
| 78 | 74  | BRAZIL          | OROS RESERVOIR           |                      | 7.0S 38.0W          | 75 | LO | 250 | N | N | 19910409 | 170229 | 245 | 297 | 52        | 64 |
| 78 | 75  | BRAZIL          | BORBOREMA PLATEAU        |                      | 10.9S 42.0W         | 70 | LO | 250 | N | N | 19910409 | 170240 | 245 | 297 | 52        | 64 |
| 78 | 76  | BRAZIL          | CITY OF MACEIO, COAST    |                      | 9.5S 36.0W          | 55 | LO | 250 | N | N | 19910409 | 170251 | 245 | 297 | 51        | 64 |
| 78 | 77  | BRAZIL          | EASTERN BRAZIL           |                      | 11.5S 40.8W         | 65 | HO | 250 | N | N | 19910409 | 170301 | 245 | 297 | 50        | 64 |
| 78 | 78  | BRAZIL          | COAST NORTH OF RECIFE    |                      | 7.0S 35.0W          | 60 | HO | 250 | N | Y | 19910409 | 170307 | 245 | 297 | 50        | 64 |
| 78 | 79  | BRAZIL          | COAST NEAR RECIFE        |                      | 8.0S 35.0W          | 60 | HO | 250 | N | Y | 19910409 | 170312 | 245 | 297 | 50        | 64 |
| 78 | 80  | BRAZIL          | EASTERN BRAZIL           |                      | 12.0S 39.8W         | 70 | HO | 250 | N | N | 19910409 | 170321 | 245 | 297 | 49        | 64 |
| 78 | 81  | BRAZIL          | EASTERN BRAZIL           |                      | 12.4S 38.9W         | 65 | LO | 250 | N | N | 19910409 | 170336 | 245 | 296 | 48        | 64 |
| 78 | 82  | BRAZIL          | COAST NORTH OF MACEIO    |                      | 9.0S 35.5W          | 55 | LO | 250 | N | Y | 19910409 | 170352 | 245 | 296 | 47        | 64 |
| 78 | 83  | BRAZIL          | COAST NORTH OF MACEIO    |                      | 8.5S 35.0W          | 60 | HO | 250 | N | Y | 19910409 | 170400 | 245 | 296 | 47        | 64 |
| 78 | 84  | BRAZIL          | CITY OF MACEIO, COAST    |                      | 9.5S 36.0W          | 65 | LO | 250 | N | N | 19910409 | 170415 | 245 | 296 | 46        | 64 |
| 78 | 85  | PERU            | SECHURA DES., PT. AGUJA  |                      | 6.5S 80.5W          | 25 | LO | 250 | N | Y | 19910409 | 183225 | 245 | 300 | 66        | 65 |
| 78 | 86  | PERU            | SECHURA DESERT           |                      | 6.5S 80.5W          | 35 | LO | 250 | N | Y | 19910409 | 183227 | 245 | 300 | 66        | 65 |
| 78 | 87  | PERU            | COAST NEAR CHICLAYO      |                      | 7.0S 80.0W          | 45 | LO | 250 | N | Y | 19910409 | 183235 | 245 | 300 | 66        | 65 |
| 78 | 88  | PERU            | COAST NEAR TRUJILLO      |                      | 8.0S 79.0W          | 50 | LO | 250 | N | Y | 19910409 | 183239 | 245 | 300 | 65        | 65 |
| 78 | 89  | PERU            | COAST SOUTH OF TRUJILLO  |                      | 8.5S 79.0W          | 50 | LO | 250 | N | Y | 19910409 | 183241 | 245 | 300 | 65        | 65 |
| 78 | 90  | PERU            | COAST NEAR FERRAL PEN.   |                      | 9.0S 78.5W          | 55 | LO | 250 | N | Y | 19910409 | 183244 | 245 | 300 | 65        | 65 |
| 78 | 91  | PERU            | COAST SOUTH OF CHIMBOTE  |                      | 9.5S 78.5W          | 60 | LO | 250 | N | Y | 19910409 | 183247 | 245 | 300 | 65        | 65 |
| 78 | 92  | PERU            | UPPER AMAZON BASIN       |                      | 5.4S 75.7W          | 80 | HO | 250 | N | N | 19910409 | 183302 | 245 | 300 | 64        | 65 |
| 78 | 93  | PERU            | MARANON, HUALLAGA RIVERS |                      | 5.0S 75.5W          | 70 | NV | 250 | U | Y | 19910409 | 183315 | 245 | 300 | 63        | 65 |
| 78 | 94  | PERU            | MARANON, HUALLAGA RIVERS |                      | 5.5S 76.0W          | 75 | LO | 250 | U | Y | 19910409 | 183325 | 245 | 300 | 62        | 65 |
| 78 | 95  | PERU            | HUALLAGA RIVER           |                      | 6.0S 75.5W          | 75 | LO | 250 | U | Y | 19910409 | 183328 | 245 | 300 | 62        | 65 |
| 78 | 96  | PERU            | UCAYALI RIVER            |                      | 6.3S 74.1W          | 80 | LO | 250 | U | Y | 19910409 | 183332 | 245 | 300 | 62        | 65 |
| 78 | 97  | PERU            | UCAYALI RIVER            |                      | 6.5S 73.8W          | 80 | LO | 250 | U | Y | 19910409 | 183337 | 245 | 299 | 62        | 65 |
| 78 | 98  | PERU            | UCAYALI RIVER            |                      | 6.6S 73.6W          | 85 | LO | 250 | U | Y | 19910409 | 183341 | 245 | 299 | 61        | 65 |
| 78 | 99  | PERU            | LAKE TITICACA            |                      | 16.0S 69.5W         | 60 | HO | 250 | N | N | 19910409 | 183640 | 245 | 297 | 50        | 65 |
| 78 | 100 | BOLIVIA         | LAKES POOPO, COIPASA     |                      | 19.0S 68.0W         | 30 | HO | 250 | N | Y | 19910409 | 183645 | 245 | 297 | 50        | 65 |

TABLE 4.3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME     | FEATURE                  | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|-----|---------------------|--------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |     |                     |                          | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 73 | 101 | BOLIVIA             | L. POOPO, UYUNI SALAR    | 20.5S  | 67.5W  | 12.0S | 63.6W  | 15 | HO | 250 | N | Y | 19910409 | 183648 | 245 | 297 | 49  | 65 |    |
| 78 | 102 | BOLIVIA             | SALAR DE UYUNI           | 21.5S  | 68.0W  | 12.2S | 63.4W  | 15 | HO | 250 | N | Y | 19910409 | 183652 | 245 | 297 | 49  | 65 |    |
| 78 | 103 | BOLIVIA             | BENI, MADRE DE DIOS R.   | 11.0S  | 68.0W  | 12.6S | 62.5W  | 65 | LO | 250 | N | N | 19910409 | 183708 | 245 | 297 | 48  | 65 |    |
| 78 | 104 | BOLIVIA             | MOJOS PLAIN, SMOKE       |        |        | 12.8S | 62.1W  | 25 | LO | 250 | N | N | 19910409 | 183715 | 245 | 297 | 48  | 65 |    |
| 78 | 105 | BOLIVIA             | MOJOS PLAIN, SMOKE       |        |        | 12.9S | 61.9W  | 35 | LO | 250 | N | N | 19910409 | 183718 | 245 | 297 | 48  | 65 |    |
| 78 | 106 | BOLIVIA             | MOJOS PLAIN, SMOKE       |        |        | 13.0S | 61.7W  | 30 | LO | 250 | N | N | 19910409 | 183722 | 245 | 297 | 47  | 65 |    |
| 78 | 107 | BOLIVIA             | NEAR THE PARAGUA RIVER   |        |        | 13.3S | 61.1W  | 50 | LO | 250 | N | N | 19910409 | 183733 | 245 | 296 | 47  | 65 |    |
| 78 | 108 | BOLIVIA             | NEAR THE PARAGUA RIVER   |        |        | 13.4S | 60.8W  | 55 | LO | 250 | N | N | 19910409 | 183737 | 245 | 296 | 46  | 65 |    |
| 78 | 109 | BOLIVIA             | NEAR THE PARAGUA RIVER   |        |        | 13.5S | 60.7W  | 65 | LO | 250 | N | N | 19910409 | 183740 | 245 | 296 | 46  | 65 |    |
| 78 | 110 | BOLIVIA             | NEAR THE PARAGUA RIVER   |        |        | 13.6S | 60.5W  | 75 | LO | 250 | N | N | 19910409 | 183744 | 245 | 296 | 46  | 65 |    |
| 79 | 1   | MEXICO              | GUADALUPE ISLAND         | 29.0N  | 118.5W | 27.4N | 119.9W | 60 | NV | 250 | N | Y | 19910406 | 151736 | 246 | 92  | 19  | 17 |    |
| 79 | 2   | MEXICO              | GUADALUPE ISLAND         | 29.0N  | 118.5W | 27.4N | 119.4W | 60 | NV | 250 | N | Y | 19910406 | 151744 | 246 | 93  | 19  | 17 |    |
| 79 | 3   | USA-CA              | SIERRA NEVADA MTNS.      | 37.5N  | 118.0W | 27.6N | 118.4W | 65 | HO | 250 | N | N | 19910406 | 151758 | 246 | 93  | 20  | 17 |    |
| 79 | 4   | USA-CA              | SALTON SEA, IMPERIAL VAL | 32.5N  | 115.5W | 28.0N | 114.2W | 0  | LO | 250 | N | N | 19910406 | 151901 | 246 | 96  | 24  | 17 |    |
| 79 | 5   | USA-CA              | MOJAVE DESERT            | 35.0N  | 117.0W | 28.1N | 113.8W | 70 | LO | 250 | N | N | 19910406 | 151907 | 246 | 96  | 25  | 17 |    |
| 79 | 6   | USA-CA              | SALTON SEA, IMP. VALLEY  | 32.5N  | 115.5W | 28.1N | 112.7W | 0  | LO | 250 | N | N | 19910406 | 151922 | 246 | 96  | 26  | 17 |    |
| 79 | 7   | USA-AZ              | PHOENIX AREA             | 33.5N  | 112.0W | 28.2N | 112.2W | 0  | LO | 250 | N | N | 19910406 | 151930 | 246 | 97  | 26  | 17 |    |
| 79 | 8   | USA-AZ              | GRAND CANYON, FLAGSTAFF  | 35.5N  | 112.0W | 28.2N | 111.5W | 40 | HO | 250 | N | N | 19910406 | 151940 | 246 | 97  | 27  | 17 |    |
| 79 | 9   | USA-NM              | WHITE SANDS, ALAMOGORDO  | 33.0N  | 106.5W | 28.4N | 108.0W | 0  | LO | 250 | N | Y | 19910406 | 152031 | 246 | 99  | 30  | 17 |    |
| 79 | 10  | USA-NM              | WHITE SANDS, ALAMOGORDO  | 33.0N  | 106.5W | 28.4N | 107.7W | 0  | LO | 250 | N | Y | 19910406 | 152035 | 246 | 99  | 30  | 17 |    |
| 79 | 11  | USA-TX              | EL PASO, RIO GRANDE      | 31.5N  | 106.5W | 28.4N | 107.3W | 0  | LO | 250 | N | Y | 19910406 | 152041 | 246 | 100 | 31  | 17 |    |
| 79 | 12  | USA-TX              | EL PASO, RIO GRANDE      | 31.5N  | 106.5W | 28.5N | 106.5W | 0  | LO | 250 | N | Y | 19910406 | 152053 | 246 | 100 | 31  | 17 |    |
| 79 | 13  | USA-NM              | CABILLO RES., BLACK RA.  | 33.0N  | 107.0W | 28.5N | 105.5W | 0  | LO | 250 | N | Y | 19910406 | 152107 | 246 | 101 | 32  | 17 |    |
| 79 | 14  | USA-TX              | GUADALUPE PK., SALT BAS. | 32.0N  | 105.0W | 28.5N | 102.8W | 5  | LO | 250 | N | N | 19910406 | 152147 | 246 | 103 | 35  | 17 |    |
| 79 | 15  | USA-TX              | AMISTAD RESERVOIR        | 29.5N  | 101.0W | 28.5N | 100.5W | 50 | LO | 250 | N | N | 19910406 | 152220 | 246 | 104 | 37  | 17 |    |
| 79 | 16  | USA-AL              | MOBILE AREA              | 30.5N  | 88.0W  | 27.4N | 87.2W  | 55 | LO | 250 | N | N | 19910406 | 152536 | 246 | 114 | 49  | 17 |    |
| 79 | 17  | MEXICO              | COAST NEAR MAZATLAN      | 23.5N  | 106.5W | 27.4N | 110.5W | 5  | LO | 250 | N | Y | 19910406 | 165911 | 246 | 114 | 49  | 18 |    |
| 79 | 18  | MEXICO              | OCCIDENTAL MTS., SMOKE   | 23.0N  | 104.5W | 27.2N | 109.4W | 5  | LO | 250 | N | Y | 19910406 | 165927 | 246 | 115 | 50  | 18 |    |
| 79 | 19  | MEXICO              | CHAPALA LK., GUADALAJARA | 20.5N  | 103.5W | 26.3N | 104.3W | 5  | LO | 250 | N | N | 19910406 | 170043 | 246 | 119 | 55  | 18 |    |
| 79 | 20  | MEXICO              | S. MEXICAN PLATEAU       | 21.0N  | 101.0W | 25.6N | 100.7W | 10 | LO | 250 | N | N | 19910406 | 170138 | 246 | 122 | 58  | 18 |    |
| 79 | 21  | VENEZUELA           | MARGARITA, COCHE ISLANDS | 11.5N  | 64.5W  | 12.9N | 66.2W  | 45 | LO | 250 | N | N | 19910406 | 171115 | 244 | 239 | 77  | 18 |    |
| 79 | 22  | VENEZUELA           | ORINOCO RIVER, CARONI R. | 9.5N   | 63.5W  | 12.1N | 64.7W  | 70 | LO | 250 | N | Y | 19910406 | 171142 | 244 | 246 | 76  | 18 |    |
| 79 | 23  | VENEZUELA           | ORINOCO RIVER, CARONI R. | 9.0N   | 62.5W  | 12.0N | 64.5W  | 70 | LO | 250 | N | Y | 19910406 | 171145 | 244 | 246 | 76  | 18 |    |
| 79 | 24  | VENEZUELA           | ORINOCO RIVER MOUTH      | 9.0N   | 62.0W  | 11.9N | 64.3W  | 80 | LO | 250 | N | Y | 19910406 | 171149 | 244 | 247 | 76  | 18 |    |
| 79 | 25  | VENEZUELA           | ORINOCO RIVER MOUTH      | 9.0N   | 60.5W  | 11.7N | 63.8W  | 60 | LO | 250 | N | N | 19910406 | 171158 | 244 | 249 | 75  | 18 |    |
| 79 | 26  | TRINIDAD AND TOBAGO | TOBAGO ISLAND            | 11.5N  | 60.5W  | 11.3N | 63.1W  | 20 | LO | 250 | N | N | 19910406 | 171211 | 244 | 251 | 75  | 18 |    |
| 79 | 27  | LESSER ANTILLES     | GRENADA, CARRIACOU IS.   | 12.0N  | 61.5W  | 11.2N | 62.8W  | 25 | LO | 250 | N | N | 19910406 | 171216 | 244 | 252 | 74  | 18 |    |
| 79 | 28  | GUAYANA             | WAINI RIVER MOUTH        | 8.5N   | 60.0W  | 10.4N | 61.4W  | 60 | LO | 250 | N | N | 19910406 | 171242 | 244 | 256 | 73  | 18 |    |
| 79 | 29  | GUAYANA             | ESSEQUIBO RIVER MOUTH    | 7.0N   | 58.5W  | 9.3N  | 59.4W  | 65 | LO | 250 | N | N | 19910406 | 171319 | 244 | 261 | 71  | 18 |    |
| 79 | 30  | GUAYANA             | COASTAL REG., SED. PLUME | 7.0N   | 58.0W  | 8.9N  | 58.6W  | 60 | LO | 250 | N | N | 19910406 | 171335 | 244 | 263 | 70  | 18 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 79 | 31 | GUYANA          | BERBICE RIVER MOUTH       | 6.5N<br>57.5W        | 8.3N<br>57.4W       | 35 | LO | 250 | N | N | 19910406 | 171356 | 244 | 285 | 69        | 18 |
| 79 | 32 | SURINAM         | SURINAM R., PARAMARIBO    | 6.0N<br>55.0W        | 7.3N<br>55.7W       | 45 | LO | 250 | N | N | 19910406 | 171428 | 244 | 288 | 68        | 18 |
| 79 | 33 | SURINAM         | BLOMESTEIN LAKE           | 5.0N<br>55.0W        | 6.6N<br>54.5W       | 60 | LO | 250 | N | N | 19910406 | 171451 | 243 | 270 | 66        | 18 |
| 79 | 34 | FRENCH GUIANA   | MAHURY RIVER, CAYENNE     | 5.0N<br>52.5W        | 5.8N<br>53.0W       | 40 | LO | 250 | N | N | 19910406 | 171520 | 243 | 272 | 65        | 18 |
| 79 | 35 | BRAZIL          | PT. ORANGE, OIAROOUE R.   | 4.0N<br>51.5W        | 5.3N<br>52.1W       | 30 | LO | 250 | N | N | 19910406 | 171536 | 243 | 273 | 64        | 18 |
| 79 | 36 | BRAZIL          | CALCOENE RIVER MOUTH      | 2.5N<br>51.0W        | 4.1N<br>50.0W       | 75 | LO | 250 | N | N | 19910406 | 171616 | 243 | 275 | 61        | 18 |
| 79 | 37 | BRAZIL          | ARAGUARI R. MOUTH, PLUME  | 1.5N<br>50.0W        | 3.4N<br>48.9W       | 55 | LO | 250 | N | N | 19910406 | 171637 | 243 | 276 | 60        | 18 |
| 79 | 38 | BRAZIL          | AMAZON RIVER DELTA        | 1.0N<br>50.0W        | 3.3N<br>48.7W       | 65 | LO | 250 | N | N | 19910406 | 171641 | 243 | 277 | 60        | 18 |
| 79 | 39 | BRAZIL          | AMAZON RIVER DELTA        | 0.5N<br>50.5W        | 3.1N<br>48.4W       | 70 | LO | 250 | N | Y | 19910406 | 171647 | 243 | 277 | 59        | 18 |
| 79 | 40 | BRAZIL          | AMAZON RIVER DELTA        | 0.5N<br>49.5W        | 2.8N<br>47.8W       | 60 | LO | 250 | N | N | 19910406 | 171659 | 243 | 277 | 59        | 18 |
| 79 | 41 | BRAZIL          | TOCANTINS, PARA RIVERS    | 2.5S<br>49.5W        | 2.1N<br>46.6W       | 65 | LO | 250 | N | N | 19910406 | 171722 | 243 | 278 | 57        | 18 |
| 79 | 42 | BRAZIL          | MARACANA BAY              | 0.5S<br>47.5W        | 1.4N<br>45.4W       | 65 | NV | 250 | N | Y | 19910406 | 171744 | 243 | 279 | 56        | 18 |
| 79 | 43 | BRAZIL          | MAIAU, CAETE BAYS         | 1.0S<br>46.5W        | 1.3N<br>45.2W       | 45 | NV | 250 | N | Y | 19910406 | 171748 | 243 | 279 | 56        | 18 |
| 79 | 44 | BRAZIL          | GURUPI BAY                | 1.0S<br>46.0W        | 1.1N<br>45.0W       | 35 | NV | 250 | N | Y | 19910406 | 171753 | 243 | 279 | 55        | 18 |
| 79 | 45 | BRAZIL          | TURIACU BAY, MAIAU IS.    | 1.5S<br>45.0W        | 0.9N<br>44.6W       | 55 | NV | 250 | N | N | 19910406 | 171800 | 243 | 279 | 55        | 18 |
| 79 | 46 | BRAZIL          | ST. MARCOS, ST. JOSE BAYS | 2.5S<br>44.0W        | 0.2S<br>42.8W       | 35 | NV | 250 | N | Y | 19910406 | 171835 | 243 | 280 | 53        | 18 |
| 79 | 47 | BRAZIL          | COASTAL SAND DUNE FIELD   | 2.5S<br>43.0W        | 0.4S<br>42.4W       | 25 | NV | 250 | N | Y | 19910406 | 171842 | 243 | 281 | 52        | 18 |
| 79 | 48 | BRAZIL          | PARNAIBA RIVER MOUTH      | 2.5S<br>42.0W        | 0.5S<br>42.2W       | 30 | LO | 250 | N | Y | 19910406 | 171847 | 243 | 281 | 52        | 18 |
| 79 | 49 | BRAZIL          | PARNAIBA RIVER MOUTH      | 3.0S<br>41.5W        | 0.7S<br>41.8W       | 20 | LO | 250 | N | Y | 19910406 | 171853 | 243 | 281 | 52        | 18 |
| 79 | 50 | BRAZIL          | PARNAIBA RIVER            | 3.5S<br>42.0W        | 1.0S<br>41.4W       | 50 | LO | 250 | N | Y | 19910406 | 171902 | 243 | 281 | 51        | 18 |
| 79 | 51 | BRAZIL          | COAST NEAR ACARAU         | 3.0S<br>40.0W        | 1.7S<br>40.1W       | 35 | LO | 250 | N | Y | 19910406 | 171926 | 243 | 282 | 50        | 18 |
| 79 | 52 | BRAZIL          | COAST NEAR PATOS          | 3.0S<br>39.5W        | 1.9S<br>39.8W       | 30 | LO | 250 | N | Y | 19910406 | 171932 | 243 | 282 | 49        | 18 |
| 79 | 53 | BRAZIL          | COAST NEAR TRAIRA         | 3.5S<br>39.5W        | 2.0S<br>39.6W       | 30 | LO | 250 | N | Y | 19910406 | 171936 | 243 | 282 | 49        | 18 |
| 79 | 54 | BRAZIL          | COAST NEAR FORTALEZA      | 3.5S<br>39.0W        | 2.3S<br>39.2W       | 20 | LO | 250 | N | Y | 19910406 | 171943 | 243 | 282 | 49        | 18 |
| 79 | 55 | BRAZIL          | FORTALEZA, PT. MUCURIPE   | 3.5S<br>38.5W        | 3.4S<br>37.2W       | 15 | LO | 250 | N | Y | 19910406 | 172021 | 243 | 283 | 46        | 18 |
| 79 | 56 | BRAZIL          | COAST SOUTH OF FORTALEZA  | 4.0S<br>38.0W        | 3.5S<br>37.0W       | 25 | LO | 250 | N | Y | 19910406 | 172025 | 243 | 283 | 46        | 18 |
| 79 | 57 | BRAZIL          | MOUTH OF JAGUARIBE R.     | 4.5S<br>37.5W        | 3.7S<br>36.8W       | 25 | LO | 250 | N | Y | 19910406 | 172029 | 243 | 283 | 46        | 18 |
| 79 | 58 | BRAZIL          | AREIA BRANCA, MOCORO      | 5.0S<br>37.5W        | 3.9S<br>36.5W       | 30 | LO | 250 | N | Y | 19910406 | 172036 | 243 | 283 | 45        | 18 |
| 79 | 59 | BRAZIL          | PIRANHAS R., MARCAU       | 5.0S<br>36.5W        | 4.1S<br>36.0W       | 30 | LO | 250 | N | Y | 19910406 | 172044 | 243 | 283 | 45        | 18 |
| 79 | 60 | BRAZIL          | COAST NEAR TOUROS         | 5.0S<br>35.5W        | 4.5S<br>35.3W       | 30 | LO | 250 | N | Y | 19910406 | 172058 | 243 | 283 | 44        | 18 |
| 79 | 61 | BRAZIL          | COAST NEAR NATAL          | 5.5S<br>35.5W        | 4.7S<br>35.0W       | 25 | LO | 250 | N | Y | 19910406 | 172103 | 243 | 283 | 44        | 18 |
| 79 | 62 | BRAZIL          | COAST NEAR NATAL          | 6.0S<br>35.0W        | 4.9S<br>34.7W       | 15 | LO | 250 | N | Y | 19910406 | 172109 | 243 | 283 | 43        | 18 |
| 79 | 63 | BRAZIL          | COAST NEAR JOAO PESSOA    | 7.5S<br>35.0W        | 5.6S<br>33.3W       | 30 | LO | 250 | N | Y | 19910406 | 172135 | 243 | 283 | 42        | 18 |
| 79 | 64 | BRAZIL          | COAST NEAR RECIFE         | 8.0S<br>35.0W        | 5.9S<br>32.9W       | 25 | LO | 250 | N | N | 19910406 | 172143 | 243 | 284 | 41        | 18 |
| 79 | 65 | BRAZIL          | COAST NEAR MACEIO         | 9.0S<br>35.0W        | 6.7S<br>31.4W       | 30 | LO | 250 | U | N | 19910406 | 172211 | 243 | 284 | 40        | 18 |
| 79 | 66 | PACIFIC OCEAN   | OCEAN OFF MEXICAN COAST   | 18.8N<br>102.9W      | 18.8N<br>102.9W     | 10 | LO | 250 | N | N | 19910406 | 184055 | 245 | 164 | 77        | 19 |
| 79 | 67 | MEXICO          | SHIP WAKES OFF MEXICO     | 15.0N<br>96.0W       | 15.9N<br>96.2W      | 25 | NV | 250 | N | N | 19910406 | 184251 | 245 | 201 | 77        | 19 |
| 79 | 68 | PACIFIC OCEAN   | SHIP WAKES, WAVES         | 11.5N<br>97.5W       | 15.1N<br>94.5W      | 5  | LO | 250 | N | N | 19910406 | 184321 | 244 | 212 | 79        | 19 |
| 79 | 69 | NICARAGUA       | L. NICARAGUA, OMETEPE V.  | 11.5N<br>88.5W       | 12.1N<br>88.5W      | 30 | NV | 250 | N | N | 19910406 | 184509 | 244 | 245 | 76        | 19 |
| 79 | 70 | COSTA RICA      | GULF OF NICOYA            | 10.0N<br>85.0W       | 11.9N<br>88.2W      | 30 | LO | 250 | N | N | 19910406 | 184515 | 244 | 246 | 76        | 19 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|-----|-----------------|--------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |     |                 |                          | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 79 | 71  | NICARAGUA       | L. MANAGUA, MASAYA VOL.  | 12.0N  | 86.5W | 11.0N | 86.3W | 20 | NV | 250 | N | N | 19910406 | 184549 | 244 | 253 | 75  | 19 |    |
| 79 | 72  | NICARAGUA       | L. NICARAGUA, OMETEPE V. | 11.5N  | 85.5W | 10.9N | 86.1W | 20 | NV | 250 | N | N | 19910406 | 184553 | 244 | 253 | 74  | 19 |    |
| 79 | 73  | PANAMA          | COIBA ISLAND             | 7.5N   | 81.5W | 8.5W  | 81.8W | 40 | LO | 250 | N | N | 19910406 | 184713 | 244 | 264 | 70  | 19 |    |
| 79 | 74  | PANAMA          | CENTRAL PANAMA           |        |       | 8.1N  | 81.0W | 80 | HO | 250 | N | N | 19910406 | 184728 | 244 | 266 | 70  | 19 |    |
| 79 | 75  | PANAMA          | CENTRAL PANAMA           |        |       | 8.0N  | 80.8W | 80 | HO | 250 | N | N | 19910406 | 184731 | 244 | 266 | 69  | 19 |    |
| 79 | 76  | PANAMA          | CENTRAL PANAMA           |        |       | 7.7N  | 80.4W | 85 | HO | 250 | N | N | 19910406 | 184740 | 244 | 267 | 69  | 19 |    |
| 79 | 77  | COLOMBIA        | SIMU RIVER MOUTH         | 9.0N   | 76.0W | 6.3N  | 77.9W | 65 | LO | 250 | N | N | 19910406 | 184827 | 243 | 271 | 66  | 19 |    |
| 79 | 78  | COLOMBIA        | SIMU RIVER MOUTH         | 9.0N   | 76.0W | 5.6N  | 76.5W | 65 | LO | 250 | U | N | 19910406 | 184853 | 243 | 273 | 65  | 19 |    |
| 79 | 79  | COLOMBIA        | SAN JUAN R. DELTA        | 4.0N   | 77.0W | 4.4N  | 74.5W | 70 | LO | 250 | N | N | 19910406 | 184931 | 243 | 275 | 62  | 19 |    |
| 79 | 80  | BRAZIL          | AMAZON R., LAKE PIORINI  | 3.5S   | 63.5W | 0.6S  | 66.0W | 35 | LO | 250 | N | Y | 19910406 | 185214 | 243 | 281 | 53  | 19 |    |
| 79 | 81  | BRAZIL          | AMAZON R., LAKE TEFÉ     | 3.5S   | 64.5W | 0.7S  | 65.8W | 35 | LO | 250 | N | Y | 19910406 | 185217 | 243 | 281 | 52  | 19 |    |
| 79 | 82  | BRAZIL          | AMAZON R., JUPURA R.     | 2.5S   | 65.5W | 0.7S  | 65.7W | 30 | LO | 250 | N | Y | 19910406 | 185220 | 243 | 281 | 52  | 19 |    |
| 79 | 83  | BRAZIL          | AMAZON RIVER             | 2.5S   | 66.0W | 0.8S  | 65.5W | 20 | NV | 250 | N | Y | 19910406 | 185223 | 243 | 281 | 52  | 19 |    |
| 79 | 84  | BRAZIL          | MADEIRA RIVER            | 5.5S   | 60.5W | 4.0S  | 60.0W | 65 | LO | 250 | N | N | 19910406 | 185408 | 243 | 283 | 46  | 19 |    |
| 79 | 85  | BRAZIL          | TELES PIRES RIVER        | 9.0S   | 57.5W | 5.7S  | 57.1W | 55 | LO | 250 | N | N | 19910406 | 185504 | 243 | 284 | 42  | 19 |    |
| 79 | 86  | BRAZIL          | TELES PIRES RIVER        | 9.5S   | 56.5W | 5.9S  | 56.9W | 50 | LO | 250 | N | Y | 19910406 | 185508 | 243 | 284 | 42  | 19 |    |
| 79 | 87  | BRAZIL          | S. AMAZON BASIN          |        |       | 6.4S  | 55.9W | 65 | NV | 250 | N | N | 19910406 | 185526 | 243 | 284 | 41  | 19 |    |
| 79 | 88  | BRAZIL          | AMAZON BASIN LAND USE    |        |       | 6.9S  | 55.1W | 35 | LO | 250 | N | N | 19910406 | 185542 | 243 | 284 | 40  | 19 |    |
| 79 | 89  | BRAZIL          | AMAZON BASIN LAND USE    |        |       | 7.1S  | 54.6W | 35 | LO | 250 | U | N | 19910406 | 185550 | 243 | 284 | 39  | 19 |    |
| 79 | 90  | BRAZIL          | AMAZON BASIN LAND USE    |        |       | 8.2S  | 52.6W | 55 | NV | 250 | N | N | 19910406 | 185628 | 243 | 284 | 37  | 19 |    |
| 79 | 91  | BRAZIL          | TOCANTINS RIVER BASIN    | 13.0S  | 48.5W | 10.6S | 48.3W | 15 | LO | 250 | N | N | 19910406 | 185748 | 243 | 284 | 32  | 19 |    |
| 79 | 92  | BRAZIL          | GERAL DO PARANA HILLS    |        |       | 10.8S | 47.9W | 15 | NV | 250 | N | N | 19910406 | 185755 | 243 | 284 | 31  | 19 |    |
| 79 | 93  | BRAZIL          | LAND USE PATTERNS        |        |       | 10.9S | 47.7W | 50 | NV | 250 | N | N | 19910406 | 185759 | 243 | 284 | 31  | 19 |    |
| 79 | 94  | BRAZIL          | LAND USE PATTERNS        |        |       | 11.2S | 47.2W | 55 | NV | 250 | N | N | 19910406 | 185809 | 243 | 284 | 31  | 19 |    |
| 79 | 95  | BRAZIL          | LAND USE PATTERNS        |        |       | 11.3S | 46.9W | 40 | LO | 250 | N | N | 19910406 | 185814 | 243 | 284 | 30  | 19 |    |
| 79 | 96  | BRAZIL          | LAND USE PATTERNS        |        |       | 11.4S | 46.7W | 40 | LO | 250 | N | N | 19910406 | 185818 | 243 | 284 | 30  | 19 |    |
| 79 | 97  | BRAZIL          | LAND USE PATTERNS        |        |       | 11.5S | 46.5W | 50 | LO | 250 | N | N | 19910406 | 185822 | 243 | 284 | 30  | 19 |    |
| 79 | 98  | BRAZIL          | LAND USE PATTERNS        |        |       | 12.1S | 45.3W | 45 | LO | 250 | N | N | 19910406 | 185843 | 243 | 284 | 28  | 19 |    |
| 79 | 99  | BRAZIL          | RES. NEAR SAO FRANCISCO  | 12.0S  | 43.0W | 14.2S | 41.1W | 65 | LO | 250 | N | N | 19910406 | 185959 | 243 | 283 | 24  | 19 |    |
| 79 | 100 | BRAZIL          | JEQUITINHONHA RIVER      | 15.5S  | 39.5W | 14.4S | 40.7W | 60 | HO | 250 | N | Y | 19910406 | 190007 | 243 | 283 | 23  | 19 |    |
| 79 | 101 | BRAZIL          | JEQUITINHONHA RIVER      | 16.5S  | 40.0W | 14.5S | 40.4W | 70 | HO | 250 | N | Y | 19910406 | 190011 | 243 | 283 | 23  | 19 |    |
| 79 | 102 | ATLANTIC OCEAN  | GRO PAYLOAD, EARTH LIMB  |        |       | 18.5S | 31.4W | 70 | HO | 250 | N | N | 19910406 | 190248 | 243 | 281 | 13  | 19 |    |
| 79 | 103 | ATLANTIC OCEAN  | GRO PAYLOAD, EARTH LIMB  |        |       | 18.9S | 30.6W | 75 | HO | 250 | N | N | 19910406 | 190303 | 243 | 281 | 12  | 19 |    |
| 80 | 1   | MALI            | BAOULE, DEGOU RIVERS     | 10.5N  | 7.5W  | 10.1N | 7.3W  | 0  | NV | 250 | N | Y | 19910409 | 121049 | 246 | 116 | 84  | 61 |    |
| 80 | 2   | MALI            | BAOULE, BANIFING RIVERS  | 10.5N  | 7.5W  | 10.0N | 7.2W  | 5  | NV | 250 | N | Y | 19910409 | 121051 | 246 | 116 | 84  | 61 |    |
| 80 | 3   | MALI            | BANIFING RIVER           | 10.5N  | 7.0W  | 10.0N | 7.1W  | 5  | NV | 250 | N | Y | 19910409 | 121053 | 246 | 117 | 84  | 61 |    |
| 80 | 4   | IVORY COAST     | LAND USE                 | 10.0N  | 7.0W  | 9.9N  | 7.0W  | 0  | NV | 250 | N | N | 19910409 | 121055 | 246 | 117 | 84  | 61 |    |
| 80 | 5   | IVORY COAST     | NEAR CITY OF BOUNDIALI   | 10.0N  | 7.0W  | 9.9N  | 6.9W  | 0  | NV | 250 | N | Y | 19910409 | 121057 | 246 | 117 | 84  | 61 |    |
| 80 | 6   | IVORY COAST     | NEAR CITY OF BOUNDIALI   | 9.5N   | 6.5W  | 9.8N  | 6.7W  | 0  | NV | 250 | N | Y | 19910409 | 121100 | 246 | 117 | 85  | 61 |    |
| 80 | 7   | IVORY COAST     | NEAR CITY OF BOUNDIALI   | 9.5N   | 6.5W  | 9.7N  | 6.6W  | 0  | NV | 250 | N | Y | 19910409 | 121102 | 246 | 117 | 85  | 61 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 80 | 8  | IVORY COAST     | LAND USE PATTERNS        | 9.5N 6.5W            | 9.6N 6.5W           | 0  | NV | 250 | N | Y | 19910409 | 121105 | 246 | 117 | 85        | 61 |
| 80 | 9  | IVORY COAST     | LAND USE PATTERNS        | 9.5N 6.5W            | 9.6N 6.5W           | 0  | NV | 250 | N | Y | 19910409 | 121107 | 246 | 117 | 85        | 61 |
| 80 | 10 | IVORY COAST     | LAND USE PATTERNS        | 9.5N 6.5W            | 9.5N 6.1W           | 0  | NV | 250 | N | Y | 19910409 | 121111 | 246 | 117 | 85        | 61 |
| 80 | 11 | IVORY COAST     | LAND USE PATTERNS        | 9.0N 6.5W            | 9.4N 6.0W           | 0  | NV | 250 | N | Y | 19910409 | 121113 | 246 | 117 | 85        | 61 |
| 80 | 12 | IVORY COAST     | BANDAMA BLANC RIVER      | 9.0N 5.5W            | 9.3N 5.8W           | 5  | NV | 250 | N | Y | 19910409 | 121117 | 246 | 117 | 86        | 61 |
| 80 | 13 | IVORY COAST     | BANDAMA BLANC RIVER      | 8.5N 5.5W            | 9.2N 5.7W           | 10 | NV | 250 | N | Y | 19910409 | 121119 | 246 | 117 | 86        | 61 |
| 80 | 14 | IVORY COAST     | LAND USE PATTERNS        | 9.1N 5.5W            | 9.1N 5.6W           | 5  | NV | 250 | N | Y | 19910409 | 121122 | 246 | 117 | 86        | 61 |
| 80 | 15 | IVORY COAST     | LAND USE PATTERNS        | 9.1N 5.4W            | 9.1N 5.4W           | 5  | NV | 250 | N | Y | 19910409 | 121124 | 246 | 117 | 86        | 61 |
| 80 | 16 | IVORY COAST     | LAND USE PATTERNS        | 9.0N 5.3W            | 9.0N 5.3W           | 15 | NV | 250 | N | Y | 19910409 | 121126 | 246 | 117 | 86        | 61 |
| 80 | 17 | IVORY COAST     | BANDAMA BLANC RIVER      | 8.5N 5.5W            | 8.9N 5.2W           | 10 | NV | 250 | N | Y | 19910409 | 121129 | 246 | 117 | 86        | 61 |
| 80 | 18 | IVORY COAST     | BANDAMA BLANC RIVER      | 8.5N 5.0W            | 8.8N 5.0W           | 20 | NV | 250 | N | Y | 19910409 | 121132 | 246 | 117 | 87        | 61 |
| 80 | 19 | IVORY COAST     | EAST OF KOSSOU RESERVOIR | 8.0N 5.0W            | 8.8N 4.9W           | 30 | NV | 250 | N | Y | 19910409 | 121135 | 246 | 117 | 87        | 61 |
| 80 | 20 | IVORY COAST     | NE OF KOSSOU RESERVOIR   | 8.0N 5.0W            | 8.7N 4.7W           | 40 | NV | 250 | N | Y | 19910409 | 121138 | 246 | 117 | 87        | 61 |
| 80 | 21 | IVORY COAST     | KOSSOU RESERVOIR         | 7.5N 5.5W            | 8.4N 4.2W           | 65 | NV | 250 | N | Y | 19910409 | 121148 | 246 | 117 | 88        | 61 |
| 80 | 22 | IVORY COAST     | NEAR KOSSOU RESERVOIR    | 8.0N 4.5W            | 8.1N 3.6W           | 60 | NV | 250 | N | Y | 19910409 | 121158 | 246 | 118 | 88        | 61 |
| 80 | 23 | IVORY COAST     | WEST OF KOMOE RIVER      | 8.0N 4.0W            | 8.0N 3.5W           | 35 | NV | 250 | N | Y | 19910409 | 121201 | 246 | 118 | 88        | 61 |
| 80 | 24 | IVORY COAST     | KOMOE RIVER              | 8.0N 4.0W            | 7.9N 3.3W           | 25 | NV | 250 | N | Y | 19910409 | 121204 | 246 | 118 | 89        | 61 |
| 80 | 25 | IVORY COAST     | EAST OF KOMOE RIVER      | 8.0N 3.5W            | 7.8N 3.2W           | 10 | NV | 250 | N | Y | 19910409 | 121207 | 246 | 118 | 89        | 61 |
| 80 | 26 | IVORY COAST     | EAST OF KOMOE RIVER      | 8.0N 3.0W            | 7.7N 3.0W           | 10 | NV | 250 | N | Y | 19910409 | 121210 | 246 | 119 | 89        | 61 |
| 80 | 27 | GHANA           | BUI RESERVOIR            | 8.5N 2.5W            | 7.6N 2.8W           | 40 | NV | 250 | N | Y | 19910409 | 121214 | 246 | 121 | 89        | 61 |
| 80 | 28 | GHANA           | BUI RESERVOIR            | 8.0N 2.5W            | 7.5N 2.7W           | 50 | NV | 250 | N | Y | 19910409 | 121216 | 246 | 126 | 89        | 61 |
| 80 | 29 | GHANA           | HIGHLANDS W. OF L. VOLTA | 7.5N 2.5W            | 7.5N 2.5W           | 60 | NV | 250 | N | Y | 19910409 | 121219 | 246 | 284 | 89        | 61 |
| 80 | 30 | GHANA           | HIGHLANDS W. OF L. VOLTA | 7.4N 2.4W            | 7.4N 2.4W           | 60 | NV | 250 | N | Y | 19910409 | 121222 | 246 | 293 | 89        | 61 |
| 80 | 31 | GHANA           | HIGHLANDS W. OF L. VOLTA | 7.2N 2.1W            | 7.2N 2.1W           | 80 | NV | 250 | N | Y | 19910409 | 121226 | 246 | 295 | 89        | 61 |
| 80 | 32 | GHANA           | HIGHLANDS W. OF L. VOLTA | 7.2N 2.0W            | 7.2N 2.0W           | 85 | NV | 250 | N | Y | 19910409 | 121229 | 246 | 296 | 89        | 61 |
| 80 | 33 | GHANA           | HIGHLANDS NEAR L. VOLTA  | 7.0N 1.8W            | 7.0N 1.8W           | 75 | NV | 250 | N | Y | 19910409 | 121233 | 246 | 296 | 89        | 61 |
| 80 | 34 | GHANA           | HIGHLANDS NEAR L. VOLTA  | 6.8N 1.3W            | 6.8N 1.3W           | 55 | LO | 250 | N | Y | 19910409 | 121241 | 246 | 297 | 88        | 61 |
| 80 | 35 | GHANA           | VOLTA R., KETA LAGOON    | 6.0N 0.5E            | 6.5N 0.8W           | 30 | LO | 250 | N | Y | 19910409 | 121251 | 246 | 297 | 87        | 61 |
| 80 | 36 | TOGO            | KETA LAGOON, LOME        | 6.0N 1.0E            | 6.4N 0.7W           | 40 | NV | 250 | N | Y | 19910409 | 121254 | 246 | 297 | 87        | 61 |
| 80 | 37 | TOGO            | LAKE TOGO, LOME          | 6.5N 1.5E            | 6.3N 0.4W           | 55 | LO | 250 | N | Y | 19910409 | 121259 | 246 | 297 | 87        | 61 |
| 80 | 38 | GHANA           | CITY OF ACCRA            | 5.5N 0.5W            | 6.1N 0.1W           | 35 | LO | 250 | N | Y | 19910409 | 121304 | 246 | 297 | 87        | 61 |
| 80 | 39 | GHANA           | WINNEBA, CAPE COAST      | 5.0N 0.5W            | 5.9N 0.2E           | 45 | LO | 250 | N | Y | 19910409 | 121311 | 246 | 297 | 86        | 61 |
| 80 | 40 | GHANA           | VOLTA R., SONGAW LAGOON  | 6.0N 0.5E            | 5.7N 0.6E           | 50 | LO | 250 | N | Y | 19910409 | 121318 | 246 | 297 | 86        | 61 |
| 80 | 41 | NIGERIA         | CITY OF LAGOS            | 6.5N 3.5E            | 4.7N 2.4E           | 65 | LO | 250 | N | Y | 19910409 | 121352 | 246 | 297 | 83        | 61 |
| 80 | 42 | NIGERIA         | SLAVE COAST              | 6.5N 3.0E            | 4.5N 2.7E           | 75 | LO | 250 | N | Y | 19910409 | 121358 | 246 | 297 | 83        | 61 |
| 80 | 43 | GABON           | OGOOUE R., L. ONANGUE    | 1.0S 10.0E           | 0.8N 9.0E           | 75 | LO | 250 | N | Y | 19910409 | 121558 | 246 | 298 | 75        | 61 |
| 80 | 44 | GABON           | OGOOUE R., L. ONANGUE    | 1.0S 9.5E            | 0.7N 9.2E           | 75 | LO | 250 | N | Y | 19910409 | 121602 | 246 | 298 | 75        | 61 |
| 80 | 45 | GABON           | OGOOUE R., NKOMI LAGOON  | 1.5S 9.0E            | 0.5N 9.5E           | 60 | LO | 250 | N | Y | 19910409 | 121609 | 246 | 298 | 75        | 61 |
| 80 | 46 | GABON           | OGOOUE R.                | 0.5S 11.0E           | 0.1S 10.6E          | 75 | NV | 250 | N | Y | 19910409 | 121629 | 246 | 298 | 73        | 61 |
| 80 | 47 | GABON           | OGOOUE R., L. ONANGUE    | 1.0S 10.5E           | 0.2S 10.7E          | 70 | NV | 250 | N | Y | 19910409 | 121631 | 246 | 298 | 73        | 61 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER |       | NADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|----|-----------------|--------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |    |                 |                          | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 80 | 48 | GABON           | OGOOUE R., L. ONANGUE    | 1.0S   | 10.0E | 0.3S  | 10.9E | 65 | NV | 250 | O | N | 19910409 | 121634 | 246 | 298 | 73  | 61 |    |
| 80 | 49 | GABON           | OGOOUE R., NKOOMI LAGOON | 1.0S   | 9.0E  | 0.4S  | 11.1E | 75 | NV | 250 | O | N | 19910409 | 121638 | 246 | 298 | 73  | 61 |    |
| 80 | 50 | GABON           | OGOOUE R., NKOOMI LAGOON | 1.5S   | 9.0E  | 0.5S  | 11.3E | 50 | NV | 250 | O | N | 19910409 | 121642 | 246 | 298 | 73  | 61 |    |
| 80 | 51 | GABON           | MBIA LAGOON              | 3.5S   | 11.0E | 0.6S  | 11.4E | 55 | LO | 250 | O | N | 19910409 | 121645 | 246 | 298 | 72  | 61 |    |
| 80 | 52 | GABON           | INLAND FROM MBIA LAGOON  |        |       | 0.7S  | 11.6E | 75 | LO | 250 | O | N | 19910409 | 121648 | 246 | 298 | 72  | 61 |    |
| 80 | 53 | GABON           | NEAR THE NIARI RIVER     |        |       | 0.8S  | 11.8E | 75 | LO | 250 | O | N | 19910409 | 121652 | 246 | 298 | 72  | 61 |    |
| 80 | 54 | CONGO           | NIARI RIVER              | 3.5S   | 12.5E | 0.9S  | 11.9E | 65 | LO | 250 | N | N | 19910409 | 121654 | 246 | 298 | 72  | 61 |    |
| 80 | 55 | CONGO           | NEAR THE NIARI RIVER     |        |       | 1.0S  | 12.1E | 75 | LO | 250 | O | N | 19910409 | 121658 | 246 | 298 | 72  | 61 |    |
| 80 | 56 | GABON           | NDOGO LAGOON             | 2.5S   | 10.0E | 1.1S  | 12.4E | 65 | LO | 250 | N | N | 19910409 | 121703 | 246 | 298 | 71  | 61 |    |
| 80 | 57 | GABON           | NDOGO LAGOON, MBIA L.    | 3.0S   | 10.5E | 1.2S  | 12.5E | 70 | NV | 250 | O | N | 19910409 | 121706 | 246 | 298 | 71  | 61 |    |
| 80 | 58 | GABON           | INLAND FROM MBIA LAGOON  |        |       | 1.4S  | 12.7E | 70 | LO | 250 | O | N | 19910409 | 121710 | 246 | 298 | 71  | 61 |    |
| 80 | 59 | CONGO           | INLAND FROM MBIA LAGOON  |        |       | 1.5S  | 12.9E | 75 | NV | 250 | O | N | 19910409 | 121714 | 246 | 298 | 71  | 61 |    |
| 80 | 60 | CONGO           | LAND USE PATTERNS        |        |       | 1.6S  | 13.1E | 80 | NV | 250 | O | N | 19910409 | 121718 | 246 | 298 | 70  | 61 |    |
| 80 | 61 | CONGO           | LAND USE PATTERNS        |        |       | 1.8S  | 13.4E | 80 | LO | 250 | O | N | 19910409 | 121723 | 246 | 298 | 70  | 61 |    |
| 80 | 62 | CONGO           | COAST S. OF MBIA LAGOON  | 4.0S   | 11.0E | 1.9S  | 13.7E | 60 | LO | 250 | N | N | 19910409 | 121728 | 246 | 298 | 70  | 61 |    |
| 80 | 63 | ZAIRE           | RIVER PATTERNS           |        |       | 2.3S  | 14.3E | 65 | LO | 250 | N | N | 19910409 | 121740 | 246 | 298 | 69  | 61 |    |
| 80 | 64 | ZAIRE           | RIVER PATTERNS           |        |       | 2.5S  | 14.7E | 80 | LO | 250 | N | N | 19910409 | 121747 | 246 | 298 | 68  | 61 |    |
| 80 | 65 | ZAIRE           | RIVER PATTERNS           |        |       | 2.6S  | 14.9E | 85 | LO | 250 | N | N | 19910409 | 121752 | 246 | 298 | 68  | 61 |    |
| 80 | 66 | ZAIRE           | CONGO RIVER              | 2.5S   | 16.0E | 2.8S  | 15.2E | 65 | NV | 250 | N | N | 19910409 | 121758 | 246 | 298 | 68  | 61 |    |
| 80 | 67 | CONGO           | LEFINI RIVER             | 3.0S   | 15.5E | 2.9S  | 15.4E | 65 | NV | 250 | N | N | 19910409 | 121802 | 246 | 298 | 67  | 61 |    |
| 80 | 68 | ZAIRE           | CONGO, KMA RIVERS        | 3.0S   | 16.5E | 3.1S  | 15.7E | 45 | LO | 250 | N | Y | 19910409 | 121806 | 246 | 298 | 67  | 61 |    |
| 80 | 69 | ZAIRE           | CONGO, KMA RIVERS        | 3.5S   | 16.0E | 3.2S  | 15.9E | 50 | LO | 250 | N | Y | 19910409 | 121810 | 246 | 298 | 67  | 61 |    |
| 80 | 70 | ZAIRE           | CONGO RIVER              | 3.5S   | 16.0E | 3.3S  | 16.0E | 60 | LO | 250 | N | Y | 19910409 | 121813 | 246 | 298 | 67  | 61 |    |
| 80 | 71 | ZAIRE           | BRAZZAVILLE, KINSHASA    | 4.0S   | 15.5E | 3.4S  | 16.2E | 45 | LO | 250 | N | Y | 19910409 | 121816 | 246 | 298 | 67  | 61 |    |
| 80 | 72 | ZAIRE           | CONGO RIVER              | 5.0S   | 14.5E | 3.7S  | 16.7E | 50 | LO | 250 | N | N | 19910409 | 121826 | 246 | 298 | 66  | 61 |    |
| 80 | 73 | ANGOLA          | MOUTH OF CONGO RIVER     | 6.0S   | 13.0E | 3.8S  | 17.0E | 40 | HO | 250 | N | N | 19910409 | 121831 | 246 | 298 | 66  | 61 |    |
| 80 | 74 | ZAIRE           | CONGO, KWA RIVERS        | 3.5S   | 16.0E | 4.1S  | 17.5E | 60 | LO | 250 | N | Y | 19910409 | 121841 | 246 | 298 | 65  | 61 |    |
| 80 | 75 | ZAIRE           | CONGO, KWA RIVERS        | 3.0S   | 16.5E | 4.2S  | 17.6E | 50 | LO | 250 | N | Y | 19910409 | 121843 | 246 | 298 | 65  | 61 |    |
| 80 | 76 | ZAIRE           | KWA, FIMI, KWANGO RIVERS | 3.0S   | 17.0E | 4.3S  | 17.7E | 55 | LO | 250 | N | Y | 19910409 | 121846 | 246 | 298 | 65  | 61 |    |
| 80 | 77 | ZAIRE           | KWANGO RIVER             | 4.0S   | 17.5E | 4.4S  | 18.0E | 55 | NV | 250 | N | Y | 19910409 | 121850 | 246 | 298 | 64  | 61 |    |
| 80 | 78 | ZAIRE           | KASAI RIVER              | 3.5S   | 18.5E | 4.7S  | 18.5E | 50 | NV | 250 | N | N | 19910409 | 121901 | 246 | 298 | 64  | 61 |    |
| 80 | 79 | ZAIRE           | KASAI, LOANGE RIVERS     | 4.5S   | 19.5E | 5.0S  | 19.0E | 30 | LO | 250 | N | Y | 19910409 | 121909 | 246 | 298 | 63  | 61 |    |
| 80 | 80 | ZAIRE           | KASAI RIVER              | 4.5S   | 19.5E | 5.1S  | 19.1E | 30 | NV | 250 | N | Y | 19910409 | 121912 | 246 | 298 | 63  | 61 |    |
| 80 | 81 | ZAIRE           | AREA SOUTH OF KASAI R.   | 4.5S   | 19.0E | 5.1S  | 19.2E | 50 | NV | 250 | N | Y | 19910409 | 121914 | 246 | 298 | 63  | 61 |    |
| 80 | 82 | ZAIRE           | KASAI, LOANGE RIVERS     | 4.5S   | 20.0E | 5.4S  | 19.7E | 15 | NV | 250 | N | Y | 19910409 | 121924 | 246 | 297 | 62  | 61 |    |
| 80 | 83 | ZAIRE           | KASAI, SANKURU RIVERS    | 4.5S   | 20.5E | 5.5S  | 20.0E | 15 | NV | 250 | N | Y | 19910409 | 121928 | 246 | 297 | 62  | 61 |    |
| 80 | 84 | ZAIRE           | KASAI RIVER              | 5.0S   | 21.0E | 5.6S  | 20.1E | 10 | NV | 250 | N | Y | 19910409 | 121931 | 246 | 297 | 62  | 61 |    |
| 80 | 85 | ZAIRE           | KASAI RIVER              | 5.5S   | 21.0E | 5.7S  | 20.2E | 5  | NV | 250 | N | Y | 19910409 | 121933 | 246 | 297 | 62  | 61 |    |
| 80 | 86 | ZAIRE           | KASAI RIVER              | 5.5S   | 21.0E | 5.8S  | 20.4E | 20 | LO | 250 | N | Y | 19910409 | 121936 | 246 | 297 | 61  | 61 |    |
| 80 | 87 | ZAIRE           | KASAI RIVER              | 6.0S   | 21.0E | 5.9S  | 20.5E | 35 | LO | 250 | N | Y | 19910409 | 121939 | 246 | 297 | 61  | 61 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 80 | 88  | ZATRE           | KASAI RIVER              | 6.0S 21.5E           | 6.0S 20.7E          | 70 | LO | 250 | N | N | 19910409 | 121943 | 246 | 297 | 61        | 61 |
| 80 | 89  | ZATRE           | LULUA RIVER              | 5.5S 22.0E           | 6.1S 21.0E          | 30 | NV | 250 | N | N | 19910409 | 121948 | 246 | 297 | 61        | 61 |
| 80 | 90  | ZATRE           | KASAI RIVER              | 7.5S 22.0E           | 6.6S 21.9E          | 30 | LO | 250 | N | N | 19910409 | 122004 | 246 | 297 | 60        | 61 |
| 80 | 91  | NAMIBIA         | ETOSHA PAN               | 18.0S 17.0E          | 8.5S 25.2E          | 15 | HO | 250 | N | N | 19910409 | 122107 | 246 | 297 | 58        | 61 |
| 80 | 92  | ANGOLA          | ETOSHA PAN               | 17.0S 19.0E          | 8.8S 25.7E          | 15 | HO | 250 | N | N | 19910409 | 122117 | 246 | 297 | 55        | 61 |
| 80 | 93  | ANGOLA          | LIUWA PLAIN              | 17.0S 22.0E          | 10.0S 27.9E         | 15 | HO | 250 | N | N | 19910409 | 122158 | 245 | 298 | 52        | 61 |
| 80 | 94  | ZAMBIA          | LIUWA PLAIN, ZAMBEZI R.  | 15.0S 23.0E          | 10.1S 28.2E         | 10 | LO | 250 | N | Y | 19910409 | 122203 | 245 | 298 | 52        | 61 |
| 80 | 95  | ZAMBIA          | LIUWA PLAIN, ZAMBEZI R.  | 16.5S 25.0E          | 10.3S 28.5E         | 5  | LO | 250 | N | Y | 19910409 | 122209 | 245 | 298 | 52        | 61 |
| 80 | 96  | ZAMBIA          | LUKANGA SWAMP            | 15.5S 27.0E          | 10.7S 29.2E         | 10 | LO | 250 | N | Y | 19910409 | 122222 | 245 | 298 | 51        | 61 |
| 80 | 97  | ZAMBIA          | LUKANGA SWAMP            | 16.0S 27.5E          | 10.8S 29.6E         | 5  | LO | 250 | N | Y | 19910409 | 122229 | 245 | 298 | 50        | 61 |
| 80 | 98  | BOTSWANA        | ZAMBEZI R., OKAVANGO S.  | 19.0S 22.0E          | 11.0S 29.9E         | 0  | HO | 250 | N | N | 19910409 | 122234 | 245 | 298 | 50        | 61 |
| 80 | 99  | BOTSWANA        | ZAMBEZI R., OKAVANGO S.  | 19.5S 21.5E          | 11.1S 30.1E         | 0  | HO | 250 | N | N | 19910409 | 122238 | 245 | 298 | 50        | 61 |
| 80 | 100 | BOTSWANA        | ZAMBEZI R., OKAVANGO S.  | 19.5S 24.0E          | 11.6S 31.0E         | 0  | HO | 250 | N | N | 19910409 | 122255 | 245 | 298 | 49        | 61 |
| 80 | 101 | ZIMBABWE        | KARIBA L., ZAMBEZI R.    | 19.0S 26.0E          | 12.0S 31.7E         | 5  | LO | 250 | N | Y | 19910409 | 122308 | 245 | 298 | 48        | 61 |
| 80 | 102 | ZIMBABWE        | KARIBA LAKE              | 19.0S 28.0E          | 12.1S 32.1E         | 0  | LO | 250 | N | Y | 19910409 | 122314 | 245 | 295 | 47        | 61 |
| 80 | 103 | BOTSWANA        | MAKARTKARI PANS          | 20.5S 24.5E          | 12.4S 32.5E         | 0  | HO | 250 | N | Y | 19910409 | 122322 | 245 | 295 | 47        | 61 |
| 80 | 104 | ZIMBABWE        | S. OF LAKE KARIBA        | 19.0S 28.5E          | 12.6S 33.0E         | 0  | LO | 250 | N | Y | 19910409 | 122332 | 245 | 295 | 46        | 61 |
| 81 | 1   | MEXICO          | PETACALCO BAY            | 18.0N 102.0W         | 16.9N 100.4W        | 10 | NV | 250 | N | Y | 19910405 | 192036 | 244 | 220 | 76        | 4  |
| 81 | 2   | MEXICO          | TEQUPA BAY, SMOKE        | 17.0N 101.0W         | 16.5N 99.6W         | 10 | NV | 250 | N | Y | 19910405 | 192051 | 244 | 224 | 75        | 4  |
| 81 | 3   | MEXICO          | ACAPULCO, RES PALO LAG.  | 16.5N 99.5W          | 16.4N 99.4W         | 0  | NV | 250 | N | N | 19910405 | 192054 | 244 | 224 | 75        | 4  |
| 81 | 4   | MEXICO          | MOLENGA LAGOON           | 16.0N 98.0W          | 16.3N 99.2W         | 5  | NV | 250 | N | N | 19910405 | 192058 | 244 | 225 | 75        | 4  |
| 81 | 5   | MEXICO          | COAST WEST OF PORT ANGEL | 16.0N 97.0W          | 16.2N 98.9W         | 30 | NV | 250 | N | Y | 19910405 | 192102 | 244 | 228 | 75        | 4  |
| 81 | 6   | MEXICO          | SUPERIOR, INFERIOR LAG.  | 16.0N 95.0W          | 15.3N 96.9W         | 15 | NV | 250 | N | N | 19910405 | 192139 | 244 | 235 | 74        | 4  |
| 81 | 7   | MEXICO          | SAN DIEGO BAY            | 16.0N 96.0W          | 15.2N 96.8W         | 30 | NV | 250 | N | Y | 19910405 | 192143 | 244 | 236 | 74        | 4  |
| 81 | 8   | MEXICO          | PORT ANGEL               | 16.0N 95.0W          | 15.0N 96.3W         | 20 | NV | 250 | N | N | 19910405 | 192149 | 244 | 237 | 74        | 4  |
| 81 | 9   | MEXICO          | COATZACOALCOS            | 18.0N 94.5W          | 14.0N 94.3W         | 65 | LO | 250 | N | N | 19910405 | 192225 | 244 | 244 | 72        | 4  |
| 81 | 10  | MEXICO          | ANGOSTURA RESERVOIR      | 16.0N 92.5W          | 13.9N 94.0W         | 50 | LO | 250 | N | N | 19910405 | 192230 | 244 | 245 | 72        | 4  |
| 81 | 11  | PACIFIC OCEAN   | SHIP WAKES, SUNGLINT     |                      | 13.6N 93.3W         | 5  | LO | 250 | N | N | 19910405 | 192242 | 244 | 247 | 72        | 4  |
| 81 | 12  | PACIFIC OCEAN   | SHIP WAKES, OIL SLICKS   |                      | 13.3N 92.7W         | 5  | LO | 250 | N | N | 19910405 | 192253 | 244 | 248 | 71        | 4  |
| 81 | 13  | MEXICO          | ANGOSTURA RESERVOIR      | 16.0N 92.0W          | 12.7N 91.6W         | 65 | LO | 250 | N | N | 19910405 | 192313 | 244 | 251 | 70        | 4  |
| 81 | 14  | HONDURAS        | GULF OF FONSECA          | 13.0N 87.5W          | 11.3N 88.9W         | 5  | NV | 250 | N | N | 19910405 | 192402 | 243 | 257 | 68        | 4  |
| 81 | 15  | NICARAGUA       | MANAGUA LAKE             | 12.5N 86.5W          | 11.1N 88.6W         | 25 | NV | 250 | N | Y | 19910405 | 192409 | 243 | 258 | 67        | 4  |
| 81 | 16  | NICARAGUA       | AREA NORTH OF L. MANAGUA | 13.5N 86.5W          | 10.9N 88.1W         | 65 | LO | 250 | N | Y | 19910405 | 192418 | 243 | 259 | 67        | 4  |
| 81 | 17  | NICARAGUA       | SAINT ELENA BAY          | 11.5N 86.0W          | 10.2N 86.9W         | 0  | NV | 250 | N | Y | 19910405 | 192440 | 243 | 261 | 66        | 4  |
| 81 | 18  | COSTA RICA      | GULF OF PAPAGAYO         | 10.5N 85.5W          | 9.9N 86.2W          | 0  | LO | 250 | N | Y | 19910405 | 192453 | 243 | 262 | 65        | 4  |
| 81 | 19  | COSTA RICA      | NICOYA PENINSULA         | 10.0N 85.5W          | 9.8N 86.1W          | 0  | LO | 250 | N | Y | 19910405 | 192455 | 243 | 263 | 65        | 4  |
| 81 | 20  | COSTA RICA      | GULF OF NICOYA           | 10.0N 85.0W          | 9.8N 86.0W          | 5  | LO | 250 | N | Y | 19910405 | 192456 | 243 | 263 | 65        | 4  |
| 81 | 21  | COSTA RICA      | NEAR SAN JOSE            | 10.0N 84.0W          | 9.3N 85.2W          | 70 | LO | 250 | N | N | 19910405 | 192511 | 243 | 264 | 64        | 4  |
| 81 | 22  | PANAMA          | CHIRIQUI BAY             | 9.0N 82.0W           | 8.8N 84.1W          | 30 | LO | 250 | N | N | 19910405 | 192531 | 243 | 266 | 63        | 4  |
| 81 | 23  | PANAMA          | CHARCO AZUL BAY          | 8.5N 83.0W           | 8.5N 83.7W          | 20 | LO | 250 | N | N | 19910405 | 192539 | 243 | 266 | 63        | 4  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | EL  | OR |
|----|----|-----------------|--------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|
|    |    |                 |                          | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     | SUM |    |
| 81 | 24 | COSTA RICA      | OSA PEN., GULF OF DULCE  | 9.0N   | 83.5W | 8.4N  | 83.5W | 40 | NV | 250 | N | N | 19910405 | 192542 | 243 | 266 | 62  | 4  |
| 81 | 25 | PANAMA          | CLOUDS                   |        |       | 7.3N  | 81.5W | 85 | LO | 250 | N | N | 19910405 | 192620 | 243 | 269 | 60  | 4  |
| 81 | 26 | PANAMA          | CLOUDS                   |        |       | 6.6N  | 80.2W | 95 | LO | 250 | N | N | 19910405 | 192645 | 243 | 270 | 59  | 4  |
| 81 | 27 | COLOMBIA        | CLOUDS, LAND USE         |        |       | 3.8N  | 75.4W | 70 | LO | 250 | N | N | 19910405 | 192816 | 243 | 275 | 54  | 4  |
| 81 | 28 | BRAZIL          | AMAZON BAS. THUNDERSTORM |        |       | 0.1S  | 68.7W | 95 | LO | 250 | N | N | 19910405 | 193025 | 243 | 278 | 46  | 4  |
| 81 | 29 | BRAZIL          | AMAZON BAS. THUNDERSTORM |        |       | 0.6S  | 67.8W | 95 | LO | 250 | N | N | 19910405 | 193041 | 243 | 279 | 45  | 4  |
| 81 | 30 | BRAZIL          | RIO NEGRO                | 0.0    | 67.0W | 1.3S  | 66.7W | 35 | NV | 250 | N | N | 19910405 | 193103 | 243 | 279 | 44  | 4  |
| 81 | 31 | BRAZIL          | RIO NEGRO                | 0.5S   | 64.5W | 1.4S  | 66.5W | 70 | LO | 250 | N | N | 19910405 | 193106 | 243 | 279 | 43  | 4  |
| 81 | 32 | BRAZIL          | CENTRAL AMAZON BASIN     |        |       | 1.8S  | 65.7W | 65 | NV | 250 | N | N | 19910405 | 193121 | 243 | 280 | 43  | 4  |
| 81 | 33 | BRAZIL          | AMAZON RIVER             | 2.5S   | 66.0W | 2.3S  | 65.0W | 65 | NV | 250 | N | N | 19910405 | 193135 | 242 | 280 | 42  | 4  |
| 81 | 34 | BRAZIL          | AMAZON RIVER, JAPURA R.  | 2.5S   | 65.5W | 2.4S  | 64.8W | 45 | NV | 250 | N | N | 19910405 | 193138 | 242 | 280 | 42  | 4  |
| 81 | 35 | BRAZIL          | AMAZON RIVER, JAPURA R.  | 3.0S   | 65.0W | 2.5S  | 64.7W | 40 | NV | 250 | N | N | 19910405 | 193141 | 242 | 280 | 41  | 4  |
| 81 | 36 | BRAZIL          | AMAZON RIVER, PARANA CR. | 3.5S   | 64.0W | 3.1S  | 63.5W | 40 | NV | 250 | N | N | 19910405 | 193203 | 242 | 280 | 40  | 4  |
| 81 | 37 | BRAZIL          | AMAZON R., TEFE LAKE     | 3.5S   | 64.5W | 3.3S  | 63.3W | 50 | NV | 250 | N | N | 19910405 | 193208 | 242 | 280 | 40  | 4  |
| 81 | 38 | BRAZIL          | AMAZON R., MAMIA LAKE    | 4.0S   | 63.0W | 3.8S  | 62.3W | 65 | NV | 250 | N | N | 19910405 | 193227 | 242 | 281 | 39  | 4  |
| 81 | 39 | BRAZIL          | MADEIRA RIVER            | 4.0S   | 59.5W | 4.5S  | 61.2W | 60 | LO | 250 | N | Y | 19910405 | 193247 | 242 | 281 | 37  | 4  |
| 81 | 40 | BRAZIL          | MADEIRA RIVER            | 4.5S   | 60.0W | 4.5S  | 61.1W | 55 | NV | 250 | N | Y | 19910405 | 193249 | 242 | 281 | 37  | 4  |
| 81 | 41 | BRAZIL          | MADEIRA RIVER            | 5.0S   | 60.0W | 4.6S  | 61.0W | 70 | NV | 250 | N | Y | 19910405 | 193252 | 242 | 281 | 37  | 4  |
| 81 | 42 | BRAZIL          | MADEIRA RIVER            | 4.5S   | 60.0W | 4.9S  | 60.4W | 50 | NV | 250 | N | Y | 19910405 | 193302 | 242 | 281 | 36  | 4  |
| 81 | 43 | BRAZIL          | MADEIRA RIVER            | 4.5S   | 59.5W | 5.1S  | 60.2W | 55 | NV | 250 | N | Y | 19910405 | 193307 | 242 | 281 | 36  | 4  |
| 81 | 44 | BRAZIL          | MADEIRA R., THUNDERSTORM | 4.0S   | 59.5W | 5.4S  | 59.6W | 75 | NV | 250 | N | N | 19910405 | 193318 | 242 | 281 | 35  | 4  |
| 81 | 45 | BRAZIL          | THUNDERSTORMS, AMAZON B. |        |       | 7.8S  | 55.2W | 95 | LO | 250 | N | N | 19910405 | 193440 | 242 | 281 | 30  | 4  |
| 81 | 46 | BRAZIL          | AMAZON B. LAND USE       |        |       | 8.6S  | 53.8W | 30 | NV | 250 | N | N | 19910405 | 193507 | 242 | 281 | 29  | 4  |
| 81 | 47 | BRAZIL          | LAND USE TAPIRAPE HILLS  | 10.5S  | 51.5W | 9.9S  | 51.5W | 15 | NV | 250 | N | N | 19910405 | 193550 | 242 | 281 | 26  | 4  |
| 81 | 48 | BRAZIL          | LAND USE TAPIRAPE HILLS  | 10.5S  | 51.5W | 9.9S  | 51.4W | 15 | NV | 250 | N | Y | 19910405 | 193552 | 242 | 281 | 26  | 4  |
| 81 | 49 | BRAZIL          | LAND USE, ARAGUAIA RIVER | 10.5S  | 51.0W | 10.0S | 51.2W | 15 | NV | 250 | N | Y | 19910405 | 193555 | 242 | 281 | 26  | 4  |
| 81 | 50 | BRAZIL          | LAND USE, ARAGUAIA RIVER | 11.0S  | 50.5W | 10.1S | 51.1W | 15 | NV | 250 | N | Y | 19910405 | 193557 | 242 | 281 | 26  | 4  |
| 81 | 51 | BRAZIL          | ISLAND OF THE BANANAL    | 11.0S  | 50.0W | 10.2S | 51.0W | 30 | NV | 250 | N | Y | 19910405 | 193600 | 242 | 281 | 25  | 4  |
| 81 | 52 | BRAZIL          | ISLAND OF THE BANANAL    | 11.0S  | 50.0W | 10.2S | 50.8W | 40 | NV | 250 | N | Y | 19910405 | 193602 | 242 | 281 | 25  | 4  |
| 81 | 53 | BRAZIL          | ARAGUAIA RIVER           | 11.0S  | 50.0W | 10.3S | 50.7W | 25 | NV | 250 | N | N | 19910405 | 193604 | 242 | 281 | 25  | 4  |
| 81 | 54 | BRAZIL          | LAND USE NEAR ARAGUAIA R | 10.5S  | 51.0W | 10.3S | 50.6W | 20 | LO | 250 | N | N | 19910405 | 193606 | 242 | 281 | 25  | 4  |
| 81 | 55 | BRAZIL          | LAND USE TAPIRAPE HILLS  | 10.5S  | 51.5W | 10.6S | 50.1W | 15 | LO | 250 | N | N | 19910405 | 193615 | 242 | 281 | 24  | 4  |
| 81 | 56 | BRAZIL          | TOCANTINS RIVER          | 11.5S  | 48.5W | 11.7S | 48.1W | 30 | LO | 250 | N | Y | 19910405 | 193652 | 242 | 281 | 22  | 4  |
| 81 | 57 | BRAZIL          | TOCANTINS RIVER          | 12.0S  | 48.5W | 11.7S | 48.0W | 10 | LO | 250 | N | N | 19910405 | 193655 | 242 | 281 | 22  | 4  |
| 81 | 58 | BRAZIL          | TOCANTINS RIVER, V. DARK | 11.5S  | 48.5W | 12.1S | 47.3W | 25 | NV | 250 | N | N | 19910405 | 193708 | 243 | 281 | 21  | 4  |
| 81 | 59 | BRAZIL          | E. OF TOCANTINS R., DARK | 12.5S  | 48.0W | 12.6S | 46.4W | 15 | NV | 250 | N | N | 19910405 | 193711 | 243 | 281 | 21  | 4  |
| 81 | 60 | BRAZIL          | TOCANTINS RIVER, V. DARK | 13.5S  | 47.5W | 12.9S | 45.8W | 10 | NV | 250 | N | N | 19910405 | 193724 | 243 | 281 | 20  | 4  |
| 81 | 61 | BRAZIL          | PARANA RIVER             | 13.0S  | 48.0W | 13.0S | 45.5W | 10 | LO | 250 | N | Y | 19910405 | 193735 | 243 | 281 | 19  | 4  |
| 81 | 62 | BRAZIL          | PARANA, TOCANTINS RIVERS | 11.5S  | 43.5W | 13.6S | 44.3W | 45 | LO | 250 | N | Y | 19910405 | 193802 | 243 | 281 | 18  | 4  |
| 81 | 63 | BRAZIL          | SAO FRANCISCO RIVER B.   |        |       |       |       |    |    |     |   |   |          |        |     |     |     |    |

TABLE 4-3- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME   | FEATURE                  | CENTER<br>LAT | LONG  | MADIR<br>LAT | LONG  | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|-------------------|--------------------------|---------------|-------|--------------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 81 | 64  | BRAZIL            | SAO FRANCISCO RIVER B.   | 12.0S         | 43.5W | 13.7S        | 44.2W | 15 | NV | 250 | U | Y | 19910405 | 193804 | 243 | 281 | 18        | 4  |
| 81 | 65  | BRAZIL            | SAO FRANCISCO RIVER B.   | 12.5S         | 43.5W | 13.7S        | 44.0W | 10 | NV | 250 | U | Y | 19910405 | 193807 | 243 | 281 | 17        | 4  |
| 81 | 66  | BRAZIL            | SAO FRANCISCO RIVER B.   | 12.5S         | 43.5W | 13.9S        | 43.7W | 10 | NV | 250 | U | Y | 19910405 | 193813 | 243 | 281 | 17        | 4  |
| 81 | 67  | BRAZIL            | SAO FRANCISCO RIVER B.   | 12.5S         | 43.5W | 14.0S        | 43.5W | 10 | NV | 250 | U | Y | 19910405 | 193816 | 243 | 281 | 17        | 4  |
| 81 | 68  | BRAZIL            | SAO FRANCISCO RIVER B.   | 13.0S         | 43.5W | 14.1S        | 43.3W | 15 | NV | 250 | U | Y | 19910405 | 193819 | 243 | 281 | 17        | 4  |
| 81 | 69  | BRAZIL            | SAO FRANCISCO RIVER B.   | 14.0S         | 43.5W | 14.1S        | 43.2W | 20 | NV | 250 | U | Y | 19910405 | 193821 | 243 | 281 | 17        | 4  |
| 81 | 70  | BRAZIL            | SAO FRANCISCO RIVER B.   | 14.5S         | 44.0W | 14.2S        | 43.0W | 15 | LO | 250 | U | Y | 19910405 | 193825 | 243 | 281 | 16        | 4  |
| 81 | 71  | BRAZIL            | PINHACO HILLS            | 15.0S         | 43.0W | 14.7S        | 42.1W | 25 | LO | 250 | U | N | 19910405 | 193841 | 243 | 280 | 15        | 4  |
| 81 | 72  | BRAZIL            | PINHACO HILLS            | 15.5S         | 42.5W | 14.7S        | 41.9W | 35 | LO | 250 | U | Y | 19910405 | 193844 | 243 | 280 | 15        | 4  |
| 81 | 73  | BRAZIL            | PINHACO HILLS            | 16.0S         | 42.0W | 14.8S        | 41.8W | 15 | LO | 250 | U | Y | 19910405 | 193846 | 243 | 280 | 15        | 4  |
| 81 | 74  | BRAZIL            | PINHACO HILLS, CLOUDS    |               |       | 14.9S        | 41.6W | 80 | LO | 250 | N | N | 19910405 | 193849 | 243 | 280 | 15        | 4  |
| 81 | 75  | BRAZIL            | COAST NEAR SALVADOR      | 13.5S         | 39.0W | 15.9S        | 39.5W | 5  | LO | 250 | U | Y | 19910405 | 193927 | 243 | 280 | 12        | 4  |
| 81 | 76  | BRAZIL            | COAST S. OF SALVADOR     | 14.0S         | 39.0W | 15.9S        | 39.3W | 15 | LO | 250 | U | Y | 19910405 | 193930 | 243 | 280 | 12        | 4  |
| 81 | 77  | BRAZIL            | COAST, CLOUDS            |               |       | 16.1S        | 39.0W | 55 | LO | 250 | U | N | 19910405 | 193935 | 243 | 280 | 12        | 4  |
| 81 | 78  | BRAZIL            | COAST, CLOUDS            | 17.0S         | 39.0W | 16.2S        | 38.7W | 65 | LO | 250 | N | N | 19910405 | 193941 | 243 | 280 | 12        | 4  |
| 81 | 79  | ATLANTIC OCEAN    | THUNDERSTORMS            |               |       | 17.5S        | 35.8W | 90 | NV | 250 | N | N | 19910405 | 194031 | 243 | 279 | 8         | 4  |
| 81 | 80  | ATLANTIC OCEAN    | THUNDERSTORMS            |               |       | 17.6S        | 35.5W | 75 | NV | 250 | N | N | 19910405 | 194036 | 243 | 279 | 8         | 4  |
| 81 | 81  | ATLANTIC OCEAN    | EARTH LIMB               |               |       | 19.5S        | 31.0W | 50 | HO | 250 | U | N | 19910405 | 194153 | 243 | 277 | 3         | 4  |
| 81 | 82  | GALAPAGOS ISLANDS | FERNANDINA, ISABELA IS.  | 0.0           | 91.5W | 0.3N         | 93.2W | 35 | LO | 250 | N | Y | 19910405 | 210339 | 243 | 278 | 47        | 5  |
| 81 | 83  | GALAPAGOS ISLANDS | FERNANDINA, ISABELA IS.  | 0.5S          | 91.5W | 0.2N         | 93.0W | 35 | LO | 250 | N | Y | 19910405 | 210342 | 243 | 278 | 47        | 5  |
| 81 | 84  | GALAPAGOS ISLANDS | FERNANDINA, ISABELA IS.  | 0.5S          | 91.0W | 0.1N         | 92.9W | 30 | LO | 250 | N | Y | 19910405 | 210345 | 243 | 278 | 47        | 5  |
| 81 | 85  | GALAPAGOS ISLANDS | FERNANDINA IS.           | 0.5S          | 91.0W | 0.0N         | 92.7W | 35 | LO | 250 | N | Y | 19910405 | 210348 | 243 | 279 | 47        | 5  |
| 81 | 86  | GALAPAGOS ISLANDS | FERNANDINA IS.           | 1.0S          | 91.0W | 0.2S         | 92.4W | 25 | NV | 250 | N | Y | 19910405 | 210353 | 243 | 279 | 46        | 5  |
| 81 | 87  | GALAPAGOS ISLANDS | SAN SALVADOR, ST. CRUZ   | 0.5S          | 90.5W | 0.3S         | 92.2W | 25 | LO | 250 | N | Y | 19910405 | 210357 | 243 | 279 | 46        | 5  |
| 81 | 88  | GALAPAGOS ISLANDS | SANTA CRUZ ISLAND        | 0.5S          | 90.5W | 0.4S         | 92.0W | 20 | NV | 250 | N | Y | 19910405 | 210401 | 243 | 279 | 46        | 5  |
| 81 | 89  | GALAPAGOS ISLANDS | SAN CRISTOBAL ISLAND     | 1.0S          | 89.5W | 1.5S         | 90.1W | 5  | NV | 250 | N | N | 19910405 | 210437 | 243 | 280 | 44        | 5  |
| 81 | 90  | PERU              | PERU COAST LOOKING SOUTH |               |       | 4.0S         | 86.0W | 65 | HO | 250 | N | N | 19910405 | 210557 | 242 | 281 | 39        | 5  |
| 81 | 91  | PERU              | SECHURA DESERT           | 6.0S          | 80.0W | 4.1S         | 85.6W | 60 | LO | 250 | N | N | 19910405 | 210603 | 242 | 281 | 38        | 5  |
| 81 | 92  | PERU              | SECHURA DESERT           | 5.0S          | 80.5W | 4.8S         | 84.4W | 65 | LO | 250 | N | N | 19910405 | 210626 | 242 | 281 | 37        | 5  |
| 81 | 93  | PERU              | SECHURA DESERT           | 6.0S          | 80.5W | 5.0S         | 84.1W | 35 | LO | 250 | N | N | 19910405 | 210632 | 242 | 281 | 37        | 5  |
| 81 | 94  | PERU              | SECHURA DESERT           | 6.5S          | 80.5W | 5.2S         | 83.9W | 20 | LO | 250 | N | N | 19910405 | 210637 | 242 | 281 | 36        | 5  |
| 81 | 95  | PERU              | SECHURA DESERT           | 5.0S          | 81.0W | 6.3S         | 81.9W | 40 | NV | 250 | N | N | 19910405 | 210714 | 242 | 281 | 34        | 5  |
| 81 | 96  | PERU              | SECHURA DESERT           | 6.0S          | 80.5W | 6.4S         | 81.7W | 5  | NV | 250 | N | Y | 19910405 | 210718 | 242 | 281 | 34        | 5  |
| 81 | 97  | PERU              | SECHURA DESERT           | 6.5S          | 80.5W | 6.6S         | 81.4W | 20 | NV | 250 | N | Y | 19910405 | 210724 | 242 | 281 | 33        | 5  |
| 81 | 98  | PERU              | COAST NEAR CHICLAYO      | 7.0S          | 80.0W | 6.8S         | 81.0W | 60 | LO | 250 | N | N | 19910405 | 210731 | 242 | 281 | 33        | 5  |
| 81 | 99  | PERU              | COAST NEAR PACASMAYO     | 7.5S          | 79.5W | 7.4S         | 80.0W | 65 | LO | 250 | N | N | 19910405 | 210750 | 242 | 282 | 32        | 5  |
| 81 | 100 | PERU              | COAST S. OF TRUJILLO     | 8.5S          | 79.0W | 7.5S         | 79.9W | 40 | LO | 250 | N | N | 19910405 | 210752 | 242 | 282 | 32        | 5  |
| 81 | 101 | PERU              | FERROL PENINSULA         | 9.0S          | 78.5W | 7.5S         | 79.7W | 20 | LO | 250 | N | N | 19910405 | 210756 | 242 | 282 | 31        | 5  |
| 81 | 102 | PERU              | COAST S. OF FERROL PEN.  | 9.5S          | 78.5W | 7.6S         | 79.5W | 50 | LO | 250 | N | N | 19910405 | 210759 | 242 | 282 | 31        | 5  |
| 81 | 103 | PERU              | PERU ANDES MTHS.         |               |       | 7.8S         | 79.2W | 80 | NV | 250 | N | N | 19910405 | 210805 | 242 | 282 | 31        | 5  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                     | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | EL | OR  |
|----|-----|-----------------|-----------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|----|-----|
|    |     |                 |                             | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |    | SUN |
| 81 | 104 | PERU            | COAST NEAR CULEBRAS         | 9.5S   | 78.0W | 8.6S  | 77.4W | 55 | LO | 250 | N |   | 19910405 | 210838 | 242 | 282 | 29 | 5   |
| 81 | 105 | PERU            | COAST NEAR HUARMEY          | 10.0S  | 78.0W | 8.9S  | 77.2W | 55 | LO | 250 | N |   | 19910405 | 210843 | 242 | 282 | 29 | 5   |
| 81 | 106 | PERU            | COAST NEAR PT. LACHAY       | 11.0S  | 77.5W | 9.1S  | 76.7W | 35 | LO | 250 | N |   | 19910405 | 210851 | 242 | 282 | 28 | 5   |
| 81 | 107 | PERU            | COAST S. OF LIMA            | 12.5S  | 76.5W | 10.6S | 74.1W | 45 | LO | 250 | N |   | 19910405 | 210940 | 242 | 282 | 25 | 5   |
| 81 | 108 | PERU            | COAST N. OF PARACAS PEN.    | 13.5S  | 76.0W | 10.6S | 74.0W | 30 | LO | 250 | N |   | 19910405 | 210942 | 242 | 282 | 25 | 5   |
| 82 | 1   | LIBYA           | MARZUQ SS, PIVOT IRRIG.     | 26.2N  | 13.3E | 27.0N | 11.5E | 0  | LO | 250 | N |   | 19910406 | 091239 | 246 | 119 | 54 | 13  |
| 82 | 2   | LIBYA           | HAMADA MARZUQ, PIVOT IRR.   | 26.3N  | 12.5E | 26.9N | 11.7E | 0  | LO | 250 | N |   | 19910406 | 091242 | 246 | 119 | 54 | 13  |
| 82 | 3   | LIBYA           | MESACH MELLET, SAND SEA     | 26.0N  | 12.0E | 26.9N | 11.8E | 0  | LO | 250 | N |   | 19910406 | 091244 | 246 | 119 | 54 | 13  |
| 82 | 4   | LIBYA           | MESACH MELLET, SAND SEA     | 25.5N  | 11.7E | 26.9N | 12.2E | 0  | LO | 250 | N |   | 19910406 | 091249 | 246 | 119 | 54 | 13  |
| 82 | 5   | LIBYA           | TIRERENE DUNES, PIVOT IRR   | 26.5N  | 11.8E | 26.8N | 12.6E | 0  | LO | 250 | N |   | 19910406 | 091255 | 246 | 120 | 54 | 13  |
| 82 | 6   | LIBYA           | UBARI SS, AMBARI, PIVOT IRR | 26.6N  | 12.2E | 26.7N | 12.8E | 0  | LO | 250 | N |   | 19910406 | 091259 | 246 | 120 | 55 | 13  |
| 82 | 7   | LIBYA           | UBARI SAND SEA, AMBARI      | 27.7N  | 12.7E | 26.7N | 13.0E | 0  | LO | 250 | N |   | 19910406 | 091302 | 246 | 120 | 55 | 13  |
| 82 | 8   | LIBYA           | ZELLAF DUNES, SABHAH, AFLD  | 27.0N  | 14.3E | 26.6N | 13.4E | 0  | LO | 250 | N |   | 19910406 | 091308 | 246 | 121 | 55 | 13  |
| 82 | 9   | LIBYA           | ZELLAF DUNES, SAMNU         | 27.2N  | 14.9E | 26.6N | 13.7E | 0  | LO | 250 | N |   | 19910406 | 091312 | 246 | 121 | 56 | 13  |
| 82 | 10  | LIBYA           | ZELLAF DUNES, TOWNS, IRRIG  | 27.5N  | 14.5E | 26.6N | 13.9E | 0  | LO | 250 | N |   | 19910406 | 091315 | 246 | 121 | 56 | 13  |
| 82 | 11  | LIBYA           | UBARI SS, WADI SHATI        | 27.6N  | 13.7E | 26.5N | 14.2E | 0  | LO | 250 | N |   | 19910406 | 091320 | 246 | 121 | 56 | 13  |
| 82 | 12  | LIBYA           | DOREL-GUSSA, DIKE           | 25.6N  | 16.5E | 26.2N | 15.8E | 0  | LO | 250 | N |   | 19910406 | 091343 | 246 | 123 | 57 | 13  |
| 82 | 13  | LIBYA           | DOREL-GUSSA, DIKE           | 26.0N  | 17.0E | 26.2N | 15.9E | 0  | LO | 250 | N |   | 19910406 | 091345 | 246 | 123 | 57 | 13  |
| 82 | 14  | LIBYA           | BLACK HARUJ                 | 26.5N  | 17.5E | 26.1N | 16.1E | 0  | LO | 250 | N |   | 19910406 | 091348 | 246 | 123 | 58 | 13  |
| 82 | 15  | LIBYA           | BLACK HARUJ                 | 26.8N  | 17.1E | 26.1N | 16.3E | 0  | LO | 250 | N |   | 19910406 | 091351 | 246 | 123 | 58 | 13  |
| 82 | 16  | LIBYA           | BLACK HARUJ                 | 26.4N  | 16.9E | 26.1N | 16.5E | 0  | LO | 250 | N |   | 19910406 | 091354 | 246 | 124 | 58 | 13  |
| 82 | 17  | LIBYA           | DOREL-GUSSA, WADI SCEBERM   | 26.0N  | 16.3E | 26.0N | 16.7E | 0  | LO | 250 | N |   | 19910406 | 091358 | 246 | 124 | 58 | 13  |
| 82 | 18  | LIBYA           | RAMLA EL MARZUCHIA          | 26.2N  | 16.1E | 26.0N | 17.0E | 0  | LO | 250 | N |   | 19910406 | 091402 | 246 | 124 | 58 | 13  |
| 82 | 19  | LIBYA           | BLACK HARUJ, MANDIL DEPR.   | 26.6N  | 16.8E | 25.9N | 17.3E | 0  | LO | 250 | N |   | 19910406 | 091406 | 246 | 125 | 59 | 13  |
| 82 | 20  | LIBYA           | BLACK HARUJ                 | 27.0N  | 17.0E | 25.9N | 17.5E | 0  | LO | 250 | N |   | 19910406 | 091409 | 246 | 125 | 59 | 13  |
| 82 | 21  | LIBYA           | FARID HILLS                 |        | 25.6N | 18.4E |       | 0  | LO | 250 | N |   | 19910406 | 091424 | 246 | 126 | 60 | 13  |
| 82 | 22  | LIBYA           | FARID HILLS                 |        | 25.6N | 18.6E |       | 0  | LO | 250 | N |   | 19910406 | 091427 | 246 | 126 | 60 | 13  |
| 82 | 23  | LIBYA           | FARID HILLS, SAND DUNES     |        | 25.5N | 19.0E |       | 0  | LO | 250 | N |   | 19910406 | 091432 | 246 | 126 | 60 | 13  |
| 82 | 24  | LIBYA           | SAND DUNES                  |        | 25.5N | 19.2E |       | 0  | LO | 250 | N |   | 19910406 | 091436 | 246 | 127 | 60 | 13  |
| 82 | 25  | LIBYA           | SAND DUNES                  |        | 25.4N | 19.4E |       | 0  | LO | 250 | N |   | 19910406 | 091439 | 246 | 127 | 61 | 13  |
| 82 | 26  | LIBYA           | SAND DUNES                  |        | 25.4N | 19.7E |       | 0  | LO | 250 | N |   | 19910406 | 091444 | 246 | 127 | 61 | 13  |
| 82 | 27  | LIBYA           | LIBYA DESERT, ROADS         | 27.0N  | 22.0E | 25.1N | 20.8E | 0  | LO | 250 | N |   | 19910406 | 091500 | 246 | 129 | 62 | 13  |
| 82 | 28  | LIBYA           | LIBYA DESERT, PIVOT IRRIG   | 27.0N  | 22.4E | 25.0N | 21.2E | 0  | LO | 250 | N |   | 19910406 | 091507 | 246 | 129 | 62 | 13  |
| 82 | 29  | LIBYA           | LIBYA DESERT, PIVOT IRRIG   | 26.5N  | 22.4E | 25.0N | 21.4E | 0  | LO | 250 | N |   | 19910406 | 091510 | 246 | 130 | 62 | 13  |
| 82 | 30  | LIBYA           | HIGHLANDS, REBIANA SS       | 24.0N  | 22.4E | 24.8N | 22.1E | 0  | NV | 250 | N |   | 19910406 | 091520 | 246 | 130 | 63 | 13  |
| 82 | 31  | LIBYA           | HIGHLANDS, KUFRAH OASIS     | 24.5N  | 22.6E | 24.7N | 22.2E | 0  | LO | 250 | N |   | 19910406 | 091523 | 246 | 131 | 63 | 13  |
| 82 | 32  | LIBYA           | HIGHLANDS, KUFRAH OASIS     | 24.6N  | 23.0E | 24.7N | 22.5E | 0  | LO | 250 | N |   | 19910406 | 091527 | 246 | 131 | 63 | 13  |
| 82 | 33  | LIBYA           | HIGHLANDS, DESERT           | 25.0N  | 23.3E | 24.6N | 22.8E | 0  | LO | 250 | N |   | 19910406 | 091532 | 246 | 131 | 64 | 13  |
| 82 | 34  | LIBYA           | HIGHLANDS, DESERT           | 25.3N  | 23.0E | 24.6N | 23.0E | 0  | LO | 250 | N |   | 19910406 | 091535 | 246 | 132 | 64 | 13  |
| 82 | 35  | LIBYA           | HIGHLANDS, DESERT           | 25.6N  | 23.8E | 24.5N | 23.3E | 0  | LO | 250 | N |   | 19910406 | 091539 | 246 | 132 | 64 | 13  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                     | CENTER<br>LAT | LONG  | MADIR<br>LAT | LONG  | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|-----------------------------|---------------|-------|--------------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 82 | 36 | LIBYA           | HIGHLANDS, DESERT           | 25.8N         | 24.5E | 24.4N        | 23.6E | 0  | LO | 250 | N | Y | 19910406 | 091544 | 246 | 132 | 64        | 13 |
| 82 | 37 | LIBYA           | HIGHLANDS, DESERT           | 25.3N         | 24.5E | 24.3N        | 23.9E | 0  | LO | 250 | N | Y | 19910406 | 091549 | 246 | 133 | 65        | 13 |
| 82 | 38 | LIBYA           | HIGHLANDS, DESERT           |               |       | 24.2N        | 24.3E | 0  | LO | 250 | N | Y | 19910406 | 091555 | 246 | 134 | 65        | 13 |
| 82 | 39 | LIBYA           | HIGHLANDS, DESERT           |               |       | 24.2N        | 24.3E | 0  | LO | 250 | N | Y | 19910406 | 091558 | 246 | 134 | 65        | 13 |
| 82 | 40 | LIBYA           | HIGHLANDS, LIBYAN DESERT    |               |       | 24.1N        | 24.7E | 0  | LO | 250 | N | Y | 19910406 | 091801 | 246 | 134 | 65        | 13 |
| 82 | 41 | LIBYA           | HIGHLANDS, LIBYAN DESERT    |               |       | 24.1N        | 24.8E | 0  | LO | 250 | N | Y | 19910406 | 091803 | 246 | 134 | 65        | 13 |
| 82 | 42 | EGYPT           | HIGHLANDS, LIBYAN DESERT    |               |       | 24.0N        | 25.0E | 0  | LO | 250 | N | Y | 19910406 | 091808 | 246 | 135 | 66        | 13 |
| 82 | 43 | EGYPT           | HIGHLANDS, LIBYAN DESERT    |               |       | 24.0N        | 25.2E | 0  | LO | 250 | N | Y | 19910406 | 091809 | 246 | 135 | 66        | 13 |
| 82 | 44 | EGYPT           | HIGHLANDS, LIBYAN DESERT    |               |       | 23.9N        | 25.4E | 0  | LO | 250 | N | Y | 19910406 | 091812 | 246 | 135 | 66        | 13 |
| 82 | 45 | EGYPT           | HIGHLANDS, LIBYAN DESERT    |               |       | 23.9N        | 25.6E | 0  | LO | 250 | N | Y | 19910406 | 091815 | 246 | 135 | 66        | 13 |
| 82 | 46 | EGYPT           | HIGHLANDS, LIBYA DESERT     |               |       | 23.8N        | 25.8E | 0  | LO | 250 | N | Y | 19910406 | 091819 | 246 | 136 | 66        | 13 |
| 82 | 47 | EGYPT           | GILF KEBIR PLAT, DESERT     | 24.0N         | 26.0E | 23.7N        | 26.0E | 0  | LO | 250 | N | Y | 19910406 | 091822 | 246 | 136 | 67        | 13 |
| 82 | 48 | EGYPT           | GILF KEBIR PLAT, DESERT     | 23.7N         | 26.0E | 23.7N        | 26.2E | 0  | LO | 250 | N | Y | 19910406 | 091825 | 246 | 137 | 67        | 13 |
| 82 | 49 | EGYPT           | GILF KEBIR PLAT, DESERT     | 24.0N         | 27.0E | 23.6N        | 26.5E | 0  | LO | 250 | N | Y | 19910406 | 091830 | 246 | 137 | 67        | 13 |
| 82 | 50 | EGYPT           | LIBYAN SAND SEA             |               |       | 23.5N        | 26.8E | 0  | LO | 250 | N | Y | 19910406 | 091835 | 246 | 138 | 67        | 13 |
| 82 | 51 | EGYPT           | LIBYAN SAND SEA             |               |       | 23.3N        | 27.4E | 0  | LO | 250 | N | Y | 19910406 | 091844 | 246 | 139 | 68        | 13 |
| 82 | 52 | EGYPT           | LIBYAN SAND SEA             |               |       | 23.3N        | 27.6E | 0  | LO | 250 | N | Y | 19910406 | 091847 | 246 | 139 | 68        | 13 |
| 82 | 53 | EGYPT           | LIBYAN SAND SEA             |               |       | 23.2N        | 27.8E | 0  | LO | 250 | N | Y | 19910406 | 091850 | 246 | 139 | 68        | 13 |
| 82 | 54 | EGYPT           | LIBYAN SAND SEA             |               |       | 23.1N        | 28.0E | 0  | LO | 250 | N | Y | 19910406 | 091854 | 246 | 140 | 68        | 13 |
| 82 | 55 | EGYPT           | WESTERN DESERT              |               |       | 23.0N        | 28.6E | 0  | LO | 250 | N | Y | 19910406 | 091703 | 246 | 141 | 69        | 13 |
| 82 | 56 | EGYPT           | WESTERN DESERT              |               |       | 22.9N        | 28.9E | 0  | LO | 250 | N | Y | 19910406 | 091709 | 246 | 142 | 69        | 13 |
| 82 | 57 | EGYPT           | WESTERN DESERT              |               |       | 22.8N        | 29.1E | 0  | LO | 250 | N | Y | 19910406 | 091712 | 246 | 142 | 69        | 13 |
| 82 | 58 | EGYPT           | WESTERN DESERT              |               |       | 22.7N        | 29.5E | 0  | LO | 250 | N | Y | 19910406 | 091718 | 246 | 143 | 70        | 13 |
| 82 | 59 | EGYPT           | WESTERN DESERT              |               |       | 22.6N        | 29.8E | 0  | LO | 250 | N | Y | 19910406 | 091723 | 246 | 143 | 70        | 13 |
| 82 | 60 | EGYPT           | WESTERN DESERT              |               |       | 22.5N        | 30.0E | 0  | LO | 250 | N | Y | 19910406 | 091726 | 246 | 144 | 70        | 13 |
| 82 | 61 | SUDAN           | NILE RIVER, DESERT          | 21.5N         | 31.1E | 22.3N        | 30.7E | 0  | NV | 250 | N | Y | 19910406 | 091738 | 245 | 145 | 71        | 13 |
| 82 | 62 | SUDAN           | NILE RIVER, DESERT          | 21.8N         | 31.3E | 22.2N        | 30.9E | 0  | NV | 250 | N | Y | 19910406 | 091741 | 245 | 146 | 71        | 13 |
| 82 | 63 | EGYPT           | NILE RIVER, DESERT          | 22.1N         | 31.5E | 22.2N        | 31.0E | 0  | NV | 250 | N | Y | 19910406 | 091743 | 245 | 146 | 71        | 13 |
| 82 | 64 | EGYPT           | NILE RIVER, MASSER RES.     | 22.3N         | 31.7E | 22.1N        | 31.2E | 0  | NV | 250 | N | Y | 19910406 | 091746 | 245 | 146 | 71        | 13 |
| 82 | 65 | EGYPT           | NILE RIVER, MASSER RES.     | 22.5N         | 31.9E | 22.1N        | 31.3E | 0  | NV | 250 | N | Y | 19910406 | 091748 | 245 | 147 | 71        | 13 |
| 82 | 66 | EGYPT           | NILE RIVER, MASSER RES.     | 22.6N         | 32.1E | 22.0N        | 31.5E | 0  | LO | 250 | N | Y | 19910406 | 091750 | 245 | 147 | 71        | 13 |
| 82 | 67 | EGYPT           | NILE RIVER, MASSER RES.     | 22.7N         | 32.4E | 22.0N        | 31.6E | 0  | LO | 250 | N | Y | 19910406 | 091752 | 245 | 147 | 71        | 13 |
| 82 | 68 | EGYPT           | NILE RIVER, LAKE MASSER     | 22.9N         | 32.7E | 21.9N        | 31.8E | 10 | LO | 250 | N | Y | 19910406 | 091755 | 245 | 148 | 71        | 13 |
| 82 | 69 | EGYPT           | NILE RIVER, LAKE MASSER     | 23.1N         | 33.0E | 21.9N        | 32.0E | 10 | LO | 250 | N | Y | 19910406 | 091759 | 245 | 148 | 72        | 13 |
| 82 | 70 | EGYPT           | NUBIAN DES, WADI ALLAQI     | 22.6N         | 33.4E | 21.8N        | 32.3E | 20 | LO | 250 | N | Y | 19910406 | 091804 | 245 | 149 | 72        | 13 |
| 82 | 71 | EGYPT           | NUBIAN DES, WADI ALLAQI     | 22.2N         | 34.4E | 21.7N        | 32.6E | 20 | LO | 250 | N | Y | 19910406 | 091809 | 245 | 150 | 72        | 13 |
| 82 | 72 | EGYPT           | NUBIAN DES, WADI ALLAQI     | 21.5N         | 34.6E | 21.5N        | 33.1E | 20 | LO | 250 | N | Y | 19910406 | 091817 | 245 | 151 | 72        | 13 |
| 82 | 73 | EGYPT           | NUBIAN DES, WADI ALLAQI     | 22.1N         | 34.5E | 21.4N        | 33.2E | 10 | LO | 250 | N | Y | 19910406 | 091819 | 245 | 152 | 73        | 13 |
| 82 | 74 | EGYPT           | WADI ALLAQI, NUBIAN DES.    | 22.1N         | 35.0E | 21.4N        | 33.4E | 5  | LO | 250 | N | Y | 19910406 | 091821 | 245 | 152 | 73        | 13 |
| 82 | 75 | EGYPT           | MT. IS, WADI ALLAQI, DESERT | 21.6N         | 35.3E | 21.3N        | 33.5E | 5  | LO | 250 | N | Y | 19910406 | 091824 | 245 | 152 | 73        | 13 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                     | CENTER |       | MADIR |       | CC    | TL  | FL  | E   | S | DATE     | GMT      | AL     | AZ  | SUM |    |
|----|-----|-----------------|-----------------------------|--------|-------|-------|-------|-------|-----|-----|-----|---|----------|----------|--------|-----|-----|----|
|    |     |                 |                             | LAT    | LON   | LAT   | LON   |       |     |     |     |   |          |          |        |     | EL  |    |
| 82 | 76  | EGYPT           | MT. JARF, NUBIAN DESERT     | 22.6N  | 34.9E | 21.3N | 33.8E | 10    | LO  | 250 | N   | Y | 19910406 | 091828   | 245    | 153 | 73  |    |
| 82 | 77  | EGYPT           | MT. JARF, RED SEA COAST     | 22.6N  | 35.3E | 21.2N | 34.0E | 5     | LO  | 250 | N   | Y | 19910406 | 091832   | 245    | 154 | 73  |    |
| 82 | 78  | EGYPT           | MT. JARF, RED SEA COAST     | 23.3N  | 35.5E | 21.1N | 34.3E | 5     | LO  | 250 | N   | Y | 19910406 | 091837   | 245    | 155 | 73  |    |
| 82 | 79  | EGYPT           | MT. JARF, RED SEA COAST     | 22.6N  | 35.7E | 21.0N | 34.5E | 10    | LO  | 250 | N   | Y | 19910406 | 091840   | 245    | 155 | 74  |    |
| 82 | 80  | SUDAN           | NUBIAN DESERT, WADI OKO     | 21.3N  | 35.4E | 20.9N | 34.7E | 15    | NV  | 250 | N   | Y | 19910406 | 091843   | 245    | 156 | 74  |    |
| 82 | 81  | SUDAN           | NUBIAN DESERT, WADI OKO     | 20.6N  | 35.5E | 20.9N | 34.9E | 15    | NV  | 250 | N   | Y | 19910406 | 091846   | 245    | 156 | 74  |    |
| 82 | 82  | SUDAN           | NUBIAN DESERT, WADI OKO     | 20.2N  | 35.8E | 20.8N | 35.1E | 15    | NV  | 250 | N   | Y | 19910406 | 091849   | 245    | 157 | 74  |    |
| 82 | 83  | SUDAN           | NUBIAN DES., KOLIBATAB WADI | 19.7N  | 36.0E | 20.8N | 36.2E | 0     | LO  | 250 | N   | Y | 19910406 | 091851   | 245    | 157 | 74  |    |
| 82 | 84  | SUDAN           | NUBIAN DES., HAYET WADI     | 20.0N  | 36.4E | 20.7N | 35.4E | 10    | NV  | 250 | N   | Y | 19910406 | 091855   | 245    | 158 | 74  |    |
| 82 | 85  | SUDAN           | NUBIAN DES., YUDEB WADI     | 20.5N  | 36.3E | 20.6N | 35.6E | 5     | NV  | 250 | N   | Y | 19910406 | 091858   | 245    | 159 | 74  |    |
| 82 | 86  | SUDAN           | NUBIAN DES., YUDEB WADI     | 21.0N  | 36.3E | 20.5N | 35.8E | 10    | LO  | 250 | N   | Y | 19910406 | 091902   | 245    | 160 | 74  |    |
| 82 | 87  | SUDAN           | NUBIAN DES., DUNGUNAB BAY   | 21.0N  | 36.5E | 20.4N | 36.1E | 15    | NV  | 250 | N   | Y | 19910406 | 091906   | 245    | 160 | 75  |    |
| 82 | 88  | SUDAN           | COAST RANGE, MT. ERBA       | 20.5N  | 37.0E | 20.4N | 36.3E | 30    | NV  | 250 | N   | Y | 19910406 | 091909   | 245    | 161 | 75  |    |
| 82 | 89  | EGYPT           | COAST RANGE, PORT SUDAN     | 19.6N  | 36.7E | 20.3N | 36.4E | 10    | LO  | 250 | N   | Y | 19910406 | 091912   | 245    | 162 | 75  |    |
| 82 | 90  | EGYPT           | COAST RANGE, RED SEA CST    | 19.0N  | 37.0E | 20.2N | 36.7E | 15    | NV  | 250 | N   | Y | 19910406 | 091917   | 245    | 163 | 75  |    |
| 82 | 91  | SAUDI ARABIA    | JIDDAH, MECCA, COAST        | 21.5N  | 39.2E | 19.5N | 38.4E | 5     | LO  | 250 | N   | Y | 19910406 | 091945   | 245    | 169 | 76  |    |
| 82 | 92  | SAUDI ARABIA    | MECCA, RED SEA COAST        | 21.0N  | 39.8E | 19.4N | 38.8E | 0     | LO  | 250 | N   | Y | 19910406 | 091952   | 245    | 171 | 76  |    |
| 82 | 93  | SAUDI ARABIA    | HIJAZ MTNS, RED SEA COAST   | 20.6N  | 40.0E | 19.3N | 39.0E | 0     | LO  | 250 | N   | Y | 19910406 | 091955   | 245    | 172 | 76  |    |
| 82 | 94  | SAUDI ARABIA    | HIJAZ MTNS, RED SEA COAST   | 20.4N  | 40.5E | 19.2N | 39.2E | 10    | LO  | 250 | N   | Y | 19910406 | 091958   | 245    | 173 | 77  |    |
| 82 | 95  | SAUDI ARABIA    | HIJAZ MTNS, RED SEA COAST   | 19.6N  | 41.1E | 19.1N | 39.4E | 15    | LO  | 250 | N   | Y | 19910406 | 092002   | 245    | 174 | 77  |    |
| 82 | 96  | SAUDI ARABIA    | HIJAZ MTNS, AHSIBAH WADI    | 19.6N  | 41.5E | 18.8N | 40.3E | 15    | LO  | 250 | N   | Y | 19910406 | 092017   | 245    | 178 | 77  |    |
| 82 | 97  | SAUDI ARABIA    | HIJAZ MTNS, QANUNAH WADI    | 19.0N  | 41.8E | 18.7N | 40.5E | 20    | LO  | 250 | N   | Y | 19910406 | 092020   | 245    | 179 | 77  |    |
| 82 | 98  | SAUDI ARABIA    | HIJAZ MTNS, CST, OC. EDDY   | 17.7N  | 42.3E | 18.2N | 41.6E | 10    | LO  | 250 | N   | Y | 19910406 | 092040   | 245    | 185 | 78  |    |
| 82 | 99  | SAUDI ARABIA    | HIJAZ MTNS, WADI DAMAD      | 17.5N  | 43.0E | 17.6N | 43.1E | 30    | NV  | 250 | N   | Y | 19910406 | 092105   | 245    | 193 | 78  |    |
| 82 | 100 | SAUDI ARABIA    | TUMAYQ IRRIG. AREA          | 20.0N  | 45.0E | 17.0N | 44.6E | 0     | LO  | 250 | N   | Y | 19910406 | 092131   | 245    | 201 | 78  |    |
| 82 | 101 | SAUDI ARABIA    | BAHR AS SAFI                |        | 16.6N | 45.4E | 16.4N | 20    | LO  | 250 | N   | Y | 19910406 | 092145   | 245    | 206 | 78  |    |
| 82 | 102 | SAUDI ARABIA    | BAHR AS SAFI                |        | 16.4N | 45.7E | 16.4N | 20    | LO  | 250 | N   | Y | 19910406 | 092151   | 245    | 208 | 78  |    |
| 82 | 103 | YEMEN (ADEN)    | BAHR AS SAFI                |        | 16.4N | 45.9E | 16.4N | 20    | LO  | 250 | N   | Y | 19910406 | 092154   | 245    | 209 | 78  |    |
| 82 | 104 | YEMEN (ADEN)    | BAHR AS SAFI                |        | 16.3N | 46.1E | 16.3N | 46.1E | 5   | LO  | 250 | N | Y        | 19910406 | 092158 | 245 | 210 | 78 |
| 82 | 105 | YEMEN (ADEN)    | BAHR AS SAFI                |        | 16.2N | 46.3E | 16.2N | 46.3E | 5   | LO  | 250 | N | Y        | 19910406 | 092201 | 245 | 211 | 78 |
| 82 | 106 | YEMEN (ADEN)    | BAHR AS SAFI                |        | 16.1N | 46.5E | 16.1N | 46.5E | 0   | LO  | 250 | N | Y        | 19910406 | 092204 | 245 | 212 | 78 |
| 82 | 107 | YEMEN (ADEN)    | BAHR AS SAFI                |        |       |       |       | 5     | LO  | 250 | N   | Y |          |          |        |     |     |    |
| 83 | 1   | WESTERN SAHARA  | CAP BLANC PENINSULA, CST.   | 21.0N  | 17.2W | 24.3N | 18.0W | 25    | LO  | 100 | N   | Y | 19910409 | 102732   | 246    | 105 | 46  |    |
| 83 | 2   | ATLANTIC OCEAN  | CLOUD EDDIES, SWIRLS        |        | 24.1N | 17.5W | 100   | LO    | 100 | N   | Y   | Y | 19910409 | 102740   | 246    | 106 | 47  |    |
| 83 | 3   | ATLANTIC OCEAN  | CLOUD EDDIES, SWIRLS        |        | 23.9N | 16.7W | 80    | LO    | 100 | N   | Y   | Y | 19910409 | 102752   | 246    | 106 | 48  |    |
| 83 | 4   | MAURITANIA      | A ZEFAL DUNE FIELD          | 20.5N  | 15.0W | 23.2N | 14.3W | 5     | LO  | 100 | N   | Y | 19910409 | 102831   | 246    | 107 | 50  |    |
| 83 | 5   | MAURITANIA      | RICHAT STRUCTURE            | 21.1N  | 11.4W | 22.6N | 12.4W | 0     | LO  | 100 | N   | Y | 19910409 | 102901   | 246    | 108 | 52  |    |
| 83 | 6   | MAURITANIA      | RICHAT STRUCTURE            | 21.1N  | 11.4W | 22.5N | 11.9W | 0     | LO  | 100 | N   | Y | 19910409 | 102909   | 246    | 108 | 53  |    |
| 83 | 7   | MAURITANIA      | DHAR ADRAR, RICHAT STRUCT   | 20.0N  | 12.5W | 22.0N | 10.5W | 0     | LO  | 100 | N   | Y | 19910409 | 102932   | 246    | 109 | 54  |    |
| 83 | 8   | MAURITANIA      | DHAR ADRAR, RICHAT STRUCT   | 19.5N  | 12.5W | 21.7N | 9.4W  | 0     | LO  | 100 | N   | Y | 19910409 | 102949   | 246    | 109 | 55  |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                     | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|-----------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 83 | 9  | MAURITANIA      | TAMOKRART DUNE FIELD        | 20.0N         | 11.0W         | 21.5N        | 8.9W         | 0  | LO | 100 | N | Y | 19910409 | 102958 | 246 | 109 | 56        | 60 |
| 83 | 10 | MAURITANIA      | TAGANT PLAT.-AOUKER BASIN   | 18.5N         | 9.5W          | 21.3N        | 8.3W         | 0  | LO | 100 | N | Y | 19910409 | 103007 | 246 | 109 | 56        | 60 |
| 83 | 11 | MAURITANIA      | AOUKER BASIN RIM, DEPR.     | 19.5N         | 7.5W          | 21.2N        | 8.0W         | 0  | LO | 100 | N | Y | 19910409 | 103012 | 246 | 109 | 57        | 60 |
| 83 | 12 | MAURITANIA      | IJAFENE D.KNACHICH HILLS    | 20.5N         | 6.5W          | 21.0N        | 7.6W         | 0  | LO | 100 | N | Y | 19910409 | 103020 | 246 | 110 | 57        | 60 |
| 83 | 13 | MAURITANIA      | GASRAOUAT DEPRESSION        | 19.0N         | 6.0W          | 20.9N        | 7.3W         | 0  | LO | 100 | N | Y | 19910409 | 103025 | 246 | 110 | 57        | 60 |
| 83 | 14 | MAURITANIA      | AOUKER BASIN/NORTH RIM      | 18.0N         | 8.5W          | 20.4N        | 4.7W         | 0  | LO | 100 | N | Y | 19910409 | 103049 | 246 | 110 | 59        | 60 |
| 83 | 15 | MALI            | GASRAOUAT DEPR., DUNES      | 18.5N         | 5.0W          | 20.0N        | 5.8W         | 0  | LO | 100 | N | Y | 19910409 | 103107 | 246 | 111 | 60        | 60 |
| 83 | 16 | MALI            | LAL FAGUIBINE, NIGER R.     | 16.6N         | 3.7W          | 19.4N        | 3.1W         | 0  | LO | 100 | N | Y | 19910409 | 103134 | 246 | 111 | 62        | 60 |
| 83 | 17 | MALI            | NIGER R.,IRIGUI AZAOUAD     | 18.5N         | 2.5W          | 19.1N        | 2.5W         | 0  | LO | 100 | N | Y | 19910409 | 103145 | 246 | 112 | 63        | 60 |
| 83 | 18 | MALI            | NIGER RIVER, NIGER          | 15.0N         | 1.0W          | 18.4N        | 0.9W         | 10 | LO | 100 | N | Y | 19910409 | 103212 | 246 | 112 | 64        | 60 |
| 83 | 19 | MALI            | NIGER R.,GAO, TIELENSI WADI | 18.0N         | 0.5E          | 18.2N        | 0.3W         | 0  | LO | 100 | N | Y | 19910409 | 103223 | 246 | 112 | 65        | 60 |
| 83 | 20 | MALI            | WADI TELMSI,MT. ILEBJANE    | 18.0N         | 1.0E          | 18.0N        | 0.3E         | 0  | LO | 100 | N | Y | 19910409 | 103232 | 246 | 113 | 66        | 60 |
| 83 | 21 | MALI            | DESERT, DUST                |               | 17.3W         |              | 1.9E         | 0  | LO | 100 | N | Y | 19910409 | 103300 | 246 | 113 | 67        | 60 |
| 83 | 22 | MALI            | DESERT, DUST                |               |               | 16.8N        | 2.8E         | 0  | LO | 100 | N | Y | 19910409 | 103317 | 246 | 114 | 68        | 60 |
| 83 | 23 | NIGERIA         | ZAMFARA R.,SOKOTO R.,DUST   | 13.0N         | 4.8E          | 16.2N        | 4.2E         | 10 | LO | 100 | N | Y | 19910409 | 103341 | 246 | 114 | 70        | 60 |
| 83 | 24 | NIGERIA         | SOKOTO R.,DUST,SOKOTO,AFD   | 13.0N         | 5.5E          | 15.7N        | 5.4E         | 15 | LO | 100 | N | Y | 19910409 | 103402 | 246 | 114 | 71        | 60 |
| 83 | 25 | NIGERIA         | WARADI WADI, NKANABA WADI   | 13.8N         | 7.7E          | 15.0N        | 6.8E         | 10 | LO | 100 | N | Y | 19910409 | 103426 | 246 | 115 | 73        | 60 |
| 83 | 26 | NIGER           | WADI,DUST,DESERT            | 13.5N         | 9.5E          | 14.2N        | 8.4E         | 15 | LO | 100 | N | Y | 19910409 | 103456 | 246 | 115 | 75        | 60 |
| 83 | 27 | NIGER           | TERMIT MASSIF,W. DILLIA     | 16.3N         | 11.0E         | 13.6N        | 9.8E         | 10 | LO | 100 | N | Y | 19910409 | 103520 | 246 | 116 | 76        | 60 |
| 83 | 28 | NIGERIA         | LAKE CHAD, CLOUDY, DUST     | 13.5N         | 13.5E         | 13.2N        | 10.5E        | 50 | LO | 100 | N | Y | 19910409 | 103533 | 246 | 116 | 77        | 60 |
| 83 | 29 | NIGERIA         | LAKE CHAD, CLOUDY, DUST     | 13.5N         | 13.5E         | 12.9N        | 11.1E        | 60 | LO | 100 | N | Y | 19910409 | 103544 | 246 | 116 | 78        | 60 |
| 83 | 30 | NIGERIA         | LAKE CHAD, CLOUDY, DUST     | 13.5N         | 13.5E         | 12.7N        | 11.5E        | 60 | LO | 100 | N | Y | 19910409 | 103552 | 246 | 117 | 78        | 60 |
| 83 | 31 | NIGERIA         | LAKE CHAD, CLOUDY, DUST     | 13.5N         | 13.5E         | 12.4N        | 12.1E        | 60 | LO | 100 | N | Y | 19910409 | 103603 | 246 | 117 | 79        | 60 |
| 83 | 32 | NIGERIA         | LAKE CHAD, CLOUDY, DUST     | 13.5N         | 13.5E         | 11.6N        | 13.7E        | 60 | LO | 100 | N | Y | 19910409 | 103631 | 246 | 117 | 81        | 60 |
| 83 | 33 | ATLANTIC OCEAN  | CLOSED CONVECTION CELLS     |               | 21.8N         |              | 33.6W        | 95 | LO | 100 | N | Y | 19910409 | 120310 | 246 | 108 | 54        | 61 |
| 83 | 34 | NAMIBIA         | ETOSHA PAN,RIO CUBANGO      | 19.0S         | 20.5E         | 7.9S         | 24.2E        | 30 | HO | 100 | N | Y | 19910409 | 122048 | 246 | 297 | 57        | 61 |
| 83 | 35 | NAMIBIA         | ETOSHA PAN,RIO CUBANGO      | 17.5S         | 12.0E         | 8.3S         | 24.9E        | 40 | HO | 100 | N | Y | 19910409 | 122101 | 246 | 297 | 56        | 61 |
| 83 | 36 | NAMIBIA         | ETOSHA PAN,RIO CUBANGO      | 18.5S         | 12.0E         | 9.3S         | 26.7E        | 20 | HO | 100 | N | Y | 19910409 | 122135 | 246 | 297 | 54        | 61 |
| 83 | 37 | ANGOLA          | ETOSHA PAN,RIO CUBANGO      | 17.5S         | 19.0E         | 9.6S         | 27.2E        | 40 | HO | 100 | N | Y | 19910409 | 122145 | 246 | 296 | 53        | 61 |
| 83 | 38 | MADAGASCAR      | SW PANORAMA-TR.WND CLDS     |               | 20.1S         | 50.0E        |              | 80 | HO | 100 | N | Y | 19910409 | 122828 | 245 | 290 | 27        | 61 |
| 83 | 39 | MEXICO          | DELICIAS,RIO CONCHOS        | 27.7N         | 104.7W        | 28.2N        | 105.7W       | 0  | NV | 100 | N | Y | 19910409 | 132428 | 244 | 85  | 7         | 62 |
| 83 | 40 | MEXICO          | DELICIAS,RIO CONCHOS,OK     | 27.6N         | 104.8W        | 28.3N        | 105.0W       | 0  | NV | 100 | U | Y | 19910409 | 132437 | 244 | 85  | 8         | 62 |
| 83 | 41 | MEXICO          | SRA SALSIPUEDES/DE PINO     | 28.4N         | 101.8W        | 28.3N        | 104.4W       | 20 | LO | 100 | N | Y | 19910409 | 132447 | 244 | 86  | 9         | 62 |
| 83 | 42 | MEXICO          | SRA.SALSIPUEDES/ENCANTAD    | 28.5N         | 101.6W        | 28.4N        | 102.9W       | 25 | LO | 100 | N | Y | 19910409 | 132508 | 244 | 87  | 10        | 62 |
| 83 | 43 | LIBERIA         | NE PANORAMA-COAST,DUST      |               | 2.7N          | 18.0W        |              | 50 | HO | 100 | N | Y | 19910409 | 134823 | 245 | 299 | 80        | 62 |
| 83 | 44 | ANGOLA          | COAST,ETOSHA PAN-NAMIBI     | 14.0S         | 14.0E         | 10.3S        | 4.7E         | 30 | HO | 100 | N | Y | 19910409 | 135635 | 245 | 297 | 52        | 62 |
| 83 | 45 | ANGOLA          | COAST,ETOSHA PAN-NAMIBI     | 17.0S         | 15.0E         | 10.4S        | 4.9E         | 10 | HO | 100 | N | Y | 19910409 | 135538 | 245 | 297 | 52        | 62 |
| 83 | 46 | NAMIBIA         | COAST,ETOSHA PAN,DESERT     | 22.0S         | 15.0E         | 10.6S        | 5.2E         | 0  | HO | 100 | N | Y | 19910409 | 135543 | 245 | 297 | 51        | 62 |
| 83 | 47 | USA-CA          | SOUTH 1/3 STATE, CST        | 34.8N         | 117.5W        | 28.5N        | 120.1W       | 15 | HO | 100 | N | Y | 19910409 | 150006 | 243 | 90  | 16        | 63 |
| 83 | 48 | USA-CA          | SOUTH 1/3 STATE, CST        | 34.5N         | 116.5W        | 28.5N        | 119.4W       | 15 | HO | 100 | N | Y | 19910409 | 150016 | 243 | 90  | 16        | 63 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME       | FEATURE                     | CENTER<br>LAT<br>LAT | CENTER<br>LON<br>LON | MAGIR<br>LAT<br>LAT | MAGIR<br>LON<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------------|-----------------------------|----------------------|----------------------|---------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 83 | 49 | USA-CA                | SOUTH 1/3 STATE, CST        | 35.5N                | 117.5W               | 28.5N               | 119.1W              | 15 | HO | 100 | N | Y | 19910409 | 150021 | 243 | 90  | 17        | 63 |
| 83 | 50 | USA-CA                | MID STATE PANORAMA          | 36.5N                | 118.5W               | 28.5N               | 118.3W              | 15 | HO | 100 | N | Y | 19910409 | 150032 | 243 | 91  | 17        | 63 |
| 83 | 51 | USA-CA                | MID STATE PANORAMA          | 36.5N                | 119.5W               | 28.5N               | 117.5W              | 15 | HO | 100 | N | Y | 19910409 | 150043 | 244 | 91  | 18        | 63 |
| 83 | 52 | USA-CA                | SOUTH 1/3 PANORAMA          | 35.0N                | 117.5W               | 28.4N               | 117.1W              | 15 | HO | 100 | N | Y | 19910409 | 150049 | 244 | 91  | 19        | 63 |
| 83 | 53 | USA-CA                | STATE AXIS NO. PANORAMA     | 34.5N                | 117.5W               | 28.2N               | 112.1W              | 10 | HO | 100 | N | Y | 19910409 | 150203 | 244 | 94  | 23        | 63 |
| 83 | 54 | USA-CA                | STATE AXIS NO. PANORAMA     | 35.0N                | 117.5W               | 28.1N               | 111.4W              | 10 | HO | 100 | N | Y | 19910409 | 150212 | 244 | 94  | 24        | 63 |
| 83 | 55 | USA-UT                | COLORADO PLATEAU/RIVER      | 37.5N                | 111.0W               | 27.9N               | 109.1W              | 10 | HO | 100 | N | Y | 19910409 | 150246 | 244 | 95  | 26        | 63 |
| 83 | 56 | USA-NM                | WHITE SANDS, RIO GRANDE     | 33.0N                | 103.5W               | 27.6N               | 106.2W              | 5  | LO | 100 | N | Y | 19910409 | 150330 | 244 | 97  | 29        | 63 |
| 83 | 57 | USA-NM                | WHITE SANDS, PECOS R/VAL.   | 33.0N                | 105.0W               | 27.4N               | 104.9W              | 5  | HO | 100 | N | Y | 19910409 | 150348 | 244 | 97  | 30        | 63 |
| 83 | 58 | USA-TX                | LLANO ESTACADO, RED R.      | 33.5N                | 101.5W               | 27.3N               | 104.1W              | 5  | HO | 100 | N | Y | 19910409 | 150401 | 244 | 98  | 31        | 63 |
| 83 | 59 | USA-CO                | PECOS R/VALLEY, E. ROCKIES  | 38.0N                | 106.0W               | 27.1N               | 102.9W              | 5  | HO | 100 | N | Y | 19910409 | 150418 | 244 | 98  | 32        | 63 |
| 83 | 60 | USA-TX                | LLANO ESTACADO, PERMIAN B   | 33.0N                | 101.0W               | 27.0N               | 102.1W              | 5  | HO | 100 | N | Y | 19910409 | 150431 | 244 | 99  | 33        | 63 |
| 83 | 61 | USA-OK                | RED R. CANADIAN R. PLAINS   | 37.0N                | 98.0W                | 26.8N               | 100.8W              | 10 | HO | 100 | N | Y | 19910409 | 150450 | 245 | 99  | 34        | 63 |
| 83 | 62 | MEXICO                | WEST PANORAMA, BAJA, GULF   | 29.0N                | 105.5W               | 26.2N               | 97.6W               | 5  | HO | 100 | N | Y | 19910409 | 150538 | 245 | 101 | 37        | 63 |
| 83 | 63 | MEXICO                | WEST PANORAMA, BAJA, GULF   | 28.0N                | 104.0W               | 26.0N               | 96.8W               | 5  | HO | 100 | N | Y | 19910409 | 150550 | 245 | 101 | 38        | 63 |
| 83 | 64 | USA-TX                | NW PANORAMA, WHITE SANDS    | 31.0N                | 104.0W               | 25.9N               | 96.5W               | 10 | HO | 100 | N | Y | 19910409 | 150555 | 245 | 101 | 38        | 63 |
| 83 | 65 | MEXICO                | NO. PLATEAU, SRA MADRE MTN  | 26.1N                | 101.2W               | 25.8N               | 95.9W               | 30 | LO | 100 | N | Y | 19910409 | 150604 | 245 | 101 | 39        | 63 |
| 83 | 66 | USA-TX                | NW PANORAMA, WHITE SANDS    | 22.0N                | 82.0W                | 4.9N                | 42.9W               | 30 | LO | 100 | N | Y | 19910409 | 150636 | 245 | 102 | 41        | 63 |
| 83 | 67 | CUBA                  | WEST AREA, ISLE OF PINES    | 21.8N                | 79.0W                | 5.2N                | 43.9W               | 30 | LO | 100 | N | Y | 19910409 | 151103 | 245 | 108 | 55        | 63 |
| 83 | 68 | CUBA                  | CENTRAL SECTION             | 21.8N                | 79.0W                | 5.2N                | 43.9W               | 30 | LO | 100 | N | Y | 19910409 | 151103 | 245 | 109 | 58        | 63 |
| 83 | 69 | CUBA                  | CENTRAL SECTION             | 21.8N                | 78.6W                | 5.3N                | 44.1W               | 30 | LO | 100 | N | Y | 19910409 | 151113 | 245 | 109 | 59        | 63 |
| 83 | 70 | CUBA                  | CENTRAL-EAST SECTION        | 20.7N                | 76.1W                | 5.6N                | 44.8W               | 30 | LO | 100 | N | Y | 19910409 | 151139 | 245 | 110 | 60        | 63 |
| 83 | 71 | CUBA                  | EAST END                    | 20.7N                | 75.0W                | 5.7N                | 45.1W               | 30 | LO | 100 | N | Y | 19910409 | 151149 | 245 | 110 | 61        | 63 |
| 83 | 72 | DOMINICAN REPUBLIC    | SW SECTION, ENRIQUILLO L.   | 18.5N                | 70.6W                | 6.9N                | 47.7W               | 35 | LO | 100 | N | Y | 19910409 | 151312 | 244 | 111 | 66        | 63 |
| 83 | 73 | DOMINICAN REPUBLIC    | EAST SECTION                | 18.5N                | 69.5W                | 6.9N                | 47.8W               | 50 | LO | 100 | N | Y | 19910409 | 151316 | 244 | 111 | 66        | 63 |
| 83 | 74 | PUERTO RICO           | ENTIRE ISLAND-CLOUDY        | 18.5N                | 66.5W                | 7.5N                | 49.2W               | 40 | LO | 100 | N | Y | 19910409 | 151400 | 244 | 112 | 69        | 63 |
| 83 | 75 | NAMIBIA               | NAMIB DES, TSAUCHAB WADI    | 24.8S                | 16.1E                | 22.8S               | 10.4E               | 0  | LO | 100 | N | Y | 19910409 | 153727 | 245 | 287 | 20        | 63 |
| 83 | 76 | NAMIBIA               | NAMIB DES, TSARISBERGE      | 26.5S                | 16.0E                | 23.0S               | 10.9E               | 0  | HO | 100 | N | Y | 19910409 | 153734 | 245 | 287 | 19        | 63 |
| 83 | 77 | NAMIBIA               | NAMIB DES, COAST RANGES     | 24.0S                | 18.0E                | 23.1S               | 11.2E               | 0  | HO | 100 | N | Y | 19910409 | 153739 | 245 | 287 | 19        | 63 |
| 83 | 78 | NAMIBIA               | NAMIB DES, COAST RANGES     | 25.5S                | 18.0E                | 23.2S               | 11.5E               | 0  | HO | 100 | N | Y | 19910409 | 153744 | 245 | 287 | 19        | 63 |
| 83 | 79 | NAMIBIA               | NAMIB DES, COAST RANGES     | 24.5S                | 17.5E                | 23.5S               | 12.6E               | 0  | LO | 100 | N | Y | 19910409 | 153801 | 245 | 286 | 17        | 63 |
| 83 | 80 | NAMIBIA               | NAMIB DES, COAST RANGES     | 25.0S                | 17.5E                | 23.6S               | 12.8E               | 0  | LO | 100 | N | Y | 19910409 | 153804 | 245 | 286 | 17        | 63 |
| 83 | 81 | NAMIBIA               | NAMIB DES, COAST RANGES     | 26.5S                | 17.0E                | 23.7S               | 13.1E               | 0  | LO | 100 | N | Y | 19910409 | 153809 | 245 | 286 | 17        | 63 |
| 83 | 82 | NAMIBIA               | NAMIB DES, COAST RANGES     | 26.5S                | 18.0E                | 23.8S               | 13.5E               | 0  | LO | 100 | N | Y | 19910409 | 153816 | 245 | 286 | 17        | 63 |
| 83 | 83 | NAMIBIA               | GR. NAMALAND, MT. BRUKKAROS | 25.5S                | 18.5E                | 23.9S               | 13.8E               | 0  | LO | 100 | N | Y | 19910409 | 153821 | 245 | 286 | 16        | 63 |
| 83 | 84 | NAMIBIA               | KALAHARI DES, DUNE FIELD    | 25.0S                | 20.0E                | 24.2S               | 14.9E               | 0  | LO | 100 | N | Y | 19910409 | 153838 | 245 | 285 | 15        | 63 |
| 83 | 85 | BOTSWANA              | KALAHARI DES, DUNE FIELD    | 26.5S                | 20.6E                | 24.3S               | 15.2E               | 0  | LO | 100 | N | Y | 19910409 | 153843 | 245 | 285 | 15        | 63 |
| 83 | 86 | REPUBLIC SOUTH AFRICA | KALAHARI DES, SALT PANS     | 28.0S                | 20.5E                | 24.3S               | 15.5E               | 0  | LO | 100 | N | Y | 19910409 | 153847 | 245 | 285 | 15        | 63 |
| 83 | 87 | ANGOLA                | NE PANORAMA, R. CUBANGO     | 16.5S                | 19.5E                | 24.5S               | 16.2E               | 15 | HO | 100 | N | Y | 19910409 | 153859 | 245 | 285 | 14        | 63 |
| 83 | 88 | REPUBLIC SOUTH AFRICA | KURUMAN HEWELL, LANGE BERG  | 28.0S                | 25.0E                | 25.3S               | 19.4E               | 0  | LO | 100 | N | Y | 19910409 | 153948 | 245 | 283 | 11        | 63 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER |        | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|-----|-----------------|----------------------------|--------|--------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |     |                 |                            | LAT    | LONG   | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 83 | 89  | BOTSUANA        | OKAVANGO SWAMP, SALT PANS  | 19.8S  | 23.8E  | 25.6S | 21.0E | 15 | HO | 100 | N | N | 19910409 | 154012 | 245 | 283 | 9   | 63 |    |
| 83 | 90  | MEXICO          | CLDS/FOG/SRA MADRE, CST    | 25.5N  | 100.5W | 19.2N | 98.2W | 85 | HO | 100 | N | N | 19910409 | 164517 | 246 | 109 | 61  | 64 |    |
| 83 | 91  | MEXICO          | YUCATAN PEN, LAG. TERMINOS | 18.5N  | 89.5W  | 18.9N | 97.6W | 50 | HO | 100 | N | N | 19910409 | 164528 | 246 | 110 | 61  | 64 |    |
| 83 | 92  | MEXICO          | NW PAN, CLDS/FOG/SRA MADR  | 28.0N  | 103.0W | 18.8N | 96.6W | 90 | HO | 100 | N | N | 19910409 | 164544 | 245 | 110 | 62  | 64 |    |
| 83 | 93  | BRAZIL          | FOLDED RIDGES, AGR.        | 15.5S  | 56.8W  | 9.2S  | 74.9W | 50 | LO | 250 | N | Y | 19910409 | 183917 | 240 | 295 | 40  | 65 |    |
| 83 | 94  | BRAZIL          | RIO CUIABA, RIDGES         | 15.5S  | 56.6W  | 9.2S  | 75.0W | 50 | LO | 250 | N | Y | 19910409 | 183920 | 240 | 295 | 40  | 65 |    |
| 83 | 95  | BRAZIL          | RIO CUIABA, CUIABA         | 15.7S  | 56.0W  | 9.1S  | 75.1W | 50 | LO | 250 | N | Y | 19910409 | 183923 | 240 | 295 | 39  | 65 |    |
| 83 | 96  | BRAZIL          | RIO CUIABA, CUIABA         | 16.0S  | 56.0W  | 9.1S  | 75.2W | 40 | LO | 250 | N | Y | 19910409 | 183925 | 240 | 295 | 39  | 65 |    |
| 83 | 97  | BRAZIL          | RIO CUIABA, SWAMP          | 16.1S  | 56.0W  | 9.0S  | 75.4W | 40 | LO | 250 | N | Y | 19910409 | 183929 | 240 | 294 | 39  | 65 |    |
| 83 | 98  | BRAZIL          | RIO CUIABA, SWAMP          | 16.4S  | 55.6W  | 8.9S  | 75.5W | 50 | LO | 250 | N | Y | 19910409 | 183933 | 240 | 294 | 39  | 65 |    |
| 83 | 99  | BRAZIL          | SWAMP, AGR.                | 16.3S  | 55.4W  | 8.8S  | 75.6W | 40 | LO | 250 | N | Y | 19910409 | 183936 | 240 | 294 | 39  | 65 |    |
| 83 | 100 | BRAZIL          | AGR. RIO SAO LOURENCO      | 16.0S  | 55.4W  | 8.7S  | 75.8W | 40 | LO | 250 | N | Y | 19910409 | 183940 | 240 | 294 | 38  | 65 |    |
| 83 | 101 | BRAZIL          | ROMONOPOLIS, R. LOURENCO   | 16.4S  | 54.6W  | 8.6S  | 76.0W | 50 | LO | 250 | N | Y | 19910409 | 183946 | 240 | 294 | 38  | 65 |    |
| 83 | 102 | BRAZIL          | RIO SAO LOURENCO, AGR.     | 16.1S  | 54.2W  | 8.5S  | 76.1W | 50 | LO | 250 | N | Y | 19910409 | 183949 | 240 | 294 | 38  | 65 |    |
| 83 | 103 | BRAZIL          | AGRICULTURE                |        |        | 8.4S  | 76.3W | 60 | LO | 250 | N | Y | 19910409 | 183955 | 240 | 294 | 37  | 65 |    |
| 83 | 104 | BRAZIL          | AGRICULTURE                |        |        | 8.3S  | 76.5W | 60 | LO | 250 | N | Y | 19910409 | 184000 | 240 | 294 | 37  | 65 |    |
| 83 | 105 | BRAZIL          | AGRICULTURE                |        |        | 8.2S  | 76.7W | 50 | LO | 250 | N | N | 19910409 | 184005 | 240 | 294 | 37  | 65 |    |
| 83 | 106 | BRAZIL          | AGRICULTURE                |        |        | 8.1S  | 76.9W | 50 | LO | 250 | N | N | 19910409 | 184011 | 240 | 294 | 36  | 65 |    |
| 83 | 107 | BRAZIL          | AGRICULTURE                |        |        | 8.0S  | 77.1W | 40 | LO | 250 | N | N | 19910409 | 184016 | 240 | 294 | 36  | 65 |    |
| 84 | 1   | ETHIOPIA        | BLUE NILE, GUNA PEAK       | 11.5N  | 38.0E  |       |       | 5  | NV | 250 | N | N |          |        |     |     |     |    |    |
| 84 | 2   | ETHIOPIA        | LAKE TANA                  | 12.0N  | 37.0E  |       |       | 10 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 3   | ETHIOPIA        | LAKE TANA                  | 12.0N  | 37.5E  |       |       | 5  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 4   | ETHIOPIA        | AWASH RIVER                | 11.0N  | 40.0E  |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 5   | ETHIOPIA        | AWASH RIVER, L. YARDI      | 10.5N  | 40.5E  |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 6   | ETHIOPIA        | AWASH RIVER, L. YARDI      | 10.0N  | 40.5E  |       |       | 0  | NV | 250 | U | Y |          |        |     |     |     |    |    |
| 84 | 7   | ETHIOPIA        | AWASH RIVER, L. YARDI      | 10.0N  | 40.0E  |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 8   | ETHIOPIA        | AWASH RIVER, L. YARDI      | 9.5N   | 40.5E  |       |       | 10 | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 9   | ETHIOPIA        | AWASH RIVER, RIFT VALLEY   | 9.0N   | 40.0E  |       |       | 15 | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 10  | SOMALIA         | GULF OF TADJURA            | 11.5N  | 43.5E  |       |       | 20 | LO | 250 | N | N |          |        |     |     |     |    |    |
| 84 | 11  | SOMALIA         | COAST, GULF OF ADEN        | 10.5N  | 44.0E  |       |       | 20 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 12  | SOMALIA         | COAST NEAR BERBERA         | 10.5N  | 45.0E  |       |       | 35 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 13  | SOMALIA         | COAST NEAR CHELIOT HILLS   | 7.5N   | 48.5E  |       |       | 35 | HO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 14  | SOMALIA         | COAST NEAR CHELIOT HILLS   | 7.0N   | 47.0E  |       |       | 30 | HO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 15  | SOMALIA         | COAST, INTERNAL WAVES      | 6.0N   | 47.0E  |       |       | 35 | HO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 16  | SOMALIA         | COAST, INTERNAL WAVES      | 5.0N   | 47.0E  |       |       | 35 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 17  | SOMALIA         | COAST                      | 4.5N   | 47.0E  |       |       | 40 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 18  | SOMALIA         | COAST, VERY DARK           | 4.0N   | 48.5E  |       |       | 15 | LO | 250 | U | N |          |        |     |     |     |    |    |
| 84 | 19  | MAURITANIA      | MALICHIGDANE DUNES         | 20.0N  | 14.5W  |       |       | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 20  | MAURITANIA      | NEAR VILLAGE OF ATAR       | 20.0N  | 13.5W  |       |       | 0  | LO | 250 | U | Y |          |        |     |     |     |    |    |
| 84 | 21  | MAURITANIA      | NEAR VILLAGE OF ATAR       | 20.5N  | 13.0W  |       |       | 0  | LO | 250 | U | Y |          |        |     |     |     |    |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT LON | NADIR<br>LAT LON | CC | TL | FL  | EL | S | DATE | GMT | AL | AZ | SUN<br>EL | OR |
|----|----|-----------------|--------------------------|-------------------|------------------|----|----|-----|----|---|------|-----|----|----|-----------|----|
| 84 | 22 | MAURITANIA      | AROUBA DUNES NEAR ATAR   | 21.0N 13.0W       |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 23 | MAURITANIA      | KHZEMA DUNES             | 21.0N 13.5W       |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 24 | MAURITANIA      | KHZEMA DUNES             | 21.0N 14.0W       |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 25 | MAURITANIA      | KHZEMA DUNES             | 20.5N 14.5W       |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 26 | MAURITANIA      | RICHAT STRUCTURE         | 21.0N 11.5W       |                  | 0  | NV | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 27 | MAURITANIA      | RICHAT STRUCTURE         | 21.0N 11.5W       |                  | 0  | NV | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 28 | MAURITANIA      | D'ALAFIA DUNES           | 22.0N 11.5W       |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 29 | MAURITANIA      | CLIFFS, SAND DUNES       | 18.5N 10.5W       |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 30 | MAURITANIA      | CLIFFS, SAND DUNES       | 18.5N 9.5W        |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 31 | MAURITANIA      | CLIFFS, SAND DUNES       | 18.5N 8.5W        |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 32 | MAURITANIA      | CLIFFS, SAND DUNES       | 17.5N 7.5W        |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 33 | MAURITANIA      | NEMA CLIFF, SAND DUNES   | 17.0N 7.0W        |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 34 | MAURITANIA      | NEMA CLIFFS, SAND DUNES  | 16.0N 6.5W        |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 35 | MALI            | NIGER RIVER, SAND DUNES  | 17.0N 2.0W        |                  | 0  | NV | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 36 | MALI            | NIGER RIVER, SAND DUNES  | 17.0N 1.0W        |                  | 0  | NV | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 37 | MALI            | NIGER RIVER, SAND DUNES  | 16.5N 0.0         |                  | 0  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 38 | MALI            | ESCARPMENTS N. OF NIGER  | 18.5N 0.5E        |                  | 0  | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 39 | MALI            | ILEBJANE ESCARPMENT      | 18.5N 1.0E        |                  | 0  | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 40 | MALI            | SAKAREZOU, TAKADAKOU MTS | 16.5N 3.5E        |                  | 0  | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 41 | NIGER           | NEAR TOWN OF TAHOUA      | 15.0N 5.5E        |                  | 0  | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 42 | NIGERIA         | RIMA RIVER N. OF SOKOTO  | 13.5N 5.5E        |                  | 15 | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 43 | NIGERIA         | NEAR VILLAGE OF ISA      | 13.5N 6.5E        |                  | 5  | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 44 | NIGERIA         | WEST OF LAKE CHAD        | 11.5N 11.0E       |                  | 10 | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 45 | NIGER           | MASSIF DE TERMIT         | 16.5N 11.5E       |                  | 0  | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 46 | NIGERIA         | LAKE CHAD, SOUTH BASIN   | 13.0N 14.0E       |                  | 5  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 47 | CHAD            | LAKE CHAD, SOUTH BASIN   | 13.0N 15.0E       |                  | 5  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 48 | CHAD            | THE BIR LOUR PLATEAU     | 14.0N 15.0E       |                  | 15 | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 49 | CHAD            | LAKE CHAD, NORTH BASIN   | 14.0N 14.0E       |                  | 10 | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 50 | NIGER           | LAKE CHAD, NORTH BASIN   | 13.5N 13.0E       |                  | 10 | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 51 | NIGERIA         | LAKE CHAD, MAIDUGURI     | 13.0N 13.0E       |                  | 15 | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 52 | NIGERIA         | CHARI R. LOWLANDS        | 12.0N 14.5E       |                  | 5  | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 53 | CAMEROON        | CHARI R. LOWLANDS        | 11.5N 15.0E       |                  | 15 | NV | 250 | N  | N |      |     |    |    |           |    |
| 84 | 54 | CAMEROON        | CHARI R. LOWLANDS        | 12.0N 15.0E       |                  | 15 | NV | 250 | N  | N |      |     |    |    |           |    |
| 84 | 55 | CHAD            | CHARI RIVER              | 11.5N 15.5E       |                  | 10 | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 56 | CHAD            | CHARI RIVER              | 11.0N 15.5E       |                  | 5  | LO | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 57 | CHAD            | CHARI RIVER, HAZE        | 11.5N 15.5E       |                  | 50 | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 58 | CHAD            | CHARI RIVER, HAZE        | 10.5N 16.5E       |                  | 50 | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 59 | CHAD            | CHARI RIVER, HAZE        | 10.0N 17.5E       |                  | 40 | LO | 250 | N  | N |      |     |    |    |           |    |
| 84 | 60 | SENEGAL         | DAKAR                    | 14.5N 17.5W       |                  | 0  | NV | 250 | N  | Y |      |     |    |    |           |    |
| 84 | 61 | SENEGAL         | DAKAR                    | 14.5N 17.5W       |                  | 0  | NV | 250 | N  | Y |      |     |    |    |           |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT LON | NADIR<br>LAT LON | CC | TL | FL  | E | S | DATE | GMT | AL | AZ | SUN<br>EL | OR |
|----|-----|-----------------|--------------------------|-------------------|------------------|----|----|-----|---|---|------|-----|----|----|-----------|----|
| 84 | 62  | SENEGAL         | DAKAR                    | 14.5N 17.0W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 63  | SENEGAL         | SADOUN RIVER             | 14.0N 17.0W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 64  | SENEGAL         | SADOUN, GAMBIA RIVERS    | 13.5N 16.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 65  | GAMBIA          | GAMBIA RIVER             | 13.5N 16.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 66  | SENEGAL         | GAMBIA, CASAMANCE RIVERS | 12.5N 16.5W       |                  | 5  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 67  | SENEGAL         | CAHEU, CASAMANCE RIVERS  | 12.5N 16.0W       |                  | 5  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 68  | GUINEA BISSAU   | CAHEU, MANSOA RIVERS     | 12.0N 16.0W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 69  | GUINEA BISSAU   | GEBA RIVER               | 12.0N 15.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 70  | SENEGAL         | CASAMANCE RIVER          | 12.5N 15.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 71  | SENEGAL         | GAMBIA RIVER             | 13.0N 15.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 72  | SENEGAL         | GAMBIA, SALOUM RIVERS    | 14.0N 15.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 73  | SENEGAL         | GAMBIA RIVER             | 14.0N 15.0W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 74  | SENEGAL         | GAMBIA RIVER             | 14.0N 14.5W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 75  | SENEGAL         | GAMBIA RIVER             | 13.5N 14.5W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 76  | SENEGAL         | GAMBIA, KAYANGE RIVERS   | 13.0N 14.5W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 77  | GUINEA BISSAU   | CASAMANCE, GEBA RIVERS   | 12.5N 15.0W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 78  | GUINEA BISSAU   | GEBA, CORUBAL RIVERS     | 12.5N 14.5W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 79  | GUINEA          | KOULONTOU, CORUBAL R.    | 12.5N 13.5W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 80  | SENEGAL         | GAMBIA RIVER             | 13.5N 13.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 81  | SENEGAL         | GAMBIA RIVER             | 13.0N 13.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 82  | SENEGAL         | GAMBIA RIVER             | 13.0N 13.0W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 83  | SENEGAL         | GAMBIA RIVER             | 13.0N 12.5W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 84  | GUINEA          | GAMBIA RIVER             | 12.5N 13.0W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 85  | GUINEA          | TOMINE RIVER             | 12.0N 13.5W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 86  | GUINEA          | TOMINE, KOMBE RIVERS     | 11.5N 13.0W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 87  | GUINEA          | LOMA HILLS, KOMBE RIVER  | 11.5N 13.0W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 88  | GUINEA          | LOMA HILLS, KOMBE RIVER  | 11.5N 12.5W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 89  | GUINEA          | LOMA HILLS, TOMINE R.    | 11.5N 13.5W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 90  | GUINEA          | LOMA HILLS               | 11.0N 13.0W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 91  | GUINEA          | LOMA HILLS               | 11.5N 12.5W       |                  | 0  | NV | 250 | N | Y |      |     |    |    |           |    |
| 84 | 92  | MALI            | BAFING RIVER RESERVOIR   | 13.0N 10.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 93  | MALI            | BAFING RIVER             | 13.5N 11.0W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 94  | MALI            | BAFING RIVER             | 12.5N 10.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 95  | GUINEA          | BAFING RIVER             | 12.0N 10.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 96  | GUINEA          | BAFING RIVER             | 11.5N 11.0W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 97  | GUINEA          | BAFING RIVER, LOMA HILLS | 11.5N 10.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 98  | GUINEA          | BAFING RIVER, LOMA HILLS |                   |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 99  | GUINEA          | BAFING RIVER, LOMA HILLS | 12.0N 10.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 100 | GUINEA          | TINKISSI RIVER           | 11.5N 10.5W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |
| 84 | 101 | GUINEA          | TINKISSI RIVER           | 11.0N 10.0W       |                  | 0  | LO | 250 | N | Y |      |     |    |    |           |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER |        | MADIR |        | CC  | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN |
|----|-----|-----------------|----------------------------|--------|--------|-------|--------|-----|----|-----|---|---|----------|--------|-----|-----|-----|
|    |     |                 |                            | LAT    | LO     | LAT   | LO     |     |    |     |   |   |          |        |     |     | EL  |
| 84 | 102 | GUINEA          | NIGER RIVER                | 11.0N  | 9.5W   |       |        | 0   | LO | 250 | N | Y |          |        |     |     |     |
| 84 | 103 | GUINEA          | NIGER RIVER                | 10.5N  | 9.5W   |       |        | 0   | LO | 250 | N | Y |          |        |     |     |     |
| 84 | 104 | GUINEA          | NIGER RIVER                | 10.5N  | 10.0W  |       |        | 0   | LO | 250 | N | Y |          |        |     |     |     |
| 85 | 1   | MEXICO          | S.MEX., OAXACA AREA        | 17.0N  | 97.4W  | 17.7N | 96.7W  | 0   | LO | 250 | N | N | 19910408 | 172501 | 247 | 122 | 71  |
| 85 | 2   | MEXICO          | S.MEX., OAXACA AREA        | 16.3N  | 96.7W  | 17.6N | 96.4W  | 0   | LO | 250 | N | N | 19910408 | 172506 | 247 | 122 | 71  |
| 85 | 3   | MEXICO          | COAST, SSE OAXACA AREA     | 16.2N  | 96.3W  | 17.4N | 95.8W  | 10  | LO | 250 | N | N | 19910408 | 172515 | 247 | 122 | 72  |
| 85 | 4   | MEXICO          | COAST, W. OF PUERTO ESCONO | 16.2N  | 97.5W  | 17.1N | 95.3W  | 10  | LO | 250 | N | N | 19910408 | 172525 | 247 | 123 | 72  |
| 85 | 5   | MEXICO          | MAR MUERTO                 | 16.0N  | 94.0W  | 16.9N | 94.8W  | 10  | LO | 250 | N | N | 19910408 | 172534 | 247 | 123 | 73  |
| 85 | 6   | MEXICO          | HEADWATER, RIO ENCAJONADO  | 16.7N  | 94.2W  | 16.5N | 93.7W  | 0   | LO | 250 | N | N | 19910408 | 172552 | 247 | 125 | 74  |
| 85 | 7   | MEXICO          | PRESA DE LA ANGOSTURA      | 16.0N  | 92.5W  | 16.2N | 93.2W  | 10  | LO | 250 | N | N | 19910408 | 172602 | 247 | 125 | 75  |
| 85 | 8   | MEXICO          | S.MEX., INLAND             |        |        | 15.6N | 91.9W  | 40  | LO | 250 | N | N | 19910408 | 172624 | 246 | 127 | 76  |
| 85 | 9   | EL SALVADOR     | COAST WETLANDS, SE SAN SA  | 13.2N  | 88.7W  | 14.6N | 89.8W  | 40  | LO | 250 | N | N | 19910408 | 172702 | 246 | 130 | 78  |
| 85 | 10  | EL SALVADOR     | GULF OF FONSECA, SUNGLINT  | 13.3N  | 87.6W  | 14.0N | 88.6W  | 0   | LO | 250 | N | N | 19910408 | 172723 | 246 | 133 | 80  |
| 85 | 11  | NICARAGUA       | GULF OF FONSECA, SUNGLINT  | 12.8N  | 87.1W  | 13.9N | 88.2W  | 5   | LO | 250 | N | N | 19910408 | 172730 | 246 | 134 | 80  |
| 85 | 12  | NICARAGUA       | GULF OF FONSECA, SUNGLINT  | 13.1N  | 87.4W  | 13.5N | 87.5W  | 0   | LO | 250 | N | N | 19910408 | 172743 | 246 | 135 | 81  |
| 85 | 13  | NICARAGUA       | LAGO DE MANAGUA            | 12.2N  | 86.2W  | 13.3N | 87.0W  | 30  | LO | 250 | N | N | 19910408 | 172752 | 246 | 137 | 81  |
| 85 | 14  | COSTA RICA      | CORDILLERA DE GUANACASTE   | 10.8N  | 85.3W  | 11.3N | 83.2W  | 20  | LO | 250 | N | N | 19910408 | 172902 | 246 | 161 | 85  |
| 85 | 15  | PANAMA          | COLON, PANAMA CANAL        | 9.5N   | 79.9W  | 10.0N | 80.8W  | 60  | LO | 250 | N | N | 19910408 | 172946 | 246 | 202 | 86  |
| 85 | 16  | PANAMA          | ISTHMUS OF PANAMA          | 9.3N   | 79.8W  | 9.9N  | 80.6W  | 60  | LO | 250 | N | N | 19910408 | 172950 | 246 | 207 | 86  |
| 85 | 17  | PANAMA          | COLON, CANAL               | 9.4N   | 79.8W  | 9.6N  | 80.0W  | 60  | LO | 250 | N | N | 19910408 | 173000 | 246 | 219 | 86  |
| 85 | 18  | PANAMA          | PANAMA CITY, CANAL         | 9.0N   | 79.6W  | 9.5N  | 79.9W  | 70  | LO | 250 | N | N | 19910408 | 173003 | 246 | 222 | 86  |
| 85 | 19  |                 | VRY CLDY, HAZY             |        |        | 6.2N  | 73.9W  | 99  | LO | 250 | N | N | 19910408 | 173155 | 246 | 277 | 81  |
| 85 | 20  |                 | VRY CLDY, HAZY, T-STORM    |        |        | 4.1N  | 70.1W  | 99  | LO | 250 | N | N | 19910408 | 173307 | 245 | 284 | 76  |
| 85 | 21  | BRAZIL          | AMAZON BASIN, E. MANAUS    |        |        | 2.7S  | 58.5W  | 90  | LO | 250 | N | N | 19910408 | 173649 | 245 | 291 | 62  |
| 85 | 22  | BRAZIL          | AMAZON BASIN, E. MANAUS    |        |        | 2.8S  | 58.4W  | 80  | LO | 250 | N | N | 19910408 | 173651 | 245 | 291 | 62  |
| 85 | 23  | BRAZIL          | AMAZON BASIN, E. MANAUS    |        |        | 2.9S  | 58.2W  | 80  | LO | 250 | N | N | 19910408 | 173655 | 245 | 291 | 62  |
| 85 | 24  | BRAZIL          | AMAZON R. JUNCTION TAPAJO  | 2.7S   | 55.0W  | 5.0S  | 54.5W  | 80  | LO | 250 | N | N | 19910408 | 173805 | 245 | 292 | 58  |
| 85 | 25  | BRAZIL          | AMAZON R. JUNCTION TAPAJO  | 2.3S   | 54.8W  | 5.2S  | 54.3W  | 80  | LO | 250 | N | N | 19910408 | 173810 | 245 | 292 | 57  |
| 85 | 26  | BRAZIL          | AMAZON R. JUNCTION TAPAJO  | 2.3S   | 54.8W  | 5.3S  | 54.0W  | 80  | LO | 250 | N | N | 19910408 | 173816 | 245 | 292 | 57  |
| 85 | 27  | BRAZIL          | AMAZON RIVER, E. MANAUS    |        |        | 6.1S  | 52.7W  | 90  | LO | 250 | N | N | 19910408 | 173841 | 245 | 292 | 55  |
| 85 | 28  | BRAZIL          | COAST, CANAMU AREA         | 14.0S  | 39.2W  | 14.0S | 37.7W  | 80  | LO | 250 | N | N | 19910408 | 174317 | 245 | 291 | 38  |
| 85 | 29  | BRAZIL          | COAST, BELMONTE AREA       | 15.9S  | 39.0W  | 14.3S | 37.1W  | 70  | LO | 250 | N | N | 19910408 | 174328 | 245 | 291 | 37  |
| 85 | 30  | ARGENTINA       | MTNS, BORDER W/BOLIVIA     |        |        | 23.2S | 62.1W  | 50  | LO | 250 | N | N | 19910408 | 205649 | 245 | 284 | 13  |
| 85 | 31  |                 | CLOUDS, UNDEREXPOSED       |        |        | 26.3S | 49.4W  | 100 | LO | 250 | N | N | 19910408 | 210007 | 244 | 278 | 1   |
| 85 | 32  |                 | CLOUDS, UNDEREXPOSED       |        |        | 26.3S | 49.1W  | 100 | LO | 250 | N | N | 19910408 | 210011 | 244 | 278 | 0   |
| 85 | 33  | PHILIPPINE SEA  | UNDER EXPOSED, SUNGLINT    |        |        | 26.4N | 139.8E | 50  | LO | 250 | N | N | 19910408 | 233115 | 246 | 103 | 40  |
| 85 | 34  | GILBERT ISLANDS | CHRISTMAS IS.              | 2.0N   | 157.4W | 0.3S  | 158.1W | 60  | LO | 250 | N | N | 19910408 | 234916 | 245 | 292 | 69  |
| 85 | 35  | PACIFIC OCEAN   | NO OBVIOUS FEATURES        |        |        | 1.8S  | 155.6W | 5   | LO | 250 | N | N | 19910408 | 235004 | 245 | 293 | 66  |
| 85 | 36  | PACIFIC OCEAN   | NO OBVIOUS FEATURES        |        |        | 2.3S  | 154.6W | 10  | LO | 250 | N | N | 19910408 | 235023 | 245 | 293 | 65  |
| 85 | 37  | LINE ISLANDS    | MALDEN IS.                 | 4.0S   | 154.9W | 3.3S  | 153.0W | 5   | LO | 250 | N | N | 19910408 | 235054 | 245 | 293 | 63  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME   | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL  | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-------------------|---------------------------|----------------------|---------------------|----|-----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 85 | 38 | MARQUESAS ISLANDS |                           | 9.0S 140.0W          | 9.9S 141.2W         | 40 | LO  | 250 | N | N | 19910408 | 235437 | 245 | 293 | 49        | 53 |
| 85 | 39 | MARQUESAS ISLANDS |                           |                      | 10.3S 140.6W        | 40 | LO  | 250 | N | N | 19910408 | 235449 | 245 | 293 | 48        | 53 |
| 85 | 40 | PACIFIC OCEAN     |                           |                      | 12.8S 135.8W        | 40 | LO  | 250 | N | N | 19910408 | 235617 | 245 | 292 | 42        | 53 |
| 85 | 41 | PACIFIC OCEAN     | NO OBVIOUS WATER FEATURES |                      | 14.4S 132.4W        | 20 | LO  | 250 | N | N | 19910408 | 235718 | 245 | 292 | 39        | 53 |
| 85 | 42 | PACIFIC OCEAN     | NO OBVIOUS WATER FEATURES |                      | 17.9S 124.6W        | 50 | LO  | 250 | N | N | 19910408 | 235934 | 245 | 290 | 30        | 53 |
| 85 | 43 | PACIFIC OCEAN     | NO OBVIOUS WATER FEATURES |                      | 18.0S 124.4W        | 40 | LO  | 250 | N | N | 19910408 | 235938 | 245 | 290 | 30        | 53 |
| 85 | 44 | PACIFIC OCEAN     | OVEREXPOSED               |                      | 21.7S 114.5W        | 30 | LO  | 250 | N | N | 19910409 | 000224 | 245 | 286 | 19        | 53 |
| 85 | 45 | ATMOSPHERIC LIMB  |                           |                      | 20.9N 51.1E         | LO | 250 | N   | N | N | 19910409 | 004822 | 242 | 72  | -22       | 54 |
| 85 | 46 | ATMOSPHERIC LIMB  |                           |                      | 21.1N 51.4E         | LO | 250 | N   | N | N | 19910409 | 004828 | 242 | 72  | -21       | 54 |
| 85 | 47 | ATMOSPHERIC LIMB  |                           |                      | 21.1N 51.6E         | LO | 250 | N   | N | N | 19910409 | 004831 | 242 | 72  | -21       | 54 |
| 85 | 48 |                   | CLOUDS                    |                      | 18.7N 46.3E         | 99 | HO  | 250 | N | N | 19910409 | 072513 | 246 | 113 | 65        | 58 |
| 85 | 49 |                   | CLOUDS                    |                      | 18.0N 47.9E         | 99 | HO  | 250 | N | N | 19910409 | 072540 | 246 | 114 | 66        | 58 |
| 85 | 50 | YEMEN (ADEN)      | COAST, SUNGLINT           | 16.2N 52.5E          | 16.5N 51.3E         | 0  | LO  | 250 | N | N | 19910409 | 072639 | 246 | 115 | 70        | 58 |
| 85 | 51 | YEMEN (ADEN)      | COAST, SUNGLINT           | 16.2N 52.5E          | 16.3N 51.7E         | 0  | LO  | 250 | N | N | 19910409 | 072647 | 246 | 116 | 71        | 58 |
| 85 | 52 | SOCOTRA           |                           | 12.5N 54.0E          | 15.7N 53.1E         | 30 | LO  | 250 | N | N | 19910409 | 072712 | 246 | 116 | 72        | 58 |
| 85 | 53 | ARABIAN SEA       | SHIP WAKE, OIL SLICK      |                      | 14.8N 55.0E         | 0  | LO  | 250 | N | N | 19910409 | 072745 | 246 | 117 | 74        | 58 |
| 85 | 54 | ARABIAN SEA       | SUNGLINT, CLOUDS          |                      | 13.5N 57.8E         | 40 | LO  | 250 | N | N | 19910409 | 072835 | 246 | 119 | 78        | 58 |
| 85 | 55 | ARABIAN SEA       | SUNGLINT, CLOUDS          |                      | 12.9N 58.9E         | 20 | LO  | 250 | N | N | 19910409 | 072856 | 246 | 119 | 79        | 58 |
| 85 | 56 | ALGERIA           | IGUIDI DESERT             |                      | 27.0N 6.8W          | 0  | LO  | 250 | N | N | 19910409 | 085052 | 246 | 100 | 34        | 59 |
| 85 | 57 | ALGERIA           | ERG CHECH, LONG DUNES     |                      | 26.4N 3.3W          | 0  | LO  | 250 | N | N | 19910409 | 085145 | 246 | 101 | 38        | 59 |
| 85 | 58 | ALGERIA           | ERG CHECH, LONG DUNES     |                      | 26.2N 2.5W          | 0  | LO  | 250 | N | N | 19910409 | 085157 | 246 | 102 | 39        | 59 |
| 85 | 59 | ALGERIA           | ERG CHECH, LONG DUNES     |                      | 26.0N 1.6W          | 0  | LO  | 250 | N | N | 19910409 | 085211 | 246 | 102 | 39        | 59 |
| 85 | 60 | ALGERIA           | TANEZROUFT, OASIS         |                      | 25.8N 0.2W          | 0  | LO  | 250 | N | N | 19910409 | 085232 | 246 | 103 | 41        | 59 |
| 85 | 61 | ALGERIA           | AHAGGAR MTNS. HAZY        |                      | 25.6N 0.7E          | 0  | LO  | 250 | N | N | 19910409 | 085246 | 246 | 103 | 42        | 59 |
| 85 | 62 | ALGERIA           | AHAGGAR MTNS. HAZY        |                      | 25.2N 2.2E          | 0  | LO  | 250 | N | N | 19910409 | 085310 | 246 | 104 | 43        | 59 |
| 85 | 63 | ALGERIA           | AHAGGAR MTNS. HAZY        |                      | 25.0N 3.1E          | 0  | LO  | 250 | N | N | 19910409 | 085323 | 246 | 104 | 44        | 59 |
| 85 | 64 | ALGERIA           | AHAGGAR MTNS.             |                      | 24.7N 4.3E          | 0  | LO  | 250 | N | N | 19910409 | 085342 | 246 | 105 | 45        | 59 |
| 85 | 65 | ALGERIA           | AHAGGAR MTNS.             |                      | 24.5N 4.9E          | 0  | LO  | 250 | N | N | 19910409 | 085352 | 246 | 105 | 46        | 59 |
| 85 | 66 | ALGERIA           | AHAGGAR MTNS.             |                      | 24.2N 6.0E          | 0  | LO  | 250 | N | N | 19910409 | 085409 | 246 | 106 | 47        | 59 |
| 85 | 67 | ALGERIA           | TENERE DESERT AREA        |                      | 23.6N 8.5E          | 0  | LO  | 250 | N | N | 19910409 | 085448 | 246 | 107 | 49        | 59 |
| 85 | 68 | NIGER             | TCHIGAI PLAT. AREA        |                      | 23.3N 9.3E          | 0  | LO  | 250 | N | N | 19910409 | 085501 | 246 | 107 | 50        | 59 |
| 85 | 69 | NIGER             | TCHIGAI AREA, WIND STRKS  |                      | 22.5N 11.8E         | 0  | LO  | 250 | N | N | 19910409 | 085541 | 246 | 108 | 53        | 59 |
| 85 | 70 | NIGER             | TCHIGAI AREA, WIND STRKS  |                      | 22.2N 12.7E         | 0  | LO  | 250 | N | N | 19910409 | 085556 | 246 | 109 | 54        | 59 |
| 85 | 71 | NIGER             | TCHIGAI AREA, WIND STRKS  |                      | 22.0N 13.4E         | 0  | LO  | 250 | N | N | 19910409 | 085607 | 246 | 109 | 55        | 59 |
| 85 | 72 | NIGER             | TCHIGAI AREA, WIND STRKS  |                      | 21.8N 14.1E         | 0  | LO  | 250 | N | N | 19910409 | 085619 | 246 | 109 | 55        | 59 |
| 85 | 73 | NIGER             | TCHIGAI AREA, WIND STRKS  |                      | 21.5N 14.9E         | 0  | LO  | 250 | N | N | 19910409 | 085632 | 246 | 110 | 56        | 59 |
| 85 | 74 | CHAD              | TIBESTI, PIC TOUSIDE      | 21.0N 16.0E          | 21.1N 15.9E         | 0  | LO  | 250 | N | N | 19910409 | 085649 | 246 | 110 | 57        | 59 |
| 85 | 75 | CHAD              | TIBESTI, PIC TOUSIDE      | 21.0N 17.0E          | 21.0N 16.4E         | 0  | LO  | 250 | N | N | 19910409 | 085656 | 246 | 110 | 58        | 59 |
| 85 | 76 | CHAD              | TIBESTI MTNS.             | 20.9N 16.7E          | 20.9N 16.7E         | 0  | LO  | 250 | N | N | 19910409 | 085702 | 246 | 110 | 58        | 59 |
| 85 | 77 | CHAD              | TIBESTI MTNS.             | 20.5N 19.0E          | 20.8N 17.0E         | 0  | LO  | 250 | N | N | 19910409 | 085707 | 246 | 110 | 58        | 59 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER |       | NADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|-----|-----------------|--------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |     |                 |                          | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 85 | 78  | CHAD            | TIBESTI MTNS.            | 20.5N  | 19.2E | 20.6N | 17.4E | 0  | LO | 250 | N | N | 19910409 | 085713 | 246 | 111 | 59  | 59 | 59 |
| 85 | 79  | CHAD            | TIBESTI MTNS.            | 20.6N  | 18.7E | 20.5N | 17.8E | 0  | LO | 250 | N | N | 19910409 | 085720 | 246 | 111 | 59  | 59 | 59 |
| 85 | 80  | CHAD            | TIBESTI,EMI KOUSSI       | 19.8N  | 18.5E | 20.3N | 18.2E | 0  | LO | 250 | N | N | 19910409 | 085727 | 246 | 111 | 60  | 59 | 59 |
| 85 | 81  | CHAD            | TIBESTI,EMI KOUSSI       | 19.3N  | 18.8E | 20.1N | 18.9E | 0  | LO | 250 | N | N | 19910409 | 085738 | 246 | 111 | 60  | 59 | 59 |
| 85 | 82  | CHAD            | AREA BTN TIBESTI-ENNEDI  |        |       | 19.9N | 19.2E | 0  | LO | 250 | N | N | 19910409 | 085744 | 246 | 111 | 61  | 59 | 59 |
| 85 | 83  | CHAD            | AREA BTN TIBESTI-ENNEDI  |        |       | 19.4N | 20.5E | 0  | LO | 250 | N | N | 19910409 | 085806 | 246 | 112 | 62  | 59 | 59 |
| 85 | 84  | CHAD            | AREA BTN TIBESTI-ENNEDI  |        |       | 19.3N | 21.0E | 0  | LO | 250 | N | N | 19910409 | 085813 | 246 | 112 | 63  | 59 | 59 |
| 85 | 85  | CHAD            | AREA BTN TIBESTI-ENNEDI  |        |       | 19.0N | 21.5E | 0  | LO | 250 | N | N | 19910409 | 085822 | 246 | 112 | 63  | 59 | 59 |
| 85 | 86  | CHAD            | AREA BTN TIBESTI-ENNEDI  |        |       | 18.9N | 21.8E | 0  | LO | 250 | N | N | 19910409 | 085827 | 246 | 112 | 63  | 59 | 59 |
| 85 | 87  | CHAD            | SW,ENNEDI PLATEAU AREA   | 16.8N  | 22.0E | 18.8N | 22.1E | 0  | LO | 250 | N | N | 19910409 | 085832 | 246 | 113 | 64  | 59 | 59 |
| 85 | 88  | CHAD            | ENNEDI PLATEAU AREA      |        |       | 18.5N | 22.8E | 0  | LO | 250 | N | N | 19910409 | 085845 | 246 | 113 | 65  | 59 | 59 |
| 85 | 89  | CHAD            | ENNEDI PLATEAU AREA      |        |       | 18.3N | 23.4E | 0  | LO | 250 | N | N | 19910409 | 085855 | 246 | 113 | 65  | 59 | 59 |
| 85 | 90  | SUDAN           | SAND DESERT              |        |       | 17.6N | 25.0E | 0  | LO | 250 | N | N | 19910409 | 085923 | 246 | 114 | 67  | 59 | 59 |
| 85 | 91  | SUDAN           | SAND DESERT              |        |       | 17.4N | 25.4E | 0  | LO | 250 | N | N | 19910409 | 085930 | 246 | 114 | 68  | 59 | 59 |
| 85 | 92  | SUDAN           | SAND DESERT              |        |       | 17.0N | 26.3E | 0  | LO | 250 | N | N | 19910409 | 085945 | 246 | 114 | 68  | 59 | 59 |
| 85 | 93  | SUDAN           | SAND DESERT              |        |       | 16.8N | 26.7E | 0  | LO | 250 | N | N | 19910409 | 085952 | 246 | 114 | 69  | 59 | 59 |
| 85 | 94  | SUDAN           | DARK ROCK OUTCROP AREA   |        |       | 16.7N | 27.1E | 5  | LO | 250 | N | N | 19910409 | 085959 | 246 | 114 | 69  | 59 | 59 |
| 85 | 95  | SUDAN           | DARK ROCK OUTCROP AREA   |        |       | 16.5N | 27.6E | 0  | LO | 250 | N | N | 19910409 | 090007 | 246 | 115 | 70  | 59 | 59 |
| 85 | 96  | SUDAN           | CULTIVATED WADI          |        |       | 16.1N | 28.3E | 5  | LO | 250 | N | N | 19910409 | 090020 | 246 | 115 | 71  | 59 | 59 |
| 85 | 97  | SUDAN           | CULTIVATED WADI          |        |       | 16.0N | 28.5E | 10 | LO | 250 | N | N | 19910409 | 090024 | 246 | 115 | 71  | 59 | 59 |
| 85 | 98  | SUDAN           | HAZY,CLOY                |        |       | 15.6N | 29.5E | 60 | LO | 250 | N | N | 19910409 | 090041 | 246 | 115 | 72  | 59 | 59 |
| 85 | 99  | SUDAN           | SAND DESERT              |        |       | 14.8N | 31.1E | 50 | LO | 250 | N | N | 19910409 | 090110 | 246 | 116 | 74  | 59 | 59 |
| 85 | 100 | SUDAN           | WHITE NILE,IRR.AGRICULT. | 14.0N  | 32.4E | 14.8N | 31.5E | 20 | LO | 250 | N | N | 19910409 | 090117 | 246 | 116 | 74  | 59 | 59 |
| 85 | 101 | SUDAN           | WHITE NILE,IRR.AGRICULT. | 14.3N  | 32.8E | 14.3N | 32.2E | 10 | LO | 250 | N | N | 19910409 | 090129 | 246 | 117 | 75  | 59 | 59 |
| 85 | 102 | SUDAN           | WHITE NILE,IRR.AGRICULT. | 14.5N  | 32.8E | 14.0N | 32.7E | 10 | LO | 250 | N | N | 19910409 | 090138 | 246 | 117 | 76  | 59 | 59 |
| 85 | 103 | SUDAN           | WHITE NILE,IRR.AGRICULT. | 13.8N  | 32.8E | 13.9N | 33.0E | 0  | LO | 250 | N | N | 19910409 | 090143 | 246 | 117 | 76  | 59 | 59 |
| 85 | 104 | SUDAN           | BLUE NILE,IRR.AGRICULT.  | 13.0N  | 34.0E | 13.7N | 33.4E | 0  | LO | 250 | N | N | 19910409 | 090150 | 246 | 117 | 76  | 59 | 59 |
| 85 | 105 | SUDAN           | BLUE NILE,IRR.AGRICULT.  | 13.0N  | 34.0E | 13.6N | 33.6E | 0  | LO | 250 | N | N | 19910409 | 090154 | 246 | 117 | 77  | 59 | 59 |
| 85 | 106 | SUDAN           | BLUE NILE,IRR.AGRICULT.  | 13.0N  | 34.0E | 13.5N | 33.9E | 0  | LO | 250 | N | N | 19910409 | 090159 | 246 | 117 | 77  | 59 | 59 |
| 86 | 1   | NIGER           | DALLOL BOSSO, SAND STORM | 16.0N  | 4.0E  | 15.5N | 3.9E  | 0  | LO | 250 | N | N | 19910408 | 111237 | 246 | 134 | 78  | 45 | 45 |
| 86 | 2   | NIGER           | DALLOL BOSSO, SAND STORM |        |       | 15.4N | 4.0E  | 0  | LO | 250 | N | N | 19910408 | 111240 | 246 | 134 | 78  | 45 | 45 |
| 86 | 3   | NIGER           | DALLOL BOSSO, SAND STORM |        |       | 15.4N | 4.2E  | 0  | LO | 250 | N | N | 19910408 | 111242 | 246 | 134 | 78  | 45 | 45 |
| 86 | 4   | NIGER           | DALLOL BOSSO, SAND STORM |        |       | 15.3N | 4.3E  | 0  | LO | 250 | N | N | 19910408 | 111244 | 246 | 135 | 78  | 45 | 45 |
| 86 | 5   | NIGER           | W. NIGER,SANDSTORM       |        |       | 15.3N | 4.4E  | 0  | LO | 250 | N | N | 19910408 | 111246 | 246 | 135 | 78  | 45 | 45 |
| 86 | 6   | NIGER           | W. NIGER,SANDSTORM       |        |       | 15.2N | 4.5E  | 0  | LO | 250 | N | N | 19910408 | 111248 | 246 | 135 | 78  | 45 | 45 |
| 86 | 7   | NIGER           | W. NIGER,SANDSTORM       |        |       | 14.9N | 5.2E  | 0  | LO | 250 | N | N | 19910408 | 111300 | 246 | 137 | 79  | 45 | 45 |
| 86 | 8   | NIGER           | W. NIGER,SANDSTORM       |        |       | 14.8N | 5.3E  | 5  | LO | 250 | N | N | 19910408 | 111302 | 246 | 137 | 79  | 45 | 45 |
| 86 | 9   | NIGER           | W. NIGER,SANDSTORM       |        |       | 14.7N | 5.5E  | 5  | LO | 250 | N | N | 19910408 | 111305 | 246 | 138 | 79  | 45 | 45 |
| 86 | 10  | NIGER           | W. NIGER,SANDSTORM       | 14.0N  | 6.0E  | 14.6N | 5.8E  | 0  | LO | 250 | N | N | 19910408 | 111312 | 246 | 139 | 80  | 45 | 45 |
| 86 | 11  | NIGER           | W. NIGER,SANDSTORM       | 14.0N  | 6.0E  | 14.5N | 6.0E  | 0  | LO | 250 | N | N | 19910408 | 111314 | 246 | 139 | 80  | 45 | 45 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME      | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC    | TL | FL | E   | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|----------------------|---------------------------|----------------------|---------------------|-------|----|----|-----|---|----------|--------|-----|-----|-----------|----|
| 86 | 12 | NIGERIA              | SOKOTO AREA               | 13.3N                | 5.4E 14.4N          | 6.2E  | 0  | LO | 250 | N | 19910408 | 111318 | 246 | 140 | 80        | 45 |
| 86 | 13 | NIGERIA              | SOKOTO AREA               | 13.0N                | 5.2E 14.3N          | 6.4E  | 0  | LO | 250 | N | 19910408 | 111322 | 246 | 140 | 80        | 45 |
| 86 | 14 | NIGER                | MARADI AREA               | 13.5N                | 7.0E 13.9N          | 7.2E  | 0  | LO | 250 | N | 19910408 | 111337 | 246 | 144 | 81        | 45 |
| 86 | 15 | NIGERIA              | W.OF KANO                 | 12.5N                | 7.3E 13.8N          | 7.3E  | 0  | LO | 250 | N | 19910408 | 111339 | 246 | 144 | 81        | 45 |
| 86 | 16 | NIGERIA              | W.OF KANO                 | 12.4N                | 7.2E 13.7N          | 7.5E  | 0  | LO | 250 | N | 19910408 | 111342 | 246 | 145 | 81        | 45 |
| 86 | 17 | NIGERIA              | W.OF KANO                 | 12.3N                | 7.5E 13.6N          | 7.7E  | 0  | LO | 250 | N | 19910408 | 111346 | 246 | 146 | 82        | 45 |
| 86 | 18 | NIGERIA              | W.OF KANO                 | 12.5N                | 8.0E 13.6N          | 7.9E  | 0  | LO | 250 | N | 19910408 | 111349 | 246 | 146 | 82        | 45 |
| 86 | 19 | NIGERIA              | NW.OF KANO                | 13.0N                | 8.0E 13.5N          | 8.0E  | 0  | LO | 250 | N | 19910408 | 111351 | 246 | 147 | 82        | 45 |
| 86 | 20 | NIGERIA              | NW.OF KANO                |                      | 13.4N               | 8.1E  | 10 | LO | 250 | N | 19910408 | 111353 | 246 | 148 | 82        | 45 |
| 86 | 21 | NIGER                | NEAR ZINDER               | 13.5N                | 9.0E 13.4N          | 8.2E  | 10 | LO | 250 | N | 19910408 | 111355 | 246 | 148 | 82        | 45 |
| 86 | 22 | NIGER                | NORTH OF ZINDER           | 14.0N                | 9.0E 13.3N          | 8.4E  | 0  | LO | 250 | N | 19910408 | 111358 | 246 | 149 | 82        | 45 |
| 86 | 23 | NIGERIA              | HADEJIA AREA              | 12.5N                | 10.0E 12.7N         | 9.7E  | 20 | LO | 250 | N | 19910408 | 111421 | 246 | 157 | 83        | 45 |
| 86 | 24 | NIGERIA              | HADEJIA AREA              | 12.2N                | 9.3E 12.6N          | 9.8E  | 20 | LO | 250 | N | 19910408 | 111423 | 246 | 158 | 84        | 45 |
| 86 | 25 | NIGERIA              | KANO AREA, KANO RIVER     | 12.0N                | 8.7E 12.5N          | 9.9E  | 30 | LO | 250 | N | 19910408 | 111426 | 246 | 159 | 84        | 45 |
| 86 | 26 | NIGERIA              | AREA W. OF KANO           | 12.0N                | 8.0E 12.5N          | 10.1E | 40 | LO | 250 | N | 19910408 | 111428 | 246 | 160 | 84        | 45 |
| 86 | 27 | NIGERIA              | NEAR POTISKUM             | 12.0N                | 11.0E 11.8N         | 11.4E | 60 | NV | 250 | N | 19910408 | 111453 | 246 | 174 | 85        | 45 |
| 86 | 28 | NIGERIA              | NEAR POTISKUM             | 11.0N                | 11.5E 11.7N         | 11.6E | 70 | NV | 250 | N | 19910408 | 111457 | 246 | 177 | 85        | 45 |
| 86 | 29 | CHAD                 | CAMEROON BORDER, LOGONE R | 10.8N                | 15.2E 11.2N         | 12.5E | 5  | LO | 250 | N | 19910408 | 111513 | 246 | 190 | 85        | 45 |
| 86 | 30 | CHAD                 | AREA NEAR BONGOR          |                      | 10.6N               | 13.7E | 5  | LO | 250 | N | 19910408 | 111535 | 246 | 210 | 85        | 45 |
| 86 | 31 | CHAD                 | AREA NEAR BONGOR          |                      | 10.3N               | 14.2E | 5  | LO | 250 | N | 19910408 | 111545 | 246 | 219 | 85        | 45 |
| 86 | 32 | CHAD                 | CHARI RIVER, S. NDJAMENA  | 11.3N                | 15.1E 10.2N         | 14.4E | 0  | LO | 250 | N | 19910408 | 111548 | 246 | 221 | 85        | 45 |
| 86 | 33 | CHAD                 | CHARI RIVER, S. NDJAMENA  | 11.0N                | 15.5E 10.1N         | 14.6E | 0  | LO | 250 | N | 19910408 | 111552 | 246 | 225 | 85        | 45 |
| 86 | 34 | CHAD                 | CHARI RIVER, S. NDJAMENA  | 10.8N                | 16.0E 10.0N         | 14.8E | 10 | LO | 250 | N | 19910408 | 111555 | 246 | 227 | 85        | 45 |
| 86 | 35 | CHAD                 | CHARI RIVER, S. NDJAMENA  | 10.5N                | 16.5E               | 14.9E | 20 | LO | 250 | N | 19910408 | 111558 | 246 | 230 | 85        | 45 |
| 86 | 36 | CHAD                 | CLDY, HAZY                |                      | 9.3N                | 16.1E | 80 | LO | 250 | N | 19910408 | 111620 | 246 | 244 | 84        | 45 |
| 86 | 37 | CHAD                 | CLDY, HAZY                |                      | 9.1N                | 16.4E | 80 | LO | 250 | N | 19910408 | 111625 | 246 | 247 | 84        | 45 |
| 86 | 38 | CHAD                 | CLDY, HAZY                |                      | 9.0N                | 16.7E | 80 | LO | 250 | N | 19910408 | 111630 | 246 | 250 | 84        | 45 |
| 86 | 39 | CHAD                 | CLDY, HAZY                |                      | 8.4N                | 17.7E | 50 | LO | 250 | N | 19910408 | 111649 | 246 | 258 | 83        | 45 |
| 86 | 40 | CHAD                 | OUHAM RIVER AREA          | 8.4N                 | 17.8E               | 8.2N  | 60 | LO | 250 | N | 19910408 | 111655 | 246 | 260 | 83        | 45 |
| 86 | 41 | CENTRAL AFRICAN REP. | OUHAM RIVER AREA          | 7.6N                 | 18.0E               | 8.0N  | 40 | LO | 250 | N | 19910408 | 111704 | 246 | 263 | 82        | 45 |
| 86 | 42 | CENTRAL AFRICAN REP. | OUHAM RIVER AREA          | 7.3N                 | 18.2E               | 7.8N  | 50 | LO | 250 | N | 19910408 | 111710 | 246 | 264 | 82        | 45 |
| 86 | 43 | CENTRAL AFRICAN REP. | CLDY, HAZY                |                      | 6.9N                | 20.3E | 60 | LO | 250 | N | 19910408 | 111739 | 246 | 271 | 80        | 45 |
| 86 | 44 | CENTRAL AFRICAN REP. | CLDY, HAZY                |                      | 6.9N                | 20.5E | 70 | LO | 250 | N | 19910408 | 111742 | 246 | 271 | 80        | 45 |
| 86 | 45 | CENTRAL AFRICAN REP. | CLDY, HAZY                |                      | 6.5N                | 21.1E | 80 | LO | 250 | N | 19910408 | 111753 | 246 | 273 | 80        | 45 |
| 86 | 46 | CENTRAL AFRICAN REP. | CLDY, HAZY                |                      | 5.8N                | 22.4E | 90 | LO | 250 | N | 19910408 | 111818 | 246 | 277 | 78        | 45 |
| 86 | 47 | CENTRAL AFRICAN REP. | CLDY, HAZY                |                      | 5.5N                | 22.8E | 90 | LO | 250 | N | 19910408 | 111826 | 245 | 278 | 78        | 45 |
| 86 | 48 | CENTRAL AFRICAN REP. | CLDY, HAZY                |                      | 5.4N                | 23.0E | 90 | LO | 250 | N | 19910408 | 111829 | 245 | 278 | 77        | 45 |
| 86 | 49 | CENTRAL AFRICAN REP. | CLDY, HAZY                |                      | 5.3N                | 23.2E | 90 | LO | 250 | N | 19910408 | 111834 | 245 | 278 | 77        | 45 |
| 86 | 50 | CENTRAL AFRICAN REP. | CLDY, HAZY                |                      | 5.1N                | 23.5E | 90 | LO | 250 | N | 19910408 | 111839 | 245 | 279 | 77        | 45 |
| 86 | 51 | CENTRAL AFRICAN REP. | CLDY, HAZY                |                      | 4.9N                | 23.9E | 90 | LO | 250 | N | 19910408 | 111847 | 245 | 280 | 76        | 45 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME      | FEATURE                     | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|----------------------|-----------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 86 | 52 | CENTRAL AFRICAN REP. | CLDY, HAZY                  |               |               | 4.6N         | 24.4E        | 90 | LO | 250 | N | N | 19910408 | 111856 | 245 | 280 | 76        | 45 |
| 86 | 53 | CENTRAL AFRICAN REP. | CLDY, HAZY                  |               |               | 4.4N         | 24.8E        | 90 | LO | 250 | N | N | 19910408 | 111903 | 245 | 281 | 75        | 45 |
| 86 | 54 | CENTRAL AFRICAN REP. | CLDY, HAZY                  |               |               | 4.3N         | 24.9E        | 90 | LO | 250 | N | N | 19910408 | 111906 | 245 | 281 | 75        | 45 |
| 86 | 55 | CENTRAL AFRICAN REP. | CLDY, HAZY                  |               |               | 4.2N         | 25.1E        | 90 | LO | 250 | N | N | 19910408 | 111909 | 245 | 281 | 75        | 45 |
| 86 | 56 | CENTRAL AFRICAN REP. | CLDY, HAZY                  |               |               | 4.1N         | 25.2E        | 90 | LO | 250 | N | N | 19910408 | 111912 | 245 | 282 | 75        | 45 |
| 86 | 57 | CENTRAL AFRICAN REP. | CLDY, HAZY                  |               |               | 4.0N         | 25.5E        | 80 | LO | 250 | N | N | 19910408 | 111917 | 245 | 282 | 74        | 45 |
| 86 | 58 | CENTRAL AFRICAN REP. | CLDY, HAZY                  |               |               | 3.8N         | 25.9E        | 80 | LO | 250 | N | N | 19910408 | 111924 | 245 | 282 | 74        | 45 |
| 86 | 59 | UGANDA               | SW HALF LAKE ALBERT         | 1.4N          | 30.6E         | 0.9N         | 30.9E        | 40 | LO | 250 | N | N | 19910408 | 112100 | 245 | 287 | 68        | 45 |
| 86 | 60 | UGANDA               | CENTRAL LAKE ALBERT         | 1.6N          | 30.8E         | 0.8N         | 31.0E        | 60 | LO | 250 | N | N | 19910408 | 112102 | 245 | 287 | 68        | 45 |
| 86 | 61 | UGANDA               | NE SECTION LAKE ALBERT      | 2.1N          | 31.3E         | 0.7N         | 31.1E        | 80 | LO | 250 | N | N | 19910408 | 112104 | 245 | 287 | 68        | 45 |
| 86 | 62 | TANZANIA             | LAKE NATRON AREA            | 2.3S          | 36.0E         | 2.0S         | 35.8E        | 20 | LO | 250 | N | N | 19910408 | 112235 | 245 | 289 | 62        | 45 |
| 86 | 63 | TANZANIA             | LAKE MANYARA AREA           | 3.8S          | 36.0E         | 3.2S         | 37.8E        | 60 | LO | 250 | N | N | 19910408 | 112312 | 245 | 290 | 60        | 45 |
| 86 | 64 | TANZANIA             | KILIMANJARO CLOUDY          | 3.3S          | 37.0E         | 3.9S         | 39.0E        | 70 | LO | 250 | N | N | 19910408 | 112336 | 245 | 290 | 58        | 45 |
| 86 | 65 | TANZANIA             | KILIMANJARO CLOUDY          | 3.3S          | 37.0E         | 4.1S         | 39.4E        | 70 | LO | 250 | N | N | 19910408 | 112344 | 245 | 290 | 58        | 45 |
| 86 | 66 | KENYA                | MOMBASA AREA, GOOD SHOT     | 4.0S          | 39.5E         | 4.3S         | 39.8E        | 30 | LO | 250 | N | N | 19910408 | 112350 | 245 | 290 | 57        | 45 |
| 86 | 67 | MAURITIUS            |                             | 20.0S         | 57.5E         | 14.3S        | 58.5E        | 70 | LO | 250 | N | N | 19910408 | 112937 | 244 | 289 | 35        | 45 |
| 86 | 68 | MAURITIUS            | CARADOS CARAJOS SHOALS      | 16.7S         | 59.7E         | 15.0S        | 59.9E        | 40 | LO | 250 | N | N | 19910408 | 113003 | 244 | 289 | 34        | 45 |
| 86 | 69 | MAURITIUS            | RODRIGUES                   | 19.7S         | 63.3E         | 16.8S        | 63.8E        | 40 | LO | 250 | N | N | 19910408 | 113112 | 244 | 288 | 29        | 45 |
| 86 | 70 | CAPE VERDE ISLANDS   | SANTO ANTAO & VICENTE       | 17.0N         | 25.2W         | 18.0N        | 25.7W        | 40 | LO | 250 | N | N | 19910408 | 124425 | 247 | 124 | 71        | 46 |
| 86 | 71 | CAPE VERDE ISLANDS   | SAO NICOLAU                 | 16.5N         | 24.4W         | 17.5N        | 24.6W        | 50 | LO | 250 | N | N | 19910408 | 124445 | 247 | 125 | 72        | 46 |
| 86 | 72 | CAPE VERDE ISLANDS   | BOA VISTA & SAL             | 16.6N         | 22.9W         | 17.0N        | 23.3W        | 80 | LO | 250 | N | N | 19910408 | 124507 | 247 | 127 | 74        | 46 |
| 86 | 73 | CAPE VERDE ISLANDS   | BOA VISTA                   | 16.3N         | 23.3W         | 16.9N        | 23.1W        | 40 | LO | 250 | N | N | 19910408 | 124511 | 247 | 127 | 74        | 46 |
| 86 | 74 | CAPE VERDE ISLANDS   | BOA VISTA                   | 16.1N         | 22.8W         | 16.7N        | 22.7W        | 40 | LO | 250 | N | N | 19910408 | 124518 | 247 | 128 | 74        | 46 |
| 86 | 75 | CAPE VERDE ISLANDS   | SANTIAGO & MAIO             | 15.2N         | 23.7W         | 16.5N        | 22.3W        | 40 | LO | 250 | N | N | 19910408 | 124525 | 247 | 128 | 75        | 46 |
| 86 | 76 | SENEGAL              | DAKAR AREA                  | 14.8N         | 17.5W         | 14.6N        | 18.2W        | 0  | LO | 250 | N | N | 19910408 | 124637 | 246 | 136 | 79        | 46 |
| 86 | 77 | SENEGAL              | SALOUW RIVER & DELTA AREA   | 14.3N         | 16.8W         | 14.4N        | 17.7W        | 0  | LO | 250 | N | N | 19910408 | 124646 | 246 | 137 | 80        | 46 |
| 86 | 78 | GAMBIA               | BANJUL AREA, GAMBIA RVR     | 13.5N         | 17.0W         | 14.2N        | 17.2W        | 0  | LO | 250 | N | N | 19910408 | 124655 | 246 | 139 | 80        | 46 |
| 86 | 79 | GAMBIA               | BANJUL AREA, GAMBIA RVR     | 13.5N         | 16.8W         | 14.0N        | 16.9W        | 0  | LO | 250 | N | N | 19910408 | 124700 | 246 | 140 | 81        | 46 |
| 86 | 80 | GAMBIA               | BANJUL AREA, GAMBIA RVR     | 13.2N         | 16.7W         | 13.9N        | 16.6W        | 0  | LO | 250 | N | N | 19910408 | 124705 | 246 | 141 | 81        | 46 |
| 86 | 81 | GAMBIA               | BANJUL AREA, GAMBIA RVR     | 13.4N         | 16.2W         | 13.8N        | 16.5W        | 0  | LO | 250 | N | N | 19910408 | 124708 | 246 | 141 | 81        | 46 |
| 86 | 82 | GAMBIA               | GAMBIA RIVER, INLAND        | 13.5N         | 15.5W         | 13.7N        | 16.3W        | 0  | LO | 250 | N | N | 19910408 | 124712 | 246 | 142 | 81        | 46 |
| 86 | 83 | GAMBIA               | GAMBIA RIVER, INLAND        | 13.7N         | 15.0W         | 13.6N        | 16.0W        | 0  | LO | 250 | N | N | 19910408 | 124717 | 246 | 143 | 82        | 46 |
| 86 | 84 | GAMBIA               | GAMBIA RIVER, BANJUL AREA   | 13.3N         | 16.6W         | 12.7N        | 14.3W        | 0  | LO | 250 | N | N | 19910408 | 124748 | 246 | 152 | 83        | 46 |
| 86 | 85 | GUINEA BISSAU        | ARCHIPELAGO DOS BIJAGOSA    | 11.4N         | 15.9W         | 12.4N        | 13.6W        | 0  | LO | 250 | N | N | 19910408 | 124800 | 246 | 157 | 84        | 46 |
| 86 | 86 | GUINEA BISSAU        | CANAL DO GEBIA              | 11.8N         | 15.0W         | 12.3N        | 13.4W        | 0  | LO | 250 | N | N | 19910408 | 124804 | 246 | 159 | 84        | 46 |
| 86 | 87 | GUINEA               | N. CENTRAL, SUNGLINT RIVERS |               |               | 12.0N        | 12.9W        | 0  | LO | 250 | N | N | 19910408 | 124813 | 246 | 164 | 84        | 46 |
| 86 | 88 | GUINEA               | UNIDENTIFIED RESERVOIR      |               |               | 11.5N        | 12.0W        | 0  | LO | 250 | N | N | 19910408 | 124829 | 246 | 174 | 85        | 46 |
| 86 | 89 | GUINEA               | INLAND AREA                 |               |               | 11.2N        | 11.3W        | 0  | LO | 250 | N | N | 19910408 | 124843 | 246 | 185 | 85        | 46 |
| 86 | 90 | GUINEA               | NIGER RIVER                 | 11.0N         | 9.0W          | 10.5N        | 10.0W        | 0  | LO | 250 | N | N | 19910408 | 124906 | 246 | 206 | 86        | 46 |
| 86 | 91 | GUINEA               | NIGER RIVER AREA/TRIBUTY    |               |               | 10.3N        | 9.7W         | 20 | LO | 250 | N | N | 19910408 | 124912 | 246 | 212 | 86        | 46 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | LONG   | NADIR<br>LAT | LONG   | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|---------------------------|---------------|--------|--------------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 86 | 92  | ZAIRE           | LAC UPEMBA AREA           | 8.5S          | 26.5E  | 9.5S         | 25.2E  | 50 | LO | 250 | N | N | 19910408 | 130013 | 245 | 291 | 47        | 46 |
| 86 | 93  | ZAIRE           | LAKE MMERU AREA           | 9.0S          | 28.7E  | 10.2S        | 26.4E  | 50 | LO | 250 | N | N | 19910408 | 130037 | 245 | 291 | 45        | 46 |
| 86 | 94  | ZAIRE           | LAKE TANGANYIKA           |               |        | 11.1S        | 28.1E  | 80 | LO | 250 | N | N | 19910408 | 130108 | 245 | 291 | 43        | 46 |
| 86 | 95  | ZAIRE           | LAKE TANGANYIKA           |               |        | 11.2S        | 28.3E  | 80 | LO | 250 | N | N | 19910408 | 130111 | 245 | 291 | 43        | 46 |
| 86 | 96  | MEXICO          | MONTERREY AREA            | 25.8N         | 100.4W | 28.5N        | 98.5W  | 10 | LO | 250 | N | N | 19910408 | 140514 | 247 | 94  | 22        | 47 |
| 86 | 97  | MEXICO          | AREA E. OF MONTERREY      | 25.8N         | 99.7W  | 28.5N        | 97.2W  | 70 | LO | 250 | N | N | 19910408 | 140533 | 247 | 95  | 24        | 47 |
| 86 | 98  | MEXICO          | AREA E. OF MONTERREY      |               |        | 28.5N        | 95.7W  | 95 | LO | 250 | N | N | 19910408 | 140555 | 247 | 95  | 25        | 47 |
| 86 | 99  | MEXICO          | AREA N. OF MONTERREY      |               |        | 28.4N        | 95.3W  | 70 | LO | 250 | N | N | 19910408 | 140601 | 247 | 96  | 25        | 47 |
| 86 | 100 | BRAZIL          | AMAZON RIVER, SEDIMENT    |               |        | 6.2N         | 50.0W  | 90 | LO | 250 | N | N | 19910408 | 155828 | 246 | 276 | 80        | 48 |
| 86 | 101 | BRAZIL          | AMAZON RIVER, SEDIMENT    |               |        | 5.4N         | 48.7W  | 90 | LO | 250 | N | N | 19910408 | 155853 | 246 | 279 | 79        | 48 |
| 86 | 102 | BRAZIL          | TREWARTHA'S HUMP AREA     | 5.5S          | 35.3W  | 3.7S         | 32.9W  | 40 | LO | 250 | N | N | 19910408 | 160355 | 245 | 291 | 60        | 48 |
| 86 | 103 | BRAZIL          | JOAO PESSOA AREA          | 6.8S          | 34.9W  | 5.6S         | 29.6W  | 60 | LO | 250 | N | N | 19910408 | 160458 | 245 | 292 | 56        | 48 |
| 86 | 104 | NAMIBIA         | NAMIB DESERT, LOW SUN ANG | 26.3S         | 15.4E  | 24.8S        | 15.3E  | 0  | LO | 250 | N | N | 19910408 | 161757 | 245 | 281 | 6         | 48 |
| 86 | 105 | NAMIBIA         | NAMIB DESERT, LOW SUN ANG | 25.5S         | 15.3E  | 24.9S        | 15.6E  | 0  | LO | 250 | N | N | 19910408 | 161801 | 245 | 280 | 6         | 48 |
| 86 | 106 | NAMIBIA         | NAMIB DESERT, LOW SUN ANG | 24.7S         | 15.6E  | 25.1S        | 16.6E  | 0  | LO | 250 | N | N | 19910408 | 161816 | 245 | 280 | 5         | 48 |
| 86 | 107 | NAMIBIA         | NAMIB DESERT, LOW SUN ANG | 23.4S         | 14.9E  | 25.3S        | 17.4E  | 0  | LO | 250 | N | N | 19910408 | 161828 | 245 | 280 | 4         | 48 |
| 86 | 108 | MEXICO          | SO. TIP BAJA              | 23.5N         | 110.0W | 22.7N        | 109.9W | 0  | LO | 250 | N | N | 19910408 | 172120 | 247 | 113 | 57        | 49 |
| 86 | 109 | MEXICO          | SO. BAJA                  | 23.8N         | 110.2W | 22.6N        | 109.6W | 0  | LO | 250 | N | N | 19910408 | 172125 | 247 | 113 | 57        | 49 |
| 87 | 1   | GHANA           | ACCRA, COAST              | 5.0N          | 0.0    | 4.1N         | 3.4E   | 30 | LO | 250 | U | U | 19910409 | 121412 | 246 | 298 | 82        | 61 |
| 87 | 2   | AFRICA          | COAST, CLOUDS, DARK       |               |        | 3.8N         | 3.9E   | 40 | LO | 250 | U | U | 19910409 | 121420 | 246 | 298 | 82        | 61 |
| 87 | 3   | GABON           | CLOUDS                    |               |        | 0.1S         | 10.6E  | 85 | LO | 250 | N | N | 19910409 | 121630 | 246 | 298 | 73        | 61 |
| 87 | 4   | GABON           | CLOUDS                    |               |        | 0.2S         | 10.8E  | 90 | LO | 250 | N | N | 19910409 | 121633 | 246 | 298 | 73        | 61 |
| 87 | 5   | GABON           | COAST, SWAMP, LAGOONS     | 1.8S          | 9.0E   | 0.5S         | 11.3E  | 60 | LO | 250 | N | Y | 19910409 | 121643 | 246 | 298 | 73        | 61 |
| 87 | 6   | GABON           | COAST, LAGOONS            | 2.3S          | 9.4E   | 0.6S         | 11.5E  | 40 | LO | 250 | U | Y | 19910409 | 121646 | 246 | 298 | 72        | 61 |
| 87 | 7   | GABON           | COAST, LAGOONS            | 2.9S          | 9.9E   | 0.7S         | 11.6E  | 50 | LO | 250 | U | Y | 19910409 | 121649 | 246 | 298 | 72        | 61 |
| 87 | 8   | GABON           | COAST, LAGOON, NYANGO R.  | 3.5S          | 10.9E  | 0.8S         | 11.8E  | 50 | LO | 250 | N | Y | 19910409 | 121652 | 246 | 298 | 72        | 61 |
| 87 | 9   | CONGO           | COAST                     | 4.0S          | 11.3E  | 1.0S         | 12.1E  | 50 | LO | 250 | U | Y | 19910409 | 121657 | 246 | 298 | 72        | 61 |
| 87 | 10  | GABON           | NGOUNIE RIVER             | 1.6S          | 10.8E  | 1.4S         | 12.8E  | 85 | LO | 250 | U | Y | 19910409 | 121711 | 246 | 298 | 71        | 61 |
| 87 | 11  | GABON           | NGOUNIE RIVER             | 1.9S          | 11.0E  | 1.5S         | 12.9E  | 85 | LO | 250 | U | Y | 19910409 | 121714 | 246 | 298 | 71        | 61 |
| 87 | 12  | GABON           | RIVER, CLOUDS             |               |        | 1.5S         | 13.0E  | 85 | LO | 250 | U | Y | 19910409 | 121716 | 246 | 298 | 70        | 61 |
| 87 | 13  | GABON           | CLOUDS, HILLS             |               |        | 1.7S         | 13.2E  | 90 | LO | 250 | U | Y | 19910409 | 121720 | 246 | 298 | 70        | 61 |
| 87 | 14  | CONGO           | CLOUDS, HILLS             |               |        | 2.1S         | 13.9E  | 90 | LO | 250 | U | Y | 19910409 | 121733 | 246 | 298 | 69        | 61 |
| 87 | 15  | CONGO           | COAST, POINTE-NOIRE       | 4.7S          | 12.0E  | 2.2S         | 14.1E  | 60 | LO | 250 | U | Y | 19910409 | 121736 | 246 | 298 | 69        | 61 |
| 87 | 16  | GABON           | IVINDO R. OGOQUE R.       | 0.2N          | 12.4E  | 2.5S         | 14.7E  | 85 | LO | 250 | N | N | 19910409 | 121747 | 246 | 298 | 68        | 61 |
| 87 | 17  | CONGO           | CONGO RIVER               | 2.7S          | 16.1E  | 2.8S         | 15.1E  | 80 | LO | 250 | N | Y | 19910409 | 121756 | 246 | 298 | 68        | 61 |
| 87 | 18  | CONGO           | CONGO RIVER, KWA RIVER    | 3.2S          | 16.1E  | 2.9S         | 15.3E  | 80 | LO | 250 | N | Y | 19910409 | 121800 | 246 | 298 | 68        | 61 |
| 87 | 19  | CONGO           | CONGO RIVER               | 3.5S          | 16.0E  | 3.0S         | 15.5E  | 80 | LO | 250 | N | Y | 19910409 | 121803 | 246 | 298 | 67        | 61 |
| 87 | 20  | ZAIRE           | KINSHASA, BRAZZAVILLE     | 4.1S          | 15.7E  | 3.1S         | 15.7E  | 75 | LO | 250 | N | Y | 19910409 | 121806 | 246 | 298 | 67        | 61 |
| 87 | 21  | CONGO           | KINSHASA, BRAZZAVILLE     | 4.4S          | 15.1E  | 3.2S         | 15.9E  | 85 | LO | 250 | N | Y | 19910409 | 121811 | 246 | 298 | 67        | 61 |
| 87 | 22  | CONGO           | CONGO RIVER               | 4.7S          | 14.7E  | 3.3S         | 16.1E  | 85 | LO | 250 | U | Y | 19910409 | 121814 | 246 | 298 | 67        | 61 |

TABLE 4.3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|----------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 87 | 23 | ZAIRE           | CONGO RIVER/ESTUARY, CST   | 6.0S          | 12.5E         | 3.7S         | 16.8E        | 75 | LO | 250 | U | N | 19910409 | 121828 | 246 | 298 | 68        | 61 |
| 87 | 24 | ZAIRE           | CONGO RIVER, KWA RIVER     | 3.2S          | 16.2E         | 3.9S         | 17.1E        | 85 | NV | 250 | N | Y | 19910409 | 121834 | 246 | 298 | 65        | 61 |
| 87 | 25 | ZAIRE           | KWA RIVER, FIMI RIVER      | 3.1S          | 16.8E         | 4.0S         | 17.3E        | 85 | NV | 250 | U | Y | 19910409 | 121837 | 246 | 298 | 65        | 61 |
| 87 | 26 | ZAIRE           | KWA R, FIMI R, BANDUNDU    | 3.3S          | 17.3E         | 4.1S         | 17.4E        | 85 | LO | 250 | U | Y | 19910409 | 121840 | 246 | 298 | 65        | 61 |
| 87 | 27 | ZAIRE           | KASAI RIVER, RAINFOREST    | 3.5S          | 18.1E         | 4.2S         | 17.6E        | 85 | LO | 250 | U | Y | 19910409 | 121843 | 246 | 298 | 65        | 61 |
| 87 | 28 | ZAIRE           | KASAI RIVER, RAINFOREST    | 3.6S          | 18.6E         | 4.3S         | 17.8E        | 85 | LO | 250 | U | Y | 19910409 | 121847 | 246 | 298 | 65        | 61 |
| 87 | 29 | ZAIRE           | KWANGO R, WAMBA R, RNFRST  | 4.1S          | 17.1E         | 4.8S         | 18.7E        | 80 | LO | 250 | N | N | 19910409 | 121904 | 246 | 298 | 64        | 61 |
| 87 | 30 | ZAIRE           | DIBAYA-IUBWE, KASAI R.     | 4.4S          | 18.1E         | 5.4S         | 19.7E        | 30 | LO | 250 | N | Y | 19910409 | 121923 | 246 | 297 | 62        | 61 |
| 87 | 31 | ZAIRE           | PORT FRANQUET, KASAI R.    | 4.5S          | 20.6E         | 5.5S         | 19.8E        | 30 | LO | 250 | N | Y | 19910409 | 121926 | 246 | 297 | 62        | 61 |
| 87 | 32 | ZAIRE           | KASAI R, LULUA R, RNFRST   | 5.0S          | 21.0E         | 5.6S         | 20.1E        | 30 | LO | 250 | N | Y | 19910409 | 121930 | 246 | 297 | 62        | 61 |
| 87 | 33 | ZAIRE           | KASAI R, HILLS, RAINFOREST | 5.8S          | 21.1E         | 5.7S         | 20.2E        | 30 | LO | 250 | N | Y | 19910409 | 121933 | 246 | 297 | 62        | 61 |
| 87 | 34 | ZAIRE           | LULUA R, LUEBO R.          | 5.6S          | 21.6E         | 5.8S         | 20.5E        | 30 | LO | 250 | N | Y | 19910409 | 121938 | 246 | 297 | 61        | 61 |
| 87 | 35 | ZAIRE           | SANKURU RIVER, DARK        | 3.8S          | 21.7E         | 6.3S         | 21.3E        | 80 | LO | 250 | U | Y | 19910409 | 121953 | 246 | 297 | 60        | 61 |
| 87 | 36 | ZAIRE           | DARK                       |               |               | 6.8S         | 22.2E        | 80 | LO | 250 | U | Y | 19910409 | 122010 | 246 | 297 | 59        | 61 |
| 87 | 37 | ZAIRE           | SANKURU RIVER, DARK        | 4.0S          | 21.6E         | 7.0S         | 22.5E        | 80 | LO | 250 | U | Y | 19910409 | 122017 | 246 | 297 | 59        | 61 |
| 87 | 38 | NAMIBIA         | ETOSHA PAN, RIO CUBANGO    | 18.8S         | 16.6E         | 10.7S        | 29.2E        | 15 | HO | 250 | N | N | 19910409 | 122222 | 245 | 296 | 51        | 61 |
| 87 | 39 | ZAMBIA          | ZAMBEZI R/TRIBUTARIES      | 15.8S         | 26.0E         | 11.1S        | 30.0E        | 15 | LO | 250 | N | N | 19910409 | 122236 | 245 | 296 | 50        | 61 |
| 87 | 40 | ZAMBIA          | ZAMBEZI R/TRIBUTARIES      | 16.7S         | 24.2E         | 11.2S        | 30.3E        | 10 | LO | 250 | N | N | 19910409 | 122242 | 245 | 296 | 50        | 61 |
| 87 | 41 | BOTSWANA        | MAKGADIKGADI SALT PANS     | 21.0S         | 25.0E         | 11.5S        | 30.9E        | 0  | HO | 250 | N | N | 19910409 | 122252 | 245 | 296 | 49        | 61 |
| 87 | 42 | ZAMBIA          | LAKE KARIBA, HILLS         | 17.5S         | 27.3E         | 11.7S        | 31.2E        | 10 | LO | 250 | N | Y | 19910409 | 122259 | 245 | 296 | 49        | 61 |
| 87 | 43 | ZAMBIA          | LAKE KARIBA, HILLS         | 17.6S         | 27.5E         | 12.2S        | 32.2E        | 10 | LO | 250 | N | Y | 19910409 | 122316 | 245 | 295 | 47        | 61 |
| 87 | 44 | ZIMBABWE        | NATA R, SUA PAN            | 19.8S         | 27.4E         | 12.8S        | 33.4E        | 5  | LO | 250 | N | N | 19910409 | 122338 | 245 | 295 | 46        | 61 |
| 87 | 45 | MALAWI          | LAKE CHILWA                | 15.3S         | 35.7E         | 14.2S        | 36.1E        | 70 | LO | 250 | U | Y | 19910409 | 122428 | 245 | 294 | 43        | 61 |
| 87 | 46 | MALAWI          | LAKE CHILWA                | 15.8S         | 35.7E         | 14.6S        | 37.0E        | 70 | LO | 250 | U | Y | 19910409 | 122443 | 245 | 294 | 42        | 61 |
| 87 | 47 | MALAWI          | LAKE CHILWA                | 15.5S         | 35.8E         | 15.4S        | 38.8E        | 70 | LO | 250 | N | N | 19910409 | 122516 | 245 | 294 | 40        | 61 |
| 87 | 48 | MOZAMBIQUE      | COAST, RIVER EFFLUENT      | 17.8S         | 37.4E         | 18.1S        | 40.3E        | 80 | LO | 250 | N | N | 19910409 | 122541 | 245 | 293 | 38        | 61 |
| 87 | 49 | MOZAMBIQUE      | COAST, ATOLLS              | 17.3S         | 38.5E         | 16.2S        | 40.4E        | 60 | LO | 250 | N | N | 19910409 | 122544 | 245 | 293 | 38        | 61 |
| 87 | 50 | MOZAMBIQUE      | COAST, ATOLLS              | 17.2S         | 39.2E         | 16.3S        | 40.7E        | 60 | LO | 250 | N | N | 19910409 | 122549 | 245 | 293 | 38        | 61 |
| 87 | 51 | MOZAMBIQUE      | COAST, ATOLLS              | 16.8S         | 39.5E         | 16.4S        | 40.9E        | 70 | LO | 250 | N | N | 19910409 | 122553 | 245 | 293 | 37        | 61 |
| 87 | 52 | MADAGASCAR      | TSIRIBITHINA R/DELTA, CST  | 19.8S         | 44.3E         | 18.1S        | 44.8E        | 85 | LO | 250 | U | N | 19910409 | 122700 | 245 | 292 | 33        | 61 |
| 87 | 53 | MADAGASCAR      | MAHARIVO R/MOUTH, COAST    | 20.5S         | 44.5E         | 18.1S        | 45.0E        | 70 | LO | 250 | U | N | 19910409 | 122703 | 245 | 292 | 33        | 61 |
| 87 | 54 | MADAGASCAR      | RIVERS, COAST              | 21.3S         | 43.9E         | 18.2S        | 45.2E        | 50 | LO | 250 | N | N | 19910409 | 122707 | 245 | 292 | 33        | 61 |
| 87 | 55 | MADAGASCAR      | COASTAL PLAIN              | 21.5S         | 44.2E         | 18.3S        | 45.4E        | 45 | LO | 250 | N | Y | 19910409 | 122711 | 245 | 292 | 32        | 61 |
| 87 | 56 | MADAGASCAR      | MAHARIVO R, COASTAL PLAIN  | 20.8S         | 44.7E         | 18.4S        | 45.6E        | 60 | LO | 250 | N | Y | 19910409 | 122714 | 245 | 292 | 32        | 61 |
| 87 | 57 | MADAGASCAR      | COASTAL PLAIN, HILLS       | 20.4S         | 45.2E         | 18.5S        | 45.8E        | 60 | LO | 250 | N | Y | 19910409 | 122717 | 245 | 292 | 32        | 61 |
| 87 | 58 | MADAGASCAR      | SAKENY R, TSIRIBITHINA R.  | 20.0S         | 45.5E         | 18.5S        | 46.0E        | 40 | LO | 250 | N | Y | 19910409 | 122720 | 245 | 292 | 32        | 61 |
| 87 | 59 | MADAGASCAR      | MOUNTAINS                  |               |               | 18.8S        | 46.5E        | 85 | LO | 250 | N | Y | 19910409 | 122730 | 245 | 291 | 31        | 61 |
| 87 | 60 | MADAGASCAR      | MOUNTAINS                  |               |               | 18.9S        | 46.7E        | 80 | LO | 250 | N | Y | 19910409 | 122733 | 245 | 291 | 31        | 61 |
| 87 | 61 | MADAGASCAR      | MOUNTAINS                  |               |               | 18.9S        | 46.9E        | 85 | LO | 250 | N | Y | 19910409 | 122736 | 245 | 291 | 31        | 61 |
| 87 | 62 | MADAGASCAR      | MOUNTAINS, CLOUDS          |               |               | 19.1S        | 47.3E        | 90 | LO | 250 | N | N | 19910409 | 122742 | 245 | 291 | 30        | 61 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME    | FEATURE                    | CENTER LAT | CENTER LON | MADIR LAT | MADIR LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN EL | OR |
|----|-----|--------------------|----------------------------|------------|------------|-----------|-----------|----|----|-----|---|---|----------|--------|-----|-----|--------|----|
| 87 | 63  | MADAGASCAR         | MOUNTAINS, WEST CST. CLDS  | 17.9S      | 49.3E      | 19.4S     | 48.0E     | 85 | LO | 250 | N | Y | 19910409 | 122755 | 245 | 291 | 30     | 61 |
| 87 | 64  | MADAGASCAR         | MOUNTAINS, WEST CST. CLDS  | 18.4S      | 49.2E      | 19.4S     | 48.2E     | 90 | LO | 250 | N | Y | 19910409 | 122758 | 245 | 291 | 29     | 61 |
| 87 | 65  | MADAGASCAR         | WEST COAST, CLOUDS         | 19.0S      | 49.0E      | 19.5S     | 48.4E     | 75 | LO | 250 | N | Y | 19910409 | 122802 | 245 | 291 | 29     | 61 |
| 87 | 66  | MADAGASCAR         | WEST COAST, CLOUDS         | 19.5S      | 48.8E      | 19.6S     | 48.6E     | 75 | LO | 250 | N | Y | 19910409 | 122805 | 245 | 291 | 29     | 61 |
| 87 | 67  | MADAGASCAR         | WEST COAST, CLOUDS         | 20.1S      | 48.6E      | 19.7S     | 48.8E     | 80 | LO | 250 | N | Y | 19910409 | 122808 | 245 | 291 | 29     | 61 |
| 87 | 68  | REUNION            | CLOUD COVERED              | 21.2S      | 55.6E      | 21.9S     | 55.1E     | 50 | LO | 250 | N | Y | 19910409 | 122952 | 245 | 288 | 22     | 61 |
| 87 | 69  | MAURITIUS          | CLOUD COVERED, DARK        | 20.4S      | 57.5E      | 22.2S     | 55.8E     | 50 | LO | 250 | N | Y | 19910409 | 123004 | 245 | 288 | 21     | 61 |
| 87 | 70  | HAITI              | TORTUE I., NORTH SIDE      | 19.4N      | 72.8W      | 4.7N      | 18.4W     | 40 | LO | 250 | U | Y | 19910409 | 133344 | 245 | 103 | 43     | 62 |
| 87 | 71  | DOMINICAN REPUBLIC | CORD. CENTRAL, NORTH SIDE  | 19.2N      | 71.3W      | 4.7N      | 18.5W     | 40 | LO | 250 | U | Y | 19910409 | 133347 | 245 | 104 | 43     | 62 |
| 87 | 72  | DOMINICAN REPUBLIC | CORD. CENTRAL, NORTH SIDE  | 19.3N      | 71.0W      | 4.7N      | 18.6W     | 60 | LO | 250 | U | N | 19910409 | 133350 | 245 | 104 | 43     | 62 |
| 87 | 73  | DOMINICAN REPUBLIC | SANTO DOMINGO, SOUTH SIDE  | 18.7N      | 69.8W      | 4.8N      | 18.7W     | 70 | LO | 250 | U | N | 19910409 | 133354 | 245 | 104 | 44     | 62 |
| 87 | 74  | DOMINICAN REPUBLIC | EAST END                   | 19.0N      | 69.0W      | 4.8N      | 18.9W     | 75 | LO | 250 | U | N | 19910409 | 133359 | 245 | 104 | 44     | 62 |
| 87 | 75  | PUERTO RICO        | CLOUD COVERED, DARK        | 18.0N      | 66.5W      | 4.9N      | 19.2W     | 70 | LO | 250 | U | N | 19910409 | 133409 | 245 | 104 | 45     | 62 |
| 87 | 76  | LESSER ANTILLES    | ANGUILLA, DARK             | 18.0N      | 63.5W      | 5.0N      | 19.4W     | 70 | LO | 250 | U | N | 19910409 | 133415 | 245 | 104 | 45     | 62 |
| 87 | 77  | LESSER ANTILLES    | BARBUDA, ANTUGUA, DARK     | 17.1N      | 61.8W      | 6.2N      | 22.5W     | 50 | LO | 250 | U | N | 19910409 | 133552 | 245 | 107 | 51     | 62 |
| 87 | 78  | LESSER ANTILLES    | ANGUILLA, SAINT MARTIN, DK | 18.0N      | 62.5W      | 6.3N      | 22.6W     | 50 | LO | 250 | U | N | 19910409 | 133557 | 245 | 107 | 52     | 62 |
| 87 | 79  | ANGOLA             | COAST, LOBITO, DARK        | 12.5S      | 13.5E      | 12.7S     | 9.3E      | 15 | LO | 250 | U | Y | 19910409 | 135658 | 245 | 296 | 47     | 62 |
| 87 | 80  | ANGOLA             | COAST, DARK                | 13.0S      | 13.3E      | 12.7S     | 9.4E      | 5  | LO | 250 | U | Y | 19910409 | 135700 | 245 | 296 | 47     | 62 |
| 87 | 81  | ANGOLA             | INTERIOR, DARK             |            |            |           |           | 0  | LO | 250 | U | N | 19910409 | 135703 | 245 | 296 | 46     | 62 |
| 87 | 82  | ANGOLA             | INTERIOR                   | 14.5S      | 12.5E      | 12.9S     | 9.7E      | 0  | LO | 250 | N | Y | 19910409 | 135708 | 245 | 295 | 46     | 62 |
| 87 | 83  | ANGOLA             | COAST, MOCAMEDES           | 15.0S      | 12.5E      | 13.0S     | 9.9E      | 0  | LO | 250 | N | Y | 19910409 | 135710 | 245 | 295 | 46     | 62 |
| 87 | 84  | ANGOLA             | COAST, RIO COROCA,         | 15.8S      | 12.3E      | 13.1S     | 10.0E     | 0  | LO | 250 | N | Y | 19910409 | 135712 | 245 | 295 | 46     | 62 |
| 87 | 85  | NAMIBIA            | INTERIOR, DARK             |            |            |           |           | 0  | LO | 250 | U | N | 19910409 | 135723 | 245 | 295 | 45     | 62 |
| 87 | 86  | NAMIBIA            | EKUMA WADI, SALT PAN FLD   | 17.5S      | 16.0E      | 14.4S     | 12.8E     | 0  | LO | 250 | U | N | 19910409 | 135801 | 244 | 295 | 43     | 62 |
| 87 | 87  | NAMIBIA            | EKUMA WADI, SALT PAN FLD   | 18.0S      | 15.5E      | 14.5S     | 13.0E     | 0  | LO | 250 | U | N | 19910409 | 135805 | 244 | 295 | 42     | 62 |
| 87 | 88  | NAMIBIA            | RIO CUBANGO, KALAHARI DES  | 17.8S      | 18.5E      | 14.6S     | 13.1E     | 0  | LO | 250 | U | N | 19910409 | 135808 | 244 | 295 | 42     | 62 |
| 87 | 89  | ANGOLA             | INTERIOR, DARK             |            |            |           |           | 0  | LO | 250 | U | N | 19910409 | 135827 | 244 | 294 | 41     | 62 |
| 87 | 90  | NAMIBIA            | RIO CUBANGO, KALAHARI DES  | 18.6S      | 19.9E      | 15.2S     | 14.5E     | 0  | LO | 250 | U | N | 19910409 | 135833 | 244 | 294 | 41     | 62 |
| 87 | 91  | ANGOLA             | INTERIOR, DARK             |            |            |           |           | 20 | LO | 250 | U | N | 19910409 | 135840 | 244 | 294 | 40     | 62 |
| 87 | 92  | ANGOLA             | INTERIOR, DARK             |            |            |           |           | 30 | LO | 250 | U | N | 19910409 | 135905 | 244 | 294 | 39     | 62 |
| 87 | 93  | ANGOLA             | INTERIOR, DARK             |            |            |           |           | 0  | LO | 250 | U | N | 19910409 | 135909 | 244 | 294 | 38     | 62 |
| 87 | 94  | BOTSWANA           | OKAVANGO DELTA/SWAMP       | 19.5S      | 23.0E      | 16.3S     | 16.9E     | 0  | LO | 250 | U | N | 19910409 | 135915 | 244 | 293 | 38     | 62 |
| 87 | 95  | BOTSWANA           | INTERIOR, DARK             |            |            |           |           | 0  | LO | 250 | U | N | 19910409 | 135920 | 244 | 293 | 38     | 62 |
| 87 | 96  | BOTSWANA           | MAKGADIKGADI SALT PANS     | 20.0S      | 23.5E      | 16.6S     | 17.6E     | 0  | LO | 250 | U | Y | 19910409 | 135927 | 244 | 293 | 37     | 62 |
| 87 | 97  | BOTSWANA           | NTWETWE SALT PAN, DARK     | 21.0S      | 25.0E      | 16.9S     | 18.2E     | 5  | LO | 250 | U | Y | 19910409 | 135938 | 244 | 293 | 36     | 62 |
| 87 | 98  | BOTSWANA           | SUA SALT PAN, DARK         | 20.0S      | 26.0E      | 17.0S     | 18.5E     | 5  | LO | 250 | U | Y | 19910409 | 135943 | 244 | 293 | 36     | 62 |
| 87 | 99  | ZIMBABWE           | L. KARIBA, PANORAMA SE     | 19.0S      | 31.0E      | 17.2S     | 18.9E     | 25 | HO | 250 | U | N | 19910409 | 135949 | 244 | 293 | 35     | 62 |
| 87 | 100 | BOTSWANA           | MAKGADIKGADI SALT PANS     | 22.0S      | 26.0E      | 17.4S     | 19.3E     | 0  | LO | 250 | U | N | 19910409 | 135956 | 244 | 293 | 35     | 62 |
| 87 | 101 | ZIMBABWE           | MATABE HILLS, PANORAMA SE  | 21.0S      | 30.0E      | 17.5S     | 19.5E     | 50 | HO | 250 | U | N | 19910409 | 140000 | 244 | 293 | 35     | 62 |
| 87 | 102 | ZIMBABWE           | MASHABA MTNS, PANORAMA SE  | 20.0S      | 31.0E      | 17.6S     | 19.9E     | 50 | HO | 250 | U | N | 19910409 | 140007 | 244 | 293 | 35     | 62 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME       | FEATURE                    | CENTER<br>LAT | LOW    | NADIR<br>LAT | LOW    | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------------|----------------------------|---------------|--------|--------------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 87 | 103 | BOTSWANA              | LIMPOPO R. PANORAMA SE.    | 22.0S         | 25.5E  | 17.8S        | 20.2E  | 25 | H0 | 250 | U | N | 19910409 | 140012 | 244 | 292 | 34        | 62 |
| 87 | 104 | BOTSWANA              | MAKGADIKGADI SALT PANS     | 19.8S         | 26.2E  | 18.0S        | 20.8E  | 0  | L0 | 250 | U | N | 19910409 | 140023 | 244 | 292 | 34        | 62 |
| 87 | 105 | BOTSWANA              | HILLS, PRAIRIE, PANOR. SE  | 18.3S         | 21.4E  | 18.1S        | 21.0E  | 0  | L0 | 250 | U | N | 19910409 | 140028 | 244 | 292 | 33        | 62 |
| 87 | 106 | ZIMBABWE              | HILLS, PRAIRIE, PANOR. SE  | 18.3S         | 21.4E  | 18.3S        | 21.4E  | 0  | L0 | 250 | U | N | 19910409 | 140032 | 244 | 292 | 33        | 62 |
| 87 | 107 | BOTSWANA              | EASTERN PRAIRIE            | 18.4S         | 21.8E  | 18.4S        | 21.8E  | 5  | L0 | 250 | U | N | 19910409 | 140040 | 244 | 292 | 33        | 62 |
| 87 | 108 | BOTSWANA              | EASTERN PRAIRIE            | 18.5S         | 22.1E  | 18.5S        | 22.1E  | 20 | L0 | 250 | U | N | 19910409 | 140044 | 244 | 292 | 32        | 62 |
| 87 | 109 | ZIMBABWE              | MASHABA MTHS, DARK         | 20.0S         | 30.0E  | 18.7S        | 22.4E  | 25 | L0 | 250 | U | N | 19910409 | 140050 | 244 | 292 | 32        | 62 |
| 87 | 110 | BOTSWANA              | EASTERN PRAIRIE, DARK      | 18.8S         | 22.8E  | 18.8S        | 22.8E  | 30 | L0 | 250 | U | N | 19910409 | 140057 | 244 | 292 | 31        | 62 |
| 87 | 111 | BOTSWANA              | EASTERN PRAIRIE, DARK      | 19.1S         | 23.5E  | 19.1S        | 23.5E  | 30 | L0 | 250 | U | N | 19910409 | 140108 | 244 | 291 | 31        | 62 |
| 87 | 112 | BOTSWANA              | EASTERN PRAIRIE, DARK      | 19.2S         | 23.8E  | 19.2S        | 23.8E  | 50 | L0 | 250 | U | N | 19910409 | 140114 | 244 | 291 | 30        | 62 |
| 87 | 113 | REPUBLIC SOUTH AFRICA | LIMPOPO R./VALLEY, DARK    | 19.6S         | 24.7E  | 19.6S        | 24.7E  | 60 | H0 | 250 | U | N | 19910409 | 140128 | 244 | 291 | 29        | 62 |
| 87 | 114 | ZIMBABWE              | EASTERN HIGHLANDS, V. DARK | 20.0S         | 25.7E  | 20.0S        | 25.7E  | 80 | L0 | 250 | U | N | 19910409 | 140145 | 244 | 291 | 28        | 62 |
| 87 | 115 | ZIMBABWE              | VERY DARK                  | 20.4S         | 26.8E  | 20.4S        | 26.8E  | 30 | L0 | 250 | U | N | 19910409 | 140204 | 244 | 290 | 27        | 62 |
| 87 | 116 | ZIMBABWE              | VERY DARK, HIGHLANDS       | 21.3S         | 29.2E  | 21.3S        | 29.2E  | 20 | L0 | 250 | U | N | 19910409 | 140244 | 244 | 289 | 25        | 62 |
| 87 | 117 | ZIMBABWE              | VERY DARK, HIGHLANDS       | 21.7S         | 30.4E  | 21.7S        | 30.4E  | 70 | L0 | 250 | U | N | 19910409 | 140304 | 244 | 289 | 23        | 62 |
| 87 | 118 | MOZAMBIQUE            | VERY DARK                  | 22.6S         | 33.3E  | 22.6S        | 33.3E  | 10 | L0 | 250 | U | N | 19910409 | 140350 | 244 | 288 | 20        | 62 |
| 87 | 119 | MOZAMBIQUE            | COAST, SE PANORAMA, DARK   | 22.8S         | 33.9E  | 22.8S        | 33.9E  | 10 | H0 | 250 | U | N | 19910409 | 140400 | 244 | 287 | 20        | 62 |
| 87 | 120 | MOZAMBIQUE            | COAST, VERY DARK           | 23.8S         | 37.6E  | 23.8S        | 37.6E  | 0  | L0 | 250 | U | N | 19910409 | 140459 | 244 | 286 | 18        | 62 |
| 87 | 121 | USA-CA                | CHANNEL IS. PT. CONCEPCION | 35.0N         | 120.0W | 28.3N        | 114.9W | 15 | H0 | 250 | U | N | 19910409 | 150122 | 244 | 92  | 21        | 63 |
| 87 | 122 | USA-CA                | LOS ANGELES, MOJAVE DES.   | 33.5N         | 117.5W | 28.3N        | 114.7W | 0  | L0 | 250 | U | N | 19910409 | 150125 | 244 | 92  | 21        | 63 |
| 87 | 123 | USA-CA                | SAN DIEGO, COAST           | 33.0N         | 116.5W | 28.3N        | 114.5W | 0  | L0 | 250 | U | N | 19910409 | 150128 | 244 | 92  | 21        | 63 |
| 87 | 124 | USA-CA                | SALTON SEA, IMPERIAL VAL.  | 33.0N         | 116.0W | 28.3N        | 114.2W | 0  | L0 | 250 | U | N | 19910409 | 150131 | 244 | 93  | 21        | 63 |
| 88 | 1   | CHAD                  | DESERT, SAND STORM         | 19.2N         | 21.1E  | 19.2N        | 21.1E  | 0  | L0 | 250 | N | N | 19910409 | 085815 | 246 | 112 | 63        | 59 |
| 88 | 2   | CHAD                  | DESERT, SAND STORM         | 19.2N         | 21.2E  | 19.2N        | 21.2E  | 0  | L0 | 250 | N | N | 19910409 | 085817 | 246 | 112 | 63        | 59 |
| 88 | 3   | CHAD                  | SAND STORM, LINEAR OUTCR.  | 19.1N         | 21.4E  | 19.1N        | 21.4E  | 0  | L0 | 250 | N | N | 19910409 | 085820 | 246 | 112 | 63        | 59 |
| 88 | 4   | CHAD                  | SAND STORM, LINEAR OUTCR.  | 19.0N         | 21.5E  | 19.0N        | 21.5E  | 0  | L0 | 250 | N | N | 19910409 | 085822 | 246 | 112 | 63        | 59 |
| 88 | 5   | CHAD                  | SAND ST, DEPR. DU MOURDI   | 19.0N         | 21.6E  | 19.0N        | 21.6E  | 0  | L0 | 250 | N | N | 19910409 | 085824 | 246 | 112 | 63        | 59 |
| 88 | 6   | CHAD                  | SAND ST, DEPR. DU MOURDI   | 19.0N         | 21.7E  | 19.0N        | 21.7E  | 0  | L0 | 250 | N | N | 19910409 | 085826 | 246 | 112 | 63        | 59 |
| 88 | 7   | CHAD                  | SAND ST, DEPR. DU MOURDI   | 18.5N         | 23.8E  | 18.9N        | 21.8E  | 0  | L0 | 250 | N | Y | 19910409 | 085828 | 246 | 112 | 63        | 59 |
| 88 | 8   | CHAD                  | SAND ST, DEPR. DU MOURDI   | 18.5N         | 23.5E  | 18.8N        | 22.0E  | 0  | L0 | 250 | N | Y | 19910409 | 085831 | 246 | 112 | 64        | 59 |
| 88 | 9   | SUDAN                 | SAND ST, DEPR. DU MOURDI   | 18.6N         | 24.2E  | 18.2N        | 23.5E  | 0  | L0 | 250 | N | N | 19910409 | 085857 | 246 | 113 | 65        | 59 |
| 88 | 10  | SUDAN                 | SAND STORM, ROCK OUTCROPS  | 18.1N         | 23.8E  | 18.1N        | 23.8E  | 0  | L0 | 250 | N | N | 19910409 | 085901 | 246 | 113 | 66        | 59 |
| 88 | 11  | SUDAN                 | SAND STORM, GRANITE INTR.  | 17.5N         | 27.0E  | 17.4N        | 25.3E  | 10 | L0 | 250 | N | N | 19910409 | 085928 | 246 | 114 | 67        | 59 |
| 88 | 12  | SUDAN                 | LIBYAN DESERT, SAND STORM  | 17.2N         | 25.9E  | 17.2N        | 25.9E  | 0  | L0 | 250 | N | N | 19910409 | 085937 | 246 | 114 | 68        | 59 |
| 88 | 13  | SUDAN                 | LIBYAN DES. ROCK RIDGE, SS | 16.5N         | 27.5E  | 16.9N        | 26.5E  | 10 | L0 | 250 | N | Y | 19910409 | 085948 | 246 | 114 | 69        | 59 |
| 88 | 14  | SUDAN                 | SAND ST, EL HEITAN PLAT.   | 15.5N         | 28.0E  | 16.9N        | 26.6E  | 15 | L0 | 250 | N | Y | 19910409 | 085950 | 246 | 114 | 69        | 59 |
| 88 | 15  | SUDAN                 | JABAL MAYDUB, SAND STORM   | 15.4N         | 26.5E  | 16.5N        | 27.5E  | 15 | L0 | 250 | N | N | 19910409 | 090006 | 246 | 115 | 70        | 59 |
| 88 | 16  | SUDAN                 | SAND STORM FRONT, DESERT   | 16.1N         | 28.4E  | 16.1N        | 28.4E  | 20 | L0 | 250 | N | N | 19910409 | 090021 | 246 | 115 | 71        | 59 |
| 88 | 17  | SUDAN                 | WADI MALIK, DESERT         | 16.5N         | 29.5E  | 16.0N        | 28.6E  | 30 | L0 | 250 | N | N | 19910409 | 090026 | 246 | 115 | 71        | 59 |
| 88 | 18  | SUDAN                 | WADI MALIK                 | 14.4N         | 28.2E  | 15.7N        | 29.3E  | 45 | L0 | 250 | U | N | 19910409 | 090037 | 246 | 115 | 72        | 59 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|----------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 88 | 19 | SUDAN           | WHITE NILE                 | 14.7N         | 32.1E         | 14.7N        | 31.4E        | 40 | NV | 250 | N | N | 19910409 | 090114 | 246 | 116 | 74        | 59 |
| 88 | 20 | SUDAN           | WHITE NILE                 | 14.1N         | 32.3E         | 14.6N        | 31.5E        | 40 | NV | 250 | N | N | 19910409 | 090117 | 246 | 116 | 74        | 59 |
| 88 | 21 | SUDAN           | WHITE NILE, CLOUDS         | 13.5N         | 32.8E         | 14.5N        | 31.7E        | 50 | LO | 250 | N | N | 19910409 | 090121 | 246 | 116 | 74        | 59 |
| 88 | 22 | SUDAN           | BLUE NILE, DINDAR W, SGLT  | 13.6N         | 33.5E         | 13.9N        | 33.0E        | 0  | LO | 250 | U | N | 19910409 | 090144 | 246 | 117 | 76        | 59 |
| 88 | 23 | SUDAN           | WHITE NILE, EL GEZIRA IRR  | 14.0N         | 33.0E         | 13.8N        | 33.2E        | 20 | NV | 250 | N | Y | 19910409 | 090148 | 246 | 117 | 76        | 59 |
| 88 | 24 | SUDAN           | WHITE NILE, EL GEZIRA IRR  | 13.9N         | 32.4E         | 13.7N        | 33.5E        | 5  | LO | 250 | N | Y | 19910409 | 090152 | 246 | 117 | 76        | 59 |
| 88 | 25 | SUDAN           | WHITE NILE                 | 13.1N         | 32.7E         | 13.6N        | 33.6E        | 0  | LO | 250 | U | N | 19910409 | 090155 | 246 | 117 | 77        | 59 |
| 88 | 26 | SUDAN           | ATBARAH R, SATIT R, RESER. | 14.6N         | 35.8E         | 13.0N        | 34.9E        | 0  | LO | 250 | N | N | 19910409 | 090218 | 246 | 118 | 78        | 59 |
| 88 | 27 | SUDAN           | ATBARAH R, SATIT R.        | 14.0N         | 36.2E         | 12.9N        | 35.1E        | 0  | LO | 250 | N | N | 19910409 | 090221 | 246 | 118 | 78        | 59 |
| 88 | 28 | ETHIOPIA        | LAKE TANA                  | 12.0N         | 37.2E         | 12.5N        | 35.8E        | 10 | LO | 250 | N | Y | 19910409 | 090235 | 246 | 118 | 79        | 59 |
| 88 | 29 | ETHIOPIA        | LAKE TANA, SUNGLINT        | 11.9N         | 37.3E         | 11.9N        | 36.9E        | 10 | LO | 250 | N | Y | 19910409 | 090255 | 246 | 119 | 81        | 59 |
| 88 | 30 | ETHIOPIA        | BLUE NILE, SGLT, BESHLO R  | 11.0N         | 38.3E         | 11.3N        | 38.1E        | 15 | LO | 250 | N | N | 19910409 | 090316 | 246 | 120 | 82        | 59 |
| 88 | 31 | ETHIOPIA        | DAMAKIL DEPR, AFRERA LAKE  | 13.4N         | 41.2E         | 10.4N        | 39.8E        | 10 | LO | 250 | N | N | 19910409 | 090348 | 246 | 122 | 84        | 59 |
| 88 | 32 | ETHIOPIA        | AFAR DEPRESSION, COAST     | 13.2N         | 41.8E         | 10.3N        | 39.9E        | 0  | LO | 250 | N | N | 19910409 | 090350 | 246 | 122 | 84        | 59 |
| 88 | 33 | ETHIOPIA        | AFAR DEPR, HALBA I, COAST  | 12.6N         | 42.8E         | 10.3N        | 40.1E        | 5  | LO | 250 | N | N | 19910409 | 090353 | 246 | 122 | 84        | 59 |
| 88 | 34 | DJIBOUTI        | TADJOURA GULF, L. ASSAL    | 11.8N         | 43.0E         | 10.2N        | 40.2E        | 10 | LO | 250 | N | N | 19910409 | 090356 | 246 | 122 | 84        | 59 |
| 88 | 35 | ETHIOPIA        | AFAR DEPRESSION            |               |               | 9.9N         | 40.8E        | 25 | LO | 250 | U | N | 19910409 | 090407 | 246 | 123 | 85        | 59 |
| 88 | 36 | SOMALIA         | WEST COAST, GULF OF ADEN   | 10.0N         | 44.0E         | 9.0N         | 42.4E        | 50 | LO | 250 | N | N | 19910409 | 090436 | 246 | 128 | 87        | 59 |
| 88 | 37 | SOMALIA         | FAFEM WADI, ERER WADI      | 7.4N          | 43.8E         | 8.3N         | 43.6E        | 60 | LO | 250 | N | N | 19910409 | 090459 | 246 | 144 | 88        | 59 |
| 88 | 38 | DJIBOUTI        | GULF TADJOURA, L. ASSAL    | 11.5N         | 43.0E         | 7.5N         | 45.2E        | 40 | LO | 250 | N | N | 19910409 | 090529 | 246 | 266 | 88        | 59 |
| 88 | 39 | SOMALIA         | INDIAN OCEAN COAST         | 8.6N          | 50.1E         | 6.6N         | 46.7E        | 60 | LO | 250 | N | N | 19910409 | 090557 | 246 | 286 | 87        | 59 |
| 88 | 40 | SOMALIA         | INDIAN OCEAN COAST         | 7.7N          | 49.6E         | 6.5N         | 46.9E        | 50 | LO | 250 | N | N | 19910409 | 090601 | 246 | 287 | 87        | 59 |
| 88 | 41 | SOMALIA         | INDIAN OCEAN COAST         | 6.9N          | 49.1E         | 6.4N         | 47.1E        | 45 | LO | 250 | N | N | 19910409 | 090604 | 246 | 288 | 86        | 59 |
| 88 | 42 | SOMALIA         | COAST, DUNES, SALT PANS    | 5.6N          | 48.5E         | 6.3N         | 47.2E        | 50 | LO | 250 | N | N | 19910409 | 090607 | 246 | 288 | 86        | 59 |
| 88 | 43 | SOMALIA         | COAST, DUNES, SALT PANS    | 4.9N          | 47.9E         | 6.2N         | 47.4E        | 50 | LO | 250 | N | N | 19910409 | 090611 | 246 | 289 | 86        | 59 |
| 88 | 44 | SOMALIA         | COAST, DUNES, SALT PANS    | 4.5N          | 47.6E         | 6.1N         | 47.6E        | 50 | LO | 250 | N | N | 19910409 | 090614 | 246 | 289 | 86        | 59 |
| 88 | 45 | MAURITANIA      | HASSIANE CUESTA, DESERT    | 22.0N         | 12.2W         | 22.6N        | 12.3W        | 0  | NV | 250 | N | Y | 19910409 | 102903 | 246 | 108 | 52        | 60 |
| 88 | 46 | MAURITANIA      | HASSIANE CUESTA, DESERT    | 22.1N         | 12.0W         | 22.5N        | 12.0W        | 0  | NV | 250 | N | Y | 19910409 | 102908 | 246 | 108 | 52        | 60 |
| 88 | 47 | MAURITANIA      | ADRAR DHAR, DESERT         | 21.3N         | 11.9W         | 22.4N        | 11.5W        | 0  | NV | 250 | N | Y | 19910409 | 102916 | 246 | 108 | 53        | 60 |
| 88 | 48 | MAURITANIA      | RICHAAT STRUCTURE, DESERT  | 21.2N         | 11.5W         | 22.2N        | 11.1W        | 0  | NV | 250 | N | Y | 19910409 | 102922 | 246 | 108 | 53        | 60 |
| 88 | 49 | MAURITANIA      | RICHAAT STRUCTURE, DESERT  | 21.1N         | 11.3W         | 22.0N        | 10.5W        | 0  | NV | 250 | N | Y | 19910409 | 102932 | 246 | 108 | 54        | 60 |
| 88 | 50 | MAURITANIA      | ADRAR DHAR, DESERT         | 21.0N         | 10.5W         | 21.9N        | 10.2W        | 0  | NV | 250 | N | Y | 19910409 | 102936 | 246 | 109 | 54        | 60 |
| 88 | 51 | NIGERIA         | RIMA R, GOULBIN MARADI R.  | 13.7N         | 5.5E          | 14.9N        | 7.1E         | 20 | LO | 250 | N | N | 19910409 | 103432 | 246 | 115 | 73        | 60 |
| 88 | 52 | NIGER           | GOULBIN MARADI R.          | 13.3N         | 7.2E          | 14.4N        | 8.0E         | 20 | LO | 250 | N | N | 19910409 | 103449 | 246 | 115 | 74        | 60 |
| 88 | 53 | NIGERIA         | GRAZING, HAZE              |               |               | 14.1N        | 8.7E         | 0  | LO | 250 | N | N | 19910409 | 103500 | 246 | 116 | 75        | 60 |
| 88 | 54 | NIGERIA         | KANO, GRAZING              | 13.6N         | 8.8E          | 13.5N        | 9.9E         | 0  | NV | 250 | N | Y | 19910409 | 103522 | 246 | 116 | 76        | 60 |
| 88 | 55 | NIGERIA         | KANO, KANO R, DUST STORM   | 12.1N         | 9.0E          | 13.3N        | 10.3E        | 25 | LO | 250 | N | Y | 19910409 | 103530 | 246 | 116 | 77        | 60 |
| 88 | 56 | NIGERIA         | KOMADUGU GANA R/SWAMP      | 12.6N         | 11.5E         | 12.6N        | 11.7E        | 25 | NV | 250 | N | N | 19910409 | 103555 | 246 | 117 | 78        | 60 |
| 88 | 57 | CAMEROON        | L. CHAD, CHART R/DELTA     | 13.0N         | 14.4E         | 12.0N        | 12.9E        | 15 | LO | 250 | N | N | 19910409 | 103616 | 246 | 117 | 80        | 60 |
| 88 | 58 | NIGER           | NORTH LOBE LAKE CHAD       | 13.9N         | 13.5E         | 11.8N        | 13.2E        | 10 | LO | 250 | N | N | 19910409 | 103623 | 246 | 117 | 80        | 60 |

**TABLE 4.3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)**

| RL | FR | GEOGRAPHIC NAME | FEATURE                      | CENTER<br>LAT | LOW   | NADIR<br>LAT | LOW   | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|----|-----------------|------------------------------|---------------|-------|--------------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 88 | 59 | CHAD            | EAST LOBE LAKE CHAD, DUST    | 13.5N         | 14.5E | 11.8N        | 13.3E | 25 | LO | 250 | N | N | 19910409 | 103625 | 246 | 117 | 80        | 60 |
| 88 | 60 | CAMEROON        | L. CHAD, CHARI R/D, DELTA    | 13.0N         | 14.4E | 11.6N        | 13.7E | 20 | LO | 250 | N | Y | 19910409 | 103632 | 246 | 117 | 81        | 60 |
| 88 | 61 | CAMEROON        | L. CHAD, CHARI R/D, DELTA    | 13.0N         | 14.5E | 11.5N        | 13.8E | 15 | LO | 250 | N | Y | 19910409 | 103634 | 246 | 118 | 81        | 60 |
| 88 | 62 | CHAD            | CENTRAL L. CHAD, DUST        | 13.2N         | 14.3E | 11.4N        | 14.0E | 60 | LO | 250 | N | Y | 19910409 | 103637 | 246 | 118 | 81        | 60 |
| 88 | 63 | CAMEROON        | SOUTH LOBE L. CHAD, HAZE     | 12.6N         | 14.2E | 11.2N        | 14.4E | 25 | LO | 250 | N | Y | 19910409 | 103645 | 246 | 118 | 82        | 60 |
| 88 | 64 | CAMEROON        | CHARI RIVER, HAZE/SMOKE      | 12.4N         | 14.7E | 11.1N        | 14.6E | 10 | LO | 250 | N | Y | 19910409 | 103648 | 246 | 118 | 82        | 60 |
| 88 | 65 | CHAD            | CHARI RIVER, HAZE/SMOKE      | 12.2N         | 15.0E | 11.0N        | 14.9E | 30 | LO | 250 | N | Y | 19910409 | 103653 | 246 | 118 | 82        | 60 |
| 88 | 66 | CHAD            | CHARI RIVER, HAZE/SMOKE      | 11.7N         | 15.4E | 10.8N        | 15.2E | 25 | LO | 250 | N | Y | 19910409 | 103658 | 246 | 118 | 83        | 60 |
| 88 | 67 | CHAD            | CHARI RIVER, HAZE/SMOKE      | 11.5N         | 15.4E | 10.5N        | 15.8E | 20 | LO | 250 | N | Y | 19910409 | 103710 | 246 | 119 | 83        | 60 |
| 88 | 68 | CHAD            | CHARI RIVER, HAZE, MINING    | 11.2N         | 15.7E | 10.3N        | 16.1E | 0  | LO | 250 | N | Y | 19910409 | 103715 | 246 | 119 | 84        | 60 |
| 88 | 69 | CHAD            | CHARI RIVER, HAZE/SMOKE      | 10.7N         | 16.3E | 10.1N        | 16.5E | 30 | LO | 250 | N | Y | 19910409 | 103723 | 246 | 119 | 84        | 60 |
| 88 | 70 | CHAD            | CHARI RIVER, HAZE/SMOKE      | 10.5N         | 17.0E | 10.0N        | 16.7E | 30 | LO | 250 | N | Y | 19910409 | 103727 | 246 | 119 | 84        | 60 |
| 88 | 71 | CHAD            | CHARI RIVER, HAZE/SMOKE      | 10.2N         | 17.5E | 9.9N         | 16.8E | 60 | LO | 250 | N | Y | 19910409 | 103731 | 246 | 120 | 85        | 60 |
| 88 | 72 | SENEGAL         | GAMBIA R/BAY, SALOUM R/D.    | 13.8N         | 16.6W | 14.4N        | 15.8W | 0  | LO | 250 | N | Y | 19910409 | 120815 | 246 | 114 | 74        | 61 |
| 88 | 73 | SENEGAL         | GAMBIA R/BAY, SALOUM R/D.    | 13.5N         | 16.6W | 14.1N        | 15.2W | 0  | LO | 250 | U | Y | 19910409 | 120826 | 246 | 115 | 75        | 61 |
| 88 | 74 | SENEGAL         | DAKAR/PENINSULA, DARK        | 14.4N         | 17.1W | 14.0N        | 15.0W | 0  | LO | 250 | N | N | 19910409 | 120828 | 246 | 115 | 75        | 61 |
| 88 | 75 | SENEGAL         | CASAMANCE R., COAST, DARK    | 12.7N         | 16.6W | 13.8N        | 14.5W | 5  | LO | 250 | U | Y | 19910409 | 120837 | 246 | 115 | 75        | 61 |
| 88 | 76 | GUINEA BISSAU   | CASAMANCE R., RIO CACHEU     | 12.3N         | 16.1W | 13.7N        | 14.3W | 0  | LO | 250 | U | Y | 19910409 | 120841 | 246 | 115 | 76        | 61 |
| 88 | 77 | GUINEA BISSAU   | GEBA CANAL, DOS BIJAGOS I    | 11.6N         | 15.6W | 13.6N        | 14.2W | 0  | LO | 250 | U | Y | 19910409 | 120843 | 246 | 115 | 76        | 61 |
| 88 | 78 | GUINEA BISSAU   | R. GRANDE, DOS BIJAGOS IS    | 11.1N         | 15.4W | 13.5N        | 14.0W | 15 | LO | 250 | U | N | 19910409 | 120847 | 246 | 115 | 76        | 61 |
| 88 | 79 | GUINEA BISSAU   | RIO CASSINE, COAST           | 11.0N         | 15.1W | 13.5N        | 13.9W | 15 | LO | 250 | U | Y | 19910409 | 120849 | 246 | 115 | 76        | 61 |
| 88 | 80 | GUINEA          | COAST, VERY DARK             |               |       | 13.4N        | 13.8W | 0  | LO | 250 | U | N | 19910409 | 120851 | 246 | 115 | 76        | 61 |
| 88 | 81 | SENEGAL         | AGRICULTURE, DARK            |               |       | 13.3N        | 13.6W | 0  | LO | 250 | U | N | 19910409 | 120854 | 246 | 115 | 76        | 61 |
| 88 | 82 | AFRICA          | COAST, VERY DARK             |               |       | 13.1N        | 13.2W | 10 | LO | 250 | U | N | 19910409 | 120901 | 246 | 115 | 77        | 61 |
| 88 | 83 | AFRICA          | COAST, VERY DARK             |               |       | 13.1N        | 13.0W | 0  | LO | 250 | U | N | 19910409 | 120904 | 246 | 115 | 77        | 61 |
| 88 | 84 | AFRICA          | AGR., VERY DARK              |               |       | 13.0N        | 12.9W | 15 | LO | 250 | U | N | 19910409 | 120907 | 246 | 115 | 77        | 61 |
| 88 | 85 | AFRICA          | AGR., VERY DARK              |               |       | 12.9N        | 12.7W | 0  | LO | 250 | U | N | 19910409 | 120910 | 246 | 115 | 77        | 61 |
| 88 | 86 | GUINEA          | TOMINE R., AGR, DARK         | 12.2N         | 13.6W | 12.7N        | 12.3W | 0  | LO | 250 | U | N | 19910409 | 120918 | 246 | 115 | 78        | 61 |
| 88 | 87 | GUINEA BISSAU   | RIO CORUBAL, AGR, DARK       | 11.8N         | 14.2W | 12.5N        | 12.0W | 0  | LO | 250 | U | N | 19910409 | 120923 | 246 | 115 | 78        | 61 |
| 88 | 88 | SENEGAL         | GAMBIA R., AGR, DARK         | 13.2N         | 13.1W | 12.3N        | 11.6W | 0  | LO | 250 | U | N | 19910409 | 120931 | 246 | 115 | 79        | 61 |
| 88 | 89 | MALI            | BAFING R./RESERVOIR, AGR.    | 13.0N         | 10.5W | 12.1N        | 11.2W | 0  | LO | 250 | U | N | 19910409 | 120937 | 246 | 116 | 79        | 61 |
| 88 | 90 | GUINEA          | BAFING R., AGR.              | 12.1N         | 10.5W | 12.0N        | 11.0W | 0  | NV | 250 | U | Y | 19910409 | 120942 | 246 | 116 | 79        | 61 |
| 88 | 91 | GUINEA          | BAFING R., AGR.              | 11.6N         | 10.8W | 11.9N        | 10.8W | 0  | NV | 250 | U | Y | 19910409 | 120945 | 246 | 116 | 80        | 61 |
| 88 | 92 | GUINEA          | HILLS, AGR, DARK             |               |       | 11.9N        | 10.7W | 0  | LO | 250 | U | N | 19910409 | 120947 | 246 | 116 | 80        | 61 |
| 88 | 93 | GUINEA          | TINKISSO RIVER, AGR, DARK    | 11.4N         | 10.0W | 11.7N        | 10.5W | 0  | NV | 250 | U | Y | 19910409 | 120951 | 246 | 116 | 80        | 61 |
| 88 | 94 | GUINEA          | TINKISSO R., NIGER R., DARK  | 11.2N         | 9.6W  | 11.6N        | 10.2W | 0  | NV | 250 | U | Y | 19910409 | 120956 | 246 | 116 | 80        | 61 |
| 88 | 95 | GUINEA          | TINKISSO R., NIGER R., AGR.  | 11.1N         | 9.2W  | 11.4N        | 9.8W  | 0  | NV | 250 | U | Y | 19910409 | 121004 | 246 | 116 | 81        | 61 |
| 88 | 96 | GUINEA          | NIGER R., MILO R., AGR, DARK | 10.7N         | 9.2W  | 11.2N        | 9.4W  | 5  | NV | 250 | U | Y | 19910409 | 121010 | 246 | 116 | 81        | 61 |
| 88 | 97 | GUINEA          | NIGER R., FIE R., AGR, DARK  | 11.3N         | 9.0W  | 10.8N        | 8.6W  | 5  | NV | 250 | U | Y | 19910409 | 121025 | 246 | 116 | 82        | 61 |
| 88 | 98 | MALI            | NIGER R., BALE R./RESERVOIR  | 11.5N         | 8.2W  | 10.6N        | 8.3W  | 20 | NV | 250 | U | N | 19910409 | 121031 | 246 | 116 | 83        | 61 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|-----------------|----------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 88 | 99  | GUINEA          | NIGER R, MILO R, AGR, DARK | 10.8N 9.2W           | 10.3N 7.8W          | 5  | LO | 250 | U | N | 19910409 | 121041 | 246 | 116 | 83        | 61 |
| 88 | 100 | GUINEA          | SANKARANI R, TRIBUTARY, DK | 10.0N 8.5W           | 10.2N 7.6W          | 0  | LO | 250 | U | N | 19910409 | 121044 | 246 | 116 | 83        | 61 |
| 88 | 101 | MALI            | NIGER R, BANI R, FALA R.   | 13.4N 6.3W           | 9.9N 6.9W           | 0  | LO | 250 | N | Y | 19910409 | 121056 | 246 | 117 | 84        | 61 |
| 88 | 102 | MALI            | NIGER R, BAOULE R.         | 13.0N 7.3W           | 9.8N 6.8W           | 15 | LO | 250 | N | Y | 19910409 | 121059 | 246 | 117 | 84        | 61 |
| 88 | 103 | MALI            | BANI RIVER, DARK           | 13.0N 5.2W           | 9.5N 6.1W           | 0  | LO | 250 | U | N | 19910409 | 121111 | 246 | 117 | 85        | 61 |
| 88 | 104 | IVORY COAST     | AGRICULTURE, DARK          |                      | 9.4N 6.0W           | 0  | LO | 250 | U | N | 19910409 | 121113 | 246 | 117 | 85        | 61 |
| 88 | 105 | IVORY COAST     | AGRICULTURE, DARK          |                      | 9.3N 5.9W           | 5  | LO | 250 | U | N | 19910409 | 121115 | 246 | 117 | 85        | 61 |
| 88 | 106 | IVORY COAST     | AGRICULTURE, DARK          |                      | 9.2N 5.8W           | 5  | LO | 250 | U | N | 19910409 | 121118 | 246 | 117 | 86        | 61 |
| 88 | 107 | IVORY COAST     | BANDANA BLANC R, AGR, DARK | 8.8N 5.5W            | 9.0N 5.3W           | 25 | NV | 250 | U | Y | 19910409 | 121127 | 246 | 117 | 86        | 61 |
| 88 | 108 | IVORY COAST     | AGRICULTURE, DARK          |                      | 8.7N 4.7W           | 50 | LO | 250 | U | Y | 19910409 | 121138 | 246 | 117 | 87        | 61 |
| 88 | 109 | IVORY COAST     | KOMO R, AGR, DARK          | 8.5N 4.0W            | 8.5N 4.5W           | 20 | NV | 250 | U | Y | 19910409 | 121142 | 246 | 117 | 87        | 61 |
| 88 | 110 | IVORY COAST     | KOMO R, AGR, DARK          | 8.0N 4.0W            | 8.4N 4.3W           | 60 | NV | 250 | U | Y | 19910409 | 121146 | 246 | 117 | 87        | 61 |
| 88 | 111 | IVORY COAST     | AGR, DARK, CLOUDS          |                      | 8.0N 3.5W           | 85 | LO | 250 | U | N | 19910409 | 121200 | 246 | 118 | 88        | 61 |
| 88 | 112 | IVORY COAST     | KOMOE R, AGR, V, DARK      | 7.2N 3.7W            | 7.6N 2.8W           | 40 | LO | 250 | U | Y | 19910409 | 121213 | 246 | 120 | 89        | 61 |
| 88 | 113 | IVORY COAST     | KOMOE R, AGR, V, DARK      | 6.9N 3.6W            | 7.5N 2.7W           | 50 | LO | 250 | U | Y | 19910409 | 121216 | 246 | 123 | 89        | 61 |
| 88 | 114 | IVORY COAST     | AGR, V, DARK, CLOUDS       |                      | 7.4N 2.5W           | 85 | LO | 250 | U | Y | 19910409 | 121220 | 246 | 284 | 89        | 61 |
| 88 | 115 | GHANA           | AGR, V, DARK               |                      | 7.2N 2.1W           | 40 | LO | 250 | U | N | 19910409 | 121226 | 246 | 295 | 89        | 61 |
| 88 | 116 | GHANA           | AGR, V, DARK               |                      | 7.2N 2.0W           | 30 | LO | 250 | U | N | 19910409 | 121228 | 246 | 296 | 89        | 61 |
| 88 | 117 | GHANA           | AGR, V, DARK               |                      | 7.1N 1.8W           | 35 | LO | 250 | U | N | 19910409 | 121232 | 246 | 296 | 89        | 61 |
| 88 | 118 | GHANA           | AGR, V, DARK               |                      | 6.9N 1.6W           | 75 | LO | 250 | U | N | 19910409 | 121237 | 246 | 296 | 88        | 61 |
| 88 | 119 | GHANA           | AGR, V, DARK, CLOUDS       |                      | 6.8N 1.3W           | 90 | LO | 250 | U | N | 19910409 | 121242 | 246 | 297 | 88        | 61 |
| 88 | 120 | GHANA           | AGR, V, DARK, CLOUDS       |                      | 6.6N 0.9W           | 90 | LO | 250 | U | N | 19910409 | 121249 | 246 | 297 | 88        | 61 |
| 88 | 121 | GHANA           | VOLTA R/DELTA, COAST       | 5.9N 0.8E            | 5.8N 0.5E           | 25 | NV | 250 | U | N | 19910409 | 121316 | 246 | 297 | 86        | 61 |
| 89 | 1   | KENYA           | L. VICTORIA, KAVIRONDO G.  | 0.2S 34.3E           | 0.2S 32.7E          | 25 | LO | 250 | N | N | 19910408 | 112135 | 245 | 288 | 66        | 45 |
| 89 | 2   | KENYA           | L. VICTORIA, SIGULU I.     | 0.3N 33.5E           | 0.3S 32.8E          | 65 | LO | 250 | U | N | 19910408 | 112137 | 245 | 288 | 66        | 45 |
| 89 | 3   | ZAIRE           | LAKE ALBERT, ALBERT NILE   | 2.1N 31.3E           | 0.4S 33.1E          | 80 | LO | 250 | U | Y | 19910408 | 112142 | 245 | 288 | 66        | 45 |
| 89 | 4   | ZAIRE           | LAKE ALBERT, CLOUDS        | 1.2N 30.4E           | 0.6S 33.4E          | 80 | LO | 250 | U | Y | 19910408 | 112149 | 245 | 288 | 65        | 45 |
| 89 | 5   | ZAIRE           | LAKE ALBERT, CLOUDS        | 1.6N 30.7E           | 0.7S 33.5E          | 80 | LO | 250 | U | Y | 19910408 | 112151 | 245 | 288 | 65        | 45 |
| 89 | 6   | KENYA           | L. VICTORIA, KAVIRONDO G.  | 0.4S 34.4E           | 0.9S 33.8E          | 25 | LO | 250 | N | N | 19910408 | 112156 | 245 | 288 | 65        | 45 |
| 89 | 7   | UGANDA          | L. VICTORIA, SESE ISLANDS  | 0.0 32.3E            | 1.1S 34.2E          | 40 | LO | 250 | N | Y | 19910408 | 112203 | 245 | 288 | 64        | 45 |
| 89 | 8   | UGANDA          | L. VICTORIA, SESE ISLANDS  | 0.6S 32.0E           | 1.1S 34.3E          | 40 | LO | 250 | N | Y | 19910408 | 112205 | 245 | 289 | 64        | 45 |
| 89 | 9   | UGANDA          | L. VICTORIA, SESE ISLANDS  | 0.9S 32.4E           | 1.2S 34.4E          | 40 | LO | 250 | N | Y | 19910408 | 112207 | 245 | 289 | 64        | 45 |
| 89 | 10  | KENYA           | LAKE VICTORIA, CLOUDS      | 1.0S 34.0E           | 1.3S 34.6E          | 85 | NV | 250 | N | Y | 19910408 | 112212 | 245 | 289 | 64        | 45 |
| 89 | 11  | KENYA           | L. VICTORIA, MFANGANO I.   | 0.6S 34.1E           | 1.4S 34.8E          | 75 | NV | 250 | N | Y | 19910408 | 112215 | 245 | 289 | 64        | 45 |
| 89 | 12  | KENYA           | L. VICTORIA, KAVIRONDO G.  | 0.3S 34.5E           | 1.6S 35.0E          | 40 | NV | 250 | N | Y | 19910408 | 112219 | 245 | 289 | 63        | 45 |
| 89 | 13  | TANZANIA        | LAKE NATRON                | 2.4S 35.9E           | 1.8S 35.4E          | 20 | LO | 250 | N | Y | 19910408 | 112226 | 245 | 289 | 63        | 45 |
| 89 | 14  | TANZANIA        | LAKE NATRON                | 2.1S 36.0E           | 1.9S 35.7E          | 15 | LO | 250 | N | Y | 19910408 | 112232 | 245 | 289 | 63        | 45 |
| 89 | 15  | KENYA           | AGR. VALLEY, ROAD          | 1.1S 36.0E           | 2.4S 36.5E          | 15 | LO | 250 | N | Y | 19910408 | 112247 | 245 | 289 | 62        | 45 |
| 89 | 16  | KENYA           | NGIRO STREAM, L. MAGADI    | 1.5S 36.1E           | 2.5S 36.6E          | 10 | LO | 250 | N | Y | 19910408 | 112249 | 245 | 289 | 61        | 45 |
| 89 | 17  | TANZANIA        | L. NATRON, L. MAGADI       | 2.4S 36.2E           | 2.5S 36.7E          | 30 | NV | 250 | N | Y | 19910408 | 112251 | 245 | 289 | 61        | 45 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | LONG  | MADIR<br>LAT | LONG  | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|----------------------------|---------------|-------|--------------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 89 | 18 | TANZANIA        | L. MANYARA, L. BURUNGI     | 3.6S          | 36.9E | 2.6S         | 36.8E | 50 | LO | 250 | N | Y | 19910408 | 112254 | 245 | 289 | 61        | 45 |
| 89 | 19 | TANZANIA        | L. MANYARA, L. BURUNGI     | 3.4S          | 36.9E | 2.7S         | 37.0E | 50 | LO | 250 | N | Y | 19910408 | 112257 | 245 | 289 | 61        | 45 |
| 89 | 20 | TANZANIA        | MOSHI, AFLD, KIKULEIWA RES | 3.5S          | 37.2E | 2.8S         | 37.1E | 60 | LO | 250 | N | Y | 19910408 | 112300 | 245 | 289 | 61        | 45 |
| 89 | 21 | TANZANIA        | MOSHI, KIKULEIWA RES.      | 3.5S          | 37.5E | 2.9S         | 37.3E | 75 | NV | 250 | N | Y | 19910408 | 112303 | 245 | 289 | 61        | 45 |
| 89 | 22 | KENYA           | MT. KILIMANJARO, CLD COV.  | 2.9S          | 37.7E | 3.1S         | 37.7E | 75 | NV | 250 | N | Y | 19910408 | 112310 | 245 | 290 | 60        | 45 |
| 89 | 23 | TANZANIA        | L. NATRON, SUNGLINT        | 2.5S          | 36.0E | 3.3S         | 38.0E | 20 | LO | 250 | N | Y | 19910408 | 112317 | 245 | 290 | 60        | 45 |
| 89 | 24 | TANZANIA        | L. NATRON, SUNGLINT        | 2.5S          | 36.0E | 3.4S         | 38.2E | 25 | LO | 250 | N | Y | 19910408 | 112320 | 245 | 290 | 59        | 45 |
| 89 | 25 | TANZANIA        | LAKE NATRON                | 2.3S          | 36.0E | 3.6S         | 38.5E | 30 | LO | 250 | U | Y | 19910408 | 112326 | 245 | 290 | 59        | 45 |
| 89 | 26 | TANZANIA        | KIKULEIWA RESERVOIR        | 3.6S          | 37.4E | 3.9S         | 39.0E | 85 | LO | 250 | U | N | 19910408 | 112335 | 245 | 290 | 59        | 45 |
| 89 | 27 | TANZANIA        | LAKE AMBUSSEL              | 4.0S          | 37.3E | 3.9S         | 39.1E | 85 | LO | 250 | N | Y | 19910408 | 112337 | 245 | 290 | 58        | 45 |
| 89 | 28 | TANZANIA        | PLAINS, MOUNTAINS          |               |       |              |       | 85 | LO | 250 | U | N | 19910408 | 112340 | 245 | 290 | 58        | 45 |
| 89 | 29 | TANZANIA        | ZANZIBAR, ZANZIBAR ISLAND  | 6.2S          | 39.0E | 4.2S         | 39.5E | 15 | LO | 250 | U | N | 19910408 | 112345 | 245 | 290 | 58        | 45 |
| 89 | 30 | TANZANIA        | ZANZIBAR I, PEMBA I, CST.  | 5.5S          | 39.3E | 4.3S         | 39.7E | 20 | LO | 250 | U | N | 19910408 | 112348 | 245 | 290 | 58        | 45 |
| 89 | 31 | TANZANIA        | PEMBA I/CHANNEL, COAST     | 4.9S          | 39.4E | 4.3S         | 39.8E | 20 | NV | 250 | U | N | 19910408 | 112350 | 245 | 290 | 58        | 45 |
| 89 | 32 | KENYA           | MOMBASA, AFLD, COAST       | 4.2S          | 39.7E | 4.4S         | 39.9E | 30 | NV | 250 | U | N | 19910408 | 112353 | 245 | 290 | 57        | 45 |
| 89 | 33 | KENYA           | GALANA R, COAST            | 3.5S          | 40.0E | 4.5S         | 40.1E | 25 | NV | 250 | N | Y | 19910408 | 112356 | 245 | 290 | 57        | 45 |
| 89 | 34 | KENYA           | TANA RIVER, CLOUDS         | 1.7S          | 39.9E | 4.7S         | 40.5E | 85 | LO | 250 | N | Y | 19910408 | 112404 | 245 | 290 | 57        | 45 |
| 89 | 35 | KENYA           | FORMOSA BAY, TANA RIVER    | 2.6S          | 40.2E | 4.8S         | 40.6E | 50 | LO | 250 | N | Y | 19910408 | 112406 | 245 | 290 | 57        | 45 |
| 89 | 36 | KENYA           | FORMOSA BAY, PATE I, CST   | 2.3S          | 40.7E | 5.0S         | 40.9E | 60 | LO | 250 | U | N | 19910408 | 112412 | 245 | 290 | 56        | 45 |
| 89 | 37 | MADAGASCAR      | EAST COAST                 | 14.0S         | 50.1E | 12.2S        | 54.2E | 80 | LO | 250 | U | N | 19910408 | 112820 | 245 | 290 | 40        | 45 |
| 89 | 38 | MADAGASCAR      | EAST COAST                 | 15.2S         | 50.6E | 12.5S        | 54.8E | 80 | LO | 250 | U | N | 19910408 | 112831 | 245 | 290 | 40        | 45 |
| 89 | 39 | RODRIGUES       | ENTIRE ISLAND/CORAL REEF   | 19.7S         | 63.3E | 17.4S        | 65.2E | 60 | LO | 250 | N | Y | 19910408 | 113135 | 244 | 288 | 28        | 45 |
| 89 | 40 | ZAIRE           | L. UPEMBA, L. LUKANGA      | 8.5S          | 26.5E | 11.0S        | 28.0E | 60 | LO | 250 | U | Y | 19910408 | 130106 | 245 | 291 | 44        | 46 |
| 89 | 41 | ZAIRE           | L. KABAMBA, LUALABA R.     | 7.9S          | 26.9E | 11.2S        | 28.5E | 60 | LO | 250 | U | Y | 19910408 | 130112 | 245 | 291 | 43        | 46 |
| 89 | 42 | ZAMBIA          | LAKE MWERU                 | 9.2S          | 28.4E | 11.4S        | 28.6E | 70 | LO | 250 | U | Y | 19910408 | 130117 | 245 | 291 | 43        | 46 |
| 89 | 43 | ZAMBIA          | LAKE MWERU                 | 9.1S          | 28.8E | 11.5S        | 28.8E | 40 | LO | 250 | U | Y | 19910408 | 130121 | 245 | 291 | 43        | 46 |
| 89 | 44 | ZAIRE           | LAKE MWERU                 | 8.4S          | 29.0E | 11.7S        | 29.2E | 40 | LO | 250 | U | Y | 19910408 | 130128 | 245 | 291 | 42        | 46 |
| 89 | 45 | ZAMBIA          | CONVECTION CELLS           |               |       | 12.1S        | 30.1E | 70 | LO | 250 | U | N | 19910408 | 130144 | 245 | 290 | 41        | 46 |
| 89 | 46 | MALAWI          | L. NYASA-NORTH END         | 9.8S          | 33.8E | 13.0S        | 31.9E | 75 | LO | 250 | U | Y | 19910408 | 130216 | 245 | 290 | 39        | 46 |
| 89 | 47 | MALAWI          | L. NYASA-NO. END           | 10.4S         | 34.0E | 13.1S        | 32.1E | 75 | LO | 250 | U | Y | 19910408 | 130221 | 245 | 290 | 39        | 46 |
| 89 | 48 | MADAGASCAR      | MANAMBOLO R, COAST         | 19.2S         | 44.3E | 18.9S        | 44.9E | 40 | NV | 250 | U | N | 19910408 | 130606 | 244 | 287 | 24        | 46 |
| 89 | 49 | MADAGASCAR      | TSIRIBITHINA R/DELTA       | 19.8S         | 44.5E | 19.1S        | 45.5E | 60 | NV | 250 | U | N | 19910408 | 130615 | 244 | 287 | 24        | 46 |
| 89 | 50 | MADAGASCAR      | TSIRIBITHINA R, SAKENY R.  | 19.8S         | 45.4E | 19.3S        | 45.9E | 50 | NV | 250 | U | N | 19910408 | 130623 | 244 | 287 | 23        | 46 |
| 89 | 51 | MADAGASCAR      | SAKENY RIVER               | 20.4S         | 45.6E | 19.4S        | 46.2E | 40 | LO | 250 | U | N | 19910408 | 130628 | 244 | 287 | 23        | 46 |
| 89 | 52 | MADAGASCAR      | MOUNTAINS                  |               |       | 19.7S        | 47.0E | 60 | LO | 250 | U | N | 19910408 | 130640 | 244 | 286 | 22        | 46 |
| 89 | 53 | MADAGASCAR      | MOUNTAINS                  |               |       | 20.0S        | 47.6E | 60 | LO | 250 | U | N | 19910408 | 130651 | 244 | 286 | 21        | 46 |
| 89 | 54 | MADAGASCAR      | MOUNTAINS                  |               |       | 20.0S        | 47.8E | 80 | LO | 250 | U | N | 19910408 | 130654 | 244 | 286 | 21        | 46 |
| 89 | 55 | MADAGASCAR      | MOUNTAINS                  |               |       | 20.1S        | 48.0E | 80 | LO | 250 | U | Y | 19910408 | 130657 | 244 | 286 | 21        | 46 |
| 89 | 56 | MADAGASCAR      | MOUNTAINS                  |               |       | 20.2S        | 48.1E | 70 | LO | 250 | U | Y | 19910408 | 130700 | 244 | 286 | 21        | 46 |
| 89 | 57 | MADAGASCAR      | MOUNTAINS                  |               |       | 20.4S        | 48.7E | 70 | LO | 250 | U | N | 19910408 | 130709 | 244 | 286 | 20        | 46 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME   | FEATURE                   | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-------------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 89 | 58 | MADAGASCAR        | MANGORO R, COAST, MTNS    | 20.0S 48.8E          | 21.0S 50.4E         | 30 | LO | 250 | U | N | 19910408 | 130738 | 244 | 285 | 18        | 46 |
| 89 | 59 | NICARAGUA         | L.MANAGUA, L.NICARAGUA    | 12.0N 86.0W          | 12.5N 85.5W         | 35 | NV | 250 | U | N | 19910408 | 172820 | 248 | 142 | 83        | 49 |
| 89 | 60 | NICARAGUA         | L.MANAGUA, MASAYA VOLC.   | 12.3N 86.3W          | 12.4N 85.2W         | 40 | NV | 250 | U | N | 19910408 | 172824 | 248 | 143 | 83        | 49 |
| 89 | 61 | COSTA RICA        | L.NICARAGUA, MT. OROSI    | 11.0N 85.5W          | 12.2N 85.0W         | 25 | LO | 250 | U | N | 19910408 | 172829 | 248 | 144 | 83        | 49 |
| 89 | 62 | PANAMA            | PANAMA CANAL, COLON       | 9.2N 79.8W           | 8.2N 77.5W          | 75 | LO | 250 | U | N | 19910408 | 173047 | 248 | 255 | 85        | 49 |
| 89 | 63 | PANAMA            | PANAMA CANAL, COLON       | 8.9N 79.9W           | 8.0N 77.1W          | 75 | LO | 250 | U | N | 19910408 | 173055 | 248 | 259 | 85        | 49 |
| 89 | 64 | PANAMA            | PANAMA CANAL, COLON       | 9.0N 80.0W           | 7.6N 76.4W          | 75 | LO | 250 | U | N | 19910408 | 173108 | 248 | 264 | 84        | 49 |
| 89 | 65 | PANAMA            | PANAMA CANAL, COLON       | 8.5N 79.9W           | 7.5N 76.2W          | 80 | LO | 250 | U | N | 19910408 | 173111 | 248 | 265 | 84        | 49 |
| 89 | 66 | COLOMBIA          | CLOUD FRONT, DARK         | 6.5N 74.4W           | 6.5N 74.4W          | 80 | LO | 250 | U | N | 19910408 | 173146 | 248 | 274 | 82        | 49 |
| 89 | 67 | BRAZIL            | RIO NEGRO, RIO BRANCO     | 1.7S 61.4W           | 2.3S 59.3W          | 65 | LO | 250 | U | N | 19910408 | 173634 | 245 | 291 | 64        | 49 |
| 89 | 68 | BRAZIL            | RIO NEGRO, RIO BRANCO     | 1.4S 61.8W           | 2.4S 59.0W          | 70 | LO | 250 | U | N | 19910408 | 173640 | 245 | 291 | 63        | 49 |
| 89 | 69 | BRAZIL            | RIO JAUAPERI, RIO BRANCO  | 1.0S 61.7W           | 2.5S 58.9W          | 60 | LO | 250 | U | N | 19910408 | 173642 | 245 | 291 | 63        | 49 |
| 89 | 70 | BRAZIL            | ROADS, AGR, HILLS         | 10.4S 44.9W          | 10.4S 44.9W         | 80 | LO | 250 | U | N | 19910408 | 174106 | 245 | 292 | 46        | 49 |
| 89 | 71 | BRAZIL            | RIO GURGUEIA, ROADS       | 9.7S 45.0W           | 10.6S 44.5W         | 85 | NV | 250 | U | N | 19910408 | 174114 | 245 | 292 | 46        | 49 |
| 89 | 72 | BRAZIL            | RIO GURGUEIA, L.PARNAGUA  | 9.9S 44.8W           | 10.8S 44.1W         | 85 | NV | 250 | U | N | 19910408 | 174121 | 245 | 292 | 45        | 49 |
| 89 | 73 | BRAZIL            | RIO GURGUEIA, L.PARNAGUA  | 10.2S 44.7W          | 11.0S 43.7W         | 85 | NV | 250 | U | N | 19910408 | 174128 | 245 | 292 | 45        | 49 |
| 89 | 74 | BRAZIL            | RIO SAO FRANCISCO         | 10.0S 42.2W          | 11.6S 42.6W         | 80 | LO | 250 | U | N | 19910408 | 174148 | 245 | 292 | 44        | 49 |
| 89 | 75 | BRAZIL            | RIO SAO FRANCISCO         | 11.0S 43.0W          | 11.9S 41.9W         | 85 | LO | 250 | U | N | 19910408 | 174201 | 245 | 291 | 43        | 49 |
| 89 | 76 | BRAZIL            | RIO SAO FRANCISCO         | 10.8S 42.6W          | 12.0S 41.8W         | 85 | LO | 250 | U | N | 19910408 | 174204 | 245 | 291 | 43        | 49 |
| 89 | 77 | BRAZIL            | RIO SAO FRANCISCO         | 11.8S 43.3W          | 12.4S 41.0W         | 75 | LO | 250 | U | N | 19910408 | 174218 | 245 | 291 | 42        | 49 |
| 89 | 78 | BRAZIL            | RIO CONTAS, SRA SINCORA   | 14.0S 41.5W          | 12.7S 40.3W         | 50 | LO | 250 | U | N | 19910408 | 174230 | 245 | 291 | 41        | 49 |
| 89 | 79 | BRAZIL            | RIO CONTAS, SRA SINCORA   | 14.1S 41.1W          | 12.9S 40.1W         | 50 | LO | 250 | U | N | 19910408 | 174235 | 245 | 291 | 41        | 49 |
| 89 | 80 | BRAZIL            | RIO CONTAS, HILLS, AGR    | 13.9S 40.8W          | 13.2S 39.3W         | 75 | LO | 250 | U | N | 19910408 | 174248 | 245 | 291 | 40        | 49 |
| 89 | 81 | BRAZIL            | RIO CONTAS, HILLS, AGR    | 13.9S 40.4W          | 13.3S 39.1W         | 80 | LO | 250 | U | N | 19910408 | 174252 | 245 | 291 | 40        | 49 |
| 89 | 82 | BRAZIL            | COAST                     | 13.4S 39.0W          | 13.7S 38.3W         | 75 | NV | 250 | U | N | 19910408 | 174306 | 245 | 291 | 39        | 49 |
| 89 | 83 | PARAGUAY          | DARK, CLOUDS              | 24.9S 55.7W          | 24.9S 55.7W         | 50 | LO | 250 | U | N | 19910408 | 205830 | 244 | 281 | 7         | 51 |
| 89 | 84 | PARAGUAY          | DARK                      | 25.1S 54.9W          | 25.1S 54.9W         | 5  | LO | 250 | U | N | 19910408 | 205843 | 244 | 281 | 6         | 51 |
| 89 | 85 | PARAGUAY          | DARK                      | 25.3S 54.2W          | 25.3S 54.2W         | 20 | LO | 250 | U | N | 19910408 | 205854 | 244 | 280 | 6         | 51 |
| 89 | 86 | BRAZIL            | DARK                      | 25.5S 53.2W          | 25.5S 53.2W         | 5  | LO | 250 | U | N | 19910408 | 205908 | 244 | 280 | 5         | 51 |
| 89 | 87 | LINE ISLANDS      | CHRISTMAS I, CLD COVER    | 1.9N 157.3W          | 0.5S 157.8W         | 60 | LO | 250 | N | N | 19910408 | 234923 | 245 | 292 | 69        | 53 |
| 89 | 88 | LINE ISLANDS      | MALDEN ISLAND             | 4.0S 155.0W          | 3.8S 152.1W         | 15 | LO | 250 | N | N | 19910408 | 235111 | 245 | 293 | 62        | 53 |
| 89 | 89 | MARQUESAS ISLANDS | NUKU HIVA, DARK           | 8.9S 140.1W          | 10.2S 140.8W        | 35 | LO | 250 | U | N | 19910408 | 235445 | 245 | 293 | 49        | 53 |
| 89 | 90 | MARQUESAS ISLANDS | UA POU, DARK              | 9.4S 140.0W          | 10.3S 140.6W        | 35 | LO | 250 | U | N | 19910408 | 235449 | 245 | 293 | 48        | 53 |
| 89 | 91 | MARQUESAS ISLANDS | HIVA OA, TAHUATA, DARK    | 9.9S 139.1W          | 10.8S 139.6W        | 50 | LO | 250 | U | N | 19910408 | 235506 | 245 | 293 | 47        | 53 |
| 89 | 92 | MARQUESAS ISLANDS | FATU IVA, DARK            | 10.5S 138.6W         | 11.3S 138.6W        | 50 | LO | 250 | U | N | 19910408 | 235526 | 245 | 293 | 46        | 53 |
| 89 | 93 | AUSTRALIA-NT      | PALMER R, JAMES RANGES    | 24.2S 132.2E         | 24.4S 135.2E        | 5  | LO | 250 | U | N | 19910409 | 075153 | 244 | 284 | 12        | 58 |
| 89 | 94 | AUSTRALIA-NT      | FINKE R, KRICHAUFF RANGES | 24.2S 132.0E         | 24.5S 135.4E        | 5  | LO | 250 | U | N | 19910409 | 075156 | 244 | 284 | 12        | 58 |
| 89 | 95 | AUSTRALIA-NT      | SIMPSON DESERT, DARK      | 24.7S 136.1E         | 24.7S 136.1E        | 0  | LO | 250 | U | N | 19910409 | 075207 | 244 | 283 | 11        | 58 |
| 89 | 96 | AUSTRALIA-NT      | SIMPSON DESERT, DARK      | 24.8S 136.6E         | 24.8S 136.6E        | 0  | LO | 250 | U | N | 19910409 | 075215 | 244 | 283 | 11        | 58 |
| 89 | 97 | ALGERIA           | TASSILI N'AJJER-EAST END  | 23.0N 10.3E          | 23.0N 10.3E         | 0  | LO | 250 | U | N | 19910409 | 085517 | 246 | 108 | 51        | 59 |

TABLE 4-3- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|-----------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 89 | 98  | NIGER           | DESERT-DUNE FIELD        |                      | 22.5N 12.0E         | 0  | LO | 250 | N | N | 19910409 | 085544 | 246 | 108 | 53        | 59 |
| 89 | 99  | NIGER           | PLATEAU DU JADO AREA     |                      | 22.2N 12.8E         | 0  | LO | 250 | N | N | 19910409 | 085558 | 246 | 109 | 54        | 59 |
| 89 | 100 | NIGER           | PLAT.DU JADO,ACHELOUMO W | 22.3N                | 22.1N 13.1E         | 0  | LO | 250 | N | N | 19910409 | 085603 | 246 | 109 | 54        | 59 |
| 89 | 101 | NIGER           | PLAT.DU JADO,ACHELOUMO W | 22.0N                | 22.1N 13.3E         | 0  | NV | 250 | N | N | 19910409 | 085605 | 246 | 109 | 54        | 59 |
| 89 | 102 | LIBYA           | PLAT.MANGENI AREA        | 22.8N                | 22.0N 13.4E         | 0  | LO | 250 | N | N | 19910409 | 085608 | 246 | 109 | 54        | 59 |
| 89 | 103 | LIBYA           | EDGE-MARZUQ SAND SEA     | 23.2N                | 22.0N 13.6E         | 0  | LO | 250 | N | N | 19910409 | 085610 | 246 | 109 | 54        | 59 |
| 89 | 104 | NIGER           | DESERT                   |                      | 21.9N 13.8E         | 0  | LO | 250 | N | N | 19910409 | 085614 | 246 | 109 | 55        | 59 |
| 89 | 105 | NIGER           | WIND EROSION, DESERT     | 22.5N                | 21.8N 14.1E         | 0  | LO | 250 | N | N | 19910409 | 085618 | 246 | 109 | 55        | 59 |
| 89 | 106 | NIGER           | MASSIF DAFIFI,WIND EROSN | 22.5N                | 21.7N 14.2E         | 0  | LO | 250 | N | Y | 19910409 | 085621 | 246 | 109 | 55        | 59 |
| 89 | 107 | NIGER           | MASSIF DAFIFI,WIND EROSN | 22.0N                | 21.7N 14.4E         | 0  | LO | 250 | N | Y | 19910409 | 085623 | 246 | 109 | 55        | 59 |
| 89 | 108 | NIGER           | PLAT.TCHIGAI,WIND EROSN  | 21.5N                | 21.6N 14.5E         | 0  | LO | 250 | N | Y | 19910409 | 085626 | 246 | 109 | 55        | 59 |
| 89 | 109 | CHAD            | TIBESTI AREA-WEST SIDE   | 21.4N                | 21.6N 14.7E         | 0  | LO | 250 | N | Y | 19910409 | 085628 | 246 | 109 | 56        | 59 |
| 89 | 110 | CHAD            | TIBESTI AREA-WEST SIDE   | 21.4N                | 21.5N 14.8E         | 0  | LO | 250 | N | Y | 19910409 | 085631 | 246 | 109 | 56        | 59 |
| 89 | 111 | CHAD            | TIBESTI AREA-WEST SIDE   | 21.4N                | 21.5N 15.0E         | 0  | LO | 250 | N | Y | 19910409 | 085633 | 246 | 110 | 56        | 59 |
| 89 | 112 | CHAD            | TIBESTI AREA-WEST SIDE   | 21.6N                | 21.4N 15.1E         | 0  | LO | 250 | N | Y | 19910409 | 085635 | 246 | 110 | 56        | 59 |
| 89 | 113 | CHAD            | MASSIF D'ABO,N.TIBESTI   | 21.7N                | 21.4N 15.2E         | 0  | LO | 250 | N | N | 19910409 | 085637 | 246 | 110 | 56        | 59 |
| 89 | 114 | CHAD            | TIBESTI MTNS,PIC TOUSIDE | 21.0N                | 21.0N 16.4E         | 0  | NV | 250 | N | Y | 19910409 | 085657 | 246 | 110 | 57        | 59 |
| 89 | 115 | CHAD            | TIBESTI MTNS,VOLC.CRATER | 20.9N                | 20.9N 16.8E         | 0  | NV | 250 | N | Y | 19910409 | 085700 | 246 | 110 | 58        | 59 |
| 89 | 116 | CHAD            | TIBESTI MTNS,OLD CRATER  | 20.4N                | 20.9N 16.7E         | 0  | LO | 250 | N | Y | 19910409 | 085702 | 246 | 110 | 58        | 59 |
| 89 | 117 | CHAD            | TIBESTI,TARSO TOON VOLC. | 20.8N                | 20.8N 16.8E         | 0  | LO | 250 | N | Y | 19910409 | 085704 | 246 | 110 | 58        | 59 |
| 89 | 118 | CHAD            | TIBESTI,TARSO TOON VOLC. | 21.0N                | 20.8N 17.0E         | 0  | NV | 250 | N | Y | 19910409 | 085707 | 246 | 110 | 58        | 59 |
| 89 | 119 | CHAD            | TIBESTI,NO.PIC TOUSIDE   | 21.4N                | 20.7N 17.2E         | 0  | NV | 250 | N | Y | 19910409 | 085710 | 246 | 110 | 58        | 59 |
| 89 | 120 | CHAD            | TIBESTI,NE. PIC TOUSIDE  | 21.7N                | 20.6N 17.3E         | 0  | LO | 250 | N | Y | 19910409 | 085712 | 246 | 110 | 58        | 59 |
| 89 | 121 | CHAD            | TIBESTI,WADI ZUMRI       | 21.1N                | 20.6N 17.4E         | 0  | LO | 250 | N | Y | 19910409 | 085714 | 246 | 111 | 58        | 59 |
| 89 | 122 | CHAD            | TIBESTI, EAST SLOPE      | 21.0N                | 20.6N 17.6E         | 0  | LO | 250 | N | N | 19910409 | 085716 | 246 | 111 | 59        | 59 |
| 90 | 1   | EGYPT           | GILF KEBIR PLAT,SAND STM | 23.5N                | 23.5N 26.7E         | 0  | LO | 250 | N | N | 19910406 | 091633 | 246 | 137 | 67        | 13 |
| 90 | 2   | EGYPT           | E-W ROCK RIDGE,G. KEBIR  | 23.5N                | 23.2N 27.9E         | 0  | NV | 250 | N | N | 19910406 | 091652 | 246 | 139 | 68        | 13 |
| 90 | 3   | EGYPT           | GILF KEBIR PLAT,SAND STM | 23.5N                | 23.0N 28.6E         | 0  | LO | 250 | N | N | 19910406 | 091703 | 246 | 141 | 69        | 13 |
| 90 | 4   | EGYPT           | LAKE MASSER              | 22.5N                | 22.1N 31.3E         | 0  | NV | 250 | N | N | 19910406 | 091747 | 245 | 147 | 71        | 13 |
| 90 | 5   | SUDAN           | LAKE MASSER,NILE RIVER   | 21.5N                | 22.0N 31.7E         | 10 | NV | 250 | N | N | 19910406 | 091753 | 245 | 147 | 71        | 13 |
| 90 | 6   | SUDAN           | LAKE MASSER,NILE RIVER   | 21.8N                | 21.8N 32.2E         | 0  | LO | 250 | N | N | 19910406 | 091802 | 245 | 149 | 72        | 13 |
| 90 | 7   | SUDAN           | LAKE MASSER,NILE RIVER   | 21.9N                | 21.4N 33.3E         | 0  | LO | 250 | N | N | 19910406 | 091820 | 245 | 152 | 73        | 13 |
| 90 | 8   | EGYPT           | NUBIAN DES,WADI ALLAQI   | 22.4N                | 21.1N 34.3E         | 0  | LO | 250 | N | N | 19910406 | 091837 | 245 | 155 | 73        | 13 |
| 90 | 9   | SUDAN           | NUBIAN DES,DOVE.MTNS.    | 21.7N                | 20.8N 35.1E         | 20 | LO | 250 | N | N | 19910406 | 091850 | 245 | 157 | 74        | 13 |
| 90 | 10  | SUDAN           | DUNGUNAB BAY/PENINSULA   | 21.0N                | 20.2N 36.8E         | 20 | LO | 250 | N | N | 19910406 | 091918 | 245 | 163 | 75        | 13 |
| 90 | 11  | SAUDI ARABIA    | JIDDAH(PART),COAST       | 22.0N                | 19.7N 37.9E         | 15 | LO | 250 | N | Y | 19910406 | 091936 | 245 | 167 | 76        | 13 |
| 90 | 12  | SAUDI ARABIA    | JIDDAH, COAST            | 21.3N                | 19.5N 38.5E         | 20 | LO | 250 | N | Y | 19910406 | 091947 | 245 | 170 | 76        | 13 |
| 90 | 13  | SAUDI ARABIA    | BARRIER REEF,COAST       | 20.3N                | 19.0N 39.8E         | 0  | LO | 250 | N | N | 19910406 | 092009 | 245 | 176 | 77        | 13 |
| 90 | 14  | SAUDI ARABIA    | FARASAN IS,RED SEA,CST   | 16.5N                | 17.7N 42.8E         | 10 | LO | 250 | N | N | 19910406 | 092100 | 245 | 191 | 78        | 13 |
| 90 | 15  | SAUDI ARABIA    | TUWAQ IRRIG. PROJECT     | 20.0N                | 17.0N 44.4E         | 0  | LO | 250 | N | N | 19910406 | 092128 | 245 | 200 | 78        | 13 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|----------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 90 | 16 | SAUDI ARABIA    | TUWAQ IRR, DUNE FIELD      | 19.6N 45.3E       | 16.6N 45.3E      | 0  | LO | 250 | N | N | 19910406 | 092144 | 245 | 206 | 78        | 13 |
| 90 | 17 | YEMEN (ADEN)    | SHIBAM, WADI SARR, W. AMD  | 16.0N 48.0E       | 16.0N 48.6E      | 5  | LO | 250 | N | N | 19910406 | 092207 | 244 | 213 | 78        | 13 |
| 90 | 18 | YEMEN (ADEN)    | PT. MUDAH, COAST           | 14.7N 49.0E       | 15.1N 48.6E      | 15 | NV | 250 | N | N | 19910406 | 092242 | 244 | 224 | 77        | 13 |
| 90 | 19 | YEMEN (ADEN)    | GHAYDAH, MAHRAT MTNS, CST. | 16.6N 52.5E       | 14.7N 49.4E      | 5  | LO | 250 | N | N | 19910406 | 092256 | 244 | 228 | 77        | 13 |
| 90 | 20 | YEMEN (ADEN)    | PT. SHARWAYN, W. MASILAH   | 15.0N 51.0E       | 13.7N 51.5E      | 30 | LO | 250 | N | N | 19910406 | 092334 | 244 | 238 | 76        | 13 |
| 90 | 21 | SOCOTRA         | ENTIRE ISLAND              | 12.3N 53.8E       | 10.9N 57.1E      | 15 | LO | 250 | N | N | 19910406 | 092515 | 244 | 256 | 71        | 13 |
| 90 | 22 | MALDIVES        | MALCOLM ATOLL, KOFENBE I   | 6.2N 72.6E        | 3.7N 69.9E       | 50 | LO | 250 | U | N | 19910406 | 092917 | 243 | 276 | 58        | 13 |
| 90 | 23 | MALDIVES        | ARI ATOLL, HULULE, RASDU A | 3.9N 72.9E        | 3.2N 70.7E       | 50 | LO | 250 | U | N | 19910406 | 092932 | 243 | 276 | 57        | 13 |
| 90 | 24 | MALDIVES        | KOLUMADULU A, HADDUMMATI   | 2.3N 73.2E        | 2.6N 71.8E       | 35 | LO | 250 | U | N | 19910406 | 092952 | 243 | 277 | 56        | 13 |
| 90 | 25 | MALDIVES        | SUVAADIVA ATOLL            | 0.6N 73.2E        | 1.0N 74.6E       | 30 | LO | 250 | N | N | 19910406 | 093046 | 243 | 279 | 53        | 13 |
| 90 | 26 | MALDIVES        | SUVAADIVA ATOLL            | 0.5N 73.2E        | 0.7N 75.1E       | 30 | LO | 250 | N | N | 19910406 | 093056 | 243 | 279 | 52        | 13 |
| 90 | 27 | WESTERN SAHARA  | TINDOUF SYNCLINE, HAMRA W  | 26.9N 11.4W       | 26.8N 11.3W      | 5  | NV | 250 | N | N | 19910406 | 104622 | 246 | 119 | 54        | 14 |
| 90 | 28 | MOROCCO         | SEBKHA TAN, COAST          | 27.8N 12.7W       | 26.7N 10.7W      | 5  | LO | 250 | N | N | 19910406 | 104630 | 246 | 120 | 55        | 14 |
| 90 | 29 | NIGERIA         | LAKE CHAD                  | 13.0N 14.0E       | 19.4N 14.8E      | 45 | LO | 250 | N | N | 19910406 | 105316 | 245 | 168 | 76        | 14 |
| 90 | 30 | NIGER           | LAKE CHAD, KOMADOUGOU R.   | 13.7N 13.4E       | 19.0N 16.0E      | 5  | LO | 250 | N | N | 19910406 | 105336 | 245 | 173 | 77        | 14 |
| 90 | 31 | CHAD            | TIBESTI MTNS, ENI KOUSSI   | 19.7N 18.7E       | 18.4N 17.3E      | 0  | LO | 250 | N | N | 19910406 | 105359 | 245 | 180 | 77        | 14 |
| 90 | 32 | CHAD            | TIBESTI, AOROUNGA CRATER   | 19.1N 19.4E       | 18.3N 17.6E      | 0  | LO | 250 | N | N | 19910406 | 105404 | 245 | 182 | 78        | 14 |
| 90 | 33 | CHAD            | TIBESTI MTNS, PIC TOUSIDE  | 21.0N 16.5E       | 17.8N 18.8E      | 0  | LO | 250 | N | N | 19910406 | 105425 | 245 | 188 | 78        | 14 |
| 90 | 34 | WESTERN SAHARA  | RIO DE ORO PEN, COAST      | 23.3N 16.0W       | 22.2N 16.8W      | 0  | LO | 250 | O | Y | 19910406 | 122435 | 245 | 143 | 70        | 15 |
| 90 | 35 | WESTERN SAHARA  | RIO DE ORO PEN, COAST      | 23.5N 15.9W       | 21.9N 16.0W      | 0  | LO | 250 | O | Y | 19910406 | 122448 | 245 | 145 | 71        | 15 |
| 90 | 36 | MAURITANIA      | AZEFAL DNES, RCK OUTCRPS   | 22.0N 13.0W       | 21.3N 14.1W      | 0  | LO | 250 | N | N | 19910406 | 122519 | 245 | 150 | 73        | 15 |
| 90 | 37 | MAURITANIA      | RICHAT STRUCTURE           | 21.2N 11.5W       | 20.9N 13.1W      | 0  | LO | 250 | N | N | 19910406 | 122535 | 245 | 152 | 73        | 15 |
| 90 | 38 | MAURITANIA      | SEBKHA DE CHEMCHANE        | 21.0N 12.2W       | 20.7N 12.4W      | 0  | NV | 250 | N | N | 19910406 | 122547 | 245 | 154 | 74        | 15 |
| 90 | 39 | MAURITANIA      | RICHAT STRUCTURE           | 21.1N 11.3W       | 20.4N 11.6W      | 0  | LO | 250 | N | N | 19910406 | 122600 | 245 | 157 | 74        | 15 |
| 90 | 40 | NIGERIA         | KANO, AFLDS, RDS, RESERV.  | 12.5N 8.5E        | 11.5N 8.2E       | 5  | LO | 250 | N | N | 19910406 | 123147 | 244 | 252 | 73        | 15 |
| 90 | 41 | NIGERIA         | KOMADOUGOU YOBE/GANA R.    | 12.8N 11.4E       | 10.5N 10.0E      | 0  | LO | 250 | N | N | 19910406 | 123220 | 244 | 257 | 72        | 15 |
| 90 | 42 | NIGERIA         | L. CHAD, KANMADOUGOU R.    | 13.5N 13.5E       | 10.1N 10.7E      | 0  | LO | 250 | N | N | 19910406 | 123233 | 244 | 259 | 71        | 15 |
| 90 | 43 | NIGERIA         | LAKE CHAD                  | 13.0N 14.0E       | 10.1N 10.9E      | 40 | LO | 250 | N | N | 19910406 | 123236 | 243 | 259 | 71        | 15 |
| 90 | 44 | CAMEROON        | LAKE CHAD, CHARI RIVER     | 12.5N 14.5E       | 10.0N 11.0E      | 65 | LO | 250 | N | N | 19910406 | 123239 | 243 | 260 | 71        | 15 |
| 90 | 45 | TANZANIA        | VERY DARK                  | 1.4S 30.9E        | 1.4S 30.9E       | 40 | LO | 250 | U | N | 19910406 | 123856 | 243 | 281 | 49        | 15 |
| 90 | 46 | TANZANIA        | L. VICTORIA-SOUTH COAST    | 2.5S 32.5E        | 1.5S 31.2E       | 50 | LO | 250 | U | N | 19910406 | 123901 | 243 | 281 | 49        | 15 |
| 90 | 47 | TANZANIA        | L. VICTORIA-SPEKE GULF     | 2.5S 33.5E        | 1.7S 31.4E       | 50 | LO | 250 | U | N | 19910406 | 123906 | 243 | 281 | 48        | 15 |
| 90 | 48 | TANZANIA        | L. VICTORIA-EAST COAST     | 1.5S 33.5E        | 1.8S 31.6E       | 50 | LO | 250 | U | N | 19910406 | 123909 | 243 | 281 | 48        | 15 |
| 90 | 49 | TANZANIA        | L. VICTORIA-WEST COAST     | 1.7S 31.8E        | 2.0S 31.9E       | 50 | NV | 250 | U | Y | 19910406 | 123916 | 242 | 281 | 48        | 15 |
| 90 | 50 | TANZANIA        | L. VICTORIA-SOUTH COAST    | 2.1S 31.8E        | 2.1S 32.1E       | 70 | NV | 250 | U | Y | 19910406 | 123919 | 242 | 281 | 47        | 15 |
| 90 | 51 | TANZANIA        | L. VICTORIA-SOUTH COAST    | 2.5S 32.5E        | 2.2S 32.4E       | 65 | NV | 250 | U | Y | 19910406 | 123924 | 242 | 281 | 47        | 15 |
| 90 | 52 | TANZANIA        | L. VICTORIA-MWANZA/GULF    | 2.5S 33.0E        | 2.4S 32.6E       | 60 | NV | 250 | U | Y | 19910406 | 123928 | 242 | 282 | 47        | 15 |
| 90 | 53 | TANZANIA        | L. VICTORIA-SPEKE GULF     | 2.5S 33.5E        | 3.3S 34.2E       | 60 | LO | 250 | U | N | 19910406 | 123959 | 242 | 282 | 45        | 15 |
| 90 | 54 | TANZANIA        | LAKE EYASI                 | 3.6S 34.7E        | 3.5S 34.6E       | 60 | NV | 250 | U | N | 19910406 | 124006 | 242 | 282 | 45        | 15 |
| 90 | 55 | TANZANIA        | LAKE NATRON                | 2.5S 36.0E        | 4.4S 36.1E       | 50 | LO | 250 | U | N | 19910406 | 124036 | 242 | 283 | 43        | 15 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT<br>LAT | LONG<br>LON | NADIR<br>LAT<br>LAT | LONG<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|----------------------------|----------------------|-------------|---------------------|-------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 90 | 56 | TANZANIA        | TANGA, COAST, PEMBA CHAN.  | 5.0S                 | 39.0E       | 5.5S                | 38.0E       | 35 | LO | 250 | U | N | 19910406 | 124112 | 242 | 283 | 41        | 15 |
| 90 | 57 | TANZANIA        | TANGA, COAST, PEMBA CHAN.  | 5.1S                 | 39.3E       | 6.3S                | 39.4E       | 30 | LO | 250 | U | N | 19910406 | 124139 | 242 | 283 | 39        | 15 |
| 90 | 58 | TANZANIA        | ZANZIBAR/ISLAND/CHANNEL    | 6.0S                 | 39.5E       | 6.4S                | 39.7E       | 15 | NV | 250 | U | N | 19910406 | 124143 | 242 | 283 | 39        | 15 |
| 90 | 59 | TANZANIA        | DAR ES SALAAM, COAST       | 7.0S                 | 39.5E       | 6.7S                | 40.2E       | 30 | LO | 250 | U | N | 19910406 | 124153 | 242 | 283 | 38        | 15 |
| 90 | 60 | SIERRA LEONE    | FOREST FIRES               |                      |             | 9.3N                | 11.7W       | 60 | LO | 250 | U | N | 19910406 | 140627 | 243 | 262 | 70        | 16 |
| 90 | 61 | LIBERIA         | LAKE PISO, CAPE MOUNT, CST | 6.8N                 | 11.5W       | 7.4N                | 8.1W        | 50 | LO | 250 | U | N | 19910406 | 140733 | 243 | 268 | 67        | 16 |
| 90 | 62 | LIBERIA         | COAST                      | 5.5N                 | 9.5W        | 6.8N                | 7.0W        | 65 | LO | 250 | U | N | 19910406 | 140754 | 243 | 270 | 65        | 16 |
| 90 | 63 | IVORY COAST     | KOSSOU RESERVOIR           | 7.5N                 | 5.5W        | 6.1N                | 5.9W        | 70 | LO | 250 | U | N | 19910406 | 140815 | 243 | 271 | 64        | 16 |
| 90 | 64 | ANGOLA          | CABINDE, AFLD, COAST       | 5.5S                 | 12.5E       | 3.2S                | 10.1E       | 75 | LO | 250 | U | N | 19910406 | 141321 | 242 | 282 | 46        | 16 |
| 90 | 65 | ZAIRE           | CONGO RIVER                | 5.0S                 | 14.0E       | 3.5S                | 10.6E       | 50 | LO | 250 | U | N | 19910406 | 141330 | 242 | 282 | 45        | 16 |
| 90 | 66 | CONGO           | VERY DARK                  |                      |             | 4.4S                | 12.2E       | 75 | LO | 250 | U | N | 19910406 | 141400 | 242 | 283 | 43        | 16 |
| 90 | 67 | ANGOLA          | DOS TIGRES I, NAMIB DES.   | 17.0S                | 12.0E       | 8.2S                | 18.9E       | 50 | HO | 250 | U | N | 19910406 | 141608 | 242 | 284 | 35        | 16 |
| 90 | 68 | ANGOLA          | RIO CUANGO/HILLS           | 10.0S                | 18.5E       | 8.5S                | 19.6E       | 70 | LO | 250 | U | N | 19910406 | 141620 | 242 | 284 | 35        | 16 |
| 90 | 69 | ANGOLA          | STREAMS, HILLS             |                      |             | 9.0S                | 20.4E       | 70 | LO | 250 | U | N | 19910406 | 141636 | 242 | 284 | 34        | 16 |
| 90 | 70 | ANGOLA          | RIO CUANDO, ZAMBEZI DRAIN  | 15.0S                | 21.0E       | 10.3S               | 22.8E       | 80 | LO | 250 | U | N | 19910406 | 141720 | 242 | 284 | 31        | 16 |
| 90 | 71 | ZAMBIA          | ZAMBEZI R/TRIB. CONVERGE   | 15.5S                | 23.0E       | 11.2S               | 24.5E       | 80 | LO | 250 | U | N | 19910406 | 141751 | 242 | 283 | 29        | 16 |
| 90 | 72 | BOTSWANA        | NTWETWE PAN, DESERT        | 20.5S                | 24.5E       | 12.0S               | 26.1E       | 40 | LO | 250 | U | Y | 19910406 | 141820 | 242 | 283 | 27        | 16 |
| 90 | 73 | BOTSWANA        | SUA PAN, DESERT            | 20.5S                | 26.5E       | 12.1S               | 26.3E       | 50 | LO | 250 | U | Y | 19910406 | 141825 | 242 | 283 | 27        | 16 |
| 90 | 74 | ZIMBABWE        | LAKE KARIBA, DARK          | 17.5S                | 27.5E       | 12.4S               | 26.9E       | 60 | LO | 250 | U | N | 19910406 | 141835 | 242 | 283 | 26        | 16 |
| 90 | 75 | ZIMBABWE        | SHANGANI/GWAI R-BASIN, DK  | 19.5S                | 28.0E       | 12.6S               | 27.2E       | 50 | LO | 250 | U | N | 19910406 | 141840 | 242 | 283 | 26        | 16 |
| 90 | 76 | ZIMBABWE        | LAKE KARIBA, DARK          | 17.0S                | 28.5E       | 13.0S               | 28.1E       | 35 | LO | 250 | U | N | 19910406 | 141857 | 242 | 283 | 25        | 16 |
| 90 | 77 | ZAMBIA          | LUANGWA RIVER, DARK        | 12.7S                | 32.0E       | 14.8S               | 31.8E       | 50 | LO | 250 | U | N | 19910406 | 142003 | 242 | 283 | 21        | 16 |
| 90 | 78 | MOZAMBIQUE      | DRAINAGE BASIN, DARK       |                      |             | 15.2S               | 32.7E       | 75 | LO | 250 | U | N | 19910406 | 142019 | 242 | 282 | 20        | 16 |
| 90 | 79 | MALAWI          | LAKE NYASA, DARK           | 12.5S                | 34.3E       | 15.7S               | 33.6E       | 7  | LO | 250 | U | N | 19910406 | 142036 | 242 | 282 | 19        | 16 |
| 90 | 80 | MALAWI          | SIDE OF MTN RIDGE, DARK    |                      |             | 16.4S               | 35.2E       | 40 | LO | 250 | U | N | 19910406 | 142103 | 242 | 282 | 17        | 16 |
| 90 | 81 | MOZAMBIQUE      | ZAMBEZI RIVER, VERY DARK   | 18.0S                | 35.5E       | 16.9S               | 36.4E       | 20 | LO | 250 | U | N | 19910406 | 142124 | 242 | 282 | 16        | 16 |
| 90 | 82 | MOZAMBIQUE      | ZAMBEZI R, CST, VERY DARK  | 18.5S                | 36.5E       | 17.2S               | 36.9E       | 5  | LO | 250 | U | N | 19910406 | 142134 | 242 | 281 | 15        | 16 |
| 90 | 83 | MOZAMBIQUE      | VERY DARK                  |                      |             | 17.4S               | 37.5E       | 10 | LO | 250 | U | N | 19910406 | 142143 | 242 | 281 | 14        | 16 |
| 90 | 84 | MOZAMBIQUE      | COAST, VERY DARK           | 17.0S                | 38.5E       | 17.6S               | 38.0E       | 15 | LO | 250 | U | N | 19910406 | 142152 | 242 | 281 | 14        | 16 |
| 90 | 85 | MOZAMBIQUE      | RIO MELULI, COAST, V. DARK | 16.3S                | 39.6E       | 17.9S               | 38.6E       | 15 | LO | 250 | U | N | 19910406 | 142202 | 242 | 281 | 13        | 16 |
| 90 | 86 | MOZAMBIQUE      | ZAMBEZI R/DELTA, COAST     | 18.5S                | 35.5E       | 18.3S               | 39.7E       | 10 | LO | 250 | U | N | 19910406 | 142221 | 242 | 281 | 12        | 16 |
| 90 | 87 | MOZAMBIQUE      | RIO PUNGUE R/DELTA, CST.   | 19.5S                | 35.0E       | 18.4S               | 40.0E       | 5  | LO | 250 | U | N | 19910406 | 142226 | 242 | 281 | 12        | 16 |
| 90 | 88 | NAMIBIA         | ETOSHA PAN & SURROUND      | 18.8S                | 16.2E       | 17.4S               | 13.6E       | 50 | LO | 250 | U | Y | 19910406 | 155510 | 243 | 281 | 15        | 17 |
| 90 | 89 | NAMIBIA         | ETOSHA PAN-NW AREA         | 18.6S                | 15.7E       | 17.8S               | 14.5E       | 50 | LO | 250 | U | Y | 19910406 | 155524 | 243 | 281 | 14        | 17 |
| 90 | 90 | NAMIBIA         | BRANDBERG INTRUSIVE, DES.  | 21.2S                | 14.6E       | 18.0S               | 15.0E       | 0  | LO | 250 | U | N | 19910406 | 155533 | 243 | 281 | 13        | 17 |
| 90 | 91 | NAMIBIA         | EBONGBERGE INTRUSIVE       | 21.5S                | 15.5E       | 18.2S               | 15.5E       | 0  | LO | 250 | U | N | 19910406 | 155542 | 243 | 281 | 13        | 17 |
| 90 | 92 | ANGOLA          | MOCAMEDES DES, RIO COROCA  | 15.8S                | 12.0E       | 18.8S               | 16.9E       | 60 | LO | 250 | U | Y | 19910406 | 155606 | 243 | 281 | 11        | 17 |
| 90 | 93 | ANGOLA          | MOCAMEDES DESERT, COAST    | 17.0S                | 12.0E       | 18.9S               | 17.2E       | 40 | LO | 250 | U | Y | 19910406 | 155611 | 243 | 280 | 11        | 17 |
| 90 | 94 | NAMIBIA         | NAMIB DESERT, COAST        | 18.5S                | 12.0E       | 19.0S               | 17.4E       | 30 | LO | 250 | U | N | 19910406 | 155615 | 243 | 280 | 11        | 17 |
| 90 | 95 | NAMIBIA         | NAMIB DES, HOANIB WADI     | 19.5S                | 13.0E       | 19.2S               | 17.9E       | 0  | LO | 250 | U | N | 19910406 | 155623 | 243 | 280 | 10        | 17 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                     | CENTER |        | NADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|-----|-----------------|-----------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |     |                 |                             | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 90 | 96  | NAMIBIA         | NAMIB DES. HUAB WADI, CST   | 21.0S  | 13.5E  | 19.3S | 18.1E  | 0  | LO | 250 | N | N | 19910406 | 155627 | 243 | 280 | 10  | 17 |    |
| 90 | 97  | NAMIBIA         | NAMIB DES. OMARURU WADI     | 22.0S  | 14.5E  | 19.4S | 18.6E  | 0  | LO | 250 | N | N | 19910406 | 155634 | 243 | 280 | 9   | 17 |    |
| 90 | 98  | NAMIBIA         | NAMIB DES. WALVIS BAY, CST  | 23.0S  | 14.5E  | 19.5S | 18.9E  | 0  | LO | 250 | N | N | 19910406 | 155639 | 243 | 280 | 9   | 17 |    |
| 90 | 99  | NAMIBIA         | NAMIB DES. TSAUCHAB R, CST  | 25.0S  | 15.5E  | 19.5S | 19.7E  | 0  | LO | 250 | N | N | 19910406 | 155653 | 243 | 280 | 8   | 17 |    |
| 90 | 100 | NAMIBIA         | NAMIB DES. TSAUCHAB R, CST  | 24.5S  | 15.5E  | 20.1S | 20.4E  | 0  | LO | 250 | N | N | 19910406 | 155705 | 243 | 279 | 8   | 17 |    |
| 90 | 101 | MEXICO          | GUADALAJARA, LAG. CHAPALA   | 21.0N  | 103.0W | 26.4N | 104.5W | 0  | LO | 250 | N | N | 19910406 | 170040 | 246 | 119 | 55  | 18 |    |
| 90 | 102 | MEXICO          | TORREON, RDS, RR, AGR.      | 25.5N  | 103.5W | 26.1N | 103.0W | 25 | LO | 250 | N | N | 19910406 | 170103 | 246 | 120 | 56  | 18 |    |
| 90 | 103 | MEXICO          | SIERRA MADRE, AGR.          | 26.5N  | 102.5W | 25.9N | 102.0W | 40 | LO | 250 | N | N | 19910406 | 170119 | 246 | 121 | 57  | 18 |    |
| 90 | 104 | MEXICO          | GUADALAJARA, LAG. CHAPALA   | 21.0N  | 103.0W | 25.7N | 101.0W | 0  | LO | 250 | N | N | 19910406 | 170134 | 246 | 122 | 58  | 18 |    |
| 90 | 105 | MEXICO          | YUCATAN COAST               | 21.5N  | 88.0W  | 22.3N | 88.6W  | 30 | LO | 250 | N | N | 19910406 | 170449 | 246 | 139 | 69  | 18 |    |
| 90 | 106 | MEXICO          | YUCATAN CST, COZUMEL I.     | 20.5N  | 87.0W  | 21.4N | 85.9W  | 60 | LO | 250 | N | N | 19910406 | 170533 | 245 | 144 | 72  | 18 |    |
| 90 | 107 | GUAYANA         | ESSEQUIBO R/DELTA           | 7.0N   | 58.5W  | 9.3N  | 59.4W  | 75 | LO | 250 | N | N | 19910406 | 171319 | 244 | 262 | 71  | 18 |    |
| 90 | 108 | VENEZUELA       | ORINOCO R/DELTA-CLD COV.    | 9.0N   | 60.5W  | 9.0N  | 58.8W  | 50 | LO | 250 | N | N | 19910406 | 171331 | 244 | 263 | 71  | 18 |    |
| 90 | 109 | VENEZUELA       | CANO MACAREO-ORINOCO DEL    | 9.8N   | 61.6W  | 8.6N  | 58.1W  | 70 | LO | 250 | N | N | 19910406 | 171343 | 244 | 264 | 70  | 18 |    |
| 90 | 110 | GUAYANA         | BERBICE R, NEW AMSTERDAM    | 6.5N   | 57.5W  | 8.3N  | 57.6W  | 40 | LO | 250 | N | N | 19910406 | 171354 | 244 | 265 | 69  | 18 |    |
| 90 | 111 | SURINAM         | COURANTYN R, AGR, GUYANA    | 6.0N   | 57.0W  | 7.7N  | 56.5W  | 45 | LO | 250 | N | N | 19910406 | 171414 | 244 | 267 | 68  | 18 |    |
| 90 | 112 | SURINAM         | COURANTYN R, AGR, GUYANA    | 6.0N   | 57.0W  | 6.9N  | 54.9W  | 55 | LO | 250 | N | N | 19910406 | 171443 | 243 | 270 | 67  | 18 |    |
| 90 | 113 | SURINAM         | BLOMMESTEIN RESERVOIR       | 5.0N   | 55.0W  | 6.4N  | 54.0W  | 75 | LO | 250 | N | N | 19910406 | 171500 | 243 | 271 | 66  | 18 |    |
| 90 | 114 | SURINAM         | BLOMMESTEIN RESERVOIR       | 5.0N   | 55.0W  | 5.8N  | 53.1W  | 75 | LO | 250 | N | N | 19910406 | 171518 | 243 | 272 | 65  | 18 |    |
| 90 | 115 | SURINAM         | BLOMMESTEIN RESERVOIR       | 5.0N   | 55.0W  | 5.3N  | 52.2W  | 80 | LO | 250 | N | N | 19910406 | 171535 | 243 | 273 | 64  | 18 |    |
| 90 | 116 | BRAZIL          | CAPE/RIO CASIPORE, COAST    | 3.5N   | 51.0W  | 4.7N  | 51.1W  | 70 | LO | 250 | N | N | 19910406 | 171555 | 243 | 274 | 62  | 18 |    |
| 90 | 117 | FRENCH GUIANA   | RIO CALCOENE, NAZARE, CST   | 2.6N   | 50.8W  | 4.6N  | 50.9W  | 80 | LO | 250 | N | N | 19910406 | 171559 | 243 | 275 | 62  | 18 |    |
| 90 | 118 | BRAZIL          | RIO ARAGUARI, AMAZON DEL.   | 1.2N   | 50.1W  | 3.4N  | 48.9W  | 70 | LO | 250 | N | N | 19910406 | 171637 | 243 | 276 | 60  | 18 |    |
| 90 | 119 | BRAZIL          | CAVIANA I, AMAZON DELTA     | 0.4N   | 49.6W  | 3.3N  | 48.7W  | 75 | LO | 250 | N | N | 19910406 | 171642 | 243 | 277 | 60  | 18 |    |
| 90 | 120 | BRAZIL          | AMAZON RIVER                | 0.8S   | 51.2W  | 2.2N  | 46.8W  | 70 | LO | 250 | N | N | 19910406 | 171718 | 243 | 278 | 57  | 18 |    |
| 90 | 121 | BRAZIL          | COAST                       | 1.0S   | 47.0W  | 1.5N  | 45.6W  | 80 | LO | 250 | N | N | 19910406 | 171741 | 243 | 279 | 56  | 18 |    |
| 90 | 122 | BRAZIL          | COAST                       | 1.0S   | 46.0W  | 1.4N  | 45.4W  | 80 | LO | 250 | N | N | 19910406 | 171744 | 243 | 279 | 56  | 18 |    |
| 91 | 1   | PACIFIC OCEAN   | EDDIES, SHEARS              |        |        | 21.0N | 110.7W | 20 | LO | 250 | N | N | 19910405 | 191742 | 245 | 172 | 75  | 4  |    |
| 91 | 2   | MEXICO          | BAJA, SO. END, SRA GIGANTA  | 23.3N  | 109.9W | 20.8N | 110.1W | 10 | LO | 250 | N | N | 19910405 | 191752 | 245 | 175 | 75  | 4  |    |
| 91 | 3   | MEXICO          | COAST                       | 18.2N  | 103.2W | 19.1N | 105.5W | 20 | LO | 250 | N | Y | 19910405 | 191908 | 244 | 195 | 76  | 4  |    |
| 91 | 4   | MEXICO          | COAST                       | 18.5N  | 103.5W | 19.0N | 105.4W | 60 | LO | 250 | N | Y | 19910405 | 191910 | 244 | 196 | 76  | 4  |    |
| 91 | 5   | MEXICO          | COAST                       | 19.0N  | 104.0W | 18.9N | 105.3W | 80 | LO | 250 | N | Y | 19910405 | 191913 | 244 | 197 | 76  | 4  |    |
| 91 | 6   | MEXICO          | COAST, MANZANILLO BAY       | 19.0N  | 104.5W | 18.9N | 105.1W | 80 | LO | 250 | N | Y | 19910405 | 191915 | 244 | 197 | 76  | 4  |    |
| 91 | 7   | MEXICO          | COAST, SRA MADRE OCCID.     | 19.5N  | 104.5W | 18.8N | 104.9W | 90 | LO | 250 | N | Y | 19910405 | 191919 | 244 | 198 | 76  | 4  |    |
| 91 | 8   | MEXICO          | PUNTA MITA, COAST           | 12.5N  | 105.5W | 18.6N | 104.5W | 20 | LO | 250 | N | Y | 19910405 | 191926 | 244 | 200 | 76  | 4  |    |
| 91 | 9   | MEXICO          | SANTIAGO/ACAPONETA BASIN    | 22.0N  | 105.5W | 18.6N | 104.3W | 5  | LO | 250 | N | Y | 19910405 | 191929 | 244 | 201 | 76  | 4  |    |
| 91 | 10  | MEXICO          | COAST, SHEAR LINE           | 17.0N  | 101.0W | 16.6N | 99.7W  | 10 | LO | 250 | N | N | 19910405 | 192049 | 244 | 224 | 75  | 4  |    |
| 91 | 11  | MEXICO          | LAG. TRES PALO, AFLD, SHEAR | 16.5N  | 99.5W  | 16.5N | 99.5W  | 5  | LO | 250 | N | N | 19910405 | 192052 | 244 | 224 | 75  | 4  |    |
| 91 | 12  | MEXICO          | LAG. CHICAHUA, COAST        | 15.6N  | 97.7W  | 16.4N | 99.3W  | 0  | LO | 250 | N | N | 19910405 | 192056 | 244 | 225 | 75  | 4  |    |
| 91 | 13  | MEXICO          | RIO COLOTEPEC, AFLD, CST.   | 15.5N  | 97.0W  | 16.3N | 99.1W  | 0  | LO | 250 | N | N | 19910405 | 192100 | 244 | 226 | 75  | 4  |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM |
|----|----|-----------------|----------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|
|    |    |                 |                            | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     | OR  |
| 91 | 14 | MEXICO          | LAG. SUPERIOR/INFERIOR     | 16.0N  | 94.5W | 15.3N | 97.0W | 5  | LO | 250 | N | N | 19910405 | 192137 | 244 | 235 | 74  |
| 91 | 15 | MEXICO          | SRA MADRE DEL SUR, CST.    | 15.5N  | 95.5W | 15.2N | 96.7W | 25 | LO | 250 | N | N | 19910405 | 192141 | 244 | 236 | 74  |
| 91 | 16 | MEXICO          | RIO COLOTEPEC, COAST       | 15.5N  | 96.5W | 15.1N | 96.4W | 10 | LO | 250 | N | N | 19910405 | 192147 | 244 | 237 | 74  |
| 91 | 17 | MEXICO          | MALPASO RESERVOIR          | 17.0N  | 93.5W | 14.1N | 94.4W | 85 | LO | 250 | N | N | 19910405 | 192223 | 244 | 244 | 72  |
| 91 | 18 | MEXICO          | ANGOSTURA RESERVOIR        | 16.0N  | 92.5W | 13.9N | 94.1W | 70 | LO | 250 | N | N | 19910405 | 192228 | 244 | 245 | 72  |
| 91 | 19 | PACIFIC OCEAN   | CURRENT STRUCTURE, SNGLT   |        |       | 13.6N | 93.4W | 5  | LO | 250 | N | N | 19910405 | 192240 | 244 | 247 | 72  |
| 91 | 20 | PACIFIC OCEAN   | CURRENT STRUCTURE          |        |       | 13.3N | 92.8W | 5  | LO | 250 | N | N | 19910405 | 192251 | 244 | 248 | 71  |
| 91 | 21 | GUATEMALA       | ANGOSTURA RESERVOIR        | 15.5N  | 92.0W | 12.8N | 91.7W | 80 | LO | 250 | N | N | 19910405 | 192311 | 244 | 251 | 70  |
| 91 | 22 | NICARAGUA       | ESTERO REAL R, SWAMP       | 13.0N  | 87.0W | 11.4N | 89.0W | 40 | LO | 250 | N | N | 19910405 | 192400 | 243 | 257 | 68  |
| 91 | 23 | NICARAGUA       | AGR. (7/8 BLACK FRAME)     |        |       | 11.2N | 88.7W | 50 | LO | 250 | N | N | 19910405 | 192407 | 243 | 258 | 67  |
| 91 | 24 | NICARAGUA       | AGR. (3/4 BLACK FRAME)     |        |       | 11.0N | 88.2W | 70 | LO | 250 | N | N | 19910405 | 192415 | 243 | 259 | 67  |
| 91 | 25 | NICARAGUA       | SANTA ELENA BAY, COAST     | 11.0N  | 86.0W | 10.3N | 87.0W | 0  | LO | 250 | N | N | 19910405 | 192437 | 243 | 261 | 66  |
| 91 | 26 | COSTA RICA      | PAPAGAYO GULF, COAST       | 10.5N  | 86.3W | 9.9N  | 86.3W | 0  | LO | 250 | N | N | 19910405 | 192450 | 243 | 262 | 65  |
| 91 | 27 | COSTA RICA      | NICOYA PENINSULA           | 10.0N  | 85.5W | 9.9N  | 86.2W | 5  | LO | 250 | N | Y | 19910405 | 192452 | 243 | 263 | 65  |
| 91 | 28 | COSTA RICA      | NICOYA PENINSULA/GULF      | 10.0N  | 85.0W | 9.8N  | 86.1W | 5  | LO | 250 | N | Y | 19910405 | 192454 | 243 | 263 | 65  |
| 91 | 29 | COSTA RICA      | SAN JOSE, CLOUDS           | 10.0N  | 84.0W | 9.4N  | 85.3W | 60 | LO | 250 | N | N | 19910405 | 192509 | 243 | 264 | 64  |
| 91 | 30 | PANAMA          | LAGUNA CHIRIQUI, ISLANDS   | 9.0N   | 82.0W | 8.8N  | 84.2W | 50 | LO | 250 | N | N | 19910405 | 192529 | 243 | 266 | 63  |
| 91 | 31 | COSTA RICA      | PT. BURICA, PENINSULA      | 8.5N   | 83.0W | 8.6N  | 83.8W | 30 | NV | 250 | N | N | 19910405 | 192537 | 243 | 266 | 63  |
| 91 | 32 | COSTA RICA      | CST, PT UVITA              | 9.0N   | 84.0W | 8.5N  | 83.6W | 40 | LO | 250 | N | N | 19910405 | 192540 | 243 | 266 | 62  |
| 91 | 33 | PANAMA          | PENINSULA AZUERO           | 7.5N   | 80.5W | 8.2N  | 83.1W | 40 | LO | 250 | N | Y | 19910405 | 192551 | 243 | 267 | 62  |
| 91 | 34 | PANAMA          | PENINSULA AZUERO           | 8.0N   | 80.0W | 7.4N  | 81.6W | 50 | LO | 250 | N | Y | 19910405 | 192618 | 243 | 269 | 60  |
| 91 | 35 | COSTA RICA      | PT. BURICA, PENINSULA      | 8.0N   | 83.0W | 7.0N  | 81.0W | 30 | LO | 250 | N | N | 19910405 | 192630 | 243 | 270 | 60  |
| 91 | 36 | GULF OF PANAMA  | CLOUDS                     |        |       | 6.0N  | 79.2W | 90 | LO | 250 | N | N | 19910405 | 192704 | 243 | 271 | 58  |
| 91 | 37 | PANAMA          | ISLANDS, COAST, CLOUDS     |        |       | 5.7N  | 78.7W | 80 | LO | 250 | N | N | 19910405 | 192713 | 243 | 272 | 57  |
| 91 | 38 | COLOMBIA        | COAST, CLOUDS              |        |       | 4.9N  | 77.3W | 80 | LO | 250 | N | Y | 19910405 | 192739 | 243 | 273 | 56  |
| 91 | 39 | COLOMBIA        | COAST, CLOUDS              |        |       | 4.3N  | 76.3W | 80 | LO | 250 | N | Y | 19910405 | 192759 | 243 | 274 | 55  |
| 91 | 40 | COLOMBIA        | COLIMA RES, ANDES, CLDS    | 4.0N   | 76.5W | 3.8N  | 75.4W | 85 | LO | 250 | N | N | 19910405 | 192815 | 243 | 275 | 54  |
| 91 | 41 | COLOMBIA        | RIO ARIARI, RIO AGUAPE     | 4.0N   | 74.0W | 3.2N  | 74.3W | 60 | NV | 250 | N | N | 19910405 | 192836 | 243 | 275 | 52  |
| 91 | 42 | COLOMBIA        | RIO ARIARI, LLANOS         | 3.0N   | 73.0W | 3.1N  | 74.1W | 40 | LO | 250 | N | N | 19910405 | 192840 | 243 | 276 | 52  |
| 91 | 43 | BRAZIL          | RIO NEGRO, RIO ICAMA, DARK | 0.5N   | 67.5W | 0.3N  | 69.4W | 75 | LO | 250 | N | N | 19910405 | 193011 | 243 | 278 | 47  |
| 91 | 44 | BRAZIL          | RIO NEGRO, FOREST, DARK    | 0.5S   | 68.5W | 0.1S  | 68.7W | 75 | LO | 250 | U | Y | 19910405 | 193024 | 243 | 279 | 46  |
| 91 | 45 | BRAZIL          | RIO NEGRO, FOREST, V. DARK | 0.0    | 67.0W | 0.6S  | 67.9W | 85 | NV | 250 | U | Y | 19910405 | 193039 | 243 | 279 | 45  |
| 91 | 46 | BRAZIL          | AMAZON R, FOREST, DARK     | 2.5S   | 65.5W | 2.2S  | 65.1W | 80 | NV | 250 | N | N | 19910405 | 193133 | 242 | 280 | 42  |
| 91 | 47 | BRAZIL          | AMAZON R, RIO JAPURA       | 3.0S   | 65.0W | 2.3S  | 64.9W | 70 | LO | 250 | N | N | 19910405 | 193136 | 242 | 280 | 42  |
| 91 | 48 | BRAZIL          | AMAZON RIVER               | 3.5S   | 64.5W | 2.4S  | 64.8W | 60 | NV | 250 | N | N | 19910405 | 193139 | 242 | 280 | 41  |
| 91 | 49 | BRAZIL          | AMAZON R, PARAMA COPEA R.  | 4.0S   | 63.5W | 3.1S  | 63.6W | 50 | NV | 250 | N | N | 19910405 | 193201 | 242 | 280 | 40  |
| 91 | 50 | BRAZIL          | AMAZON RIVER, FOREST       | 3.5S   | 64.5W | 3.2S  | 63.4W | 50 | LO | 250 | N | N | 19910405 | 193206 | 242 | 280 | 40  |
| 91 | 51 | BRAZIL          | RIO PURUS, CLOUDS          | 5.0S   | 62.5W | 4.5S  | 61.2W | 85 | LO | 250 | N | N | 19910405 | 193247 | 242 | 281 | 37  |
| 91 | 52 | BRAZIL          | RIO MADEIRA, CLOUDS        | 5.5S   | 60.5W | 5.0S  | 60.3W | 80 | NV | 250 | N | Y | 19910405 | 193304 | 242 | 281 | 36  |
| 91 | 53 | BRAZIL          | RIO MADEIRA, CLOUDS        | 5.0S   | 60.5W | 5.5S  | 59.4W | 80 | NV | 250 | N | Y | 19910405 | 193322 | 242 | 281 | 35  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME   | FEATURE                      | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|----|-------------------|------------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 91 | 54 | BRAZIL            | VERY DARK, CLOUDS            |                      | 8.3S 54.4W          | 60 | LO | 250 | U | N | 19910405 | 193456 | 242 | 281 | 29        | 4  |
| 91 | 55 | BRAZIL            | VERY DARK, CLOUDS            |                      | 9.9S 51.5W          | 70 | LO | 250 | U | N | 19910405 | 193550 | 242 | 281 | 26        | 4  |
| 91 | 56 | BRAZIL            | VERY DARK, CLOUDS            |                      | 10.2S 50.9W         | 70 | LO | 250 | U | N | 19910405 | 193601 | 242 | 281 | 25        | 4  |
| 91 | 57 | BRAZIL            | VERY DARK, CLOUDS            |                      | 10.5S 50.2W         | 50 | LO | 250 | U | Y | 19910405 | 193613 | 242 | 281 | 24        | 4  |
| 91 | 58 | BRAZIL            | VERY DARK, CLOUDS            |                      | 10.7S 50.0W         | 60 | LO | 250 | U | Y | 19910405 | 193617 | 242 | 281 | 24        | 4  |
| 91 | 59 | BRAZIL            | VERY DARK, CLOUDS            |                      | 11.1S 49.2W         | 70 | LO | 250 | U | Y | 19910405 | 193632 | 242 | 281 | 23        | 4  |
| 91 | 60 | BRAZIL            | RIO TOCANTINS, VERY DARK     | 11.5S 48.5W          | 11.7S 48.1W         | 60 | NV | 250 | U | N | 19910405 | 193653 | 242 | 281 | 22        | 4  |
| 91 | 61 | BRAZIL            | RIO TOCANTINS, VERY DARK     | 12.0S 48.5W          | 11.8S 47.9W         | 40 | NV | 250 | U | N | 19910405 | 193657 | 243 | 281 | 22        | 4  |
| 91 | 62 | BRAZIL            | R. TOCANTINS, R. PARANA-NO.  | 12.5S 48.0W          | 11.9S 47.7W         | 30 | NV | 250 | U | N | 19910405 | 193700 | 243 | 281 | 22        | 4  |
| 91 | 63 | BRAZIL            | VERY DARK, CLOUDS            |                      | 12.0S 47.5W         | 50 | LO | 250 | U | N | 19910405 | 193704 | 243 | 281 | 21        | 4  |
| 91 | 64 | BRAZIL            | VERY DARK, STREAM            |                      | 12.1S 47.3W         | 50 | LO | 250 | U | N | 19910405 | 193708 | 243 | 281 | 21        | 4  |
| 91 | 65 | BRAZIL            | VERY DARK, CLOUDS            |                      | 12.3S 46.8W         | 30 | LO | 250 | U | N | 19910405 | 193716 | 243 | 281 | 21        | 4  |
| 91 | 66 | BRAZIL            | VERY DARK, CLOUDS            |                      | 12.6S 46.2W         | 50 | LO | 250 | U | N | 19910405 | 193727 | 243 | 281 | 20        | 4  |
| 91 | 67 | BRAZIL            | VERY DARK, CLOUDS            |                      | 13.7S 44.1W         | 30 | LO | 250 | U | N | 19910405 | 193805 | 243 | 281 | 17        | 4  |
| 91 | 68 | BRAZIL            | VERY DARK, CLOUDS            |                      | 14.0S 43.4W         | 40 | LO | 250 | U | N | 19910405 | 193817 | 243 | 281 | 17        | 4  |
| 91 | 69 | BRAZIL            | RIO SAO FRANCISCO, V. DARK   | 14.5S 43.5W          | 14.2S 43.1W         | 40 | NV | 250 | U | N | 19910405 | 193823 | 243 | 281 | 16        | 4  |
| 91 | 70 | BRAZIL            | VERY DARK, HILLS, CLOUDS     |                      | 14.6S 42.2W         | 30 | LO | 250 | U | N | 19910405 | 193839 | 243 | 280 | 15        | 4  |
| 91 | 71 | BRAZIL            | VERY DARK, HILLS, CLOUDS     |                      | 14.8S 41.9W         | 60 | LO | 250 | U | N | 19910405 | 193845 | 243 | 280 | 15        | 4  |
| 91 | 72 | BRAZIL            | VERY DARK, HILLS, CLOUDS     |                      | 16.1S 38.9W         | 30 | LO | 250 | U | N | 19910405 | 193937 | 243 | 280 | 12        | 4  |
| 91 | 73 | BRAZIL            | RIO DOCE, COAST              | 19.5S 40.0W          | 17.3S 36.3W         | 60 | LO | 250 | U | N | 19910405 | 194022 | 243 | 279 | 9         | 4  |
| 91 | 74 |                   | BLACK, CENTER WHITE SPOT     |                      | 22.8N 146.2E        |    |    |     |   |   | 19910405 | 203107 | 245 | 85  | 5         | 5  |
| 91 | 75 | GALAPAGOS ISLANDS | I. FERNANDINA, I. ISABELA    | 0.5S 91.5W           | 0.6S 91.7W          | 40 | NV | 250 | U | Y | 19910405 | 210407 | 243 | 279 | 45        | 5  |
| 91 | 76 | GALAPAGOS ISLANDS | I. ISABELA, VERY DARK        | 1.0S 91.0W           | 0.7S 91.5W          | 70 | NV | 250 | U | Y | 19910405 | 210411 | 243 | 279 | 45        | 5  |
| 91 | 77 | GALAPAGOS ISLANDS | ISLA SANTA CRUZ, DARK        | 0.5S 90.5W           | 0.9S 91.2W          | 50 | NV | 250 | U | Y | 19910405 | 210416 | 243 | 279 | 45        | 5  |
| 91 | 78 | GALAPAGOS ISLANDS | I. STA CRUZ, I. SAN SALVAD.  | 0.5S 90.5W           | 1.0S 91.1W          | 60 | NV | 250 | U | Y | 19910405 | 210419 | 243 | 279 | 45        | 5  |
| 91 | 79 | GALAPAGOS ISLANDS | ISLA SAN CRISTOBAL, DARK     | 1.0S 89.5W           | 1.2S 90.7W          | 10 | NV | 250 | U | N | 19910405 | 210426 | 243 | 279 | 44        | 5  |
| 91 | 80 | PERU              | COAST                        | 7.0S 80.0W           | 7.1S 80.5W          | 40 | LO | 250 | N | N | 19910405 | 210741 | 242 | 282 | 32        | 5  |
| 91 | 81 | PERU              | ANDES, CLOUDS                |                      | 8.1S 78.7W          | 75 | LO | 250 | N | N | 19910405 | 210815 | 242 | 282 | 30        | 5  |
| 91 | 82 | PERU              | COAST, PUNTA LACHAY          | 11.0S 77.5W          | 9.4S 76.4W          | 50 | LO | 250 | N | N | 19910405 | 210858 | 242 | 282 | 27        | 5  |
| 91 | 83 | PERU              | ANDES, CLOUDS                |                      | 9.7S 75.7W          | 70 | LO | 250 | N | Y | 19910405 | 210910 | 242 | 282 | 27        | 5  |
| 91 | 84 | PERU              | ANDES, CLOUDS                |                      | 9.8S 75.5W          | 80 | LO | 250 | N | Y | 19910405 | 210914 | 242 | 282 | 26        | 5  |
| 91 | 85 | PERU              | ANDES, CLOUDS                |                      | 10.0S 75.2W         | 60 | LO | 250 | N | N | 19910405 | 210920 | 242 | 282 | 26        | 5  |
| 91 | 86 | PERU              | LAKE TITICACA, DARK          | 16.0S 70.0W          | 13.4S 68.6W         | 70 | LO | 250 | Y | Y | 19910405 | 211121 | 243 | 281 | 19        | 5  |
| 91 | 87 | PERU              | LAKE TITICACA, DARK          | 15.5S 69.5W          | 13.5S 68.4W         | 75 | LO | 250 | Y | Y | 19910405 | 211124 | 243 | 281 | 18        | 5  |
| 91 | 88 | BOLIVIA           | ANDES, CLOUDS, V. DARK       | 14.4S 66.6W          | 14.4S 66.6W         | 75 | LO | 250 | U | N | 19910405 | 211157 | 243 | 281 | 16        | 5  |
| 91 | 89 | BOLIVIA           | ANDES, STREAM, CLDS, V. DARK | 14.4S 66.4W          | 14.4S 66.4W         | 80 | LO | 250 | U | N | 19910405 | 211159 | 243 | 281 | 16        | 5  |
| 91 | 90 | BOLIVIA           | ANDES, CLDS, V. DARK         | 14.5S 66.3W          | 14.5S 66.3W         | 80 | LO | 250 | U | N | 19910405 | 211202 | 243 | 281 | 16        | 5  |
| 91 | 91 | BOLIVIA           | ANDES, CLDS, STREAM, V. DARK | 14.6S 66.0W          | 14.6S 66.0W         | 75 | LO | 250 | U | N | 19910405 | 211206 | 243 | 281 | 16        | 5  |
| 91 | 92 | BOLIVIA           | ANDES, CLDS, STREAMS, V. DK. | 15.8S 63.6W          | 15.8S 63.6W         | 75 | LO | 250 | U | N | 19910405 | 211249 | 243 | 280 | 13        | 5  |
| 91 | 93 | BOLIVIA           | RIO PARAPETI, VERY DARK      | 19.5S 62.5W          | 16.8S 61.4W         | 40 | LO | 250 | U | N | 19910405 | 211328 | 243 | 279 | 11        | 5  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME      | FEATURE                    | CENTER<br>LAT LON | WADIR<br>LAT LON | CC TL | FL | E   | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|----------------------|----------------------------|-------------------|------------------|-------|----|-----|---|----------|--------|-----|-----|-----------|----|
| 91 | 94  | PACIFIC OCEAN        | CLOUDS, CONV. CELLS        | 16.5N 169.5W      | 27.2N 153.3E     | 70    | LO | 250 | N | 19910405 | 235139 | 246 | 121 | 55        | 7  |
| 91 | 95  | PACIFIC OCEAN ISLAND | JOHNSON ATOLL              |                   | 16.0N 170.0W     | 10    | NV | 250 | N | 19910406 | 000131 | 244 | 225 | 76        | 7  |
| 91 | 96  | NEPAL                | HIMALAYA RANGE, CLOUDS     |                   | 25.9N 86.8E      | 50    | LO | 250 | N | 19910406 | 011437 | 246 | 90  | 16        | 8  |
| 91 | 97  | NEPAL                | HIMALAYA RANGE, CLOUDS     |                   | 26.0N 86.9E      | 65    | LO | 250 | N | 19910406 | 011439 | 246 | 90  | 16        | 8  |
| 91 | 98  | NEPAL                | HIMALAYA RANGE, CLOUDS     |                   | 26.0N 87.0E      | 75    | LO | 250 | N | 19910406 | 011441 | 246 | 90  | 16        | 8  |
| 91 | 99  | NEPAL                | HIMALAYA RANGE, CLOUDS     |                   | 26.1N 87.3E      | 85    | LO | 250 | N | 19910406 | 011445 | 246 | 91  | 16        | 8  |
| 91 | 100 | BHUTAN               | HIMALAYA RANGE, DOGEN L.   | 28.0N 89.5E       | 26.1N 87.4E      | 30    | LO | 250 | N | 19910406 | 011447 | 246 | 91  | 16        | 8  |
| 91 | 101 | CHINA                | HIMALAYA RANGE, DOGEN L.   | 28.0N 89.0E       | 26.1N 87.6E      | 15    | LO | 250 | N | 19910406 | 011449 | 246 | 91  | 16        | 8  |
| 91 | 102 | CHINA                | HIMALAYA RA, CHAMLING L.   | 28.0N 88.5E       | 26.1N 87.6E      | 30    | LO | 250 | N | 19910406 | 011450 | 246 | 91  | 16        | 8  |
| 91 | 103 | CHINA                | HIMALAYAS, BHRAMAPUTRA R.  | 27.5N 87.5E       | 26.2N 88.0E      | 15    | LO | 250 | N | 19910406 | 011455 | 246 | 91  | 17        | 8  |
| 91 | 104 | BURMA                | HENG TUAN MTNS, CLOUDS     |                   | 27.7N 97.8E      | 30    | LO | 250 | N | 19910406 | 011722 | 246 | 97  | 26        | 8  |
| 91 | 105 | CHINA                | CHIUNG L, ANNING R, YALONG | 28.0N 102.0E      | 27.8N 98.6E      | 50    | LO | 250 | N | 19910406 | 011734 | 246 | 97  | 27        | 8  |
| 91 | 106 | CHINA                | CHIUNG L, ANNING R, YALONG | 27.5N 102.0E      | 27.9N 99.1E      | 40    | LO | 250 | N | 19910406 | 011741 | 246 | 97  | 27        | 8  |
| 91 | 107 | CHINA                | LINGDING BAY-SE PANORAMA   | 24.0N 113.0E      | 28.4N 106.2E     | 30    | LO | 250 | U | 19910406 | 011926 | 246 | 102 | 34        | 8  |
| 91 | 108 | CHINA                | SE PANORAMA-COAST, V. DARK |                   | 28.4N 106.6E     | 50    | LO | 250 | U | 19910406 | 011932 | 246 | 102 | 34        | 8  |
| 91 | 109 | CHINA                | VERY DARK, CLOUDS          |                   | 28.4N 107.4E     | 50    | LO | 250 | U | 19910406 | 011943 | 246 | 103 | 35        | 8  |
| 91 | 110 | LAOS                 | WUJIANG SHAN, CLOUDS       | 22.0N 102.0E      | 28.5N 113.3E     | 40    | LO | 250 | N | 19910406 | 012109 | 246 | 107 | 40        | 8  |
| 91 | 111 | ALGERIA              | PIVOT IRRIG, DESERT        |                   | 28.2N 1.0E       | 0     | LO | 250 | N | 19910406 | 091003 | 246 | 110 | 44        | 13 |
| 91 | 112 | ALGERIA              | TADEMAIT PLAT, ILLIA WAD   | 27.8N 1.8E        | 28.1N 1.9E       | 0     | NV | 250 | N | 19910406 | 091016 | 246 | 111 | 45        | 13 |
| 91 | 113 | ALGERIA              | DESERT, WHITE SPOTS        |                   | 27.9N 4.0E       | 0     | LO | 250 | N | 19910406 | 091048 | 246 | 112 | 47        | 13 |
| 91 | 114 | ALGERIA              | DESERT, ROCK OUTCROP       |                   | 27.8N 5.2E       | 0     | LO | 250 | N | 19910406 | 091105 | 246 | 113 | 48        | 13 |
| 91 | 115 | ALGERIA              | DJEBEL IRRAREN, SAND DUNE  | 26.5N 5.5E        | 27.8N 5.7E       | 0     | LO | 250 | N | 19910406 | 091113 | 246 | 114 | 48        | 13 |
| 91 | 116 | ALGERIA              | TASSILI NAJJER             | 26.0N 8.0E        | 27.4N 9.0E       | 0     | LO | 250 | N | 19910406 | 091201 | 246 | 117 | 51        | 13 |
| 91 | 117 | LIBYA                | MESACH MELLET, YELLOW SPT  | 26.0N 12.5E       | 26.8N 12.2E      | 0     | LO | 250 | N | 19910406 | 091250 | 246 | 120 | 54        | 13 |
| 91 | 118 | LIBYA                | PIVOT IRRIG, MARZUQ SS     | 26.0N 13.5E       | 26.6N 13.6E      | 0     | LO | 250 | N | 19910406 | 091311 | 246 | 121 | 56        | 13 |
| 91 | 119 | LIBYA                | AGR. IRRIG, UBARI SS.      | 27.5N 14.5E       | 26.5N 14.2E      | 0     | LO | 250 | N | 19910406 | 091319 | 246 | 121 | 56        | 13 |
| 91 | 120 | LIBYA                | AGR. IRRIG, UBARI SS.      | 27.6N 14.7E       | 26.3N 15.5E      | 0     | LO | 250 | N | 19910406 | 091339 | 246 | 123 | 57        | 13 |
| 91 | 121 | LIBYA                | DOREL-GUSSA HILLS, DIKE    | 25.5N 16.8E       | 25.9N 17.5E      | 0     | LO | 250 | N | 19910406 | 091409 | 246 | 125 | 59        | 13 |
| 91 | 122 | LIBYA                | SAND DUNES                 |                   |                  | 0     | LO | 250 | N |          |        |     |     |           |    |
| 92 | 1   | BRAZIL               | TREWARTHA HUMP AREA        | 5.0S 35.0W        | 6.7S 31.5W       | 50    | LO | 250 | N | 19910406 | 172210 | 243 | 284 | 39        | 18 |
| 92 | 2   | BRAZIL               | TREWARTHA HUMP AREA        | 5.5S 35.4W        | 7.1S 30.8W       | 50    | LO | 250 | N | 19910406 | 172223 | 243 | 284 | 39        | 18 |
| 92 | 3   | MEXICO               | S.COAST, BAHIA DULCE AREA  | 16.7N 99.0W       | 17.1N 99.0W      | 40    | LO | 250 | N | 19910406 | 184202 | 245 | 184 | 79        | 19 |
| 92 | 4   | COSTA RICA           | GOLFO DE NICOYA            | 10.0N 85.4W       | 10.6N 85.6W      | 40    | LO | 250 | N | 19910406 | 184602 | 244 | 255 | 74        | 19 |
| 92 | 5   | COSTA RICA           | RIO TEMPISQUE AREA         | 10.3N 85.6W       | 10.5N 85.5W      | 40    | LO | 250 | N | 19910406 | 184605 | 244 | 256 | 74        | 19 |
| 92 | 6   | COSTA RICA           | WATER DETAIL, GULF PAPAGA  | 10.9N 85.7W       | 10.4N 85.3W      | 40    | LO | 250 | N | 19910406 | 184608 | 244 | 256 | 74        | 19 |
| 92 | 7   | NICARAGUA            | W.COAST, LAKE NICARAGUA    | 11.3N 85.7W       | 10.2N 84.8W      | 50    | LO | 250 | N | 19910406 | 184617 | 244 | 258 | 73        | 19 |
| 92 | 8   | NICARAGUA            | MANAGUA AREA               | 12.2N 86.4W       | 10.0N 84.5W      | 80    | LO | 250 | N | 19910406 | 184623 | 244 | 259 | 73        | 19 |
| 92 | 9   | COLOMBIA             | RIO ATRATO AREA            | 7.5N 77.0W        | 6.7N 78.5W       | 80    | LO | 250 | N | 19910406 | 184815 | 244 | 270 | 67        | 19 |
| 92 | 10  | COLOMBIA             | RIO ATRATO AREA            |                   | 6.6N 78.3W       | 90    | LO | 250 | N | 19910406 | 184819 | 244 | 271 | 66        | 19 |
| 92 | 11  | COLOMBIA             | RIO ATRATO AREA            | 7.5N 77.0W        | 6.0N 77.3W       | 90    | LO | 250 | N | 19910406 | 184837 | 243 | 272 | 65        | 19 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME      | FEATURE                    | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|----------------------|----------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 92 | 12 | COLOMBIA             | RIO ATRATO AREA            | 6.3N 77.5W        | 5.9N 77.1W       | 95 | LO | 250 | N | N | 19910406 | 184841 | 243 | 272 | 65        | 19 |
| 92 | 13 | COLOMBIA             | BAHIA DE CUPICA AREA       | 5.3N 76.9W        | 5.8N 76.9W       | 95 | LO | 250 | N | N | 19910406 | 184845 | 243 | 272 | 65        | 19 |
| 92 | 14 | COLOMBIA             | BAHIA SOLANO               | 5.7N 74.7W        | 5.3N 76.0W       | 60 | LO | 250 | N | N | 19910406 | 184902 | 243 | 273 | 64        | 19 |
| 92 | 15 | COLOMBIA             | MAGDALENA RIVER VALLEY     | 2.5S 66.5W        | 4.9N 75.4W       | 50 | LO | 250 | N | N | 19910406 | 184914 | 243 | 274 | 63        | 19 |
| 92 | 16 | BRAZIL               | AMAZON RIVER               | 2.5S 65.5W        | 0.1N 67.1W       | 70 | LO | 250 | N | N | 19910406 | 185152 | 243 | 280 | 54        | 19 |
| 92 | 17 | BRAZIL               | AMAZON RIVER               | 3.2S 64.5W        | 0.0N 67.0W       | 70 | LO | 250 | N | N | 19910406 | 185155 | 243 | 281 | 54        | 19 |
| 92 | 18 | BRAZIL               | AMAZON RIVER               | 7.5S 53.9W        | 0.1S 66.8W       | 60 | LO | 250 | N | N | 19910406 | 185159 | 243 | 281 | 53        | 19 |
| 92 | 19 | BRAZIL               | PARA PROV. FORESTRY, AGRI. | 7.9S 53.3W        | 7.5S 53.9W       | 80 | LO | 250 | N | N | 19910406 | 185604 | 243 | 284 | 38        | 19 |
| 92 | 20 | BRAZIL               | PARA PROV. VRY CLOUDY      | 8.8S 51.5W        | 7.9S 53.3W       | 95 | LO | 250 | N | N | 19910406 | 185616 | 243 | 284 | 37        | 19 |
| 92 | 21 | BRAZIL               | PARA PROV. VRY CLOUDY      | 0.5S 91.5W        | 8.8S 51.5W       | 90 | LO | 250 | N | N | 19910406 | 185649 | 243 | 284 | 35        | 19 |
| 92 | 22 | GALAPAGOS ISLANDS    | FERNANDINA                 | 0.4S 90.5W        | 1.3N 93.0W       | 60 | LO | 250 | N | N | 19910406 | 202440 | 243 | 280 | 57        | 20 |
| 92 | 23 | GALAPAGOS ISLANDS    | SAN SALVADOR, SANTA CRUZ   | 0.5N 90.5W        | 1.1N 92.6W       | 60 | LO | 250 | N | N | 19910406 | 202447 | 243 | 280 | 56        | 20 |
| 92 | 24 | GALAPAGOS ISLANDS    | PINTA, MARCHENA            | 12.5S 70.0W       | 0.9N 92.3W       | 30 | LO | 250 | N | N | 19910406 | 202453 | 243 | 280 | 56        | 20 |
| 92 | 25 | PERU                 | RIO MARDE DE DIOS          | 12.5S 70.0W       | 11.3S 70.8W      | 80 | LO | 250 | N | N | 19910406 | 203139 | 243 | 284 | 31        | 20 |
| 92 | 26 | PERU                 | RIO MARDE DE DIOS          | 12.5S 70.0W       | 11.6S 70.2W      | 90 | LO | 250 | N | N | 19910406 | 203151 | 243 | 284 | 30        | 20 |
| 92 | 27 | PERU                 | RIO MARDE DE DIOS          | 12.5S 70.0W       | 11.9S 69.5W      | 90 | LO | 250 | N | N | 19910406 | 203203 | 243 | 284 | 29        | 20 |
| 92 | 28 | BOLIVIA              | RIO MADRE DE DIOS AREA     | 11.0S 66.0W       | 12.6S 68.3W      | 80 | LO | 250 | N | N | 19910406 | 203226 | 243 | 284 | 28        | 20 |
| 92 | 29 | BOLIVIA              | RIO MADRE DE DIOS AREA     | 11.0S 66.0W       | 13.0S 67.5W      | 80 | LO | 250 | N | N | 19910406 | 203240 | 243 | 284 | 27        | 20 |
| 92 | 30 | BOLIVIA              | CLDS, JUNGLE, RIVER        | 14.0S 65.4W       | 14.0S 65.4W      | 80 | LO | 250 | N | N | 19910406 | 203318 | 243 | 284 | 24        | 20 |
| 92 | 31 | BOLIVIA              | CLDS, JUNGLE, RIVER        | 14.1S 65.1W       | 14.1S 65.1W      | 90 | LO | 250 | N | N | 19910406 | 203323 | 243 | 284 | 24        | 20 |
| 92 | 32 | BOLIVIA              | CLDS, JUNGLE, RIVER        | 14.3S 64.8W       | 14.3S 64.8W      | 80 | LO | 250 | N | N | 19910406 | 203328 | 243 | 284 | 24        | 20 |
| 92 | 33 | BOLIVIA              | CLDS, JUNGLE, RIVER        | 14.5S 64.3W       | 14.5S 64.3W      | 90 | LO | 250 | N | N | 19910406 | 203337 | 243 | 283 | 23        | 20 |
| 92 | 34 | BOLIVIA              | CLDS, JUNGLE, RIVER        | 14.7S 63.9W       | 14.7S 63.9W      | 95 | LO | 250 | N | N | 19910406 | 203344 | 243 | 283 | 23        | 20 |
| 92 | 35 | PACIFIC OCEAN ISLAND | FRENCH FRIGATE SHOALS      | 23.8N 166.1W      | 23.8N 165.1W     | 30 | LO | 250 | N | N | 19910406 | 214350 | 246 | 129 | 64        | 21 |
| 92 | 36 | USA-HI               | NIHAU ISLAND               | 21.9N 160.1W      | 22.5N 160.8W     | 20 | LO | 250 | N | N | 19910406 | 21458  | 245 | 135 | 68        | 21 |
| 92 | 37 | USA-HI               | KAPAA ISLAND               | 22.0N 159.5W      | 22.4N 160.5W     | 50 | LO | 250 | N | N | 19910406 | 214503 | 245 | 135 | 68        | 21 |
| 92 | 38 | USA-HI               | OAHU ISLAND                | 21.5N 158.0W      | 22.0N 159.3W     | 40 | LO | 250 | N | N | 19910406 | 214523 | 245 | 137 | 69        | 21 |
| 92 | 39 | USA-HI               | MOLOKAI, MAUI, LANAI       | 21.1N 156.9W      | 21.6N 158.1W     | 40 | LO | 250 | N | N | 19910406 | 214542 | 245 | 139 | 70        | 21 |
| 92 | 40 | USA-HI               | MAUI                       | 20.8N 156.3W      | 21.3N 157.4W     | 70 | LO | 250 | N | N | 19910406 | 214554 | 245 | 141 | 71        | 21 |
| 92 | 41 | USA-HI               | HAWAII                     | 19.6N 155.7W      | 21.1N 156.9W     | 70 | LO | 250 | N | N | 19910406 | 214603 | 245 | 142 | 71        | 21 |
| 92 | 42 | USA-HI               | HAWAII                     | 19.4N 155.7W      | 20.9N 156.3W     | 60 | LO | 250 | N | N | 19910406 | 214612 | 245 | 143 | 72        | 21 |
| 92 | 43 | KUWAIT               | OIL WELL SMOKE PLUMES      | 29.0N 48.0E       | 25.5N 45.1E      | 0  | LO | 250 | N | N | 19910407 | 070244 | 246 | 118 | 55        | 27 |
| 92 | 44 | KUWAIT               | OIL WELL SMOKE PLUMES      | 29.0N 48.0E       | 25.4N 45.4E      | 0  | LO | 250 | N | N | 19910407 | 070248 | 246 | 118 | 56        | 27 |
| 92 | 45 | SAUDI ARABIA         | OIL WELL SMOKE PLUMES      | 28.0N 48.0E       | 25.3N 45.7E      | 0  | LO | 250 | N | N | 19910407 | 070253 | 246 | 118 | 56        | 27 |
| 92 | 46 | SAUDI ARABIA         | AL JUBAYL AREA             | 27.0N 49.0E       | 24.6N 48.5E      | 0  | LO | 250 | N | N | 19910407 | 070337 | 246 | 121 | 59        | 27 |
| 92 | 47 | KUWAIT               | OIL WELL SMOKE PLUMES      | 28.8N 47.5E       | 24.4N 49.2E      | 0  | LO | 250 | N | N | 19910407 | 070348 | 246 | 121 | 59        | 27 |
| 92 | 48 | SAUDI ARABIA         | OIL WELL SMOKE PLUMES      | 28.0N 47.5E       | 24.3N 49.8E      | 0  | LO | 250 | N | N | 19910407 | 070357 | 246 | 122 | 60        | 27 |
| 92 | 49 | UNITED ARAB EMIRATES | COAST, OFFSHORE IS.        | 24.3N 52.2E       | 23.7N 51.9E      | 40 | LO | 250 | N | N | 19910407 | 070430 | 246 | 124 | 62        | 27 |
| 92 | 50 | INDONESIA            | W.END SUMATRA, S.COAST     | 4.0N 96.5E        | 4.4N 94.4E       | 70 | LO | 250 | N | N | 19910407 | 071659 | 244 | 276 | 66        | 27 |
| 92 | 51 | INDONESIA            | W.END SUMATRA, S.COAST     | 4.4N 96.0E        | 4.4N 94.6E       | 60 | LO | 250 | N | N | 19910407 | 071702 | 244 | 276 | 66        | 27 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LAT | NADIR<br>LAT<br>LAT | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 92 | 52 | INDONESIA       | W.END SUMATRA,S.COAST     | 4.6N 95.8E           | 4.3N 94.8E          | 60 | LO | 250 | N | N | 19910407 | 071705 | 244 | 276 | 66        | 27 |
| 92 | 53 | INDONESIA       | W.END SUMATRA,N.COAST     | 5.0N 95.7E           | 4.0N 95.2E          | 80 | LO | 250 | N | N | 19910407 | 071714 | 244 | 277 | 65        | 27 |
| 92 | 54 | INDONESIA       | SUMATRA,LAKE DANAU TOBA   | 2.8N 98.7E           | 3.6N 95.9E          | 90 | LO | 250 | N | N | 19910407 | 071726 | 244 | 278 | 65        | 27 |
| 92 | 55 | INDONESIA       | SUMATRA,PASAR SINGKIL     | 2.5N 98.0E           | 3.5N 96.0E          | 70 | LO | 250 | N | N | 19910407 | 071729 | 244 | 278 | 65        | 27 |
| 92 | 56 | INDONESIA       | ISLAND OF PULAU NIAS      | 1.0N 97.6E           | 3.4N 96.2E          | 30 | LO | 250 | N | N | 19910407 | 071733 | 244 | 278 | 64        | 27 |
| 92 | 57 | INDONESIA       | KUMANTAN RIVER,DELTA AREA | 0.6S 102.5E          | 0.4S 102.8E         | 80 | LO | 250 | N | N | 19910407 | 071938 | 243 | 283 | 57        | 27 |
| 92 | 58 | INDONESIA       | KUMANTAN RIVER,DELTA AREA | 0.4S 103.1E          | 0.7S 103.2E         | 90 | LO | 250 | N | N | 19910407 | 071947 | 243 | 283 | 56        | 27 |
| 92 | 59 | INDONESIA       | HARI RIVER,DELTA AREA     | 1.1S 103.7E          | 0.9S 103.6E         | 70 | LO | 250 | N | N | 19910407 | 071955 | 243 | 283 | 55        | 27 |
| 92 | 60 | INDONESIA       | HARI RIVER,DELTA AREA     | 1.5S 104.0E          | 1.2S 104.1E         | 60 | LO | 250 | N | N | 19910407 | 072003 | 243 | 283 | 55        | 27 |
| 92 | 61 | INDONESIA       | AIR TJALAK RIVER AREA     | 2.0S 104.6E          | 1.4S 104.4E         | 60 | LO | 250 | N | N | 19910407 | 072010 | 243 | 283 | 55        | 27 |
| 92 | 62 | INDONESIA       | PALEMBANG AREA            | 3.0S 104.5E          | 2.2S 105.8E         | 80 | LO | 250 | N | N | 19910407 | 072037 | 243 | 284 | 53        | 27 |
| 92 | 63 | INDONESIA       | H2O DETAIL,SELAT BANGKA   | 2.5S 105.7E          | 2.4S 106.3E         | 30 | LO | 250 | N | N | 19910407 | 072045 | 243 | 284 | 53        | 27 |
| 92 | 64 | INDONESIA       | PULAU BANGKA,S.TIP        | 3.1S 106.7E          | 3.1S 107.4E         | 60 | LO | 250 | N | N | 19910407 | 072107 | 243 | 284 | 51        | 27 |
| 92 | 65 | AUSTRALIA-NT    | LAKE WOODS AREA           | 17.8S 133.5E         | 16.8S 133.5E        | 50 | LO | 250 | N | N | 19910407 | 072908 | 243 | 284 | 21        | 27 |
| 92 | 66 | AUSTRALIA-NT    | LAKE WOODS AREA           | 17.4S 133.5E         | 17.0S 133.9E        | 50 | LO | 250 | N | N | 19910407 | 072915 | 243 | 284 | 20        | 27 |
| 92 | 67 | AUSTRALIA-NT    | LAKE WOODS AREA           | 18.2S 133.7E         | 17.1S 134.2E        | 60 | LO | 250 | N | N | 19910407 | 072920 | 243 | 284 | 20        | 27 |
| 92 | 68 | AUSTRALIA-NT    | SE.LAKE WOODS AREA        | 18.5S 134.5E         | 17.5S 135.0E        | 70 | LO | 250 | N | N | 19910407 | 072934 | 243 | 284 | 19        | 27 |
| 92 | 69 | AUSTRALIA-Q     | BARKLY TABLELAND          | 18.8S 138.2E         | 18.8S 138.2E        | 5  | LO | 250 | N | N | 19910407 | 073028 | 243 | 283 | 16        | 27 |
| 92 | 70 | AUSTRALIA-Q     | BARKLY TABLELAND          | 19.1S 139.1E         | 19.1S 139.1E        | 10 | LO | 250 | N | N | 19910407 | 073043 | 243 | 282 | 15        | 27 |
| 92 | 71 | AUSTRALIA-Q     | W.CENTRAL                 | 19.5S 139.9E         | 19.5S 139.9E        | 30 | LO | 250 | N | N | 19910407 | 073057 | 243 | 282 | 14        | 27 |
| 92 | 72 | AUSTRALIA-Q     | W.CENTRAL                 | 19.7S 140.4E         | 19.7S 140.4E        | 70 | LO | 250 | N | N | 19910407 | 073106 | 243 | 282 | 13        | 27 |
| 92 | 73 | AUSTRALIA-Q     | CENTRAL                   | 20.0S 141.3E         | 20.0S 141.3E        | 20 | LO | 250 | N | N | 19910407 | 073121 | 243 | 282 | 12        | 27 |
| 92 | 74 | AUSTRALIA-Q     | CENTRAL                   | 20.3S 142.1E         | 20.3S 142.1E        | 10 | LO | 250 | N | N | 19910407 | 073134 | 243 | 281 | 12        | 27 |
| 92 | 75 | AUSTRALIA-Q     | CENTRAL,DARK IMAGE        | 20.8S 143.4E         | 20.8S 143.4E        | 10 | LO | 250 | N | N | 19910407 | 073155 | 243 | 281 | 10        | 27 |
| 92 | 76 | AUSTRALIA-Q     | CENTRAL,DARK IMAGE        | 21.1S 144.3E         | 21.1S 144.3E        | 40 | LO | 250 | N | N | 19910407 | 073211 | 243 | 281 | 9         | 27 |
| 92 | 77 | ALGERIA         | GRAND ERG ORIENTAL        | 28.1N 4.6E           | 28.1N 4.6E          | 0  | LO | 250 | N | N | 19910407 | 083201 | 247 | 105 | 39        | 28 |
| 92 | 78 | ALGERIA         | TINRHERT PLATEAU          | 27.9N 6.4E           | 27.9N 6.4E          | 0  | LO | 250 | N | N | 19910407 | 083227 | 247 | 107 | 41        | 28 |
| 92 | 79 | LIBYA           | UBARI SAND SEA,ADRI AREA  | 27.0N 13.4E          | 26.9N 13.6E         | 0  | NV | 250 | N | N | 19910407 | 083414 | 246 | 111 | 48        | 28 |
| 92 | 80 | LIBYA           | UBARI SAND SEA,ADRI AREA  | 27.5N 13.0E          | 26.8N 14.3E         | 0  | LO | 250 | N | N | 19910407 | 083425 | 246 | 112 | 49        | 28 |
| 92 | 81 | LIBYA           | UBARI SAND SEA,ADRI AREA  | 27.5N 14.0E          | 26.7N 15.1E         | 0  | LO | 250 | N | N | 19910407 | 083436 | 246 | 112 | 49        | 28 |
| 92 | 82 | LIBYA           | SABHAH AREA,AZ ZALLAF     | 26.9N 14.5E          | 26.6N 15.4E         | 0  | LO | 250 | L | N | 19910407 | 083441 | 246 | 113 | 50        | 28 |
| 92 | 83 | LIBYA           | RAMIA EL-MARZUCHIA AREA   | 26.0N 15.0E          | 26.5N 16.4E         | 0  | LO | 250 | N | N | 19910407 | 083456 | 246 | 113 | 50        | 28 |
| 92 | 84 | LIBYA           | EL HARUJ EL ASWAD         | 17.5N 18.0E          | 25.9N 19.1E         | 0  | LO | 250 | N | N | 19910407 | 083537 | 246 | 115 | 53        | 28 |
| 92 | 85 | LIBYA           | REBIANA SAND SEA          | 25.5N 21.1E          | 25.5N 21.1E         | 0  | LO | 250 | N | N | 19910407 | 083608 | 246 | 117 | 55        | 28 |
| 92 | 86 | SAUDI ARABIA    | MAJMAN AREA,CULT. IRRIGAT | 17.5N 44.2E          | 18.0N 44.2E         | 0  | LO | 250 | N | N | 19910407 | 084223 | 245 | 152 | 77        | 28 |
| 92 | 87 | SAUDI ARABIA    | MAJMAN AREA,CULT. IRRIGAT | 17.3N 44.7E          | 17.6N 45.0E         | 0  | LO | 250 | N | N | 19910407 | 084238 | 245 | 155 | 78        | 28 |
| 92 | 88 | YEMEN (ADEN)    | DISSECTED PLATEAU         | 16.0N 48.5E          | 16.3N 48.0E         | 0  | LO | 250 | N | N | 19910407 | 084330 | 245 | 170 | 80        | 28 |
| 92 | 89 | YEMEN (ADEN)    | COASTAL AREA              | 15.2N 51.5E          | 15.5N 49.7E         | 0  | LO | 250 | N | N | 19910407 | 084359 | 245 | 180 | 81        | 28 |
| 92 | 90 | MAURITANIA      | RICHAT STRUCTURE          | 21.0N 11.4W          | 21.3N 12.1W         | 0  | LO | 250 | N | N | 19910407 | 114651 | 246 | 130 | 68        | 30 |
| 92 | 91 | GULF OF MEXICO  | CLDY,SOME LAND            | 28.1N 88.0W          | 28.1N 88.0W         | 95 | LO | 250 | N | N | 19910407 | 130713 | 246 | 92  | 19        | 31 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME  | FEATURE                   | CENTER<br>LAT<br>LONG | MADIR<br>LAT<br>LONG | CC    | TL    | FL | E   | S   | DATE     | GMT      | AL     | AZ  | SUN<br>EL | OR |    |
|----|-----|------------------|---------------------------|-----------------------|----------------------|-------|-------|----|-----|-----|----------|----------|--------|-----|-----------|----|----|
| 92 | 92  | GULF OF MEXICO   | CLDY, SOME LAND           |                       | 28.1N                | 87.1W | 95    | LO | 250 | N   | 19910407 | 130725   | 246    | 93  | 20        | 31 |    |
| 92 | 93  | GULF OF MEXICO   | CLDY, SHIP WAKE           |                       | 28.3N                | 85.1W | 70    | LO | 250 | N   | 19910407 | 130755   | 246    | 94  | 21        | 31 |    |
| 92 | 94  | GULF OF MEXICO   | CLDY, CLOUD WAVES         |                       | 28.3N                | 83.7W | 99    | LO | 250 | N   | 19910407 | 130815   | 246    | 94  | 23        | 31 |    |
| 92 | 95  | USA-FL           | VRY CLDY                  |                       | 28.4N                | 82.8W | 90    | LO | 250 | N   | 19910407 | 130829   | 246    | 95  | 24        | 31 |    |
| 92 | 96  | USA-FL           | UNDEREXP., CAPE KENNEDY   | 28.5N                 | 80.5W                | 80.6W | 10    | LO | 250 | N   | 19910407 | 130900   | 246    | 96  | 26        | 31 |    |
| 92 | 97  | USA-FL           | CAPE KENNEDY              | 28.5N                 | 80.5W                | 78.4W | 30    | LO | 250 | N   | 19910407 | 130933   | 246    | 97  | 28        | 31 |    |
| 92 | 98  | USA-FL           | N.OF CAPE KENNEDY         | 28.7N                 | 80.8W                | 78.2W | 50    | LO | 250 | N   | 19910407 | 130936   | 246    | 98  | 28        | 31 |    |
| 92 | 99  | USA-FL           | S.FL, EVERGLADES AREA     | 24.8N                 | 81.0W                | 76.2W | 30    | LO | 250 | N   | 19910407 | 131004   | 246    | 99  | 30        | 31 |    |
| 92 | 100 | USA-FL           | S.FL, EVERGLADES AREA     | 26.0N                 | 80.6W                | 76.0W | 30    | LO | 250 | N   | 19910407 | 131007   | 246    | 99  | 30        | 31 |    |
| 92 | 101 | BAHAMAS          | GRAND BAHAMA              | 26.5N                 | 79.0W                | 75.5W | 60    | LO | 250 | N   | 19910407 | 131015   | 246    | 99  | 30        | 31 |    |
| 92 | 102 | BAHAMAS          | GRAND BAHAMA              | 26.6N                 | 78.2W                | 75.2W | 60    | LO | 250 | N   | 19910407 | 131019   | 246    | 99  | 31        | 31 |    |
| 92 | 103 | BAHAMAS          | GREAT ABACO               | 26.5N                 | 77.4W                | 74.9W | 70    | LO | 250 | N   | 19910407 | 131024   | 246    | 99  | 31        | 31 |    |
| 92 | 104 | BAHAMAS          | ANDROS ISLAND             | 24.8N                 | 78.0W                | 74.1W | 60    | LO | 250 | N   | 19910407 | 131035   | 246    | 100 | 32        | 31 |    |
| 92 | 105 | USA-FL           | S.FL                      | 26.2N                 | 80.7W                | 72.4W | 60    | LO | 250 | N   | 19910407 | 131100   | 246    | 101 | 33        | 31 |    |
| 92 | 106 | ATMOSPHERIC LIMB | VRY DARK, UNDEREXPOSED    |                       | 25.4S                | 39.8E | 30    | HO | 250 | N   | 19910407 | 152317   | 243    | 276 | -3        | 32 |    |
| 92 | 107 | MEXICO           | SMOKE PLUMES, DARK FRAME  |                       | 15.4N                | 93.3W | 70    | LO | 250 | N   | 19910407 | 180438   | 245    | 162 | 81        | 34 |    |
| 92 | 108 | BRAZIL           | NEAR MANAUS, AMAZON FLOOD |                       | 2.7S                 | 60.4W | 80    | LO | 250 | N   | 19910407 | 181455   | 243    | 286 | 55        | 34 |    |
| 92 | 109 | BRAZIL           | AMAZON R., NEAR MANAUS    |                       | 3.0S                 | 59.9W | 99    | LO | 250 | N   | 19910407 | 181504   | 243    | 286 | 55        | 34 |    |
| 92 | 110 | BOLIVIA          | N.CENTRAL, RIVERS & LAKES |                       | 12.8S                | 66.0W | 40    | LO | 250 | N   | 19910407 | 195403   | 244    | 287 | 34        | 35 |    |
| 92 | 111 | BOLIVIA          | N.CENTRAL, RIVERS & LAKES |                       | 13.0S                | 65.4W | 50    | LO | 250 | N   | 19910407 | 195413   | 244    | 287 | 34        | 35 |    |
| 92 | 112 | BOLIVIA          | N.CENTRAL, RIVERS & LAKES |                       | 13.2S                | 65.2W | 40    | LO | 250 | N   | 19910407 | 195417   | 244    | 287 | 33        | 35 |    |
| 92 | 113 | BOLIVIA          | N.CENTRAL, RIVERS & LAKES |                       | 13.3S                | 64.9W | 60    | LO | 250 | N   | 19910407 | 195422   | 244    | 287 | 33        | 35 |    |
| 92 | 114 | BOLIVIA          | N.CENTRAL, RIVERS & LAKES |                       | 13.5S                | 64.6W | 70    | LO | 250 | N   | 19910407 | 195428   | 244    | 287 | 33        | 35 |    |
| 92 | 115 | BOLIVIA          | N.CENTRAL, RIVERS & LAKES |                       | 13.8S                | 63.9W | 80    | LO | 250 | N   | 19910407 | 195441   | 244    | 287 | 32        | 35 |    |
| 92 | 116 | BOLIVIA          | BORDER BRAZIL, DEFOREST.  |                       | 15.4S                | 60.5W | 70    | LO | 250 | N   | 19910407 | 195541   | 244    | 286 | 28        | 35 |    |
| 92 | 117 | BOLIVIA          | BORDER BRAZIL, LAKES      |                       | 15.6S                | 60.0W | 60    | LO | 250 | N   | 19910407 | 195549   | 244    | 286 | 27        | 35 |    |
| 92 | 118 | CHINA            | NE.MT. EVEREST            | 28.4N                 | 87.2E                | 28.5N | 87.8E | 0  | NV  | 250 | N        | 19910408 | 013622 | 247 | 94        | 22 | 39 |
| 92 | 119 | CHINA            | NE.MT. EVEREST            |                       | 28.5N                | 88.9E | 20    | LO | 250 | N   | 19910408 | 013638   | 248    | 94  | 23        | 39 |    |
| 92 | 120 | ZAIRE            | NE ZAIRE NEAR LK ALBERT   |                       | 1.9N                 | 29.1E | 70    | LO | 250 | N   | 19910408 | 112026   | 245    | 286 | 70        | 45 |    |
| 92 | 121 | ZAIRE            | NE ZAIRE NEAR LK ALBERT   |                       | 1.8N                 | 29.3E | 80    | LO | 250 | N   | 19910408 | 112029   | 245    | 286 | 70        | 45 |    |
| 92 | 122 | ZAIRE            | NE ZAIRE NEAR LK ALBERT   |                       | 1.7N                 | 29.4E | 90    | LO | 250 | N   | 19910408 | 112031   | 245    | 286 | 70        | 45 |    |
| 92 | 123 | ZAIRE            | LAKE ALBERT AREA          | 1.9N                  | 31.2E                | 29.7E | 70    | LO | 250 | N   | 19910408 | 112037   | 245    | 286 | 69        | 45 |    |
| 93 | 1   | PERU             | CABALLAS, ST. NICHOLS B.  | 15.0S                 | 75.5W                | 12.0S | 71.4W | 25 | LO  | 250 | N        | 19910405 | 211030 | 243 | 281       | 22 | 5  |
| 93 | 2   | PERU             | ACARI, YAUCA CANYONS      | 15.5S                 | 74.5W                | 12.1S | 71.2W | 30 | LO  | 250 | N        | 19910405 | 211033 | 243 | 281       | 22 | 5  |
| 93 | 3   | PERU             | CHAPARRA CANYON           | 16.0S                 | 74.0W                | 12.2S | 71.0W | 20 | LO  | 250 | N        | 19910405 | 211036 | 243 | 281       | 22 | 5  |
| 93 | 4   | PERU             | OCONA, COTAHUASI CANYONS  | 15.5S                 | 73.0W                | 12.2S | 70.9W | 10 | LO  | 250 | N        | 19910405 | 211039 | 243 | 281       | 21 | 5  |
| 93 | 5   | PERU             | COROPUNA VOL., CAMANA     | 16.0S                 | 72.5W                | 12.3S | 70.7W | 15 | LO  | 250 | N        | 19910405 | 211042 | 243 | 281       | 21 | 5  |
| 93 | 6   | PERU             | AMPATO, CHACHANI VOLCANO  | 16.0S                 | 72.0W                | 12.4S | 70.5W | 15 | LO  | 250 | N        | 19910405 | 211045 | 243 | 281       | 21 | 5  |
| 93 | 7   | PERU             | EL MISTI VOL., SALT LAKE  | 16.0S                 | 71.5W                | 12.5S | 70.3W | 30 | LO  | 250 | N        | 19910405 | 211049 | 243 | 281       | 21 | 5  |
| 93 | 8   | PERU             | AMPATO VOL., MOLES CAN.   | 15.5S                 | 72.0W                | 12.6S | 70.1W | 40 | LO  | 250 | N        | 19910405 | 211053 | 243 | 281       | 20 | 5  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|---------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 93 | 9  | PERU            | SOLIMANA, COROPUNA MTS.   | 15.5S 73.0W       | 12.7S 69.9W      | 40 | LO | 250 | N | Y | 19910405 | 211056 | 243 | 281 | 20        | 5  |
| 93 | 10 | PERU            | LAKE TITICACA             | 15.5S 69.5W       | 13.0S 69.3W      | 65 | LO | 250 | N | Y | 19910405 | 211107 | 243 | 281 | 20        | 5  |
| 93 | 11 | BOLIVIA         | EASTERN FOOTHILLS, ANDES  | 13.9S 67.4W       | 13.9S 67.4W      | 55 | LO | 250 | N | Y | 19910405 | 211141 | 243 | 281 | 17        | 5  |
| 93 | 12 | BOLIVIA         | EASTERN FOOTHILLS, ANDES  | 14.0S 67.3W       | 14.0S 67.3W      | 55 | LO | 250 | N | Y | 19910405 | 211143 | 243 | 281 | 17        | 5  |
| 93 | 13 | BOLIVIA         | EASTERN FOOTHILLS, ANDES  | 14.1S 67.2W       | 14.1S 67.2W      | 60 | LO | 250 | N | Y | 19910405 | 211146 | 243 | 281 | 17        | 5  |
| 93 | 14 | BOLIVIA         | EASTERN FOOTHILLS, ANDES  | 14.2S 67.0W       | 14.2S 67.0W      | 60 | LO | 250 | N | Y | 19910405 | 211149 | 243 | 281 | 17        | 5  |
| 93 | 15 | BOLIVIA         | EASTERN FOOTHILLS, ANDES  | 14.2S 66.8W       | 14.2S 66.8W      | 40 | LO | 250 | N | Y | 19910405 | 211152 | 243 | 281 | 17        | 5  |
| 93 | 16 | BOLIVIA         | EASTERN ANDES             | 15.2S 64.8W       | 15.2S 64.8W      | 50 | LO | 250 | N | Y | 19910405 | 211229 | 243 | 280 | 14        | 5  |
| 93 | 17 | BOLIVIA         | ICHOA RIVER               | 17.0S 65.5W       | 15.5S 64.1W      | 65 | LO | 250 | N | Y | 19910405 | 211241 | 243 | 280 | 14        | 5  |
| 93 | 18 | ARGENTINA       | PILCAMAYO RIVER           | 22.0S 61.0W       | 16.7S 61.6W      | 30 | LO | 250 | N | Y | 19910405 | 211325 | 243 | 280 | 11        | 5  |
| 93 | 19 | ARGENTINA       | CENTRAL ANDES HIGHLANDS   | 17.4S 59.8W       | 17.4S 59.8W      | 40 | HO | 250 | N | Y | 19910405 | 211355 | 243 | 279 | 9         | 5  |
| 93 | 20 | BOLIVIA         | THUNDERSTORM, PANTANAL    | 18.1S 58.2W       | 18.1S 58.2W      | 60 | NV | 250 | N | Y | 19910405 | 211424 | 243 | 279 | 7         | 5  |
| 93 | 21 | BOLIVIA         | THUNDERSTORM, PANTANAL    | 18.4S 57.6W       | 18.4S 57.6W      | 85 | NV | 250 | N | Y | 19910405 | 211433 | 243 | 278 | 7         | 5  |
| 93 | 22 | PACIFIC OCEAN   | FRONTS, UPWELLING         | 25.0N 164.5E      | 25.0N 164.5E     | 10 | LO | 250 | N | Y | 19910405 | 235430 | 246 | 135 | 64        | 7  |
| 93 | 23 | PACIFIC OCEAN   | COLLAPSE T/S              | 24.5N 166.6E      | 24.5N 166.6E     | 30 | LO | 250 | N | Y | 19910405 | 235503 | 246 | 138 | 66        | 7  |
| 93 | 24 | PACIFIC OCEAN   | JOHNSTON ISLAND           | 16.5N 169.5W      | 16.8N 171.7W     | 10 | LO | 250 | N | Y | 19910406 | 000101 | 244 | 216 | 76        | 7  |
| 93 | 25 | ARABIAN SEA     | CLOUDS OFF C. OF INDIA    | 20.8N 68.9E       | 20.8N 68.9E      | 80 | LO | 250 | N | Y | 19910406 | 010952 | 245 | 82  | -1        | 8  |
| 93 | 26 | INDIA           | CLOUDS, VERY DARK         | 21.2N 69.8E       | 21.2N 69.8E      | 75 | LO | 250 | N | Y | 19910406 | 011008 | 245 | 83  | -0        | 8  |
| 93 | 27 | INDIA           | CLOUDS, VERY DARK         | 21.4N 70.4E       | 21.4N 70.4E      | 75 | LO | 250 | N | Y | 19910406 | 011018 | 245 | 83  | -0        | 8  |
| 93 | 28 | CHINA           | HIMALAYAS, TIBET PL.      | 28.5N 85.5E       | 25.1N 83.1E      | 45 | LO | 250 | N | Y | 19910406 | 011340 | 246 | 88  | 12        | 8  |
| 93 | 29 | CHINA           | HIMALAYAS, TIBET PL.      | 28.5N 85.5E       | 25.2N 83.5E      | 40 | LO | 250 | N | Y | 19910406 | 011347 | 246 | 89  | 12        | 8  |
| 93 | 30 | CHINA           | HIMALAYAS, TIBET PL.      | 28.5N 86.0E       | 25.4N 84.1E      | 45 | LO | 250 | N | Y | 19910406 | 011356 | 246 | 89  | 13        | 8  |
| 93 | 31 | CHINA           | HIMALAYAS, TIBET PL.      | 28.5N 86.5E       | 25.5N 84.7E      | 35 | LO | 250 | N | Y | 19910406 | 011405 | 246 | 89  | 13        | 8  |
| 93 | 32 | CHINA           | HIMALAYAS, TIBET PL.      | 28.5N 90.5E       | 26.5N 89.8E      | 10 | LO | 250 | N | Y | 19910406 | 011523 | 246 | 92  | 18        | 8  |
| 93 | 33 | CHINA           | HIMALAYAS, TIBET PL.      | 28.5N 91.5E       | 26.8N 90.0E      | 25 | LO | 250 | N | Y | 19910406 | 011526 | 246 | 92  | 18        | 8  |
| 93 | 34 | CHINA           | TIBET PL., SILING LK.     | 31.0N 90.0E       | 26.8N 91.5E      | 0  | HO | 250 | N | Y | 19910406 | 011548 | 246 | 93  | 20        | 8  |
| 93 | 35 | CHINA           | TIBET PL., NAM LK.        | 31.0N 90.5E       | 26.9N 91.7E      | 0  | HO | 250 | N | Y | 19910406 | 011551 | 246 | 93  | 20        | 8  |
| 93 | 36 | CHINA           | TIBET PLATEAU             | 31.5N 92.0E       | 26.9N 91.9E      | 0  | HO | 250 | N | Y | 19910406 | 011554 | 246 | 93  | 20        | 8  |
| 93 | 37 | CHINA           | FOLDED R., CHENG HAI LAKE | 27.0N 101.0E      | 27.2N 93.7E      | 65 | HO | 250 | N | Y | 19910406 | 011622 | 246 | 94  | 22        | 8  |
| 93 | 38 | CHINA           | YA-LUNG R., FOLDED MNTS.  | 27.5N 101.5E      | 27.4N 95.0E      | 60 | LO | 250 | N | Y | 19910406 | 011641 | 246 | 95  | 23        | 8  |
| 93 | 39 | CHINA           | FOLDED RANGES             | 27.5N 100.5E      | 27.4N 95.4E      | 30 | LO | 250 | N | Y | 19910406 | 011646 | 246 | 95  | 23        | 8  |
| 93 | 40 | CHINA           | FOLDED RANGES, YALANG R.  | 28.0N 101.0E      | 27.5N 96.2E      | 15 | LO | 250 | N | Y | 19910406 | 011659 | 246 | 96  | 24        | 8  |
| 93 | 41 | CHINA           | FOLDED RANGES             | 27.0N 101.5E      | 27.8N 98.5E      | 45 | LO | 250 | N | Y | 19910406 | 011733 | 246 | 97  | 26        | 8  |
| 93 | 42 | CHINA           | FOLDED R., YANGTZE RIVER  | 28.0N 99.5E       | 27.8N 98.7E      | 60 | LO | 250 | N | Y | 19910406 | 011735 | 246 | 97  | 27        | 8  |
| 93 | 43 | CHINA           | FOLDED R., MEKONG RIVER   | 27.0N 99.0E       | 27.8N 98.9E      | 65 | LO | 250 | N | Y | 19910406 | 011738 | 246 | 97  | 27        | 8  |
| 93 | 44 | CHINA           | FOLDED RANGES             | 27.9N 99.2E       | 27.9N 99.2E      | 75 | LO | 250 | N | Y | 19910406 | 011743 | 246 | 97  | 27        | 8  |
| 93 | 45 | CHINA           | FOLDED RANGES             | 28.0N 101.5E      | 27.9N 99.4E      | 45 | LO | 250 | N | Y | 19910406 | 011746 | 246 | 97  | 27        | 8  |
| 93 | 46 | CHINA           | FOLDED RANGES             | 28.5N 102.0E      | 27.9N 99.7E      | 50 | LO | 250 | N | Y | 19910406 | 011750 | 246 | 98  | 27        | 8  |
| 93 | 47 | CHINA           | FOLDED RANGES             | 28.0N 100.3E      | 28.0N 100.3E     | 70 | LO | 250 | N | Y | 19910406 | 011759 | 246 | 98  | 28        | 8  |
| 93 | 48 | MOROCCO         | ANTI-ATLAS, OUARKIZ MTN   | 28.5N 10.0W       | 28.5N 8.4W       | 10 | NV | 250 | N | Y | 19910406 | 090746 | 247 | 103 | 36        | 13 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT LON | NAOIR<br>LAT LON | CC    | TL   | FL | E  | S   | DATE | GMT | AL       | AZ     | SUN<br>EL | OR  |    |    |
|----|----|-----------------|--------------------------|-------------------|------------------|-------|------|----|----|-----|------|-----|----------|--------|-----------|-----|----|----|
| 93 | 49 | MOROCCO         | ANTI-ATLAS, QUARKZIZ MTN | 29.0N             | 9.0W             | 28.5N | 7.9W | 0  | NV | 250 | N    | Y   | 19910406 | 090754 | 247       | 104 | 36 | 13 |
| 93 | 50 | MOROCCO         | ANTI-ATLAS, QUARKZIZ MTS | 29.5N             | 8.5W             | 28.5N | 7.7W | 0  | NV | 250 | N    | Y   | 19910406 | 090756 | 247       | 104 | 36 | 13 |
| 93 | 51 | MOROCCO         | ANTI-ATLAS MTNS.         | 30.0N             | 9.0W             | 28.5N | 6.7W | 10 | LO | 250 | N    | N   | 19910406 | 090811 | 247       | 104 | 37 | 13 |
| 93 | 52 | MOROCCO         | ANTI-ATLAS MTNS.         | 30.0N             | 8.5W             | 28.5N | 6.5W | 10 | LO | 250 | N    | Y   | 19910406 | 090814 | 247       | 105 | 37 | 13 |
| 93 | 53 | MOROCCO         | ANTI-ATLAS MTNS., SOUS R | 30.5N             | 8.5W             | 28.5N | 6.4W | 0  | LO | 250 | N    | Y   | 19910406 | 090816 | 247       | 105 | 37 | 13 |
| 93 | 54 | MOROCCO         | ANTI-ATLAS MTNS.         | 30.0N             | 8.0W             | 28.5N | 6.2W | 0  | LO | 250 | N    | Y   | 19910406 | 090818 | 247       | 105 | 38 | 13 |
| 93 | 55 | MOROCCO         | ANTI-ATLAS MTNS.         | 29.0N             | 8.0W             | 28.5N | 6.0W | 0  | NV | 250 | N    | Y   | 19910406 | 090821 | 247       | 105 | 38 | 13 |
| 93 | 56 | ALGERIA         | ANTI-ATLAS MTNS.         | 28.5N             | 8.0W             | 28.5N | 5.8W | 0  | NV | 250 | N    | Y   | 19910406 | 090824 | 247       | 105 | 38 | 13 |
| 93 | 57 | MOROCCO         | HIGH ATLAS MTNS.         | 31.0N             | 8.0W             | 28.5N | 4.6W | 5  | LO | 250 | N    | N   | 19910406 | 090841 | 247       | 106 | 39 | 13 |
| 93 | 58 | MOROCCO         | HIGH ATLAS MTNS.         | 31.5N             | 7.5W             | 28.5N | 4.5W | 5  | LO | 250 | N    | Y   | 19910406 | 090843 | 247       | 106 | 39 | 13 |
| 93 | 59 | MOROCCO         | HIGH ATLAS MTNS.         | 31.5N             | 6.0W             | 28.5N | 4.3W | 5  | LO | 250 | N    | Y   | 19910406 | 090846 | 247       | 106 | 39 | 13 |
| 93 | 60 | MOROCCO         | HIGH ATLAS MTNS.         | 31.0N             | 6.5W             | 28.5N | 4.0W | 5  | LO | 250 | N    | Y   | 19910406 | 090851 | 247       | 106 | 40 | 13 |
| 93 | 61 | MOROCCO         | HIGH ATLAS MTNS.         | 31.0N             | 5.0W             | 28.4N | 3.7W | 0  | LO | 250 | N    | Y   | 19910406 | 090855 | 247       | 107 | 40 | 13 |
| 93 | 62 | ALGERIA         | RHERIS RIVER             | 30.5N             | 4.5W             | 28.4N | 3.5W | 0  | LO | 250 | N    | Y   | 19910406 | 090858 | 247       | 107 | 40 | 13 |
| 93 | 63 | ALGERIA         | ANTI-ATLAS MTNS.         | 30.0N             | 5.0W             | 28.4N | 3.3W | 0  | LO | 250 | N    | Y   | 19910406 | 090901 | 247       | 107 | 40 | 13 |
| 93 | 64 | MOROCCO         | PLANTATIONS NEAR ZAGORA  | 30.5N             | 6.0W             | 28.4N | 3.1W | 0  | LO | 250 | N    | Y   | 19910406 | 090904 | 247       | 107 | 40 | 13 |
| 93 | 65 | ALGERIA         | ANTI-ATLAS MTNS.         | 29.5N             | 6.0W             | 28.4N | 2.9W | 0  | LO | 250 | N    | Y   | 19910406 | 090907 | 247       | 107 | 41 | 13 |
| 93 | 66 | ALGERIA         | TOUNASSINE ROCK DESERT   | 28.5N             | 4.5W             | 28.4N | 2.3W | 0  | LO | 250 | N    | N   | 19910406 | 090915 | 247       | 108 | 41 | 13 |
| 93 | 67 | ALGERIA         | TOUNASSINE ROCK DESERT   | 27.5N             | 4.0W             | 28.4N | 1.7W | 0  | LO | 250 | N    | N   | 19910406 | 090924 | 247       | 108 | 42 | 13 |
| 93 | 68 | ALGERIA         | LINEAR SAND DUNES        | 27.5N             | 3.5W             | 28.4N | 1.5W | 0  | NV | 250 | N    | Y   | 19910406 | 090927 | 247       | 108 | 42 | 13 |
| 93 | 69 | ALGERIA         | LINEAR SAND DUNES        | 28.0N             | 3.5W             | 28.3N | 1.4W | 0  | NV | 250 | N    | Y   | 19910406 | 090928 | 247       | 108 | 42 | 13 |
| 93 | 70 | ALGERIA         | LINEAR SAND DUNES        | 28.0N             | 3.0W             | 28.3N | 1.2W | 0  | NV | 250 | N    | Y   | 19910406 | 090931 | 247       | 108 | 42 | 13 |
| 93 | 71 | ALGERIA         | BEN TADJINE HTLLS        | 28.5N             | 3.5W             | 28.3N | 1.1W | 0  | LO | 250 | N    | Y   | 19910406 | 090933 | 246       | 108 | 42 | 13 |
| 93 | 72 | ALGERIA         | KAHAL TABLELAND, DUNES   | 28.5N             | 2.5W             | 28.3N | 0.9W | 0  | LO | 250 | N    | Y   | 19910406 | 090936 | 246       | 109 | 42 | 13 |
| 93 | 73 | ALGERIA         | KAHAL TABLELAND, DUNES   | 28.5N             | 2.0W             | 28.3N | 0.7W | 0  | LO | 250 | N    | Y   | 19910406 | 090939 | 246       | 109 | 43 | 13 |
| 93 | 74 | ALGERIA         | KAHAL TABLELAND, DUNES   | 28.0N             | 1.5W             | 28.3N | 0.5W | 0  | LO | 250 | N    | Y   | 19910406 | 090942 | 246       | 109 | 43 | 13 |
| 93 | 75 | ALGERIA         | KAHAL TABLELAND, DUNES   | 29.0N             | 2.5W             | 28.3N | 0.3W | 0  | LO | 250 | N    | Y   | 19910406 | 090945 | 246       | 109 | 43 | 13 |
| 93 | 76 | ALGERIA         | KAHAL TABLELAND, DUNES   | 29.5N             | 2.0W             | 28.3N | 0.1E | 0  | LO | 250 | N    | Y   | 19910406 | 090950 | 246       | 109 | 43 | 13 |
| 93 | 77 | ALGERIA         | GRAND ERG OCCIDENTAL     | 29.5N             | 1.5W             | 28.2N | 0.3E | 0  | LO | 250 | N    | Y   | 19910406 | 090953 | 246       | 109 | 43 | 13 |
| 93 | 78 | ALGERIA         | GRAND ERG OCCIDENTAL     | 29.5N             | 1.0W             | 28.2N | 0.5E | 0  | LO | 250 | N    | Y   | 19910406 | 090956 | 246       | 110 | 44 | 13 |
| 93 | 79 | ALGERIA         | E. OF ERG CHECH, ADRAR   | 27.5N             | 0.0W             | 28.2N | 1.2E | 0  | LO | 250 | N    | N   | 19910406 | 091007 | 246       | 110 | 44 | 13 |
| 93 | 80 | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 27.0N             | 1.0E             | 28.1N | 1.8E | 0  | LO | 250 | N    | Y   | 19910406 | 091015 | 246       | 111 | 45 | 13 |
| 93 | 81 | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 27.5N             | 1.5E             | 28.1N | 1.9E | 0  | LO | 250 | N    | Y   | 19910406 | 091017 | 246       | 111 | 45 | 13 |
| 93 | 82 | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 27.5N             | 1.5E             | 28.1N | 2.2E | 0  | LO | 250 | N    | Y   | 19910406 | 091021 | 246       | 111 | 45 | 13 |
| 93 | 83 | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 28.0N             | 1.5E             | 28.1N | 2.4E | 0  | LO | 250 | N    | Y   | 19910406 | 091024 | 246       | 111 | 45 | 13 |
| 93 | 84 | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 28.0N             | 2.5E             | 28.1N | 2.6E | 0  | LO | 250 | N    | Y   | 19910406 | 091027 | 246       | 111 | 45 | 13 |
| 93 | 85 | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 28.0N             | 3.0E             | 28.0N | 2.9E | 0  | LO | 250 | N    | Y   | 19910406 | 091031 | 246       | 111 | 46 | 13 |
| 93 | 86 | ALGERIA         | TADEMAIT PLATEAU         | 28.5N             | 3.0E             | 28.0N | 3.0E | 0  | LO | 250 | N    | Y   | 19910406 | 091033 | 246       | 112 | 46 | 13 |
| 93 | 87 | ALGERIA         | TADEMAIT PLATEAU         | 28.5N             | 2.5E             | 28.0N | 3.4E | 0  | LO | 250 | N    | Y   | 19910406 | 091038 | 246       | 112 | 46 | 13 |
| 93 | 88 | ALGERIA         | W. AHAGGAR MTNS.         | 26.0N             | 5.0E             | 27.9N | 4.0E | 0  | LO | 250 | N    | N   | 19910406 | 091047 | 246       | 112 | 47 | 13 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER |            | MADIR |               | CC       | TL     | FL  | E   | S  | DATE | GMT | AL | AZ | SUM | EL | OR |
|----|-----|-----------------|---------------------------|--------|------------|-------|---------------|----------|--------|-----|-----|----|------|-----|----|----|-----|----|----|
|    |     |                 |                           | LAT    | LONG       | LAT   | LONG          |          |        |     |     |    |      |     |    |    |     |    |    |
| 93 | 89  | ALGERIA         | W. AHAGGAR MTNS.          | 25.5N  | 4.5E 27.9N | 4.2E  | 0 LO 250 N Y  | 19910406 | 091050 | 246 | 112 | 47 | 13   |     |    |    |     |    |    |
| 93 | 90  | ALGERIA         | W. AHAGGAR MTNS.          | 25.0N  | 4.0E 27.9N | 4.4E  | 0 LO 250 N Y  | 19910406 | 091054 | 246 | 113 | 47 | 13   |     |    |    |     |    |    |
| 93 | 91  | ALGERIA         | TADEMAIT PLATEAU          | 28.0N  | 4.0E 27.8N | 5.3E  | 0 LO 250 N Y  | 19910406 | 091106 | 246 | 113 | 48 | 13   |     |    |    |     |    |    |
| 93 | 92  | ALGERIA         | TADEMAIT PLATEAU          | 28.5N  | 4.5E 27.8N | 5.5E  | 0 LO 250 N Y  | 19910406 | 091109 | 246 | 114 | 48 | 13   |     |    |    |     |    |    |
| 93 | 93  | ALGERIA         | TADEMAIT P., ERG ORIENT.  | 29.0N  | 4.5E 27.8N | 5.7E  | 0 LO 250 N Y  | 19910406 | 091113 | 246 | 114 | 48 | 13   |     |    |    |     |    |    |
| 93 | 94  | ALGERIA         | NW AHAGGAR MTNS.          | 27.5N  | 5.0E 27.7N | 6.1E  | 0 LO 250 N Y  | 19910406 | 091118 | 246 | 114 | 49 | 13   |     |    |    |     |    |    |
| 93 | 95  | ALGERIA         | NW AHAGGAR MTNS.          | 28.0N  | 5.5E 27.7N | 6.3E  | 0 LO 250 N Y  | 19910406 | 091121 | 246 | 114 | 49 | 13   |     |    |    |     |    |    |
| 93 | 96  | ALGERIA         | AHAGGAR MTNS., DUNES      | 26.0N  | 7.5E 27.6N | 6.8E  | 0 LO 250 N Y  | 19910406 | 091129 | 246 | 115 | 49 | 13   |     |    |    |     |    |    |
| 93 | 97  | ALGERIA         | ERG ISSAOUANE             | 26.5N  | 7.5E 27.6N | 7.0E  | 0 LO 250 N Y  | 19910406 | 091131 | 246 | 115 | 49 | 13   |     |    |    |     |    |    |
| 93 | 98  | ALGERIA         | ERG ISSAOUANE             | 27.0N  | 8.0E 27.6N | 7.2E  | 0 LO 250 N Y  | 19910406 | 091134 | 246 | 115 | 50 | 13   |     |    |    |     |    |    |
| 93 | 99  | ALGERIA         | OUARENE PLAIN             | 28.0N  | 8.5E 27.6N | 7.4E  | 0 LO 250 N Y  | 19910406 | 091138 | 246 | 115 | 50 | 13   |     |    |    |     |    |    |
| 93 | 100 | ALGERIA         | ERG ISSAOUANE             | 28.5N  | 8.0E 27.5N | 7.6E  | 0 LO 250 N Y  | 19910406 | 091141 | 246 | 115 | 50 | 13   |     |    |    |     |    |    |
| 93 | 101 | ALGERIA         | ERG ISSAOUANE             | 27.5N  | 8.0E 27.5N | 7.9E  | 0 LO 250 N Y  | 19910406 | 091145 | 246 | 116 | 50 | 13   |     |    |    |     |    |    |
| 93 | 102 | ALGERIA         | AHAGGAR MTNS.             | 25.5N  | 8.0E 27.4N | 8.4E  | 0 LO 250 N Y  | 19910406 | 091153 | 246 | 116 | 51 | 13   |     |    |    |     |    |    |
| 94 | 1   | BRAZIL          | AMAZON R. DELTA PLUME     | 0.5N   | 49.5W      |       | 40 HO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 2   | BRAZIL          | NE BRAZIL COAST           | 0.5S   | 47.0W      |       | 50 LO 100 N Y |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 3   | BRAZIL          | NE BRAZIL COAST           | 1.0S   | 46.0W      |       | 50 LO 100 N Y |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 4   | BRAZIL          | NE BRAZIL C., SAO LUIS    | 2.0S   | 44.0W      |       | 40 LO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 5   | BRAZIL          | NE BRAZIL C., PARNAIBA    | 2.5S   | 42.5W      |       | 40 LO 100 U Y |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 6   | BRAZIL          | NE BRAZIL C., PARNAIBA    | 2.5S   | 41.0W      |       | 35 LO 100 N Y |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 7   | BRAZIL          | NE BRAZIL C., FORTALEZA   | 3.5S   | 38.5W      |       | 40 LO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 8   | BRAZIL          | NE BRAZIL COAST           | 5.0S   | 36.5W      |       | 30 LO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 9   | BRAZIL          | NE BRAZIL C., NATAL       | 5.0S   | 35.5W      |       | 30 LO 100 N Y |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 10  | BRAZIL          | NE BRAZIL C., RECIFE      | 7.5S   | 35.0W      |       | 35 LO 100 U Y |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 11  | BRAZIL          | BRAZIL COAST SHIP WAKES   | 5.0S   | 36.5W      |       | 35 HO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 12  | PACIFIC OCEAN   | CLOUDS OFF BAJA CALIF.    |        |            |       | 90 LO 100 U N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 13  | PACIFIC OCEAN   | SHIP WAKES IN SUNGLINT    | 19.0N  | 106.0W     |       | 0 LO 100 U N  |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 14  | MEXICO          | CAPE CORRIENTES           | 20.0N  | 105.5W     |       | 0 LO 100 N N  |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 15  | MEXICO          | COAST, ANGOSTUTURA RES.   | 14.5N  | 92.5W      |       | 35 LO 100 N Y |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 16  | GUATEMALA       | COAST                     | 14.0N  | 91.0W      |       | 55 LO 100 N Y |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 17  | PACIFIC OCEAN   | FRONT OFF GUATEMALA C.    | 13.0N  | 92.0W      |       | 25 LO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 18  | NICARAGUA       | L. NICARAGUA, NICCOYA PEN | 11.0N  | 86.0W      |       | 30 LO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 19  | PACIFIC OCEAN   | INT. WAVES, COSTA RICA C  | 9.0N   | 85.0W      |       | 50 LO 100 U N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 20  | BRAZIL          | AMAZON, JAPURA RIVERS     | 3.0S   | 65.0W      |       | 55 LO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 21  | BRAZIL          | THUNDERSTORMS AMAZON BAS  |        |            |       | 75 LO 100 U N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 22  | BRAZIL          | ARAGUAIA RIVER            | 13.0S  | 50.5W      |       | 40 LO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 23  | BRAZIL          | TOCANTINS RIVER BASIN     | 11.0S  | 48.5W      |       | 45 LO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 24  | BRAZIL          | LAND USE E. TOCANTINS R.  |        |            |       | 50 LO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 25  | BRAZIL          | SAO FRANCISCO R. BASIN    | 13.0S  | 43.5W      |       | 30 LO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |
| 94 | 26  | BRAZIL          | SAO FRANCISCO R. MOUTH    | 10.5S  | 36.5W      |       | 65 HO 100 N N |          |        |     |     |    |      |     |    |    |     |    |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME   | FEATURE                  | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E   | S | DATE | GMT | AL | AZ | SUM<br>EL | OR |
|----|----|-------------------|--------------------------|-------------------|------------------|----|----|-----|-----|---|------|-----|----|----|-----------|----|
| 94 | 27 | BRAZIL            | SAO FRANCISCO R. MOUTH   | 11.0S 38.0W       |                  | 70 | HO | 100 | U   | N |      |     |    |    |           |    |
| 94 | 28 |                   | GRO PAYLOAD IN BAY       |                   |                  | 99 | O  | 100 | N   | N |      |     |    |    |           |    |
| 94 | 29 |                   | GRO PAYLOAD IN BAY       |                   |                  |    |    | 0   | 100 | N |      |     |    |    |           |    |
| 94 | 30 |                   | GRO PAYLOAD IN BAY       |                   |                  |    |    | 0   | 100 | N |      |     |    |    |           |    |
| 94 | 31 |                   | GRO PAYLOAD IN BAY       |                   |                  |    |    | 0   | 100 | N |      |     |    |    |           |    |
| 94 | 32 | PACIFIC OCEAN     | CLOUDS                   |                   |                  | 85 | LO | 100 | U   | N |      |     |    |    |           |    |
| 94 | 33 | PACIFIC OCEAN     | CLOUDS                   |                   |                  | 95 | LO | 100 | U   | N |      |     |    |    |           |    |
| 94 | 34 |                   | VIEW OF OVERHEAD WINDOW  |                   |                  |    |    | 0   | 100 | N |      |     |    |    |           |    |
| 94 | 35 |                   | VIEW OF OVERHEAD WINDOW  |                   |                  |    |    | 0   | 100 | N |      |     |    |    |           |    |
| 94 | 36 | GALAPAGOS ISLANDS | SUNGLINT, INT. WAVES     | 0.5S 90.5W        |                  | 15 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 37 | BOLIVIA           | GRANDE R., SANTA CRUZ    | 17.0S 62.0W       |                  | 50 | HO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 38 | OCEAN             | EDDIES, SUNGLINT         |                   |                  | 25 | HO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 39 | OCEAN             | EDDIES, SUNGLINT         |                   |                  | 15 | HO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 40 | OCEAN             | EDDIES, SUNGLINT         |                   |                  | 30 | HO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 41 | OCEAN             | CLOUDS                   |                   |                  | 80 | HO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 42 | USA-HI            | OAHU, MOLOKAI, LANAI     | 22.0N 157.5W      |                  | 35 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 43 | USA-HI            | HAWAII, MONA LOA, KEA V. | 19.5N 155.5W      |                  | 50 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 44 | USA-HI            | OAHU, KAUAI              | 22.0N 159.5W      |                  | 35 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 45 | USA-HI            | KAUAI, OAHU, MOLOKAI     | 21.5N 158.0W      |                  | 25 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 46 | USA-HI            | HAWAII, MAUI, LANAI      | 21.0N 156.5W      |                  | 45 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 47 | USA-HI            | HAWAII, MAUI, MAUNA LOA  | 20.0N 155.0W      |                  | 55 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 48 | CHINA             | FRONTAL CLOUD, DARK      |                   |                  | 50 | LO | 100 | U   | N |      |     |    |    |           |    |
| 94 | 49 | CHINA             | FRONTAL CLOUD, DARK      |                   |                  | 75 | LO | 100 | U   | N |      |     |    |    |           |    |
| 94 | 50 | CHINA             | HAZE, FOG WUYI MTHS.     |                   |                  | 30 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 51 | CHINA             | HAZE, FOG WUYI MTHS.     |                   |                  | 50 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 52 | CHINA             | HAZE, FOG WUYI MTHS.     |                   |                  | 55 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 53 | CHINA             | COAST, SED. PLUMES       |                   |                  | 55 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 54 | CHINA             | COAST, SED. PLUMES       |                   |                  | 65 | LO | 100 | U   | N |      |     |    |    |           |    |
| 94 | 55 | SAUDI ARABIA      | KUWAIT OIL WELL FIRES    | 28.0N 48.5E       |                  | 15 | HO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 56 | SAUDI ARABIA      | KUWAIT OIL WELL FIRES    | 27.0N 48.0E       |                  | 15 | HO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 57 | OMAN              | MADRAKAH PT., SAUQIRAH B | 19.0N 56.0E       |                  | 5  | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 58 | OMAN              | SAMHAN MTS., QAMAR BAY   | 18.0N 54.0E       |                  | 10 | HO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 59 | OMAN              | COAST, EMPTY QUARTER     | 19.0N 51.0E       |                  | 10 | HO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 60 | OMAN              | ALLUVIAL FANS, OMAN MTHS | 21.5N 57.5E       |                  | 10 | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 61 | OMAN              | EMPTY QUARTER, DUST ST.  | 22.0N 52.5E       |                  | 10 | HO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 62 | OMAN              | AL MASIRAH IS., ALL. FAN | 20.5N 59.0E       |                  | 5  | LO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 63 | ARABIAN SEA       | DYING THUNDERSTORM       |                   |                  |    |    | HO  | 100 | N |      |     |    |    |           |    |
| 94 | 64 | INDIAN OCEAN      | PALK ST., G. OF MANNAR   | 9.0N 80.0E        |                  | 30 | HO | 100 | N   | N |      |     |    |    |           |    |
| 94 | 65 | JAVA SEA          | SULOYS, SUMATERA, BANGKA | 4.5S 107.5E       |                  | 55 | LO | 100 | U   | N |      |     |    |    |           |    |
| 94 | 66 | JAVA SEA          | SULOYS, SUMATERA, BANGKA | 5.0S 108.0E       |                  | 50 | HO | 100 | U   | N |      |     |    |    |           |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER |        | MADIR |      | CC  | IL | FL  | E | S | DATE | GMT | AL | AZ | EL | OR |
|----|-----|-----------------|---------------------------|--------|--------|-------|------|-----|----|-----|---|---|------|-----|----|----|----|----|
|    |     |                 |                           | LAT    | LONG   | LAT   | LONG |     |    |     |   |   |      |     |    |    |    |    |
| 94 | 87  | JAVA SEA        | CLOUDS, SUMATERA, BANGKA  | 5.0S   | 109.0E |       |      | 60  | HO | 100 | U | N |      |     |    |    |    |    |
| 94 | 88  | AUSTRALIA       | WEST C., 80-MILE BEACH    | 19.0S  | 122.0E |       |      | 60  | HO | 100 | U | N |      |     |    |    |    |    |
| 94 | 89  | AUSTRALIA       | COAST, 80-MILE BEACH      | 20.0S  | 120.0E |       |      | 55  | HO | 100 | U | N |      |     |    |    |    |    |
| 94 | 90  | AUSTRALIA       | GREAT SANDY DESERT        |        |        |       |      | 65  | HO | 100 | U | N |      |     |    |    |    |    |
| 94 | 91  | EGYPT           | GILF KEBIR PLATEAU        | 26.5N  | 28.0E  |       |      | 5   | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 92  | EGYPT           | NILE RIVER VALLEY         | 26.0N  | 30.5E  |       |      | 0   | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 93  | ISRAEL          | SINAI PEN., DEAD SEA RIFT | 31.0N  | 35.5E  |       |      | 0   | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 94  | JORDAN          | SINAI PEN., DEAD SEA RIFT | 31.0N  | 36.0E  |       |      | 0   | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 95  | JORDAN          | SINAI PEN., DEAD SEA RIFT | 31.0N  | 37.0E  |       |      | 0   | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 96  | SAUDI ARABIA    | G. OF AQABA, MAFUD DES.   | 30.0N  | 39.0E  |       |      | 0   | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 77  | EGYPT           | NUBIAN DES., RED SEA      | 22.0N  | 35.5E  |       |      | 15  | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 78  | SUDAN           | NUBIAN DES., RED SEA      | 20.5N  | 35.5E  |       |      | 10  | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 79  | SUDAN           | NUBIAN DES., NILE RIVER   | 19.0N  | 34.0E  |       |      | 15  | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 80  | SUDAN           | NUBIAN DES., RED SEA      | 21.0N  | 35.5E  |       |      | 10  | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 81  | RED SEA         | OBLIQUE LOOKING N. SINAI  | 24.5N  | 36.0E  |       |      | 10  | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 82  | RED SEA         | OBLIQUE LOOKING N. SINAI  | 24.0N  | 37.0E  |       |      | 15  | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 83  | AUSTRALIA       | L. DISAPPOINTMENT         | 23.0S  | 123.0E |       |      | 5   | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 84  | AUSTRALIA       | GREAT SANDY/GIBSON DES.   | 22.0S  | 124.0E |       |      | 20  | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 85  | AUSTRALIA       | GREAT SANDY/GIBSON DES.   | 21.5S  | 124.5E |       |      | 35  | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 86  | AUSTRALIA       | W. COAST, 80-MILE BEACH   | 20.0S  | 119.0E |       |      | 25  | HO | 100 | O | N |      |     |    |    |    |    |
| 94 | 87  | AUSTRALIA       | W. COAST, 80-MILE BEACH   | 20.0S  | 120.0E |       |      | 20  | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 88  | AUSTRALIA       | L. MACKAY, GIBSON DESERT  | 22.5S  | 128.5E |       |      | 55  | LO | 100 | U | N |      |     |    |    |    |    |
| 94 | 89  | MOROCCO         | ATLAS, QUARKZIZ MTNS.     | 29.0N  | 9.0W   |       |      | 15  | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 90  | ALGERIA         | ERG CHECH, KAHAL PLATEAU  | 26.0N  | 1.0W   |       |      | 0   | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 91  | ALGERIA         | ERG CHECH, ERG OCCIDENTAL | 28.5N  | 1.0W   |       |      | 0   | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 92  | LIBYA           | MARZUQ DESERT             | 25.0N  | 13.0E  |       |      | 0   | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 93  | CHAD            | TIBESTI, PIC TOUSIDE V.   | 21.0N  | 17.0E  |       |      | 0   | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 94  | CHAD            | TIBESTI, EMI KOUSSI VOL.  | 20.5N  | 17.5E  |       |      | 0   | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 95  | CHAD            | TIBESTI, KEGUEUR TERBI    | 21.5N  | 18.0E  |       |      | 0   | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 96  | SUDAN           | NILE R., BAYUDA CRATER    | 18.0N  | 33.0E  |       |      | 15  | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 97  | ETHIOPIA        | RIFT VALLEY, AWASH RIVER  | 10.5N  | 40.5E  |       |      | 25  | LO | 100 | N | N |      |     |    |    |    |    |
| 94 | 98  | DJIBOUTI        | AFAR REGION, LAKE ABBE    | 11.0N  | 42.0E  |       |      | 15  | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 99  | ETHIOPIA        | DANAKIL DEP., ERTE ALLE   | 12.5N  | 40.5E  |       |      | 15  | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 100 | SOMALIA         | GULF OF ADEN              | 11.0N  | 46.0E  |       |      | 15  | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 101 | SOMALIA         | COAST, INDIAN OCEAN       | 5.0N   | 48.0E  |       |      | 30  | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 102 | SOMALIA         | HORN OF AFRICA, SOCOTRA   | 10.5N  | 51.5E  |       |      | 20  | HO | 100 | N | N |      |     |    |    |    |    |
| 94 | 103 | INDIAN OCEAN    | SUNGLINT, COLLAPSED TS    |        |        |       |      | 35  | LO | 100 | U | N |      |     |    |    |    |    |
| 94 | 104 | INDIAN OCEAN    | SUNGLINT, COLLAPSED TS    |        |        |       |      | 35  | LO | 100 | U | N |      |     |    |    |    |    |
| 94 | 105 |                 | GRO IN PAYLOAD BAY        |        |        |       |      | 100 | N  | N   |   |   |      |     |    |    |    |    |
| 94 | 106 |                 | GRO IN PAYLOAD BAY        |        |        |       |      | 100 | N  | N   |   |   |      |     |    |    |    |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 95 | 1  | YEMEN (ADEN)    | OIL SLICKS, SHIP WAKES    | 1.4N 49.4E 14.6N     | 49.6E               | 5  | NV | 250 | N | N | 19910406 | 092300 | 244 | 230 | 77        | 13 |
| 95 | 2  | YEMEN (ADEN)    | COAST                     | 1.4N 48.6E 14.4N     | 50.1E               | 5  | NV | 250 | N | N | 19910406 | 092309 | 244 | 232 | 77        | 13 |
| 95 | 3  | YEMEN (ADEN)    | COAST, OIL SLICKS         | 14.0N 49.0E 14.3N    | 50.4E               | 5  | NV | 250 | N | N | 19910406 | 092313 | 244 | 233 | 76        | 13 |
| 95 | 4  | YEMEN (ADEN)    | COAST                     | 14.8N 49.7E 14.2N    | 50.5E               | 5  | NV | 250 | N | N | 19910406 | 092316 | 244 | 234 | 76        | 13 |
| 95 | 5  | YEMEN (ADEN)    | COAST                     | 14.8N 50.5E 14.1N    | 50.8E               | 5  | NV | 250 | N | N | 19910406 | 092321 | 244 | 235 | 76        | 13 |
| 95 | 6  | YEMEN (ADEN)    | COAST, SEDIMENT TRANSP.   | 15.1N 51.4E 13.4N    | 52.2E               | 5  | NV | 250 | N | N | 19910406 | 092347 | 244 | 241 | 75        | 13 |
| 95 | 7  | MALDIVES        | ATOLLS                    | 4.9N 73.0E 4.2N      | 69.1E               | 20 | NV | 250 | N | N | 19910406 | 092901 | 243 | 275 | 59        | 43 |
| 95 | 8  | MALDIVES        | ATOLLS                    | 4.4N 73.2E 4.0N      | 69.5E               | 10 | NV | 250 | N | N | 19910406 | 092908 | 243 | 275 | 58        | 13 |
| 95 | 9  | MALDIVES        | ATOLLS                    | 3.4N 73.2E 3.9N      | 69.6E               | 10 | NV | 250 | N | N | 19910406 | 092911 | 243 | 275 | 58        | 13 |
| 95 | 10 | MALDIVES        | ATOLLS                    | 2.7N 73.2E 3.8N      | 69.7E               | 10 | NV | 250 | N | N | 19910406 | 092913 | 243 | 275 | 58        | 13 |
| 95 | 11 | MALDIVES        | ATOLLS                    | 2.2N 73.2E 3.8N      | 69.8E               | 10 | NV | 250 | N | N | 19910406 | 092915 | 243 | 276 | 58        | 13 |
| 95 | 12 | MALDIVES        | ATOLLS                    | 2.2N 73.2E 3.8N      | 69.8E               | 10 | NV | 250 | N | N | 19910406 | 092915 | 243 | 276 | 58        | 13 |
| 95 | 13 | INDIA           | SO. COAST, GULF OF MANNAR | 9.1N 77.3E 2.5N      | 72.0E               | 10 | NV | 250 | N | N | 19910406 | 092958 | 243 | 277 | 56        | 13 |
| 95 | 14 | WESTERN SAHARA  | COAST, CONVEYOR BELT      | 26.8N 9.1N 27.6N     | 17.2W               | 5  | NV | 250 | N | N | 19910406 | 104453 | 246 | 114 | 49        | 14 |
| 95 | 15 | WESTERN SAHARA  | CONVEYOR BELT, INTERIOR   | 26.8N 12.9W 27.4N    | 15.5W               | 0  | NV | 250 | N | N | 19910406 | 104519 | 246 | 116 | 50        | 14 |
| 95 | 16 | WESTERN SAHARA  | EAST INTERIOR             | 26.7N 9.5W 27.3N     | 14.6W               | 0  | NV | 250 | N | N | 19910406 | 104532 | 246 | 116 | 51        | 14 |
| 95 | 17 | MOROCCO         | ANTI ATLAS MTNS.          | 30.5N 8.8W 27.2N     | 13.7W               | 10 | LO | 250 | N | N | 19910406 | 104546 | 246 | 117 | 52        | 14 |
| 95 | 18 | MOROCCO         | STRAIT OF GIBRALTAR       | 36.0N 5.5W 26.9N     | 12.2W               | 0  | HO | 250 | N | N | 19910406 | 104608 | 246 | 118 | 53        | 14 |
| 95 | 19 | MOROCCO         | NORTHEAST MOROCCO         | 35.2N 4.1W 26.9N     | 11.8W               | 0  | HO | 250 | N | N | 19910406 | 104614 | 246 | 119 | 54        | 14 |
| 95 | 20 | MOROCCO         | NORTHEAST MOROCCO         | 34.5N 3.0W 26.8N     | 11.5W               | 10 | HO | 250 | N | N | 19910406 | 104619 | 246 | 119 | 54        | 14 |
| 95 | 21 | MOROCCO         | NORTHEAST MOROCCO         | 33.5N 2.0W 26.7N     | 11.0W               | 20 | HO | 250 | N | N | 19910406 | 104626 | 246 | 120 | 54        | 14 |
| 95 | 22 | ALGERIA         | SCATTERED OASIS           | 25.6N 25.6N          | 5.4W                | 0  | NV | 250 | N | N | 19910406 | 104751 | 246 | 125 | 60        | 14 |
| 95 | 23 | ALGERIA         | DESERT                    | 25.3N 25.3N          | 4.0W                | 0  | NV | 250 | N | N | 19910406 | 104812 | 246 | 127 | 61        | 14 |
| 95 | 24 | ALGERIA         | DISSECTED PLATEAU         | 24.8N 24.8N          | 1.9W                | 0  | NV | 250 | N | N | 19910406 | 104845 | 246 | 130 | 63        | 14 |
| 95 | 25 | ALGERIA         | DISSECTED PLATEAU         | 24.7N 24.7N          | 1.4W                | 0  | NV | 250 | N | N | 19910406 | 104853 | 246 | 130 | 63        | 14 |
| 95 | 26 | ALGERIA         | AHAGGAR MTNS.             | 23.3N 4.8E 23.8N     | 2.0E                | 0  | LO | 250 | N | N | 19910406 | 104946 | 246 | 135 | 66        | 14 |
| 95 | 27 | ALGERIA         | AHAGGAR MTNS.             | 23.8N 6.5E 23.5N     | 2.9E                | 0  | LO | 250 | N | N | 19910406 | 105000 | 246 | 137 | 67        | 14 |
| 95 | 28 | NIGER           | AIR MTNS.                 | 19.0N 9.0E 23.2N     | 3.8E                | 0  | LO | 250 | N | N | 19910406 | 105015 | 246 | 138 | 68        | 14 |
| 95 | 29 | NIGER           | AIR MTNS.                 | 19.0N 9.0E 23.0N     | 4.5E                | 0  | LO | 250 | N | N | 19910406 | 105027 | 246 | 140 | 68        | 14 |
| 95 | 30 | ALGERIA         | TINRHERT PLATEAU          | 25.0N 10.0E 22.6N    | 6.0E                | 0  | LO | 250 | N | N | 19910406 | 105051 | 246 | 142 | 70        | 14 |
| 95 | 31 | ALGERIA         | TINRHERT PLATEAU          | 25.0N 9.0E 22.5N     | 6.2E                | 0  | LO | 250 | N | N | 19910406 | 105054 | 246 | 143 | 70        | 14 |
| 95 | 32 | ALGERIA         | TINRHERT PLATEAU          | 25.0N 9.0E 22.4N     | 6.4E                | 0  | LO | 250 | N | N | 19910406 | 105057 | 245 | 143 | 70        | 14 |
| 95 | 33 | NIGER           | TINRHERT PLATEAU          | 23.5N 9.0E 22.4N     | 6.5E                | 0  | LO | 250 | N | N | 19910406 | 105059 | 245 | 143 | 70        | 14 |
| 95 | 34 | NIGER           | TINRHERT PLATEAU          | 23.5N 8.0E 22.3N     | 6.7E                | 0  | LO | 250 | N | N | 19910406 | 105102 | 245 | 144 | 70        | 14 |
| 95 | 35 | NIGER           | TINRHERT PLATEAU          | 23.0N 8.0E 22.3N     | 6.8E                | 0  | LO | 250 | N | N | 19910406 | 105104 | 245 | 144 | 70        | 14 |
| 95 | 36 | NIGER           | DESERT, WIND STREAKS      | 22.2N 22.2N          | 7.0E                | 0  | NV | 250 | N | N | 19910406 | 105107 | 245 | 145 | 71        | 14 |
| 95 | 37 | NIGER           | DESERT, WIND STREAKS      | 22.2N 22.2N          | 7.2E                | 0  | NV | 250 | N | N | 19910406 | 105110 | 245 | 145 | 71        | 14 |
| 95 | 38 | NIGER           | DESERT, WIND STREAKS      | 22.1N 22.1N          | 7.4E                | 0  | NV | 250 | N | N | 19910406 | 105113 | 245 | 145 | 71        | 14 |
| 95 | 39 | NIGER           | TINRHERT PLATEAU          | 24.0N 8.0E 22.1N     | 7.5E                | 0  | LO | 250 | N | N | 19910406 | 105115 | 245 | 146 | 71        | 14 |
| 95 | 40 | NIGER           | TINRHERT PLATEAU          | 23.5N 8.0E 22.0N     | 7.6E                | 0  | LO | 250 | N | N | 19910406 | 105117 | 245 | 146 | 71        | 14 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER |       | NADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|----|-----------------|---------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |    |                 |                           | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 95 | 41 | NIGER           | TINRHET PLATEAU           | 23.0N  | 9.0E  | 22.0N | 7.8E  | 0  | LO | 250 | N | N | 19910406 | 105119 | 245 | 146 | 71  | 14 |    |
| 95 | 42 | NIGER           | DESERT, WIND STREAKS      |        |       | 22.0N | 7.9E  | 0  | NV | 250 | N | N | 19910406 | 105121 | 245 | 147 | 71  | 14 |    |
| 95 | 43 | NIGER           | DESERT, WIND STREAKS      |        |       | 21.7N | 8.7E  | 0  | NV | 250 | N | N | 19910406 | 105135 | 245 | 149 | 72  | 14 |    |
| 95 | 44 | NIGER           | DESERT, WIND STREAKS      |        |       | 21.6N | 8.9E  | 0  | NV | 250 | N | N | 19910406 | 105137 | 245 | 149 | 72  | 14 |    |
| 95 | 45 | NIGER           | DESERT, WIND STREAKS      |        |       | 21.6N | 9.0E  | 0  | NV | 250 | N | N | 19910406 | 105139 | 245 | 149 | 72  | 14 |    |
| 95 | 46 | NIGER           | DESERT, WIND STREAKS      |        |       | 21.5N | 9.2E  | 0  | NV | 250 | N | N | 19910406 | 105142 | 245 | 150 | 72  | 14 |    |
| 95 | 47 | NIGER           | TINRHET PLATEAU           | 24.0N  | 10.0E | 21.4N | 9.5E  | 0  | LO | 250 | N | N | 19910406 | 105147 | 245 | 151 | 73  | 14 |    |
| 95 | 48 | NIGER           | TINRHET PLATEAU           | 24.0N  | 10.0E | 21.3N | 9.6E  | 0  | LO | 250 | N | N | 19910406 | 105150 | 245 | 151 | 73  | 14 |    |
| 95 | 49 | NIGER           | TINRHET PLATEAU           | 24.0N  | 11.0E | 21.3N | 9.9E  | 0  | LO | 250 | N | N | 19910406 | 105154 | 245 | 152 | 73  | 14 |    |
| 95 | 50 | CHAD            | DUST STORM, WIND STREAKS  |        |       | 21.0N | 10.7E | 0  | LO | 250 | N | N | 19910406 | 105208 | 245 | 154 | 74  | 14 |    |
| 95 | 51 | CHAD            | DUST STORM, WIND STREAKS  |        |       | 20.9N | 10.9E | 0  | LO | 250 | N | N | 19910406 | 105210 | 245 | 155 | 74  | 14 |    |
| 95 | 52 | CHAD            | DUST STORM, WIND STREAKS  |        |       | 20.9N | 11.0E | 0  | LO | 250 | N | N | 19910406 | 105212 | 245 | 155 | 74  | 14 |    |
| 95 | 53 | CHAD            | DUST STORM                |        |       | 20.8N | 11.1E | 0  | LO | 250 | N | N | 19910406 | 105214 | 245 | 155 | 74  | 14 |    |
| 95 | 54 | CHAD            | DUST STORM                |        |       | 20.7N | 11.5E | 0  | LO | 250 | N | N | 19910406 | 105220 | 245 | 156 | 74  | 14 |    |
| 95 | 55 | CHAD            | TIBESTI MTNS.             | 21.0N  | 16.5E | 20.3N | 12.4E | 0  | LO | 250 | N | N | 19910406 | 105236 | 245 | 160 | 75  | 14 |    |
| 95 | 56 | CHAD            | LAKE CHAD                 | 13.0N  | 13.6E | 20.0N | 13.2E | 20 | LO | 250 | N | N | 19910406 | 105249 | 245 | 162 | 75  | 14 |    |
| 95 | 57 | CHAD            | SAND, LONGITUDINAL DUNES  |        |       | 19.6N | 14.4E | 0  | LO | 250 | N | N | 19910406 | 105310 | 245 | 167 | 76  | 14 |    |
| 95 | 58 | CHAD            | SAND, LONGITUDINAL DUNES  |        |       | 19.5N | 14.6E | 0  | LO | 250 | N | N | 19910406 | 105313 | 245 | 168 | 76  | 14 |    |
| 95 | 59 | CHAD            | SAND, LONGITUDINAL DUNES  |        |       | 19.1N | 15.6E | 0  | LO | 250 | N | N | 19910406 | 105329 | 245 | 172 | 77  | 14 |    |
| 95 | 60 | CHAD            | SAND, LONGITUDINAL DUNES  |        |       | 19.0N | 15.7E | 0  | LO | 250 | N | N | 19910406 | 105332 | 245 | 173 | 77  | 14 |    |
| 95 | 61 | CHAD            | SAND, LONGITUDINAL DUNES  |        |       | 19.0N | 15.9E | 0  | LO | 250 | N | N | 19910406 | 105335 | 245 | 174 | 77  | 14 |    |
| 95 | 62 | CHAD            | TIBESTI MTNS.             | 20.0N  | 18.6E | 18.7N | 16.6E | 0  | LO | 250 | N | N | 19910406 | 105346 | 245 | 177 | 77  | 14 |    |
| 95 | 63 | CHAD            | TIBESTI, ENI KOUSSI       | 19.8N  | 18.6E | 18.3N | 17.7E | 0  | LO | 250 | N | N | 19910406 | 105405 | 245 | 183 | 78  | 14 |    |
| 95 | 64 | CHAD            | TIBESTI MTNS, WIND STRKS. | 19.5N  | 19.0E | 18.1N | 18.0E | 0  | LO | 250 | N | N | 19910406 | 105410 | 245 | 184 | 78  | 14 |    |
| 95 | 65 | CHAD            | WIND STRKS, NR TIBESTI    | 19.0N  | 19.5E | 18.1N | 18.1E | 0  | LO | 250 | N | N | 19910406 | 105412 | 245 | 185 | 78  | 14 |    |
| 95 | 66 | CHAD            | ERG DU DIOURAB, SALT FLTS | 17.5N  | 19.0E | 18.0N | 18.3E | 0  | LO | 250 | N | N | 19910406 | 105415 | 245 | 186 | 78  | 14 |    |
| 95 | 67 | CHAD            | LARGE SALT FLATS          | 17.3N  | 18.6E | 17.7N | 19.0E | 0  | LO | 250 | N | N | 19910406 | 105428 | 245 | 190 | 78  | 14 |    |
| 95 | 68 | CHAD            | LARGE SALT FLATS          | 17.0N  | 18.3E | 17.6N | 19.3E | 0  | LO | 250 | N | N | 19910406 | 105433 | 245 | 191 | 78  | 14 |    |
| 95 | 69 | CHAD            | LARGE SALT FLATS          | 17.0N  | 18.2E | 17.5N | 19.5E | 0  | LO | 250 | N | N | 19910406 | 105437 | 245 | 193 | 78  | 14 |    |
| 95 | 70 | CHAD            | ENNEDI PLATEAU            | 17.2N  | 22.5E | 17.2N | 20.2E | 10 | LO | 250 | N | N | 19910406 | 105449 | 245 | 197 | 78  | 14 |    |
| 95 | 71 | CHAD            | ENNEDI PLATEAU            | 17.0N  | 23.0E | 17.0N | 20.6E | 10 | LO | 250 | N | N | 19910406 | 105455 | 245 | 197 | 78  | 14 |    |
| 95 | 72 | CHAD            | ENNEDI PLATEAU            | 17.5N  | 24.0E | 16.8N | 21.1E | 0  | LO | 250 | N | N | 19910406 | 105504 | 245 | 202 | 78  | 14 |    |
| 95 | 73 | CHAD            | ENNEDI PLATEAU            |        |       | 16.4N | 21.9E | 5  | LO | 250 | N | N | 19910406 | 105518 | 245 | 207 | 78  | 14 |    |
| 95 | 74 | CHAD            | CHAD, SUDAN BORDER        | 16.0N  | 23.1E | 16.0N | 22.9E | 0  | NV | 250 | N | N | 19910406 | 105535 | 244 | 212 | 78  | 14 |    |
| 95 | 75 | CHAD            | CHAD, SUDAN BORDER        | 15.7N  | 23.0E | 15.8N | 23.4E | 10 | LO | 250 | N | N | 19910406 | 105544 | 244 | 215 | 78  | 14 |    |
| 95 | 76 | SUDAN           | WEST CENTRAL SUDAN        |        |       | 15.6N | 23.8E | 20 | LO | 250 | N | N | 19910406 | 105551 | 244 | 218 | 78  | 14 |    |
| 95 | 77 | SUDAN           | WEST CENTRAL SUDAN        |        |       | 15.5N | 23.9E | 30 | LO | 250 | N | N | 19910406 | 105554 | 244 | 219 | 78  | 14 |    |
| 95 | 78 | SUDAN           | SUDAN, CHAD BORDER        |        |       | 15.0N | 24.9E | 0  | LO | 250 | N | N | 19910406 | 105611 | 244 | 224 | 78  | 14 |    |
| 95 | 79 | SUDAN           |                           |        |       | 14.6N | 25.8E | 80 | LO | 250 | N | N | 19910406 | 105628 | 244 | 229 | 77  | 14 |    |
| 95 | 80 | SUDAN           | SW OF AL UBAYYID, WADI    |        |       | 14.2N | 26.7E | 5  | LO | 250 | N | N | 19910406 | 105643 | 244 | 233 | 77  | 14 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | CENTER<br>LONG | MADIR<br>LAT | MADIR<br>LONG | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|-----------------|---------------------------|---------------|----------------|--------------|---------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 95 | 81  | SUDAN           | SW OF AL UBAYYID, WADI    |               |                | 13.6N        | 27.8E         | 5  | NV | 250 | N | N | 19910406 | 105703 | 244 | 238 | 76        | 14 |
| 95 | 82  | SUDAN           | SW OF AL UBAYYID, WADI    |               |                | 13.6N        | 28.0E         | 10 | NV | 250 | N | N | 19910406 | 105706 | 244 | 239 | 76        | 14 |
| 95 | 83  | SUDAN           |                           |               |                | 12.9N        | 29.3E         | 40 | LO | 250 | N | N | 19910406 | 105730 | 244 | 244 | 75        | 14 |
| 95 | 84  | SUDAN           |                           |               |                | 12.6N        | 29.8E         | 10 | LO | 250 | N | N | 19910406 | 105739 | 244 | 246 | 75        | 14 |
| 95 | 85  | SUDAN           | WHITE NILE, N. OF KUSTI   | 13.1N         | 32.3E          | 11.5N        | 32.0E         | 50 | LO | 250 | N | N | 19910406 | 105820 | 244 | 253 | 73        | 14 |
| 95 | 86  | SUDAN           | WHITE NILE, CULTVD FIELDS | 14.2N         | 32.6E          | 11.3N        | 32.3E         | 40 | LO | 250 | N | N | 19910406 | 105825 | 244 | 254 | 73        | 14 |
| 95 | 87  | SUDAN           | WHITE NILE, SO. OF KUSTI  |               |                | 11.2N        | 32.6E         | 80 | LO | 250 | N | N | 19910406 | 105830 | 244 | 255 | 72        | 14 |
| 95 | 88  | SUDAN           | WHITE NILE, SO. OF KUSTI  | 11.9N         | 32.8E          | 11.1N        | 32.8E         | 60 | NV | 250 | N | N | 19910406 | 105834 | 244 | 255 | 72        | 14 |
| 95 | 89  | SUDAN           | WHITE NILE, SO. OF KUSTI  | 11.0N         | 32.7E          | 11.0N        | 33.0E         | 70 | NV | 250 | N | N | 19910406 | 105837 | 244 | 256 | 72        | 14 |
| 95 | 90  | SUDAN           | WHITE NILE, SO. OF KUSTI  | 10.5N         | 32.3E          | 10.9N        | 33.2E         | 90 | LO | 250 | N | N | 19910406 | 105841 | 244 | 256 | 72        | 14 |
| 95 | 91  | ETHIOPIA        | ETHIOPIAN PLATEAU, RESVR  | 9.2N          | 36.3E          | 9.3N         | 36.1E         | 60 | LO | 250 | N | N | 19910406 | 105935 | 244 | 263 | 69        | 14 |
| 95 | 92  | ETHIOPIA        | ETHIOPIAN PLATEAU, LAKES  | 6.0N          | 37.8E          | 9.0N         | 36.7E         | 60 | LO | 250 | N | N | 19910406 | 105946 | 244 | 264 | 68        | 14 |
| 95 | 93  | ETHIOPIA        | RIFT VALLEY, LAKE         |               |                | 8.7N         | 37.2E         | 70 | LO | 250 | N | N | 19910406 | 105956 | 244 | 265 | 68        | 14 |
| 95 | 94  | ETHIOPIA        | RIFT VALLEY, ABAYA        | 6.3N          | 37.8E          | 8.0N         | 38.5E         | 60 | LO | 250 | N | N | 19910406 | 110020 | 243 | 267 | 67        | 14 |
| 95 | 95  | ETHIOPIA        | ETHIOPIAN PLATEAU         |               |                | 7.3N         | 39.8E         | 80 | LO | 250 | N | N | 19910406 | 110044 | 243 | 269 | 65        | 14 |
| 95 | 96  | ETHIOPIA        | SE ETHIOPIA               |               |                | 6.8N         | 40.7E         | 40 | LO | 250 | N | N | 19910406 | 110102 | 243 | 270 | 64        | 14 |
| 95 | 97  | ETHIOPIA        | SE ETHIOPIA               |               |                | 6.7N         | 40.9E         | 30 | LO | 250 | N | N | 19910406 | 110105 | 243 | 270 | 64        | 14 |
| 95 | 98  | ETHIOPIA        | SE ETHIOPIA               |               |                | 6.5N         | 41.1E         | 30 | LO | 250 | N | N | 19910406 | 110109 | 243 | 271 | 64        | 14 |
| 95 | 99  | ETHIOPIA        | SE ETHIOPIA               |               |                | 6.2N         | 41.6E         | 30 | LO | 250 | N | N | 19910406 | 110119 | 243 | 271 | 63        | 14 |
| 95 | 100 | ETHIOPIA        | SE ETHIOPIA, RED SOILS    |               |                | 5.9N         | 42.2E         | 20 | LO | 250 | N | N | 19910406 | 110130 | 243 | 272 | 63        | 14 |
| 95 | 101 | ETHIOPIA        | SE ETHIOPIA, RED SOILS    |               |                | 5.7N         | 42.6E         | 50 | LO | 250 | N | N | 19910406 | 110137 | 243 | 272 | 62        | 14 |
| 95 | 102 | ETHIOPIA        | SE ETHIOPIA, RED SOILS    |               |                | 5.6N         | 42.8E         | 40 | LO | 250 | N | N | 19910406 | 110141 | 243 | 273 | 62        | 14 |
| 95 | 103 | ETHIOPIA        | SE ETHIOPIA, RED SOILS    |               |                | 5.5N         | 43.0E         | 30 | LO | 250 | N | N | 19910406 | 110145 | 243 | 273 | 62        | 14 |
| 95 | 104 | ETHIOPIA        | SE ETHIOPIA, RED SOILS    |               |                |              |               | 40 | LO | 250 | N | N |          |        |     |     |           |    |
| 96 | 1   |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 2   |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 3   |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 4   | PACIFIC OCEAN   | GRO, PEARL + HERMES REEF  | 28.0N         | 176.0W         |              |               | 15 | NV | 100 | N | N |          |        |     |     |           |    |
| 96 | 5   |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 6   |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 7   |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 8   |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 9   |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 10  |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 11  |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 12  |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 13  |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 14  |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 15  |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |
| 96 | 16  |                 | GRO PAYLOAD               |               |                |              |               |    |    |     |   |   |          |        |     |     |           |    |

TABLE 4.3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME    | FEATURE                   | CENTER<br>LAT | ON     | MADIR<br>LAT | ON | CC | TL | FL  | E | S | DATE | GMT | AL | AZ | SUN<br>EL | OR |
|----|----|--------------------|---------------------------|---------------|--------|--------------|----|----|----|-----|---|---|------|-----|----|----|-----------|----|
| 96 | 17 |                    | GRO PAYLOAD               |               |        |              |    |    |    |     |   |   |      |     |    |    |           | N  |
| 96 | 18 |                    | GRO PAYLOAD               |               |        |              |    |    |    |     |   |   |      |     |    |    |           | N  |
| 96 | 19 |                    | GRO PAYLOAD               |               |        |              |    |    |    |     |   |   |      |     |    |    |           | N  |
| 96 | 20 |                    | GRO PAYLOAD               |               |        |              |    |    |    |     |   |   |      |     |    |    |           | N  |
| 96 | 21 |                    | GRO PAYLOAD               |               |        |              |    |    |    |     |   |   |      |     |    |    |           | N  |
| 96 | 22 |                    | GRO PAYLOAD               |               |        |              |    |    |    |     |   |   |      |     |    |    |           | N  |
| 96 | 23 |                    | GRO PAYLOAD               |               |        |              |    |    |    |     |   |   |      |     |    |    |           | N  |
| 96 | 24 |                    | GRO PAYLOAD               |               |        |              |    |    |    |     |   |   |      |     |    |    |           | N  |
| 96 | 25 | CHINA              | TIBET PLAT., HIMALAYAS    | 30.0N         | 83.0E  |              |    | 30 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 26 | CHINA              | TIBET PLAT., HIMALAYAS    | 29.0N         | 84.0E  |              |    | 35 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 27 | CHINA              | TIBET PLAT., HIMALAYAS    | 29.0N         | 85.5E  |              |    | 25 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 28 | CHINA              | TIBET PLAT., HIMALAYAS    | 30.5N         | 86.5E  |              |    | 15 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 29 | CHINA              | TIBET PLAT., HIMALAYAS    | 30.0N         | 88.0E  |              |    | 25 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 30 | CHINA              | TIBET PLAT., HIMALAYAS    | 30.5N         | 89.0E  |              |    | 35 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 31 | CHINA              | TIBET PLAT., HIMALAYAS    | 30.0N         | 90.5E  |              |    | 55 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 32 | CHINA              | TIBET PLAT., HIMALAYAS    | 29.0N         | 90.5E  |              |    | 35 | HO | 100 | N | N |      |     |    |    |           | N  |
| 96 | 33 | BURMA              | FOLDED RANGES             |               |        |              |    | 80 | LO | 100 | N | N |      |     |    |    |           | N  |
| 96 | 34 | CHINA              | FOLDED RANGES, SALWEEN R  | 24.5N         | 99.0E  |              |    | 60 | LO | 100 | N | N |      |     |    |    |           | N  |
| 96 | 35 | CHINA              | FOLDED RANGES, MEKONG R.  | 27.5N         | 101.5E |              |    | 50 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 36 | CHINA              | FOLDED RANGES, MEKONG R.  | 27.5N         | 102.0E |              |    | 45 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 37 | PACIFIC OCEAN      | CLOUDS, SUNGLINT          |               |        |              |    | 60 | HO | 100 | N | N |      |     |    |    |           | N  |
| 96 | 38 | MAURITANIA         | RICHTAT ST., ANTI ATLAS   | 25.0N         | 11.5W  |              |    | 10 | HO | 100 | N | N |      |     |    |    |           | N  |
| 96 | 39 | CAPE VERDE ISLANDS | ISLAND, CLOUD WAKES       | 16.5N         | 23.5W  |              |    | 40 | HO | 100 | N | N |      |     |    |    |           | N  |
| 96 | 40 | CAPE VERDE ISLANDS | ISLAND, CLOUD WAKES       | 16.0N         | 23.0W  |              |    | 35 | HO | 100 | N | N |      |     |    |    |           | N  |
| 96 | 41 | GAMBIA             | DAKAR, GAMBIA R., GEBIA R | 13.5N         | 15.5W  |              |    | 0  | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 42 | SENEGAL            | DAKAR, GAMBIA R., GEBIA R | 13.0N         | 15.0W  |              |    | 0  | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 43 | ATLANTIC OCEAN     | PAYLOAD BAY               |               |        |              |    | 35 | HO | 100 | N | N |      |     |    |    |           | N  |
| 96 | 44 | ATLANTIC OCEAN     | PAYLOAD BAY               |               |        |              |    | 35 | HO | 100 | N | N |      |     |    |    |           | N  |
| 96 | 45 | BOTSWANA           | MAKARIKARI PAN, OKAVANGO  | 21.0S         | 26.0E  |              |    | 15 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 46 | ZIMBABWE           | MAKARIKARI P., GREAT DIKE | 20.0S         | 27.0E  |              |    | 10 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 47 | ZIMBABWE           | MAKARIKARI P., GREAT DIKE | 20.0S         | 28.5E  |              |    | 20 | HO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 48 | NAMIBIA            | NAMIB DESERT, DUST STORM  | 25.0S         | 15.0E  |              |    | 0  | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 49 | NAMIBIA            | NAMIB DESERT, DUST STORM  | 25.0S         | 14.5E  |              |    | 0  | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 50 | MEXICO             | SIERRA MADRE DEL SUR      | 21.0N         | 101.0W |              |    | 40 | LO | 100 | N | N |      |     |    |    |           | N  |
| 96 | 51 | NICARAGUA          | L. NICARAGUA, MASAYA VOL  | 13.5N         | 85.5W  |              |    | 45 | LO | 100 | N | N |      |     |    |    |           | N  |
| 96 | 52 | COSTA RICA         | L. NICARAGUA, NICOYA PEN  | 11.0N         | 85.5W  |              |    | 55 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 53 | PANAMA             | CANAL ZONE, COLON         | 9.0N          | 80.0W  |              |    | 60 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 54 | PANAMA             | CANAL ZONE, COLON         | 9.0N          | 79.0W  |              |    | 80 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 55 | PANAMA             | CANAL ZONE, PANAMA CITY   | 9.0N          | 80.0W  |              |    | 80 | LO | 100 | N | Y |      |     |    |    |           | N  |
| 96 | 56 | BRAZIL             | AMAZON RIVER              | 2.0S          | 56.0W  |              |    | 70 | LO | 100 | N | Y |      |     |    |    |           | N  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME      | FEATURE                  | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE | GMT | AL | AZ | SUN<br>EL | OR |
|----|----|----------------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|------|-----|----|----|-----------|----|
| 96 | 57 | BRAZIL               | AMAZON RIVER             | 2.0S 55.0W           |                     | 70 | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 58 | BRAZIL               | SAO FRANCISCO RIVER      | 9.5S 40.5W           |                     | 65 | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 59 | BRAZIL               | SAO FRANCISCO RIVER      | 8.5S 40.5W           |                     | 55 | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 60 | BRAZIL               | SAO FRANCISCO RIVER      | 9.0S 40.0W           |                     | 70 | HO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 61 | BRAZIL               | COAST NEAR CARAVELAS     | 18.0S 38.0W          |                     | 65 | HO | 100 | U | N |      |     |    |    |           |    |
| 96 | 62 | ARGENTINA            | NEAR POZUELOS LAGOON     | 23.5S 66.0W          |                     | 50 | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 63 | ARGENTINA            | NEAR POZUELOS LAGOON     | 22.5S 65.5W          |                     | 45 | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 64 | ARGENTINA            | CHACO PLAIN, LAND USE    |                      |                     | 30 | LO | 100 | U | N |      |     |    |    |           |    |
| 96 | 65 | ARGENTINA            | CHACO PLAIN, LAND USE    |                      |                     | 30 | LO | 100 | U | Y |      |     |    |    |           |    |
| 96 | 66 | ARGENTINA            | CHACO PLAIN, LAND USE    |                      |                     | 35 | LO | 100 | U | Y |      |     |    |    |           |    |
| 96 | 67 | PARAGUAY             | PARANA R., BORDER LAND U | 25.0S 55.5W          |                     | 30 | NV | 100 | U | Y |      |     |    |    |           |    |
| 96 | 68 | PARAGUAY             | PARANA R., BORDER LAND U | 25.0S 54.5W          |                     | 25 | NV | 100 | U | Y |      |     |    |    |           |    |
| 96 | 69 |                      | BLANK                    |                      |                     |    |    |     |   |   |      |     |    |    |           |    |
| 96 | 70 |                      | BLANK                    |                      |                     |    |    |     |   |   |      |     |    |    |           |    |
| 96 | 71 | UNITED ARAB EMIRATES | SAND DUNES, PERSIAN GULF | 24.0N 51.0E          |                     | 65 | HO | 100 | N | N |      |     |    |    |           |    |
| 96 | 72 | UNITED ARAB EMIRATES | SAND DUNES, PERSIAN GULF | 23.5N 52.0E          |                     | 55 | HO | 100 | N | N |      |     |    |    |           |    |
| 96 | 73 | SOCOTRA              | SOCOTRA ISLAND           | 11.5N 54.0E          |                     | 5  | LO | 100 | N | N |      |     |    |    |           |    |
| 96 | 74 |                      |                          |                      |                     |    |    |     |   |   |      |     |    |    |           |    |
| 96 | 75 | LIBYA                | MARZUQ DES., TCHIGAI P.  | 23.5N 13.0E          |                     | 0  | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 76 | NIGER                | MARZUQ DES., TCHIGAI P.  | 22.0N 12.5E          |                     | 0  | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 77 | NIGER                | TCHIGAI PLATEAU          | 21.0N 13.0E          |                     | 0  | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 78 | CHAD                 | TIBESTI, PIC TOUSIDE     | 21.0N 17.0E          |                     | 0  | LO | 100 | N | N |      |     |    |    |           |    |
| 96 | 79 | CHAD                 | TIBESTI, EMI KOUSSI      | 20.5N 18.5E          |                     | 0  | LO | 100 | N | N |      |     |    |    |           |    |
| 96 | 80 | CHAD                 | DESERT E. OF TIBESTI     | 19.5N 19.5E          |                     | 0  | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 81 | CHAD                 | DESERT E. OF TIBESTI     | 20.5N 20.0E          |                     | 0  | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 82 | CHAD                 | DESERT N. OF ENNEDI PLAT | 19.0N 22.0E          |                     | 0  | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 83 | CHAD                 | DESERT N. OF ENNEDI PLAT | 18.0N 22.0E          |                     | 0  | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 84 | CHAD                 | ENNEDI P., MOURDI DEPRES | 18.0N 23.0E          |                     | 5  | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 85 | CHAD                 | MOURDI DEPRESSION, DUST  | 18.5N 23.5E          |                     | 5  | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 86 | SUDAN                | DUST E. OF ENNEDI PLAT.  | 19.0N 24.5E          |                     | 5  | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 87 | SUDAN                | TEIGA PLATEAU, DUST      |                      |                     | 10 | LO | 100 | N | N |      |     |    |    |           |    |
| 96 | 88 | SUDAN                | REGION NEAR TIEGA PLAT.  |                      |                     | 5  | LO | 100 | N | Y |      |     |    |    |           |    |
| 96 | 89 | SUDAN                | TEIGA PLAT., TEIJO HILL  | 15.0N 26.0E          |                     | 15 | LO | 100 | N | N |      |     |    |    |           |    |
| 96 | 90 | SUDAN                | DESERT, ESCARP. W NILE R | 12.5N 30.5E          |                     | 30 | LO | 100 | N | N |      |     |    |    |           |    |
| 96 | 91 | SUDAN                | NILE R. N OF KHARTOUM    | 16.0N 33.5E          |                     | 55 | LO | 100 | U | N |      |     |    |    |           |    |
| 96 | 92 | SUDAN                | SUDAN AG., NILE RIVER    | 14.0N 33.0E          |                     | 15 | LO | 100 | U | N |      |     |    |    |           |    |
| 96 | 93 | SUDAN                | SUDAN AG., BLUE NILE R.  | 13.5N 33.5E          |                     | 10 | LO | 100 | U | Y |      |     |    |    |           |    |
| 96 | 94 | ETHIOPIA             | BLUE NILE, PLATEAU       | 10.5N 35.5E          |                     | 5  | LO | 100 | N | N |      |     |    |    |           |    |
| 96 | 95 | ETHIOPIA             | LAKE TANA                | 12.0N 37.0E          |                     | 10 | NV | 100 | N | N |      |     |    |    |           |    |
| 96 | 96 | ETHIOPIA             | LAKE TANA                | 12.0N 37.5E          |                     | 10 | NV | 100 | U | N |      |     |    |    |           |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                     | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|-----------------|-----------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 96 | 97  | ETHIOPIA        | FERIT MTN., CITY OF DESE    | 11.0N         | 38.5E         |              |              | 10 | LO | 100 | N | N |          |        |     |     |           |    |
| 96 | 98  | ETHIOPIA        | AFAR, DANAKIL PLAIN         | 12.0N         | 41.0E         |              |              | 10 | LO | 100 | N | N |          |        |     |     |           |    |
| 96 | 99  | ETHIOPIA        | RIFT VALLEY, AWASH RIVER    | 10.0N         | 40.5E         |              |              | 30 | LO | 100 | N | Y |          |        |     |     |           |    |
| 96 | 100 | SOMALIA         | COAST, TADJOURA GULF        | 10.0N         | 44.0E         |              |              | 30 | LO | 100 | N | N |          |        |     |     |           |    |
| 96 | 101 | SOMALIA         | COAST, CARCAR MTHS.         | 9.5N          | 45.5E         |              |              | 50 | LO | 100 | N | Y |          |        |     |     |           |    |
| 96 | 102 | ETHIOPIA        | DESERT, CLOUDS              |               |               |              |              | 75 | LO | 100 | N | N |          |        |     |     |           |    |
| 96 | 103 | GULF OF ADEN    | VALE OF TEARS ST. AFAR      | 11.5N         | 42.5E         |              |              | 15 | HO | 100 | N | N |          |        |     |     |           |    |
| 96 | 104 | SOMALIA         | COAST NEAR MABBER POINT     | 8.0N          | 48.5E         |              |              | 50 | LO | 100 | N | N |          |        |     |     |           |    |
| 96 | 105 | SOMALIA         | COAST S. OF NEGRO BAY       | 7.0N          | 48.0E         |              |              | 40 | LO | 100 | N | N |          |        |     |     |           |    |
| 96 | 106 | SOMALIA         | COAST S. OF NEGRO BAY       | 7.5N          | 48.5E         |              |              | 40 | LO | 100 | N | Y |          |        |     |     |           |    |
| 96 | 107 | SOMALIA         | NEGRO BAY                   | 8.0N          | 49.0E         |              |              | 40 | LO | 100 | N | Y |          |        |     |     |           |    |
| 97 | 1   | ALGERIA         | TINRHERT PLATEAU            | 28.0N         | 2.0E          | 28.3N        | 0.5W         | 0  | HO | 250 | N | N | 19910406 | 090941 | 246 | 109 | 43        | 13 |
| 97 | 2   | ALGERIA         | GRAND ERG ORIENTAL          | 30.0N         | 7.0E          | 28.3N        | 0.0E         | 5  | HO | 250 | N | N | 19910406 | 090949 | 246 | 109 | 43        | 13 |
| 97 | 3   | LIBYA           | COAST, VRY CLOUDY           |               |               | 28.2N        | 0.7E         | 95 | HO | 250 | N | N | 19910406 | 090959 | 246 | 110 | 44        | 13 |
| 97 | 4   | ALGERIA         | TINRHERT PLATEAU            | 28.0N         | 4.0E          | 28.2N        | 1.2E         | 0  | HO | 250 | N | N | 19910406 | 091007 | 246 | 110 | 44        | 13 |
| 97 | 5   | ALGERIA         | TINRHERT PLATEAU            | 28.0N         | 5.0E          | 28.1N        | 1.7E         | 0  | HO | 250 | N | N | 19910406 | 091014 | 246 | 111 | 45        | 13 |
| 97 | 6   | ALGERIA         | TINRHERT PLAT., MARZUQ      | 26.0N         | 11.0E         | 28.0N        | 3.8E         | 0  | HO | 250 | N | N | 19910406 | 091044 | 246 | 112 | 47        | 13 |
| 97 | 7   | ALGERIA         | GRAND ERG ORIENTAL          | 30.5N         | 6.5E          | 27.8N        | 5.0E         | 0  | LO | 250 | N | N | 19910406 | 091102 | 246 | 113 | 48        | 13 |
| 97 | 8   | LIBYA           | MARZUQ DESERT, BLK HARUJ    | 26.0N         | 12.5E         | 27.6N        | 7.2E         | 0  | LO | 250 | N | N | 19910406 | 091134 | 246 | 115 | 50        | 13 |
| 97 | 9   | LIBYA           | MARZUQ DESERT, BLK HARUJ    | 26.0N         | 14.0E         | 27.2N        | 10.1E        | 0  | LO | 250 | N | N | 19910406 | 091218 | 246 | 117 | 52        | 13 |
| 97 | 10  | LIBYA           | BLACK HARUJ                 | 27.0N         | 18.3E         | 27.0N        | 11.5E        | 0  | LO | 250 | N | N | 19910406 | 091239 | 246 | 119 | 54        | 13 |
| 97 | 11  | LIBYA           | BLACK HARUJ, REBIANA SAND   | 25.0N         | 21.0E         | 28.4N        | 14.5E        | 0  | LO | 250 | N | N | 19910406 | 091324 | 246 | 122 | 56        | 13 |
| 97 | 12  | LIBYA           | BLACK HARUJ, REBIANA SAND   | 25.5N         | 21.0E         | 26.3N        | 15.4E        | 0  | LO | 250 | N | N | 19910406 | 091337 | 246 | 123 | 57        | 13 |
| 97 | 13  | LIBYA           | COAST                       |               |               | 26.1N        | 16.5E        | 10 | HO | 250 | N | N | 19910406 | 091355 | 246 | 124 | 58        | 13 |
| 97 | 14  | LIBYA           | LIBYAN DESERT, CTR. PST. IR | 26.3N         | 23.0E         | 25.7N        | 18.3E        | 0  | LO | 250 | N | N | 19910406 | 091422 | 246 | 126 | 60        | 13 |
| 97 | 15  | LIBYA           | LIBYAN DESERT, CTR. PST. IR | 25.0N         | 24.0E         | 25.5N        | 19.1E        | 0  | LO | 250 | N | N | 19910406 | 091434 | 246 | 127 | 60        | 13 |
| 97 | 16  | LIBYA           | LIBYAN DESERT, CTR. PST. IR | 25.0N         | 24.0E         | 25.3N        | 19.9E        | 0  | LO | 250 | N | N | 19910406 | 091447 | 246 | 128 | 61        | 13 |
| 97 | 17  | LIBYA           | COAST                       |               |               | 25.1N        | 20.8E        | 0  | HO | 250 | N | N | 19910406 | 091500 | 246 | 129 | 62        | 13 |
| 97 | 18  | LIBYA           | LIBYAN DESERT               | 23.5N         | 25.0E         | 25.0N        | 21.3E        | 0  | LO | 250 | N | N | 19910406 | 091509 | 246 | 129 | 62        | 13 |
| 97 | 19  | EGYPT           | CENTRAL, NILE, SINAI        | 27.5N         | 30.0E         | 24.5N        | 23.1E        | 0  | HO | 250 | N | N | 19910406 | 091536 | 246 | 132 | 64        | 13 |
| 97 | 20  | EGYPT           | SO. CENTRAL, NILE           |               |               | 24.1N        | 24.6E        | 5  | HO | 250 | N | N | 19910406 | 091600 | 246 | 134 | 65        | 13 |
| 97 | 21  | EGYPT           | SO. CENTRAL, NILE           |               |               | 24.0N        | 25.2E        | 5  | HO | 250 | N | N | 19910406 | 091609 | 246 | 135 | 66        | 13 |
| 97 | 22  | EGYPT           | NILE VALLEY, SINAI          | 28.5N         | 32.0E         | 23.8N        | 25.7E        | 0  | HO | 250 | N | N | 19910406 | 091618 | 246 | 136 | 66        | 13 |
| 97 | 23  | EGYPT           | NILE VALLEY, SINAI          | 28.5N         | 29.0E         | 23.6N        | 26.4E        | 0  | HO | 250 | N | N | 19910406 | 091628 | 246 | 137 | 67        | 13 |
| 97 | 24  | EGYPT           | LAKE MASSER                 | 22.7N         | 32.8E         | 23.3N        | 27.5E        | 5  | LO | 250 | N | N | 19910406 | 091646 | 246 | 139 | 68        | 13 |
| 97 | 25  | EGYPT           | NILE RIVER, RED SEA         | 25.8N         | 33.8E         | 23.0N        | 28.4E        | 5  | LO | 250 | N | N | 19910406 | 091701 | 246 | 141 | 69        | 13 |
| 97 | 26  | EGYPT           | NILE RIVER, RED SEA, SINAI  | 29.5N         | 33.5E         | 22.9N        | 28.9E        | 0  | LO | 250 | N | N | 19910406 | 091709 | 246 | 142 | 69        | 13 |
| 97 | 27  | EGYPT           | NILE RIVER, RED SEA, SINAI  | 29.5N         | 34.0E         | 22.6N        | 29.7E        | 0  | HO | 250 | N | N | 19910406 | 091721 | 246 | 143 | 70        | 13 |
| 97 | 28  | EGYPT           | ARABIAN DESERT              |               |               | 22.4N        | 30.4E        | 10 | LO | 250 | N | N | 19910406 | 091732 | 245 | 144 | 70        | 13 |
| 97 | 29  | EGYPT           | SE. EGYPT                   | 23.0N         | 34.0E         | 22.2N        | 31.0E        | 5  | LO | 250 | N | N | 19910406 | 091743 | 245 | 146 | 71        | 13 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL |    | FR             | GEOGRAPHIC NAME           | FEATURE | CENTER |       | MADIR |       | CC  | TL | FL  | E        | S        | DATE   | GMT | AL  | AZ | SUM |
|----|----|----------------|---------------------------|---------|--------|-------|-------|-------|-----|----|-----|----------|----------|--------|-----|-----|----|-----|
|    |    |                |                           |         | LAT    | LO    | LAT   | LO    |     |    |     |          |          |        |     |     |    | EL  |
| 97 | 30 | EGYPT          | SE. EGYPT, RED SEA        |         | 21.4N  | 33.3E | 10    | LO    | 250 | N  | N   | 19910406 | 091820   | 245    | 152 | 73  | 13 |     |
| 97 | 31 | SAUDI ARABIA   |                           |         | 20.2N  | 36.7E | 95    | HO    | 250 | N  | N   | 19910406 | 091917   | 245    | 163 | 75  | 13 |     |
| 97 | 32 | RED SEA        | VIEW SOUTHEAST            |         | 20.0N  | 37.2E | 30    | HO    | 250 | N  | N   | 19910406 | 091925   | 245    | 165 | 75  | 13 |     |
| 97 | 33 | SAUDI ARABIA   | MASSIVE, EMPTY QUARTER    |         | 17.0N  | 45.0E | 30    | LO    | 250 | N  | N   | 19910406 | 091954   | 245    | 172 | 76  | 13 |     |
| 97 | 34 | SAUDI ARABIA   | EMPTY QUARTER             |         | 17.0N  | 46.0E | 18.6N | 40.6E | 10  | LO | 250 | N        | 19910406 | 092023 | 245 | 180 | 77 | 13  |
| 97 | 35 | SAUDI ARABIA   | YEMEN (ADEN), GULF ADEN   |         | 14.5N  | 47.9E | 18.2N | 41.6E | 5   | HO | 250 | N        | 19910406 | 092040 | 245 | 185 | 78 | 13  |
| 97 | 36 | SAUDI ARABIA   | EMPTY QTR., YEMEN(ADEN)   |         | 16.5N  | 46.5E | 18.0N | 42.2E | 5   | LO | 250 | N        | 19910406 | 092049 | 245 | 188 | 78 | 13  |
| 97 | 37 | YEMEN (ADEN)   | COAST                     |         | 15.5N  | 49.4E | 16.7N | 45.1E | 5   | LO | 250 | N        | 19910406 | 092140 | 245 | 204 | 78 | 13  |
| 97 | 38 | YEMEN (ADEN)   | COAST                     |         | 15.5N  | 50.5E | 16.2N | 46.3E | 5   | LO | 250 | N        | 19910406 | 092201 | 245 | 211 | 78 | 13  |
| 97 | 39 | YEMEN (ADEN)   | COAST                     |         | 15.5N  | 50.5E | 16.1N | 46.6E | 5   | LO | 250 | N        | 19910406 | 092206 | 244 | 213 | 78 | 13  |
| 97 | 40 | SOCOTRA        |                           |         | 12.5N  | 54.0E | 15.6N | 47.6E | 20  | HO | 250 | N        | 19910406 | 092224 | 244 | 219 | 78 | 13  |
| 97 | 41 | SAUDI ARABIA   | RUB AL KHALI              |         | 15.1N  | 48.6E |       |       | 0   | HO | 250 | N        | 19910406 | 092241 | 244 | 224 | 77 | 13  |
| 97 | 42 | MALDIVES       | INDIAN OCEAN              |         | 5.5N   | 66.8E |       |       | 40  | HO | 250 | N        | 19910406 | 092818 | 243 | 273 | 61 | 13  |
| 97 | 43 | MALDIVES       | ATOLLS                    |         | 4.0N   | 73.0E | 5.3N  | 67.2E | 50  | LO | 250 | N        | 19910406 | 092825 | 243 | 273 | 61 | 13  |
| 97 | 44 | MALDIVES       | ATOLLS                    |         | 3.8N   | 73.2E | 4.2N  | 69.1E | 50  | LO | 250 | N        | 19910406 | 092900 | 243 | 275 | 59 | 13  |
| 97 | 45 | MALDIVES       | ATOLLS                    |         | 3.3N   | 73.3E | 4.0N  | 69.5E | 40  | LO | 250 | N        | 19910406 | 092908 | 243 | 275 | 58 | 13  |
| 97 | 46 | MALDIVES       | ATOLLS                    |         | 2.4N   | 73.2E | 3.7N  | 69.9E | 50  | LO | 250 | N        | 19910406 | 092917 | 243 | 276 | 58 | 13  |
| 97 | 47 | MALDIVES       | ATOLLS                    |         | 0.8N   | 73.2E | 3.4N  | 70.4E | 40  | LO | 250 | N        | 19910406 | 092926 | 243 | 276 | 57 | 13  |
| 97 | 48 | MALDIVES       | ATOLLS                    |         | 3.1N   | 70.9E |       |       | 40  | LO | 250 | N        | 19910406 | 092936 | 243 | 276 | 57 | 13  |
| 97 | 49 | MALDIVES       | ATOLLS                    |         | 3.6N   | 73.4E | 2.8N  | 71.5E | 40  | LO | 250 | N        | 19910406 | 092947 | 243 | 277 | 56 | 13  |
| 97 | 50 |                | CARGO BAY, EARTH LIM.     |         | 18.6N  | 80.1W |       |       | 100 | N  | N   | 19910406 | 102853   | 245    | 79  | -10 | 14 |     |
| 97 | 51 |                | CARGO BAY, EARTH LIM.     |         | 18.8N  | 79.6W |       |       | 100 | N  | N   | 19910406 | 102902   | 245    | 79  | -10 | 14 |     |
| 97 | 52 |                | CARGO BAY, EARTH LIM.     |         | 19.0N  | 79.1W |       |       | 250 | N  | N   | 19910406 | 102910   | 245    | 79  | -9  | 14 |     |
| 97 | 53 |                | CARGO BAY, EARTH LIM.     |         | 19.2N  | 78.5W |       |       | 250 | N  | N   | 19910406 | 102920   | 245    | 79  | -9  | 14 |     |
| 97 | 54 |                | CARGO BAY, EARTH LIM.     |         | 19.5N  | 78.0W |       |       | 250 | N  | N   | 19910406 | 102930   | 245    | 80  | -8  | 14 |     |
| 97 | 55 | CANARY ISLANDS | DK. IMAGE, CLOUD VORTEXES |         | 28.2N  | 22.1W | 28.1N | 22.2W | 90  | LO | 250 | N        | 19910406 | 104339 | 246 | 110 | 44 | 14  |
| 97 | 56 | CANARY ISLANDS | DK. IMAGE, CLOUD VORTEXES |         | 28.0N  | 19.8W | 28.0N | 20.0W | 90  | LO | 250 | N        | 19910406 | 104412 | 246 | 112 | 46 | 14  |
| 97 | 57 | WESTERN SAHARA | COAST                     |         | 26.4N  | 13.0W | 27.5N | 15.7W | 30  | LO | 250 | N        | 19910406 | 104516 | 246 | 115 | 50 | 14  |
| 97 | 58 | CANARY ISLANDS | LAS PALMAS                |         | 28.0N  | 15.6W | 27.2N | 13.9W | 70  | LO | 250 | N        | 19910406 | 104543 | 246 | 117 | 52 | 14  |
| 97 | 59 | CANARY ISLANDS | SANTA CRUZ, LAS PALMAS    |         | 28.1N  | 17.0W | 27.1N | 13.4W | 70  | LO | 250 | N        | 19910406 | 104550 | 246 | 117 | 52 | 14  |
| 97 | 60 | WESTERN SAHARA | NO. CENTRAL               |         | 26.9N  | 11.0W | 27.0N | 12.6W | 5   | LO | 250 | N        | 19910406 | 104602 | 246 | 118 | 53 | 14  |
| 97 | 61 | WESTERN SAHARA | NO. CENTRAL               |         | 26.2N  | 11.0W | 26.8N | 11.4W | 0   | LO | 250 | N        | 19910406 | 104620 | 246 | 119 | 54 | 14  |
| 97 | 62 | WESTERN SAHARA | COAST, CONVEYER BELT SCAR |         | 26.9N  | 12.0W | 26.6N | 10.4W | 10  | LO | 250 | N        | 19910406 | 104635 | 246 | 120 | 55 | 14  |
| 97 | 63 | ALGERIA        | ERG IGUIDI, W. ALGERIA    |         | 26.4N  | 8.5W  | 26.3N | 8.7W  | 0   | LO | 250 | N        | 19910406 | 104701 | 246 | 122 | 56 | 14  |
| 97 | 64 | ALGERIA        | NW. MAURITANIA            |         |        |       | 25.8N | 6.3W  | 0   | LO | 250 | N        | 19910406 | 104737 | 246 | 124 | 59 | 14  |
| 97 | 65 | ALGERIA        | NW. MAURITANIA            |         | 25.6N  | 4.6W  | 25.5N | 4.8W  | 0   | LO | 250 | N        | 19910406 | 104801 | 246 | 126 | 60 | 14  |
| 97 | 66 | MAURITANIA     | VIEW TO SE, NIGER RIVER   |         |        |       | 25.2N | 3.6W  | 0   | HO | 250 | N        | 19910406 | 104818 | 246 | 127 | 61 | 14  |
| 97 | 67 | MAURITANIA     | VIEW TO SE, NIGER RIVER   |         | 25.1N  | 3.1W  |       |       | 0   | HO | 250 | N        | 19910406 | 104826 | 246 | 128 | 62 | 14  |
| 97 | 68 | ALGERIA        | TANEZROUFT REGION         |         | 24.3N  | 0.1E  |       |       | 0   | LO | 250 | N        | 19910406 | 104916 | 246 | 132 | 64 | 14  |
| 97 | 69 | ALGERIA        | TANEZROUFT REGION         |         | 24.1N  | 1.0E  |       |       | 0   | LO | 250 | N        | 19910406 | 104930 | 246 | 133 | 65 | 14  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | CENTER<br>LON | MAOIR<br>LAT | MAOIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|---------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 97 | 70  | ALGERIA         | TANEZROUFT REGION         | 24.8N         | 9.5E          | 22.2N        | 7.1E         | 0  | LO | 250 | N | N | 19910406 | 104956 | 246 | 136 | 67        | 14 |
| 97 | 71  | ALGERIA         | TANEZROUFT REGION         | 24.8N         | 9.5E          | 22.2N        | 7.1E         | 0  | LO | 250 | N | N | 19910406 | 105011 | 246 | 138 | 67        | 14 |
| 97 | 72  | LIBYA           | W.EDGE MARZUQ DESERT      | 24.0N         | 12.0E         | 22.1N        | 7.4E         | 0  | LO | 250 | N | N | 19910406 | 105108 | 245 | 144 | 71        | 14 |
| 97 | 73  | LIBYA           | W.EDGE MARZUQ DESERT      | 24.0N         | 12.0E         | 22.1N        | 7.4E         | 0  | LO | 250 | N | N | 19910406 | 105113 | 245 | 145 | 71        | 14 |
| 97 | 74  | NIGER           | PLATEAU DU DJADO          | 22.0N         | 15.0E         | 21.8N        | 8.4E         | 0  | LO | 250 | N | N | 19910406 | 105129 | 245 | 147 | 72        | 14 |
| 97 | 75  | CHAD            | TIBESTI MTNS.             | 21.0N         | 16.5E         | 21.5N        | 9.1E         | 0  | LO | 250 | N | N | 19910406 | 105141 | 245 | 148 | 72        | 14 |
| 97 | 76  | CHAD            | TIBESTI MTNS.             | 20.4N         | 18.0E         | 20.5N        | 12.1E        | 0  | LO | 250 | N | N | 19910406 | 105230 | 245 | 158 | 74        | 14 |
| 97 | 77  | CHAD            | TIBESTI MTNS.             | 21.0N         | 16.5E         | 20.2N        | 12.7E        | 0  | LO | 250 | N | N | 19910406 | 105241 | 245 | 160 | 75        | 14 |
| 97 | 78  | CHAD            | TIBESTI MTNS.             | 21.0N         | 18.0E         | 19.3N        | 15.0E        | 0  | LO | 250 | N | N | 19910406 | 105320 | 245 | 169 | 76        | 14 |
| 97 | 79  | CHAD            | TIBESTI MTNS.,EMI KOUSSI  | 19.8N         | 18.5E         | 18.8N        | 16.3E        | 0  | LO | 250 | N | N | 19910406 | 105342 | 245 | 175 | 77        | 14 |
| 97 | 80  | CHAD            | ENNEDI PLAT.              | 17.2N         | 22.8E         | 17.9N        | 18.4E        | 10 | LO | 250 | N | N | 19910406 | 105418 | 245 | 186 | 78        | 14 |
| 97 | 81  | CHAD            | ENNEDI PLAT.              | 17.0N         | 23.0E         | 17.7N        | 19.1E        | 10 | LO | 250 | N | N | 19910406 | 105429 | 245 | 189 | 78        | 14 |
| 97 | 82  | CHAD            | ENNEDI PLAT.              | 17.0N         | 23.0E         | 17.4N        | 19.6E        | 0  | LO | 250 | N | N | 19910406 | 105438 | 245 | 192 | 78        | 14 |
| 97 | 83  | SUDAN           |                           |               |               | 16.8N        | 21.0E        | 40 | LO | 250 | N | N | 19910406 | 105502 | 245 | 201 | 78        | 14 |
| 97 | 84  | SUDAN           | NW.DESERT,PANORAMA        |               |               | 16.1N        | 22.6E        | 0  | HO | 250 | N | N | 19910406 | 105530 | 244 | 210 | 78        | 14 |
| 97 | 85  | SUDAN           | NW.DESERT,PANORAMA        |               |               | 15.4N        | 24.2E        | 5  | HO | 250 | N | N | 19910406 | 105558 | 244 | 220 | 78        | 14 |
| 97 | 86  | SUDAN           |                           |               |               | 14.9N        | 25.2E        | 50 | LO | 250 | N | N | 19910406 | 105617 | 244 | 225 | 77        | 14 |
| 97 | 87  | SUDAN           | WHITE NILE                |               |               | 14.1N        | 26.9E        | 30 | HO | 250 | N | N | 19910406 | 105647 | 244 | 233 | 77        | 14 |
| 97 | 88  | SUDAN           | AGRICULTURAL FIELDS       | 14.0N         | 33.0E         | 13.3N        | 28.4E        | 50 | LO | 250 | N | N | 19910406 | 105714 | 244 | 240 | 76        | 14 |
| 97 | 89  | SUDAN           | AGRICULTURAL FIELDS       | 14.0N         | 33.0E         | 13.0N        | 29.1E        | 50 | LO | 250 | N | N | 19910406 | 105727 | 244 | 243 | 75        | 14 |
| 97 | 90  | SUDAN           | AGRICULTURAL FIELDS       | 14.0N         | 33.0E         | 12.7N        | 29.7E        | 50 | LO | 250 | N | N | 19910406 | 105737 | 244 | 245 | 75        | 14 |
| 97 | 91  | ETHIOPIA        | PANORAMA,GULF ADEN        |               |               | 10.8N        | 33.3E        | 60 | HO | 250 | N | N | 19910406 | 105843 | 244 | 256 | 72        | 14 |
| 97 | 92  | GULF OF ADEN    | PANORAMA                  |               |               | 8.2N         | 38.2E        | 40 | HO | 250 | N | N | 19910406 | 110015 | 243 | 266 | 67        | 14 |
| 97 | 93  | ETHIOPIA        | PANORAMA                  |               |               | 7.5N         | 39.5E        | 60 | LO | 250 | N | N | 19910406 | 110038 | 243 | 268 | 66        | 14 |
| 97 | 94  | ETHIOPIA        | SOMALI,E.TIP OF AFRICA    |               |               | 6.8N         | 40.9E        | 70 | HO | 250 | N | N | 19910406 | 110106 | 243 | 270 | 64        | 14 |
| 97 | 95  | ETHIOPIA        | SOMALI,E.TIP OF AFRICA    |               |               | 6.4N         | 41.4E        | 70 | HO | 250 | N | N | 19910406 | 110114 | 243 | 271 | 64        | 14 |
| 97 | 96  | ETHIOPIA        | SOMALI,E.TIP OF AFRICA    |               |               | 6.1N         | 41.8E        | 70 | HO | 250 | N | N | 19910406 | 110123 | 243 | 271 | 63        | 14 |
| 97 | 97  | SOMALI          | COAST                     |               |               | 4.9N         | 44.0E        | 60 | LO | 250 | N | N | 19910406 | 110204 | 243 | 274 | 61        | 14 |
| 97 | 98  | INDIAN OCEAN    | PANORAMA                  |               |               | 0.8N         | 51.1E        | 50 | HO | 250 | N | N | 19910406 | 110419 | 243 | 279 | 53        | 14 |
| 97 | 99  | INDIAN OCEAN    | CLOUD PATTERNS            |               |               | 0.1N         | 52.2E        | 60 | HO | 250 | N | N | 19910406 | 110441 | 243 | 280 | 51        | 14 |
| 97 | 100 | INDIAN OCEAN    | CLOUD PATTERNS            |               |               | 2.5S         | 56.7E        | 50 | HO | 250 | N | N | 19910406 | 110606 | 243 | 281 | 46        | 14 |
| 97 | 101 | USA-FL          | SO.FL.,EVERGLADES,CLOUDS. | 25.2N         | 80.6W         | 25.6N        | 81.8W        | 90 | LO | 250 | N | N | 19910406 | 120818 | 246 | 88  | 11        | 15 |
| 97 | 102 | BAHAMAS         | ANDROS IS.,CLDY,HAZY      | 24.5N         | 78.5W         | 25.9N        | 80.7W        | 70 | LO | 250 | N | N | 19910406 | 120836 | 246 | 88  | 12        | 15 |
| 97 | 103 | USA-FL          | SO. FL., EVERGLADES       | 25.0N         | 80.6W         | 26.1N        | 79.4W        | 60 | LO | 250 | N | N | 19910406 | 120855 | 246 | 89  | 13        | 15 |
| 97 | 104 | BAHAMAS         | CLDY,HAZY. NEAR ANDROS I  |               |               | 26.7N        | 76.2W        | 60 | LO | 250 | N | N | 19910406 | 120944 | 246 | 91  | 16        | 15 |
| 97 | 105 | BAHAMAS         | ANDROS IS.,HAZY,CLOUDY    | 24.8N         | 78.0W         | 26.9N        | 75.4W        | 60 | LO | 250 | N | N | 19910406 | 120956 | 246 | 91  | 17        | 15 |
| 97 | 106 | BAHAMAS         | ANDROS IS.,HAZY,CLOUDY    |               |               | 27.2N        | 73.1W        | 80 | LO | 250 | N | N | 19910406 | 121030 | 246 | 92  | 19        | 15 |
| 97 | 107 | ATLANTIC OCEAN  | CLOUDS                    |               |               | 28.0N        | 66.7W        | 70 | LO | 250 | N | N | 19910406 | 121205 | 246 | 96  | 25        | 15 |
| 98 | 1   | SAUDI ARABIA    | COAST,RED SEA,JIZAN AREA  | 16.5N         | 43.0E         | 18.2N        | 43.5E        | 0  | LO | 250 | N | N | 19910407 | 084212 | 245 | 150 | 76        | 28 |
| 98 | 2   | YEMEN (SANA)    | COAST,RED SEA             | 16.0N         | 43.0E         | 18.0N        | 44.2E        | 0  | LO | 250 | N | N | 19910407 | 084223 | 245 | 152 | 77        | 28 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|----|-----------------|---------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 98 | 3  | SAUDI ARABIA    | EMPTY QTR., LONG. DUNES   | 17.8N 44.8E       | 17.8N 44.8E      | 0  | LO | 250 | N | N | 19910407 | 084230 | 245 | 164 | 77        | 28 |
| 98 | 4  | YEMEN (SANA)    | CULTIVATED VALLEYS        | 17.7N 44.8E       | 17.7N 44.8E      | 0  | LO | 250 | N | N | 19910407 | 084234 | 245 | 155 | 77        | 28 |
| 98 | 5  | SAUDI ARABIA    | EMPTY QUARTER             | 16.9N 46.7E       | 16.9N 46.7E      | 5  | LO | 250 | N | N | 19910407 | 084307 | 245 | 163 | 79        | 28 |
| 98 | 6  | SAUDI ARABIA    | EMPTY QUARTER             | 16.3N 47.9E       | 16.3N 47.9E      | 5  | LO | 250 | N | N | 19910407 | 084328 | 245 | 169 | 80        | 28 |
| 98 | 7  | YEMEN (ADEN)    | COAST, BURUM              | 14.8N 49.0E       | 14.8N 49.0E      | 10 | LO | 250 | N | N | 19910407 | 084344 | 245 | 175 | 80        | 28 |
| 98 | 8  | YEMEN (ADEN)    | COAST, GULF OF ADEN       | 15.0N 50.0E       | 15.0N 50.0E      | 10 | LO | 250 | N | N | 19910407 | 084421 | 245 | 190 | 81        | 28 |
| 98 | 9  | SOCOTRA         |                           | 12.5N 54.0E       | 12.5N 54.0E      | 20 | LO | 250 | N | N | 19910407 | 084500 | 245 | 208 | 81        | 28 |
| 98 | 10 | SOCOTRA         | SUNGLINT, WAVE PATTERNS   | 13.3N 54.3E       | 13.3N 54.3E      | 5  | LO | 250 | N | N | 19910407 | 084522 | 245 | 218 | 81        | 28 |
| 98 | 11 | INDIAN OCEAN    | SUNGLINT, WAVE PATTERNS   | 12.7N 55.5E       | 12.7N 55.5E      | 10 | LO | 250 | N | N | 19910407 | 084543 | 245 | 227 | 81        | 28 |
| 98 | 12 | INDIAN OCEAN    | SUNGLINT, WAVE PATTERNS   | 10.8N 59.1E       | 10.8N 59.1E      | 40 | LO | 250 | N | N | 19910407 | 084649 | 244 | 248 | 79        | 28 |
| 98 | 13 | INDIAN OCEAN    | SUNGLINT, WAVE PATTERNS   | 10.6N 59.5E       | 10.6N 59.5E      | 40 | LO | 250 | N | N | 19910407 | 084657 | 244 | 250 | 78        | 28 |
| 98 | 14 | AUSTRALIA-WA    | NW. CAPE, EXMOUTH GULF    | 22.0S 114.0E      | 22.0S 114.0E     | 10 | LO | 250 | N | N | 19910407 | 090343 | 243 | 283 | 17        | 28 |
| 98 | 15 | AUSTRALIA-WA    | BARROW ISLAND             | 20.8S 115.4E      | 20.8S 115.4E     | 0  | LO | 250 | N | N | 19910407 | 090356 | 243 | 283 | 16        | 28 |
| 98 | 16 | AUSTRALIA-WA    | EXMOUTH GULF, NW. CAPE    | 21.8S 114.5E      | 21.8S 114.5E     | 30 | LO | 250 | N | N | 19910407 | 090402 | 243 | 283 | 16        | 28 |
| 98 | 17 | AUSTRALIA-WA    | NE OF EXMOUTH GULF        | 21.5S 115.5E      | 21.5S 115.5E     | 30 | LO | 250 | N | N | 19910407 | 090405 | 243 | 283 | 16        | 28 |
| 98 | 18 | AUSTRALIA-WA    | NE OF EXMOUTH GULF        | 21.2S 115.8E      | 21.2S 115.8E     | 20 | LO | 250 | N | N | 19910407 | 090409 | 243 | 283 | 15        | 28 |
| 98 | 19 | AUSTRALIA-WA    | DAMPIER ARCH., DAMPIER    | 20.7S 116.8E      | 20.7S 116.8E     | 30 | LO | 250 | N | N | 19910407 | 090421 | 243 | 282 | 14        | 28 |
| 98 | 20 | AUSTRALIA-WA    | E. OF DAMPIER, ROEBOURNE  | 20.8S 117.2E      | 20.8S 117.2E     | 30 | LO | 250 | N | N | 19910407 | 090426 | 243 | 282 | 14        | 28 |
| 98 | 21 | AUSTRALIA-WA    | YULE & TURNER RIVERS      | 20.8S 118.1E      | 20.8S 118.1E     | 0  | LO | 250 | N | N | 19910407 | 090430 | 243 | 282 | 14        | 28 |
| 98 | 22 | AUSTRALIA-WA    | PORT HEDLAND              | 20.6S 118.4E      | 20.6S 118.4E     | 0  | LO | 250 | N | N | 19910407 | 090449 | 243 | 282 | 13        | 28 |
| 98 | 23 | AUSTRALIA-WA    | PORT HEDLAND, DE SHAW RVR | 20.4S 119.2E      | 20.4S 119.2E     | 0  | LO | 250 | N | N | 19910407 | 090454 | 243 | 282 | 12        | 28 |
| 98 | 24 | AUSTRALIA-WA    | MOUNT GOLDSWORTHY         | 20.3S 119.8E      | 20.3S 119.8E     | 0  | LO | 250 | N | N | 19910407 | 090501 | 243 | 282 | 12        | 28 |
| 98 | 25 | AUSTRALIA-WA    | GEORGE RANGE              | 21.0S 119.5E      | 21.0S 119.5E     | 0  | LO | 250 | N | N | 19910407 | 090511 | 243 | 281 | 11        | 28 |
| 98 | 26 | AUSTRALIA-WA    | GEORGE RANGE              | 21.0S 120.0E      | 21.0S 120.0E     | 0  | LO | 250 | N | N | 19910407 | 090513 | 243 | 281 | 11        | 28 |
| 98 | 27 | AUSTRALIA-WA    | GEORGE RANGE              | 21.0S 120.2E      | 21.0S 120.2E     | 0  | LO | 250 | N | N | 19910407 | 090516 | 243 | 281 | 11        | 28 |
| 98 | 28 | AUSTRALIA-WA    | EAST OF GEORGE RANGE      | 20.7S 119.3E      | 20.7S 119.3E     | 5  | LO | 250 | N | N | 19910407 | 090518 | 243 | 281 | 11        | 28 |
| 98 | 29 | AUSTRALIA-WA    | EAST OF GEORGE RANGE      | 20.7S 119.5E      | 20.7S 119.5E     | 20 | LO | 250 | N | N | 19910407 | 090521 | 243 | 281 | 11        | 28 |
| 98 | 30 | AUSTRALIA-WA    | EAST OF GEORGE RANGE      | 20.8S 119.7E      | 20.8S 119.7E     | 20 | LO | 250 | N | N | 19910407 | 090524 | 243 | 281 | 10        | 28 |
| 98 | 31 | AUSTRALIA-WA    | EIGHTY MILE BEACH         | 21.1S 120.4E      | 21.1S 120.4E     | 20 | LO | 250 | N | N | 19910407 | 090536 | 243 | 281 | 10        | 28 |
| 98 | 32 | AUSTRALIA-WA    | NW. CORNER GRT. SNDY DEST | 21.2S 120.7E      | 21.2S 120.7E     | 50 | LO | 250 | N | N | 19910407 | 090541 | 243 | 281 | 9         | 28 |
| 98 | 33 | AUSTRALIA-WA    | NW. CORNER GRT. SNDY DEST | 22.0S 123.2E      | 22.0S 123.2E     | 50 | LO | 250 | N | N | 19910407 | 090622 | 243 | 280 | 7         | 28 |
| 98 | 34 | CARGO BAY       |                           | 25.8S 137.1E      | 25.8S 137.1E     | 00 | LO | 250 | N | N | 19910407 | 091001 | 243 | 274 | -6        | 28 |
| 98 | 35 | CANARY ISLANDS  | SANTA CRUZ                | 28.3N 16.6W       | 28.3N 16.6W      | 60 | LO | 250 | N | N | 19910407 | 100605 | 246 | 107 | 41        | 29 |
| 98 | 36 | CANARY ISLANDS  | LAS PALMAS                | 27.9N 15.6W       | 27.9N 15.6W      | 60 | LO | 250 | N | N | 19910407 | 100611 | 246 | 107 | 42        | 29 |
| 98 | 37 | CANARY ISLANDS  | FUERTEVENTURE             | 28.5N 14.0W       | 28.5N 14.0W      | 90 | LO | 250 | N | N | 19910407 | 100621 | 246 | 107 | 42        | 29 |
| 98 | 38 | WESTERN SAHARA  | COAST, SALT FLATS         | 27.7N 12.8W       | 27.7N 12.8W      | 40 | LO | 250 | N | N | 19910407 | 100701 | 246 | 109 | 45        | 29 |
| 98 | 39 | MOROCCO         | SW. MOROCCO               | 27.2N 12.0W       | 27.2N 12.0W      | 20 | LO | 250 | N | N | 19910407 | 100715 | 246 | 110 | 46        | 29 |
| 98 | 40 | ALGERIA         | IGUIDI DESERT             | 26.6N 8.2W        | 26.6N 8.2W       | 0  | LO | 250 | N | N | 19910407 | 100812 | 246 | 112 | 49        | 29 |
| 98 | 41 | ALGERIA         | PLATEAU DU TADEMAIT       | 24.9N 0.2W        | 24.9N 0.2W       | 0  | LO | 250 | N | N | 19910407 | 101014 | 246 | 119 | 57        | 29 |
| 98 | 42 | ALGERIA         | PLATEAU DU TADEMAIT       | 24.4N 1.8E        | 24.4N 1.8E       | 0  | LO | 250 | N | N | 19910407 | 101045 | 246 | 120 | 59        | 29 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER |        | MADIR |        | CC | TL  | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|----|-----------------|--------------------------|--------|--------|-------|--------|----|-----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |    |                 |                          | LAT    | LONG   | LAT   | LONG   |    |     |     |   |   |          |        |     |     |     |    |    |
| 98 | 43 | ALGERIA         | PLATEAU DU TADEMAIT      | 24.2N  | 2.2E   | 24.2N | 2.2E   | 0  | LO  | 250 | N | N | 19910407 | 101052 | 246 | 121 | 59  | 29 |    |
| 98 | 44 | ALGERIA         | TINRHET PLATEAU          | 24.1N  | 2.9E   | 24.1N | 2.9E   | 0  | LO  | 250 | N | N | 19910407 | 101102 | 246 | 121 | 60  | 29 |    |
| 98 | 45 | ALGERIA         | AHAGGAR                  | 23.8N  | 3.8E   | 23.8N | 3.8E   | 0  | LO  | 250 | N | N | 19910407 | 101116 | 246 | 122 | 61  | 29 |    |
| 98 | 46 | ALGERIA         | AHAGGAR                  | 23.3N  | 5.4E   | 23.3N | 5.4E   | 0  | LO  | 250 | N | N | 19910407 | 101143 | 246 | 124 | 63  | 29 |    |
| 98 | 47 | NIGER           | TENERE DESERT            | 22.6N  | 7.9E   | 22.6N | 7.9E   | 0  | LO  | 250 | N | N | 19910407 | 101222 | 246 | 127 | 65  | 29 |    |
| 98 | 48 | NIGER           | TENERE DESERT            | 22.5N  | 8.1E   | 22.5N | 8.1E   | 0  | LO  | 250 | N | N | 19910407 | 101225 | 246 | 127 | 65  | 29 |    |
| 98 | 49 | NIGER           | TCHIGAI PLATEAU          | 22.4N  | 8.4E   | 22.4N | 8.4E   | 0  | LO  | 250 | N | N | 19910407 | 101231 | 246 | 127 | 65  | 29 |    |
| 98 | 50 | CHAD            | TIBESTI MTNS.,MT. KOUSSI | 18.9N  | 18.6E  | 19.6N | 16.2E  | 0  | LO  | 250 | N | N | 19910407 | 101440 | 245 | 139 | 73  | 29 |    |
| 98 | 51 | CHAD            | TIBESTI MTNS.,EMI KOUSSI | 19.8N  | 18.5E  | 19.3N | 17.0E  | 0  | LO  | 250 | N | N | 19910407 | 101453 | 245 | 141 | 74  | 29 |    |
| 98 | 52 | CHAD            | TIBESTI MTNS.,PIC TOUSID | 21.0N  | 16.4E  | 19.0N | 17.9E  | 0  | LO  | 250 | N | N | 19910407 | 101508 | 245 | 143 | 75  | 29 |    |
| 98 | 53 | CHAD            | SE. OF TIBESTI MTNS.     | 18.8N  | 18.2E  | 18.8N | 18.2E  | 0  | LO  | 250 | N | N | 19910407 | 101514 | 245 | 144 | 75  | 29 |    |
| 98 | 54 | CHAD            | BODELE DESERT            | 18.5N  | 19.1E  | 18.5N | 19.1E  | 0  | LO  | 250 | N | N | 19910407 | 101529 | 245 | 146 | 76  | 29 |    |
| 98 | 55 | CHAD            | ENNEDI PLATEAU           | 18.3N  | 19.4E  | 18.3N | 19.4E  | 0  | LO  | 250 | N | N | 19910407 | 101534 | 245 | 147 | 76  | 29 |    |
| 98 | 56 | CHAD            | ENNEDI PLATEAU           | 17.8N  | 20.8E  | 17.8N | 20.8E  | 0  | LO  | 250 | N | N | 19910407 | 101558 | 245 | 152 | 77  | 29 |    |
| 98 | 57 | SUDAN           | SO. OF AL UBAYYID        | 12.4N  | 29.5E  | 14.4N | 28.3E  | 10 | LO  | 250 | N | N | 19910407 | 101809 | 245 | 196 | 82  | 29 |    |
| 98 | 58 | SUDAN           | SO. OF AL UBAYYID        | 12.5N  | 30.4E  | 14.2N | 28.5E  | 10 | LO  | 250 | N | N | 19910407 | 101814 | 245 | 199 | 82  | 29 |    |
| 98 | 59 | ETHIOPIA        | LAKE TANA                | 12.0N  | 37.3E  | 10.9N | 35.0E  | 60 | LO  | 250 | N | N | 19910407 | 102012 | 244 | 246 | 79  | 29 |    |
| 98 | 60 | ETHIOPIA        | LAKE ABAYA               | 6.5N   | 37.9E  | 10.2N | 36.3E  | 70 | LO  | 250 | N | N | 19910407 | 102036 | 244 | 253 | 78  | 29 |    |
| 98 | 61 | ETHIOPIA        | RIFT VALLEY LAKES        | 7.6N   | 38.6E  | 10.0N | 36.9E  | 60 | LO  | 250 | N | N | 19910407 | 102046 | 244 | 255 | 78  | 29 |    |
| 98 | 62 | ETHIOPIA        | RIFT VALLEY LAKES        | 8.0N   | 38.9E  | 9.9N  | 37.0E  | 60 | LO  | 250 | N | N | 19910407 | 102049 | 244 | 255 | 78  | 29 |    |
| 98 | 63 | ETHIOPIA        | DANAKIL DEPRESSION       | 13.5N  | 40.8E  | 8.2N  | 40.1E  | 30 | LO  | 250 | N | N | 19910407 | 102147 | 244 | 265 | 75  | 29 |    |
| 98 | 64 | DJIBOUTI        | LAKE ABBE                | 11.5N  | 42.2E  | 8.0N  | 40.5E  | 10 | LO  | 250 | N | N | 19910407 | 102154 | 244 | 266 | 74  | 29 |    |
| 98 | 65 | DJIBOUTI        | LAKE ABBE                | 11.5N  | 42.2E  | 7.9N  | 40.7E  | 10 | LO  | 250 | N | N | 19910407 | 102157 | 244 | 266 | 74  | 29 |    |
| 98 | 66 | DJIBOUTI        | GULF OF ADEN             | 11.7N  | 43.5E  | 7.8N  | 40.8E  | 10 | LO  | 250 | N | N | 19910407 | 102200 | 244 | 267 | 74  | 29 |    |
| 98 | 67 | SOMALIA         |                          | 7.2N   | 41.9E  | 7.2N  | 41.9E  | 60 | LO  | 250 | N | N | 19910407 | 102220 | 244 | 269 | 73  | 29 |    |
| 98 | 68 | MAURITANIA      | ADRAR MTNS.              | 21.9N  | 13.6W  | 21.9N | 14.0W  | 20 | LO  | 250 | N | N | 19910407 | 114621 | 246 | 128 | 67  | 30 |    |
| 98 | 69 | MAURITANIA      | RICHAT STRUCTURE         | 21.0N  | 11.2W  | 21.5N | 12.7W  | 5  | LO  | 250 | N | N | 19910407 | 114641 | 246 | 130 | 68  | 30 |    |
| 98 | 70 | MAURITANIA      | RICHAT STRUCTURE         | 21.0N  | 11.8W  | 21.0N | 11.4W  | 5  | LO  | 250 | N | N | 19910407 | 114703 | 246 | 131 | 69  | 30 |    |
| 98 | 71 | MAURITANIA      | ERG CHECH                | 22.8N  | 8.5W   | 20.3N | 9.4W   | 0  | LO  | 250 | N | N | 19910407 | 114736 | 245 | 135 | 71  | 30 |    |
| 98 | 72 | MAURITANIA      | ERG CHECH                | 22.5N  | 8.0W   | 20.2N | 9.2W   | 0  | LO  | 250 | N | N | 19910407 | 114740 | 245 | 135 | 71  | 30 |    |
| 98 | 73 | USA-CA          | MOJAVE DESERT            | 27.6N  | 116.1W | 27.6N | 116.1W | 40 | HO  | 250 | N | N | 19910407 | 143936 | 246 | 90  | 14  | 32 |    |
| 98 | 74 | USA-CA          | SALTON SEA, IMPERIAL VLY | 33.2N  | 115.8W | 27.6N | 115.7W | 5  | HO  | 250 | N | N | 19910407 | 143941 | 246 | 90  | 15  | 32 |    |
| 98 | 75 |                 | EARTH LIMB               | 27.8N  | 114.7W | 27.8N | 114.7W | HO | 250 | N   | N | N | 19910407 | 143956 | 246 | 90  | 16  | 32 |    |
| 98 | 76 | USA-AZ          | COLORADO RIVER           | 28.1N  | 111.0W | 28.1N | 111.0W | 0  | LO  | 250 | N | N | 19910407 | 144051 | 246 | 92  | 19  | 32 |    |
| 98 | 77 | USA-AZ          | YUMA, COLORADO RIVER     | 32.6N  | 114.7W | 28.2N | 109.3W | 0  | LO  | 250 | N | N | 19910407 | 144115 | 246 | 93  | 21  | 32 |    |
| 98 | 78 | USA-AZ          | YUMA, COLORADO RIVER     | 32.7N  | 114.7W | 28.3N | 108.7W | 0  | LO  | 250 | N | N | 19910407 | 144125 | 246 | 94  | 21  | 32 |    |
| 98 | 79 | USA-AZ          |                          | 28.4N  | 105.4W | 28.4N | 105.4W | 0  | LO  | 250 | N | N | 19910407 | 144212 | 246 | 95  | 24  | 32 |    |
| 98 | 80 | USA-TX          | WEST TEXAS               | 28.5N  | 104.5W | 28.5N | 104.5W | 50 | HO  | 250 | N | N | 19910407 | 144226 | 246 | 96  | 25  | 32 |    |
| 98 | 81 |                 | EARTH LIMB               | 25.8S  | 41.6E  | 25.8S | 41.6E  | HO | 250 | N   | N | N | 19910407 | 152344 | 243 | 275 | -4  | 32 |    |
| 98 | 82 | MEXICO          | CIUDAD OBREGON           | 27.8N  | 109.9W | 27.4N | 108.6W | 0  | LO  | 250 | N | N | 19910407 | 162041 | 246 | 107 | 43  | 33 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE              | CENTER |        | MADIR |        | CC | TL  | FL  | E        | S      | DATE     | GMT    | AL  | AZ  | SUN<br>EL |
|----|-----|-----------------|----------------------|--------|--------|-------|--------|----|-----|-----|----------|--------|----------|--------|-----|-----|-----------|
|    |     |                 |                      | LAT    | LO     | LAT   | LO     |    |     |     |          |        |          |        |     |     |           |
| 98 | 83  | USA-AZ          | EAST OF TUCSON       | 32.2N  | 109.9W | 27.2N | 107.3W | 0  | LO  | 250 | N        | N      | 19910407 | 162100 | 246 | 108 | 44        |
| 98 | 84  | USA-TX          | WEST TEXAS           |        |        | 27.0N | 106.2W | 0  | LO  | 250 | N        | N      | 19910407 | 162116 | 246 | 109 | 45        |
| 98 | 85  | MEXICO          | NW. OF CHIHUAHUA     |        |        | 26.9N | 105.6W | 0  | LO  | 250 | N        | N      | 19910407 | 162125 | 246 | 109 | 46        |
| 98 | 86  | MEXICO          | CHIHUAHUA            | 28.5N  | 105.6W | 26.9N | 105.3W | 0  | LO  | 250 | N        | N      | 19910407 | 162130 | 246 | 110 | 46        |
| 98 | 87  | MEXICO          | MONTERREY            | 25.3N  | 104.4W | 25.8N | 99.6W  | 5  | LO  | 250 | N        | N      | 19910407 | 162256 | 246 | 113 | 52        |
| 98 | 88  | BRAZIL          | INTERIOR             |        |        | 4.0S  | 58.1W  | 90 | LO  | 250 | N        | N      | 19910407 | 181538 | 243 | 287 | 53        |
| 98 | 89  | BRAZIL          |                      |        |        | 5.8S  | 55.0W  | 90 | LO  | 250 | N        | N      | 19910407 | 181637 | 243 | 287 | 49        |
| 98 | 90  | BRAZIL          |                      |        |        | 6.3S  | 54.2W  | 90 | LO  | 250 | N        | N      | 19910407 | 181652 | 243 | 287 | 48        |
| 98 | 91  | BRAZIL          | PANTANAL AREA        |        |        | 16.6S | 57.9W  | 40 | LO  | 250 | N        | N      | 19910407 | 185627 | 244 | 286 | 25        |
| 98 | 92  | BRAZIL          | PANTANAL AREA        |        |        | 17.1S | 56.8W  | 70 | LO  | 250 | N        | N      | 19910407 | 195646 | 244 | 286 | 24        |
| 98 | 93  | BRAZIL          | PANTANAL AREA        |        |        | 17.2S | 56.4W  | 80 | LO  | 250 | N        | N      | 19910407 | 195652 | 244 | 285 | 23        |
| 98 | 94  | BRAZIL          | SE. OF PANTANAL AREA |        |        | 17.7S | 55.4W  | 40 | LO  | 250 | N        | N      | 19910407 | 195710 | 244 | 285 | 22        |
| 98 | 95  | BRAZIL          | SE. OF PANTANAL AREA |        |        | 18.0S | 54.6W  | 60 | LO  | 250 | N        | N      | 19910407 | 195724 | 244 | 285 | 21        |
| 98 | 96  |                 | REFLECTIVE PANEL GRO |        |        | 24.6N | 108.6E | LO | 250 | N   | N        | N      | 19910407 | 222243 | 245 | 81  | -2        |
| 98 | 97  |                 | REFLECTIVE PANEL GRO |        |        | 24.7N | 109.1E | LO | 250 | N   | N        | N      | 19910407 | 222250 | 245 | 81  | -2        |
| 98 | 98  |                 | REFLECTIVE PANEL GRO |        |        | 24.8N | 109.6E | LO | 250 | N   | N        | N      | 19910407 | 222259 | 245 | 81  | -1        |
| 98 | 99  |                 | REFLECTIVE PANEL GRO |        |        | 24.9N | 110.1E | LO | 250 | N   | N        | N      | 19910407 | 222306 | 245 | 81  | -1        |
| 98 | 100 | MALI            | NE OF INLAND DELTA   |        |        | 19.7N | 6.1W   | 5  | LO  | 250 | N        | N      | 19910408 | 110945 | 247 | 121 | 67        |
| 98 | 101 | MALI            | NE OF INLAND DELTA   |        |        | 18.0N | 1.8W   | 0  | LO  | 250 | N        | N      | 19910408 | 111058 | 247 | 125 | 72        |
| 98 | 102 | MALI            | NE OF INLAND DELTA   |        |        | 18.0N | 1.7W   | 0  | LO  | 250 | N        | N      | 19910408 | 111100 | 247 | 125 | 72        |
| 98 | 103 | MALI            | NE OF INLAND DELTA   |        |        | 17.9N | 1.6W   | 0  | LO  | 250 | N        | N      | 19910408 | 111102 | 247 | 126 | 72        |
| 98 | 104 | MALI            | NE OF INLAND DELTA   |        |        | 17.9N | 1.4W   | 0  | LO  | 250 | N        | N      | 19910408 | 111104 | 247 | 126 | 72        |
| 98 | 105 | MALI            | NE OF INLAND DELTA   |        |        | 17.8N | 1.3W   | 0  | LO  | 250 | N        | N      | 19910408 | 111106 | 247 | 126 | 72        |
| 98 | 106 | MALI            | NE OF INLAND DELTA   |        |        | 17.7N | 1.1W   | 0  | LO  | 250 | N        | N      | 19910408 | 111109 | 247 | 126 | 72        |
| 98 | 107 | MALI            | NE OF INLAND DELTA   |        |        | 17.3N | 0.2W   | 0  | LO  | 250 | N        | N      | 19910408 | 111126 | 247 | 127 | 73        |
| 98 | 108 | MALI            | NE OF INLAND DELTA   |        |        | 17.3N | 0.0E   | 0  | LO  | 250 | N        | N      | 19910408 | 111128 | 247 | 127 | 74        |
| 99 | 1   |                 | CARGO BAY, GRO       |        |        | 14.2S | 80.1E  | 0  | LO  | 250 | N        | N      | 19910407 | 103419 | 243 | 286 | 28        |
| 99 | 2   |                 | CARGO BAY, GRO       |        |        | 16.3S | 84.8E  | 40 | N   | Y   | 19910407 | 103542 | 243      | 285    | 23  |     |           |
| 99 | 3   |                 | CARGO BAY, GRO       |        |        | 16.8S | 85.8E  | 40 | N   | Y   | 19910407 | 103601 | 243      | 284    | 22  |     |           |
| 99 | 4   |                 | CARGO BAY, GRO       |        |        | 17.3S | 87.0E  | 40 | N   | Y   | 19910407 | 103621 | 243      | 284    | 21  |     |           |
| 99 | 5   |                 | CARGO BAY-DARK       |        |        | 22.4N | 91.7W  | 40 | N   | N   | 19910407 | 112644 | 245      | 79     | -7  |     |           |
| 99 | 6   |                 | CARGO BAY-DARK       |        |        | 22.6N | 91.0W  | 40 | N   | N   | 19910407 | 112656 | 245      | 79     | -6  |     |           |
| 99 | 7   |                 | CARGO BAY-DARK       |        |        | 22.8N | 90.3W  | 40 | N   | N   | 19910407 | 112706 | 245      | 80     | -5  |     |           |
| 99 | 8   |                 | CARGO BAY-DARK       |        |        | 23.5N | 88.0W  | 40 | N   | N   | 19910407 | 112744 | 245      | 81     | -3  |     |           |
| 99 | 9   |                 | CARGO BAY-DARK       |        |        | 23.9N | 86.9W  | 40 | N   | N   | 19910407 | 112801 | 245      | 81     | -2  |     |           |
| 99 | 10  |                 | CARGO BAY-DARK       |        |        | 24.0N | 86.4W  | 40 | N   | N   | 19910407 | 112809 | 245      | 81     | -1  |     |           |
| 99 | 11  |                 | CARGO BAY-DARK       |        |        | 24.3N | 85.3W  | 40 | N   | N   | 19910407 | 112827 | 245      | 82     | -0  |     |           |
| 99 | 12  |                 | CARGO BAY-DARK       |        |        | 24.8N | 83.3W  | 40 | N   | N   | 19910407 | 112858 | 245      | 83     | 1   |     |           |
| 99 | 13  |                 | CARGO BAY-DARK       |        |        | 25.0N | 82.6W  | 40 | N   | N   | 19910407 | 112909 | 245      | 83     | 2   |     |           |
| 99 | 14  |                 | CARGO BAY-DARK       |        |        | 25.1N | 82.0W  | 40 | N   | N   | 19910407 | 112918 | 245      | 83     | 2   |     |           |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|----|-----------------|--------------------------|----------------------|---------------------|----|----|----|---|---|----------|--------|-----|-----|-----------|----|
| 99 | 15 |                 | CARGO BAY-DARK           |                      | 25.5N 80.2W         | 40 | N  | N  | N | N | 19910407 | 112945 | 245 | 84  | 4         | 30 |
| 99 | 16 |                 | CARGO BAY-GRO            |                      | 25.8N 79.0W         | 40 | N  | N  | N | N | 19910407 | 113004 | 246 | 85  | 5         | 30 |
| 99 | 17 |                 | CARGO BAY-GRO            |                      | 25.9N 78.7W         | 40 | N  | N  | N | N | 19910407 | 113008 | 246 | 85  | 5         | 30 |
| 99 | 18 |                 | CARGO BAY-DARK           |                      | 26.0N 78.1W         | 40 | N  | N  | N | N | 19910407 | 113017 | 246 | 85  | 6         | 30 |
| 99 | 19 |                 | CARGO BAY-GRO            |                      | 26.7N 74.3W         | 40 | N  | N  | N | N | 19910407 | 113116 | 246 | 87  | 10        | 30 |
| 99 | 20 |                 | CARGO BAY-GRO            |                      | 26.9N 73.3W         | 40 | N  | N  | N | N | 19910407 | 113130 | 246 | 87  | 10        | 30 |
| 99 | 21 |                 | CARGO BAY-GRO            |                      | 27.7N 39.5W         | 40 | N  | N  | N | N | 19910407 | 113946 | 246 | 107 | 42        | 30 |
| 99 | 22 |                 | CARGO BAY-GRO            |                      | 27.6N 38.9W         | 40 | N  | N  | N | N | 19910407 | 113956 | 246 | 107 | 43        | 30 |
| 99 | 23 |                 | CARGO BAY-GRO            |                      | 26.9N 34.0W         | 40 | N  | N  | N | N | 19910407 | 114109 | 246 | 111 | 47        | 30 |
| 99 | 24 |                 | CARGO BAY-GRO            |                      | 24.2N 21.3W         | 40 | N  | N  | N | N | 19910407 | 114423 | 246 | 120 | 59        | 30 |
| 99 | 25 |                 | CARGO BAY-GRO            |                      | 23.9N 20.5W         | 40 | N  | N  | N | N | 19910407 | 114436 | 246 | 121 | 60        | 30 |
| 99 | 26 |                 | CARGO BAY-GRO            |                      | 23.8N 20.1W         | 40 | N  | N  | N | N | 19910407 | 114442 | 246 | 121 | 60        | 30 |
| 99 | 27 | CANARY ISLANDS  | CLOUD WAKES              | 27.0N 17.0W          | 23.4N 18.6W         | 70 | NV |    |   |   | 19910407 | 114507 | 246 | 123 | 62        | 30 |
| 99 | 28 | MAURITANIA      | RICHAT STRUCTURE         | 21.0N 11.5W          | 20.7N 10.6W         | 0  | LO |    |   |   | 19910407 | 114717 | 245 | 133 | 70        | 30 |
| 99 | 29 |                 | CARGO BAY-GRO DEPLOY     |                      | 17.1S 62.6E         | 40 | N  | N  | N | N | 19910407 | 120938 | 243 | 284 | 22        | 30 |
| 99 | 30 |                 | CARGO BAY-GRO DEPLOY     |                      | 18.2S 65.3E         | 40 | N  | N  | N | N | 19910407 | 121024 | 243 | 284 | 19        | 30 |
| 99 | 31 |                 | CARGO BAY-GRO DEPLOY     |                      | 18.5S 65.9E         | 40 | N  | N  | N | N | 19910407 | 121035 | 243 | 284 | 18        | 30 |
| 99 | 32 |                 | CARGO BAY-GRO DEPLOY     |                      | 21.1S 72.8E         | 40 | N  | N  | N | N | 19910407 | 121231 | 243 | 281 | 11        | 30 |
| 99 | 33 |                 | CARGO BAY-GRO DEPLOY     |                      | 21.4S 73.6E         | 40 | N  | N  | N | N | 19910407 | 121243 | 243 | 281 | 10        | 30 |
| 99 | 34 |                 | GRO DEPLOY               |                      | 27.7N 91.8W         | 40 | N  | N  | N | N | 19910407 | 130617 | 246 | 90  | 15        | 31 |
| 99 | 35 |                 | GRO DEPLOY               |                      | 27.9N 89.6W         | 40 | N  | N  | N | N | 19910407 | 130649 | 246 | 91  | 17        | 31 |
| 99 | 36 |                 | GRO DEPLOY               |                      | 28.0N 89.0W         | 40 | N  | N  | N | N | 19910407 | 130658 | 246 | 91  | 18        | 31 |
| 99 | 37 |                 | GRO DEPLOY               |                      | 28.1N 87.8W         | 40 | N  | N  | N | N | 19910407 | 130715 | 246 | 92  | 19        | 31 |
| 99 | 38 |                 | GRO DEPLOY               |                      | 28.4N 82.2W         | 40 | N  | N  | N | N | 19910407 | 130837 | 246 | 95  | 24        | 31 |
| 99 | 39 | USA-FL          | GRO DEPLOY DK/SO.FLORIDA | 28.5N 81.0W          | 28.5N 79.9W         | 60 | LO |    |   |   | 19910407 | 130911 | 246 | 97  | 26        | 31 |
| 99 | 40 | USA-FL          | GRO DEPLOY DK/SO.FLORIDA | 28.5N 81.0W          | 28.5N 79.5W         | 60 | LO |    |   |   | 19910407 | 130916 | 246 | 97  | 27        | 31 |
| 99 | 41 | USA-FL          | GRO DEPLOY DK/SO.FLORIDA | 28.5N 81.0W          | 28.5N 79.1W         | 60 | LO |    |   |   | 19910407 | 130922 | 246 | 97  | 27        | 31 |
| 99 | 42 | USA-FL          | GRO DEPLOY DK/SO.FLORIDA | 28.5N 81.0W          | 28.5N 78.8W         | 60 | LO |    |   |   | 19910407 | 130927 | 246 | 97  | 27        | 31 |
| 99 | 43 | USA-FL          | GRO DEPLOY DK/SO.FLORIDA | 28.5N 81.0W          | 28.5N 78.4W         | 60 | LO |    |   |   | 19910407 | 130932 | 246 | 97  | 28        | 31 |
| 99 | 44 | USA-FL          | GRO DEPLOY DK/SO.FLORIDA | 28.5N 80.0W          | 28.5N 78.0W         | 50 | LO |    |   |   | 19910407 | 130938 | 246 | 98  | 28        | 31 |
| 99 | 45 | USA-FL          | GRO DEPLOY DK/SO.FLORIDA | 28.5N 79.0W          | 28.5N 77.4W         | 50 | LO |    |   |   | 19910407 | 130947 | 246 | 98  | 28        | 31 |
| 99 | 46 | USA-FL          | GRO DEPLOY DK/SO.FLORIDA | 28.5N 79.0W          | 28.5N 76.4W         | 60 | HO |    |   |   | 19910407 | 131002 | 246 | 99  | 29        | 31 |
| 99 | 47 | BAHAMAS         | WESTERN END BAHAMAS      | 27.5N 77.0W          | 28.5N 74.5W         | 30 | HO |    |   |   | 19910407 | 131030 | 246 | 100 | 31        | 31 |
| 99 | 48 | BAHAMAS         | WESTERN END BAHAMAS      | 27.5N 77.0W          | 28.5N 73.6W         | 30 | HO |    |   |   | 19910407 | 131042 | 246 | 100 | 32        | 31 |
| 99 | 49 |                 | GRO DEPLOYMENT           |                      | 17.0N 25.2W         | 40 | N  | N  | N | N | 19910407 | 132321 | 245 | 154 | 78        | 31 |
| 99 | 50 |                 | GRO DEPLOYMENT           |                      | 16.5N 24.2W         | 40 | N  | N  | N | N | 19910407 | 132338 | 245 | 158 | 79        | 31 |
| 99 | 51 |                 | GRO DEPLOYMENT           |                      | 16.3N 23.7W         | 40 | N  | N  | N | N | 19910407 | 132347 | 245 | 160 | 79        | 31 |
| 99 | 52 |                 | GRO DEPLOYMENT           |                      | 15.8N 22.5W         | 40 | N  | N  | N | N | 19910407 | 132408 | 245 | 167 | 80        | 31 |
| 99 | 53 |                 | GRO DEPLOYMENT           |                      | 14.0N 18.8W         | 40 | N  | N  | N | N | 19910407 | 132513 | 244 | 194 | 82        | 31 |
| 99 | 54 |                 | GRO DEPLOYMENT           |                      | 13.3N 17.3W         | 40 | N  | N  | N | N | 19910407 | 132540 | 244 | 207 | 82        | 31 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT LON | NADIR<br>LAT LON | CC | TL | FL | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|---------------------------|-------------------|------------------|----|----|----|---|---|----------|--------|-----|-----|-----------|----|
| 99 | 55 |                 | GRO DEPLOYMENT            |                   | 12.8N 16.4W      |    |    | 40 | N |   | 19910407 | 132557 | 244 | 216 | 82        | 31 |
| 99 | 56 |                 | GRO DEPLOYMENT            |                   | 12.6N 16.0W      |    |    | 40 | N |   | 19910407 | 132805 | 244 | 220 | 82        | 31 |
| 99 | 57 |                 | GRO DEPLOYMENT            |                   | 11.6N 13.9W      |    |    | 40 | N |   | 19910407 | 132842 | 244 | 236 | 81        | 31 |
| 99 | 58 |                 | GRO DEPLOYMENT            |                   | 11.4N 13.5W      |    |    | 40 | N |   | 19910407 | 132648 | 244 | 238 | 81        | 31 |
| 99 | 59 |                 | GRO DEPLOYMENT            |                   | 11.2N 13.2W      |    |    | 40 | N |   | 19910407 | 132655 | 244 | 240 | 81        | 31 |
| 99 | 60 |                 | GRO DEPLOYMENT            |                   | 11.0N 12.8W      |    |    | 40 | N |   | 19910407 | 132702 | 244 | 243 | 80        | 31 |
| 99 | 61 |                 | GRO DEPLOYMENT            |                   | 9.7N 10.4W       |    |    | 40 | N |   | 19910407 | 132748 | 244 | 255 | 78        | 31 |
| 99 | 62 |                 | GRO DEPLOYMENT            |                   | 8.7N 8.6W        |    |    | 40 | N |   | 19910407 | 132821 | 244 | 262 | 77        | 31 |
| 99 | 63 |                 | GRO DEPLOYMENT            |                   | 8.3S 21.1E       |    |    | 40 | N |   | 19910407 | 133745 | 243 | 287 | 42        | 31 |
| 99 | 64 |                 | GRO DEPLOYMENT            |                   | 9.0S 22.3E       |    |    | 40 | N |   | 19910407 | 133808 | 243 | 287 | 41        | 31 |
| 99 | 65 |                 | GRO DEPLOYMENT            |                   | 11.5S 27.0E      |    |    | 40 | N |   | 19910407 | 133934 | 243 | 287 | 35        | 31 |
| 99 | 66 |                 | GRO DEPLOYMENT            |                   | 12.0S 28.0E      |    |    | 40 | N |   | 19910407 | 133953 | 243 | 287 | 34        | 31 |
| 99 | 67 |                 | GRO DEPLOYMENT            |                   | 12.3S 28.6E      |    |    | 40 | N |   | 19910407 | 134004 | 243 | 286 | 33        | 31 |
| 99 | 68 |                 | GRO DEPLOYMENT            |                   | 12.7S 29.4E      |    |    | 40 | N |   | 19910407 | 134018 | 243 | 286 | 33        | 31 |
| 99 | 69 |                 | GRO DEPLOYMENT            |                   | 13.1S 30.1E      |    |    | 40 | N |   | 19910407 | 134031 | 243 | 286 | 32        | 31 |
| 99 | 70 |                 | GRO DEPLOYMENT            |                   | 22.4S 52.8E      |    |    | 40 | N |   | 19910407 | 134700 | 243 | 280 | 7         | 31 |
| 99 | 71 |                 | GRO DEPLOYMENT            |                   | 22.7S 53.8E      |    |    | 40 | N |   | 19910407 | 134716 | 243 | 280 | 6         | 31 |
| 99 | 72 |                 | GRO DEPLOYMENT            |                   | 23.4S 55.9E      |    |    | 40 | N |   | 19910407 | 134748 | 243 | 279 | 4         | 31 |
| 99 | 73 |                 | GRO DEPLOYMENT            |                   | 23.8S 57.4E      |    |    | 40 | N |   | 19910407 | 134813 | 243 | 278 | 2         | 31 |
| 99 | 74 |                 | GRO DEPLOYMENT            |                   | 24.2S 59.0E      |    |    | 40 | N |   | 19910407 | 134838 | 243 | 278 | 1         | 31 |
| 99 | 75 | USA             | GRO DEPLOY - SW USA       |                   | 27.5N 116.9W     |    | 20 | HO |   |   | 19910407 | 143924 | 246 | 89  | 14        | 32 |
| 99 | 76 | USA             | GRO DEPLOY - SW USA       |                   | 27.6N 115.9W     |    | 20 | HO |   |   | 19910407 | 143938 | 246 | 90  | 14        | 32 |
| 99 | 77 | USA             | GRO DEPLOY - SW USA       |                   | 27.7N 115.1W     |    | 20 | HO |   |   | 19910407 | 143951 | 246 | 90  | 15        | 32 |
| 99 | 78 | USA             | GRO DEPLOY - SO. CA COAST |                   | 28.0N 112.8W     |    | 40 | HO |   |   | 19910407 | 144024 | 246 | 91  | 17        | 32 |
| 99 | 79 | USA             | GRO DEPLOY - SO. CA/MEX   |                   | 28.1N 111.3W     |    | 40 | HO |   |   | 19910407 | 144046 | 246 | 92  | 19        | 32 |
| 99 | 80 | MEXICO          | GRO DEPLOY - SO. CA/MEX   |                   | 28.2N 110.1W     |    | 30 | HO |   |   | 19910407 | 144104 | 246 | 93  | 20        | 32 |
| 99 | 81 | MEXICO          | GRO DEPLOY - SO. CA/MEX   |                   | 28.3N 108.2W     |    | 20 | HO |   |   | 19910407 | 144117 | 246 | 93  | 21        | 32 |
| 99 | 82 | MEXICO          | GRO DEPLOY - SO. CA/MEX   |                   | 28.3N 108.0W     |    | 10 | HO |   |   | 19910407 | 144135 | 246 | 94  | 22        | 32 |
| 99 | 83 | MEXICO          | GRO DEPLOY - MEX          |                   | 28.5N 103.6W     |    | 10 | HO |   |   | 19910407 | 144239 | 246 | 96  | 26        | 32 |
| 99 | 84 | MEXICO          | GRO DEPLOY - MEX          |                   | 28.5N 101.9W     |    | 10 | HO |   |   | 19910407 | 144303 | 246 | 97  | 27        | 32 |
| 99 | 85 |                 | GRO DEPLOY                |                   | 28.3N 94.9W      |    | HO |    |   |   | 19910407 | 144446 | 246 | 101 | 34        | 32 |
| 99 | 86 |                 | GRO DEPLOY                |                   | 28.3N 94.2W      |    | HO |    |   |   | 19910407 | 144456 | 246 | 102 | 35        | 32 |
| 99 | 87 |                 | GRO DEPLOY                |                   | 27.3N 84.1W      |    | HO |    |   |   | 19910407 | 144725 | 246 | 108 | 44        | 32 |
| 99 | 88 | USA             | GRO DEPLOY, SW USA/NW MX  |                   | 28.3N 118.3W     |    | 10 | HO |   |   | 19910407 | 161818 | 246 | 101 | 34        | 33 |
| 99 | 89 | USA             | GRO DEPLOY, SW USA/NW MX  |                   | 28.3N 117.9W     |    | 10 | HO |   |   | 19910407 | 161824 | 246 | 102 | 34        | 33 |
| 99 | 90 |                 | GRO DEPLOY                |                   | 27.8N 112.1W     |    |    |    |   |   | 19910407 | 161948 | 246 | 105 | 40        | 33 |
| 99 | 91 |                 | GRO DEPLOY                |                   | 27.7N 111.2W     |    |    |    |   |   | 19910407 | 162002 | 246 | 106 | 41        | 33 |
| 99 | 92 |                 | GRO DEPLOY                |                   | 21.1N 131.0W     |    |    |    |   |   | 19910407 | 193408 | 245 | 126 | 67        | 35 |
| 99 | 93 |                 | GRO DEPLOY                |                   | 20.6N 129.7W     |    |    |    |   |   | 19910407 | 193429 | 245 | 128 | 68        | 35 |
| 99 | 94 |                 | GRO DEPLOY                |                   | 20.5N 129.3W     |    |    |    |   |   | 19910407 | 193435 | 245 | 128 | 69        | 35 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL       | E      | S        | DATE   | GMT | AL  | AZ | SUM<br>EL | OR |
|-----|-----|-----------------|---------------------------|----------------------|---------------------|----|----|----------|--------|----------|--------|-----|-----|----|-----------|----|
| 99  | 95  |                 | GRO DEPLOY                |                      | 20.4N 129.2W        | 40 | N  | 19910407 | 193438 | 245      | 128    | 69  | 35  |    |           |    |
| 99  | 96  |                 | GRO DEPLOY                |                      | 20.3N 128.7W        | 40 | N  | 19910407 | 193445 | 245      | 129    | 69  | 35  |    |           |    |
| 99  | 97  |                 | GRO DEPLOY                |                      | 20.2N 128.6W        | 40 | N  | 19910407 | 193448 | 245      | 129    | 69  | 35  |    |           |    |
| 99  | 98  |                 | GRO DEPLOY                |                      | 20.1N 128.3W        | 40 | N  | 19910407 | 193452 | 245      | 129    | 70  | 35  |    |           |    |
| 99  | 99  |                 | GRO DEPLOY                |                      | 18.4N 123.8W        | 40 | N  | 19910407 | 193608 | 245      | 137    | 74  | 35  |    |           |    |
| 99  | 100 |                 | GRO DEPLOY                |                      | 18.2N 123.5W        | 40 | N  | 19910407 | 193613 | 245      | 137    | 74  | 35  |    |           |    |
| 99  | 101 |                 | GRO DEPLOY                |                      | 18.2N 123.4W        | 40 | N  | 19910407 | 193616 | 245      | 138    | 75  | 35  |    |           |    |
| 99  | 102 |                 | GRO DEPLOY                |                      | 17.9N 122.7W        | 40 | N  | 19910407 | 193628 | 245      | 139    | 75  | 35  |    |           |    |
| 99  | 103 |                 | GRO DEPLOY                |                      | 27.8N 149.8E        | 40 | N  | 19910407 | 205339 | 246      | 89     | 14  | 36  |    |           |    |
| 99  | 104 |                 | GRO DEPLOY                |                      | 27.8N 150.6E        | 40 | N  | 19910407 | 205350 | 246      | 90     | 15  | 36  |    |           |    |
| 99  | 105 |                 | GRO DEPLOY                |                      | 27.9N 151.1E        | 40 | N  | 19910407 | 205358 | 246      | 90     | 15  | 36  |    |           |    |
| 99  | 106 |                 | GRO DEPLOY                |                      | 28.1N 153.2E        | 40 | N  | 19910407 | 205429 | 246      | 91     | 17  | 36  |    |           |    |
| 99  | 107 |                 | GRO DEPLOY                |                      | 28.1N 153.5E        | 40 | N  | 19910407 | 205433 | 246      | 91     | 17  | 36  |    |           |    |
| 151 | 1   | PACIFIC OCEAN   | SUNGLINT-OCEAN EDDIES     |                      | 21.7N 112.6W        | 0  | LO | 250      | N      | 19910405 | 191710 | 245 | 165 | 73 | 4         |    |
| 151 | 1   | A               | SAN BENEDICTO I.-SUNGLIN  |                      | 20.6N 109.5E        | 5  | LO | 250      | N      | 19910405 | 191802 | 245 | 177 | 75 | 4         |    |
| 151 | 2   | MEXICO          | SOCORRO, SAN BENEDICTO I. | 19.0N 111.0W         | 20.0N 108.0W        | 10 | LO | 250      | N      | 19910405 | 191827 | 245 | 183 | 76 | 4         |    |
| 151 | 3   | MEXICO          | PUNTA MITA, BANDERAS BAY  | 20.5N 105.5W         | 19.2N 105.8W        | 45 | LO | 250      | N      | 19910405 | 191903 | 245 | 193 | 76 | 4         |    |
| 151 | 4   | MEXICO          | SAN BLAS, COASTLINE       | 21.5N 105.0W         | 18.9N 105.3W        | 15 | LO | 250      | N      | 19910405 | 191913 | 244 | 196 | 76 | 4         |    |
| 151 | 5   | MEXICO          | SIERRA MADRE OCCIDENTAL   | 21.0N 103.5W         | 18.8N 104.9W        | 20 | LO | 250      | N      | 19910405 | 191919 | 244 | 198 | 76 | 4         |    |
| 151 | 6   | MEXICO          | INFIERNILLO RESERVOIR     | 18.5N 102.5W         | 18.4N 103.8W        | 20 | LO | 250      | N      | 19910405 | 191937 | 244 | 203 | 76 | 4         |    |
| 151 | 7   | MEXICO          | SIERRA MADRE DEL SUR      | 17.0N 99.0W          | 17.8N 102.5W        | 10 | LO | 250      | N      | 19910405 | 192000 | 244 | 210 | 76 | 4         |    |
| 151 | 8   | MEXICO          | DULCE BAY                 | 16.5N 99.0W          | 17.5N 101.8W        | 15 | LO | 250      | N      | 19910405 | 192013 | 244 | 213 | 76 | 4         |    |
| 151 | 9   | MEXICO          | POPOCATEPETL VOLCANO      | 18.5N 98.5W          | 16.6N 99.7W         | 15 | LO | 250      | N      | 19910405 | 192048 | 244 | 223 | 75 | 4         |    |
| 151 | 10  | MEXICO          | SIERRA DEL SUR-FIRES      | 17.0N 100.0W         | 16.4N 99.3W         | 10 | NV | 250      | N      | 19910405 | 192056 | 244 | 225 | 75 | 4         |    |
| 151 | 11  | MEXICO          | GULF OF TEHUANTEPEC       | 16.0N 95.0W          | 15.0N 96.3W         | 25 | LO | 250      | N      | 19910405 | 192149 | 244 | 237 | 74 | 4         |    |
| 151 | 12  | MEXICO          | SIERRA DE SOCONUSCO       | 15.5N 92.0W          | 13.5N 93.3W         | 40 | LO | 250      | N      | 19910405 | 192243 | 244 | 247 | 71 | 4         |    |
| 151 | 13  | EL SALVADOR     | SAN SALVADOR              | 13.5N 89.0W          | 12.2N 90.7W         | 45 | LO | 250      | N      | 19910405 | 192330 | 244 | 253 | 69 | 4         |    |
| 151 | 14  | HONDURAS        | GULF OF FONSECA           | 13.0N 87.5W          | 11.6N 89.4W         | 20 | LO | 250      | N      | 19910405 | 192353 | 243 | 256 | 68 | 4         |    |
| 151 | 15  | NICARAGUA       | LAGO DE NICARAGUA         | 11.5N 86.0W          | 11.3N 88.8W         | 25 | LO | 250      | N      | 19910405 | 192404 | 243 | 258 | 68 | 4         |    |
| 151 | 16  | NICARAGUA       | LAGO DE NICARAGUA         | 11.5N 86.0W          | 10.8N 88.0W         | 25 | LO | 250      | N      | 19910405 | 192419 | 243 | 259 | 67 | 4         |    |
| 151 | 17  | NICARAGUA       | SANTA ELENA BAY           | 11.0N 86.0W          | 10.7N 87.7W         | 20 | LO | 250      | N      | 19910405 | 192424 | 243 | 260 | 67 | 4         |    |
| 151 | 18  | COSTA RICA      | PACIFIC COAST             | 10.0N 86.0W          | 10.6N 87.5W         | 15 | LO | 250      | N      | 19910405 | 192428 | 243 | 260 | 66 | 4         |    |
| 151 | 19  | COSTA RICA      | GULF OF NICOYA            | 10.5N 85.0W          | 10.4N 87.2W         | 25 | LO | 250      | N      | 19910405 | 192434 | 243 | 261 | 66 | 4         |    |
| 151 | 20  | COSTA RICA      | LAGO DE NICARAGUA         | 11.0N 85.0W          | 10.1N 86.7W         | 35 | LO | 250      | N      | 19910405 | 192444 | 243 | 262 | 66 | 4         |    |
| 151 | 21  | NICARAGUA       | PACIFIC COAST             | 11.0N 86.0W          | 9.2N 85.0W          | 15 | LO | 250      | N      | 19910405 | 192514 | 243 | 264 | 64 | 4         |    |
| 151 | 22  | COSTA RICA      | SUNGLINT-GULF OF NICOYA   | 9.0N 84.5W           | 8.8N 84.2W          | 35 | NV | 250      | N      | 19910405 | 192530 | 243 | 265 | 63 | 4         |    |
| 151 | 23  | COSTA RICA      | PENINSULA DE OSA          | 8.5N 83.5W           | 8.7N 84.0W          | 35 | NV | 250      | N      | 19910405 | 192534 | 243 | 266 | 63 | 4         |    |
| 151 | 24  | COSTA RICA      | PUNTA BURICA              | 8.5N 83.0W           | 8.5N 83.6W          | 25 | NV | 250      | N      | 19910405 | 192540 | 243 | 266 | 63 | 4         |    |
| 151 | 25  | PANAMA          | LAGUNA DE CHIRQUI         | 9.0N 82.5W           | 8.3N 83.4W          | 30 | NV | 250      | N      | 19910405 | 192545 | 243 | 267 | 62 | 4         |    |
| 151 | 26  | PANAMA          | GULF OF CHIRQUI           | 8.0N 82.0W           | 8.2N 83.1W          | 30 | LO | 250      | N      | 19910405 | 192551 | 243 | 267 | 62 | 4         |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | LONG  | NADIR<br>LAT | LONG  | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|----|-----------------|---------------------------|---------------|-------|--------------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 151 | 27 | PACIFIC OCEAN   | SUNGLINT-WAVES, SHIPWAKES | 7.5N          | 82.5W | 6.9N         | 80.8W | 10 | LO | 250 | N | Y | 19910405 | 192633 | 243 | 270 | 60        | 4  |
| 151 | 28 | COLOMBIA        | MEDELLIN                  | 6.5N          | 76.0W | 4.9N         | 77.3W | 80 | LO | 250 | N | N | 19910405 | 192739 | 243 | 273 | 56        | 4  |
| 151 | 29 | COLOMBIA        | BOGOTA                    | 4.5N          | 74.5W | 4.2N         | 76.1W | 80 | LO | 250 | N | Y | 19910405 | 192803 | 243 | 274 | 54        | 4  |
| 151 | 30 | COLOMBIA        | CORDILLERA ORIENTAL       | 3.5N          | 74.0W | 3.9N         | 75.6W | 55 | LO | 250 | N | Y | 19910405 | 192813 | 243 | 274 | 54        | 4  |
| 151 | 31 | COLOMBIA        | CORDILLERA ORIENTAL       | 4.0N          | 73.5W | 3.5N         | 74.9W | 50 | LO | 250 | N | Y | 19910405 | 192826 | 243 | 275 | 53        | 4  |
| 151 | 32 | COLOMBIA        | SERRANIA DE LA MACARENA   | 3.0N          | 74.0W | 3.3N         | 74.6W | 55 | NV | 250 | N | Y | 19910405 | 192832 | 243 | 275 | 53        | 4  |
| 151 | 33 | COLOMBIA        | RIO GUAYABERO             | 2.5N          | 73.5W | 2.4N         | 72.9W | 55 | NV | 250 | N | Y | 19910405 | 192903 | 243 | 276 | 51        | 4  |
| 151 | 34 | COLOMBIA        | RIO CAQUETA               | 0.0           | 72.0W | 0.9N         | 70.3W | 80 | LO | 250 | N | Y | 19910405 | 192953 | 243 | 278 | 48        | 4  |
| 151 | 35 | COLOMBIA        | RIO CAQUETA, RIO APAPORI  | 1.0S          | 70.5W | 0.4N         | 69.5W | 90 | LO | 250 | N | Y | 19910405 | 193008 | 243 | 278 | 47        | 4  |
| 151 | 36 | BRAZIL          | RIO NEGRO                 | 0.0           | 67.0W | 0.6S         | 67.9W | 50 | NV | 250 | N | Y | 19910405 | 193039 | 243 | 279 | 45        | 4  |
| 151 | 37 | BRAZIL          | RIO NEGRO                 | 0.5S          | 66.5W | 0.7S         | 67.7W | 55 | LO | 250 | N | Y | 19910405 | 193044 | 243 | 279 | 45        | 4  |
| 151 | 38 | BRAZIL          | AMAZON RIVER              | 2.5S          | 66.5W | 1.0S         | 67.1W | 60 | LO | 250 | N | N | 19910405 | 193055 | 243 | 279 | 44        | 4  |
| 151 | 39 | BRAZIL          | AMAZON RIVER              | 2.5S          | 65.0W | 1.8S         | 65.8W | 70 | LO | 250 | N | Y | 19910405 | 193120 | 243 | 280 | 43        | 4  |
| 151 | 40 | BRAZIL          | AMAZON RIVER              | 3.5S          | 65.0W | 1.9S         | 65.6W | 70 | LO | 250 | N | Y | 19910405 | 193124 | 243 | 280 | 42        | 4  |
| 151 | 41 | BRAZIL          | AMAZON RIVER              | 3.5S          | 64.5W | 2.1S         | 65.3W | 70 | LO | 250 | N | Y | 19910405 | 193129 | 243 | 280 | 42        | 4  |
| 151 | 42 | BRAZIL          | RIO NEGRO, RIO JAPURA     | 1.0S          | 66.0W | 2.5S         | 64.6W | 70 | LO | 250 | N | N | 19910405 | 193142 | 242 | 280 | 41        | 4  |
| 151 | 43 | BRAZIL          | AMAZON RIVER              | 3.5S          | 64.0W | 2.9S         | 63.9W | 65 | NV | 250 | N | Y | 19910405 | 193156 | 242 | 280 | 40        | 4  |
| 151 | 44 | BRAZIL          | AMAZON RIVER              | 3.5S          | 64.0W | 3.5S         | 62.8W | 65 | LO | 250 | N | Y | 19910405 | 193216 | 242 | 280 | 39        | 4  |
| 151 | 45 | BRAZIL          | RIO MADEIRA               | 4.5S          | 60.5W | 5.1S         | 60.1W | 70 | NV | 250 | N | N | 19910405 | 193309 | 242 | 281 | 36        | 4  |
| 151 | 46 | BRAZIL          | RIO ARIQUANA, ROAD        | 7.5S          | 61.0W | 5.9S         | 58.7W | 70 | LO | 250 | N | N | 19910405 | 193334 | 242 | 281 | 34        | 4  |
| 151 | 47 | BRAZIL          | RIVER, AGRICULTURE        |               |       | 7.7S         | 55.5W | 55 | LO | 250 | N | N | 19910405 | 193436 | 242 | 281 | 31        | 4  |
| 151 | 48 | BRAZIL          | RIO PEIXOTO DE AZEVEDO    | 10.0S         | 55.0W | 8.3S         | 54.4W | 50 | LO | 250 | N | Y | 19910405 | 193455 | 242 | 281 | 29        | 4  |
| 151 | 49 | BRAZIL          | SERRA DO CACHIMBO         | 10.0S         | 54.0W | 8.5S         | 54.1W | 50 | LO | 250 | N | Y | 19910405 | 193502 | 242 | 281 | 29        | 4  |
| 151 | 50 | BRAZIL          | RIO XINGU, AGRICULTURE    | 10.5S         | 53.0W | 9.0S         | 53.1W | 40 | LO | 250 | N | Y | 19910405 | 193520 | 242 | 281 | 28        | 4  |
| 151 | 51 | BRAZIL          | RIO XINGU, AGRICULTURE    | 10.0S         | 52.5W | 9.1S         | 52.9W | 50 | NV | 250 | N | Y | 19910405 | 193523 | 242 | 281 | 28        | 4  |
| 151 | 52 | BRAZIL          | RIO XINGU                 | 9.0S          | 52.0W | 9.2S         | 52.7W | 30 | NV | 250 | N | Y | 19910405 | 193528 | 242 | 281 | 27        | 4  |
| 151 | 53 | BRAZIL          | RIO XINGU                 | 9.0S          | 53.0W | 9.3S         | 52.5W | 30 | NV | 250 | N | Y | 19910405 | 193531 | 242 | 281 | 27        | 4  |
| 151 | 54 | BRAZIL          | RIVER, AGRICULTURE        | 8.0S          | 51.5W | 9.6S         | 52.0W | 35 | LO | 250 | N | Y | 19910405 | 193541 | 242 | 281 | 27        | 4  |
| 151 | 55 | BRAZIL          | AGRICULTURE               | 10.0S         | 51.5W | 9.7S         | 51.8W | 20 | NV | 250 | N | Y | 19910405 | 193545 | 242 | 281 | 26        | 4  |
| 151 | 56 | BRAZIL          | AGRICULTURE, RIO TAPIRAPE | 10.5S         | 51.0W | 9.9S         | 51.5W | 15 | NV | 250 | N | Y | 19910405 | 193549 | 242 | 281 | 26        | 4  |
| 151 | 57 | BRAZIL          | RIO ARAGUAIA              | 11.5S         | 51.0W | 10.0S        | 51.2W | 15 | LO | 250 | N | Y | 19910405 | 193555 | 242 | 281 | 26        | 4  |
| 151 | 58 | BRAZIL          | RIO ARAGUAIA              | 10.0S         | 50.0W | 10.5S        | 50.3W | 15 | NV | 250 | N | N | 19910405 | 193612 | 242 | 281 | 25        | 4  |
| 151 | 59 | BRAZIL          | RIO ARAGUAIA              | 10.0S         | 50.0W | 10.6S        | 50.1W | 15 | NV | 250 | N | Y | 19910405 | 193616 | 242 | 281 | 24        | 4  |
| 151 | 60 | BRAZIL          | RIO LEVER, RIO ARAGUAIA   | 10.5S         | 50.0W | 10.7S        | 49.9W | 20 | NV | 250 | N | Y | 19910405 | 193619 | 242 | 281 | 24        | 4  |
| 151 | 61 | BRAZIL          | RIO ARAGUAIA              | 11.5S         | 50.0W | 10.9S        | 49.7W | 20 | NV | 250 | N | Y | 19910405 | 193624 | 242 | 281 | 24        | 4  |
| 151 | 62 | BRAZIL          | RIO ARAGUAIA              | 12.5S         | 50.0W | 11.2S        | 49.1W | 20 | LO | 250 | N | Y | 19910405 | 193635 | 242 | 281 | 23        | 4  |
| 151 | 63 | BRAZIL          | RIO TOCANTINS             | 12.0S         | 49.0W | 11.3S        | 48.9W | 20 | NV | 250 | N | Y | 19910405 | 193638 | 242 | 281 | 23        | 4  |
| 151 | 64 | BRAZIL          | RIO TOCANTINS             | 11.5S         | 48.5W | 11.4S        | 48.7W | 15 | NV | 250 | N | Y | 19910405 | 193642 | 242 | 281 | 23        | 4  |
| 151 | 65 | BRAZIL          | RIO TOCANTINS             | 10.5S         | 48.0W | 11.5S        | 48.4W | 15 | LO | 250 | N | Y | 19910405 | 193647 | 242 | 281 | 22        | 4  |
| 151 | 66 | BRAZIL          | RIO TOCANTINS             | 13.0S         | 48.5W | 11.7S        | 48.1W | 20 | LO | 250 | N | Y | 19910405 | 193653 | 242 | 281 | 22        | 4  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR   | GEOGRAPHIC NAME      | FEATURE                   | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|------|----------------------|---------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 151 | 67   | BRAZIL               | RIO TOCANTINS             | 12.5S         | 48.0W         | 11.8S        | 47.9W        | 10 | NV | 250 | N | Y | 19910405 | 193657 | 243 | 281 | 22        | 4  |
| 151 | 68   | BRAZIL               | HILLS, RIO TOCANTINS      | 12.0S         | 47.5W         | 11.9S        | 47.6W        | 15 | NV | 250 | N | Y | 19910405 | 193701 | 243 | 281 | 22        | 4  |
| 151 | 69   | BRAZIL               | HILLS, SERRA NEGRA        | 11.0S         | 47.0W         | 12.1S        | 47.4W        | 20 | LO | 250 | N | Y | 19910405 | 193706 | 243 | 281 | 21        | 4  |
| 151 | 70   | BRAZIL               | TOCANTINS R.-GERAL DO PA  | 14.5S         | 48.0W         | 12.4S        | 46.8W        | 20 | LO | 250 | N | Y | 19910405 | 193717 | 243 | 281 | 21        | 4  |
| 151 | 71   | BRAZIL               | PARANA R.GERAL DO PARANA  | 14.0S         | 47.0W         | 12.5S        | 46.5W        | 20 | LO | 250 | N | Y | 19910405 | 193721 | 243 | 281 | 20        | 4  |
| 151 | 72   | BRAZIL               | PARANA R.GERAL DO PARANA  | 13.5S         | 47.0W         | 12.6S        | 46.4W        | 20 | NV | 250 | N | Y | 19910405 | 193724 | 243 | 281 | 20        | 4  |
| 151 | 73   | BRAZIL               | ESPIGAO RIDGE, ESPRAIAD S | 12.5S         | 46.5W         | 12.7S        | 46.1W        | 30 | NV | 250 | N | Y | 19910405 | 193729 | 243 | 281 | 20        | 4  |
| 151 | 74   | BRAZIL               | ESPIGAO RIDGE             | 11.5S         | 46.5W         | 12.9S        | 45.8W        | 40 | LO | 250 | N | Y | 19910405 | 193735 | 243 | 281 | 19        | 4  |
| 151 | 75   | BRAZIL               | PARANA R.-ESPIGAO RIDGE   | 15.0S         | 46.5W         | 13.5S        | 44.5W        | 30 | LO | 250 | N | Y | 19910405 | 193757 | 243 | 281 | 18        | 4  |
| 151 | 76   | BRAZIL               | AGRICULTURE-SMOKE         | 14.0S         | 45.5W         | 13.6S        | 44.4W        | 25 | LO | 250 | N | Y | 19910405 | 193800 | 243 | 281 | 18        | 4  |
| 151 | 77   | BRAZIL               | RIO SAO FRANCISCO-SMOKE?  | 15.0S         | 45.0W         | 13.7S        | 44.0W        | 20 | LO | 250 | N | Y | 19910405 | 193806 | 243 | 281 | 18        | 4  |
| 151 | 78   | BRAZIL               | RIO SAO FRANCISCO-SMOKE?  | 14.5S         | 44.5W         | 13.8S        | 43.9W        | 20 | NV | 250 | N | Y | 19910405 | 193809 | 243 | 281 | 17        | 4  |
| 151 | 79   | BRAZIL               | SAO FRANCISCO R. AGRICUL  | 14.0S         | 44.0W         | 13.9S        | 43.7W        | 15 | NV | 250 | N | Y | 19910405 | 193812 | 243 | 281 | 17        | 4  |
| 151 | 80   | BRAZIL               | SAO FRANCISCO R. AGRICUL  | 13.0S         | 44.0W         | 14.0S        | 43.5W        | 15 | NV | 250 | N | Y | 19910405 | 193815 | 243 | 281 | 17        | 4  |
| 151 | 81   | BRAZIL               | SAO FRANCISCO R. AGRICUL  | 12.0S         | 44.0W         | 14.1S        | 43.2W        | 20 | LO | 250 | N | Y | 19910405 | 193821 | 243 | 281 | 17        | 4  |
| 151 | 82   | BRAZIL               | SAO FRANCISCO R.-HILLS    | 12.5S         | 43.0W         | 14.2S        | 43.0W        | 20 | LO | 250 | N | Y | 19910405 | 193825 | 243 | 281 | 16        | 4  |
| 151 | 83   | BRAZIL               | CAETITE-HILLS             | 13.5S         | 43.0W         | 14.3S        | 42.8W        | 15 | NV | 250 | N | Y | 19910405 | 193829 | 243 | 280 | 16        | 4  |
| 151 | 84   | BRAZIL               | CAETITE-HILLS             | 14.5S         | 42.5W         | 14.5S        | 42.5W        | 15 | NV | 250 | N | Y | 19910405 | 193834 | 243 | 280 | 16        | 4  |
| 151 | 85   | BRAZIL               | HILLS, RIVERS, JEQUEIE    | 13.5S         | 40.5W         | 15.0S        | 41.3W        | 25 | LO | 250 | N | Y | 19910405 | 193855 | 243 | 280 | 14        | 4  |
| 151 | 86   | BRAZIL               | POCOES, HILLS             | 14.5S         | 40.5W         | 15.1S        | 41.1W        | 30 | LO | 250 | N | Y | 19910405 | 193858 | 243 | 280 | 14        | 4  |
| 151 | 87   | BRAZIL               | JEQUEIE, COASTLINE        | 14.0S         | 39.5W         | 15.3S        | 40.7W        | 40 | LO | 250 | N | Y | 19910405 | 193905 | 243 | 280 | 14        | 4  |
| 151 | 88   | BRAZIL               | MACEIO, NE COAST BRAZIL   | 9.5S          | 35.5W         | 16.2S        | 38.8W        | 25 | HO | 250 | N | Y | 19910405 | 193940 | 243 | 280 | 12        | 4  |
| 151 | 89   | ATLANTIC OCEAN       | CLOUDS                    |               |               | 16.5S        | 38.2W        | 95 | LO | 250 | N | Y | 19910405 | 193950 | 243 | 280 | 11        | 4  |
| 151 | 90   | BRAZIL               | COAST, RIO DOCE           | 19.0S         | 39.0W         | 17.1S        | 36.7W        | 60 | LO | 250 | N | Y | 19910405 | 194016 | 243 | 279 | 9         | 4  |
| 151 | 91   | PACIFIC OCEAN ISLAND | JOHNSTON ATOLL            | 16.0N         | 169.5W        | 16.5N        | 171.2W       | 25 | LO | 250 | N | Y | 19910406 | 000110 | 244 | 219 | 76        | 7  |
| 151 | 91 A | PACIFIC OCEAN ISLAND | JOHNSTON ATOLL            | 16.0N         | 169.5W        | 16.4N        | 170.8W       | 25 | LO | 250 | N | Y | 19910406 | 000118 | 244 | 221 | 76        | 7  |
| 151 | 91 B | AFRICA               | EGYPT-SUDAN, VERY DARK    |               |               | 22.7N        | 26.5E        | 0  | LO | 250 | U | N | 19910406 | 041815 | 245 | 84  | 2         | 10 |
| 151 | 91 C | EGYPT                | SOMALIA JET STREAM-NILE   |               |               | 24.5N        | 32.7E        | 90 | LO | 250 | N | Y | 19910406 | 041954 | 246 | 87  | 9         | 10 |
| 151 | 91 D | RED SEA              | SAUDI ARABIA COAST        | 26.0N         | 36.0E         | 25.2N        | 35.6E        | 90 | NV | 250 | N | Y | 19910406 | 042038 | 246 | 88  | 11        | 10 |
| 151 | 92   | SAUDI ARABIA         | COAST-JIDDAH              | 22.0N         | 39.0E         | 25.9N        | 39.0E        | 60 | HO | 250 | N | Y | 19910406 | 042129 | 246 | 90  | 14        | 10 |
| 151 | 93   | SAUDI ARABIA         | MAZHUR IRRIGATION PROJEC  | 26.0N         | 44.0E         | 26.7N        | 42.9E        | 50 | LO | 250 | N | Y | 19910406 | 042228 | 246 | 92  | 18        | 10 |
| 151 | 94   | SAUDI ARABIA         | ZAWAR POINT-COAST         | 28.0N         | 49.5E         | 27.7N        | 49.7E        | 60 | NV | 250 | N | Y | 19910406 | 042409 | 246 | 96  | 24        | 10 |
| 151 | 95   | SAUDI ARABIA         | ABU ALI ISLAND            | 27.0N         | 50.0E         | 27.8N        | 50.4E        | 60 | NV | 250 | N | Y | 19910406 | 042420 | 246 | 96  | 25        | 10 |
| 151 | 96   | IRAN                 | ZAGROS MNTS., QESHM       | 28.0N         | 56.0E         | 28.2N        | 55.7E        | 20 | NV | 250 | N | Y | 19910406 | 042533 | 246 | 99  | 30        | 10 |
| 151 | 97   | PAKISTAN             | INDUS RIVER               | 27.0N         | 68.0E         | 28.4N        | 68.5E        | 35 | LO | 250 | N | Y | 19910406 | 042845 | 246 | 108 | 42        | 10 |
| 151 | 98   | INDIA                | GULF OF KUTCH             | 22.0N         | 69.0E         | 28.2N        | 72.4E        | 20 | HO | 250 | N | Y | 19910406 | 042942 | 246 | 111 | 45        | 10 |
| 151 | 99   | INDIA                | PANJAL RANGE, RAVI R.     | 32.5N         | 76.0E         | 27.8N        | 76.7E        | 15 | LO | 250 | N | Y | 19910406 | 043045 | 246 | 115 | 49        | 10 |
| 151 | 100  | INDIA                | GREAT HIMALAYA RANGE      | 29.0N         | 80.0E         | 27.6N        | 79.0E        | 20 | LO | 250 | N | Y | 19910406 | 043119 | 246 | 117 | 51        | 10 |
| 151 | 101  | INDIA                | RAPTI R.-GREAT HIMALAYA   | 27.5N         | 82.5E         | 27.1N        | 82.0E        | 30 | NV | 250 | N | Y | 19910406 | 043204 | 246 | 119 | 54        | 10 |
| 151 | 102  | CHINA                | MEKONG RIVER              | 22.0N         | 101.0E        | 22.9N        | 100.4E       | 35 | LO | 250 | N | Y | 19910406 | 043647 | 245 | 145 | 70        | 10 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME  | FEATURE                  | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|------------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 151 | 103 | LAOS             | MEKONG RIVER             | 20.0N 101.5E         | 22.3N 102.5E        | 10 | LO | 250 | N | N | 19910406 | 043721 | 245 | 150 | 71        | 10 |
| 151 | 104 | CHINA            | HAI-NAN TAO              | 19.5N 110.0E         | 19.8N 109.4E        | 70 | NV | 250 | N | Y | 19910406 | 043916 | 245 | 173 | 76        | 10 |
| 151 | 105 | CHINA            | LUICHOW PENINSULA        | 21.0N 110.0E         | 19.5N 110.1E        | 60 | LO | 250 | N | Y | 19910406 | 043927 | 245 | 176 | 76        | 10 |
| 151 | 106 | VIETNAM          | SOUTHERN PART            |                      | 18.8N 111.8E        | 45 | HO | 250 | N | Y | 19910406 | 043957 | 245 | 185 | 77        | 10 |
| 151 | 107 | VIETNAM          | SOUTHERN PART            |                      | 18.4N 112.9E        | 45 | LO | 250 | N | Y | 19910406 | 044015 | 245 | 190 | 77        | 10 |
| 151 | 108 | PHILIPPINES      | LUZON-LINGAYEN GULF      | 16.0N 120.0E         | 15.4N 119.7E        | 25 | NV | 250 | N | Y | 19910406 | 044213 | 244 | 226 | 76        | 10 |
| 151 | 109 | PHILIPPINES      | LUZON-SUNGLINT           | 15.0N 120.0E         | 15.2N 119.9E        | 20 | NV | 250 | N | Y | 19910406 | 044218 | 244 | 227 | 76        | 10 |
| 151 | 110 | PHILIPPINES      | LUZON-SHIP WAKES         | 15.0N 120.0E         | 14.9N 120.6E        | 25 | NV | 250 | N | Y | 19910406 | 044230 | 244 | 231 | 76        | 10 |
| 151 | 111 | PHILIPPINES      | LUZON-CABALETE ISLAND    | 14.0N 122.0E         | 14.4N 121.8E        | 40 | NV | 250 | N | Y | 19910406 | 044251 | 244 | 236 | 75        | 10 |
| 151 | 112 | PHILIPPINES      | LUZON-RAGAY GULF-SUNGLIN | 13.5N 123.0E         | 13.5N 123.5E        | 25 | NV | 250 | N | Y | 19910406 | 044321 | 244 | 242 | 74        | 10 |
| 151 | 113 | PHILIPPINES      | LUZON-MANILLA BAY        | 14.5N 121.0E         | 12.6N 125.4E        | 25 | LO | 250 | N | N | 19910406 | 044356 | 244 | 249 | 73        | 10 |
| 151 | 114 | PHILIPPINES      | SAMAR                    | 12.0N 125.0E         | 10.9N 128.6E        | 20 | LO | 250 | N | N | 19910406 | 044454 | 244 | 257 | 70        | 10 |
| 151 | 115 | CAROLINE ISLANDS | PALAU ISLANDS            | 7.5N 134.0E          | 7.9N 134.2E         | 30 | NV | 250 | N | N | 19910406 | 044639 | 243 | 267 | 64        | 10 |
| 151 | 116 | CAROLINE ISLANDS | NGULU ATOLL              | 7.5N 138.0E          | 5.3N 138.8E         | 70 | LO | 250 | N | N | 19910406 | 044806 | 243 | 273 | 60        | 10 |
| 151 | 117 | LIBYA            | EL MARZUCHIA SAND DUNES  | 26.5N 15.5E          | 26.1N 15.7E         | 0  | NV | 250 | N | N | 19910406 | 055504 | 246 | 90  | 15        | 11 |
| 151 | 118 | LIBYA            | PIVOT IRRIGATION         | 27.5N 21.5E          | 26.6N 18.8E         | 0  | LO | 250 | N | Y | 19910406 | 055551 | 246 | 91  | 18        | 11 |
| 151 | 119 | LIBYA            | PIVOT IRRIGATION         | 27.0N 23.0E          | 27.1N 21.8E         | 0  | LO | 250 | N | Y | 19910406 | 055636 | 246 | 93  | 20        | 11 |
| 151 | 120 | EGYPT            | MILE RIVER DELTA         | 31.0N 30.5E          | 27.9N 27.5E         | 10 | LO | 250 | N | Y | 19910406 | 055801 | 246 | 96  | 26        | 11 |
| 151 | 121 | EGYPT            | MILE RIVER DELTA         | 31.0N 31.0E          | 27.9N 28.3E         | 15 | LO | 250 | N | Y | 19910406 | 055812 | 246 | 97  | 26        | 11 |
| 151 | 122 | EGYPT            | MILE RIVER DELTA         | 31.0N 32.0E          | 28.2N 31.5E         | 10 | LO | 250 | N | Y | 19910406 | 055859 | 246 | 98  | 29        | 11 |
| 151 | 123 | EGYPT            | SINAI PENINSULA          | 28.5N 33.5E          | 28.3N 32.7E         | 0  | NV | 250 | N | N | 19910406 | 055917 | 246 | 100 | 30        | 11 |
| 151 | 124 | ISRAEL           | DEAD SEA                 | 31.0N 35.0E          | 28.4N 35.4E         | 10 | LO | 250 | N | Y | 19910406 | 055956 | 246 | 101 | 33        | 11 |
| 151 | 124 | A ISRAEL         | DEAD SEA                 | 30.0N 35.0E          | 28.5N 36.3E         | 10 | LO | 250 | N | Y | 19910406 | 060010 | 246 | 102 | 34        | 11 |
| 151 | 125 | SAUDI ARABIA     | HAIL-PIVOT IRR-JABAL AJA | 27.0N 41.0E          | 28.5N 42.6E         | 20 | LO | 250 | N | N | 19910406 | 060141 | 246 | 106 | 39        | 11 |
| 151 | 126 | SAUDI ARABIA     | LAKE-DUNES-CLOUDS        |                      | 28.5N 43.8E         | 50 | LO | 250 | N | N | 19910406 | 060158 | 246 | 107 | 40        | 11 |
| 151 | 127 | SAUDI ARABIA     | PERSIAN GULF COAST-SUNGL | 27.5N 49.0E          | 28.4N 45.8E         | 30 | LO | 250 | N | N | 19910406 | 060230 | 246 | 109 | 42        | 11 |
| 151 | 127 | KUWAIT           | BUBYAN ISLAND            | 29.5N 48.0E          | 28.3N 47.6E         | 90 | LO | 250 | N | N | 19910406 | 060254 | 246 | 110 | 44        | 11 |
| 151 | 128 | PERSIAN GULF     | SUNGLINT-OIL-SHIP WAKES  | 27.0N 52.0E          | 28.1N 49.9E         | 30 | LO | 250 | N | N | 19910406 | 060328 | 246 | 112 | 46        | 11 |
| 151 | 129 | SAUDI ARABIA     | ABU ALI ISLAND-COAST     | 28.0N 49.0E          | 28.0N 51.5E         | 40 | LO | 250 | N | N | 19910406 | 060352 | 246 | 113 | 47        | 11 |
| 151 | 130 | IRAN             | QESHM-SUNGLINT           | 27.0N 55.0E          | 27.7N 53.9E         | 5  | NV | 250 | N | Y | 19910406 | 060426 | 246 | 115 | 49        | 11 |
| 151 | 131 | OMAN             | MUSANDAM PENINSULA       | 26.5N 56.5E          | 27.5N 55.4E         | 5  | NV | 250 | N | Y | 19910406 | 060449 | 246 | 116 | 51        | 11 |
| 151 | 132 | INDIA            | KUTCH PENINSULA          | 23.0N 69.5E          | 24.4N 71.5E         | 30 | LO | 250 | N | N | 19910406 | 060854 | 246 | 135 | 65        | 11 |
| 151 | 133 | INDIA            | UKAL RESERVOIR-NARMADA R | 21.5N 74.0E          | 23.0N 76.3E         | 35 | LO | 250 | N | N | 19910406 | 061010 | 245 | 143 | 69        | 11 |
| 151 | 134 | INDIA            | PENNER RIVER-KRISHNA DEL | 14.0N 79.0E          | 20.4N 84.0E         | 30 | HO | 250 | N | N | 19910406 | 061216 | 245 | 165 | 75        | 11 |
| 151 | 135 | INDIA            | MAHADI RIVER             | 20.5N 85.5E          | 19.4N 86.6E         | 60 | LO | 250 | N | N | 19910406 | 061300 | 245 | 176 | 76        | 11 |
| 151 | 136 | BAY OF BENGAL    | IRRAWADDY RIVER DELTA    | 16.0N 93.5E          | 16.1N 94.3E         | 50 | LO | 250 | N | Y | 19910406 | 061512 | 244 | 217 | 77        | 11 |
| 151 | 137 | BURMA            | IRRAWADDY RIVER DELTA    | 16.0N 94.0E          | 15.9N 94.6E         | 50 | NV | 250 | N | Y | 19910406 | 061518 | 244 | 218 | 77        | 11 |
| 151 | 138 | BURMA            | IRRAWADDY RIVER DELTA    | 16.5N 94.5E          | 15.8N 95.4E         | 40 | LO | 250 | N | Y | 19910406 | 061532 | 244 | 222 | 77        | 11 |
| 151 | 139 | THAILAND         | RESERVOIR-COAST          | 15.0N 98.5E          | 13.6N 99.4E         | 55 | LO | 250 | N | Y | 19910406 | 061644 | 244 | 241 | 75        | 11 |
| 151 | 140 | THAILAND         | RESERVOIR-COAST          | 14.0N 99.0E          | 13.3N 100.1E        | 50 | LO | 250 | N | Y | 19910406 | 061657 | 244 | 243 | 74        | 11 |

TABLE 4.3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME  | FEATURE                   | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|------------------|---------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 151 | 141 | THAILAND         | BANGKOK, BIGHT OF BANGKOK | 13.5N 100.5E      | 12.8N 101.1E     | 50 | LO | 250 | N | N | 19910406 | 061714 | 244 | 247 | 74        | 11 |
| 151 | 142 | VIETNAM          | COAST-GULF OF THAILAND    | 10.5N 104.5E      | 10.4N 105.7E     | 45 | LO | 250 | N | N | 19910406 | 061839 | 244 | 259 | 70        | 11 |
| 151 | 143 | GULF OF THAILAND | SOUTH TIP VIETNAM, SUNGLI | 9.0N 104.0E       | 10.2N 106.0E     | 20 | LO | 250 | N | Y | 19910406 | 061845 | 244 | 260 | 69        | 11 |
| 151 | 144 | VIETNAM          | SOUTH TIP VIETNAM, SUNGLI | 9.0N 105.0E       | 10.0N 106.4E     | 25 | LO | 250 | N | Y | 19910406 | 061852 | 244 | 261 | 69        | 11 |
| 151 | 145 | VIETNAM          | MOUTHS OF THE MEKONG      | 10.0N 106.5E      | 9.7N 107.1E      | 45 | NV | 250 | N | Y | 19910406 | 061904 | 243 | 262 | 68        | 11 |
| 151 | 146 | SOUTH CHINA SEA  | BORNEO, MALAYSIA-BRunei   | 5.0N 114.0E       | 6.5N 112.7E      | 40 | LO | 250 | N | N | 19910406 | 062050 | 243 | 270 | 62        | 11 |
| 151 | 147 | SOUTH CHINA SEA  | BORNEO-BRunei BAY         | 5.5N 115.0E       | 5.9N 113.8E      | 35 | LO | 250 | N | Y | 19910406 | 062111 | 243 | 272 | 61        | 11 |
| 151 | 148 | MALAYSIA         | BORNEO-KOTA KINABALU      | 6.0N 116.0E       | 4.5N 116.3E      | 40 | LO | 250 | N | Y | 19910406 | 062157 | 243 | 274 | 59        | 11 |
| 151 | 149 | INDONESIA        | BORNEO-SESAPAP RIVER      | 3.5N 117.0E       | 4.1N 116.9E      | 40 | NV | 250 | N | Y | 19910406 | 062210 | 243 | 275 | 58        | 11 |
| 151 | 150 | INDONESIA        | BORNEO-BERAU RIVER        | 2.0N 118.0E       | 3.7N 117.6E      | 40 | LO | 250 | N | N | 19910406 | 062223 | 243 | 275 | 57        | 11 |
| 151 | 151 | INDONESIA        | BORNEO-SIBUKO BAY         | 4.0N 118.5E       | 3.2N 118.6E      | 40 | NV | 250 | N | N | 19910406 | 062241 | 243 | 276 | 56        | 11 |
| 151 | 152 | INDONESIA        | BORNEO-MAHAKAM RIVER DEL  | 0.5N 118.0E       | 2.5N 119.8E      | 45 | LO | 250 | N | N | 19910406 | 062305 | 243 | 277 | 55        | 11 |
| 151 | 153 | INDONESIA        | SULAWESI-DONDO BAY        | 1.0N 120.5E       | 2.1N 120.5E      | 30 | LO | 250 | N | Y | 19910406 | 062318 | 243 | 277 | 54        | 11 |
| 151 | 154 | INDONESIA        | SULAWESI                  | 1.0N 121.5E       | 1.9N 120.9E      | 25 | NV | 250 | N | Y | 19910406 | 062325 | 243 | 278 | 53        | 11 |
| 151 | 155 | INDONESIA        | UNAUNA ISLAND, SULAWESI   | 0.0 121.0E        | 1.6N 121.3E      | 25 | LO | 250 | N | Y | 19910406 | 062333 | 243 | 278 | 53        | 11 |
| 151 | 156 | INDONESIA        | UNAUNA ISLAND, SUNGLINT   | 0.0 121.0E        | 0.1N 123.8E      | 20 | LO | 250 | N | Y | 19910406 | 062422 | 243 | 279 | 50        | 11 |
| 151 | 157 | INDONESIA        | SULA ISLANDS              | 2.0S 126.0E       | 0.9S 125.5E      | 35 | LO | 250 | N | N | 19910406 | 062454 | 243 | 280 | 48        | 11 |
| 151 | 158 | INDONESIA        | NEW GUINEA, RIVER DELTA   | 5.5S 138.0E       | 6.8S 135.8E      | 50 | LO | 250 | N | N | 19910406 | 062810 | 242 | 282 | 36        | 11 |
| 151 | 159 | AUSTRALIA-Q      | PRINCE OF WALES I.        | 10.5S 142.0E      | 9.8S 141.2E      | 65 | NV | 250 | N | Y | 19910406 | 062951 | 242 | 283 | 30        | 11 |
| 151 | 159 | A AUSTRALIA-Q    | CAPE YORK PENINSULA       | 11.5S 142.0E      | 9.9S 141.4E      | 25 | LO | 250 | N | Y | 19910406 | 062957 | 242 | 283 | 29        | 11 |
| 151 | 160 | AUSTRALIA-Q      | CAPE YORK PENINSULA       | 13.0S 143.5E      | 10.7S 142.9E     | 40 | LO | 250 | N | N | 19910406 | 063023 | 242 | 283 | 28        | 11 |
| 151 | 161 | PAPUA NEW GUINEA | EASTERN TIP               | 10.5S 149.0E      | 12.3S 145.9E     | 25 | LO | 250 | N | N | 19910406 | 063118 | 242 | 282 | 24        | 11 |
| 151 | 162 | SAUDI ARABIA     | TUWAYQ PIVOT IRRIGATION   | 25.0N 45.5E       | 25.2N 44.3E      | 10 | NV | 250 | N | Y | 19910406 | 074129 | 246 | 129 | 62        | 12 |
| 151 | 163 | SAUDI ARABIA     | TUWAYQ PIVOT IRRIGATION   | 24.5N 45.5E       | 25.0N 45.0E      | 10 | NV | 250 | N | Y | 19910406 | 074140 | 246 | 130 | 63        | 12 |
| 151 | 164 | SAUDI ARABIA     | TUWAYQ PIVOT IRR.-RIYAD   | 24.0N 47.0E       | 24.7N 46.3E      | 10 | NV | 250 | N | Y | 19910406 | 074159 | 246 | 132 | 64        | 12 |
| 151 | 165 | SAUDI ARABIA     | AL HUFUF-DUNES-PIVOT IRR  | 25.5N 49.0E       | 24.4N 47.4E      | 15 | LO | 250 | N | Y | 19910406 | 074216 | 246 | 133 | 65        | 12 |
| 151 | 166 | SAUDI ARABIA     | GULF OF BAHRAIN-AL HUFUF  | 25.5N 50.0E       | 24.1N 48.7E      | 15 | LO | 250 | N | Y | 19910406 | 074237 | 246 | 135 | 66        | 12 |
| 151 | 167 | SAUDI ARABIA     | AD DAHNA SANDSEA-PIVOT I  | 23.5N 48.5E       | 23.6N 50.4E      | 5  | LO | 250 | N | N | 19910406 | 074304 | 246 | 138 | 67        | 12 |
| 151 | 168 | SAUDI ARABIA     | AL JAFURAH-SALWAH BAY     | 24.0N 50.5E       | 23.3N 51.3E      | 5  | LO | 250 | N | N | 19910406 | 074318 | 246 | 140 | 68        | 12 |
| 151 | 169 | SAUDI ARABIA     | OIL CAMPS-DUNES           | 24.0N 53.0E       | 23.0N 52.2E      | 10 | NV | 250 | N | N | 19910406 | 074333 | 246 | 142 | 69        | 12 |
| 151 | 170 | SAUDI ARABIA     | RUB AL KHALI              | 22.5N 54.0E       | 22.7N 53.4E      | 5  | NV | 250 | N | N | 19910406 | 074352 | 245 | 144 | 70        | 12 |
| 151 | 171 | OMAN             | NORTHEAST OMAN            | 22.5N 57.5E       | 21.9N 55.9E      | 10 | LO | 250 | N | Y | 19910406 | 074433 | 245 | 150 | 72        | 12 |
| 151 | 172 | OMAN             | WADIS-COAST-GULF OF OMAN  | 22.0N 58.0E       | 21.6N 56.7E      | 5  | LO | 250 | N | Y | 19910406 | 074446 | 245 | 152 | 72        | 12 |
| 151 | 173 | OMAN             | COAST-AL MASIRAH          | 21.0N 58.5E       | 21.1N 58.2E      | 10 | LO | 250 | N | Y | 19910406 | 074511 | 245 | 156 | 74        | 12 |
| 151 | 174 | ARABIAN SEA      | SUNGLINT-EDDIES-SHIP WAK  | 19.4N 62.5E       | 19.4N 62.5E      | 5  | LO | 250 | N | Y | 19910406 | 074623 | 245 | 173 | 76        | 12 |
| 151 | 175 | ARABIAN SEA      | SUNGLINT-EDDIES           | 18.5N 64.9E       | 18.5N 64.9E      | 0  | LO | 250 | N | Y | 19910406 | 074703 | 245 | 184 | 77        | 12 |
| 151 | 176 | ARABIAN SEA      | SUNGLINT-LINEAR LINES     | 18.1N 65.8E       | 18.1N 65.8E      | 0  | LO | 250 | N | Y | 19910406 | 074718 | 245 | 189 | 78        | 12 |
| 151 | 177 | ARABIAN SEA      | SUNGLINT                  | 17.6N 67.1E       | 17.6N 67.1E      | 0  | LO | 250 | N | Y | 19910406 | 074741 | 245 | 196 | 78        | 12 |
| 151 | 178 | ARABIAN SEA      | SUNGLINT-SULLOY?          | 17.2N 67.8E       | 17.2N 67.8E      | 0  | LO | 250 | N | Y | 19910406 | 074754 | 245 | 200 | 78        | 12 |
| 151 | 179 | ARABIAN SEA      | SUNGLINT-EDDIES-SURFACTA  | 16.3N 69.9E       | 16.3N 69.9E      | 5  | LO | 250 | N | N | 19910406 | 074830 | 244 | 212 | 78        | 12 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | LONG   | MADIR<br>LAT | LONG   | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|----------------------------|---------------|--------|--------------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 151 | 180 | ARABIAN SEA     | SUNGLINT-EDDIES            | 10.5S         | 120.5E | 14.9N        | 72.9E  | 15 | LO | 250 | N | N | 19910406 | 074923 | 244 | 228 | 77        | 12 |
| 151 | 181 | INDONESIA       | SUMBA-CLOUDS               | 11.0S         | 121.5E | 11.6S        | 120.8E | 30 | LO | 250 | N | Y | 19910406 | 080421 | 242 | 283 | 26        | 12 |
| 151 | 182 | INDONESIA       | SAWU ISLAND-CLOUDS         | 11.0S         | 121.5E | 12.0S        | 121.5E | 30 | LO | 250 | N | Y | 19910406 | 080434 | 242 | 283 | 25        | 12 |
| 151 | 183 | AUSTRALIA-WA    | BUCCANEER ARCH., KING SOU  | 16.0S         | 123.5E | 12.9S        | 123.4E | 40 | LO | 250 | N | N | 19910406 | 080508 | 242 | 282 | 23        | 12 |
| 151 | 184 | ALGERIA         | OUARKIZ RIDGE              | 28.5N         | 8.5W   | 28.5N        | 7.7W   | 0  | NV | 250 | N | N | 19910406 | 080757 | 247 | 104 | 36        | 13 |
| 151 | 185 | ALGERIA         | TOUNASSINE ROCK DESERT     | 28.5N         | 8.5W   | 28.5N        | 5.9W   | 0  | LO | 250 | N | Y | 19910406 | 080822 | 247 | 105 | 38        | 13 |
| 151 | 186 | ALGERIA         | BEN TADJINE MOUNTAINS      | 28.5N         | 4.0W   | 28.5N        | 4.6W   | 0  | NV | 250 | N | Y | 19910406 | 080842 | 247 | 108 | 39        | 13 |
| 151 | 187 | ALGERIA         | TABELBALA RANGE            | 28.5N         | 3.0W   | 28.4N        | 3.2W   | 0  | NV | 250 | N | Y | 19910406 | 080902 | 247 | 107 | 40        | 13 |
| 151 | 188 | ALGERIA         | TABELBALA RANGE            | 28.5N         | 1.0W   | 28.4N        | 1.8W   | 0  | NV | 250 | N | Y | 19910406 | 080922 | 247 | 108 | 41        | 13 |
| 151 | 189 | ALGERIA         | TADEMAIT PLATEAU-ADRAR     | 28.5N         | 0.0    | 28.3N        | 0.5W   | 0  | NV | 250 | N | Y | 19910406 | 080941 | 246 | 109 | 43        | 13 |
| 151 | 190 | ALGERIA         | TADEMAIT PLATEAU           | 28.0N         | 1.5E   | 28.2N        | 0.8E   | 0  | NV | 250 | N | Y | 19910406 | 081001 | 246 | 110 | 44        | 13 |
| 151 | 191 | ALGERIA         | TADEMAIT PLATEAU           | 28.0N         | 3.0E   | 28.1N        | 2.2E   | 0  | NV | 250 | N | Y | 19910406 | 081021 | 246 | 111 | 45        | 13 |
| 151 | 192 | ALGERIA         | TADEMAIT PLATEAU           | 28.0N         | 4.5E   | 28.0N        | 3.6E   | 0  | NV | 250 | N | Y | 19910406 | 081042 | 246 | 112 | 46        | 13 |
| 151 | 193 | ALGERIA         | TADEMAIT PLATEAU           | 28.0N         | 5.5E   | 27.8N        | 5.0E   | 0  | NV | 250 | N | Y | 19910406 | 081102 | 246 | 113 | 48        | 13 |
| 151 | 194 | ALGERIA         | TINRHERT, TADEMAIT PLATEAU | 27.5N         | 7.0E   | 27.7N        | 6.3E   | 0  | NV | 250 | N | Y | 19910406 | 081122 | 246 | 114 | 49        | 13 |
| 151 | 195 | ALGERIA         | ISAOUANE-N-IRRAREN         | 27.5N         | 8.0E   | 27.5N        | 7.7E   | 0  | NV | 250 | N | Y | 19910406 | 081142 | 246 | 115 | 50        | 13 |
| 151 | 196 | ALGERIA         | SAHARA                     | 27.0N         | 9.5E   | 27.3N        | 9.0E   | 0  | NV | 250 | N | Y | 19910406 | 081202 | 246 | 117 | 51        | 13 |
| 151 | 197 | LIBYA           | SAHARA-PIVOT IRRIGATION    | 27.0N         | 10.5E  | 27.1N        | 10.6E  | 0  | NV | 250 | N | Y | 19910406 | 081226 | 246 | 118 | 53        | 13 |
| 151 | 198 | LIBYA           | MARZUQ ROCKY PLAIN         | 26.0N         | 12.5E  | 26.9N        | 12.0E  | 0  | LO | 250 | N | Y | 19910406 | 081246 | 246 | 119 | 54        | 13 |
| 151 | 199 | LIBYA           | ZEGHER ROCKY PLAIN         | 27.0N         | 13.0E  | 26.8N        | 12.4E  | 0  | NV | 250 | N | Y | 19910406 | 081252 | 246 | 120 | 54        | 13 |
| 151 | 200 | LIBYA           | ZEGHER ROCKY PLAIN         | 26.5N         | 14.0E  | 26.7N        | 13.0E  | 0  | NV | 250 | N | Y | 19910406 | 081302 | 246 | 120 | 55        | 13 |
| 151 | 201 | LIBYA           | SABHAH                     | 27.0N         | 15.0E  | 26.5N        | 14.3E  | 0  | NV | 250 | N | Y | 19910406 | 081321 | 246 | 121 | 56        | 13 |
| 151 | 202 | LIBYA           | EL MARZUCHIA SAND DUNES    | 26.0N         | 16.5E  | 26.2N        | 15.7E  | 0  | NV | 250 | N | Y | 19910406 | 081342 | 246 | 123 | 57        | 13 |
| 151 | 203 | LIBYA           | BLACK HARIJ-AL FARID HIL   | 26.0N         | 17.0E  | 26.0N        | 17.0E  | 0  | NV | 250 | N | Y | 19910406 | 081402 | 246 | 124 | 58        | 13 |
| 151 | 204 | LIBYA           | AL FARID HILLS             | 26.0N         | 19.0E  | 25.7N        | 18.3E  | 0  | NV | 250 | N | Y | 19910406 | 081422 | 246 | 126 | 60        | 13 |
| 151 | 205 | LIBYA           | DUNES                      | 25.5N         | 20.5E  | 25.4N        | 19.8E  | 0  | NV | 250 | N | Y | 19910406 | 081442 | 246 | 127 | 61        | 13 |
| 151 | 206 | LIBYA           | CALANCIO SAND SEA          | 25.0N         | 21.5E  | 25.1N        | 21.0E  | 0  | NV | 250 | N | Y | 19910406 | 081503 | 246 | 129 | 62        | 13 |
| 151 | 207 | LIBYA           | AL KUFRAH-PIVOT IRR.       | 25.0N         | 23.0E  | 24.8N        | 22.2E  | 0  | NV | 250 | N | Y | 19910406 | 081522 | 246 | 131 | 63        | 13 |
| 151 | 208 | EGYPT           | ROCKY DESERT-AL KUFRAH     | 24.5N         | 24.5E  | 24.4N        | 23.5E  | 0  | NV | 250 | N | Y | 19910406 | 081542 | 246 | 132 | 64        | 13 |
| 151 | 209 | EGYPT           | GLIF KEBIR PLATEAU         | 24.0N         | 25.5E  | 24.1N        | 24.7E  | 0  | NV | 250 | N | Y | 19910406 | 081601 | 246 | 134 | 65        | 13 |
| 151 | 210 | EGYPT           | GREAT SAND SEA             | 25.5N         | 27.5E  | 23.9N        | 25.4E  | 0  | LO | 250 | N | N | 19910406 | 081613 | 246 | 135 | 66        | 13 |
| 151 | 211 | EGYPT           | GILF KEBIR PLATEAU         | 24.0N         | 27.0E  | 23.7N        | 26.1E  | 0  | NV | 250 | N | Y | 19910406 | 081623 | 246 | 136 | 67        | 13 |
| 151 | 212 | EGYPT           | GREAT SAND SEA             | 24.0N         | 28.0E  | 23.4N        | 27.3E  | 0  | NV | 250 | N | Y | 19910406 | 081642 | 246 | 138 | 68        | 13 |
| 151 | 213 | EGYPT           | ROCKY AREA                 | 23.0N         | 28.5E  | 23.1N        | 28.2E  | 0  | NV | 250 | N | Y | 19910406 | 081657 | 246 | 140 | 68        | 13 |
| 151 | 214 | EGYPT           | LAKE MASSER                | 22.5N         | 30.5E  | 22.6N        | 29.8E  | 0  | NV | 250 | N | Y | 19910406 | 081723 | 246 | 143 | 70        | 13 |
| 151 | 215 | EGYPT           | LAKE MASSER                | 22.0N         | 31.5E  | 22.2N        | 31.0E  | 5  | NV | 250 | N | Y | 19910406 | 081742 | 245 | 146 | 71        | 13 |
| 151 | 216 | EGYPT           | NUBIAN DESERT              | 22.0N         | 33.0E  | 21.8N        | 32.1E  | 25 | NV | 250 | N | Y | 19910406 | 081801 | 245 | 149 | 72        | 13 |
| 151 | 217 | EGYPT           | NUBIAN DESERT              | 21.5N         | 34.0E  | 21.4N        | 33.4E  | 25 | NV | 250 | N | Y | 19910406 | 081822 | 245 | 152 | 73        | 13 |
| 151 | 218 | EGYPT           | NUBIAN DESERT              | 21.5N         | 35.0E  | 21.1N        | 34.2E  | 15 | NV | 250 | N | Y | 19910406 | 081834 | 245 | 154 | 73        | 13 |
| 151 | 219 | EGYPT           | NUBIAN DESERT              | 21.0N         | 35.5E  | 20.9N        | 34.9E  | 5  | NV | 250 | N | Y | 19910406 | 081846 | 245 | 156 | 74        | 13 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|--------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 151 | 220 | EGYPT           | COAST-YUDEB WADI         | 20.0N         | 36.5E         | 20.6N        | 35.6E        | 10 | NV | 250 | N | Y | 19910406 | 091858 | 245 | 159 | 74        | 13 |
| 151 | 221 | EGYPT           | COAST-RED SFA            | 20.0N         | 37.0E         | 20.3N        | 36.3E        | 20 | NV | 250 | N | Y | 19910406 | 091910 | 245 | 161 | 75        | 13 |
| 151 | 222 | ETHIOPIA        | COAST-DEHALAK ISLAND     | 16.5N         | 39.0E         | 19.9N        | 37.5E        | 40 | LO | 250 | N | Y | 19910406 | 091929 | 245 | 165 | 76        | 13 |
| 151 | 223 | RED SEA         | SUNGLINT-OFF COAST SAUDI |               |               | 19.6N        | 38.2E        | 10 | LO | 250 | N | Y | 19910406 | 091942 | 245 | 169 | 76        | 13 |
| 151 | 224 | RED SEA         | CENTRAL SAUDI COAST      | 18.5N         | 40.0E         | 19.1N        | 39.4E        | 10 | LO | 250 | N | Y | 19910406 | 092002 | 245 | 174 | 77        | 13 |
| 151 | 225 | SAUDI ARABIA    | COAST-QUTU ISLAND        | 18.5N         | 41.0E         | 18.7N        | 40.6E        | 20 | NV | 250 | N | Y | 19910406 | 092022 | 245 | 179 | 77        | 13 |
| 151 | 226 | SAUDI ARABIA    | HIBATA-SUNGLINT          | 18.0N         | 42.5E         | 18.2N        | 41.8E        | 15 | NV | 250 | N | Y | 19910406 | 092042 | 245 | 185 | 78        | 13 |
| 151 | 227 | SAUDI ARABIA    | FARASAN ISLANDS          | 16.0N         | 42.0E         | 17.7N        | 42.9E        | 15 | LO | 250 | N | Y | 19910406 | 092101 | 245 | 191 | 78        | 13 |
| 151 | 228 | SAUDI ARABIA    | WADI IDIMAH              | 18.5N         | 44.0E         | 17.5N        | 43.3E        | 35 | LO | 250 | N | Y | 19910406 | 092108 | 245 | 194 | 78        | 13 |
| 151 | 229 | SAUDI ARABIA    | WADI NAJHRAN-NAIRAN      | 17.5N         | 44.0E         | 17.2N        | 44.1E        | 30 | NV | 250 | N | Y | 19910406 | 092122 | 245 | 198 | 78        | 13 |
| 151 | 230 | SAUDI ARABIA    | TUMAYQ IRRIGATION        | 20.0N         | 45.0E         | 17.0N        | 44.5E        | 5  | LO | 250 | N | N | 19910406 | 092129 | 245 | 201 | 78        | 13 |
| 151 | 231 | YEMEN (SANA)    | WADI NAJHRAN-NAIRAN      | 17.0N         | 44.5E         | 16.7N        | 45.2E        | 10 | NV | 250 | N | Y | 19910406 | 092141 | 245 | 205 | 78        | 13 |
| 151 | 232 | YEMEN (ADEN)    | AS SAB'ATAYN DUNES       | 18.0N         | 47.0E         | 16.2N        | 46.3E        | 5  | NV | 250 | N | Y | 19910406 | 092201 | 245 | 211 | 78        | 13 |
| 151 | 233 | YEMEN (ADEN)    | WADI DAW'AN-COAST        | 15.5N         | 48.5E         | 15.5N        | 47.7E        | 5  | NV | 250 | N | Y | 19910406 | 092226 | 244 | 219 | 78        | 13 |
| 151 | 234 | YEMEN (ADEN)    | HADRAMAWT MNTS. -COAST   | 15.0N         | 49.0E         | 15.1N        | 48.6E        | 5  | NV | 250 | N | Y | 19910406 | 092242 | 244 | 224 | 77        | 13 |
| 151 | 235 | YEMEN (ADEN)    | COAST                    | 14.0N         | 50.5E         | 14.6N        | 49.7E        | 15 | NV | 250 | N | Y | 19910406 | 092302 | 244 | 230 | 77        | 13 |
| 151 | 236 | SOCOTRA         | ENTIRE ISLAND-SUNGLINT   | 12.5N         | 53.5E         | 12.8N        | 53.4E        | 10 | NV | 250 | N | N | 19910406 | 092407 | 244 | 245 | 75        | 13 |
| 151 | 237 | MALDIVES        | KOLUMADULU,NILANDU ATOLS | 2.5N          | 72.5E         | 2.7N         | 71.6E        | 15 | NV | 250 | N | N | 19910406 | 092949 | 243 | 277 | 56        | 13 |
| 151 | 238 | ATLANTIC OCEAN  | LAYERED CLOUDS           |               |               | 27.9N        | 19.7W        | 95 | LO | 250 | N | N | 19910406 | 104417 | 246 | 112 | 47        | 14 |
| 151 | 239 | CANARY ISLANDS  | HIERRO-CLOUD VORTICES    |               |               | 27.9N        | 19.0W        | 80 | LO | 250 | N | N | 19910406 | 104426 | 246 | 113 | 47        | 14 |
| 151 | 240 | WESTERN SAHARA  | COAST-INDS CONVEYOR BELT | 26.0N         | 14.5W         | 27.2N        | 13.6W        | 50 | LO | 250 | N | N | 19910406 | 104547 | 246 | 117 | 52        | 14 |
| 151 | 241 | WESTERN SAHARA  | TINDOUF SYNCLINE         | 27.0N         | 12.0W         | 26.7N        | 10.9W        | 20 | LO | 250 | N | N | 19910406 | 104628 | 246 | 120 | 54        | 14 |
| 151 | 242 | AFRICA          | ALGERIA-MAURIT-ERG IGUID |               |               | 26.3N        | 8.7W         | 5  | LO | 250 | N | N | 19910406 | 104700 | 246 | 122 | 56        | 14 |
| 151 | 243 | MALI            | ERG CHECH                | 25.5N         | 5.0W          | 25.5N        | 4.7W         | 0  | NV | 250 | N | Y | 19910406 | 104802 | 246 | 126 | 60        | 14 |
| 151 | 244 | ALGERIA         | SAFRA ROCK DESERT        | 25.5N         | 5.0W          | 25.3N        | 4.0W         | 0  | LO | 250 | N | Y | 19910406 | 104813 | 246 | 127 | 61        | 14 |
| 151 | 245 | ALGERIA         | ERG CHECH                |               |               | 24.6N        | 1.1W         | 0  | LO | 250 | N | N | 19910406 | 104857 | 246 | 130 | 63        | 14 |
| 151 | 246 | ALGERIA         | ASSEDJRAD ESCARPMENT     | 25.0N         | 1.0E          | 24.3N        | 0.3E         | 0  | NV | 250 | N | Y | 19910406 | 104919 | 246 | 132 | 65        | 14 |
| 151 | 247 | ALGERIA         | IN AFARAG SAND DUNES     | 23.5N         | 2.5E          | 23.4N        | 3.3E         | 0  | NV | 250 | N | Y | 19910406 | 105007 | 246 | 137 | 67        | 14 |
| 151 | 248 | ALGERIA         | TIDERIDJAUINE MOUNTAIN   | 22.5N         | 2.5E          | 23.3N        | 3.7E         | 0  | LO | 250 | N | Y | 19910406 | 105014 | 246 | 138 | 68        | 14 |
| 151 | 249 | ALGERIA         | AHAGGAR MOUNTAINS        | 22.5N         | 5.0E          | 22.7N        | 5.7E         | 0  | NV | 250 | N | Y | 19910406 | 105045 | 246 | 141 | 69        | 14 |
| 151 | 250 | ALGERIA         | AHAGGAR PLATEAU          | 21.5N         | 6.5E          | 22.1N        | 7.4E         | 0  | LO | 250 | N | Y | 19910406 | 105114 | 245 | 145 | 71        | 14 |
| 151 | 251 | ALGERIA         | AHAGGAR MOUNTAINS        | 23.0N         | 7.0E          | 21.8N        | 8.2E         | 0  | LO | 250 | N | Y | 19910406 | 105127 | 245 | 147 | 71        | 14 |
| 151 | 252 | ALGERIA         | DU TAFASSASSET DESERT    |               |               | 20.8N        | 11.3E        | 0  | LO | 250 | N | N | 19910406 | 105217 | 245 | 155 | 74        | 14 |
| 151 | 253 | AFRICA          | NIGER-CHAD-NEAR TIBESTI  |               |               | 19.2N        | 15.3E        | 0  | LO | 250 | N | N | 19910406 | 105325 | 245 | 171 | 76        | 14 |
| 151 | 254 | CHAD            | NEAR TIBESTI             |               |               | 18.2N        | 17.8E        | 0  | LO | 250 | N | N | 19910406 | 105407 | 245 | 183 | 78        | 14 |
| 151 | 255 | CHAD            | ERG DU DJOURAB           | 16.5N         | 18.5E         | 17.5N        | 19.4E        | 10 | LO | 250 | N | N | 19910406 | 105434 | 245 | 191 | 78        | 14 |
| 151 | 256 | CHAD            | ENNEDI PLAT-HABILI HILLS | 16.0N         | 23.0E         | 16.3N        | 22.2E        | 15 | LO | 250 | N | N | 19910406 | 105524 | 245 | 208 | 78        | 14 |
| 151 | 257 | CHAD            | ENNEDI UMM SAQAT         | 15.5N         | 23.0E         | 15.5N        | 23.9E        | 25 | LO | 250 | N | N | 19910406 | 105553 | 244 | 218 | 78        | 14 |
| 151 | 258 | SUDAN           | CLOUDS-WADIS             |               |               | 14.5N        | 26.0E        | 75 | LO | 250 | N | N | 19910406 | 105631 | 244 | 229 | 77        | 14 |
| 151 | 259 | SUDAN           | WADI AL GHALLAH          | 12.0N         | 27.5E         | 13.8N        | 27.5E        | 15 | LO | 250 | N | N | 19910406 | 105657 | 244 | 236 | 76        | 14 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME      | FEATURE                  | CENTER |       | NADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | EL | OR  |
|-----|-----|----------------------|--------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|----|-----|
|     |     |                      |                          | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |    | SUM |
| 151 | 280 | SUDAN                | WADI AYAK                | 13.0N  | 29.0E | 12.8N | 29.6E | 15 | NV | 250 | N | N | 19910406 | 105735 | 244 | 245 | 75 | 14  |
| 152 | 1   | ETHIOPIA             | LAKE ABAYA, LAKE CH'AMO  | 6.5N   | 37.5E | 7.9N  | 38.8E | 70 | LO | 250 | N | N | 19910406 | 110022 | 243 | 267 | 67 | 14  |
| 152 | 2   | ETHIOPIA             | GENALE RIVER             | 5.0N   | 41.5E | 6.3N  | 41.6E | 60 | LO | 250 | N | Y | 19910406 | 110118 | 243 | 271 | 63 | 14  |
| 152 | 3   | ETHIOPIA             | WABE GESTRO RIVER        | 6.0N   | 41.5E | 6.2N  | 41.8E | 50 | NV | 250 | N | Y | 19910406 | 110122 | 243 | 271 | 63 | 14  |
| 152 | 4   | ETHIOPIA             | KUS DULAMC MOUNTAINS     | 7.0N   | 42.5E | 6.0N  | 42.0E | 40 | NV | 250 | N | Y | 19910406 | 110127 | 243 | 272 | 63 | 14  |
| 152 | 5   | ETHIOPIA             | SHEBELE RIVER            | 5.0N   | 44.5E | 5.5N  | 42.9E | 40 | LO | 250 | N | N | 19910406 | 110143 | 243 | 273 | 62 | 14  |
| 152 | 6   | SOMALIA              | NEAR COAST-SAND DUNES    | 4.0N   | 46.5E | 3.8N  | 45.8E | 50 | NV | 250 | N | Y | 19910406 | 110239 | 243 | 275 | 59 | 14  |
| 152 | 7   | SOMALIA              | COAST-ITALA              | 3.0N   | 45.5E | 3.7N  | 46.0E | 50 | NV | 250 | N | Y | 19910406 | 110242 | 243 | 276 | 59 | 14  |
| 152 | 8   | SOMALIA              | COAST-MUGDISHO           | 2.5N   | 45.0E | 3.7N  | 46.2E | 55 | LO | 250 | N | Y | 19910406 | 110245 | 243 | 276 | 58 | 14  |
| 152 | 9   | SOMALIA              | COAST-DUNES-MUGDISHO     | 2.0N   | 44.0E | 3.4N  | 46.6E | 60 | LO | 250 | N | Y | 19910406 | 110253 | 243 | 276 | 58 | 14  |
| 152 | 10  | SOMALIA              | COAST-DUNES-ITALA        | 2.5N   | 47.0E | 2.6N  | 47.9E | 15 | NV | 250 | N | Y | 19910406 | 110318 | 243 | 277 | 56 | 14  |
| 152 | 11  | SOMALIA              | COAST-DUNES-CLOUDS       | 3.0N   | 47.5E | 2.5N  | 48.1E | 15 | NV | 250 | N | Y | 19910406 | 110323 | 243 | 277 | 56 | 14  |
| 152 | 12  | SOMALIA              | COAST-DUNES              | 3.5N   | 48.0E | 2.3N  | 48.4E | 15 | LO | 250 | N | Y | 19910406 | 110328 | 243 | 277 | 56 | 14  |
| 152 | 13  | MAURITANIA           | RICHAT STRUCTURE-E.CHECH | 20.5N  | 10.5W | 19.9N | 10.3W | 0  | NV | 250 | N | N | 19910406 | 122622 | 245 | 161 | 75 | 15  |
| 152 | 14  | NIGERIA              | BENUE RIVER              | 9.5N   | 11.5E | 9.3N  | 12.3E | 20 | NV | 250 | N | Y | 19910406 | 123303 | 243 | 263 | 70 | 15  |
| 152 | 15  | NIGERIA              | BENUE RIVER-RESERVOIR    | 9.0N   | 13.0E | 8.5N  | 13.8E | 25 | NV | 250 | N | Y | 19910406 | 123330 | 243 | 265 | 68 | 15  |
| 152 | 16  | AFRICA               | CHAD,CAMEROON,C.AFRICA R | 7.3N   | 15.9E | 7.3N  | 15.9E | 60 | LO | 250 | N | N | 19910406 | 123411 | 243 | 269 | 66 | 15  |
| 152 | 17  | CENTRAL AFRICAN REP. | OUHMAN R.-BOSSANGOA      | 6.5N   | 17.0E | 6.4N  | 17.5E | 25 | NV | 250 | N | Y | 19910406 | 123440 | 243 | 271 | 64 | 15  |
| 152 | 18  | CENTRAL AFRICAN REP. | OUHMAN R.-BOSSANGOA      | 6.0N   | 18.0E | 5.7N  | 18.6E | 45 | NV | 250 | N | Y | 19910406 | 123502 | 243 | 272 | 63 | 15  |
| 152 | 19  | ZAIRE                | UBANGI R.-BANGUI         | 5.0N   | 19.5E | 5.1N  | 19.8E | 65 | NV | 250 | N | Y | 19910406 | 123525 | 243 | 274 | 62 | 15  |
| 152 | 20  | ZAIRE                | UBANGI RIVER             | 4.0N   | 20.0E | 4.4N  | 21.0E | 70 | LO | 250 | N | Y | 19910406 | 123546 | 243 | 275 | 60 | 15  |
| 152 | 21  | ZAIRE                | UBANGI R.-BUSINGA        | 3.5N   | 21.0E | 3.9N  | 21.9E | 70 | LO | 250 | N | Y | 19910406 | 123604 | 243 | 275 | 59 | 15  |
| 152 | 22  | ZAIRE                | LAKE EDWARD              | 0.5S   | 29.5E | 0.8S  | 29.9E | 85 | NV | 250 | N | N | 19910406 | 123838 | 243 | 281 | 50 | 15  |
| 152 | 23  | TANZANIA             | LAKE VICTORIA            | 2.5S   | 32.5E | 2.7S  | 33.1E | 40 | NV | 250 | N | N | 19910406 | 123939 | 242 | 282 | 46 | 15  |
| 152 | 24  | TANZANIA             | L. NATRON-L. MANYARA     | 3.0S   | 36.0E | 3.1S  | 33.8E | 50 | LO | 250 | N | Y | 19910406 | 123951 | 242 | 282 | 46 | 15  |
| 152 | 25  | TANZANIA             | L. MANYARA               | 4.0S   | 35.5E | 3.2S  | 34.0E | 50 | LO | 250 | N | Y | 19910406 | 123956 | 242 | 282 | 45 | 15  |
| 152 | 26  | TANZANIA             | NEAR L. MANYARA          | 4.5S   | 36.0E | 3.4S  | 34.3E | 50 | LO | 250 | N | Y | 19910406 | 124001 | 242 | 282 | 45 | 15  |
| 152 | 27  | TANZANIA             | MT. KITUMBEINE           | 3.0S   | 36.5E | 3.7S  | 34.9E | 50 | LO | 250 | N | Y | 19910406 | 124012 | 242 | 282 | 44 | 15  |
| 152 | 28  | TANZANIA             | MT. KITUMBEINE,KILIMANJA | 3.0S   | 36.5E | 3.8S  | 35.1E | 40 | LO | 250 | N | Y | 19910406 | 124017 | 242 | 282 | 44 | 15  |
| 152 | 29  | TANZANIA             | SOUTH PARE MNTS.         | 4.5S   | 37.5E | 4.0S  | 35.4E | 45 | LO | 250 | N | Y | 19910406 | 124023 | 242 | 282 | 44 | 15  |
| 152 | 30  | TANZANIA             | MNTS., WOODED AREA       | 5.0S   | 36.0E | 4.5S  | 36.2E | 55 | NV | 250 | N | Y | 19910406 | 124038 | 242 | 283 | 43 | 15  |
| 152 | 31  | TANZANIA             | MNTS., NEAR COAST        | 6.0S   | 38.0E | 4.8S  | 36.7E | 40 | LO | 250 | N | Y | 19910406 | 124047 | 242 | 283 | 42 | 15  |
| 152 | 32  | KENYA                | COAST-PENBA ISLAND       | 4.5S   | 39.0E | 4.8S  | 36.9E | 45 | LO | 250 | N | Y | 19910406 | 124050 | 242 | 283 | 42 | 15  |
| 152 | 33  | TANZANIA             | USAMBARA MOUNTAINS       | 4.5S   | 38.5E | 5.0S  | 37.1E | 45 | NV | 250 | N | Y | 19910406 | 124054 | 242 | 283 | 42 | 15  |
| 152 | 34  | TANZANIA             | PENBA, ZANZIBAR ISLANDS  | 5.5S   | 39.5E | 5.1S  | 37.3E | 15 | LO | 250 | N | Y | 19910406 | 124058 | 242 | 283 | 41 | 15  |
| 152 | 35  | TANZANIA             | DAR ES SALAAM,ZANZIBAR I | 6.5S   | 39.0E | 5.2S  | 37.5E | 25 | LO | 250 | N | Y | 19910406 | 124102 | 242 | 283 | 41 | 15  |
| 152 | 36  | TANZANIA             | L.KITANGIRI,WEMBERE SWAM | 4.5S   | 34.0E | 5.5S  | 38.0E | 70 | LO | 250 | N | N | 19910406 | 124112 | 242 | 283 | 41 | 15  |
| 152 | 37  | TANZANIA             | RUFJI RIVER, COAST       | 8.0S   | 38.5E | 6.3S  | 39.4E | 70 | LO | 250 | N | Y | 19910406 | 124139 | 242 | 283 | 39 | 15  |
| 152 | 38  | TANZANIA             | KISWERE HAVEN, COAST     | 9.5S   | 39.5E | 6.5S  | 39.8E | 60 | LO | 250 | N | Y | 19910406 | 124146 | 242 | 283 | 38 | 15  |
| 152 | 39  | MOZAMBIQUE           | CABO DEGADO, COAST       | 11.0S  | 41.0E | 7.6S  | 41.7E | 60 | LO | 250 | N | Y | 19910406 | 124221 | 242 | 283 | 36 | 15  |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR | GEOGRAPHIC NAME   | FEATURE                    | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|----|-------------------|----------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 40 | MOZAMBIQUE        | CABO DEGADO, COAST         | 11.0S 40.0E          | 8.2S 42.8E          | 65 | LO | 250 | N | Y | 19910406 | 124242 | 242 | 283 | 35        | 15 |
| 152 | 41 | MADAGASCAR        | MAHAJAMBA BAY              | 14.5S 47.0E          | 10.9S 47.9E         | 50 | LO | 250 | N | Y | 19910406 | 124416 | 242 | 283 | 29        | 15 |
| 152 | 42 | MADAGASCAR        | MAHAJAMBA, BOMBETOKA BAY   |                      | 11.1S 48.1E         | 75 | LO | 250 | N | Y | 19910406 | 124421 | 242 | 283 | 29        | 15 |
| 152 | 43 | MADAGASCAR        | CAP D' AMBRE               | 12.5S 49.0E          | 11.4S 48.8E         | 45 | NV | 250 | N | Y | 19910406 | 124434 | 242 | 283 | 28        | 15 |
| 152 | 44 | MADAGASCAR        | CAP D' AMBRE               | 12.0S 48.5E          | 11.6S 49.2E         | 30 | NV | 250 | N | Y | 19910406 | 124440 | 242 | 283 | 28        | 15 |
| 152 | 45 | MADAGASCAR        | NORTH EASTERN TIP          | 12.5S 48.5E          | 11.8S 49.6E         | 45 | LO | 250 | N | Y | 19910406 | 124448 | 242 | 283 | 27        | 15 |
| 152 | 46 | GUINEA            | COAST-SHUTTLE TAIL         | 10.0N 14.5W          | 23.1S 163.7W        | 10 | NV | 250 | N | Y | 19910406 | 050525 | 243 | 275 | -4        | 10 |
| 152 | 47 | GUINEA            | CONAKRY-SHUTTLE TAIL       | 9.5N 13.5W           | 10.8N 14.4W         | 30 | LO | 250 | N | Y | 19910406 | 140537 | 244 | 256 | 73        | 16 |
| 152 | 48 | ANGOLA            | ANGOLA, NAMIBIA COAST      |                      | 5.9S 14.8E          | 40 | HO | 250 | N | Y | 19910406 | 141451 | 242 | 283 | 40        | 16 |
| 152 | 49 | ANGOLA            | COAST-ANGOLA & NAMIBIA     | 13.5S 12.5E          | 6.6S 16.1E          | 50 | HO | 250 | N | Y | 19910406 | 141515 | 242 | 283 | 39        | 16 |
| 152 | 50 | AFRICA            | ZAIRE, ANGOLA, ZAMBIA      |                      | 10.5S 23.3E         | 85 | LO | 250 | N | Y | 19910406 | 141729 | 242 | 284 | 30        | 16 |
| 152 | 51 | AFRICA            | ZAIRE, ANGOLA, ZAMBIA      |                      | 11.3S 24.8E         | 90 | LO | 250 | N | Y | 19910406 | 141757 | 242 | 283 | 29        | 16 |
| 152 | 52 | ZAMBIA            | ZAMBEZI RIVER              | 16.5S 22.5E          | 12.1S 26.3E         | 85 | LO | 250 | N | Y | 19910406 | 141825 | 242 | 283 | 27        | 16 |
| 152 | 53 | ZAMBIA            | ZAMBEZI RIVER              | 16.5S 22.5E          | 12.6S 27.3E         | 85 | HO | 250 | N | Y | 19910406 | 141843 | 242 | 283 | 26        | 16 |
| 152 | 54 | ZAMBIA            | LAKE KARIBA                | 17.5S 27.5E          | 13.6S 29.3E         | 30 | LO | 250 | N | Y | 19910406 | 141919 | 242 | 283 | 23        | 16 |
| 152 | 55 | ZIMBABWE          | LAKE KARIBA, NTWETWE       | 18.5S 27.0E          | 14.3S 30.8E         | 30 | LO | 250 | N | Y | 19910406 | 141945 | 242 | 283 | 22        | 16 |
| 152 | 56 | ZIMBABWE          | LAKE KARIBA                | 18.0S 27.0E          | 14.5S 31.2E         | 30 | LO | 250 | N | Y | 19910406 | 141953 | 242 | 283 | 21        | 16 |
| 152 | 57 | ZIMBABWE          | MASHABA MOUNTAINS          | 19.0S 30.0E          | 15.1S 32.3E         | 30 | LO | 250 | N | Y | 19910406 | 142012 | 242 | 282 | 20        | 16 |
| 152 | 58 | ZIMBABWE          | RIO SAVE                   | 21.0S 32.0E          | 15.9S 34.0E         | 10 | LO | 250 | N | Y | 19910406 | 142043 | 242 | 282 | 18        | 16 |
| 152 | 59 | MOZAMBIQUE        | RIO SAVE                   | 22.0S 33.5E          | 16.4S 35.3E         | 40 | LO | 250 | N | Y | 19910406 | 142105 | 242 | 282 | 17        | 16 |
| 152 | 60 | MOZAMBIQUE        | RIO SAVE-COAST-HAZE        | 21.0S 34.0E          | 17.2S 37.0E         | 40 | LO | 250 | N | Y | 19910406 | 142135 | 242 | 281 | 15        | 16 |
| 152 | 61 | MOZAMBIQUE        | ZAMBEZI RIVER DELTA        | 19.0S 36.0E          | 17.7S 38.2E         | 5  | LO | 250 | N | Y | 19910406 | 142155 | 242 | 281 | 14        | 16 |
| 152 | 62 | MEXICO            | RIO FUERTE, LA MOCHIS      | 26.0N 109.0W         | 27.0N 108.0W        | 5  | LO | 250 | N | Y | 19910406 | 165948 | 246 | 116 | 51        | 18 |
| 152 | 63 | MEXICO            | SIERRA MADRE OCCIDENTAL    | 26.0N 106.5W         | 26.6N 105.8W        | 30 | LO | 250 | N | Y | 19910406 | 170021 | 246 | 118 | 53        | 18 |
| 152 | 64 | MEXICO            | TORREON                    | 25.0N 103.5W         | 26.4N 104.4W        | 35 | LO | 250 | N | Y | 19910406 | 170042 | 246 | 119 | 55        | 18 |
| 152 | 65 | MEXICO            | NEAR TORREON               | 24.5N 103.5W         | 26.1N 102.8W        | 25 | LO | 250 | N | Y | 19910406 | 170106 | 246 | 121 | 56        | 18 |
| 152 | 66 | MEXICO            | CLOUDS                     |                      | 25.4N 100.0W        | 95 | LO | 250 | N | Y | 19910406 | 170149 | 246 | 123 | 59        | 18 |
| 152 | 67 | SOUTH AMERICA     | COLUMBIA, PANAMA, G. URABA |                      | 6.9N 78.9W          | 90 | LO | 250 | N | Y | 19910406 | 184807 | 244 | 270 | 67        | 19 |
| 152 | 68 | BRAZIL            | AMAZON RIVER-CLOUDS        | 2.5S 64.5W           | 2.6S 62.4W          | 50 | LO | 250 | N | Y | 19910406 | 185322 | 243 | 282 | 48        | 19 |
| 152 | 69 | BRAZIL            | AMAZON RIVER-CLOUDS        | 3.5S 62.5W           | 2.9S 62.0W          | 85 | LO | 250 | N | Y | 19910406 | 185331 | 243 | 283 | 48        | 19 |
| 152 | 70 | BRAZIL            | RIO SAO FRANCISCO, GRIDS   | 13.0S 43.5W          | 13.4S 42.8W         | 25 | NV | 250 | N | Y | 19910406 | 185928 | 243 | 284 | 25        | 19 |
| 152 | 71 | GALAPAGOS ISLANDS | SAN SALVADOR, ISABELA ILS  | 0.5S 90.5W           | 0.9S 89.2W          | 25 | NV | 250 | N | Y | 19910406 | 202552 | 243 | 281 | 52        | 20 |
| 152 | 72 | PERU              | POINT AGUJA, SECHURA BAY   | 6.0S 81.0W           | 5.5S 81.3W          | 20 | NV | 250 | N | Y | 19910406 | 202823 | 243 | 284 | 43        | 20 |
| 152 | 73 | USA-HI            | OAHU, MOLOKAI, LANAI       | 21.5N 157.5W         | 21.8N 158.1W        | 35 | NV | 250 | N | Y | 19910406 | 214542 | 245 | 139 | 70        | 21 |
| 152 | 74 | USA-HI            | MOLOKAI, LANAI, MAUI       | 21.5N 157.0W         | 21.3N 157.2W        | 40 | NV | 250 | N | Y | 19910406 | 214557 | 245 | 141 | 71        | 21 |
| 152 | 75 | USA-HI            | HAWAII, MAUNA KEA-CLOUDS   | 20.5N 155.0W         | 20.8N 156.0W        | 90 | NV | 250 | N | Y | 19910406 | 214618 | 245 | 144 | 72        | 21 |
| 152 | 76 | USA-HI            | MAUI-CLOUDS                | 20.5N 155.5W         | 20.4N 154.9W        | 90 | NV | 250 | N | Y | 19910406 | 214635 | 245 | 146 | 73        | 21 |
| 152 | 77 | LIBYA             | COAST-MED.-CRETE           |                      | 27.2N 24.1E         | 50 | HO | 250 | N | Y | 19910407 | 051814 | 246 | 89  | 14        | 26 |
| 152 | 78 | EGYPT             | SALT PANS NEAR QATTARA D   | 28.5N 27.0E          | 27.6N 26.7E         | 0  | NV | 250 | N | Y | 19910407 | 051853 | 246 | 91  | 17        | 26 |
| 152 | 79 | EGYPT             | NILE R. VALLEY-G.OF SUEZ   | 27.5N 31.5E          | 27.7N 27.9E         | 0  | LO | 250 | N | Y | 19910407 | 051911 | 246 | 91  | 18        | 26 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | LONG   | MADIR<br>LAT | LONG   | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|--------------------------|---------------|--------|--------------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 80  | EGYPT           | GR. BITTER L.-FIRES,NILE | 30.5N         | 33.0E  | 27.8N        | 28.6E  | 0  | LO | 250 | N | N | 19910407 | 051922 | 246 | 92  | 18        | 26 |
| 152 | 81  | EGYPT           | SINAI PEN.-G.OF AQABA    | 28.5N         | 34.5E  | 28.2N        | 33.1E  | 0  | NV | 250 | N | N | 19910407 | 052028 | 246 | 94  | 23        | 26 |
| 152 | 82  | JORDAN          | DEAD SEA                 | 31.0N         | 35.5E  | 28.3N        | 34.0E  | 0  | LO | 250 | N | N | 19910407 | 052041 | 246 | 95  | 23        | 26 |
| 152 | 83  | EGYPT           | SINAI PEN.-SUEZ CANAL    | 30.5N         | 33.5E  | 28.4N        | 35.7E  | 0  | LO | 250 | N | N | 19910407 | 052106 | 246 | 96  | 25        | 26 |
| 152 | 84  | SAUDI ARABIA    | AL HIJAZ                 | 27.5N         | 36.5E  | 28.4N        | 36.6E  | 0  | NV | 250 | N | N | 19910407 | 052119 | 246 | 96  | 26        | 26 |
| 152 | 85  | SAUDI ARABIA    | AL HARRAH,VOLCANIC FIELD | 30.5N         | 38.5E  | 28.5N        | 38.0E  | 0  | LO | 250 | N | N | 19910407 | 052139 | 246 | 97  | 27        | 26 |
| 152 | 86  | SAUDI ARABIA    | WADIS, SMOKE FROM KUWAIT | 29.5N         | 42.5E  | 28.5N        | 41.4E  | 0  | LO | 250 | N | N | 19910407 | 052229 | 246 | 98  | 30        | 26 |
| 152 | 87  | SAUDI ARABIA    | PIVOT IRR.-KUWAIT SMOKE  | 27.0N         | 47.5E  | 28.5N        | 42.7E  | 15 | LO | 250 | N | Y | 19910407 | 052247 | 246 | 100 | 31        | 26 |
| 152 | 88  | SAUDI ARABIA    | COAST-KUWAIT OIL FIRES   | 28.5N         | 48.5E  | 28.5N        | 44.0E  | 0  | LO | 250 | N | Y | 19910407 | 052307 | 246 | 101 | 33        | 26 |
| 152 | 89  | PERSIAN GULF    | KUWAIT-KUWAIT OIL FIRES  | 29.0N         | 48.7E  | 28.5N        | 45.6E  | 0  | LO | 250 | N | Y | 19910407 | 052330 | 246 | 102 | 34        | 26 |
| 152 | 90  | IRAQ            | TIGRIS R.-HAMMAR MARSH   | 31.0N         | 47.5E  | 28.4N        | 46.6E  | 0  | LO | 250 | N | Y | 19910407 | 052345 | 246 | 102 | 35        | 26 |
| 152 | 91  | KUWAIT          | FAYLAKA I.-KUWAIT FIRES  | 29.5N         | 48.5E  | 28.4N        | 47.9E  | 0  | LO | 250 | N | Y | 19910407 | 052403 | 246 | 103 | 36        | 26 |
| 152 | 92  | IRAQ            | ZUBAY R.-KUWAIT FIRES    | 30.0N         | 48.0E  | 28.3N        | 48.7E  | 0  | LO | 250 | N | Y | 19910407 | 052415 | 246 | 104 | 37        | 26 |
| 152 | 93  | PERSIAN GULF    | KUWAIT COAST-OIL SMOKE   | 28.5N         | 49.0E  | 28.3N        | 49.9E  | 0  | NV | 250 | N | N | 19910407 | 052432 | 246 | 104 | 38        | 26 |
| 152 | 94  | IRAQ            | IRAQ-IRAN BOR.-OIL FIRES | 30.5N         | 48.3E  | 28.2N        | 50.8E  | 0  | LO | 250 | N | Y | 19910407 | 052445 | 246 | 105 | 39        | 26 |
| 152 | 95  | IRAN            | TIGRIS R. DELTA-OIL FIRE | 30.1N         | 48.8E  | 28.2N        | 51.3E  | 0  | LO | 250 | N | Y | 19910407 | 052453 | 246 | 105 | 39        | 26 |
| 152 | 96  | IRAN            | ZAGROS MOUNTAINS         | 28.0N         | 52.0E  | 28.0N        | 52.9E  | 0  | LO | 250 | N | N | 19910407 | 052517 | 246 | 106 | 41        | 26 |
| 152 | 97  | IRAN            | ZAGROS MNTS.-SALT PANS   | 30.5N         | 54.5E  | 27.9N        | 54.0E  | 0  | LO | 250 | N | N | 19910407 | 052533 | 246 | 107 | 42        | 26 |
| 152 | 98  | IRAN            | COAST-HORMOZ I.-LARAK I. | 27.0N         | 57.0E  | 27.6N        | 56.7E  | 10 | NV | 250 | N | N | 19910407 | 052612 | 246 | 109 | 44        | 26 |
| 152 | 99  | OMAN            | AKHDAR MNTS.-COAST       | 24.5N         | 58.5E  | 27.4N        | 58.1E  | 60 | LO | 250 | N | N | 19910407 | 052634 | 246 | 110 | 46        | 26 |
| 152 | 100 | IRAN            | IRAN-PAKISTAN BOR.-MNTS. | 28.0N         | 62.0E  | 27.2N        | 59.8E  | 5  | LO | 250 | N | N | 19910407 | 052658 | 246 | 111 | 47        | 26 |
| 152 | 101 | PAKISTAN        | CENTRAL MAKRRAN RANGE    | 26.5N         | 65.0E  | 26.8N        | 62.3E  | 30 | LO | 250 | N | N | 19910407 | 052736 | 246 | 113 | 49        | 26 |
| 152 | 102 | PAKISTAN        | INDUS RIVER              | 25.0N         | 68.5E  | 26.0N        | 66.3E  | 50 | LO | 250 | N | N | 19910407 | 052837 | 246 | 116 | 53        | 26 |
| 152 | 103 | INDIA           | GULF OF KUTCH            | 23.0N         | 70.0E  | 25.5N        | 68.7E  | 50 | LO | 250 | N | N | 19910407 | 052913 | 246 | 118 | 55        | 26 |
| 152 | 104 | INDIA           | GULF OF KAMBHAT          | 22.0N         | 72.5E  | 25.1N        | 70.5E  | 20 | LO | 250 | N | Y | 19910407 | 052941 | 246 | 120 | 57        | 26 |
| 152 | 105 | INDIA           | GULF OF KAMBHAT          | 22.0N         | 73.0E  | 24.3N        | 73.7E  | 15 | LO | 250 | N | Y | 19910407 | 053032 | 246 | 123 | 60        | 26 |
| 152 | 106 | INDIA           | NARMADA R.-RESERVOIR     | 22.5N         | 78.0E  | 23.7N        | 75.7E  | 5  | LO | 250 | N | Y | 19910407 | 053103 | 246 | 125 | 62        | 26 |
| 152 | 107 | INDIA           | WAINGANG R., RESERVOIRS  | 21.0N         | 80.5E  | 22.7N        | 79.1E  | 5  | LO | 250 | N | N | 19910407 | 053157 | 246 | 129 | 65        | 26 |
| 152 | 108 | INDIA           | HIRAKUD RES.-MAHANADI R. | 21.0N         | 83.5E  | 21.7N        | 82.1E  | 5  | NV | 250 | N | N | 19910407 | 053246 | 246 | 133 | 68        | 26 |
| 152 | 109 | INDIA           | MAHANADI R.-COAST        | 20.5N         | 85.0E  | 21.0N        | 84.1E  | 15 | NV | 250 | N | Y | 19910407 | 053319 | 246 | 136 | 70        | 26 |
| 152 | 110 | INDIA           | MAHANADI R.DELTA-COAST   | 20.0N         | 87.0E  | 20.2N        | 86.4E  | 50 | NV | 250 | N | Y | 19910407 | 053358 | 245 | 140 | 72        | 26 |
| 152 | 111 | BAY OF BENGAL   | PART OF BANGLADESH COAST | 21.0N         | 91.0E  | 18.9N        | 89.7E  | 55 | LO | 250 | N | N | 19910407 | 053453 | 245 | 149 | 75        | 26 |
| 152 | 112 | BURMA           | RAMRE I.-COMBERMERE BAY  | 19.5N         | 93.5E  | 18.2N        | 91.5E  | 60 | LO | 250 | N | N | 19910407 | 053523 | 245 | 154 | 77        | 26 |
| 152 | 113 | BURMA           | COAST-DANSON BAY         | 17.0N         | 94.0E  | 17.6N        | 92.8E  | 40 | LO | 250 | N | N | 19910407 | 053546 | 245 | 160 | 78        | 26 |
| 152 | 114 | BURMA           | IRRAWADDY RIVER DELTA    | 16.5N         | 96.0E  | 16.3N        | 95.8E  | 15 | NV | 250 | N | N | 19910407 | 053639 | 245 | 176 | 80        | 26 |
| 152 | 115 | BURMA           | SALWEEN R.-CLOUDS-HAZE   | 18.0N         | 98.0E  | 15.9N        | 96.5E  | 75 | LO | 250 | N | N | 19910407 | 053651 | 245 | 180 | 80        | 26 |
| 152 | 116 | BURMA           | HEINZE R.-RESERVOIR      | 14.5N         | 98.0E  | 15.5N        | 97.5E  | 25 | LO | 250 | N | Y | 19910407 | 053708 | 245 | 187 | 81        | 26 |
| 152 | 117 | THAILAND        | BANGKOK-HAZE             | 14.5N         | 100.0E | 15.0N        | 98.5E  | 40 | LO | 250 | N | N | 19910407 | 053726 | 245 | 194 | 81        | 26 |
| 152 | 118 | BURMA           | MALAY PEN.-TENASSERIM R. | 12.0N         | 99.0E  | 14.2N        | 100.3E | 30 | LO | 250 | N | N | 19910407 | 053758 | 245 | 208 | 81        | 26 |
| 152 | 119 | KAMPUCHEA       | MNTS. NEAR COAST&CHANG I | 13.5N         | 102.5E | 13.7N        | 101.2E | 80 | NV | 250 | N | Y | 19910407 | 053815 | 245 | 216 | 81        | 26 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME  | FEATURE                   | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|-----|------------------|---------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                  |                           | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 152 | 120 | KAMPUCHEA        | MNTS.-COAST-CHANG I.      | 13.0N  | 102.5E | 13.0N | 102.7E | 70 | NV | 250 | N | Y | 19910407 | 053841 | 244 | 226 | 80  | 26 |    |
| 152 | 121 | VIETNAM          | S. TIP-MOUTHS OF MEKONG   | 9.5N   | 105.5E | 12.5N | 103.7E | 55 | LO | 250 | N | N | 19910407 | 053859 | 244 | 233 | 80  | 26 |    |
| 152 | 122 | VIETNAM          | SOUTH COAST-HO CHI MINH   | 10.5N  | 107.5E | 12.1N | 104.4E | 55 | LO | 250 | N | N | 19910407 | 053912 | 244 | 237 | 79  | 26 |    |
| 152 | 123 | VIETNAM          | EAST COAST-NHA TRANG I.   | 12.5N  | 109.0E | 11.8N | 104.9E | 60 | LO | 250 | N | N | 19910407 | 053922 | 244 | 240 | 79  | 26 |    |
| 152 | 124 | KAMPUCHEA        | LAKE SAP                  | 12.5N  | 104.5E | 11.5N | 105.5E | 65 | LO | 250 | N | N | 19910407 | 053933 | 244 | 243 | 79  | 26 |    |
| 152 | 125 | KAMPUCHEA        | MEKONG RIVER-CLOUDS       | 12.5N  | 106.5E | 11.2N | 106.1E | 90 | LO | 250 | N | N | 19910407 | 053943 | 244 | 246 | 78  | 26 |    |
| 152 | 126 | VIETNAM          | SOUTHEAST COAST           | 12.0N  | 108.5E | 10.7N | 107.7E | 50 | LO | 250 | N | N | 19910407 | 054000 | 244 | 250 | 78  | 26 |    |
| 152 | 127 | SOUTH CHINA SEA  | VIETNAM COAST-HAI NAN TA  | 10.4N  | 107.7E |       |        | 70 | HO | 250 | N | N | 19910407 | 054013 | 244 | 253 | 77  | 26 |    |
| 152 | 128 | VIETNAM          | SUNGlint, EDDIES, MEKONG  | 10.0N  | 108.0E | 9.9N  | 108.6E | 40 | NV | 250 | N | Y | 19910407 | 054030 | 244 | 256 | 76  | 26 |    |
| 152 | 129 | VIETNAM          | SUNGlint, EDDIES, MEKONG  | 10.5N  | 107.5E | 9.5N  | 109.3E | 60 | LO | 250 | N | Y | 19910407 | 054043 | 244 | 259 | 76  | 26 |    |
| 152 | 130 | VIETNAM          | MOUTHS OF MEKONG          | 9.5N   | 106.5E | 9.2N  | 109.8E | 50 | LO | 250 | N | N | 19910407 | 054052 | 244 | 260 | 75  | 26 |    |
| 152 | 131 | VIETNAM          | SE COAST                  | 12.0N  | 109.5E | 8.8N  | 110.6E | 50 | LO | 250 | N | N | 19910407 | 054108 | 244 | 262 | 74  | 26 |    |
| 152 | 132 | SOUTH CHINA SEA  | INTERNAL WAVES            |        |        | 8.0N  | 112.0E | 45 | LO | 250 | N | N | 19910407 | 054133 | 244 | 266 | 73  | 26 |    |
| 152 | 133 | SOUTH CHINA SEA  | DALLAS REEF-CURRENT BOUN  | 7.0N   | 113.0E | 6.3N  | 115.1E | 40 | LO | 250 | N | N | 19910407 | 054232 | 244 | 272 | 70  | 26 |    |
| 152 | 134 | MALAYSIA         | BORNEO-PAPAR-SUNGlint     | 6.0N   | 116.0E | 5.7N  | 116.2E | 40 | NV | 250 | N | Y | 19910407 | 054252 | 244 | 273 | 68  | 26 |    |
| 152 | 135 | MALAYSIA         | BORNEO-PEGATAN R.-SUNGlt  | 5.5N   | 116.0E | 5.3N  | 116.8E | 45 | NV | 250 | N | Y | 19910407 | 054304 | 244 | 274 | 68  | 26 |    |
| 152 | 136 | PHILIPPINES      | CULTON I.-MINDOR-PANAY    | 12.0N  | 120.0E | 4.7N  | 117.9E | 30 | HO | 250 | N | Y | 19910407 | 054325 | 244 | 275 | 66  | 26 |    |
| 152 | 137 | PHILIPPINES      | CEBU-NEGROS-BOHO-LEYTE    | 11.5N  | 124.0E | 4.3N  | 118.6E | 40 | HO | 250 | N | Y | 19910407 | 054339 | 244 | 276 | 66  | 26 |    |
| 152 | 138 | INDONESIA        | BORNEO-STBUKO BAY-SUNGlt  | 4.0N   | 118.0E | 3.8N  | 119.5E | 40 | LO | 250 | N | N | 19910407 | 054355 | 244 | 277 | 65  | 26 |    |
| 152 | 139 | PHILIPPINES      | LEYTE-CEBU-BOHO           | 11.0N  | 125.0E | 3.1N  | 120.7E | 50 | HO | 250 | N | Y | 19910407 | 054418 | 243 | 278 | 63  | 26 |    |
| 152 | 140 | INDONESIA        | SULAWESI-NORTHERN SHORE   | 1.5N   | 122.0E | 2.3N  | 122.0E | 25 | NV | 250 | N | N | 19910407 | 054443 | 243 | 279 | 62  | 26 |    |
| 152 | 141 | INDONESIA        | SULAWESI-EASTERN END      | 1.0N   | 124.5E | 1.7N  | 123.0E | 25 | NV | 250 | N | Y | 19910407 | 054503 | 243 | 280 | 61  | 26 |    |
| 152 | 142 | INDONESIA        | SULAWESI-EAST END-SUNGlt  | 0.5N   | 124.5E | 0.3S  | 126.4E | 25 | LO | 250 | N | Y | 19910407 | 054608 | 243 | 282 | 57  | 26 |    |
| 152 | 143 | INDONESIA        | SERAM-SED PLUMES-STORMS   | 3.0S   | 130.0E | 2.3S  | 129.8E | 30 | NV | 250 | N | Y | 19910407 | 054713 | 243 | 284 | 52  | 26 |    |
| 152 | 144 | INDONESIA        | SERAM-SED PLUMES-STORMS   | 3.0S   | 130.0E | 2.7S  | 130.6E | 30 | NV | 250 | N | Y | 19910407 | 054727 | 243 | 284 | 52  | 26 |    |
| 152 | 145 | INDONESIA        | BINTUNI BAY               | 2.5S   | 133.5E | 3.7S  | 132.3E | 50 | LO | 250 | N | N | 19910407 | 054801 | 243 | 284 | 50  | 26 |    |
| 152 | 146 | INDONESIA        | SAREBA BAY                | 3.5S   | 135.5E | 4.4S  | 133.4E | 55 | LO | 250 | N | N | 19910407 | 054822 | 243 | 285 | 48  | 26 |    |
| 152 | 147 | INDONESIA        | COAST-ARAFURA SEA-DELTA   |        |        | 7.1S  | 138.2E | 90 | LO | 250 | N | N | 19910407 | 054952 | 243 | 285 | 43  | 26 |    |
| 152 | 148 | INDONESIA        | COAST-PAPUA N.GUINEA BOR  | 8.5S   | 140.5E | 7.6S  | 139.2E | 75 | LO | 250 | N | N | 19910407 | 055011 | 243 | 286 | 41  | 26 |    |
| 152 | 149 | AUSTRALIA-Q      | MOA I.-BANDU I.-TORRES S  | 10.0S  | 142.5E | 9.6S  | 142.8E | 70 | NV | 250 | N | Y | 19910407 | 055119 | 243 | 286 | 37  | 26 |    |
| 152 | 150 | AUSTRALIA-Q      | MOA I.-BANDU I.-TORRES S  | 10.0S  | 142.5E | 9.9S  | 143.4E | 75 | NV | 250 | N | Y | 19910407 | 055130 | 243 | 286 | 36  | 26 |    |
| 152 | 151 | AUSTRALIA-Q      | CAPE MELVILLE-GR.BARRIER  | 13.5S  | 144.5E | 11.2S | 145.8E | 75 | LO | 250 | N | N | 19910407 | 055214 | 243 | 286 | 34  | 26 |    |
| 152 | 152 | PAPUA NEW GUINEA | HOOD BAY-COAST-CORAL SEA  | 10.0S  | 148.0E | 11.9S | 147.1E | 50 | LO | 250 | N | N | 19910407 | 055237 | 243 | 285 | 32  | 26 |    |
| 152 | 153 | PAPUA NEW GUINEA | LONG REEF-CONFLICT GROUP  | 11.0S  | 151.0E | 13.6S | 150.5E | 70 | LO | 250 | N | N | 19910407 | 055340 | 243 | 285 | 28  | 26 |    |
| 152 | 154 | CORAL SEA        | LIHOU REEFS               | 17.0S  | 152.0E | 15.0S | 153.4E | 75 | LO | 250 | N | N | 19910407 | 055432 | 243 | 285 | 25  | 26 |    |
| 152 | 155 | CORAL SEA        | CLOUDS                    |        |        | 16.7S | 157.3E | 80 | LO | 250 | N | N | 19910407 | 055539 | 243 | 284 | 21  | 26 |    |
| 152 | 156 | PACIFIC OCEAN    | CLOUDS                    |        |        | 17.7S | 159.6E | 80 | LO | 250 | N | N | 19910407 | 055619 | 243 | 283 | 18  | 26 |    |
| 152 | 157 | NEW CALEDONIA    | FRANCE, ENTRECASTEAUX R.  | 18.5S  | 163.0E | 19.1S | 162.9E | 25 | NV | 250 | N | N | 19910407 | 055716 | 243 | 282 | 15  | 26 |    |
| 152 | 158 | PACIFIC OCEAN    | CLOUDS.HORIZON, UNDEREXPO |        |        | 24.4S | 179.0E |    |    |     |   |   |          |        |     |     |     |    |    |
| 152 | 159 | ALGERIA          | TADEMAIT PLATEAU          | 27.5N  | 4.0E   | 27.7N | 4.4E   | 0  | NV | 250 | N | N | 19910407 | 055243 | 246 | 91  | 18  | 27 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME      | FEATURE                  | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|----------------------|--------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 180 | ALGERIA              | GRAND ORIENTAL           | 29.0N         | 5.5E          | 27.9N        | 6.1E         | 0  | NV | 250 | N | Y | 19910407 | 065307 | 246 | 92  | 19        | 27 |
| 152 | 181 | ALGERIA              | GRAND ORIENTAL           | 29.5N         | 6.5E          | 28.3N        | 6.9E         | 0  | LO | 250 | N | Y | 19910407 | 065319 | 246 | 93  | 20        | 27 |
| 152 | 182 | LIBYA                | EL ASWAD                 | 29.0N         | 14.0E         | 28.4N        | 13.0E        | 0  | NV | 250 | N | Y | 19910407 | 065448 | 246 | 96  | 25        | 27 |
| 152 | 183 | LIBYA                | JABAL AS SAWDA           | 28.0N         | 15.5E         | 28.5N        | 14.7E        | 0  | NV | 250 | N | Y | 19910407 | 065514 | 246 | 97  | 27        | 27 |
| 152 | 184 | LIBYA                | NEAR CALANSCIO SAND SEA  | 29.5N         | 19.5E         | 28.5N        | 20.8E        | 0  | LO | 250 | N | M | 19910407 | 065642 | 247 | 101 | 33        | 27 |
| 152 | 165 | LIBYA                | CLOUDS-JET STREAM-DESERT | 30.0N         | 29.0E         | 28.1N        | 28.4E        | 80 | LO | 250 | N | M | 19910407 | 065706 | 247 | 102 | 34        | 27 |
| 152 | 166 | EGYPT                | QATTARA DEPRESSION       | 30.0N         | 30.0E         | 28.0N        | 29.3E        | 0  | LO | 250 | N | Y | 19910407 | 065833 | 247 | 106 | 40        | 27 |
| 152 | 167 | EGYPT                | QATTARA DEP., NILE DELTA | 30.0N         | 30.0E         | 28.0N        | 29.3E        | 0  | LO | 250 | N | Y | 19910407 | 065847 | 247 | 106 | 41        | 27 |
| 152 | 168 | EGYPT                | LAKE QARUN-NILE DELTA    | 30.0N         | 30.5E         | 27.9N        | 30.3E        | 0  | LO | 250 | N | Y | 19910407 | 065901 | 247 | 107 | 41        | 27 |
| 152 | 169 | EGYPT                | NILE-CAIRO               | 29.5N         | 31.0E         | 27.8N        | 30.9E        | 0  | LO | 250 | N | Y | 19910407 | 065910 | 247 | 107 | 42        | 27 |
| 152 | 170 | EGYPT                | GULF OF SUEZ-CAIRO       | 29.5N         | 32.5E         | 27.7N        | 31.9E        | 0  | LO | 250 | N | Y | 19910407 | 065925 | 247 | 108 | 43        | 27 |
| 152 | 171 | EGYPT                | SINAI PEN.-GULF OF SUEZ  | 29.5N         | 33.0E         | 27.6N        | 33.3E        | 0  | LO | 250 | N | Y | 19910407 | 065945 | 247 | 109 | 44        | 27 |
| 152 | 172 | EGYPT                | SINAI PEN.-WADI GERAIA   | 30.5N         | 34.0E         | 27.5N        | 34.0E        | 0  | LO | 250 | N | Y | 19910407 | 065956 | 246 | 109 | 45        | 27 |
| 152 | 173 | JORDAN               | DEAD SEA RIFT VALLEY     | 30.5N         | 35.5E         | 27.3N        | 34.9E        | 0  | LO | 250 | N | Y | 19910407 | 070010 | 246 | 110 | 46        | 27 |
| 152 | 174 | RED SEA              | TIP OF SINAI PEN.-TIRAN  | 27.5N         | 34.5E         | 27.3N        | 35.5E        | 0  | NV | 250 | N | Y | 19910407 | 070018 | 246 | 110 | 46        | 27 |
| 152 | 175 | RED SEA              | TIP OF SINAI PEN.-EGYPT  | 27.5N         | 34.5E         | 27.2N        | 35.9E        | 0  | LO | 250 | N | Y | 19910407 | 070025 | 246 | 111 | 47        | 27 |
| 152 | 176 | SAUDI ARABIA         | AR RAHA VOL. FIELD-TABUK | 28.0N         | 36.5E         | 27.1N        | 36.5E        | 0  | NV | 250 | N | Y | 19910407 | 070034 | 246 | 111 | 47        | 27 |
| 152 | 177 | SAUDI ARABIA         | AR RAHA VOL. FIELD-TABUK | 27.5N         | 37.0E         | 27.0N        | 37.0E        | 0  | NV | 250 | N | Y | 19910407 | 070041 | 246 | 111 | 48        | 27 |
| 152 | 178 | SAUDI ARABIA         | AL HUFRAH-WADI FAIR      | 29.0N         | 38.0E         | 26.8N        | 38.3E        | 0  | LO | 250 | N | Y | 19910407 | 070101 | 246 | 112 | 49        | 27 |
| 152 | 179 | IRAQ                 | EUPHRATES RIVER-BAGHDAD  | 35.0N         | 42.5E         | 26.4N        | 40.6E        | 20 | HO | 250 | N | N | 19910407 | 070135 | 246 | 114 | 51        | 27 |
| 152 | 180 | SAUDI ARABIA         | AJA MNTS.-PIVOT IRRIGATI | 27.5N         | 41.5E         | 26.2N        | 41.7E        | 0  | LO | 250 | N | Y | 19910407 | 070151 | 246 | 115 | 52        | 27 |
| 152 | 181 | SAUDI ARABIA         | SALMA MNTS.-PIVOT IRR.   | 27.0N         | 42.5E         | 26.1N        | 42.0E        | 0  | LO | 250 | N | Y | 19910407 | 070157 | 246 | 115 | 52        | 27 |
| 152 | 182 | SAUDI ARABIA         | MAZUR SAND SEA-KUWAIT SM | 27.5N         | 44.0E         | 25.7N        | 43.9E        | 0  | LO | 250 | N | Y | 19910407 | 070225 | 246 | 117 | 54        | 27 |
| 152 | 183 | SAUDI ARABIA         | PIVOT IRR.-WADI RUMMAH   | 26.0N         | 43.5E         | 25.8N        | 44.3E        | 0  | NV | 250 | N | Y | 19910407 | 070232 | 246 | 117 | 55        | 27 |
| 152 | 184 | KUWAIT               | KUWAIT OIL WELL FIRES    | 29.3N         | 47.5E         | 25.4N        | 45.5E        | 0  | LO | 250 | N | Y | 19910407 | 070250 | 246 | 118 | 56        | 27 |
| 152 | 185 | SAUDI ARABIA         | KUWAIT OIL WELL FIRES    | 28.7N         | 47.3E         | 25.1N        | 46.7E        | 0  | LO | 250 | N | Y | 19910407 | 070308 | 246 | 119 | 57        | 27 |
| 152 | 186 | SAUDI ARABIA         | KUWAIT OIL WELL FIRES    | 28.5N         | 47.5E         | 25.0N        | 47.0E        | 0  | LO | 250 | N | Y | 19910407 | 070313 | 246 | 119 | 57        | 27 |
| 152 | 187 | SAUDI ARABIA         | KUWAIT OIL WELL FIRES    | 28.5N         | 48.0E         | 24.8N        | 48.0E        | 0  | LO | 250 | N | Y | 19910407 | 070329 | 246 | 120 | 58        | 27 |
| 152 | 188 | IRAQ                 | LOOKING TOWARD PERSIAN G |               | 24.4N         | 49.5E        |              | 30 | HO | 250 | N | N | 19910407 | 070352 | 246 | 122 | 60        | 27 |
| 152 | 189 | SAUDI ARABIA         | GULF OF BAHRAIN-BAHRAIN  | 25.5N         | 50.5E         | 23.9N        | 51.1E        | 45 | LO | 250 | N | Y | 19910407 | 070418 | 246 | 123 | 61        | 27 |
| 152 | 190 | SAUDI ARABIA         | GULF OF BAHRAIN-BAHRAIN  | 25.5N         | 50.5E         | 23.7N        | 51.8E        | 45 | LO | 250 | N | Y | 19910407 | 070429 | 246 | 124 | 62        | 27 |
| 152 | 191 | SAUDI ARABIA         | OIL FIRES-ZAWAR POINT    | 27.5N         | 49.0E         | 23.4N        | 53.0E        | 10 | LO | 250 | N | N | 19910407 | 070447 | 246 | 125 | 63        | 27 |
| 152 | 192 | UNITED ARAB EMIRATES | MUSANDAM PENINSULA       | 25.0N         | 56.5E         | 22.0N        | 57.5E        | 70 | LO | 250 | N | N | 19910407 | 070601 | 246 | 131 | 67        | 27 |
| 152 | 193 | OMAN                 | COAST-ARABIAN SEA        | 22.0N         | 59.5E         | 21.3N        | 59.6E        | 25 | NV | 250 | N | Y | 19910407 | 070634 | 246 | 134 | 69        | 27 |
| 152 | 194 | OMAN                 | COAST-ARABIAN SEA        | 22.0N         | 60.0E         | 20.8N        | 60.9E        | 30 | LO | 250 | N | Y | 19910407 | 070656 | 246 | 136 | 71        | 27 |
| 152 | 195 | OMAN                 | COAST-AL MASTRAH         | 20.0N         | 59.5E         | 20.3N        | 62.2E        | 25 | LO | 250 | N | Y | 19910407 | 070718 | 245 | 138 | 72        | 27 |
| 152 | 196 | INDIA                | COAST-KALINADI RIVER     | 15.0N         | 75.0E         | 14.8N        | 75.1E        | 5  | NV | 250 | N | Y | 19910407 | 071100 | 245 | 194 | 81        | 27 |
| 152 | 197 | INDIA                | TUNGABHADRA R.-DECCAN P. | 14.5N         | 75.5E         | 14.5N        | 75.6E        | 15 | NV | 250 | N | Y | 19910407 | 071110 | 245 | 199 | 81        | 27 |
| 152 | 198 | INDIA                | TUNGABHADRA R.-DECCAN P. | 14.5N         | 76.0E         | 14.3N        | 76.1E        | 20 | NV | 250 | N | Y | 19910407 | 071118 | 245 | 202 | 81        | 27 |
| 152 | 199 | INDIA                | VENDAVATI R.-DECCAN PLAT | 14.0N         | 76.5E         | 14.1N        | 76.6E        | 20 | NV | 250 | N | Y | 19910407 | 071128 | 245 | 207 | 81        | 27 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|--------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 200 | INDIA           | RIVER-DECCAN PLAT        | 14.0N         | 77.0E         | 13.8N        | 77.1E        | 20 | NV | 250 | N | Y | 19910407 | 071137 | 245 | 211 | 81        | 27 |
| 152 | 201 | INDIA           | BANGLADORE               | 13.5N         | 77.5E         | 13.6N        | 77.6E        | 20 | NV | 250 | N | Y | 19910407 | 071145 | 245 | 215 | 81        | 27 |
| 152 | 202 | INDIA           | BANGLADORE               | 13.5N         | 78.0E         | 13.4N        | 78.0E        | 20 | NV | 250 | N | Y | 19910407 | 071153 | 245 | 218 | 81        | 27 |
| 152 | 203 | INDIA           | PALAR R.-EASTERN GHATS   | 13.0N         | 78.5E         | 13.1N        | 78.5E        | 20 | NV | 250 | N | Y | 19910407 | 071202 | 245 | 222 | 81        | 27 |
| 152 | 204 | INDIA           | PALAR R.-EASTERN GHATS   | 13.0N         | 79.0E         | 12.8N        | 79.2E        | 20 | NV | 250 | N | Y | 19910407 | 071214 | 245 | 227 | 81        | 27 |
| 152 | 205 | INDIA           | PALAR R.-COAST           | 12.5N         | 79.5E         | 12.5N        | 79.8E        | 35 | NV | 250 | N | Y | 19910407 | 071225 | 244 | 231 | 80        | 27 |
| 152 | 206 | INDIA           | PALAR R.-COAST           | 14.5N         | 80.5E         | 11.6N        | 81.5E        | 35 | LO | 250 | N | Y | 19910407 | 071256 | 244 | 241 | 79        | 27 |
| 152 | 207 | BAY OF BENGAL   | PALK ST.-INDIA SRI LANKA | 10.0N         | 80.5E         | 10.5N        | 83.6E        | 35 | LO | 250 | N | Y | 19910407 | 071335 | 244 | 252 | 78        | 27 |
| 152 | 208 | INDONESIA       | SUMATERA-LHOKSUMAWA      | 5.5N          | 96.5E         | 2.7N         | 97.5E        | 80 | LO | 250 | N | Y | 19910407 | 071757 | 244 | 279 | 63        | 27 |
| 152 | 209 | INDONESIA       | SUMATERA-NE COAST        | 5.0N          | 98.0E         | 2.6N         | 97.7E        | 50 | LO | 250 | N | Y | 19910407 | 071801 | 244 | 279 | 63        | 27 |
| 152 | 210 | INDONESIA       | SUMATERA-NE COAST        | 4.5N          | 98.5E         | 2.4N         | 97.9E        | 60 | LO | 250 | N | Y | 19910407 | 071805 | 243 | 279 | 62        | 27 |
| 152 | 211 | INDONESIA       | SUMATERA-WEIH RIVER      | 4.0N          | 98.0E         | 2.3N         | 98.2E        | 80 | LO | 250 | N | Y | 19910407 | 071810 | 243 | 280 | 62        | 27 |
| 152 | 212 | INDONESIA       | SUMATERA-LAKE TOBA       | 3.0N          | 98.0E         | 2.2N         | 98.3E        | 75 | NV | 250 | N | Y | 19910407 | 071813 | 243 | 280 | 62        | 27 |
| 152 | 213 | INDONESIA       | SUMATERA-LAKE TOBA       | 3.0N          | 99.0E         | 2.0N         | 98.6E        | 75 | NV | 250 | N | Y | 19910407 | 071819 | 243 | 280 | 62        | 27 |
| 152 | 214 | INDONESIA       | SUMATERA-LAKE TOBA       | 2.0N          | 98.5E         | 1.8N         | 98.0E        | 65 | NV | 250 | N | Y | 19910407 | 071825 | 243 | 280 | 61        | 27 |
| 152 | 215 | INDONESIA       | NIAS ISLAND-SUNGLINT     | 1.5N          | 98.0E         | 1.7N         | 99.2E        | 10 | LO | 250 | N | Y | 19910407 | 071830 | 243 | 280 | 61        | 27 |
| 152 | 216 | INDONESIA       | TUANGKU, BANGKARU IS.    | 2.5N          | 97.5E         | 1.5N         | 99.5E        | 50 | LO | 250 | N | Y | 19910407 | 071835 | 243 | 281 | 61        | 27 |
| 152 | 217 | INDONESIA       | SUMATERA-MUSALA I-SUNGLT | 2.0N          | 99.0E         | 1.4N         | 98.7E        | 50 | NV | 250 | N | Y | 19910407 | 071840 | 243 | 281 | 60        | 27 |
| 152 | 218 | INDONESIA       | SUMATERA-RIVER EFFLUENT  | 2.5N          | 101.0E        | 1.1N         | 100.3E       | 50 | LO | 250 | N | Y | 19910407 | 071850 | 243 | 281 | 60        | 27 |
| 152 | 219 | INDONESIA       | SUMATERA-RUPAT ISLAND    | 2.0N          | 101.5E        | 0.8N         | 100.7E       | 50 | LO | 250 | N | Y | 19910407 | 071858 | 243 | 281 | 59        | 27 |
| 152 | 220 | INDONESIA       | SUMATERA-INTERIOR-CLOUDS | 0.5N          | 100.0E        | 0.5N         | 101.2E       | 70 | LO | 250 | N | N | 19910407 | 071908 | 243 | 282 | 59        | 27 |
| 152 | 221 | MALAYSIA        | SINGAPORE                | 1.5N          | 103.5E        | 0.1S         | 102.2E       | 50 | LO | 250 | N | Y | 19910407 | 071927 | 243 | 282 | 57        | 27 |
| 152 | 222 | MALAYSIA        | SINGAPORE-S.CHINA SEA CO | 2.0N          | 104.0E        | 0.2S         | 102.5E       | 50 | LO | 250 | N | Y | 19910407 | 071933 | 243 | 282 | 57        | 27 |
| 152 | 223 | INDONESIA       | SUMATERA-SE PART-SED PLU | 0.0           | 103.5E        | 0.5S         | 102.9E       | 50 | NV | 250 | N | Y | 19910407 | 071941 | 243 | 283 | 57        | 27 |
| 152 | 224 | INDONESIA       | SUMATERA-HARI R.SED PLUM | 1.0S          | 104.0E        | 0.8S         | 103.4E       | 45 | NV | 250 | N | Y | 19910407 | 071951 | 243 | 283 | 56        | 27 |
| 152 | 225 | INDONESIA       | SUMATERA-BANGKA ISLAND   | 2.0S          | 105.0E        | 1.1S         | 103.9E       | 50 | LO | 250 | N | Y | 19910407 | 072000 | 243 | 283 | 55        | 27 |
| 152 | 226 | INDONESIA       | BANGKA ISLAND-N. PART    | 1.5S          | 105.5E        | 1.3S         | 104.4E       | 40 | NV | 250 | N | Y | 19910407 | 072009 | 243 | 283 | 55        | 27 |
| 152 | 227 | INDONESIA       | SUMATERA-BANGKA I.       | 2.0S          | 105.0E        | 1.7S         | 105.0E       | 55 | NV | 250 | N | Y | 19910407 | 072020 | 243 | 283 | 54        | 27 |
| 152 | 228 | INDONESIA       | BANGKA I.-SOUTHERN PART  | 2.5S          | 106.5E        | 2.0S         | 105.4E       | 50 | NV | 250 | N | Y | 19910407 | 072029 | 243 | 284 | 54        | 27 |
| 152 | 229 | INDONESIA       | BANGKA I.-SOUTHERN PART  | 3.0S          | 106.0E        | 2.3S         | 106.0E       | 50 | NV | 250 | N | Y | 19910407 | 072040 | 243 | 284 | 53        | 27 |
| 152 | 230 | INDONESIA       | BORNEO-CAPE PUTING       | 2.5S          | 112.0E        | 4.6S         | 110.0E       | 80 | LO | 250 | N | N | 19910407 | 072157 | 243 | 285 | 48        | 27 |
| 152 | 231 | INDONESIA       | BORNEO-LAUT ISLAND       | 4.0S          | 116.0E        | 6.6S         | 113.5E       | 40 | LO | 250 | N | N | 19910407 | 072303 | 243 | 286 | 44        | 27 |
| 152 | 232 | ALGERIA         | KAHAL TABELBALA          | 29.5N         | 3.0W          | 28.5N        | 3.4W         | 0  | LO | 250 | N | N | 19910407 | 083004 | 247 | 100 | 32        | 28 |
| 152 | 233 | ALGERIA         | NEAR KAHAL TABELBALA     | 28.5N         | 1.0W          | 28.4N        | 1.4W         | 0  | NV | 250 | N | Y | 19910407 | 083033 | 247 | 102 | 34        | 28 |
| 152 | 234 | ALGERIA         | TADEMAIT PLATEAU         | 29.0N         | 1.5E          | 28.3N        | 0.5E         | 0  | LO | 250 | N | Y | 19910407 | 083101 | 247 | 103 | 36        | 28 |
| 152 | 235 | ALGERIA         | TADEMAIT PLATEAU         | 28.5N         | 2.0E          | 28.3N        | 1.2E         | 0  | NV | 250 | N | Y | 19910407 | 083111 | 247 | 103 | 36        | 28 |
| 152 | 236 | ALGERIA         | TANEZROUFT               | 27.0N         | 2.5E          | 28.2N        | 2.7E         | 0  | LO | 250 | N | Y | 19910407 | 083132 | 247 | 104 | 38        | 28 |
| 152 | 237 | ALGERIA         | NEAR TADEMAIT PLATEAU    | 27.0N         | 4.0E          | 28.1N        | 4.2E         | 0  | LO | 250 | N | Y | 19910407 | 083155 | 247 | 105 | 39        | 28 |
| 152 | 238 | ALGERIA         | TINHERT PLAT.-ERG ORIENT | 28.0N         | 5.5E          | 28.1N        | 4.6E         | 0  | NV | 250 | N | Y | 19910407 | 083201 | 247 | 105 | 39        | 28 |
| 152 | 239 | ALGERIA         | ISAOUANE-N-IRARRAREN     | 28.0N         | 7.0E          | 27.9N        | 6.2E         | 0  | NV | 250 | N | Y | 19910407 | 083224 | 247 | 106 | 41        | 28 |

TABLE 4.3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME   | FEATURE                  | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM   |
|-----|-----|-------------------|--------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-------|
|     |     |                   |                          | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     | EL OR |
| 152 | 240 | ALGERIA           | TIFERNINE DUNES          | 26.5N  | 7.0E   | 27.8N | 7.1E   | 0  | LO | 250 | N | Y | 19910407 | 083237 | 247 | 107 | 42 28 |
| 152 | 241 | ALGERIA           | ERG BOURARHET-IN AMENAS  | 27.5N  | 9.5E   | 27.6N | 8.6E   | 0  | NV | 250 | N | Y | 19910407 | 083300 | 247 | 108 | 43 28 |
| 152 | 242 | LIBYA             | IDHAN OF UBARI           | 27.5N  | 11.0E  | 27.4N | 10.4E  | 0  | NV | 250 | N | Y | 19910407 | 083326 | 247 | 109 | 45 28 |
| 152 | 243 | LIBYA             | EL ASWAD                 | 28.5N  | 14.0E  | 27.3N | 11.4E  | 5  | LO | 250 | N | N | 19910407 | 083341 | 247 | 110 | 46 28 |
| 152 | 244 | LIBYA             | ZEGHER ROCKY PLAIN       | 27.0N  | 13.0E  | 27.2N | 12.2E  | 0  | NV | 250 | N | Y | 19910407 | 083353 | 246 | 110 | 46 28 |
| 152 | 245 | LIBYA             | MARZUQ-WADI AN NASHU     | 26.0N  | 14.0E  | 26.9N | 14.0E  | 0  | NV | 250 | N | Y | 19910407 | 083420 | 246 | 112 | 48 28 |
| 152 | 246 | LIBYA             | EL MARZUCHIA SAND DUNES  | 26.5N  | 16.0E  | 26.7N | 15.2E  | 0  | NV | 250 | N | Y | 19910407 | 083438 | 246 | 112 | 48 28 |
| 152 | 247 | LIBYA             | BLACK HARUJ              | 27.5N  | 17.5E  | 26.4N | 16.5E  | 0  | NV | 250 | N | Y | 19910407 | 083457 | 246 | 113 | 50 28 |
| 152 | 248 | LIBYA             | BLACK HARUJ-DUNES        | 26.0N  | 19.0E  | 26.2N | 18.0E  | 0  | NV | 250 | N | Y | 19910407 | 083520 | 246 | 115 | 52 28 |
| 152 | 249 | LIBYA             | TIBESTI                  | 24.0N  | 18.5E  | 25.9N | 19.3E  | 0  | LO | 250 | N | N | 19910407 | 083541 | 246 | 116 | 53 28 |
| 152 | 250 | LIBYA             | MAABUS IUSEF             | 25.5N  | 21.0E  | 25.7N | 20.3E  | 0  | NV | 250 | N | N | 19910407 | 083555 | 246 | 116 | 54 28 |
| 152 | 251 | LIBYA             | CALANCIO SAND SEA-JAWF   | 25.0N  | 22.5E  | 25.2N | 22.1E  | 15 | NV | 250 | N | N | 19910407 | 083624 | 246 | 118 | 56 28 |
| 152 | 252 | EGYPT             | GILF KEBIR PLATEAU       | 23.5N  | 25.0E  | 24.6N | 24.8E  | 0  | LO | 250 | N | Y | 19910407 | 083706 | 246 | 120 | 58 28 |
| 152 | 253 | EGYPT             | GREAT SAND SEA           | 25.0N  | 26.0E  | 24.4N | 25.4E  | 0  | NV | 250 | N | Y | 19910407 | 083715 | 246 | 121 | 59 28 |
| 152 | 254 | EGYPT             | GREAT SAND SEA           | 25.5N  | 27.0E  | 23.9N | 27.3E  | 5  | LO | 250 | N | Y | 19910407 | 083745 | 246 | 122 | 61 28 |
| 152 | 255 | CYPRUS            | MEDITERRANEAN-NILE DELTA |        |        | 23.3N | 29.3E  | 20 | HO | 250 | N | Y | 19910407 | 083816 | 246 | 124 | 63 28 |
| 152 | 256 | MEDITERRANEAN SEA | NILE DELTA-CYPRUS        |        |        | 23.1N | 30.0E  | 20 | HO | 250 | N | Y | 19910407 | 083827 | 246 | 125 | 63 28 |
| 152 | 257 | EGYPT             | LAKE MASSER              | 23.5N  | 32.0E  | 22.2N | 32.8E  | 75 | LO | 250 | N | N | 19910407 | 083914 | 246 | 129 | 66 28 |
| 152 | 258 | ISRAEL            | NEAR COAST-DOUBLE EXPOS  |        |        | 21.9N | 33.8E  | 40 | LO | 250 | N | N | 19910407 | 083930 | 246 | 130 | 67 28 |
| 152 | 259 | SUDAN             | NEAR COAST-DOUBLE EXPOS  |        |        |       |        | 20 | LO | 250 | N | N |          |        |     |     |       |
| 152 | 260 | SUDAN             | NEAR COAST-DOUBLE EXPOS  |        |        | 21.2N | 35.9E  | 20 | LO | 250 | N | N | 19910407 | 084004 | 246 | 133 | 69 28 |
| 152 | 261 | SUDAN             | COAST-TALLATALLA SAQIR I | 19.0N  | 38.0E  | 20.3N | 38.4E  | 10 | LO | 250 | N | N | 19910407 | 084045 | 246 | 137 | 72 28 |
| 152 | 262 | SAUDI ARABIA      | RED SEA COAST-SUNGLINT   | 20.0N  | 40.0E  | 19.9N | 39.3E  | 10 | NV | 250 | N | Y | 19910407 | 084100 | 246 | 139 | 72 28 |
| 152 | 263 | SAUDI ARABIA      | HIJAZ MASSIVE-SUNGLINT   | 19.5N  | 41.0E  | 19.5N | 40.5E  | 15 | NV | 250 | N | Y | 19910407 | 084121 | 245 | 142 | 74 28 |
| 152 | 264 | SAUDI ARABIA      | HIJAZ MASSIVE            | 19.0N  | 42.5E  | 18.8N | 42.2E  | 40 | NV | 250 | N | Y | 19910407 | 084149 | 245 | 146 | 75 28 |
| 152 | 265 | SAUDI ARABIA      | RAMLAT YAM-NAJRAN        | 18.0N  | 45.5E  | 17.8N | 44.6E  | 5  | NV | 250 | N | N | 19910407 | 084230 | 245 | 153 | 77 28 |
| 152 | 266 | YEMEN (SANA)      | SAB'ATAYN DUNES-MA'RIB   | 16.0N  | 46.0E  | 17.2N | 45.9E  | 10 | LO | 250 | N | N | 19910407 | 084253 | 245 | 159 | 78 28 |
| 152 | 267 | YEMEN (ADEN)      | HADRAMAUT PLATEAU        | 17.0N  | 49.0E  | 16.5N | 47.5E  | 15 | LO | 250 | N | N | 19910407 | 084321 | 245 | 166 | 79 28 |
| 152 | 268 | YEMEN (ADEN)      | COAST-VOLCANOS-LAVA      | 15.5N  | 51.5E  | 14.9N | 51.0E  | 10 | NV | 250 | N | N | 19910407 | 084423 | 245 | 180 | 81 28 |
| 152 | 269 | ARABIAN SEA       | SUNGLINT                 |        |        | 13.3N | 54.2E  | 5  | LO | 250 | N | N | 19910407 | 084520 | 245 | 216 | 81 28 |
| 152 | 270 | USA-OK            | LLANO ESTACADO-PALO DURO | 37.0N  | 100.0W | 28.5N | 102.7W | 25 | HO | 250 | N | N | 19910407 | 144252 | 246 | 97  | 27 32 |
| 152 | 271 | USA-NM            | SACRAMENTO MOUNTAINS     | 34.0N  | 105.0W | 28.5N | 101.4W | 20 | HO | 250 | N | Y | 19910407 | 144311 | 246 | 98  | 28 32 |
| 152 | 272 | USA-TX            | TX-NEW MEXICO-MIDLAND    | 33.0N  | 103.0W | 28.5N | 100.8W | 10 | LO | 250 | N | Y | 19910407 | 144320 | 246 | 98  | 29 32 |
| 152 | 273 | USA-TX            | TX-NEW MEXICO-AMARILLO   | 36.0N  | 103.0W | 28.5N | 99.3W  | 40 | HO | 250 | N | N | 19910407 | 144341 | 246 | 99  | 30 32 |
| 152 | 274 | USA-VA            | EAST COAST-NC,VA,PAMLICO | 37.0N  | 76.0W  | 27.2N | 83.5W  | 10 | HO | 250 | N | Y | 19910407 | 144734 | 246 | 109 | 45 32 |
| 152 | 275 | USA-VA            | NC,VA,E.COAST-DOUBLE EXP |        |        | 25.8N | 75.7W  | 20 | HO | 250 | N | Y | 19910407 | 144931 | 246 | 114 | 52 32 |
| 152 | 276 | USA-VA            | NC,VA,E.COAST-DOUBLE EXP |        |        | 25.6N | 74.7W  | 20 | HO | 250 | N | Y | 19910407 | 144947 | 246 | 115 | 53 32 |
| 152 | 277 | NEPAL             | GR. HIMALAYA RANGE       | 28.0N  | 84.0E  | 28.2N | 83.4E  | 25 | NV | 250 | N | N | 19910408 | 013517 | 247 | 91  | 17 39 |
| 152 | 278 | CHINA             | HSI-PANG MNTS.,DOUBLE EX |        |        | 28.3N | 84.8E  | 25 | LO | 250 | N | N | 19910408 | 013537 | 247 | 92  | 19 39 |
| 152 | 279 | CHINA             | NIEN TANG KULA MT-DOU EX | 30.0N  | 87.0E  | 28.4N | 85.7E  | 5  | LO | 250 | N | N | 19910408 | 013551 | 247 | 92  | 20 39 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR   | GEOGRAPHIC NAME      | FEATURE                   | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|------|----------------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 280  | CHINA                | HIMAL-CHINA, NEPAL-DOU EX | 28.5N 88.5E          | 28.4N 86.5E         | 15 | LO | 250 | N | N | 19910408 | 013602 | 247 | 93  | 20        | 39 |
| 152 | 281  | CHINA                | MU HSIN-LIN LAKE-TIBET P  | 28.5N 88.5E          | 28.5N 88.1E         | 50 | NV | 250 | N | N | 19910408 | 013625 | 248 | 94  | 22        | 39 |
| 152 | 282  | CHINA                | LAKE NAMU-TIB PLAT-DOUEX  | 30.0N 90.5E          | 28.5N 89.4E         | 80 | LO | 250 | N | N | 19910408 | 013645 | 248 | 94  | 23        | 39 |
| 152 | 283  | INDIA                | BRAMAPUTRA R.-DOUBLE EX   |                      | 28.4N 95.7E         | 45 | LO | 250 | N | N | 19910408 | 013817 | 248 | 98  | 29        | 39 |
| 152 | 284  | CHINA                | TA-YEN, CHENG L.-DOUB EXP | 27.0N 100.0E         | 28.4N 97.5E         | 60 | LO | 250 | N | N | 19910408 | 013842 | 248 | 99  | 30        | 39 |
| 152 | 285  | CHINA                | JINSHA R.-LONGJIE         | 26.5N 102.0E         | 28.1N 102.0E        | 5  | LO | 250 | N | Y | 19910408 | 013949 | 248 | 101 | 35        | 39 |
| 152 | 286  | CHINA                | JINSHA R.-LU-NAN MNTS.    | 27.0N 102.5E         | 27.9N 104.1E        | 5  | LO | 250 | N | Y | 19910408 | 014020 | 248 | 103 | 37        | 39 |
| 152 | 287  | CHINA                | FOLDED MOUNTAINS-CLOUDS   |                      | 27.6N 106.4E        | 80 | LO | 250 | N | N | 19910408 | 014053 | 248 | 104 | 39        | 39 |
| 152 | 288  | CHINA                | MNTS. NEAR COAST-CLOUDS   |                      | 26.0N 115.9E        | 85 | LO | 250 | N | N | 19910408 | 014317 | 248 | 110 | 48        | 39 |
| 153 | 0 A  | NIGER                | TAGAMA DESERT             |                      |                     | 15 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 B  | NIGER                | TAGAMA DESERT             |                      |                     | 20 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 C  | NIGERIA              | AREA EAST OF SOKOTO       |                      |                     | 15 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 D  | NIGERIA              | AREA EAST OF SOKOTO       | 13.0N 6.5E           |                     | 25 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 E  | NIGERIA              | DNGAIYA RIVER             | 12.0N 11.5E          |                     | 10 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 F  | NIGERIA              | DNGAIYA RIVER             | 12.0N 11.0E          |                     | 15 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 G  | NIGERIA              | DNGAIYA RIVER             | 11.5N 10.5E          |                     | 30 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 H  | NIGERIA              | AREA WEST OF LAKE CHAD    | 13.0N 13.0E          |                     | 20 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 J  | CAMEROON             | MANDARA MOUNTAINS         | 11.0N 14.0E          |                     | 15 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 K  | NIGERIA              | MANDARA MOUNTAINS         | 13.0N 13.5E          |                     | 20 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 L  | CAMEROON             | MANDARA MOUNTAINS         | 10.5N 13.5E          |                     | 30 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 M  | CAMEROON             | MANDARA MTS., BENUE R.    | 9.5N 13.5E           |                     | 25 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 N  | CAMEROON             | MANDARA MOUNTAINS         | 10.5N 14.0E          |                     | 25 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 P  | CAMEROON             | SE OF MANDARA MTS.        | 10.0N 13.5E          |                     | 5  | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 Q  | CHAD                 | CHARI RIVER BASIN         | 10.0N 16.0E          |                     | 5  | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 R  | CHAD                 | LOGONE RIVER              | 10.5N 15.5E          |                     | 10 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 S  | CHAD                 | AREA WEST OF LOGONE R.    | 9.5N 14.5E           |                     | 45 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 T  | CHAD                 | CHARI RIVER BASIN         | 10.5N 16.5E          |                     | 30 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 U  | AFRICA               | NEAR CHAD/CEN. AFRICA B.  |                      |                     | 50 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 V  | CENTRAL AFRICAN REP. | OUHAM RIVER               | 8.0N 17.5E           |                     | 40 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 W  | CENTRAL AFRICAN REP. | GRIHINGUI RIVER           | 8.5N 18.5E           |                     | 30 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 X  | CENTRAL AFRICAN REP. | OUHAM, BAKASSA RIVERS     | 7.5N 17.5E           |                     | 50 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 Y  | CENTRAL AFRICAN REP. | MPOKO RIVER               | 6.0N 17.5E           |                     | 60 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 Z  | CENTRAL AFRICAN REP. | LAND PATTERNS, CLOUDS     |                      |                     | 80 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 AA | CENTRAL AFRICAN REP. | LAND PATTERNS, CLOUDS     |                      |                     | 80 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 AB | CENTRAL AFRICAN REP. | LAND PATTERNS, CLOUDS     |                      |                     | 80 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 AC | ZAIRE                | MBOMOU RIVER              | 4.5N 24.0E           |                     | 75 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 AD | ZAIRE                | MBOMOU RIVER              | 4.5N 23.5E           |                     | 75 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0 AE | ZAIRE                | UELE RIVER                | 3.5N 25.5E           |                     | 65 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 AF | ZAIRE                | WESTERN RIFT VALLEY       | 1.0N 29.5E           |                     | 60 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0 AG | ZAIRE                | LAKE ALBERT, RIFT VALLEY  | 1.5N 30.0E           |                     | 50 | LO | 250 | N | Y |          |        |     |     |           |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE | GMT | AL | AZ | SUN<br>EL OR |
|-----|-----|-----------------|--------------------------|-------------------|------------------|----|----|-----|---|---|------|-----|----|----|--------------|
| 153 | OAH | ZAIRE           | LAKE ALBERT, RIFT VALLEY | 2.0N 30.6E        |                  | 50 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAJ | UGANDA          | LAKE ALBERT, RIFT VALLEY | 3.0N 31.0E        |                  | 50 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAK | UGANDA          | LAKES ALBERT, KYOGA      | 1.0N 31.5E        |                  | 55 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAL | UGANDA          | LAKE ALBERT, RIFT VALLEY | 1.0N 30.5E        |                  | 60 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAM | ZAIRE           | AREA WEST OF L. ALBERT   | 1.0N 28.5E        |                  | 80 | HO | 250 | N | M |      |     |    |    |              |
| 153 | OAN | UGANDA          | LAKE KYOGA               | 1.5N 32.5E        |                  | 55 | LO | 250 | N | M |      |     |    |    |              |
| 153 | OAP | UGANDA          | LAKES KYOGA, VICTORIA    | 1.0N 33.0E        |                  | 60 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAQ | UGANDA          | N. SHORE OF L. VICTORIA  | 0.0 33.0E         |                  | 50 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAR | UGANDA          | AREA NW OF LAKE VICTORIA | 0.0 31.0E         |                  | 65 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAS | UGANDA          | AREA WNW OF L. VICTORIA  | 0.6S 31.0E        |                  | 65 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAT | UGANDA          | N. HALF OF L. VICTORIA   | 1.0S 33.0E        |                  | 50 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAU | UGANDA          | NE HALF OF L. VICTORIA   | 0.6S 33.5E        |                  | 35 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAV | KENYA           | L. VICTORIA, KAVIRONDO G | 0.5S 34.0E        |                  | 30 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAW | KENYA           | E. HALF OF L. VICTORIA   | 1.0S 34.0E        |                  | 55 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAX | TANZANIA        | SERENGETI PL., L. MATRON | 2.6S 36.0E        |                  | 15 | LO | 250 | N | M |      |     |    |    |              |
| 153 | OAY | TANZANIA        | SERENGETI PL., L. MATRON | 2.5S 34.5E        |                  | 25 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OAZ | TANZANIA        | SERENGETI, L. VICTORIA   | 2.0S 34.0E        |                  | 60 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBA | TANZANIA        | SE HALF OF L. VICTORIA   | 2.0S 33.0E        |                  | 70 | LO | 250 | N | M |      |     |    |    |              |
| 153 | OBB | TANZANIA        | E. HALF OF L. VICTORIA   | 1.0S 33.0E        |                  | 75 | LO | 250 | N | M |      |     |    |    |              |
| 153 | OBC | TANZANIA        | L. MATRON, ELA MAIBORI C | 2.5S 35.5E        |                  | 20 | NV | 250 | N | M |      |     |    |    |              |
| 153 | OBD | TANZANIA        | L. MATRON, SERENGETI PL. | 2.5S 36.5E        |                  | 25 | NV | 250 | N | Y |      |     |    |    |              |
| 153 | OBE | TANZANIA        | SERENGETI PL., L. EYASI  | 3.0S 35.0E        |                  | 45 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBF | TANZANIA        | L. MATRON, KITUMBEINE V. | 2.5S 36.5E        |                  | 20 | NV | 250 | N | Y |      |     |    |    |              |
| 153 | OBG | TANZANIA        | L. MATRON, EYASI         | 3.5S 36.0E        |                  | 40 | NV | 250 | N | Y |      |     |    |    |              |
| 153 | OBH | TANZANIA        | L. EYASI, MANYARA        | 4.0N 36.0E        |                  | 55 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBJ | TANZANIA        | L. EYASI, KITANGIRI      | 4.0S 35.0E        |                  | 60 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBK | TANZANIA        | L. KITANGIRI, RIFT VAL.  | 4.0S 34.0E        |                  | 70 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBL | TANZANIA        | L. BALANGIDA, HANANG MT. | 5.0S 35.0E        |                  | 75 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBM | TANZANIA        | AREA SW OF KILIMANJARO   | 4.5S 36.5E        |                  | 70 | LO | 250 | N | M |      |     |    |    |              |
| 153 | OBN | TANZANIA        | S. OF KILIMANJARO        | 4.0S 37.0E        |                  | 50 | LO | 250 | N | M |      |     |    |    |              |
| 153 | OBP | TANZANIA        | MT. MERU, L. KIKULEIWA   | 3.5S 37.0E        |                  | 45 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBQ | KENYA           | AREA S. OF KILIMANJARO   | 3.5S 38.0E        |                  | 40 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBK | KENYA           | L. KIKULEIWA, JIPE       | 3.5S 38.0E        |                  | 55 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBS | TANZANIA        | L. KIKULEIWA, JIPE       | 4.0S 38.0E        |                  | 50 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBT | TANZANIA        | SOUTH PARE MTS.          | 4.5S 38.0E        |                  | 60 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBV | KENYA           | CITY OF MOMBASA          | 4.0S 39.0E        |                  | 35 | LO | 250 | N | M |      |     |    |    |              |
| 153 | OBV | TANZANIA        | PEMBRA IS., PEMBRA CHAN. | 4.5S 38.5E        |                  | 35 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBW | TANZANIA        | PEMBRA IS., USAMBARA MTS | 5.0S 38.5E        |                  | 35 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBX | TANZANIA        | ZANZIBAR CH., USAMBARA M | 5.5S 38.5E        |                  | 35 | LO | 250 | N | Y |      |     |    |    |              |
| 153 | OBV | TANZANIA        | ZANZIBAR CH., USAMBARA M | 6.0S 38.0E        |                  | 55 | LO | 250 | N | Y |      |     |    |    |              |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL  | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|--------------------------|---------------|---------------|--------------|--------------|----|-----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 153 | OBZ | TANZANIA        | PENBA, ZANZIBAR ISLANDS  | 5.5S          | 39.5E         |              |              | 30 | LO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCA | TANZANIA        | ZANZIBAR ISLAND          | 6.0S          | 39.0E         |              |              | 45 | LO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCB | TANZANIA        | NEAR DAR ES SALAAM       | 7.0S          | 38.5E         |              |              | 70 | LO  | 250 | U | N |          |        |     |     |           |    |
| 153 | OCC | TANZANIA        | MAFIA IS., RUFJI R. DEL. | 8.0S          | 39.5E         |              |              | 75 | LO  | 250 | U | N |          |        |     |     |           |    |
| 153 | OCN | SENEGAL         | DAKAR, CANARY CURRENT    | 15.0N         | 18.0W         |              |              | 0  | LO  | 250 | N | N |          |        |     |     |           |    |
| 153 | OCE | SENEGAL         | DAKAR, CANARY CURRENT    | 14.0N         | 18.0W         |              |              | 0  | LO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCF | SENEGAL         | DAKAR, SADOUM RIVER      | 14.0N         | 17.5W         |              |              | 0  | LO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCG | GAMBIA          | GAMBIA, SADOUM RIVERS    | 13.5N         | 16.5W         |              |              | 0  | LO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCH | SENEGAL         | GAMBIA, CASAMANCE RIVERS | 12.5N         | 15.5E         |              |              | 0  | LO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCJ | GUINEA BISSAU   | GEBA, CASAMANCE RIVERS   | 12.5N         | 14.5W         |              |              | 0  | LO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCK | GUINEA          | LOMA HILLS, TOMINE RIVER | 12.0N         | 13.0W         |              |              | 0  | LO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCL | GUINEA          | LOMA HILLS               | 12.0N         | 12.0W         |              |              | 0  | LO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCM | GUINEA          | LOMA HILLS               |               |               |              |              | 40 | LO  | 250 | U | N |          |        |     |     |           |    |
| 153 | 1   | MEXICO          | BANDERAS BAY, INT. WAVES | 20.5N         | 105.5W        | 21.4N        | 106.0W       | 10 | LO  | 250 | N | N | 19910408 | 172224 | 247 | 115 | 61        | 49 |
| 153 | 2   |                 | BLACK                    |               |               | 20.5N        | 103.5W       | 9  |     |     |   |   | 19910408 | 172304 | 247 | 117 | 63        | 49 |
| 153 | 3   | MEXICO          | CITY OF OAXACA           | 18.5N         | 97.5W         | 18.0N        | 97.2W        | 5  | NV  | 250 | N | N | 19910408 | 172452 | 247 | 121 | 70        | 49 |
| 153 | 4   | PANAMA          | CITY OF COLON, CLOUDS    | 8.5N          | 81.0W         | 9.0N         | 78.8W        | 75 | HO  | 250 | N | N | 19910408 | 173022 | 246 | 243 | 86        | 49 |
| 153 | 5   |                 | CLOUDS, THUNDERSTORMS    |               |               | 8.5N         | 77.9W        | 95 | HO  | 250 | N | N | 19910408 | 173039 | 246 | 254 | 85        | 49 |
| 153 | 6   | PANAMA          | CANAL ZONE, COLON        | 9.5N          | 79.0W         | 7.3N         | 75.9W        | 70 | HO  | 250 | N | N | 19910408 | 173118 | 246 | 269 | 83        | 49 |
| 153 | 7   | PANAMA          | CANAL ZONE, COLON        | 9.5N          | 79.5W         |              |              | 70 | HO  | 250 | N | N |          |        |     |     |           |    |
| 153 | 8   | AUSTRALIA-NT    | LAKES MACKAY, MACDONALD  | 23.0S         | 129.6E        | 23.4S        | 131.5E       | 15 | LO  | 250 | N | N | 19910409 | 075055 | 245 | 285 | 15        | 58 |
| 153 | 9   | AUSTRALIA-NT    | LAKES MACKAY, MACDONALD  | 23.5S         | 129.0E        | 23.6S        | 132.2E       | 25 | LO  | 250 | N | Y | 19910409 | 075108 | 245 | 285 | 15        | 58 |
| 153 | 10  | AUSTRALIA-NT    | MACDONNEL RANGES, TODD R | 24.0S         | 133.5E        |              |              | 5  | LO  | 250 | N | N |          |        |     |     |           |    |
| 153 | 11  | AUSTRALIA-NT    | MACDONNEL R., SIMPSON D. | 23.5S         | 135.0E        | 24.0S        | 133.7E       | 5  | LO  | 250 | U | Y | 19910409 | 075129 | 245 | 284 | 13        | 58 |
| 153 | 12  | AUSTRALIA-NT    | MACDONNEL R., SIMPSON D. | 24.5S         | 135.0E        |              |              | 5  | LO  | 250 | U | Y |          |        |     |     |           |    |
| 153 | 13  | PACIFIC OCEAN   | BLANK                    |               |               | 28.5N        | 123.4W       | LO | 250 | O   | N |   | 19910409 | 145918 | 243 | 88  | 13        | 63 |
| 153 | 14  | USA-CA          | LOS ANGELES, MOJAVE DES. | 35.0N         | 116.0W        | 28.5N        | 121.5W       | 10 | HO  | 250 | N | N | 19910409 | 145945 | 243 | 89  | 15        | 63 |
| 153 | 15  | USA-NE          | L. MEAD, GRAND CANYON    | 36.5N         | 115.0W        | 28.4N        | 115.2W       | 15 | HO  | 250 | N | N | 19910409 | 150117 | 244 | 92  | 21        | 63 |
| 153 | 16  | USA-AZ          | YUMA, PHOENIX, PINACATE  | 33.0N         | 113.0W        | 28.3N        | 114.5W       | 0  | LO  | 250 | N | N | 19910409 | 150128 | 244 | 93  | 21        | 63 |
| 153 | 17  | USA-CO          | ROCKY MTS., COLORADO PL  | 37.0N         | 107.0W        | 28.2N        | 112.1W       | 10 | HO  | 250 | N | N | 19910409 | 150202 | 244 | 94  | 23        | 63 |
| 153 | 18  | USA-UT          | FOUR CORNERS REGION      | 37.0N         | 109.0W        |              |              | 15 | HO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | 19  | USA-NM          | SANGRE DE CRISTO MTS.    | 36.0N         | 104.0W        | 28.1N        | 111.4W       | 10 | HO  | 250 | N | N | 19910409 | 150212 | 244 | 94  | 24        | 63 |
| 153 | 20  | USA-AZ          | FOUR CORNERS, GRAND CAN. | 36.0N         | 110.0W        |              |              | 15 | HO  | 250 | N | N |          |        |     |     |           |    |
| 153 | 21  | USA-UT          | FOUR CORNERS, PAINTED D. | 37.0N         | 109.5W        | 27.8N        | 107.8W       | 15 | HO  | 250 | N | Y | 19910409 | 150305 | 244 | 96  | 27        | 63 |
| 153 | 22  | USA-CO          | ROCKY MTS., SAN JUAN MT  | 38.0N         | 106.0W        |              |              | 10 | HO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | 23  | USA-NM          | RIO GRANDE RIFT VALLEY   | 35.0N         | 106.5W        | 27.7N        | 107.0W       | 5  | LO  | 250 | N | Y | 19910409 | 150318 | 244 | 96  | 28        | 63 |
| 153 | 24  | MEXICO          | SIERRA MADRE ORIENTAL    | 25.5N         | 99.5W         | 26.1N        | 97.1W        | 65 | NV  | 250 | N | N | 19910409 | 150546 | 245 | 101 | 38        | 63 |
| 153 | 25  | MEXICO          | SIERRA MADRE ORIENTAL    | 26.5N         | 100.0W        |              |              | 70 | LO  | 250 | N | Y |          |        |     |     |           |    |
| 153 | 26  | MEXICO          | SIERRA MADRE ORIENTAL    | 28.0N         | 103.0W        | 26.0N        | 96.6W        | 35 | LO  | 250 | N | Y | 19910409 | 150553 | 245 | 101 | 38        | 63 |
| 153 | 27  | USA-TX          | EDWARDS PL., STAKED PLA. | 32.0N         | 102.5W        |              |              | 25 | HO  | 250 | N | N |          |        |     |     |           |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR | GEOGRAPHIC NAME       | FEATURE                   | CENTER |        | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|----|-----------------------|---------------------------|--------|--------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |    |                       |                           | LAT    | LONG   | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 153 | 28 | MEXICO                | MEXICAN PLATEAU           | 28.0N  | 103.0W | 25.9N | 96.1W | 45 | LO | 250 | N | Y | 19910409 | 150801 | 245 | 101 | 39  | 63 |    |
| 153 | 29 | MEXICO                | NEAR BROWNSVILLE          | 26.0N  | 97.0W  |       |       | 55 | LO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 30 | CUBA                  | BAY OF PIGS, HAVANA       | 23.0N  | 82.5W  | 4.9N  | 42.8W | 60 | LO | 250 | N | N | 19910409 | 151008 | 245 | 108 | 54  | 63 |    |
| 153 | 31 | CUBA                  | BAY OF PIGS, ISLE OF PINE | 22.5N  | 82.5W  |       |       | 45 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 32 | CUBA                  | CANNARREOS ARCHIEPELAGO   | 22.5N  | 80.5W  | 4.9N  | 43.0W | 35 | LO | 250 | N | Y | 19910409 | 151023 | 245 | 108 | 56  | 63 |    |
| 153 | 33 | CUBA                  | CITY OF CIENFUEGOS        | 22.5N  | 81.0W  |       |       | 50 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 34 |                       | BLACK                     |        |        | 22.6S | 9.4E  |    |    |     |   |   | 19910409 | 153710 | 245 | 288 | 21  | 63 |    |
| 153 | 35 |                       | BLACK                     |        |        | 22.8S | 10.1E |    |    |     |   |   | 19910409 | 153721 | 245 | 287 | 20  | 63 |    |
| 153 | 36 |                       | BLACK                     |        |        | 23.2S | 11.4E |    |    |     |   |   | 19910409 | 153743 | 245 | 287 | 18  | 63 |    |
| 153 | 37 |                       | BLACK                     |        |        | 23.9S | 13.8E |    |    |     |   |   | 19910409 | 153820 | 245 | 286 | 16  | 63 |    |
| 153 | 38 | REPUBLIC SOUTH AFRICA | MOUTH OF ORANGE RIVER     | 28.5S  | 17.0E  | 24.8S | 17.1E | 5  | LO | 250 | N | N | 19910409 | 153913 | 245 | 284 | 13  | 63 |    |
| 153 | 39 | NAMIBIA               | KALAHARI DESERT           | 25.5S  | 19.0E  | 25.1S | 18.7E | 0  | NV | 250 | U | N | 19910409 | 153937 | 245 | 284 | 11  | 63 |    |
| 153 | 40 | REPUBLIC SOUTH AFRICA | GREAT KARROO, ORANGE R.   | 30.5S  | 19.5E  | 25.4S | 19.9E | 0  | LO | 250 | N | N | 19910409 | 153955 | 245 | 283 | 10  | 63 |    |
| 153 | 41 | REPUBLIC SOUTH AFRICA | ST. HELEN BAY, CAPE TOWN  | 33.0S  | 19.5E  |       |       | 20 | HO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 42 | BRAZIL                | PARANA R., SAO SIMAO RES  | 19.5S  | 52.0W  | 7.5S  | 77.8W | 25 | NV | 250 | N | N | 19910409 | 184039 | 240 | 293 | 34  | 65 |    |
| 153 | 43 | BRAZIL                | PARANA R., SOLTEIRA IS.   | 20.0S  | 50.5W  |       |       | 25 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 44 | BRAZIL                | SAO SIMAO R. PARANAIBA R  | 19.0S  | 49.5W  | 7.4S  | 77.9W | 25 | LO | 250 | N | Y | 19910409 | 184045 | 240 | 293 | 34  | 65 |    |
| 153 | 45 | BRAZIL                | SAO SIMAO R. PARANAIBA R  | 18.0S  | 50.0W  |       |       | 30 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 46 | BRAZIL                | TIETE R., VERMELHA RES.   | 20.5S  | 50.5W  | 7.3S  | 78.2W | 20 | NV | 250 | N | Y | 19910409 | 184054 | 240 | 293 | 33  | 65 |    |
| 153 | 47 | BRAZIL                | TIETE R., RIO GRANDE      | 21.0S  | 49.0W  |       |       | 25 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 48 | BRAZIL                | RIO GRANDE, LAND PATTERN  | 21.0S  | 48.0W  | 7.2S  | 78.3W | 45 | LO | 250 | N | Y | 19910409 | 184059 | 240 | 293 | 33  | 65 |    |
| 153 | 49 | BRAZIL                | PROMISSAO RES., TIETE R.  | 22.5S  | 49.0W  |       |       | 35 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 50 | BRAZIL                | AREA W. OF SAO PAULA      | 23.0S  | 47.5W  | 7.0S  | 78.6W | 60 | LO | 250 | N | N | 19910409 | 184110 | 240 | 292 | 32  | 65 |    |
| 153 | 51 | BRAZIL                | PARANA, PARAPANEMA R.     | 22.5S  | 51.5W  |       |       | 45 | LO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 52 | BRAZIL                | UBERLANDIA, AGRICULTURE   | 19.0S  | 49.0W  | 6.8S  | 78.9W | 50 | LO | 250 | U | N | 19910409 | 184123 | 240 | 292 | 32  | 65 |    |
| 153 | 53 | BRAZIL                | AG. LAND USE              |        |        |       |       | 70 | HO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 54 | BRAZIL                | AG. LAND USE              |        |        | 6.6S  | 79.3W | 65 | HO | 250 | U | N | 19910409 | 184139 | 240 | 292 | 31  | 65 |    |
| 153 | 55 | BRAZIL                | PARANAIBA RIVER           | 18.5S  | 47.0W  |       |       | 60 | HO | 250 | U | N |          |        |     |     |     |    |    |
| 153 | 56 | BRAZIL                | FURNAS RES., GRANDE R.    | 19.5S  | 46.0W  | 6.4S  | 79.6W | 60 | LO | 250 | N | N | 19910409 | 184157 | 240 | 291 | 29  | 65 |    |
| 153 | 57 | BRAZIL                | FURNAS RES., GRANDE R.    | 21.5S  | 45.5W  |       |       | 35 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 58 | BRAZIL                | FURNAS RES., GRANDE R.    | 21.0S  | 44.5W  | 6.3S  | 78.7W | 65 | LO | 250 | N | Y | 19910409 | 184203 | 240 | 291 | 29  | 65 |    |
| 153 | 59 | BRAZIL                | SIERRA DO ES PINHACO      | 19.5S  | 43.5W  | 6.1S  | 80.1W | 50 | LO | 250 | N | N | 19910409 | 184228 | 240 | 291 | 27  | 65 |    |
| 153 | 60 | BRAZIL                | COAST NEAR CAPE FREE      | 22.5S  | 42.5W  |       |       | 65 | LO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 61 | BRAZIL                | SERRA DA MANTIQUEIRA      | 21.0S  | 43.0W  | 6.0S  | 80.3W | 35 | LO | 250 | N | N | 19910409 | 184238 | 240 | 290 | 27  | 65 |    |
| 153 | 62 | BRAZIL                | SERRA DA MANTIQUEIRA      | 20.5S  | 42.5W  |       |       | 25 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 63 | BRAZIL                | SERRA DA MANTIQUEIRA      | 20.5S  | 42.0W  | 5.9S  | 80.4W | 30 | LO | 250 | N | Y | 19910409 | 184246 | 240 | 290 | 26  | 65 |    |
| 153 | 64 | BRAZIL                | PARAIBA DO SUL RIVER      | 21.5S  | 41.5W  |       |       | 30 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 65 | BRAZIL                | DOCE R. MOUTH, VITORIA    | 20.5S  | 40.5W  | 5.8S  | 80.5W | 30 | LO | 250 | N | Y | 19910409 | 184256 | 240 | 290 | 26  | 65 |    |
| 153 | 66 | BRAZIL                | PARAIBA DO SUL R. MOUTH   | 21.5S  | 41.0W  |       |       | 15 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 67 | BRAZIL                | PARAIBA DO SUL R. MOUTH   | 22.5S  | 41.5W  | 5.7S  | 80.6W | 45 | LO | 250 | N | Y | 19910409 | 184305 | 240 | 290 | 25  | 65 |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER |        | NADIR |        | CC | IL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|-----|-----------------|--------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                 |                          | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 153 | 68  | BRAZIL          | SAO TOME CAPE            | 22.5S  | 40.5W  |       |        | 55 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 69  | USA-HI          | BIG IS. OF HAWAII, VOL.  | 20.5N  | 154.0W | 23.4N | 158.0W | 75 | HO | 250 | N | N | 19910409 | 194852 | 247 | 104 | 47  | 66 |    |
| 153 | 70  | PERU            | COAST S. OF SAN JUAN BAY | 16.0S  | 74.5W  | 17.3S | 76.5W  | 10 | LO | 250 | N | N | 19910409 | 201332 | 247 | 294 | 37  | 66 |    |
| 153 | 71  | PERU            | ATICO, OCONA RIVERS      | 16.5S  | 74.0W  |       |        | 15 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 72  | PERU            | OCONA, CARAVELI RIVERS   | 16.5S  | 73.5W  | 17.6S | 75.7W  | 20 | LO | 250 | N | Y | 19910409 | 201346 | 247 | 294 | 36  | 66 |    |
| 153 | 73  | PERU            | OCONA, CAMANA RIVERS     | 17.0S  | 73.0W  | 17.9S | 75.0W  | 15 | LO | 250 | N | Y | 19910409 | 201358 | 247 | 294 | 35  | 66 |    |
| 153 | 74  | PERU            | CAMANA, TAMBO RIVERS     | 17.5S  | 72.5W  |       |        | 15 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 75  | PERU            | COAST N. OF PT. COLES    | 18.0S  | 72.5W  | 18.3S | 74.1W  | 15 | LO | 250 | N | Y | 19910409 | 201413 | 247 | 293 | 34  | 66 |    |
| 153 | 76  | PERU            | POINT COLES, DUST        | 18.0S  | 71.5W  |       |        | 15 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 77  | PERU            | POINT COLES, ARICA       | 18.5S  | 71.0W  | 18.6S | 73.2W  | 15 | LO | 250 | N | Y | 19910409 | 201429 | 247 | 293 | 33  | 66 |    |
| 153 | 78  | CHILE           | ATACAMA DESERT, ARICA    | 19.5S  | 70.5W  |       |        | 10 | LO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 79  | CHILE           | ATACAMA DESERT, IQUIQUE  | 20.0S  | 70.5W  | 18.9S | 72.6W  | 10 | LO | 250 | N | Y | 19910409 | 201439 | 247 | 293 | 33  | 66 |    |
| 153 | 80  | CHILE           | ATACAMA DESERT, IQUIQUE  | 20.0S  | 69.5W  |       |        | 10 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 81  | BOLIVIA         | L. POOPO, UYUNI SALAR    | 19.5S  | 68.5W  | 19.1S | 72.0W  | 15 | LO | 250 | N | N | 19910409 | 201449 | 247 | 292 | 32  | 66 |    |
| 153 | 82  | CHILE           | UYUNI SALAR, ATACAMA D.  | 20.5S  | 68.5W  |       |        | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 83  | CHILE           | ATACAMA DES., TOCOPILLA  | 21.0S  | 69.5W  | 19.3S | 71.6W  | 5  | LO | 250 | N | Y | 19910409 | 201458 | 247 | 292 | 32  | 66 |    |
| 153 | 84  | CHILE           | ATACAMA DES., TOCOPILLA  | 22.0S  | 70.5W  |       |        | 15 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 85  | CHILE           | UYUNI, ASCOTAN SALARS    | 21.5S  | 68.5W  | 19.5S | 71.0W  | 0  | LO | 250 | N | Y | 19910409 | 201506 | 247 | 292 | 31  | 66 |    |
| 153 | 86  | CHILE           | ATACAMA DES., LOA RIVER  | 21.5S  | 69.5W  |       |        | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 87  | CHILE           | ATACAMA DES., LOA RIVER  | 21.0S  | 70.0W  | 19.7S | 70.4W  | 15 | LO | 250 | N | Y | 19910409 | 201515 | 247 | 292 | 31  | 66 |    |
| 153 | 88  | CHILE           | ATACAMA DES., CALAMA     | 22.0S  | 69.0W  | 20.0S | 69.8W  | 0  | LO | 250 | N | Y | 19910409 | 201526 | 247 | 292 | 30  | 66 |    |
| 153 | 89  | CHILE           | ATACAMA DES., MIRAJE S.  | 22.5S  | 70.0W  |       |        | 10 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 90  | CHILE           | ATACAMA D., ANTOFAGASTA  | 24.0S  | 70.5W  | 20.1S | 69.4W  | 30 | LO | 250 | N | Y | 19910409 | 201533 | 247 | 291 | 29  | 66 |    |
| 153 | 91  | CHILE           | ATACAMA, ARIZARO SALARS  | 24.5S  | 69.0W  |       |        | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 92  | ARGENTINA       | ARIZARO S., CENT. ANDES  | 25.0S  | 68.0W  | 20.3S | 69.0W  | 5  | LO | 250 | N | Y | 19910409 | 201539 | 247 | 291 | 29  | 66 |    |
| 153 | 93  | ARGENTINA       | ARIZARO S., CENT. ANDES  | 26.0S  | 67.0W  |       |        | 30 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 94  | ARGENTINA       | CENTRAL ANDES MTS.       | 28.5S  | 67.0W  | 20.4S | 68.7W  | 55 | HO | 250 | N | Y | 19910409 | 201545 | 247 | 291 | 29  | 66 |    |
| 153 | 95  | CHILE           | PEDERNALES S., C. ANDES  | 27.0S  | 69.0W  |       |        | 30 | HO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 96  | CHILE           | PEDERNALES S., C. ANDES  | 27.0S  | 70.0W  | 20.5S | 68.2W  | 30 | HO | 250 | N | Y | 19910409 | 201552 | 247 | 291 | 28  | 66 |    |
| 153 | 97  | CHILE           | CHILE COAST, CEN. ANDES  | 27.5S  | 71.0W  |       |        | 40 | HO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 98  | CHILE           | CHILE C., CAPE BASCUNAN  | 31.5S  | 71.0W  | 20.8S | 67.5W  | 65 | HO | 250 | N | N | 19910409 | 201605 | 247 | 291 | 27  | 66 |    |
| 153 | 99  | ARGENTINA       | SALT PLAINS, CEN. ANDES  | 30.5S  | 67.5W  |       |        | 60 | HO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 100 | ARGENTINA       | CENTRAL ANDES, FOOTHILLS | 26.5S  | 66.0W  | 21.0S | 67.0W  | 55 | LO | 250 | N | N | 19910409 | 201612 | 247 | 291 | 27  | 66 |    |
| 153 | 101 | CHILE           | ATACAMA S., CEN. ANDES   | 23.0S  | 68.0W  |       |        | 5  | LO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 102 | ARGENTINA       | ATACAMA S., POZUELOS L.  | 22.5S  | 66.5W  | 21.1S | 66.6W  | 10 | LO | 250 | N | Y | 19910409 | 201619 | 247 | 290 | 26  | 66 |    |
| 153 | 103 | BOLIVIA         | COLORADO LAKE, ANDES MTS | 22.0S  | 68.0W  |       |        | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 104 | BOLIVIA         | COLORADO LAKE, ANDES MTS | 21.5S  | 66.0W  | 21.2S | 66.3W  | 10 | LO | 250 | N | Y | 19910409 | 201624 | 247 | 290 | 26  | 66 |    |
| 153 | 105 | BOLIVIA         | TUMUSLA R., ANDES MTNS.  | 21.0S  | 66.0W  |       |        | 5  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 106 | BOLIVIA         | TUMUSLA R., ANDES MTNS.  | 21.5S  | 65.0W  | 21.3S | 66.0W  | 25 | LO | 250 | N | Y | 19910409 | 201629 | 247 | 290 | 26  | 66 |    |
| 153 | 107 | BOLIVIA         | TUMUSLA R., ANDES MTNS.  | 21.5S  | 64.5W  |       |        | 45 | LO | 250 | N | Y |          |        |     |     |     |    |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | LONG  | MADIR<br>LAT | LONG  | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|--------------------------|---------------|-------|--------------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 153 | 108 | BOLIVIA         | POZUELOS L. ANDES MTNS.  | 22.0S         | 64.5W | 21.4S        | 65.7W | 45 | LO | 250 | N | Y | 19910409 | 201634 | 247 | 290 | 25        | 66 |
| 153 | 109 | ARGENTINA       | POZUELOS L., GRAND SALAR | 22.5S         | 65.5W |              |       | 35 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 110 | ARGENTINA       | SALTA, ANDES FOOTHILLS   | 25.0S         | 65.5W | 21.7S        | 65.1W | 50 | LO | 250 | N | Y | 19910409 | 201644 | 247 | 290 | 25        | 66 |
| 153 | 111 | ARGENTINA       | ANDES FOOTHILLS          | 27.5S         | 66.0W |              |       | 60 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 112 | ARGENTINA       | CHACO PL., PILCOMAYO R.  | 23.5S         | 62.0W | 22.3S        | 63.1W | 50 | LO | 250 | O | N | 19910409 | 201717 | 247 | 289 | 23        | 66 |
| 153 | 113 | ARGENTINA       | CHACO PLAIN, LAND USE    | 25.0S         | 62.5W | 22.5S        | 62.4W | 45 | LO | 250 | N | N | 19910409 | 201728 | 247 | 289 | 22        | 66 |
| 153 | 114 | ARGENTINA       | CHACO PLAIN, LAND USE    | 26.0S         | 61.0W |              |       | 50 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 115 | ARGENTINA       | CHACO PLAIN, LAND USE    | 28.0S         | 60.0W | 22.7S        | 61.8W | 50 | HO | 250 | N | N | 19910409 | 201737 | 247 | 288 | 21        | 66 |
| 153 | 116 | ARGENTINA       | PARANA R. N. CORRIENTES  | 24.5S         | 62.0W |              |       | 40 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 117 | ARGENTINA       | TEUCO R., CHACO PLAIN    |               |       |              |       |    |    |     |   |   |          |        |     |     |           |    |
| 153 | 118 | ARGENTINA       | CHACO PLAIN, LAND USE    | 24.5S         | 60.5W | 22.9S        | 61.3W | 40 | LO | 250 | N | Y | 19910409 | 201746 | 247 | 288 | 21        | 66 |
| 153 | 119 | ARGENTINA       | CHACO PLAIN, LAND USE    | 25.0S         | 60.5W |              |       | 40 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 120 | PARAGUAY        | PARAGUAY R., CONCEPCION  | 23.0S         | 58.5W | 23.2S        | 60.4W | 30 | LO | 250 | N | N | 19910409 | 201800 | 247 | 288 | 20        | 66 |
| 153 | 121 | PARAGUAY        | PARAGUAY R., ROSARIO     | 22.0S         | 58.0W |              |       | 30 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 122 | ARGENTINA       | PARAGUAY R., ASUNCION    | 25.0S         | 58.5W | 23.3S        | 59.8W | 25 | LO | 250 | N | N | 19910409 | 201810 | 247 | 288 | 19        | 66 |
| 153 | 123 | ARGENTINA       | PARAGUAY, PARANA RIVERS  | 26.0S         | 58.0W |              |       | 15 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 124 | ARGENTINA       | PARAGUAY, PARANA RIVERS  | 26.5S         | 57.0W | 23.5S        | 59.2W | 20 | LO | 250 | N | Y | 19910409 | 201819 | 247 | 287 | 19        | 66 |
| 153 | 125 | PARAGUAY        | TEBICUARY RIVER          | 28.0S         | 56.5W |              |       | 35 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 126 | PARAGUAY        | PARAGUAY R., YGUAZI R.   | 25.5S         | 56.5W | 23.7S        | 58.6W | 15 | LO | 250 | N | N | 19910409 | 201828 | 247 | 287 | 18        | 66 |
| 153 | 127 | PARAGUAY        | TEBICUARY RIVER          | 26.0S         | 56.5W |              |       | 30 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 128 | PARAGUAY        | PARAGUAY R. ROSARIO      | 24.0S         | 57.0W | 23.8S        | 58.3W | 10 | LO | 250 | N | N | 19910409 | 201834 | 247 | 287 | 18        | 66 |
| 153 | 129 | PARAGUAY        | PARAGUAY R. ROSARIO      | 24.5S         | 56.5W |              |       | 10 | LO | 250 | U | Y |          |        |     |     |           |    |
| 153 | 130 | PARAGUAY        | PARAGUAY R. ROSARIO      | 24.0S         | 57.0W | 23.9S        | 57.7W | 20 | LO | 250 | U | Y | 19910409 | 201842 | 247 | 287 | 17        | 66 |
| 153 | 131 | PARAGUAY        | PARAGUAY R. ROSARIO      | 24.0S         | 56.5W |              |       | 20 | LO | 250 | U | Y |          |        |     |     |           |    |
| 153 | 132 | PARAGUAY        | PARANA RIVER             | 24.5S         | 56.0W | 24.0S        | 57.3W | 20 | LO | 250 | N | Y | 19910409 | 201849 | 247 | 286 | 17        | 66 |
| 153 | 133 | PARAGUAY        | PARANA, YGUAZI RIVERS    | 25.0S         | 55.5W |              |       | 10 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 134 | PARAGUAY        | PARANA, YGUAZI RIVERS    | 25.5S         | 55.5W | 24.2S        | 56.9W | 15 | LO | 250 | N | Y | 19910409 | 201856 | 247 | 286 | 16        | 66 |
| 153 | 135 | PARAGUAY        | PARANA RIVER             | 26.0S         | 55.0W |              |       | 40 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 136 | BRAZIL          | PARANA RIVER             | 25.5S         | 54.5W | 24.4S        | 56.0W | 30 | LO | 250 | N | Y | 19910409 | 201909 | 247 | 286 | 16        | 66 |
| 153 | 137 | BRAZIL          | PARANA RIVER             | 25.0S         | 54.0W |              |       | 15 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 138 | BRAZIL          | PARANA RIVER, GUAIRA     | 24.0S         | 54.0W | 24.5S        | 55.6W | 15 | LO | 250 | N | Y | 19910409 | 201916 | 247 | 286 | 15        | 66 |
| 153 | 139 | ARGENTINA       | URUGUAY RIVER            | 28.0S         | 54.0W |              |       | 55 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 140 | ARGENTINA       | PARANA RIVER             | 26.5S         | 54.0W | 24.7S        | 54.9W | 40 | LO | 250 | U | N | 19910409 | 201927 | 246 | 285 | 14        | 66 |
| 153 | 141 | BRAZIL          | PEPERI GUACO RIVER       | 26.5S         | 53.0W |              |       | 35 | LO | 250 | U | Y |          |        |     |     |           |    |
| 153 | 142 | BRAZIL          | URUGUAY RIVER            | 28.5S         | 52.5W | 24.7S        | 54.6W | 30 | LO | 250 | U | Y | 19910409 | 201932 | 246 | 285 | 14        | 66 |
| 153 | 143 | BRAZIL          | PARANA RIVER, GUARIA     | 24.0S         | 54.0W |              |       | 15 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 144 | BRAZIL          | PIGUIRI RIVER            | 24.0S         | 53.0W | 24.9S        | 54.0W | 55 | LO | 250 | U | Y | 19910409 | 201941 | 246 | 285 | 13        | 66 |
| 153 | 145 | BRAZIL          | IGUACU RIVER             | 24.5S         | 53.5W |              |       | 45 | LO | 250 | U | Y |          |        |     |     |           |    |
| 153 | 146 | BRAZIL          | IVAI RIVER               | 24.0S         | 51.5W | 25.1S        | 53.0W | 35 | LO | 250 | U | N | 19910409 | 201956 | 246 | 285 | 13        | 66 |
| 153 | 147 | BRAZIL          | NEAR PONTA GROSSA        | 24.5S         | 50.0W |              |       | 30 | LO | 250 | U | Y |          |        |     |     |           |    |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 153 | 148 | BRAZIL          | IVAI RIVER                | 24.5S 51.0W          | 26.3S 52.4W         | 30 | LO | 250 | U | Y | 19910409 | 202005 | 246 | 284 | 12        | 66 |
| 153 | 149 | BRAZIL          | NEAR PORTO UNIAO          | 25.6S 51.0W          |                     | 30 | LO | 250 | U | N |          |        |     |     |           |    |
| 153 | 150 | BRAZIL          | NEAR LAJES                | 27.0S 50.5W          | 25.4S 51.7W         | 25 | LO | 250 | U | Y | 19910409 | 202017 | 246 | 284 | 11        | 66 |
| 153 | 151 | BRAZIL          | GREAL MTNS.               | 28.5S 50.5W          |                     | 10 | LO | 250 | U | N |          |        |     |     |           |    |
| 153 | 152 | BRAZIL          | COAST S. OF CRICIUMA      | 29.0S 50.0W          | 25.6S 50.7W         | 10 | LO | 250 | U | Y | 19910409 | 202031 | 246 | 283 | 10        | 66 |
| 153 | 153 | BRAZIL          | CRICIUMA, TUBARAO         | 29.0S 49.0W          |                     | 25 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 154 | BRAZIL          | DOS PATOS LAKE            | 31.0S 50.0W          | 25.8S 49.9W         | 60 | LO | 250 | N | N | 19910409 | 202044 | 246 | 283 | 9         | 66 |
| 153 | 155 | BRAZIL          | COAST S. OF TUBARAO       | 29.5S 49.0W          |                     | 30 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 156 | BRAZIL          | SAINT CATHERINE ISLAND    | 27.5S 48.5W          | 26.0S 48.9W         | 20 | LO | 250 | U | N | 19910409 | 202059 | 246 | 283 | 8         | 66 |
| 153 | 157 | PACIFIC OCEAN   | CLOUD STREAKS             |                      | 2.6N 137.3W         | 25 | LO | 250 | N | N | 19910409 | 213533 | 247 | 309 | 81        | 67 |
| 153 | 158 | PACIFIC OCEAN   | CLOUD STREAKS             |                      | 1.6N 135.5W         | 35 | LO | 250 | N | N | 19910409 | 213607 | 247 | 307 | 79        | 67 |
| 153 | 159 | PACIFIC OCEAN   | CLOUD STREAKS             |                      | 0.5N 133.6W         | 20 | LO | 250 | N | N | 19910409 | 213843 | 247 | 305 | 77        | 67 |
| 153 | 160 | PACIFIC OCEAN   | OCEAN WAVE PATTERNS       |                      | 1.2S 130.8W         | 30 | LO | 250 | N | N | 19910409 | 213738 | 247 | 303 | 73        | 67 |
| 153 | 161 | CHINA           | TIBET PLAT., NA-MU LAKE   | 31.0N 92.0E          | 27.5N 79.8E         | 60 | HO | 250 | O | N | 19910410 | 001843 | 245 | 80  | -1        | 69 |
| 153 | 162 | CHINA           | TIBET PLAT., NA-MU LAKE   | 29.5N 90.0E          | 28.0N 83.8E         | 55 | LO | 250 | N | N | 19910410 | 001742 | 246 | 82  | 1         | 69 |
| 153 | 163 | CHINA           | HIMALAYAS, PAIKU-CO LK.   | 28.5N 85.5E          | 28.2N 86.2E         | 5  | NV | 250 | N | N | 19910410 | 001817 | 246 | 83  | 4         | 69 |
| 153 | 164 | CHINA           | HIMALAYAS, IXIXABANGMA    | 28.5N 85.5E          | 28.3N 87.3E         | 5  | NV | 250 | N | Y | 19910410 | 001834 | 246 | 84  | 5         | 69 |
| 153 | 165 | CHINA           | HIMALAYAS                 | 28.5N 86.5E          | 28.3N 88.8E         | 5  | NV | 250 | N | Y | 19910410 | 001852 | 246 | 84  | 6         | 69 |
| 153 | 166 | CHINA           | HIMALAYAS                 | 28.5N 89.0E          | 28.4N 89.7E         | 5  | NV | 250 | N | Y | 19910410 | 001908 | 246 | 85  | 7         | 69 |
| 153 | 167 | CHINA           | HIMALAYAS, PUMA LK.       | 29.0N 90.0E          | 28.4N 90.8E         | 10 | NV | 250 | N | Y | 19910410 | 001924 | 246 | 85  | 8         | 69 |
| 153 | 168 | CHINA           | HIMALAYAS, PUMA LK.       | 28.5N 91.0E          | 28.5N 91.7E         | 25 | NV | 250 | N | Y | 19910410 | 001938 | 246 | 86  | 9         | 69 |
| 153 | 169 | CHINA           | HIMALAYAS, BRAHMAPUTRA    | 29.5N 90.5E          |                     | 10 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 170 | CHINA           | HIMALAYAS, BRAHMAPUTRA    | 29.0N 92.0E          | 28.5N 93.4E         | 5  | LO | 250 | N | Y | 19910410 | 002003 | 246 | 87  | 10        | 69 |
| 153 | 171 | CHINA           | TIBET PLAT., DLB. EXPOS.  |                      |                     | 50 | HO | 250 | O | N |          |        |     |     |           |    |
| 153 | 172 | CHINA           | TIBET PLATEAU             | 34.5N 91.0E          | 28.5N 98.3E         | 60 | HO | 250 | N | N | 19910410 | 002113 | 247 | 89  | 15        | 69 |
| 153 | 173 | CHINA           | TIBET PLAT., DLB. EXPOS   |                      | 28.4N 100.6E        | 60 | HO | 250 | O | N | 19910410 | 002147 | 247 | 90  | 17        | 69 |
| 153 | 174 | CHINA           | TIBET PLATEAU             |                      | 28.4N 101.3E        | 70 | HO | 250 | N | N | 19910410 | 002158 | 247 | 90  | 18        | 69 |
| 153 | 175 | CHINA           | TIBET P., YAMZHO LAKE     | 30.0N 89.5E          | 28.3N 103.1E        | 40 | HO | 250 | N | N | 19910410 | 002224 | 247 | 91  | 19        | 69 |
| 153 | 176 | CHINA           | TIBET P., YAMZHO LAKE     | 29.0N 88.5E          | 28.2N 103.9E        | 40 | HO | 250 | N | Y | 19910410 | 002235 | 247 | 92  | 20        | 69 |
| 153 | 177 | CHINA           | FOLDED R., DLB. EXPOSURE  |                      |                     | 55 | HO | 250 | O | N |          |        |     |     |           |    |
| 153 | 178 | CHINA           | FOLDED RANGES             | 29.5N 99.0E          | 28.0N 106.6E        | 50 | HO | 250 | N | N | 19910410 | 002315 | 247 | 93  | 23        | 69 |
| 153 | 179 | CHINA           | FOLDED R., DLB. EXPOSURE  |                      | 18.7N 143.6E        | 55 | HO | 250 | O | N | 19910410 | 003256 | 248 | 107 | 60        | 69 |
| 153 | 180 | VIETNAM         | MHA TRANG, CAM RANH BAY   | 12.5N 108.5E         | 13.1N 108.1E        | 40 | NV | 250 | N | N | 19910410 | 034328 | 247 | 106 | 73        | 71 |
| 153 | 181 | VIETNAM         | DOUBLE EXPOSURE           |                      | 12.2N 109.9E        | 65 | LO | 250 | O | N | 19910410 | 034402 | 247 | 105 | 75        | 71 |
| 153 | 182 | SOUTH CHINA SEA | SHIP WAKE                 |                      | 11.6N 111.0E        | 10 | LO | 250 | N | N | 19910410 | 034422 | 247 | 105 | 76        | 71 |
| 153 | 183 | PHILIPPINES     | PALAWAN, DBL EXPOSURE     | 8.0N 116.0E          | 9.3N 115.4E         | 15 | LO | 250 | O | N | 19910410 | 034543 | 247 | 99  | 81        | 71 |
| 153 | 184 | MALAYSIA        | MARUDU BAY, CROCKER MTNS  | 6.5N 116.0E          | 8.9N 116.2E         | 30 | LO | 250 | N | N | 19910410 | 034557 | 247 | 97  | 82        | 71 |
| 153 | 185 | SULU SEA        | KAGAYAN IS., INT. WAVES   | 8.0N 118.0E          | 7.9N 118.0E         | 10 | LO | 250 | N | N | 19910410 | 034632 | 247 | 90  | 84        | 71 |
| 153 | 186 | PHILIPPINES     | MINDANAO, ILLANA BAY      | 6.5N 124.0E          | 6.2N 120.9E         | 25 | LO | 250 | N | N | 19910410 | 034727 | 247 | 57  | 87        | 71 |
| 153 | 187 | PHILIPPINES     | SULU ACHIP., SPIR. EDDIES | 6.5N 121.5E          | 5.8N 121.7E         | 30 | NV | 250 | N | N | 19910410 | 034741 | 247 | 39  | 87        | 71 |

TABLE 4-3.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY ROLL AND FRAME (Concluded)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT LON | NADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL OR |
|-----|-----|-----------------|--------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|--------------|
| 153 | 188 |                 | DOUBLE EXPOSURE          |                   | 5.0N 123.0E      | 60 | LO | 250 | N | N | 19910410 | 034807 | 247 | 4   | 87 71        |
| 153 | 189 | INDONESIA       | SULAWESI, BANGKA STRAIT  | 2.6N 124.0E       | 3.8N 125.2E      | 26 | LO | 250 | N | N | 19910410 | 034849 | 247 | 332 | 85 71        |
| 153 | 190 |                 | TRIPLE EXPOSURE          |                   | 1.8N 128.6E      |    |    | 250 | O | N | 19910410 | 034953 | 247 | 316 | 81 71        |
| 153 | 191 | INDONESIA       | HALMAHERA, KAU BAY       | 1.5N 127.5E       |                  | 30 | LO | 250 | U | N |          |        |     |     |              |
| 153 | 192 |                 | TRIPLE EXPOSURE          |                   | 0.2S 132.1E      |    |    | 250 | O | N | 19910410 | 035100 | 247 | 310 | 77 71        |
| 153 | 193 | INDONESIA       | W. N. GUINEA, MACCLURE G | 2.0S 132.5E       |                  | 50 | LO | 250 | U | N |          |        |     |     |              |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|-----------------|---------------------------|----------------------|---------------------|----|----|----|---|---|----------|--------|-----|-----|-----------|----|
| 8  | 37  |                 | BLANK FRAME               |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 12 | 25  |                 | OVEREXPOSED               | 23.3S 132.3E         |                     |    |    |    |   |   | 19910410 | 071216 | 245 | 290 | 24        | 73 |
| 14 | 1   |                 | OVEREXPOSED               | 24.9N 5.8E           |                     |    |    |    |   |   | 19910410 | 081517 | 246 | 100 | 39        | 74 |
| 14 | 16  |                 |                           | 18.3N 25.3E          |                     |    |    |    |   |   | 19910410 | 082036 | 247 | 106 | 59        | 74 |
| 40 | 17  |                 | SUNSET TERMINATOR         | 27.6S 55.3W          |                     |    |    |    |   |   | 19910410 | 225947 | 243 | 268 | -21       | 83 |
| 40 | 18  |                 | SUNSET TERMINATOR         | 27.6S 55.3W          |                     |    |    |    |   |   | 19910410 | 225948 | 243 | 268 | -21       | 83 |
| 40 | 19  |                 | SUNSET TERMINATOR         | 27.6S 55.3W          |                     |    |    |    |   |   | 19910410 | 225948 | 243 | 268 | -21       | 83 |
| 40 | 20  |                 | SUNSET TERMINATOR         | 27.6S 55.2W          |                     |    |    |    |   |   | 19910410 | 225949 | 243 | 268 | -21       | 83 |
| 40 | 21  |                 | SUNSET TERMINATOR         | 27.6S 55.1W          |                     |    |    |    |   |   | 19910410 | 225951 | 243 | 268 | -21       | 83 |
| 40 | 22  |                 | SUNSET TERMINATOR         | 27.6S 55.0W          |                     |    |    |    |   |   | 19910410 | 225952 | 243 | 268 | -21       | 83 |
| 40 | 23  |                 | SUNSET TERMINATOR         | 27.6S 55.0W          |                     |    |    |    |   |   | 19910410 | 225952 | 243 | 268 | -21       | 83 |
| 40 | 24  |                 | SUNSET TERMINATOR         | 27.6S 54.9W          |                     |    |    |    |   |   | 19910410 | 225953 | 243 | 268 | -21       | 83 |
| 40 | 25  |                 | SUNSET TERMINATOR         | 27.6S 54.9W          |                     |    |    |    |   |   | 19910410 | 225953 | 243 | 268 | -21       | 83 |
| 40 | 26  |                 | SUNSET TERMINATOR         | 27.6S 54.7W          |                     |    |    |    |   |   | 19910410 | 225957 | 243 | 268 | -21       | 83 |
| 40 | 27  |                 | SUNSET TERMINATOR         | 27.5S 54.6W          |                     |    |    |    |   |   | 19910410 | 225958 | 243 | 268 | -21       | 83 |
| 40 | 28  |                 | SUNSET TERMINATOR         | 27.5S 54.6W          |                     |    |    |    |   |   | 19910410 | 225958 | 243 | 268 | -21       | 83 |
| 40 | 29  |                 | SUNSET TERMINATOR         | 27.5S 54.4W          |                     |    |    |    |   |   | 19910410 | 230001 | 243 | 268 | -22       | 83 |
| 40 | 30  |                 | SUNSET TERMINATOR         | 27.5S 54.3W          |                     |    |    |    |   |   | 19910410 | 230002 | 243 | 268 | -22       | 83 |
| 40 | 31  |                 | SUNSET TERMINATOR         | 27.5S 54.3W          |                     |    |    |    |   |   | 19910410 | 230002 | 243 | 268 | -22       | 83 |
| 40 | 32  |                 | SUNSET TERMINATOR         | 27.4S 54.0W          |                     |    |    |    |   |   | 19910410 | 230007 | 243 | 268 | -22       | 83 |
| 40 | 33  |                 | SUNSET TERMINATOR         | 26.8S 50.2W          |                     |    |    |    |   |   | 19910410 | 230104 | 243 | 266 | -26       | 83 |
| 44 | 11  |                 | CARGO BAY                 | 1.0N 85.0W           |                     |    |    |    |   |   | 19910410 | 175134 | 248 | 340 | 83        | 80 |
| 45 | 1   |                 | CARGO BAY                 | 11.6S 80.5E          |                     |    |    |    |   |   | 19910410 | 083744 | 247 | 302 | 55        | 74 |
| 45 | 2   |                 | CARGO BAY                 | 11.9S 81.2E          |                     |    |    |    |   |   | 19910410 | 083758 | 247 | 302 | 54        | 74 |
| 45 | 3   |                 | CARGO BAY                 | 12.2S 81.7E          |                     |    |    |    |   |   | 19910410 | 083806 | 247 | 302 | 53        | 74 |
| 71 | 0 B |                 | EXTERNAL TANK             |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 C |                 | EXTERNAL TANK             |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 D |                 | EXTERNAL TANK             |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 E |                 | EXTERNAL TANK             |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 F |                 | EXTERNAL TANK             |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 G |                 | EXTERNAL TANK             |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 H |                 | EXTERNAL TANK             |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 J |                 | EXTERNAL TANK             |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 K |                 | EXTERNAL TANK             |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 L |                 | EXTERNAL TANK             |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 M |                 | EXTERNAL TANK, SPACE DEBR |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 N |                 | EXTERNAL TANK, SPACE DEBR |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 P |                 | MEANDERING RIVER          |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 0 Q |                 | MEANDERING RIVER          |                      |                     |    |    |    |   |   |          |        |     |     |           |    |
| 71 | 1   |                 | CARGO BAY-GRO             | 24.2N 137.4W         |                     |    |    |    |   |   | 19910405 | 155204 | 246 | 88  | 11        | 2  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT LON | NADIR<br>LAT LON | CC  | TL  | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|--------------------------|-------------------|------------------|-----|-----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 71 | 2   |                 | CARGO BAY-GRO            |                   | 24.9N 134.7W     |     |     | 250 | N | N | 19910405 | 155246 | 246 | 89  | 14        | 2  |
| 71 | 6   |                 | BLACK                    |                   | 28.2N 113.7W     |     |     |     |   |   | 19910405 | 155802 | 246 | 102 | 33        | 2  |
| 71 | 18  |                 | SHUTTLE TAIL-GRO         |                   | 28.2N 120.6W     |     |     | 250 | N | N | 19910405 | 173535 | 246 | 114 | 48        | 3  |
| 72 | 77  |                 | GRO-MANIPULATOR ARM      |                   | 26.1N 135.1E     | 90  | HO  | 100 | N | Y | 19910405 | 220753 | 246 | 91  | 17        | 6  |
| 72 | 78  |                 | GRO-MANIPULATOR ARM      |                   | 26.3N 136.3E     | 90  | HO  | 100 | N | Y | 19910405 | 220812 | 246 | 92  | 18        | 6  |
| 73 | 1   |                 | CARGO BAY, DARK.         |                   | 22.9S 19.4W      | LO  | 50  | N   | N | N | 19910406 | 190608 | 243 | 277 | 0         | 19 |
| 73 | 2   |                 | BLACK                    |                   | 27.9S 6.6E       | LO  | 50  | N   | N | N | 19910406 | 191244 | 243 | 264 | -24       | 19 |
| 74 | 21  |                 | STORM OVER TEXAS         |                   | 28.4N 101.5W     | 100 | HO  | 250 | N | N | 19910409 | 132529 | 244 | 85  | 8         | 62 |
| 74 | 22  |                 | STORM OVER TEXAS         |                   | 28.5N 101.3W     | 100 | HO  | 250 | N | N | 19910409 | 132532 | 244 | 86  | 8         | 62 |
| 74 | 23  |                 | STORM OVER TEXAS         |                   | 28.5N 101.1W     | 100 | HO  | 250 | N | N | 19910409 | 132535 | 244 | 86  | 8         | 62 |
| 74 | 24  |                 | STORM OVER TEXAS         |                   | 28.5N 100.2W     | 100 | HO  | 250 | N | N | 19910409 | 132547 | 245 | 86  | 9         | 62 |
| 74 | 25  |                 | STORM OVER TEXAS         |                   | 28.5N 100.0W     | 100 | HO  | 250 | N | N | 19910409 | 132550 | 245 | 86  | 9         | 62 |
| 74 | 26  |                 | STORM OVER TEXAS         |                   | 28.5N 99.8W      | 100 | HO  | 250 | N | N | 19910409 | 132553 | 245 | 86  | 9         | 62 |
| 75 | 68  |                 | ORB. TAIL, CLOUDS        |                   | 18.3S 39.6E      | 100 | HO  | 250 | N | N | 19910406 | 142219 | 242 | 281 | 12        | 16 |
| 75 | 69  |                 | ORB. TAIL, CLOUDS        |                   | 18.4S 39.9E      | 100 | HO  | 250 | N | N | 19910406 | 142226 | 242 | 281 | 12        | 16 |
| 77 | 7   |                 | CARGO BAY                |                   | 26.9N 75.0W      | LO  | 500 | N   | N | N | 19910406 | 121001 | 246 | 91  | 17        | 15 |
| 77 | 8   |                 | CARGO BAY                |                   | 27.1N 73.6W      | LO  | 50  | N   | N | N | 19910406 | 121022 | 246 | 92  | 19        | 15 |
| 77 | 9   |                 | CARGO BAY                |                   | 27.3N 72.2W      | LO  | 50  | N   | N | N | 19910406 | 121043 | 246 | 93  | 20        | 15 |
| 85 | 19  |                 | VRY CLOUD, HAZY          |                   | 6.2N 73.8W       | 99  | LO  | 250 | N | N | 19910408 | 173155 | 246 | 277 | 81        | 49 |
| 85 | 20  |                 | VRY CLOUD, HAZY, T-STORM |                   | 4.1N 70.1W       | 99  | LO  | 250 | N | N | 19910408 | 173307 | 245 | 284 | 76        | 49 |
| 85 | 31  |                 | CLOUDS, UNDEREXPOSED     |                   | 26.3S 49.4W      | 100 | LO  | 250 | N | N | 19910408 | 210007 | 244 | 278 | 1         | 51 |
| 85 | 32  |                 | CLOUDS, UNDEREXPOSED     |                   | 26.3S 49.1W      | 100 | LO  | 250 | N | N | 19910408 | 210011 | 244 | 278 | 0         | 51 |
| 85 | 48  |                 | CLOUDS                   |                   | 18.7N 46.3E      | 99  | HO  | 250 | N | N | 19910409 | 072513 | 246 | 113 | 65        | 58 |
| 85 | 49  |                 | CLOUDS                   |                   | 18.0N 47.9E      | 99  | HO  | 250 | N | N | 19910409 | 072540 | 246 | 114 | 66        | 58 |
| 91 | 74  |                 | BLACK, CENTER WHITE SPOT |                   | 22.8N 146.2E     |     |     |     |   |   | 19910405 | 203107 | 245 | 85  | 5         | 5  |
| 94 | 28  |                 | GRO PAYLOAD IN BAY       |                   |                  | 99  | 0   | 100 | N | N |          |        |     |     |           |    |
| 94 | 29  |                 | GRO PAYLOAD IN BAY       |                   |                  | 0   | 100 | N   | N |   |          |        |     |     |           |    |
| 94 | 30  |                 | GRO PAYLOAD IN BAY       |                   |                  | 0   | 100 | N   | N |   |          |        |     |     |           |    |
| 94 | 31  |                 | GRO PAYLOAD IN BAY       |                   |                  | 0   | 100 | N   | N |   |          |        |     |     |           |    |
| 94 | 34  |                 | VIEW OF OVERHEAD WINDOW  |                   |                  | 0   | 100 | N   | N |   |          |        |     |     |           |    |
| 94 | 35  |                 | VIEW OF OVERHEAD WINDOW  |                   |                  | 0   | 100 | N   | N |   |          |        |     |     |           |    |
| 94 | 105 |                 | GRO IN PAYLOAD BAY       |                   |                  | 100 | N   | N   |   |   |          |        |     |     |           |    |
| 94 | 106 |                 | GRO IN PAYLOAD BAY       |                   |                  | 100 | N   | N   |   |   |          |        |     |     |           |    |
| 96 | 1   |                 | GRO PAYLOAD              |                   |                  |     |     |     |   |   |          |        |     |     |           |    |
| 96 | 2   |                 | GRO PAYLOAD              |                   |                  |     |     |     |   |   |          |        |     |     |           |    |
| 96 | 3   |                 | GRO PAYLOAD              |                   |                  |     |     |     |   |   |          |        |     |     |           |    |
| 96 | 5   |                 | GRO PAYLOAD              |                   |                  |     |     |     |   |   |          |        |     |     |           |    |
| 96 | 6   |                 | GRO PAYLOAD              |                   |                  |     |     |     |   |   |          |        |     |     |           |    |
| 96 | 7   |                 | GRO PAYLOAD              |                   |                  |     |     |     |   |   |          |        |     |     |           |    |
| 96 | 8   |                 | GRO PAYLOAD              |                   |                  |     |     |     |   |   |          |        |     |     |           |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE               | CENTER<br>LAT | LOW | NADIR<br>LAT | LOW    | CC | TL | FL  | E   | S | DATE     | GMT      | AL     | AZ  | SUM<br>EL | OR |    |
|----|----|-----------------|-----------------------|---------------|-----|--------------|--------|----|----|-----|-----|---|----------|----------|--------|-----|-----------|----|----|
| 96 | 9  |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 10 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 11 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 12 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 13 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 14 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 15 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 16 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 17 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 18 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 19 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 20 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 21 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 22 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 23 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 24 |                 | GRO PAYLOAD           |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 69 |                 | BLANK                 |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 70 |                 | BLANK                 |               |     |              |        |    |    |     | N   | N |          |          |        |     |           |    |    |
| 96 | 74 |                 |                       |               |     |              |        |    |    |     |     |   |          |          |        |     |           |    |    |
| 97 | 50 |                 | CARGO BAY, EARTH LIM. |               |     | 18.6N        | 80.1W  |    |    | 100 | N   | N | 19910406 | 102853   | 245    | 79  | -10       | 14 |    |
| 97 | 51 |                 | CARGO BAY, EARTH LIM. |               |     | 18.8N        | 79.6W  |    |    | 100 | N   | N | 19910406 | 102902   | 245    | 79  | -10       | 14 |    |
| 97 | 52 |                 | CARGO BAY, EARTH LIM. |               |     | 19.0N        | 79.1W  |    |    | 250 | N   | N | 19910406 | 102910   | 245    | 79  | -9        | 14 |    |
| 97 | 53 |                 | CARGO BAY, EARTH LIM. |               |     | 19.2N        | 78.5W  |    |    | 250 | N   | N | 19910406 | 102920   | 245    | 79  | -9        | 14 |    |
| 97 | 54 |                 | CARGO BAY, EARTH LIM. |               |     | 19.5N        | 78.0W  |    |    | 250 | N   | N | 19910406 | 102930   | 245    | 80  | -8        | 14 |    |
| 98 | 34 |                 | CARGO BAY             |               |     | 25.8S        | 137.1E |    |    | 00  | 250 | N | N        | 19910407 | 091001 | 243 | 274       | -6 | 28 |
| 98 | 75 |                 | EARTH LIMB            |               |     | 27.8N        | 114.7W |    |    | HO  | 250 | N | N        | 19910407 | 143956 | 246 | 90        | 16 | 32 |
| 98 | 81 |                 | EARTH LIMB            |               |     | 25.8S        | 41.6E  |    |    | HO  | 250 | N | N        | 19910407 | 152344 | 243 | 275       | -4 | 32 |
| 98 | 96 |                 | REFLECTIVE PANEL GRO  |               |     | 24.6N        | 108.6E |    |    | LO  | 250 | N | N        | 19910407 | 222243 | 245 | 81        | -2 | 37 |
| 98 | 97 |                 | REFLECTIVE PANEL GRO  |               |     | 24.7N        | 109.1E |    |    | LO  | 250 | N | N        | 19910407 | 222250 | 245 | 81        | -2 | 37 |
| 98 | 98 |                 | REFLECTIVE PANEL GRO  |               |     | 24.8N        | 109.6E |    |    | LO  | 250 | N | N        | 19910407 | 222259 | 245 | 81        | -1 | 37 |
| 98 | 99 |                 | REFLECTIVE PANEL GRO  |               |     | 24.9N        | 110.1E |    |    | LO  | 250 | N | N        | 19910407 | 222306 | 245 | 81        | -1 | 37 |
| 99 | 1  |                 | CARGO BAY, GRO        |               |     | 14.2S        | 80.1E  | 0  |    | 100 | N   | N | 19910407 | 103419   | 243    | 286 | 28        | 29 |    |
| 99 | 2  |                 | CARGO BAY, GRO        |               |     | 16.3S        | 84.8E  |    |    | 40  | N   | Y | 19910407 | 103542   | 243    | 285 | 23        | 29 |    |
| 99 | 3  |                 | CARGO BAY, GRO        |               |     | 16.8S        | 85.8E  |    |    | 40  | N   | Y | 19910407 | 103601   | 243    | 284 | 22        | 29 |    |
| 99 | 4  |                 | CARGO BAY, GRO        |               |     | 17.3S        | 87.0E  |    |    | 40  | N   | Y | 19910407 | 103621   | 243    | 284 | 21        | 29 |    |
| 99 | 5  |                 | CARGO BAY-DARK        |               |     | 22.4N        | 91.7W  |    |    | 40  | N   | N | 19910407 | 112644   | 245    | 79  | -7        | 30 |    |
| 99 | 6  |                 | CARGO BAY-DARK        |               |     | 22.6N        | 91.0W  |    |    | 40  | N   | N | 19910407 | 112656   | 245    | 79  | -6        | 30 |    |
| 99 | 7  |                 | CARGO BAY-DARK        |               |     | 22.8N        | 90.3W  |    |    | 40  | N   | N | 19910407 | 112706   | 245    | 80  | -5        | 30 |    |
| 99 | 8  |                 | CARGO BAY-DARK        |               |     | 23.5N        | 88.0W  |    |    | 40  | N   | N | 19910407 | 112744   | 245    | 81  | -3        | 30 |    |
| 99 | 9  |                 | CARGO BAY-DARK        |               |     | 23.9N        | 86.9W  |    |    | 40  | N   | N | 19910407 | 112801   | 245    | 81  | -2        | 30 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE              | CENTER<br>LAT<br>LON | MADTR<br>LAT<br>LON | CC | TL | FL | E        | S      | DATE | GMT | AL | AZ | SUN<br>EL | OR |
|----|----|-----------------|----------------------|----------------------|---------------------|----|----|----|----------|--------|------|-----|----|----|-----------|----|
| 99 | 10 |                 | CARGO BAY-DARK       |                      | 24.0N 86.4W         | 40 | N  | N  | 19910407 | 112809 | 245  | 81  | -1 | 30 |           |    |
| 99 | 11 |                 | CARGO BAY-DARK       |                      | 24.3N 85.3W         | 40 | N  | N  | 19910407 | 112827 | 245  | 82  | -0 | 30 |           |    |
| 99 | 12 |                 | CARGO BAY-DARK       |                      | 24.8N 83.3W         | 40 | N  | N  | 19910407 | 112858 | 245  | 83  | 1  | 30 |           |    |
| 99 | 13 |                 | CARGO BAY-DARK       |                      | 25.0N 82.6W         | 40 | N  | N  | 19910407 | 112909 | 245  | 83  | 2  | 30 |           |    |
| 99 | 14 |                 | CARGO BAY-DARK       |                      | 25.1N 82.0W         | 40 | N  | N  | 19910407 | 112918 | 245  | 83  | 2  | 30 |           |    |
| 99 | 15 |                 | CARGO BAY-DARK       |                      | 25.5N 80.2W         | 40 | N  | N  | 19910407 | 112945 | 245  | 84  | 4  | 30 |           |    |
| 99 | 16 |                 | CARGO BAY-GRO        |                      | 25.8N 79.0W         | 40 | N  | N  | 19910407 | 113004 | 246  | 85  | 5  | 30 |           |    |
| 99 | 17 |                 | CARGO BAY-GRO        |                      | 25.9N 78.7W         | 40 | N  | N  | 19910407 | 113008 | 246  | 85  | 5  | 30 |           |    |
| 99 | 18 |                 | CARGO BAY-DARK       |                      | 26.0N 78.1W         | 40 | N  | N  | 19910407 | 113017 | 246  | 85  | 6  | 30 |           |    |
| 99 | 19 |                 | CARGO BAY-DARK       |                      | 26.7N 74.3W         | 40 | N  | N  | 19910407 | 113116 | 246  | 87  | 10 | 30 |           |    |
| 99 | 20 |                 | CARGO BAY-GRO        |                      | 26.9N 73.3W         | 40 | N  | N  | 19910407 | 113130 | 246  | 87  | 10 | 30 |           |    |
| 99 | 21 |                 | CARGO BAY-GRO        |                      | 27.7N 39.5W         | 40 | N  | N  | 19910407 | 113946 | 246  | 107 | 42 | 30 |           |    |
| 99 | 22 |                 | CARGO BAY-GRO        |                      | 27.6N 38.9W         | 40 | N  | N  | 19910407 | 113956 | 246  | 107 | 43 | 30 |           |    |
| 99 | 23 |                 | CARGO BAY-GRO        |                      | 26.9N 34.0W         | 40 | N  | N  | 19910407 | 114109 | 246  | 111 | 47 | 30 |           |    |
| 99 | 24 |                 | CARGO BAY-GRO        |                      | 24.2N 21.3W         | 40 | N  | N  | 19910407 | 114423 | 246  | 120 | 59 | 30 |           |    |
| 99 | 25 |                 | CARGO BAY-GRO        |                      | 23.9N 20.5W         | 40 | N  | N  | 19910407 | 114436 | 246  | 121 | 60 | 30 |           |    |
| 99 | 26 |                 | CARGO BAY-GRO        |                      | 23.8N 20.1W         | 40 | N  | N  | 19910407 | 114442 | 246  | 121 | 60 | 30 |           |    |
| 99 | 29 |                 | CARGO BAY-GRO DEPLOY |                      | 17.1S 62.6E         | 40 | N  | N  | 19910407 | 120938 | 243  | 284 | 22 | 30 |           |    |
| 99 | 30 |                 | CARGO BAY-GRO DEPLOY |                      | 18.2S 65.3E         | 40 | N  | N  | 19910407 | 121024 | 243  | 284 | 19 | 30 |           |    |
| 99 | 31 |                 | CARGO BAY-GRO DEPLOY |                      | 18.5S 65.9E         | 40 | N  | N  | 19910407 | 121035 | 243  | 284 | 18 | 30 |           |    |
| 99 | 32 |                 | CARGO BAY-GRO DEPLOY |                      | 21.1S 72.8E         | 40 | N  | N  | 19910407 | 121231 | 243  | 281 | 11 | 30 |           |    |
| 99 | 33 |                 | CARGO BAY-GRO DEPLOY |                      | 21.4S 73.6E         | 40 | N  | N  | 19910407 | 121243 | 243  | 281 | 10 | 30 |           |    |
| 99 | 34 |                 | GRO DEPLOY           |                      | 27.7N 91.8W         | 40 | N  | N  | 19910407 | 130617 | 246  | 90  | 15 | 31 |           |    |
| 99 | 35 |                 | GRO DEPLOY           |                      | 27.9N 89.6W         | 40 | N  | N  | 19910407 | 130649 | 246  | 91  | 17 | 31 |           |    |
| 99 | 36 |                 | GRO DEPLOY           |                      | 28.0N 89.0W         | 40 | N  | N  | 19910407 | 130658 | 246  | 91  | 18 | 31 |           |    |
| 99 | 37 |                 | GRO DEPLOY           |                      | 28.1N 87.8W         | 40 | N  | N  | 19910407 | 130715 | 246  | 92  | 19 | 31 |           |    |
| 99 | 38 |                 | GRO DEPLOY           |                      | 28.4N 82.2W         | 40 | N  | N  | 19910407 | 130837 | 246  | 95  | 24 | 31 |           |    |
| 99 | 49 |                 | GRO DEPLOYMENT       |                      | 17.0N 25.2W         | 40 | N  | N  | 19910407 | 132321 | 245  | 154 | 78 | 31 |           |    |
| 99 | 50 |                 | GRO DEPLOYMENT       |                      | 16.5N 24.2W         | 40 | N  | N  | 19910407 | 132338 | 245  | 158 | 79 | 31 |           |    |
| 99 | 51 |                 | GRO DEPLOYMENT       |                      | 16.3N 23.7W         | 40 | N  | N  | 19910407 | 132347 | 245  | 160 | 79 | 31 |           |    |
| 99 | 52 |                 | GRO DEPLOYMENT       |                      | 15.8N 22.5W         | 40 | N  | N  | 19910407 | 132408 | 245  | 167 | 80 | 31 |           |    |
| 99 | 53 |                 | GRO DEPLOYMENT       |                      | 14.0N 18.8W         | 40 | N  | N  | 19910407 | 132513 | 244  | 194 | 82 | 31 |           |    |
| 99 | 54 |                 | GRO DEPLOYMENT       |                      | 13.3N 17.3W         | 40 | N  | N  | 19910407 | 132540 | 244  | 207 | 82 | 31 |           |    |
| 99 | 55 |                 | GRO DEPLOYMENT       |                      | 12.8N 16.4W         | 40 | N  | N  | 19910407 | 132557 | 244  | 216 | 82 | 31 |           |    |
| 99 | 56 |                 | GRO DEPLOYMENT       |                      | 12.6N 16.0W         | 40 | N  | N  | 19910407 | 132605 | 244  | 220 | 82 | 31 |           |    |
| 99 | 57 |                 | GRO DEPLOYMENT       |                      | 11.6N 13.9W         | 40 | N  | N  | 19910407 | 132642 | 244  | 236 | 81 | 31 |           |    |
| 99 | 58 |                 | GRO DEPLOYMENT       |                      | 11.4N 13.5W         | 40 | N  | N  | 19910407 | 132649 | 244  | 238 | 81 | 31 |           |    |
| 99 | 59 |                 | GRO DEPLOYMENT       |                      | 11.2N 13.2W         | 40 | N  | N  | 19910407 | 132655 | 244  | 240 | 81 | 31 |           |    |
| 99 | 60 |                 | GRO DEPLOYMENT       |                      | 11.0N 12.8W         | 40 | N  | N  | 19910407 | 132702 | 244  | 243 | 80 | 31 |           |    |
| 99 | 61 |                 | GRO DEPLOYMENT       |                      | 9.7N 10.4W          | 40 | N  | N  | 19910407 | 132748 | 244  | 255 | 78 | 31 |           |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE               | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL | E   | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|-----------------------|----------------------|---------------------|----|----|----|-----|---|----------|--------|-----|-----|-----------|----|
| 99  | 62  |                 | GRO DEPLOYMENT        |                      | 8.7N 8.6W           |    |    | 40 | N   | N | 19910407 | 132821 | 244 | 262 | 77        | 31 |
| 99  | 63  |                 | GRO DEPLOYMENT        |                      | 8.3S 21.1E          |    |    | 40 | N   | N | 19910407 | 133745 | 243 | 287 | 42        | 31 |
| 99  | 64  |                 | GRO DEPLOYMENT        |                      | 9.0S 22.3E          |    |    | 40 | N   | N | 19910407 | 133808 | 243 | 287 | 41        | 31 |
| 99  | 65  |                 | GRO DEPLOYMENT        |                      | 11.5S 27.0E         |    |    | 40 | N   | N | 19910407 | 133934 | 243 | 287 | 35        | 31 |
| 99  | 66  |                 | GRO DEPLOYMENT        |                      | 12.0S 28.0E         |    |    | 40 | N   | N | 19910407 | 133953 | 243 | 287 | 34        | 31 |
| 99  | 67  |                 | GRO DEPLOYMENT        |                      | 12.3S 28.6E         |    |    | 40 | N   | N | 19910407 | 134004 | 243 | 286 | 33        | 31 |
| 99  | 68  |                 | GRO DEPLOYMENT        |                      | 12.7S 29.4E         |    |    | 40 | N   | N | 19910407 | 134018 | 243 | 286 | 33        | 31 |
| 99  | 69  |                 | GRO DEPLOYMENT        |                      | 13.1S 30.1E         |    |    | 40 | N   | N | 19910407 | 134031 | 243 | 286 | 32        | 31 |
| 99  | 70  |                 | GRO DEPLOYMENT        |                      | 22.4S 52.8E         |    |    | 40 | N   | N | 19910407 | 134700 | 243 | 280 | 7         | 31 |
| 99  | 71  |                 | GRO DEPLOYMENT        |                      | 22.7S 53.8E         |    |    | 40 | N   | N | 19910407 | 134716 | 243 | 280 | 6         | 31 |
| 99  | 72  |                 | GRO DEPLOYMENT        |                      | 23.4S 55.9E         |    |    | 40 | N   | N | 19910407 | 134749 | 243 | 279 | 4         | 31 |
| 99  | 73  |                 | GRO DEPLOYMENT        |                      | 23.8S 57.4E         |    |    | 40 | N   | N | 19910407 | 134813 | 243 | 278 | 2         | 31 |
| 99  | 74  |                 | GRO DEPLOYMENT        |                      | 24.2S 59.0E         |    |    | 40 | N   | N | 19910407 | 134838 | 243 | 278 | 1         | 31 |
| 99  | 85  |                 | GRO DEPLOY            |                      | 28.3N 94.9W         |    | HO | 40 | N   | N | 19910407 | 144466 | 246 | 101 | 34        | 32 |
| 99  | 86  |                 | GRO DEPLOY            |                      | 28.3N 94.2W         |    | HO | 40 | N   | N | 19910407 | 144456 | 246 | 102 | 35        | 32 |
| 99  | 87  |                 | GRO DEPLOY            |                      | 27.3N 84.1W         |    | HO | 40 | N   | N | 19910407 | 144725 | 246 | 108 | 44        | 32 |
| 99  | 88  |                 | GRO DEPLOY            |                      | 27.8N 112.1W        |    |    | 40 | N   | N | 19910407 | 161948 | 246 | 105 | 40        | 33 |
| 99  | 91  |                 | GRO DEPLOY            |                      | 27.7N 111.2W        |    |    | 40 | N   | N | 19910407 | 162002 | 246 | 106 | 41        | 33 |
| 99  | 92  |                 | GRO DEPLOY            |                      | 21.1N 131.0W        |    |    | 40 | N   | N | 19910407 | 193408 | 245 | 126 | 67        | 35 |
| 99  | 93  |                 | GRO DEPLOY            |                      | 20.6N 129.7W        |    |    | 40 | N   | N | 19910407 | 193429 | 245 | 128 | 68        | 35 |
| 99  | 94  |                 | GRO DEPLOY            |                      | 20.5N 129.3W        |    |    | 40 | N   | N | 19910407 | 193435 | 245 | 128 | 69        | 35 |
| 99  | 95  |                 | GRO DEPLOY            |                      | 20.4N 129.2W        |    |    | 40 | N   | N | 19910407 | 193438 | 245 | 128 | 69        | 35 |
| 99  | 96  |                 | GRO DEPLOY            |                      | 20.3N 128.7W        |    |    | 40 | N   | N | 19910407 | 193445 | 245 | 129 | 69        | 35 |
| 99  | 97  |                 | GRO DEPLOY            |                      | 20.2N 128.6W        |    |    | 40 | N   | N | 19910407 | 193448 | 245 | 129 | 69        | 35 |
| 99  | 98  |                 | GRO DEPLOY            |                      | 20.1N 128.3W        |    |    | 40 | N   | N | 19910407 | 193452 | 245 | 129 | 70        | 35 |
| 99  | 99  |                 | GRO DEPLOY            |                      | 18.4N 123.8W        |    |    | 40 | N   | N | 19910407 | 193608 | 245 | 137 | 74        | 35 |
| 99  | 100 |                 | GRO DEPLOY            |                      | 18.2N 123.5W        |    |    | 40 | N   | N | 19910407 | 193613 | 245 | 137 | 74        | 35 |
| 99  | 101 |                 | GRO DEPLOY            |                      | 18.2N 123.4W        |    |    | 40 | N   | N | 19910407 | 193616 | 245 | 138 | 75        | 35 |
| 99  | 102 |                 | GRO DEPLOY            |                      | 17.9N 122.7W        |    |    | 40 | N   | N | 19910407 | 193628 | 245 | 139 | 75        | 35 |
| 99  | 103 |                 | GRO DEPLOY            |                      | 27.8N 149.8E        |    |    | 40 | N   | N | 19910407 | 205339 | 246 | 89  | 14        | 36 |
| 99  | 104 |                 | GRO DEPLOY            |                      | 27.8N 150.6E        |    |    | 40 | N   | N | 19910407 | 205350 | 246 | 90  | 15        | 36 |
| 99  | 105 |                 | GRO DEPLOY            |                      | 27.9N 151.1E        |    |    | 40 | N   | N | 19910407 | 205358 | 246 | 90  | 15        | 36 |
| 99  | 106 |                 | GRO DEPLOY            |                      | 28.1N 153.2E        |    |    | 40 | N   | N | 19910407 | 205429 | 246 | 91  | 17        | 36 |
| 99  | 107 |                 | GRO DEPLOY            |                      | 28.1N 153.5E        |    |    | 40 | N   | N | 19910407 | 205433 | 246 | 91  | 17        | 36 |
| 153 | 2   |                 | BLACK                 |                      | 20.5N 103.5W        |    | 9  |    |     |   | 19910408 | 172304 | 247 | 117 | 63        | 49 |
| 153 | 5   |                 | CLOUDS, THUNDERSTORMS |                      | 8.5N 77.9W          |    | 95 | HO | 250 | N | 19910408 | 173039 | 246 | 254 | 85        | 49 |
| 153 | 34  |                 | BLACK                 |                      | 22.6S 9.4E          |    |    |    |     |   | 19910409 | 153710 | 245 | 288 | 21        | 63 |
| 153 | 35  |                 | BLACK                 |                      | 22.8S 10.1E         |    |    |    |     |   | 19910409 | 153721 | 245 | 287 | 20        | 63 |
| 153 | 36  |                 | BLACK                 |                      | 23.2S 11.4E         |    |    |    |     |   | 19910409 | 153743 | 245 | 287 | 18        | 63 |
| 153 | 37  |                 | BLACK                 |                      | 23.9S 13.8E         |    |    |    |     |   | 19910409 | 153820 | 245 | 286 | 16        | 63 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR   | GEOGRAPHIC NAME | FEATURE                     | CENTER<br>LAT LON | NADIR<br>LAT LON | CC    | TL  | FL  | E  | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL OR |
|-----|------|-----------------|-----------------------------|-------------------|------------------|-------|-----|-----|----|---|----------|--------|-----|-----|--------------|
| 153 | 188  |                 | DOUBLE EXPOSURE             |                   | 5.0N 123.0E      | 60    | LO  | 250 | N  | N | 19910410 | 034807 | 247 | 4   | 87 71        |
| 153 | 190  |                 | TRIPLE EXPOSURE             |                   | 1.8N 128.6E      | 250   | O   | N   | N  | N | 19910410 | 034953 | 247 | 316 | 81 71        |
| 153 | 192  |                 | TRIPLE EXPOSURE             |                   | 0.2S 132.1E      | 250   | O   | N   | N  | N | 19910410 | 035100 | 247 | 310 | 77 71        |
| 77  | 54   | AFRICA          | SE COAST                    |                   | 6.6S 40.0E       | 60    | HO  | 250 | N  | N | 19910406 | 124149 | 242 | 283 | 38 15        |
| 77  | 90   | AFRICA          | OBLIQUE, SKELETON COAST     |                   | 6.4S 15.8E       | 70    | HO  | 250 | N  | N | 19910406 | 141509 | 242 | 283 | 39 16        |
| 77  | 91   | AFRICA          | OBLIQUE, SKELETON COAST     |                   | 7.0S 16.8E       | 60    | HO  | 250 | N  | N | 19910406 | 141529 | 242 | 283 | 38 16        |
| 87  | 2    | AFRICA          | COAST, CLOUDS, DARK         |                   | 3.8N 3.9E        | 40    | LO  | 250 | N  | N | 19910408 | 121420 | 246 | 298 | 82 61        |
| 88  | 82   | AFRICA          | COAST, VERY DARK            |                   | 13.1N 13.2W      | 10    | LO  | 250 | N  | N | 19910409 | 120901 | 246 | 115 | 77 61        |
| 88  | 83   | AFRICA          | COAST, VERY DARK            |                   | 13.1N 13.0W      | 0     | LO  | 250 | N  | N | 19910409 | 120904 | 246 | 115 | 77 61        |
| 88  | 84   | AFRICA          | AGR., VERY DARK             |                   | 13.0N 12.9W      | 15    | LO  | 250 | N  | N | 19910409 | 120907 | 246 | 115 | 77 61        |
| 88  | 85   | AFRICA          | AGR., VERY DARK             |                   | 12.9N 12.7W      | LO    | 250 | N   | N  | N | 19910409 | 120910 | 246 | 115 | 77 61        |
| 151 | 91 B | AFRICA          | EGYPT-SUDAN, VERY DARK      |                   | 22.7N 26.5E      | 0     | LO  | 250 | N  | N | 19910406 | 041815 | 245 | 84  | 2 10         |
| 151 | 242  | AFRICA          | ALGERIA-MAURIT-ERG IGUID    |                   | 26.3N 8.7W       | 5     | LO  | 250 | N  | N | 19910406 | 104700 | 246 | 122 | 56 14        |
| 151 | 253  | AFRICA          | NIGER-CHAD-NEAR TIBESTI     |                   | 19.2N 15.3E      | 0     | LO  | 250 | N  | N | 19910406 | 105325 | 245 | 171 | 76 14        |
| 152 | 16   | AFRICA          | CHAD, CAMEROON, C. AFRICA R |                   | 7.3N 15.9E       | 60    | LO  | 250 | N  | N | 19910406 | 123411 | 243 | 269 | 66 15        |
| 152 | 50   | AFRICA          | ZAIRE, ANGOLA, ZAMBIA       |                   | 10.5S 23.3E      | 85    | LO  | 250 | N  | Y | 19910406 | 141729 | 242 | 284 | 30 16        |
| 152 | 51   | AFRICA          | ZAIRE, ANGOLA, ZAMBIA       |                   | 11.3S 24.8E      | 90    | LO  | 250 | N  | Y | 19910406 | 141757 | 242 | 283 | 29 16        |
| 153 | 0    | U AFRICA        | NEAR CHAD/CEN. AFRICA B.    |                   | 50               | LO    | 250 | N   | N  | N |          |        |     |     |              |
| 8   | 1    | ALGERIA         | AHAGGAR MTNS, HAZY          |                   | 28.6N 0.1E       | 10    | LO  | 35  | N  | N | 19910410 | 063427 | 244 | 87  | 11 73        |
| 8   | 2    | ALGERIA         | AHAGGAR MTNS, HAZY          |                   | 28.6N 0.8E       | 0     | LO  | 35  | N  | N | 19910410 | 063437 | 244 | 87  | 12 73        |
| 8   | 3    | ALGERIA         | TINRHERT PLATEAU            |                   | 28.6N 1.4E       | 0     | LO  | 35  | N  | N | 19910410 | 063446 | 244 | 88  | 12 73        |
| 8   | 4    | ALGERIA         | PANORAMA, TINRHERT PLAT.    |                   | 26.8N 3.5E       | 5     | HO  | 35  | N  | N | 19910410 | 063517 | 244 | 89  | 14 73        |
| 8   | 6    | ALGERIA         | TINRHERT PLAT. AREA         |                   | 8.2E 10          | HO    | 35  | N   | N  | N | 19910410 | 063626 | 244 | 91  | 19 73        |
| 8   | 7    | ALGERIA         | TINRHERT PLAT. AREA         |                   | 28.3N 8.9E       | 40    | LO  | 35  | N  | N | 19910410 | 063636 | 244 | 91  | 19 73        |
| 12  | 36   | ALGERIA         | IGUIDI D., HIGH ATLAS       | 30.0N             | 5.0W 26.9N       | 5     | LO  | 35  | N  | N | 19910410 | 081254 | 245 | 96  | 30 74        |
| 12  | 37   | ALGERIA         | IGUIDI DESERT               | 27.0N             | 4.0W 26.6N       | 0     | LO  | 35  | N  | N | 19910410 | 081313 | 245 | 97  | 31 74        |
| 14  | 2    | ALGERIA         | TINRHERT PLAT., MARZUQ D    | 26.0N             | 8.0E 24.4N       | 15    | LO  | 35  | N  | N | 19910410 | 081548 | 246 | 101 | 41 74        |
| 14  | 3    | ALGERIA         | TINRHERT PLAT., MARZUQ D    | 23.0N             | 10.0E 24.2N      | 8.3E  | 5   | HO  | 35 | N | 19910410 | 081556 | 246 | 101 | 41 74        |
| 42  | 9    | ALGERIA         | GRAND ERG WEST              |                   | 27.5N 6.2W       | 0     | LO  | 35  | N  | N | 19910411 | 073359 | 244 | 90  | 19 89        |
| 42  | 10   | ALGERIA         | IGUIDI DESERT               | 29.0N             | 3.0W 27.5N       | 5.7W  | 0   | LO  | 35 | N | 19910411 | 073406 | 244 | 91  | 19 89        |
| 42  | 11   | ALGERIA         | SAHARAN ATLAS MTNS.         | 32.0N             | 1.0W 27.2N       | 4.0W  | 15  | HO  | 35 | N | 19910411 | 073432 | 244 | 91  | 21 89        |
| 42  | 12   | ALGERIA         | WESTERN GRAND ERG           | 31.0N             | 3.0E 25.8N       | 3.6E  | 15  | HO  | 35 | N | 19910411 | 073627 | 245 | 95  | 28 89        |
| 42  | 13   | ALGERIA         | EASTERN GRAND ERG           | 30.0N             | 4.0E 25.8N       | 3.9E  | 5   | LO  | 35 | N | 19910411 | 073631 | 245 | 95  | 28 89        |
| 42  | 14   | ALGERIA         | EASTERN GRAND ERG           | 29.0N             | 5.0E 25.7N       | 4.3E  | 0   | LO  | 35 | N | 19910411 | 073637 | 245 | 95  | 29 89        |
| 42  | 15   | ALGERIA         | TADEMAIT PLATEAU            | 28.0N             | 6.0E 25.5N       | 5.0E  | 0   | LO  | 35 | N | 19910411 | 073648 | 245 | 95  | 30 89        |
| 42  | 16   | ALGERIA         | IRARRAREN DUNES             | 28.0N             | 7.0E 25.5N       | 5.2E  | 5   | LO  | 35 | N | 19910411 | 073652 | 245 | 95  | 30 89        |
| 42  | 17   | ALGERIA         | IRARRAREN DUNES, E. ERG     | 29.0N             | 7.0E 25.4N       | 5.6E  | 5   | LO  | 35 | N | 19910411 | 073658 | 245 | 95  | 30 89        |
| 42  | 18   | ALGERIA         | AHAGGAR MTNS.               | 23.0N             | 11.0E 24.5N      | 9.1E  | 5   | LO  | 35 | N | 19910411 | 073752 | 245 | 97  | 34 89        |
| 42  | 22   | ALGERIA         | MARZUQ DESERT               | 24.0N             | 13.0E 24.2N      | 10.1E | 0   | LO  | 35 | N | 19910411 | 073807 | 245 | 97  | 35 89        |
| 42  | 23   | ALGERIA         | MARZUQ DESERT               | 24.0N             | 14.0E 24.2N      | 10.2E | 0   | LO  | 35 | N | 19910411 | 073810 | 245 | 97  | 35 89        |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC    | TL    | FL | E  | S   | DATE | GMT      | AL     | AZ  | SUM<br>EL | OR |    |
|----|-----|-----------------|---------------------------|----------------------|---------------------|-------|-------|----|----|-----|------|----------|--------|-----|-----------|----|----|
| 42 | 24  | ALGERIA         | MARZUQ DESERT             | 24.0N                | 15.0E               | 24.0N | 10.9E | 0  | LO | 35  | N    | 19910411 | 073820 | 246 | 97        | 35 | 89 |
| 45 | 29  | ALGERIA         | ERG CHECH, EGLAB MASSIF   | 24.0N                | 3.0W                | 22.1N | 8.6W  | 0  | LO | 35  | N    | 19910410 | 095117 | 246 | 103       | 48 | 75 |
| 72 | 104 | ALGERIA         | HAMADA DU GUIR            | 30.5N                | 3.0W                | 28.5N | 7.5W  | 10 | LO | 100 | N    | 19910406 | 090759 | 247 | 104       | 36 | 13 |
| 72 | 105 | ALGERIA         | SARAHAN ATLAS             | 33.0N                | 2.0W                | 28.5N | 7.1W  | 15 | HO | 100 | N    | 19910406 | 090805 | 247 | 104       | 37 | 13 |
| 72 | 106 | ALGERIA         | KAHAL TABELBALA           | 29.0N                | 1.0W                | 28.5N | 5.0W  | 0  | LO | 100 | N    | 19910406 | 090836 | 247 | 106       | 38 | 13 |
| 72 | 107 | ALGERIA         | ATLAS MOUNTAINS           | 34.0N                | 2.5W                | 28.5N | 4.5W  | 10 | LO | 100 | N    | 19910406 | 090843 | 247 | 106       | 39 | 13 |
| 73 | 74  | ALGERIA         | NW ALGERIA, MTNS TERRAIN  |                      |                     | 28.5N | 7.3W  | 10 | LO | 250 | N    | 19910407 | 082907 | 246 | 98        | 28 | 28 |
| 73 | 75  | ALGERIA         | HAMADA TOUNASSINE AREA    |                      |                     | 28.5N | 6.1W  | 0  | LO | 250 | N    | 19910407 | 082925 | 247 | 99        | 30 | 28 |
| 73 | 76  | ALGERIA         | HAMADA TOUNASSINE AREA    |                      |                     | 28.5N | 3.0W  | 0  | LO | 250 | N    | 19910407 | 083009 | 247 | 101       | 32 | 28 |
| 73 | 77  | ALGERIA         | KAHAL TABELBALA AREA      | 29.5N                | 2.3W                | 28.5N | 2.3W  | 0  | LO | 250 | N    | 19910407 | 083019 | 247 | 101       | 33 | 28 |
| 73 | 78  | ALGERIA         | MAJOR N-S TRADE ROUTE     |                      |                     | 28.4N | 1.2W  | 0  | LO | 250 | N    | 19910407 | 083035 | 247 | 102       | 34 | 28 |
| 73 | 79  | ALGERIA         | MAJOR N-S TRADE ROUTE     |                      |                     | 28.4N | 0.9W  | 0  | LO | 250 | N    | 19910407 | 083040 | 247 | 102       | 34 | 28 |
| 73 | 80  | ALGERIA         | TADEMAIT PLATEAU          | 27.6N                | 1.5E                | 28.3N | 1.6E  | 0  | NV | 250 | N    | 19910407 | 083117 | 247 | 103       | 37 | 28 |
| 73 | 81  | ALGERIA         | TADEMAIT PLATEAU          |                      |                     | 28.2N | 3.3E  | 0  | LO | 250 | N    | 19910407 | 083141 | 247 | 104       | 38 | 28 |
| 73 | 82  | ALGERIA         | TADEMAIT PLATEAU          |                      |                     | 28.1N | 4.0E  | 0  | LO | 250 | N    | 19910407 | 083151 | 247 | 105       | 39 | 28 |
| 73 | 83  | ALGERIA         | TINRHERT PLATEAU          |                      |                     | 27.9N | 5.9E  | 0  | LO | 250 | N    | 19910407 | 083219 | 247 | 106       | 41 | 28 |
| 73 | 84  | ALGERIA         | TINRHERT PLATEAU          |                      |                     | 27.8N | 6.9E  | 0  | LO | 250 | N    | 19910407 | 083235 | 247 | 107       | 42 | 28 |
| 73 | 85  | ALGERIA         | TINRHERT PLATEAU          |                      |                     | 27.8N | 7.7E  | 0  | LO | 250 | N    | 19910407 | 083246 | 247 | 107       | 42 | 28 |
| 85 | 56  | ALGERIA         | IGUDOI DESERT             |                      |                     | 27.0N | 6.8W  | 0  | LO | 250 | N    | 19910409 | 085052 | 246 | 100       | 34 | 59 |
| 85 | 57  | ALGERIA         | ERG CHECH, LONG. DUNES    |                      |                     | 26.4N | 3.3W  | 0  | LO | 250 | N    | 19910409 | 085145 | 246 | 101       | 38 | 59 |
| 85 | 58  | ALGERIA         | ERG CHECH, LONG. DUNES    |                      |                     | 26.2N | 2.5W  | 0  | LO | 250 | N    | 19910409 | 085157 | 246 | 102       | 39 | 59 |
| 85 | 59  | ALGERIA         | ERG CHECH, LONG. DUNES    |                      |                     | 26.0N | 1.6W  | 0  | LO | 250 | N    | 19910409 | 085211 | 246 | 102       | 39 | 59 |
| 85 | 60  | ALGERIA         | TANEZROUFT, OASIS         |                      |                     | 25.8N | 0.2W  | 0  | LO | 250 | N    | 19910409 | 085232 | 246 | 103       | 41 | 59 |
| 85 | 61  | ALGERIA         | AHAGGAR MTNS. HAZY        |                      |                     | 25.6N | 0.7E  | 0  | LO | 250 | N    | 19910409 | 085246 | 246 | 103       | 42 | 59 |
| 85 | 62  | ALGERIA         | AHAGGAR MTNS. HAZY        |                      |                     | 25.2N | 2.2E  | 0  | LO | 250 | N    | 19910409 | 085310 | 246 | 104       | 43 | 59 |
| 85 | 63  | ALGERIA         | AHAGGAR MTNS. HAZY        |                      |                     | 25.0N | 3.1E  | 0  | LO | 250 | N    | 19910409 | 085323 | 246 | 104       | 44 | 59 |
| 85 | 64  | ALGERIA         | AHAGGAR MTNS.             |                      |                     | 24.7N | 4.3E  | 0  | LO | 250 | N    | 19910409 | 085342 | 246 | 105       | 45 | 59 |
| 85 | 65  | ALGERIA         | AHAGGAR MTNS.             |                      |                     | 24.5N | 4.9E  | 0  | LO | 250 | N    | 19910409 | 085352 | 246 | 105       | 46 | 59 |
| 85 | 66  | ALGERIA         | AHAGGAR MTNS.             |                      |                     | 24.2N | 6.0E  | 0  | LO | 250 | N    | 19910409 | 085409 | 246 | 106       | 47 | 59 |
| 85 | 67  | ALGERIA         | TENERE DESERT AREA        |                      |                     | 23.6N | 8.5E  | 0  | LO | 250 | N    | 19910409 | 085448 | 246 | 107       | 49 | 59 |
| 89 | 97  | ALGERIA         | TASSILI N'AJJER-EAST END  |                      |                     | 23.0N | 10.3E | 0  | LO | 250 | U    | 19910409 | 085517 | 246 | 108       | 51 | 59 |
| 91 | 111 | ALGERIA         | PIVOT IRRIG, DESERT       |                      |                     | 28.2N | 1.0E  | 0  | LO | 250 | N    | 19910406 | 091003 | 246 | 110       | 44 | 13 |
| 91 | 112 | ALGERIA         | TADEMAIT PLAT, IILLIA WAD | 27.8N                | 1.8E                | 28.1N | 1.9E  | 0  | NV | 250 | N    | 19910406 | 091016 | 246 | 111       | 45 | 13 |
| 91 | 113 | ALGERIA         | DESERT, WHITE SPOTS       |                      |                     | 27.9N | 4.0E  | 0  | LO | 250 | N    | 19910406 | 091048 | 246 | 112       | 47 | 13 |
| 91 | 114 | ALGERIA         | DESERT, ROCK OUTCROP      |                      |                     | 27.8N | 5.2E  | 0  | LO | 250 | N    | 19910406 | 091105 | 246 | 113       | 48 | 13 |
| 91 | 115 | ALGERIA         | DJEBEL IRRAREM, SAND DUNE | 26.5N                | 5.5E                | 27.8N | 5.7E  | 0  | LO | 250 | N    | 19910406 | 091113 | 246 | 114       | 48 | 13 |
| 91 | 116 | ALGERIA         | TASSILI NAJJER            | 26.0N                | 8.0E                | 27.4N | 9.0E  | 0  | LO | 250 | N    | 19910406 | 091201 | 246 | 117       | 51 | 13 |
| 92 | 77  | ALGERIA         | GRAND ERG ORIENTAL        |                      |                     | 28.1N | 4.6E  | 0  | LO | 250 | N    | 19910407 | 083201 | 247 | 105       | 39 | 28 |
| 92 | 78  | ALGERIA         | TINRHERT PLATEAU          |                      |                     | 27.9N | 6.4E  | 0  | LO | 250 | N    | 19910407 | 083227 | 247 | 107       | 41 | 28 |
| 93 | 56  | ALGERIA         | ANTI-ATLAS MTNS.          | 28.5N                | 8.0W                | 28.5N | 5.8W  | 0  | NV | 250 | N    | 19910406 | 090824 | 247 | 105       | 38 | 13 |

**TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)**

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT LON | MADIR<br>LAT LON         | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|--------------------------|-------------------|--------------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 93 | 62  | ALGERIA         | RHERIS RIVER             | 30.5N<br>30.0N    | 4.5W 28.4N<br>5.0W 28.4N | 0  | LO | 250 | N | Y | 19910406 | 090858 | 247 | 107 | 40        | 13 |
| 93 | 63  | ALGERIA         | ANTI-ATLAS MTNS.         | 30.0N             | 5.0W 28.4N               | 0  | LO | 250 | N | Y | 19910406 | 090901 | 247 | 107 | 40        | 13 |
| 93 | 65  | ALGERIA         | ANTI-ATLAS MTNS.         | 29.5N             | 6.0W 28.4N               | 0  | LO | 250 | N | Y | 19910406 | 090907 | 247 | 107 | 41        | 13 |
| 93 | 66  | ALGERIA         | TOUNASSINE ROCK DESERT   | 28.5N             | 4.5W 28.4N               | 0  | LO | 250 | N | Y | 19910406 | 090915 | 247 | 108 | 41        | 13 |
| 93 | 67  | ALGERIA         | TOUNASSINE ROCK DESERT   | 27.5N             | 4.0W 28.4N               | 0  | LO | 250 | N | Y | 19910406 | 090924 | 247 | 108 | 42        | 13 |
| 93 | 68  | ALGERIA         | LINEAR SAND DUNES        | 27.5N             | 3.5W 28.4N               | 0  | NV | 250 | N | Y | 19910406 | 090927 | 247 | 108 | 42        | 13 |
| 93 | 69  | ALGERIA         | LINEAR SAND DUNES        | 28.0N             | 3.5W 28.3N               | 0  | NV | 250 | N | Y | 19910406 | 090928 | 247 | 108 | 42        | 13 |
| 93 | 70  | ALGERIA         | LINEAR SAND DUNES        | 28.0N             | 3.0W 28.3N               | 0  | NV | 250 | N | Y | 19910406 | 090931 | 247 | 108 | 42        | 13 |
| 93 | 71  | ALGERIA         | BEN TADJINE HILLS        | 28.5N             | 3.5W 28.3N               | 0  | LO | 250 | N | Y | 19910406 | 090933 | 246 | 108 | 42        | 13 |
| 93 | 72  | ALGERIA         | KAHAL TABLELAND, DUNES   | 28.5N             | 2.5W 28.3N               | 0  | LO | 250 | N | Y | 19910406 | 090936 | 246 | 109 | 42        | 13 |
| 93 | 73  | ALGERIA         | KAHAL TABLELAND, DUNES   | 28.5N             | 2.0W 28.3N               | 0  | LO | 250 | N | Y | 19910406 | 090939 | 246 | 109 | 43        | 13 |
| 93 | 74  | ALGERIA         | KAHAL TABLELAND, DUNES   | 28.0N             | 1.5W 28.3N               | 0  | LO | 250 | N | Y | 19910406 | 090942 | 246 | 109 | 43        | 13 |
| 93 | 75  | ALGERIA         | KAHAL TABLELAND, DUNES   | 29.0N             | 2.5W 28.3N               | 0  | LO | 250 | N | Y | 19910406 | 090945 | 246 | 109 | 43        | 13 |
| 93 | 76  | ALGERIA         | KAHAL TABLELAND, DUNES   | 29.5N             | 2.0W 28.3N               | 0  | LO | 250 | N | Y | 19910406 | 090950 | 246 | 109 | 43        | 13 |
| 93 | 77  | ALGERIA         | GRAND ERG OCCIDENTAL     | 29.5N             | 1.5W 28.2N               | 0  | LO | 250 | N | Y | 19910406 | 090953 | 246 | 109 | 43        | 13 |
| 93 | 78  | ALGERIA         | GRAND ERG OCCIDENTAL     | 29.5N             | 1.0W 28.2N               | 0  | LO | 250 | N | Y | 19910406 | 090956 | 246 | 110 | 44        | 13 |
| 93 | 79  | ALGERIA         | E. OF ERG CHECH, ADRAR   | 27.5N             | 0.0W 28.2N               | 0  | LO | 250 | N | Y | 19910406 | 091007 | 246 | 110 | 44        | 13 |
| 93 | 80  | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 27.0N             | 1.0E 28.1N               | 0  | LO | 250 | N | Y | 19910406 | 091015 | 246 | 111 | 45        | 13 |
| 93 | 81  | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 27.5N             | 1.5E 28.1N               | 0  | LO | 250 | N | Y | 19910406 | 091017 | 246 | 111 | 45        | 13 |
| 93 | 82  | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 27.5N             | 1.5E 28.1N               | 0  | LO | 250 | N | Y | 19910406 | 091021 | 246 | 111 | 45        | 13 |
| 93 | 83  | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 28.0N             | 1.5E 28.1N               | 0  | LO | 250 | N | Y | 19910406 | 091024 | 246 | 111 | 45        | 13 |
| 93 | 84  | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 28.0N             | 2.5E 28.1N               | 0  | LO | 250 | N | Y | 19910406 | 091027 | 246 | 111 | 45        | 13 |
| 93 | 85  | ALGERIA         | SOUTHERN TADEMAIT PLAT.  | 28.0N             | 3.0E 28.0N               | 0  | LO | 250 | N | Y | 19910406 | 091031 | 246 | 111 | 46        | 13 |
| 93 | 86  | ALGERIA         | TADEMAIT PLATEAU         | 28.5N             | 3.0E 28.0N               | 0  | LO | 250 | N | Y | 19910406 | 091033 | 246 | 112 | 46        | 13 |
| 93 | 87  | ALGERIA         | TADEMAIT PLATEAU         | 28.5N             | 2.5E 28.0N               | 0  | LO | 250 | N | Y | 19910406 | 091038 | 246 | 112 | 46        | 13 |
| 93 | 88  | ALGERIA         | W. AHAGGAR MTNS.         | 28.0N             | 5.0E 27.9N               | 0  | LO | 250 | N | Y | 19910406 | 091047 | 246 | 112 | 47        | 13 |
| 93 | 89  | ALGERIA         | W. AHAGGAR MTNS.         | 25.5N             | 4.5E 27.9N               | 0  | LO | 250 | N | Y | 19910406 | 091050 | 246 | 112 | 47        | 13 |
| 93 | 90  | ALGERIA         | W. AHAGGAR MTNS.         | 25.0N             | 4.0E 27.9N               | 0  | LO | 250 | N | Y | 19910406 | 091054 | 246 | 113 | 47        | 13 |
| 93 | 91  | ALGERIA         | TADEMAIT PLATEAU         | 28.0N             | 4.0E 27.8N               | 0  | LO | 250 | N | Y | 19910406 | 091106 | 246 | 113 | 48        | 13 |
| 93 | 92  | ALGERIA         | TADEMAIT PLATEAU         | 28.5N             | 4.5E 27.8N               | 0  | LO | 250 | N | Y | 19910406 | 091109 | 246 | 114 | 48        | 13 |
| 93 | 93  | ALGERIA         | TADEMAIT P., ERG ORIENT. | 29.0N             | 4.5E 27.8N               | 0  | LO | 250 | N | Y | 19910406 | 091113 | 246 | 114 | 48        | 13 |
| 93 | 94  | ALGERIA         | NW AHAGGAR MTNS.         | 27.5N             | 5.0E 27.7N               | 0  | LO | 250 | N | Y | 19910406 | 091118 | 246 | 114 | 49        | 13 |
| 93 | 95  | ALGERIA         | NW AHAGGAR MTNS.         | 28.0N             | 5.5E 27.7N               | 0  | LO | 250 | N | Y | 19910406 | 091121 | 246 | 114 | 49        | 13 |
| 93 | 96  | ALGERIA         | AHAGGAR MTNS., DUNES     | 26.0N             | 7.5E 27.6N               | 0  | LO | 250 | N | Y | 19910406 | 091129 | 246 | 115 | 49        | 13 |
| 93 | 97  | ALGERIA         | ERG ISSAOUANE            | 26.5N             | 7.5E 27.6N               | 0  | LO | 250 | N | Y | 19910406 | 091131 | 246 | 115 | 49        | 13 |
| 93 | 98  | ALGERIA         | ERG ISSAOUANE            | 27.0N             | 8.0E 27.6N               | 0  | LO | 250 | N | Y | 19910406 | 091134 | 246 | 115 | 50        | 13 |
| 93 | 99  | ALGERIA         | OUARENE PLAIN            | 28.0N             | 8.5E 27.6N               | 0  | LO | 250 | N | Y | 19910406 | 091138 | 246 | 115 | 50        | 13 |
| 93 | 100 | ALGERIA         | ERG ISSAOUANE            | 28.5N             | 8.0E 27.5N               | 0  | LO | 250 | N | Y | 19910406 | 091141 | 246 | 115 | 50        | 13 |
| 93 | 101 | ALGERIA         | ERG ISSAOUANE            | 27.5N             | 8.0E 27.5N               | 0  | LO | 250 | N | Y | 19910406 | 091145 | 246 | 116 | 50        | 13 |
| 93 | 102 | ALGERIA         | AHAGGAR MTNS.            | 25.5N             | 8.0E 27.4N               | 0  | LO | 250 | N | Y | 19910406 | 091153 | 246 | 116 | 51        | 13 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 94  | 90  | ALGERIA         | ERG CHECH, KAHAL PLATEAU  | 28.0N                | 1.0W                | 0  | LO | 100 | N | Y |          |        |     |     |           |    |
| 94  | 91  | ALGERIA         | ERG CHECH, ERG OCCIDENTAL | 28.5N                | 1.0W                | 0  | LO | 100 | N | Y |          |        |     |     |           |    |
| 95  | 22  | ALGERIA         | SCATTERED OASIS           |                      |                     | 0  | LO | 100 | N | Y |          |        |     |     |           |    |
| 95  | 23  | ALGERIA         | DESERT                    |                      |                     | 0  | NV | 250 | N | N | 19910406 | 104751 | 246 | 125 | 60        | 14 |
| 95  | 24  | ALGERIA         | DISSECTED PLATEAU         |                      |                     | 0  | NV | 250 | N | N | 19910406 | 104812 | 246 | 127 | 61        | 14 |
| 95  | 25  | ALGERIA         | DISSECTED PLATEAU         |                      |                     | 0  | NV | 250 | N | N | 19910406 | 104845 | 246 | 130 | 63        | 14 |
| 95  | 26  | ALGERIA         | DISSECTED PLATEAU         |                      |                     | 0  | NV | 250 | N | N | 19910406 | 104853 | 246 | 130 | 63        | 14 |
| 95  | 26  | ALGERIA         | AHAGGAR MTNS.             | 23.3N                | 4.8E                | 0  | LO | 250 | N | N | 19910406 | 104946 | 246 | 135 | 88        | 14 |
| 95  | 27  | ALGERIA         | AHAGGAR MTNS.             | 23.8N                | 6.5E                | 0  | LO | 250 | N | N | 19910406 | 105000 | 246 | 137 | 67        | 14 |
| 95  | 30  | ALGERIA         | TINRHERT PLATEAU          | 25.0N                | 10.0E               | 0  | LO | 250 | N | N | 19910406 | 105051 | 246 | 142 | 70        | 14 |
| 95  | 31  | ALGERIA         | TINRHERT PLATEAU          | 25.0N                | 9.0E                | 0  | LO | 250 | N | N | 19910406 | 105054 | 246 | 143 | 70        | 14 |
| 95  | 32  | ALGERIA         | TINRHERT PLATEAU          | 25.0N                | 9.0E                | 0  | LO | 250 | N | N | 19910406 | 105057 | 245 | 143 | 70        | 14 |
| 97  | 1   | ALGERIA         | TINRHERT PLATEAU          | 28.0N                | 2.0E                | 0  | HO | 250 | N | N | 19910406 | 090941 | 246 | 109 | 43        | 13 |
| 97  | 2   | ALGERIA         | GRAND ERG ORIENTAL        | 30.0N                | 7.0E                | 5  | HO | 250 | N | N | 19910406 | 090949 | 246 | 109 | 43        | 13 |
| 97  | 4   | ALGERIA         | TINRHERT PLATEAU          | 28.0N                | 4.0E                | 0  | HO | 250 | N | N | 19910406 | 091007 | 246 | 110 | 44        | 13 |
| 97  | 5   | ALGERIA         | TINRHERT PLATEAU          | 28.0N                | 5.0E                | 0  | HO | 250 | N | N | 19910406 | 091014 | 246 | 111 | 45        | 13 |
| 97  | 6   | ALGERIA         | TINRHERT PLAT., MARZUQ    | 26.0N                | 11.0E               | 0  | HO | 250 | N | N | 19910406 | 091044 | 246 | 112 | 47        | 13 |
| 97  | 7   | ALGERIA         | GRAND ERG ORIENTAL        | 30.5N                | 6.5E                | 0  | LO | 250 | N | N | 19910406 | 091102 | 246 | 113 | 48        | 13 |
| 97  | 63  | ALGERIA         | ERG IGUIDI, W. ALGERIA    | 26.4N                | 8.5W                | 0  | LO | 250 | N | N | 19910406 | 104701 | 246 | 122 | 56        | 14 |
| 97  | 64  | ALGERIA         | NW. MAURITANIA            | 25.6N                | 25.8N               | 0  | LO | 250 | N | N | 19910406 | 104737 | 246 | 124 | 59        | 14 |
| 97  | 65  | ALGERIA         | NW. MAURITANIA            | 25.6N                | 4.6W                | 0  | LO | 250 | N | N | 19910406 | 104801 | 246 | 128 | 60        | 14 |
| 97  | 68  | ALGERIA         | TANEZROUFT REGION         | 24.3N                | 24.3N               | 0  | LO | 250 | N | N | 19910406 | 104916 | 246 | 132 | 64        | 14 |
| 97  | 69  | ALGERIA         | TANEZROUFT REGION         | 24.1N                | 24.1N               | 0  | LO | 250 | N | N | 19910406 | 104930 | 246 | 133 | 65        | 14 |
| 97  | 70  | ALGERIA         | TANEZROUFT REGION         | 23.6N                | 23.6N               | 0  | LO | 250 | N | N | 19910406 | 104956 | 246 | 136 | 67        | 14 |
| 97  | 71  | ALGERIA         | TANEZROUFT REGION         | 23.3N                | 23.3N               | 0  | LO | 250 | N | N | 19910406 | 105011 | 246 | 138 | 67        | 14 |
| 98  | 40  | ALGERIA         | IGUIDI DESERT             | 26.6N                | 26.6N               | 0  | LO | 250 | N | N | 19910407 | 100812 | 246 | 112 | 49        | 29 |
| 98  | 41  | ALGERIA         | PLATEAU DU TADEMAIT       | 24.9N                | 24.9N               | 0  | LO | 250 | N | N | 19910407 | 101014 | 246 | 119 | 57        | 29 |
| 98  | 42  | ALGERIA         | PLATEAU DU TADEMAIT       | 24.4N                | 24.4N               | 0  | LO | 250 | N | N | 19910407 | 101045 | 246 | 120 | 59        | 29 |
| 98  | 43  | ALGERIA         | PLATEAU DU TADEMAIT       | 24.2N                | 24.2N               | 0  | LO | 250 | N | N | 19910407 | 101052 | 246 | 121 | 59        | 29 |
| 98  | 44  | ALGERIA         | TINRHERT PLATEAU          | 24.1N                | 24.1N               | 0  | LO | 250 | N | N | 19910407 | 101102 | 246 | 121 | 60        | 29 |
| 98  | 45  | ALGERIA         | AHAGGAR                   | 23.8N                | 23.8N               | 0  | LO | 250 | N | N | 19910407 | 101116 | 246 | 122 | 61        | 29 |
| 98  | 46  | ALGERIA         | AHAGGAR                   | 23.3N                | 23.3N               | 0  | LO | 250 | N | N | 19910407 | 101143 | 246 | 124 | 63        | 29 |
| 151 | 184 | ALGERIA         | OUARKIZ RIDGE             | 28.5N                | 8.5W                | 0  | NV | 250 | N | N | 19910406 | 090757 | 247 | 104 | 36        | 13 |
| 151 | 185 | ALGERIA         | TOUNASSINE ROCK DESERT    | 28.5N                | 28.5N               | 0  | LO | 250 | N | Y | 19910406 | 090822 | 247 | 105 | 38        | 13 |
| 151 | 186 | ALGERIA         | BEN TADJINE MOUNTAINS     | 28.5N                | 4.0W                | 0  | NV | 250 | N | Y | 19910406 | 090842 | 247 | 106 | 39        | 13 |
| 151 | 187 | ALGERIA         | TABELBALA RANGE           | 28.5N                | 3.0W                | 0  | NV | 250 | N | Y | 19910406 | 090902 | 247 | 107 | 40        | 13 |
| 151 | 188 | ALGERIA         | TABELBALA RANGE           | 28.5N                | 1.0W                | 0  | NV | 250 | N | Y | 19910406 | 090922 | 247 | 108 | 41        | 13 |
| 151 | 189 | ALGERIA         | TADEMAIT PLATEAU-ADRAR    | 28.5N                | 0.0                 | 0  | NV | 250 | N | Y | 19910406 | 090941 | 246 | 109 | 43        | 13 |
| 151 | 190 | ALGERIA         | TADEMAIT PLATEAU          | 28.0N                | 1.5E                | 0  | NV | 250 | N | Y | 19910406 | 091001 | 246 | 110 | 44        | 13 |
| 151 | 191 | ALGERIA         | TADEMAIT PLATEAU          | 28.0N                | 3.0E                | 0  | NV | 250 | N | Y | 19910406 | 091021 | 246 | 111 | 45        | 13 |
| 151 | 192 | ALGERIA         | TADEMAIT PLATEAU          | 28.0N                | 4.5E                | 0  | NV | 250 | N | Y | 19910406 | 091042 | 246 | 112 | 46        | 13 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|----------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 151 | 193 | ALGERIA         | TADEMAIT PLATEAU           | 28.0N<br>5.5E        | 27.8N<br>5.0E       | 0  | NV | 250 | N | Y | 19910406 | 091102 | 246 | 113 | 48        | 13 |
| 151 | 194 | ALGERIA         | TINRHERT, TADEMAIT PLATEAU | 27.5N<br>7.0E        | 27.7N<br>6.3E       | 0  | NV | 250 | N | Y | 19910406 | 091122 | 246 | 114 | 49        | 13 |
| 151 | 195 | ALGERIA         | ISAQUANE-N-IRARRAREN       | 27.5N<br>8.0E        | 27.5N<br>7.7E       | 0  | NV | 250 | N | Y | 19910406 | 091142 | 246 | 115 | 50        | 13 |
| 151 | 196 | ALGERIA         | SAHARA                     | 27.0N<br>9.5E        | 27.3N<br>9.0E       | 0  | NV | 250 | N | Y | 19910406 | 091202 | 246 | 117 | 51        | 13 |
| 151 | 244 | ALGERIA         | SAFRA ROCK DESERT          | 25.5N<br>5.0W        | 25.3N<br>4.0W       | 0  | LO | 250 | N | Y | 19910406 | 104813 | 246 | 127 | 61        | 14 |
| 151 | 245 | ALGERIA         | ERG CHECH                  |                      | 24.6N<br>1.1W       | 0  | LO | 250 | N | Y | 19910406 | 104857 | 246 | 130 | 63        | 14 |
| 151 | 246 | ALGERIA         | ASSEDJAD ESCARPMENT        | 25.0N<br>1.0E        | 24.3N<br>0.3E       | 0  | NV | 250 | N | Y | 19910406 | 104919 | 246 | 132 | 65        | 14 |
| 151 | 247 | ALGERIA         | IN AFARAG SAND DUNES       | 23.5N<br>2.5E        | 23.4N<br>3.3E       | 0  | NV | 250 | N | Y | 19910406 | 105007 | 246 | 137 | 67        | 14 |
| 151 | 248 | ALGERIA         | TIDERIDJAOUINE MOUNTAIN    | 22.5N<br>2.5E        | 23.3N<br>3.7E       | 0  | LO | 250 | N | Y | 19910406 | 105014 | 246 | 138 | 68        | 14 |
| 151 | 249 | ALGERIA         | AHAGGAR MOUNTAINS          | 22.5N<br>5.0E        | 22.7N<br>5.7E       | 0  | NV | 250 | N | Y | 19910406 | 105045 | 246 | 141 | 69        | 14 |
| 151 | 250 | ALGERIA         | AHAGGAR PLATEAU            | 21.5N<br>6.5E        | 22.1N<br>7.4E       | 0  | LO | 250 | N | Y | 19910406 | 105114 | 245 | 145 | 71        | 14 |
| 151 | 251 | ALGERIA         | AHAGGAR MOUNTAINS          | 23.0N<br>7.0E        | 21.8N<br>8.2E       | 0  | LO | 250 | N | Y | 19910406 | 105127 | 245 | 147 | 71        | 14 |
| 151 | 252 | ALGERIA         | DU TAFASSASSET DESERT      |                      | 20.8N<br>11.3E      | 0  | LO | 250 | N | Y | 19910406 | 105217 | 245 | 155 | 74        | 14 |
| 152 | 159 | ALGERIA         | TADEMAIT PLATEAU           | 27.5N<br>4.0E        | 27.7N<br>4.4E       | 0  | NV | 250 | N | Y | 19910407 | 065243 | 246 | 91  | 18        | 27 |
| 152 | 160 | ALGERIA         | GRAND ORIENTAL             | 29.0N<br>5.5E        | 27.9N<br>6.1E       | 0  | NV | 250 | N | Y | 19910407 | 065307 | 246 | 92  | 19        | 27 |
| 152 | 161 | ALGERIA         | GRAND ORIENTAL             | 29.5N<br>6.5E        | 28.0N<br>6.9E       | 0  | LO | 250 | N | Y | 19910407 | 065319 | 246 | 93  | 20        | 27 |
| 152 | 232 | ALGERIA         | KAHAL TABELBALA            | 29.5N<br>3.0W        | 28.5N<br>3.4W       | 0  | LO | 250 | N | Y | 19910407 | 083004 | 247 | 100 | 32        | 28 |
| 152 | 233 | ALGERIA         | NEAR KAHAL TABELBALA       | 28.5N<br>1.0W        | 28.4N<br>1.4W       | 0  | NV | 250 | N | Y | 19910407 | 083033 | 247 | 102 | 34        | 28 |
| 152 | 234 | ALGERIA         | TADEMAIT PLATEAU           | 29.0N<br>1.5E        | 28.3N<br>0.5E       | 0  | LO | 250 | N | Y | 19910407 | 083101 | 247 | 103 | 36        | 28 |
| 152 | 235 | ALGERIA         | TADEMAIT PLATEAU           | 28.5N<br>2.0E        | 28.3N<br>1.2E       | 0  | NV | 250 | N | Y | 19910407 | 083111 | 247 | 103 | 36        | 28 |
| 152 | 236 | ALGERIA         | TANEZROUFT                 | 27.0N<br>2.5E        | 28.2N<br>2.7E       | 0  | LO | 250 | N | Y | 19910407 | 083132 | 247 | 104 | 38        | 28 |
| 152 | 237 | ALGERIA         | NEAR TADEMAIT PLATEAU      | 27.0N<br>4.0E        | 28.1N<br>4.2E       | 0  | LO | 250 | N | Y | 19910407 | 083155 | 247 | 105 | 39        | 28 |
| 152 | 238 | ALGERIA         | TINHERT PLAT.-ERG ORIENTAL | 28.0N<br>5.5E        | 28.1N<br>4.6E       | 0  | NV | 250 | N | Y | 19910407 | 083201 | 247 | 105 | 39        | 28 |
| 152 | 239 | ALGERIA         | ISAQUANE-N-IRARRAREN       | 28.0N<br>7.0E        | 27.9N<br>6.2E       | 0  | NV | 250 | N | Y | 19910407 | 083224 | 247 | 106 | 41        | 28 |
| 152 | 240 | ALGERIA         | TIFERNINE DUNES            | 28.5N<br>7.0E        | 27.8N<br>7.1E       | 0  | LO | 250 | N | Y | 19910407 | 083237 | 247 | 107 | 42        | 28 |
| 152 | 241 | ALGERIA         | ERG BOUARHET-IN AMENAS     | 27.5N<br>9.5E        | 27.6N<br>8.6E       | 0  | NV | 250 | N | Y | 19910407 | 083300 | 247 | 108 | 43        | 28 |
| 15  | 7   | ANGOLA          | CAPRIVI STRIP              | 17.0S<br>23.0E       | 17.6S<br>21.4E      | 5  | LO | 35  | N | N | 19910410 | 132154 | 247 | 298 | 42        | 77 |
| 74  | 47  | ANGOLA          | BENGUELA AREA              | 12.4S<br>13.7E       | 13.4S<br>10.8E      | 50 | LO | 250 | N | N | 19910409 | 135725 | 245 | 298 | 48        | 62 |
| 74  | 48  | ANGOLA          | AREA S. OF BENGUELA        | 12.7S<br>13.3E       | 13.5S<br>10.9E      | 20 | LO | 250 | N | N | 19910409 | 135727 | 245 | 296 | 48        | 62 |
| 74  | 49  | ANGOLA          | SERRA DA NEVI AREA         | 13.4S<br>13.2E       | 13.6S<br>11.0E      | 5  | LO | 250 | N | N | 19910409 | 135730 | 245 | 296 | 48        | 62 |
| 74  | 50  | ANGOLA          | HUILA PLATEAU AREA         | 14.5S<br>13.0E       | 13.6S<br>11.1E      | 0  | LO | 250 | N | N | 19910409 | 135732 | 245 | 296 | 48        | 62 |
| 74  | 51  | ANGOLA          | HUILA PLATEAU AREA         | 14.7S<br>12.5E       | 13.7S<br>11.3E      | 0  | LO | 250 | N | N | 19910409 | 135734 | 245 | 296 | 48        | 62 |
| 74  | 52  | ANGOLA          | HUILA PLATEAU AREA         | 15.2S<br>12.4E       | 13.7S<br>11.4E      | 0  | LO | 250 | N | N | 19910409 | 135736 | 245 | 296 | 48        | 62 |
| 74  | 53  | ANGOLA          | PORTO ALEXANDRE AREA       | 15.7S<br>12.2E       | 13.8S<br>11.5E      | 0  | LO | 250 | N | N | 19910409 | 135738 | 245 | 296 | 48        | 62 |
| 74  | 54  | ANGOLA          | DESERT DE MOCAMEDES        | 16.6S<br>12.0E       | 13.9S<br>11.6E      | 0  | LO | 250 | N | N | 19910409 | 135741 | 245 | 296 | 47        | 62 |
| 74  | 58  | ANGOLA          | HUILA PLATEAU              |                      | 15.5S<br>15.0E      | 0  | LO | 250 | N | N | 19910409 | 135841 | 244 | 295 | 43        | 62 |
| 74  | 59  | ANGOLA          | HUILA PLATEAU              |                      | 15.5S<br>15.1E      | 0  | LO | 250 | N | N | 19910409 | 135843 | 244 | 295 | 43        | 62 |
| 74  | 60  | ANGOLA          | NAMIBIA BORDER             | 17.0S<br>14.7E       | 15.6S<br>15.2E      | 0  | LO | 250 | N | N | 19910409 | 135845 | 244 | 295 | 43        | 62 |
| 74  | 61  | ANGOLA          | RIO CUENE AREA             | 16.5S<br>15.3E       | 15.6S<br>15.3E      | 0  | LO | 250 | N | N | 19910409 | 135847 | 244 | 295 | 43        | 62 |
| 74  | 64  | ANGOLA          |                            |                      | 16.7S<br>17.7E      | 0  | LO | 250 | N | N | 19910409 | 135928 | 244 | 294 | 40        | 62 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC    | TL    | FL  | E  | S   | DATE     | GMT      | AL     | AZ  | SUM<br>EL | OR |    |
|-----|----|-----------------|---------------------------|----------------------|---------------------|-------|-------|-----|----|-----|----------|----------|--------|-----|-----------|----|----|
| 74  | 66 | ANGOLA          | SE ANGOLA                 | 17.0S                | 18.4E               | 5     | LO    | 250 | N  | N   | 19910409 | 135941   | 244    | 294 | 40        | 62 |    |
| 74  | 67 | ANGOLA          | SE ANGOLA                 | 17.6S                | 19.8E               | 5     | LO    | 250 | N  | N   | 19910409 | 140005   | 244    | 294 | 38        | 62 |    |
| 74  | 68 | ANGOLA          | SE ANGOLA                 | 17.7S                | 20.1E               | 0     | LO    | 250 | N  | N   | 19910409 | 140010   | 244    | 293 | 38        | 62 |    |
| 75  | 48 | ANGOLA          | VIEW ALONG SW COAST AFRC  | 6.3S                 | 15.5E               | 90    | HO    | 250 | N  | N   | 19910406 | 141504   | 242    | 283 | 39        | 16 |    |
| 75  | 49 | ANGOLA          | VIEW ALONG SW COAST AFRC  | 6.8S                 | 16.0E               | 90    | HO    | 250 | N  | N   | 19910406 | 141513   | 242    | 283 | 39        | 16 |    |
| 75  | 50 | ANGOLA          | VRY CLDY                  | 6.8S                 | 16.5E               | 95    | LO    | 250 | N  | N   | 19910406 | 141522   | 242    | 283 | 38        | 16 |    |
| 75  | 51 | ANGOLA          | VRY CLDY                  | 8.6S                 | 19.6E               | 95    | LO    | 250 | N  | N   | 19910406 | 141621   | 242    | 284 | 35        | 16 |    |
| 77  | 92 | ANGOLA          | ZAMBEZI RIVER BASIN       | 8.4S                 | 19.4E               | 70    | LO    | 250 | N  | N   | 19910406 | 141616   | 242    | 284 | 35        | 16 |    |
| 77  | 93 | ANGOLA          | ZAMBEZI RIVER BASIN       | 8.8S                 | 20.0E               | 90    | LO    | 250 | N  | N   | 19910406 | 141628   | 242    | 284 | 34        | 16 |    |
| 77  | 94 | ANGOLA          | ZAMBEZI RIVER BASIN       | 9.7S                 | 21.7E               | 80    | LO    | 250 | N  | N   | 19910406 | 141700   | 242    | 284 | 32        | 16 |    |
| 77  | 95 | ANGOLA          | ZAMBEZI RIVER BASIN       | 10.2S                | 22.6E               | 70    | LO    | 250 | N  | N   | 19910406 | 141717   | 242    | 284 | 31        | 16 |    |
| 80  | 73 | ANGOLA          | MOUTH OF CONGO RIVER      | 6.0S                 | 13.0E               | 40    | HO    | 250 | N  | N   | 19910409 | 121831   | 246    | 298 | 66        | 61 |    |
| 80  | 92 | ANGOLA          | ETOSHA PAN                | 17.0S                | 19.0E               | 15    | HO    | 250 | N  | N   | 19910409 | 122117   | 246    | 297 | 55        | 61 |    |
| 80  | 93 | ANGOLA          | LIUWA PLAIN               | 17.0S                | 22.0E               | 15    | HO    | 250 | N  | N   | 19910409 | 122158   | 245    | 296 | 52        | 61 |    |
| 83  | 37 | ANGOLA          | ETOSHA PAN, RIO CUBANGO   | 17.5S                | 19.0E               | 40    | HO    | 100 | N  | N   | 19910409 | 122145   | 246    | 296 | 53        | 61 |    |
| 83  | 44 | ANGOLA          | COAST, ETOSHA PAN-NAMIBI  | 14.0S                | 14.0E               | 10.3S | 4.7E  | 30  | HO | 100 | N        | 19910409 | 135535 | 245 | 297       | 52 | 62 |
| 83  | 45 | ANGOLA          | COAST, ETOSHA PAN-NAMIBI  | 17.0S                | 15.0E               | 10.4S | 4.9E  | 10  | HO | 100 | N        | 19910409 | 135538 | 245 | 297       | 52 | 62 |
| 83  | 87 | ANGOLA          | NE PANORAMA, R. CUBANGO   | 16.5S                | 19.5E               | 24.5S | 16.2E | 15  | HO | 100 | N        | 19910409 | 153859 | 245 | 285       | 14 | 63 |
| 87  | 79 | ANGOLA          | COAST, LOBITO, DARK       | 12.5S                | 13.5E               | 12.7S | 9.3E  | 15  | LO | 250 | U        | 19910409 | 135658 | 245 | 296       | 47 | 62 |
| 87  | 80 | ANGOLA          | COAST, DARK               | 13.0S                | 13.3E               | 12.7S | 9.4E  | 5   | LO | 250 | U        | 19910409 | 135700 | 245 | 296       | 47 | 62 |
| 87  | 81 | ANGOLA          | INTERIOR, DARK            | 12.8S                | 9.5E                | 0     | LO    | 250 | U  | N   | 19910409 | 135703   | 245    | 296 | 46        | 62 |    |
| 87  | 82 | ANGOLA          | INTERIOR                  | 14.5S                | 12.5E               | 12.9S | 9.7E  | 0   | LO | 250 | N        | 19910409 | 135706 | 245 | 295       | 46 | 62 |
| 87  | 83 | ANGOLA          | COAST, MOCAMEDES          | 15.0S                | 12.5E               | 13.0S | 9.9E  | 0   | LO | 250 | N        | 19910409 | 135710 | 245 | 295       | 46 | 62 |
| 87  | 84 | ANGOLA          | COAST, RIO COROCA,        | 15.8S                | 12.3E               | 13.1S | 10.0E | 0   | LO | 250 | N        | 19910409 | 135712 | 245 | 295       | 46 | 62 |
| 87  | 89 | ANGOLA          | INTERIOR, DARK            | 15.1S                | 14.2E               | 15.1S | 14.2E | 0   | LO | 250 | N        | 19910409 | 135827 | 244 | 294       | 41 | 62 |
| 87  | 91 | ANGOLA          | INTERIOR, DARK            | 15.4S                | 14.9E               | 15.4S | 14.9E | 20  | LO | 250 | N        | 19910409 | 135840 | 244 | 294       | 40 | 62 |
| 87  | 92 | ANGOLA          | INTERIOR, DARK            | 16.1S                | 16.4E               | 16.1S | 16.4E | 30  | LO | 250 | U        | 19910409 | 135905 | 244 | 294       | 39 | 62 |
| 87  | 93 | ANGOLA          | INTERIOR, DARK            | 16.2S                | 16.6E               | 16.2S | 16.6E | 0   | LO | 250 | N        | 19910409 | 135909 | 244 | 294       | 38 | 62 |
| 90  | 64 | ANGOLA          | CABINDE, AFLD, COAST      | 5.5S                 | 12.5E               | 3.2S  | 10.1E | 75  | LO | 250 | N        | 19910406 | 141321 | 242 | 282       | 46 | 16 |
| 90  | 67 | ANGOLA          | DOS TIGRES I, NAMIB DES.  | 17.0S                | 12.0E               | 8.2S  | 18.9E | 50  | HO | 250 | N        | 19910406 | 141608 | 242 | 284       | 35 | 16 |
| 90  | 68 | ANGOLA          | RIO CUANGO/HILLS          | 10.0S                | 18.5E               | 8.5S  | 19.6E | 70  | LO | 250 | U        | 19910406 | 141620 | 242 | 284       | 35 | 16 |
| 90  | 69 | ANGOLA          | STREAMS, HILLS            | 9.0S                 | 20.4E               | 9.0S  | 20.4E | 70  | LO | 250 | N        | 19910406 | 141636 | 242 | 284       | 34 | 16 |
| 90  | 70 | ANGOLA          | RIO CUANDO, ZAMBEZI DRAIN | 15.0S                | 21.0E               | 10.3S | 22.8E | 80  | LO | 250 | U        | 19910406 | 141720 | 242 | 284       | 31 | 16 |
| 90  | 92 | ANGOLA          | MOCAMEDES DES, RIO COROCA | 15.8S                | 12.0E               | 18.8S | 16.9E | 60  | LO | 250 | N        | 19910406 | 155606 | 243 | 281       | 11 | 17 |
| 90  | 93 | ANGOLA          | MOCAMEDES DESERT, COAST   | 17.0S                | 12.0E               | 18.9S | 17.2E | 40  | LO | 250 | N        | 19910406 | 155611 | 243 | 280       | 11 | 17 |
| 152 | 48 | ANGOLA          | ANGOLA, NAMIBIA COAST     | 5.9S                 | 14.8E               | 5.9S  | 14.8E | 40  | HO | 250 | N        | 19910406 | 141451 | 242 | 283       | 40 | 16 |
| 152 | 49 | ANGOLA          | COAST-ANGOLA & NAMIBIA    | 13.5S                | 12.5E               | 6.6S  | 16.1E | 50  | HO | 250 | N        | 19910406 | 141515 | 242 | 283       | 39 | 16 |
| 12  | 14 | ARABIAN SEA     | OMAN COAST, MASIRAH IS.   | 18.0N                | 58.0E               | 16.2N | 54.0E | 10  | HO | 35  | N        | 19910410 | 064832 | 247 | 107       | 65 | 73 |
| 41  | 9  | ARABIAN SEA     | OIL SLICKS                | 13.1N                | 62.4E               | 13.1N | 62.4E | 15  | LO | 35  | N        | 19910411 | 061240 | 247 | 99        | 65 | 88 |
| 41  | 10 | ARABIAN SEA     | OIL SLICKS                | 12.8N                | 63.0E               | 12.8N | 63.0E | 10  | LO | 35  | N        | 19910411 | 061251 | 247 | 98        | 66 | 88 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | LOW   | MADIR<br>LAT | LOW   | CC | TL  | FL  | E | S | DATE     | GMT    | AL  | AZ  | EL | OR |
|-----|-----|-----------------|--------------------------|---------------|-------|--------------|-------|----|-----|-----|---|---|----------|--------|-----|-----|----|----|
| 85  | 53  | ARABIAN SEA     | SHIP WAKE OIL SLICK      | 14.8N         | 55.0E | 14.8N        | 55.0E | 0  | LO  | 250 | N | N | 19910409 | 072745 | 246 | 117 | 74 | 58 |
| 85  | 54  | ARABIAN SEA     | SUNGLINT, CLOUDS         | 13.5N         | 57.8E | 13.5N        | 57.8E | 40 | LO  | 250 | N | N | 19910409 | 072835 | 246 | 119 | 78 | 58 |
| 85  | 55  | ARABIAN SEA     | SUNGLINT, CLOUDS         | 12.9N         | 58.9E | 12.9N        | 58.9E | 20 | LO  | 250 | N | N | 19910409 | 072856 | 246 | 119 | 79 | 58 |
| 93  | 25  | ARABIAN SEA     | CLOUDS OFF C. OF INDIA   | 20.8N         | 68.9E | 20.8N        | 68.9E | 80 | LO  | 250 | U | N | 19910408 | 010952 | 245 | 82  | -1 | 8  |
| 94  | 63  | ARABIAN SEA     | DYING THUNDERSTORM       |               |       |              |       | HO | 100 | N   | N |   |          |        |     |     |    |    |
| 151 | 174 | ARABIAN SEA     | SUNGLINT-EDDIES-SHIP WAK | 19.4N         | 62.5E | 19.4N        | 62.5E | 5  | LO  | 250 | N | Y | 19910406 | 074623 | 245 | 173 | 76 | 12 |
| 151 | 175 | ARABIAN SEA     | SUNGLINT-EDDIES          | 18.5N         | 64.9E | 18.5N        | 64.9E | 0  | LO  | 250 | N | Y | 19910406 | 074703 | 245 | 184 | 77 | 12 |
| 151 | 176 | ARABIAN SEA     | SUNGLINT-LINEAR LINES    | 18.1N         | 65.8E | 18.1N        | 65.8E | 0  | LO  | 250 | N | Y | 19910406 | 074718 | 245 | 189 | 78 | 12 |
| 151 | 177 | ARABIAN SEA     | SUNGLINT                 | 17.6N         | 67.1E | 17.6N        | 67.1E | 0  | LO  | 250 | N | Y | 19910406 | 074741 | 245 | 198 | 78 | 12 |
| 151 | 178 | ARABIAN SEA     | SUNGLINT-SULOY?          | 17.2N         | 67.8E | 17.2N        | 67.8E | 0  | LO  | 250 | N | Y | 19910406 | 074754 | 245 | 200 | 78 | 12 |
| 151 | 179 | ARABIAN SEA     | SUNGLINT-EDDIES-SURFACTA | 16.3N         | 69.9E | 16.3N        | 69.9E | 5  | LO  | 250 | N | N | 19910406 | 074830 | 244 | 212 | 78 | 12 |
| 151 | 180 | ARABIAN SEA     | SUNGLINT-EDDIES          | 14.9N         | 72.9E | 14.9N        | 72.9E | 15 | LO  | 250 | N | N | 19910406 | 074923 | 244 | 228 | 77 | 12 |
| 152 | 269 | ARABIAN SEA     | SUNGLINT                 | 13.3N         | 54.2E | 13.3N        | 54.2E | 5  | LO  | 250 | N | N | 19910407 | 084520 | 245 | 216 | 81 | 28 |
| 10  | 16  | ARGENTINA       | PILCOMAYO RIVER          | 21.7S         | 63.6W | 21.7S        | 63.6W | 80 | LO  | 35  | N | N | 19910410 | 193847 | 247 | 295 | 32 | 81 |
| 39  | 23  | ARGENTINA       | ANDES, ARIZARO SALAR     | 25.0S         | 68.0W | 25.0S        | 68.0W | 5  | LO  | 35  | N | N | 19910410 | 211658 | 246 | 287 | 15 | 82 |
| 39  | 24  | ARGENTINA       | ANDES, ANTOFALLA SALAR   | 26.0S         | 68.0W | 26.0S        | 68.0W | 10 | LO  | 35  | N | N | 19910410 | 211659 | 246 | 287 | 14 | 82 |
| 39  | 25  | ARGENTINA       | ANDES, ANTOFALLA SALAR   | 27.0S         | 68.0W | 27.0S        | 68.0W | 15 | LO  | 35  | N | N | 19910410 | 211700 | 246 | 287 | 14 | 82 |
| 39  | 26  | ARGENTINA       | ANDES, HOMBRE MUERTO SAL | 26.0S         | 67.0W | 26.0S        | 67.0W | 25 | LO  | 35  | N | N | 19910410 | 211702 | 246 | 287 | 14 | 82 |
| 39  | 27  | ARGENTINA       | ANDES, ARIZARO SALAR     | 26.0S         | 67.0W | 26.0S        | 67.0W | 20 | LO  | 35  | N | N | 19910410 | 211715 | 246 | 286 | 13 | 82 |
| 39  | 28  | ARGENTINA       | ANDES MTNS.              | 27.0S         | 67.0W | 27.0S        | 67.0W | 50 | LO  | 35  | N | N | 19910410 | 211727 | 246 | 286 | 13 | 82 |
| 39  | 29  | ARGENTINA       | ANDES MTNS.              | 26.0S         | 67.0W | 26.0S        | 67.0W | 45 | LO  | 35  | N | N | 19910410 | 211729 | 246 | 286 | 13 | 82 |
| 39  | 30  | ARGENTINA       | ANDES MTNS.              | 27.0S         | 68.0W | 27.0S        | 68.0W | 35 | LO  | 35  | N | N | 19910410 | 211736 | 246 | 286 | 12 | 82 |
| 39  | 31  | ARGENTINA       | ANDES MTNS.              | 26.0S         | 68.0W | 27.0S        | 67.0W | 55 | LO  | 35  | N | N | 19910410 | 211737 | 246 | 286 | 12 | 82 |
| 39  | 32  | ARGENTINA       | ANDES MTNS.              | 26.0S         | 67.0W | 27.0S        | 66.9W | 50 | LO  | 35  | N | N | 19910410 | 211738 | 246 | 285 | 12 | 82 |
| 39  | 33  | ARGENTINA       | VIEW WEST OF ANDES MTNS. | 25.0S         | 68.0W | 27.4S        | 64.4W | 50 | HO  | 35  | N | N | 19910410 | 211816 | 246 | 284 | 10 | 82 |
| 39  | 34  | ARGENTINA       | VIEW WEST OF ANDES MTNS. | 27.0S         | 68.0W | 27.6S        | 62.5W | 55 | HO  | 35  | N | N | 19910410 | 211843 | 245 | 283 | 8  | 82 |
| 39  | 35  | ARGENTINA       | VIEW WEST OF ANDES MTNS. | 25.0S         | 67.0W | 27.8S        | 61.3W | 65 | HO  | 35  | N | N | 19910410 | 211901 | 245 | 283 | 7  | 82 |
| 39  | 36  | ARGENTINA       | CLOUDS, SUNSET           | 28.6S         | 50.3W | 28.6S        | 50.3W | 75 | HO  | 35  | N | N | 19910410 | 212142 | 245 | 277 | -4 | 82 |
| 39  | 37  | ARGENTINA       | CLOUDS, SUNSET           | 28.6S         | 47.2W | 28.6S        | 47.2W | 75 | HO  | 35  | N | N | 19910410 | 212228 | 244 | 276 | -7 | 82 |
| 85  | 30  | ARGENTINA       | MTNS. BORDER W/BOLIVIA   | 23.2S         | 62.1W | 23.2S        | 62.1W | 50 | LO  | 250 | N | N | 19910408 | 205649 | 245 | 284 | 13 | 51 |
| 93  | 18  | ARGENTINA       | PILCAMAYO RIVER          | 22.0S         | 61.0W | 16.7S        | 61.6W | 30 | LO  | 250 | U | N | 19910405 | 211325 | 243 | 280 | 11 | 5  |
| 93  | 19  | ARGENTINA       | CENTRAL ANDES HIGHLANDS  | 17.4S         | 59.8W | 17.4S        | 59.8W | 40 | HO  | 250 | N | N | 19910405 | 211355 | 243 | 279 | 9  | 5  |
| 96  | 62  | ARGENTINA       | NEAR POZUELOS LAGOON     | 23.5S         | 66.0W |              |       | 50 | LO  | 100 | N | Y |          |        |     |     |    |    |
| 96  | 63  | ARGENTINA       | NEAR POZUELOS LAGOON     | 22.5S         | 65.5W |              |       | 45 | LO  | 100 | N | Y |          |        |     |     |    |    |
| 96  | 64  | ARGENTINA       | CHACO PLAIN, LAND USE    |               |       |              |       | 30 | LO  | 100 | U | N |          |        |     |     |    |    |
| 96  | 65  | ARGENTINA       | CHACO PLAIN, LAND USE    |               |       |              |       | 30 | LO  | 100 | U | Y |          |        |     |     |    |    |
| 96  | 66  | ARGENTINA       | CHACO PLAIN, LAND USE    |               |       |              |       | 35 | LO  | 100 | U | Y |          |        |     |     |    |    |
| 153 | 92  | ARGENTINA       | ARIZARO S., CENT. ANDES  | 25.0S         | 68.0W | 20.3S        | 69.0W | 5  | LO  | 250 | N | Y | 19910409 | 201539 | 247 | 291 | 29 | 66 |
| 153 | 93  | ARGENTINA       | ARIZARO S., CENT. ANDES  | 26.0S         | 67.0W |              |       | 30 | LO  | 250 | N | Y |          |        |     |     |    |    |
| 153 | 94  | ARGENTINA       | CENTRAL ANDES MTNS.      | 28.5S         | 67.0W | 20.4S        | 68.7W | 55 | HO  | 250 | N | Y | 19910409 | 201545 | 247 | 291 | 29 | 66 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME  | FEATURE                   | CENTER |       | MADIR |       | CC  | IL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|-----|------------------|---------------------------|--------|-------|-------|-------|-----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                  |                           | LAT    | LONG  | LAT   | LONG  |     |    |     |   |   |          |        |     |     |     |    |    |
| 153 | 99  | ARGENTINA        | SALT PLAINS, CEN. ANDES   | 30.5S  | 67.5W |       |       | 60  | HO | 250 | N | N | 19910409 | 201612 | 247 | 291 | 27  | 66 |    |
| 153 | 100 | ARGENTINA        | CENTRAL ANDES, FOOTHILLS  | 26.5S  | 66.0W | 21.0S | 67.0W | 55  | LO | 250 | N | N | 19910409 | 201619 | 247 | 290 | 26  | 66 |    |
| 153 | 102 | ARGENTINA        | ATACAMA S., POZUELOS L.   | 22.5S  | 66.5W | 21.1S | 66.6W | 10  | LO | 250 | N | Y | 19910409 | 201619 | 247 | 290 | 26  | 66 |    |
| 153 | 109 | ARGENTINA        | POZUELOS L., GRAND SALAR  | 22.5S  | 65.5W |       |       | 35  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 110 | ARGENTINA        | SALTA, ANDES FOOTHILLS    | 25.0S  | 65.5W | 21.7S | 65.1W | 50  | LO | 250 | N | Y | 19910409 | 201644 | 247 | 290 | 25  | 66 |    |
| 153 | 111 | ARGENTINA        | ANDES FOOTHILLS           | 27.5S  | 66.0W |       |       | 60  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 112 | ARGENTINA        | CHACO PL., PILCOMAYO R.   | 23.5S  | 62.0W | 22.3S | 63.1W | 50  | LO | 250 | O | N | 19910409 | 201717 | 247 | 289 | 23  | 66 |    |
| 153 | 113 | ARGENTINA        | CHACO PLAIN, LAND USE     |        |       |       |       | 50  | LO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 114 | ARGENTINA        | CHACO PLAIN, LAND USE     | 25.0S  | 62.5W | 22.5S | 62.4W | 45  | LO | 250 | N | N | 19910409 | 201728 | 247 | 289 | 22  | 66 |    |
| 153 | 115 | ARGENTINA        | CHACO PLAIN, LAND USE     | 26.0S  | 61.0W |       |       | 50  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 116 | ARGENTINA        | PARANA R. N. CORRIENTES   | 28.0S  | 60.0W | 22.7S | 61.8W | 50  | HO | 250 | N | N | 19910409 | 201737 | 247 | 288 | 21  | 66 |    |
| 153 | 117 | ARGENTINA        | TEUCO R., CHACO PLAIN     | 24.5S  | 62.0W |       |       | 40  | LO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 118 | ARGENTINA        | CHACO PLAIN, LAND USE     | 24.5S  | 60.5W | 22.9S | 61.3W | 40  | LO | 250 | N | Y | 19910409 | 201746 | 247 | 288 | 21  | 66 |    |
| 153 | 119 | ARGENTINA        | CHACO PLAIN, LAND USE     | 25.0S  | 60.5W |       |       | 40  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 122 | ARGENTINA        | PARAGUAY R., ASUNCION     | 25.0S  | 58.5W | 23.3S | 59.8W | 25  | LO | 250 | N | N | 19910409 | 201810 | 247 | 288 | 19  | 66 |    |
| 153 | 123 | ARGENTINA        | PARAGUAY, PARANA RIVERS   | 26.0S  | 58.0W |       |       | 15  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 124 | ARGENTINA        | PARAGUAY, PARANA RIVERS   | 26.5S  | 57.0W | 23.5S | 59.2W | 20  | LO | 250 | N | Y | 19910409 | 201819 | 247 | 287 | 19  | 66 |    |
| 153 | 139 | ARGENTINA        | URUGUAY RIVER             | 28.0S  | 54.0W |       |       | 55  | LO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 140 | ARGENTINA        | PARANA RIVER              | 26.5S  | 54.0W | 24.7S | 54.9W | 40  | LO | 250 | U | N | 19910409 | 201927 | 246 | 285 | 14  | 66 |    |
| 72  | 80  | ASIA             | LARGE STORM CELLS         | 26.5S  | 54.0W | 25.1N | 83.1E | 95  | HO | 100 | O | N | 19910406 | 011341 | 246 | 88  | 12  | 8  |    |
| 10  | 26  | ATLANTIC OCEAN   | SUNGLINT, CLOUDS          |        |       | 28.1S | 33.7W | 45  | HO | 35  | N | N | 19910410 | 194628 | 245 | 281 | 3   | 81 |    |
| 10  | 27  | ATLANTIC OCEAN   | SUNGLINT, CLOUDS          |        |       | 28.6S | 26.1W | 40  | HO | 35  | N | N | 19910410 | 194818 | 245 | 277 | -4  | 81 |    |
| 15  | 1   | ATLANTIC OCEAN   | UNIQUE CLOUD FORMATION    |        |       | 12.2N | 33.2W | 95  | LO | 35  | N | N | 19910410 | 130455 | 247 | 102 | 72  | 77 |    |
| 71  | 75  | ATLANTIC OCEAN   | AMAZON R., OCEAN INTERFAC |        |       | 2.2N  | 48.8W | 20  | LO | 250 | N | N | 19910405 | 175541 | 243 | 276 | 50  | 3  |    |
| 75  | 1   | ATLANTIC OCEAN   | LG STORM, CLOUD FORMATION |        |       | 28.5N | 59.0W | 90  | HO | 250 | N | N | 19910406 | 121358 | 246 | 101 | 32  | 15 |    |
| 75  | 2   | ATLANTIC OCEAN   | LG STORM, CLOUD FORMATION |        |       | 28.5N | 58.2W | 90  | LO | 250 | N | N | 19910406 | 121409 | 247 | 101 | 33  | 15 |    |
| 79  | 102 | ATLANTIC OCEAN   | GRO PAYLOAD, EARTH LIMB   |        |       | 18.5S | 31.4W | 70  | HO | 250 | N | N | 19910406 | 190248 | 243 | 281 | 13  | 19 |    |
| 79  | 103 | ATLANTIC OCEAN   | GRO PAYLOAD, EARTH LIMB   |        |       | 18.9S | 30.6W | 75  | HO | 250 | N | N | 19910406 | 190303 | 243 | 281 | 12  | 19 |    |
| 81  | 79  | ATLANTIC OCEAN   | THUNDERSTORMS             |        |       | 17.5S | 35.8W | 90  | NV | 250 | N | N | 19910405 | 194031 | 243 | 279 | 8   | 4  |    |
| 81  | 80  | ATLANTIC OCEAN   | THUNDERSTORMS             |        |       | 17.6S | 35.5W | 75  | NV | 250 | U | N | 19910405 | 194036 | 243 | 279 | 8   | 4  |    |
| 81  | 81  | ATLANTIC OCEAN   | EARTH LIMB                |        |       | 19.5S | 31.0W | 50  | HO | 250 | U | N | 19910405 | 194153 | 243 | 277 | 3   | 4  |    |
| 83  | 2   | ATLANTIC OCEAN   | CLOUD EDDIES, SWIRLS      |        |       | 24.1N | 17.5W | 100 | LO | 100 | N | Y | 19910409 | 102740 | 246 | 106 | 47  | 60 |    |
| 83  | 3   | ATLANTIC OCEAN   | CLOUD EDDIES, SWIRLS      |        |       | 23.9N | 16.7W | 80  | LO | 100 | N | Y | 19910409 | 102752 | 246 | 106 | 48  | 60 |    |
| 83  | 33  | ATLANTIC OCEAN   | CLOSED CONVECTION CELLS   |        |       | 21.8N | 33.6W | 95  | LO | 100 | N | N | 19910409 | 120310 | 246 | 108 | 54  | 61 |    |
| 96  | 43  | ATLANTIC OCEAN   | PAYLOAD BAY               |        |       |       |       | 35  | HO | 100 | N | N |          |        |     |     |     |    |    |
| 96  | 44  | ATLANTIC OCEAN   | PAYLOAD BAY               |        |       |       |       | 35  | HO | 100 | N | N |          |        |     |     |     |    |    |
| 97  | 107 | ATLANTIC OCEAN   | CLOUDS                    |        |       | 28.0N | 66.7W | 70  | LO | 250 | N | N | 19910406 | 121205 | 246 | 96  | 25  | 15 |    |
| 151 | 89  | ATLANTIC OCEAN   | CLOUDS                    |        |       | 16.5S | 38.2W | 95  | LO | 250 | N | N | 19910405 | 193950 | 243 | 280 | 11  | 4  |    |
| 151 | 238 | ATLANTIC OCEAN   | LAYERED CLOUDS            |        |       | 27.9N | 19.7W | 95  | LO | 250 | N | N | 19910406 | 104417 | 246 | 112 | 47  | 14 |    |
| 9   | 20  | ATMOSPHERIC LIMB | CLOUDS                    |        |       | 26.0N | 21.3W | 99  | HO | 35  | N | N | 19910411 | 090940 | 245 | 94  | 27  | 90 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME  | FEATURE                    | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL  | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|------------------|----------------------------|---------------|---------------|--------------|--------------|----|-----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 85  | 45  | ATMOSPHERIC LING |                            |               |               | 20.9N        | 51.1E        | LO | 250 | N   | N | N | 19910409 | 004822 | 242 | 72  | -22       | 54 |
| 85  | 46  | ATMOSPHERIC LING |                            |               |               | 21.1N        | 51.4E        | LO | 250 | N   | N | N | 19910409 | 004828 | 242 | 72  | -21       | 54 |
| 85  | 47  | ATMOSPHERIC LING |                            |               |               | 21.1N        | 51.6E        | LO | 250 | N   | N | N | 19910409 | 004831 | 242 | 72  | -21       | 54 |
| 92  | 100 | ATMOSPHERIC LING | VRY DARK, UNDEREXPOSED     |               |               | 25.4S        | 39.8E        | 30 | HO  | 250 | N | N | 19910407 | 152317 | 243 | 276 | -3        | 32 |
| 94  | 68  | AUSTRALIA        | WEST C., 80-MILE BEACH     | 19.0S         | 122.0E        |              |              | 60 | HO  | 100 | U | N |          |        |     |     |           |    |
| 94  | 69  | AUSTRALIA        | COAST, 80-MILE BEACH       | 20.0S         | 120.0E        |              |              | 55 | HO  | 100 | U | N |          |        |     |     |           |    |
| 94  | 70  | AUSTRALIA        | GREAT SANDY DESERT         |               |               |              |              | 65 | HO  | 100 | U | N |          |        |     |     |           |    |
| 94  | 83  | AUSTRALIA        | L. DISAPPOINTMENT          | 23.0S         | 123.0E        |              |              | 5  | LO  | 100 | N | Y |          |        |     |     |           |    |
| 94  | 84  | AUSTRALIA        | GREAT SANDY/GIBSON DES.    | 22.0S         | 124.0E        |              |              | 20 | LO  | 100 | N | Y |          |        |     |     |           |    |
| 94  | 85  | AUSTRALIA        | GREAT SANDY/GIBSON DES.    | 21.5S         | 124.5E        |              |              | 35 | LO  | 100 | N | Y |          |        |     |     |           |    |
| 94  | 86  | AUSTRALIA        | W. COAST, 80-MILE BEACH    | 20.0S         | 119.0E        |              |              | 25 | HO  | 100 | O | N |          |        |     |     |           |    |
| 94  | 87  | AUSTRALIA        | W. COAST, 80-MILE BEACH    | 20.0S         | 120.0E        |              |              | 20 | HO  | 100 | N | N |          |        |     |     |           |    |
| 94  | 88  | AUSTRALIA        | L. MACKAY, GIBSON DESERT   | 22.5S         | 128.5E        |              |              | 55 | LO  | 100 | U | N |          |        |     |     |           |    |
| 73  | 55  | AUSTRALIA-NT     | LAKE WOODS                 | 18.0S         | 132.0E        | 16.9S        | 133.7E       | 20 | NV  | 250 | N | N | 19910407 | 072911 | 243 | 284 | 21        | 27 |
| 73  | 56  | AUSTRALIA-NT     | LAKE WOODS                 | 18.0S         | 134.0E        | 17.0S        | 133.9E       | 30 | NV  | 250 | N | N | 19910407 | 072915 | 243 | 284 | 20        | 27 |
| 73  | 57  | AUSTRALIA-NT     |                            | 18.5S         | 134.5E        | 17.4S        | 134.9E       | 60 | NV  | 250 | N | N | 19910407 | 072931 | 243 | 284 | 19        | 27 |
| 73  | 58  | AUSTRALIA-NT     | EDWARD PELLEW GROUP ISLS   | 16.0S         | 137.2E        | 18.5S        | 137.4E       | 20 | LO  | 250 | N | N | 19910407 | 073015 | 243 | 283 | 17        | 27 |
| 73  | 59  | AUSTRALIA-NT     | COAST, SE. OF VANDERLIN    | 16.5S         | 138.0E        | 18.6S        | 137.7E       | 20 | LO  | 250 | N | N | 19910407 | 073019 | 243 | 283 | 16        | 27 |
| 89  | 93  | AUSTRALIA-NT     | PALMER R. JAMES RANGES     | 24.2S         | 132.2E        | 24.4S        | 135.2E       | 5  | LO  | 250 | U | Y | 19910409 | 075153 | 244 | 284 | 12        | 58 |
| 89  | 94  | AUSTRALIA-NT     | FINKE R. KRICHAUFF RANGES  | 24.2S         | 13.0E         | 24.5S        | 135.4E       | 5  | LO  | 250 | U | Y | 19910409 | 075158 | 244 | 284 | 12        | 58 |
| 89  | 95  | AUSTRALIA-NT     | SIMPSON DESERT, DARK       | 24.7S         | 136.1E        |              |              | 0  | LO  | 250 | U | N | 19910409 | 075207 | 244 | 283 | 11        | 58 |
| 89  | 96  | AUSTRALIA-NT     | SIMPSON DESERT, DARK       | 24.8S         | 136.6E        |              |              | 0  | LO  | 250 | U | N | 19910409 | 075215 | 244 | 283 | 11        | 58 |
| 92  | 65  | AUSTRALIA-NT     | LAKE WOODS AREA            | 17.8S         | 133.5E        | 16.8S        | 133.6E       | 50 | LO  | 250 | N | N | 19910407 | 072908 | 243 | 284 | 21        | 27 |
| 92  | 66  | AUSTRALIA-NT     | LAKE WOODS AREA            | 17.4S         | 133.5E        | 17.0S        | 133.9E       | 50 | LO  | 250 | N | N | 19910407 | 072915 | 243 | 284 | 20        | 27 |
| 92  | 67  | AUSTRALIA-NT     | LAKE WOODS AREA            | 18.2S         | 133.7E        | 17.1S        | 134.2E       | 60 | LO  | 250 | N | N | 19910407 | 072920 | 243 | 284 | 20        | 27 |
| 92  | 68  | AUSTRALIA-NT     | SE. LAKE WOODS AREA        | 18.5S         | 134.5E        | 17.5S        | 135.0E       | 70 | LO  | 250 | N | N | 19910407 | 072934 | 243 | 284 | 19        | 27 |
| 153 | 8   | AUSTRALIA-NT     | LAKES MACKAY, MACDONALD    | 23.0S         | 129.5E        | 23.4S        | 131.5E       | 15 | LO  | 250 | N | N | 19910409 | 075055 | 245 | 285 | 15        | 58 |
| 153 | 9   | AUSTRALIA-NT     | LAKES MACKAY, MACDONALD    | 23.5S         | 129.0E        | 23.6S        | 132.2E       | 25 | LO  | 250 | N | Y | 19910409 | 075108 | 245 | 285 | 15        | 58 |
| 153 | 10  | AUSTRALIA-NT     | MACDONNEL RANGES, TODD R   | 24.0S         | 133.5E        |              |              | 5  | LO  | 250 | N | N |          |        |     |     |           |    |
| 153 | 11  | AUSTRALIA-NT     | MACDONNEL R., SIMPSON D.   | 23.5S         | 135.0E        | 24.0S        | 133.7E       | 5  | LO  | 250 | U | Y | 19910409 | 075129 | 245 | 284 | 13        | 58 |
| 153 | 12  | AUSTRALIA-NT     | MACDONNEL R., SIMPSON D.   | 24.5S         | 135.0E        |              |              | 5  | LO  | 250 | U | Y |          |        |     |     |           |    |
| 73  | 60  | AUSTRALIA-Q      | COAST, W. OF WELLESLEY IS. | 16.7S         | 138.6E        | 18.7S        | 138.1E       | 20 | LO  | 250 | N | N | 19910407 | 073026 | 243 | 283 | 16        | 27 |
| 73  | 61  | AUSTRALIA-Q      | SO. WELLESLEY ISLANDS      | 17.0S         | 139.2E        | 18.9S        | 138.4E       | 60 | LO  | 250 | N | N | 19910407 | 073032 | 243 | 283 | 16        | 27 |
| 73  | 62  | AUSTRALIA-Q      | WAGGABOONAH MTN. RANGE     |               |               | 19.3S        | 139.5E       | 60 | LO  | 250 | N | N | 19910407 | 073050 | 243 | 282 | 14        | 27 |
| 73  | 63  | AUSTRALIA-Q      | WAGGABOONAH MTN. RANGE     |               |               | 19.4S        | 139.7E       | 50 | LO  | 250 | N | N | 19910407 | 073054 | 243 | 282 | 14        | 27 |
| 73  | 64  | AUSTRALIA-Q      | PAROO MTN. RANGE           |               |               | 19.5S        | 140.0E       | 40 | LO  | 250 | N | N | 19910407 | 073059 | 243 | 282 | 14        | 27 |
| 73  | 65  | AUSTRALIA-Q      | STANDISH, SELWYN RANGES    |               |               | 19.6S        | 140.3E       | 50 | LO  | 250 | N | N | 19910407 | 073103 | 243 | 282 | 14        | 27 |
| 73  | 66  | AUSTRALIA-Q      | STANDISH, SELWYN RANGES    |               |               | 19.7S        | 140.5E       | 50 | LO  | 250 | N | N | 19910407 | 073107 | 243 | 282 | 13        | 27 |
| 73  | 67  | AUSTRALIA-Q      | STANDISH, SELWYN RANGES    |               |               | 20.0S        | 141.3E       | 40 | LO  | 250 | N | N | 19910407 | 073120 | 243 | 282 | 13        | 27 |
| 73  | 68  | AUSTRALIA-Q      | CLONCURRY AREA             |               |               | 20.1S        | 141.6E       | 40 | LO  | 250 | N | N | 19910407 | 073125 | 243 | 282 | 12        | 27 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                      | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|-----|-----------------|------------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                 |                              | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 73  | 69  | AUSTRALIA-Q     | AREA E. OF CLONCURRY         | 20.2S  | 141.9E | 20.2S | 141.9E | 40 | LO | 250 | N | N | 19910407 | 073131 | 243 | 281 | 12  | 27 |    |
| 73  | 70  | AUSTRALIA-Q     | N. CENTRAL QUEENSLAND        | 20.5S  | 142.7E | 20.5S | 142.7E | 20 | LO | 250 | N | N | 19910407 | 073144 | 243 | 281 | 11  | 27 |    |
| 73  | 71  | AUSTRALIA-Q     | N. CENTRAL QUEENSLAND        | 20.6S  | 142.9E | 20.6S | 142.9E | 30 | LO | 250 | N | N | 19910407 | 073147 | 243 | 281 | 11  | 27 |    |
| 73  | 72  | AUSTRALIA-Q     | N. CENTRAL QUEENSLAND        | 20.7S  | 143.3E | 20.7S | 143.3E | 20 | LO | 250 | N | N | 19910407 | 073153 | 243 | 281 | 10  | 27 |    |
| 73  | 73  | AUSTRALIA-Q     | N. CENTRAL QUEENSLAND        | 21.2S  | 144.6E | 21.2S | 144.6E | 40 | LO | 250 | N | N | 19910407 | 073216 | 243 | 281 | 9   | 27 |    |
| 92  | 69  | AUSTRALIA-Q     | BARKLY TABLELAND             | 18.8S  | 138.2E | 18.8S | 138.2E | 5  | LO | 250 | N | N | 19910407 | 073028 | 243 | 283 | 16  | 27 |    |
| 92  | 70  | AUSTRALIA-Q     | BARKLY TABLELAND             | 19.1S  | 139.1E | 19.1S | 139.1E | 10 | LO | 250 | N | N | 19910407 | 073043 | 243 | 282 | 15  | 27 |    |
| 92  | 71  | AUSTRALIA-Q     | W. CENTRAL                   | 19.5S  | 139.9E | 19.5S | 139.9E | 30 | LO | 250 | N | N | 19910407 | 073057 | 243 | 282 | 14  | 27 |    |
| 92  | 72  | AUSTRALIA-Q     | W. CENTRAL                   | 19.7S  | 140.4E | 19.7S | 140.4E | 70 | LO | 250 | N | N | 19910407 | 073106 | 243 | 282 | 13  | 27 |    |
| 92  | 73  | AUSTRALIA-Q     | CENTRAL                      | 20.0S  | 141.3E | 20.0S | 141.3E | 20 | LO | 250 | N | N | 19910407 | 073121 | 243 | 282 | 12  | 27 |    |
| 92  | 74  | AUSTRALIA-Q     | CENTRAL                      | 20.3S  | 142.1E | 20.3S | 142.1E | 10 | LO | 250 | N | N | 19910407 | 073134 | 243 | 281 | 12  | 27 |    |
| 92  | 75  | AUSTRALIA-Q     | CENTRAL, DARK IMAGE          | 20.8S  | 143.4E | 20.8S | 143.4E | 10 | LO | 250 | N | N | 19910407 | 073155 | 243 | 281 | 10  | 27 |    |
| 92  | 76  | AUSTRALIA-Q     | CENTRAL, DARK IMAGE          | 21.1S  | 144.3E | 21.1S | 144.3E | 40 | LO | 250 | N | N | 19910407 | 073211 | 243 | 281 | 9   | 27 |    |
| 151 | 159 | AUSTRALIA-Q     | PRINCE OF WALES I.           | 10.5S  | 142.0E | 9.8S  | 141.2E | 65 | NV | 250 | N | Y | 19910406 | 062951 | 242 | 283 | 30  | 11 |    |
| 151 | 159 | AUSTRALIA-Q     | CAPE YORK PENINSULA          | 11.5S  | 142.0E | 9.9S  | 141.4E | 25 | LO | 250 | N | Y | 19910406 | 062957 | 242 | 283 | 29  | 11 |    |
| 151 | 160 | AUSTRALIA-Q     | CAPE YORK PENINSULA          | 13.0S  | 143.5E | 10.7S | 142.9E | 40 | LO | 250 | N | N | 19910406 | 063023 | 242 | 283 | 28  | 11 |    |
| 152 | 149 | AUSTRALIA-Q     | MOA I. - BANDU I. - TORRES S | 10.0S  | 142.5E | 9.6S  | 142.8E | 70 | NV | 250 | N | Y | 19910407 | 055119 | 243 | 286 | 37  | 26 |    |
| 152 | 150 | AUSTRALIA-Q     | MOA I. - BANDU I. - TORRES S | 10.0S  | 142.5E | 9.9S  | 143.4E | 75 | NV | 250 | N | Y | 19910407 | 055130 | 243 | 286 | 36  | 26 |    |
| 152 | 151 | AUSTRALIA-Q     | CAPE MELVILLE - GR. BARRIER  | 13.5S  | 144.5E | 11.2S | 145.8E | 75 | LO | 250 | N | N | 19910407 | 055214 | 243 | 286 | 34  | 26 |    |
| 9   | 1   | AUSTRALIA-SA    | AREA W. OF LAKE EYRE         | 28.0S  | 134.0E | 28.0S | 133.2E | 20 | LO | 35  | N | N | 19910411 | 081348 | 245 | 284 | 8   | 89 |    |
| 9   | 2   | AUSTRALIA-SA    | AREA W. OF LAKE EYRE         | 28.0S  | 134.0E | 28.0S | 133.4E | 20 | LO | 35  | N | N | 19910411 | 081351 | 245 | 284 | 8   | 89 |    |
| 9   | 3   | AUSTRALIA-SA    | AREA W. OF LAKE EYRE         | 28.0S  | 135.0E | 28.0S | 134.1E | 0  | LO | 35  | N | N | 19910411 | 081401 | 245 | 283 | 7   | 89 |    |
| 9   | 4   | AUSTRALIA-SA    | LAKE EYRE AREA               | 28.5S  | 137.4E | 28.2S | 135.7E | 0  | LO | 35  | N | N | 19910411 | 081425 | 245 | 282 | 6   | 89 |    |
| 9   | 5   | AUSTRALIA-SA    | AREA NE. LAKE EYRE           | 27.0S  | 138.0E | 28.3S | 137.1E | 0  | LO | 35  | N | N | 19910411 | 081445 | 245 | 282 | 4   | 89 |    |
| 9   | 6   | AUSTRALIA-SA    | AREA NE. LAKE EYRE           | 27.0S  | 138.0E | 28.3S | 137.5E | 0  | LO | 35  | N | N | 19910411 | 081452 | 245 | 282 | 4   | 89 |    |
| 9   | 7   | AUSTRALIA-SA    | AREA E. OF LAKE EYRE         | 28.0S  | 140.0E | 28.4S | 138.6E | 0  | LO | 35  | N | N | 19910411 | 081507 | 245 | 281 | 3   | 89 |    |
| 9   | 8   | AUSTRALIA-SA    | AREA E. OF LAKE EYRE         | 28.0S  | 140.0E | 28.4S | 139.5E | 0  | LO | 35  | N | N | 19910411 | 081520 | 245 | 281 | 2   | 89 |    |
| 9   | 9   | AUSTRALIA-SA    | LAKE FROME AREA              | 30.3S  | 140.0E | 28.5S | 140.0E | 0  | LO | 35  | N | N | 19910411 | 081528 | 245 | 280 | 2   | 89 |    |
| 9   | 10  | AUSTRALIA-SA    | AREA S. OF LAKE YAMMA YAM    | 27.5S  | 142.0E | 28.5S | 141.4E | 0  | LO | 35  | N | N | 19910411 | 081549 | 245 | 280 | 0   | 89 |    |
| 12  | 27  | AUSTRALIA-SA    | L. EYRE, SIMPSON DESERT      | 27.0S  | 137.0E | 24.5S | 136.6E | 5  | LO | 35  | N | N | 19910410 | 071324 | 245 | 288 | 19  | 73 |    |
| 12  | 28  | AUSTRALIA-SA    | L. EYRE BASIN, SIMPSON D     | 28.0S  | 139.0E | 24.7S | 137.5E | 20 | LO | 35  | N | N | 19910410 | 071338 | 245 | 288 | 18  | 73 |    |
| 12  | 29  | AUSTRALIA-SA    | L. EYRE BASIN, SIMPSON D     | 28.0S  | 139.0E | 25.7S | 141.5E | 30 | LO | 35  | N | N | 19910410 | 071440 | 245 | 286 | 15  | 73 |    |
| 12  | 21  | AUSTRALIA-WA    | EIGHTY MILE BEACH            | 20.0S  | 122.0E | 20.1S | 123.0E | 30 | LO | 35  | N | N | 19910410 | 070944 | 246 | 294 | 33  | 73 |    |
| 12  | 22  | AUSTRALIA-WA    | EIGHTY MILE BEACH            | 21.0S  | 123.0E | 20.6S | 124.3E | 35 | HO | 35  | N | N | 19910410 | 071005 | 246 | 294 | 32  | 73 |    |
| 12  | 23  | AUSTRALIA-WA    | GREAT SANDY DESERT           | 22.0S  | 124.0E | 20.9S | 125.2E | 35 | HO | 35  | N | N | 19910410 | 071020 | 246 | 294 | 31  | 73 |    |
| 12  | 24  | AUSTRALIA-WA    | GIBSON D., L. DISAPPOINT     | 24.0S  | 123.0E | 21.7S | 127.4E | 30 | HO | 35  | N | N | 19910410 | 071057 | 246 | 293 | 29  | 73 |    |
| 41  | 19  | AUSTRALIA-WA    | EIGHTY MILE BEACH            | 19.0S  | 122.0E | 17.7S | 119.0E | 40 | LO | 35  | N | N | 19910411 | 063016 | 248 | 303 | 46  | 88 |    |
| 41  | 20  | AUSTRALIA-WA    | EIGHTY MILE BEACH            | 20.0S  | 121.0E | 17.8S | 119.2E | 30 | LO | 35  | N | N | 19910411 | 063019 | 248 | 303 | 46  | 88 |    |
| 41  | 21  | AUSTRALIA-WA    | EIGHTY MILE BEACH            | 20.0S  | 121.0E | 17.9S | 119.3E | 35 | LO | 35  | N | N | 19910411 | 063022 | 248 | 303 | 46  | 88 |    |
| 41  | 22  | AUSTRALIA-WA    | CAPE KERAUDREN               | 20.0S  | 120.0E | 18.0S | 119.7E | 30 | LO | 35  | N | N | 19910411 | 063028 | 248 | 302 | 45  | 88 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|--------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 41 | 23 | AUSTRALIA-WA    | GREAT SANDY DESERT       | 20.0S         | 122.0E        | 18.4S        | 120.4E       | 45 | L0 | 35  | N | N | 19910411 | 063041 | 248 | 302 | 44        | 88 |
| 41 | 24 | AUSTRALIA-WA    | COAST, KIMBERLY PLAT.    | 17.0S         | 123.0E        | 18.5S        | 120.7E       | 75 | L0 | 35  | N | N | 19910411 | 063046 | 248 | 302 | 44        | 88 |
| 41 | 25 | AUSTRALIA-WA    | FORESTIER IS. AREA       | 21.0S         | 118.0E        | 18.7S        | 121.4E       | 30 | L0 | 35  | N | N | 19910411 | 063057 | 248 | 302 | 43        | 88 |
| 41 | 26 | AUSTRALIA-WA    | GREAT SANDY DESERT       |               |               | 19.0S        | 121.9E       | 65 | L0 | 35  | N | N | 19910411 | 063107 | 248 | 301 | 43        | 88 |
| 41 | 27 | AUSTRALIA-WA    | GREAT SANDY DESERT       | 21.0S         | 123.0E        | 19.2S        | 122.4E       | 65 | L0 | 35  | N | N | 19910411 | 063115 | 248 | 301 | 42        | 88 |
| 41 | 28 | AUSTRALIA-WA    | GREAT SANDY/GIBSON DES.  |               |               | 19.4S        | 122.9E       | 65 | H0 | 35  | N | N | 19910411 | 063124 | 248 | 301 | 42        | 88 |
| 41 | 29 | AUSTRALIA-WA    | GREAT SANDY/GIBSON DES.  | 21.0S         | 124.0E        | 19.6S        | 123.4E       | 70 | L0 | 35  | N | N | 19910411 | 063132 | 248 | 301 | 41        | 88 |
| 41 | 30 | AUSTRALIA-WA    | GREAT SANDY/GIBSON DES.  |               |               | 19.8S        | 124.0E       | 60 | L0 | 35  | N | N | 19910411 | 063142 | 248 | 300 | 40        | 88 |
| 41 | 31 | AUSTRALIA-WA    | GREAT SANDY/GIBSON DES.  |               |               | 20.0S        | 124.5E       | 75 | L0 | 35  | N | N | 19910411 | 063151 | 247 | 300 | 40        | 88 |
| 41 | 32 | AUSTRALIA-WA    | GREAT SANDY/GIBSON DES.  |               |               | 20.2S        | 124.9E       | 80 | L0 | 35  | N | N | 19910411 | 063157 | 247 | 300 | 40        | 88 |
| 41 | 33 | AUSTRALIA-WA    | LAKE DORA, GIBSON DESERT | 22.0S         | 123.0E        | 20.4S        | 125.5E       | 45 | L0 | 35  | N | N | 19910411 | 063207 | 247 | 299 | 39        | 88 |
| 41 | 34 | AUSTRALIA-WA    | L. BLANCHE GIBSON DESERT | 23.0S         | 123.0E        | 20.5S        | 125.7E       | 35 | L0 | 35  | N | N | 19910411 | 063211 | 247 | 299 | 39        | 88 |
| 41 | 35 | AUSTRALIA-WA    | LAKE DORA, GIBSON DESERT | 22.0S         | 123.0E        | 21.2S        | 127.7E       | 40 | L0 | 35  | N | N | 19910411 | 063243 | 247 | 298 | 37        | 88 |
| 41 | 36 | AUSTRALIA-WA    | PERCIVAL LAKES           | 21.0S         | 126.0E        | 21.7S        | 129.2E       | 20 | L0 | 35  | N | N | 19910411 | 063309 | 247 | 298 | 35        | 88 |
| 41 | 37 | AUSTRALIA-WA    | GIBSON DESERT            | 23.0S         | 124.0E        | 22.1S        | 130.4E       | 35 | L0 | 35  | N | N | 19910411 | 063328 | 247 | 297 | 34        | 88 |
| 45 | 4  | AUSTRALIA-WA    | EXMOUTH PENINSULA/BAY    | 23.0S         | 115.0E        | 24.4S        | 112.2E       | 30 | H0 | 35  | N | Y | 19910410 | 084644 | 245 | 289 | 20        | 74 |
| 45 | 5  | AUSTRALIA-WA    | EXMOUTH PENINSULA/BAY    | 24.0S         | 115.0E        | 24.4S        | 112.4E       | 30 | L0 | 35  | N | Y | 19910410 | 084647 | 245 | 289 | 20        | 74 |
| 45 | 6  | AUSTRALIA-WA    | NW COAST                 | 25.0S         | 115.0E        | 24.5S        | 112.8E       | 30 | L0 | 35  | N | Y | 19910410 | 084654 | 245 | 289 | 20        | 74 |
| 45 | 7  | AUSTRALIA-WA    | NW COAST                 | 25.0S         | 114.0E        | 24.7S        | 113.7E       | 40 | L0 | 35  | N | Y | 19910410 | 084707 | 245 | 288 | 19        | 74 |
| 45 | 8  | AUSTRALIA-WA    | EXMOUTH PENINSULA/BAY    | 23.0S         | 115.0E        | 25.0S        | 114.7E       | 30 | L0 | 35  | N | Y | 19910410 | 084723 | 245 | 288 | 18        | 74 |
| 56 | 24 | AUSTRALIA-WA    | SHARK BAY                | 26.0S         | 114.0E        | 24.4S        | 114.0E       | 25 | L0 | 35  | N | N | 19910411 | 080857 | 247 | 294 | 27        | 89 |
| 56 | 25 | AUSTRALIA-WA    | SHARK BAY                | 25.0S         | 114.0E        | 24.5S        | 114.4E       | 25 | L0 | 35  | N | N | 19910411 | 080903 | 247 | 293 | 26        | 89 |
| 56 | 26 | AUSTRALIA-WA    | KENNEDY RANGE, LYONS R.  | 24.0S         | 116.0E        | 24.8S        | 115.5E       | 0  | L0 | 35  | N | N | 19910411 | 080920 | 247 | 293 | 25        | 89 |
| 56 | 27 | AUSTRALIA-WA    | LOCKIER RANGE            | 25.0S         | 116.0E        | 25.0S        | 116.3E       | 10 | L0 | 35  | N | N | 19910411 | 080933 | 247 | 292 | 24        | 89 |
| 56 | 28 | AUSTRALIA-WA    | LOCKIER RANGE            | 25.0S         | 116.0E        | 25.3S        | 117.5E       | 5  | L0 | 35  | N | N | 19910411 | 080952 | 247 | 292 | 23        | 89 |
| 56 | 29 | AUSTRALIA-WA    | HAMERSLEY RANGES         | 25.0S         | 118.0E        | 25.4S        | 117.9E       | 5  | L0 | 35  | N | N | 19910411 | 080958 | 246 | 292 | 23        | 89 |
| 56 | 30 | AUSTRALIA-WA    | HAMERSLEY RANGES         | 26.0S         | 120.0E        | 25.5S        | 118.4E       | 5  | L0 | 35  | N | N | 19910411 | 081006 | 246 | 291 | 22        | 89 |
| 56 | 31 | AUSTRALIA-WA    | HAMERSLEY RANGES         | 25.0S         | 119.0E        | 25.6S        | 119.0E       | 55 | L0 | 35  | N | N | 19910411 | 081014 | 246 | 291 | 22        | 89 |
| 56 | 32 | AUSTRALIA-WA    | W. GIBSON DESERT         | 26.0S         | 120.0E        | 25.7S        | 119.5E       | 40 | L0 | 35  | N | N | 19910411 | 081023 | 246 | 291 | 21        | 89 |
| 56 | 33 | AUSTRALIA-WA    | GIBSON DES., L. WAY      | 27.0S         | 120.0E        | 25.9S        | 120.2E       | 5  | L0 | 35  | N | N | 19910411 | 081033 | 246 | 290 | 20        | 89 |
| 56 | 34 | AUSTRALIA-WA    | GIBSON DES., L. CARNEGIE | 26.0S         | 123.0E        | 26.2S        | 122.0E       | 0  | L0 | 35  | N | N | 19910411 | 081100 | 246 | 289 | 19        | 89 |
| 56 | 35 | AUSTRALIA-WA    | GREAT VICTORIA DESERT    | 28.0S         | 124.0E        | 26.8S        | 124.8E       | 25 | L0 | 35  | N | N | 19910411 | 081143 | 246 | 288 | 16        | 89 |
| 56 | 36 | AUSTRALIA-WA    | GREAT VICTORIA DESERT    | 30.0S         | 125.0E        | 27.3S        | 128.3E       | 15 | L0 | 35  | N | N | 19910411 | 081235 | 246 | 286 | 13        | 89 |
| 56 | 37 | AUSTRALIA-WA    | MULLARBOR PLAIN          | 31.0S         | 129.0E        | 27.5S        | 129.3E       | 45 | L0 | 35  | N | N | 19910411 | 081251 | 246 | 286 | 12        | 89 |
| 98 | 14 | AUSTRALIA-WA    | NW.CAPE, EXMOUTH GULF    | 22.0S         | 114.0E        | 18.5S        | 113.7E       | 10 | L0 | 250 | N | N | 19910407 | 090343 | 243 | 283 | 17        | 28 |
| 98 | 15 | AUSTRALIA-WA    | BARROW ISLAND            | 20.8S         | 115.4E        | 18.8S        | 114.4E       | 0  | L0 | 250 | N | N | 19910407 | 090356 | 243 | 283 | 16        | 28 |
| 98 | 16 | AUSTRALIA-WA    | EXMOUTH GULF, NW.CAPE    | 21.8S         | 114.5E        | 19.0S        | 114.8E       | 30 | L0 | 250 | N | N | 19910407 | 090402 | 243 | 283 | 16        | 28 |
| 98 | 17 | AUSTRALIA-WA    | NE OF EXMOUTH GULF       | 21.5S         | 115.5E        | 19.0S        | 115.0E       | 30 | L0 | 250 | N | N | 19910407 | 090405 | 243 | 283 | 16        | 28 |
| 98 | 18 | AUSTRALIA-WA    | NE OF EXMOUTH GULF       | 21.2S         | 115.8E        | 19.1S        | 115.2E       | 20 | L0 | 250 | N | N | 19910407 | 090409 | 243 | 283 | 15        | 28 |
| 98 | 19 | AUSTRALIA-WA    | DAMPIER ARCH., DAMPIER   | 20.7S         | 116.8E        | 19.4S        | 115.9E       | 30 | L0 | 250 | N | N | 19910407 | 090421 | 243 | 282 | 14        | 28 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|----------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 98  | 20  | AUSTRALIA-WA    | E. OF DAMPIER, ROEBOURNE   | 20.8S 117.2E         | 19.5S 116.2E        | 20 | LO | 250 | N | N | 19910407 | 090426 | 243 | 282 | 14        | 28 |
| 98  | 21  | AUSTRALIA-WA    | YULE & TURNER RIVERS       | 20.8S 118.1E         | 19.6S 116.4E        | 0  | LO | 250 | N | N | 19910407 | 090430 | 243 | 282 | 14        | 28 |
| 98  | 22  | AUSTRALIA-WA    | PORT HEDLAND               | 20.6S 118.4E         | 20.0S 117.6E        | 0  | LO | 250 | N | N | 19910407 | 090449 | 243 | 282 | 13        | 28 |
| 98  | 23  | AUSTRALIA-WA    | PORT HEDLAND, DE SHAW RVR  | 20.4S 119.2E         | 20.2S 117.9E        | 0  | LO | 250 | N | N | 19910407 | 090454 | 243 | 282 | 12        | 28 |
| 98  | 24  | AUSTRALIA-WA    | MOUNT GOLDSWORTHY          | 20.3S 119.8E         | 20.3S 118.3E        | 0  | LO | 250 | N | N | 19910407 | 090501 | 243 | 282 | 12        | 28 |
| 98  | 25  | AUSTRALIA-WA    | GEORGE RANGE               | 21.0S 119.5E         | 20.5S 118.9E        | 0  | LO | 250 | N | N | 19910407 | 090511 | 243 | 281 | 11        | 28 |
| 98  | 26  | AUSTRALIA-WA    | GEORGE RANGE               | 21.0S 120.0E         | 20.6S 119.0E        | 0  | LO | 250 | N | N | 19910407 | 090513 | 243 | 281 | 11        | 28 |
| 98  | 27  | AUSTRALIA-WA    | GEORGE RANGE               | 21.0S 120.2E         | 20.6S 119.2E        | 0  | LO | 250 | N | N | 19910407 | 090516 | 243 | 281 | 11        | 28 |
| 98  | 28  | AUSTRALIA-WA    | EAST OF GEORGE RANGE       | 20.7S 119.3E         | 20.7S 119.3E        | 5  | LO | 250 | N | N | 19910407 | 090518 | 243 | 281 | 11        | 28 |
| 98  | 29  | AUSTRALIA-WA    | EAST OF GEORGE RANGE       | 20.7S 119.5E         | 20.7S 119.5E        | 20 | LO | 250 | N | N | 19910407 | 090521 | 243 | 281 | 11        | 28 |
| 98  | 30  | AUSTRALIA-WA    | EAST OF GEORGE RANGE       | 20.8S 119.7E         | 20.8S 119.7E        | 20 | LO | 250 | N | N | 19910407 | 090524 | 243 | 281 | 10        | 28 |
| 98  | 31  | AUSTRALIA-WA    | EIGHTY MILE BEACH          | 21.1S 120.4E         | 20.1S 120.4E        | 20 | LO | 250 | N | N | 19910407 | 090536 | 243 | 281 | 10        | 28 |
| 98  | 32  | AUSTRALIA-WA    | NW. CORNER GRT. SNDY DEST  | 21.2S 120.7E         | 21.2S 120.7E        | 50 | LO | 250 | N | N | 19910407 | 090541 | 243 | 281 | 9         | 28 |
| 98  | 33  | AUSTRALIA-WA    | NW. CORNER GRT. SNDY DEST  | 22.0S 123.2E         | 22.0S 123.2E        | 50 | LO | 250 | N | N | 19910407 | 090622 | 243 | 280 | 7         | 28 |
| 151 | 183 | AUSTRALIA-WA    | BUCCANEER ARCH., KING SOU  | 16.0S 123.5E         | 12.9S 123.4E        | 40 | LO | 250 | N | N | 19910406 | 080508 | 242 | 282 | 23        | 12 |
| 71  | 7   | BAHAMAS         | GREAT BAHAMA BK., EXUMA I  | 23.5N 76.0W          | 24.8N 75.4W         | 20 | LO | 250 | N | Y | 19910405 | 160729 | 245 | 141 | 66        | 2  |
| 71  | 8   | BAHAMAS         | GREAT BAHAMA BK., EXUMA I  | 23.5N 75.5W          | 24.8N 75.3W         | 20 | LO | 250 | N | Y | 19910405 | 160731 | 245 | 141 | 66        | 2  |
| 71  | 9   | BAHAMAS         | GREAT BAHAMA BK., EXUMA I  | 23.5N 75.5W          | 24.8N 75.2W         | 20 | LO | 250 | N | Y | 19910405 | 160733 | 245 | 142 | 67        | 2  |
| 71  | 10  | BAHAMAS         | EXUMA I., -VERY DARK FRAME | 23.5N 75.5W          | 24.7N 75.0W         | 20 | LO | 250 | N | Y | 19910405 | 160735 | 245 | 142 | 67        | 2  |
| 71  | 11  | BAHAMAS         | EXUMA I., -VERY DARK FRAME | 23.5N 75.5W          | 24.7N 74.9W         | 20 | LO | 250 | N | Y | 19910405 | 160737 | 245 | 142 | 67        | 2  |
| 74  | 31  | BAHAMAS         | MAYAGUANA IS.              | 22.5N 73.4W          | 4.8N 18.8W          | 50 | LO | 250 | N | N | 19910409 | 133355 | 245 | 102 | 40        | 62 |
| 74  | 32  | BAHAMAS         | MAYAGUANA IS.              | 22.4N 73.0W          | 4.8N 18.8W          | 30 | LO | 250 | N | N | 19910409 | 133357 | 245 | 102 | 40        | 62 |
| 74  | 33  | BAHAMAS         | PROVIDENCIALES             | 21.9N 72.0W          | 4.9N 19.0W          | 60 | LO | 250 | N | N | 19910409 | 133402 | 245 | 102 | 41        | 62 |
| 76  | 5   | BAHAMAS         | ANDROS ISLAND              | 24.3N 77.8W          | 4.8N 42.5W          | 70 | LO | 250 | N | N | 19910409 | 150917 | 245 | 107 | 51        | 63 |
| 76  | 6   | BAHAMAS         | ANDROS ISLAND              | 24.3N 77.8W          | 4.8N 42.5W          | 70 | LO | 250 | N | N | 19910409 | 150932 | 245 | 107 | 52        | 63 |
| 76  | 7   | BAHAMAS         | TONGUE OF OCEAN AREA       | 24.2N 75.4W          | 4.8N 42.6W          | 60 | LO | 250 | N | N | 19910409 | 150945 | 245 | 107 | 53        | 63 |
| 76  | 8   | BAHAMAS         | TONGUE OF OCEAN AREA       | 24.7N 75.8W          | 4.8N 42.7W          | 70 | LO | 250 | N | N | 19910409 | 150957 | 245 | 107 | 53        | 63 |
| 76  | 9   | BAHAMAS         | CAT ISLAND                 | 24.4N 75.5W          | 5.8N 45.4W          | 60 | LO | 250 | N | N | 19910409 | 151159 | 245 | 110 | 61        | 63 |
| 76  | 10  | BAHAMAS         | CROOKED & ACKLINS IS.      | 22.8N 73.8W          | 6.0N 45.7W          | 60 | LO | 250 | N | N | 19910409 | 151210 | 245 | 110 | 62        | 63 |
| 76  | 11  | BAHAMAS         | ACKLINS ISLAND             | 23.0N 73.5W          | 6.1N 46.0W          | 60 | LO | 250 | N | N | 19910409 | 151217 | 245 | 110 | 62        | 63 |
| 76  | 12  | BAHAMAS         | MAYAGUANA IS.              | 22.6N 72.8W          | 6.2N 46.1W          | 60 | LO | 250 | N | N | 19910409 | 151222 | 244 | 110 | 63        | 63 |
| 77  | 62  | BAHAMAS         | ANDROS ISLAND, CLDY        | 24.5N 77.8W          | 28.4N 74.5W         | 40 | LO | 250 | N | N | 19910406 | 134925 | 246 | 106 | 39        | 16 |
| 92  | 101 | BAHAMAS         | GRAND BAHAMA               | 26.5N 79.0W          | 28.5N 75.5W         | 60 | LO | 250 | N | N | 19910407 | 131015 | 246 | 99  | 30        | 31 |
| 92  | 102 | BAHAMAS         | GRAND BAHAMA               | 26.6N 78.2W          | 28.5N 75.2W         | 60 | LO | 250 | N | N | 19910407 | 131019 | 246 | 99  | 31        | 31 |
| 92  | 103 | BAHAMAS         | GREAT ABACO                | 26.5N 77.4W          | 28.5N 74.9W         | 70 | LO | 250 | N | N | 19910407 | 131024 | 246 | 99  | 31        | 31 |
| 92  | 104 | BAHAMAS         | ANDROS ISLAND              | 24.8N 78.0W          | 28.5N 74.1W         | 60 | LO | 250 | N | N | 19910407 | 131035 | 246 | 100 | 32        | 31 |
| 97  | 102 | BAHAMAS         | ANDROS IS., CLDY, HAZY     | 24.5N 78.5W          | 25.9N 80.7W         | 70 | LO | 250 | N | N | 19910406 | 120836 | 246 | 88  | 12        | 15 |
| 97  | 104 | BAHAMAS         | CLDY, HAZY, NEAR ANDROS I  | 24.8N 78.0W          | 26.7N 76.2W         | 60 | LO | 250 | N | N | 19910406 | 120944 | 246 | 91  | 16        | 15 |
| 97  | 105 | BAHAMAS         | ANDROS IS., HAZY, CLDY     | 24.8N 78.0W          | 26.9N 75.4W         | 60 | LO | 250 | N | N | 19910406 | 120956 | 246 | 91  | 17        | 15 |
| 97  | 106 | BAHAMAS         | ANDROS IS., HAZY, CLDY     | 24.8N 78.0W          | 27.2N 73.1W         | 80 | LO | 250 | N | N | 19910406 | 121030 | 246 | 92  | 19        | 15 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                     | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|-----------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 99  | 47  | BAHAMAS         | WESTERN END BAHAMAS         | 27.5N         | 77.0W         | 28.5N        | 74.5W        | 30 | HO | 40  | N | N | 19910407 | 131030 | 246 | 100 | 31        | 31 |
| 99  | 48  | BAHAMAS         | WESTERN END BAHAMAS         | 27.5N         | 77.0W         | 28.5N        | 73.6W        | 30 | HO | 40  | N | N | 19910407 | 131042 | 246 | 100 | 32        | 31 |
| 73  | 48  | BAHRAIN         | DHAHRAN, SAUDI ARABIA       | 25.9N         | 51.2E         | 23.9N        | 51.1E        | 20 | LO | 250 | N | N | 19910407 | 070418 | 246 | 123 | 61        | 27 |
| 151 | 136 | BAY OF BENGAL   | IRRAWADDY RIVER DELTA       | 16.0N         | 93.5E         | 16.1N        | 94.3E        | 50 | LO | 250 | N | Y | 19910406 | 061512 | 244 | 217 | 77        | 11 |
| 152 | 111 | BAY OF BENGAL   | PART OF BANGLADESH COAST    | 21.0N         | 91.0E         | 18.9N        | 89.7E        | 55 | LO | 250 | N | N | 19910407 | 053453 | 245 | 149 | 75        | 26 |
| 152 | 207 | BAY OF BENGAL   | PALK ST.-INDIA SRI LANKA    | 10.0N         | 80.5E         | 10.5N        | 83.6E        | 35 | LO | 250 | N | Y | 19910407 | 071335 | 244 | 252 | 78        | 27 |
| 71  | 54  | BELIZE          | AMBERGRIS CAY               | 18.0N         | 88.0W         | 20.8N        | 86.2W        | 45 | LO | 250 | N | Y | 19910405 | 174425 | 245 | 177 | 75        | 3  |
| 71  | 55  | BELIZE          | CHETUMAL BAY                | 18.5N         | 88.0W         | 20.6N        | 85.8W        | 45 | LO | 250 | N | Y | 19910405 | 174433 | 245 | 179 | 75        | 3  |
| 71  | 56  | BELIZE          | TURNERFE ISLANDS            | 17.5N         | 87.5W         | 20.5N        | 85.5W        | 45 | LO | 250 | N | Y | 19910405 | 174437 | 245 | 180 | 75        | 3  |
| 71  | 57  | BELIZE          | COAST, REEFS, SHOALS        | 17.0N         | 88.0W         | 20.2N        | 84.7W        | 45 | LO | 250 | N | Y | 19910405 | 174451 | 245 | 183 | 75        | 3  |
| 71  | 58  | BELIZE          | AMBERGRIS, CORKER CAYS      | 18.0N         | 88.0W         | 19.9N        | 83.8W        | 50 | LO | 250 | N | Y | 19910405 | 174505 | 245 | 187 | 76        | 3  |
| 71  | 59  | BELIZE          | AMBERGRIS CAY               | 18.0N         | 88.0W         | 19.7N        | 83.2W        | 55 | LO | 250 | N | Y | 19910405 | 174515 | 244 | 190 | 76        | 3  |
| 72  | 88  | BHUTAN          | G.HIMALAYA RAN.-P'U-MU L    | 28.0N         | 91.0E         | 27.1N        | 93.1E        | 10 | LO | 100 | N | Y | 19910406 | 011613 | 246 | 94  | 21        | 8  |
| 91  | 100 | BHUTAN          | HIMALAYA RANGE, DOGEN L.    | 28.0N         | 89.5E         | 26.1N        | 87.4E        | 30 | LO | 250 | N | N | 19910406 | 011447 | 246 | 91  | 16        | 8  |
| 10  | 12  | BOLIVIA         | LAKE POOPO                  | 19.0S         | 67.0W         | 19.7S        | 69.1W        | 65 | LO | 35  | N | N | 19910410 | 193715 | 247 | 298 | 38        | 81 |
| 10  | 13  | BOLIVIA         | UYUNI SALT                  | 20.0S         | 68.0W         | 19.9S        | 68.6W        | 55 | LO | 35  | N | N | 19910410 | 193724 | 247 | 297 | 37        | 81 |
| 10  | 14  | BOLIVIA         | EAST CENTRAL ANDES          | 20.0S         | 65.0W         | 20.7S        | 66.5W        | 65 | LO | 35  | N | N | 19910410 | 193759 | 247 | 296 | 35        | 81 |
| 73  | 30  | BOLIVIA         | SWAMPY LOWLANDS             | 20.0S         | 66.0W         | 20.9S        | 66.5W        | 70 | LO | 250 | N | N | 19910406 | 203452 | 243 | 283 | 18        | 20 |
| 73  | 31  | BOLIVIA         | SWAMPY LOWLANDS             | 16.5S         | 60.1W         | 16.5S        | 60.1W        | 90 | LO | 250 | N | N | 19910406 | 203507 | 243 | 282 | 18        | 20 |
| 78  | 100 | BOLIVIA         | LAKES POOPO, COIPASA        | 19.0S         | 68.0W         | 12.0S        | 63.7W        | 30 | HO | 250 | N | Y | 19910409 | 183645 | 245 | 297 | 50        | 65 |
| 78  | 101 | BOLIVIA         | L. POOPO, UYUNI SALT        | 20.5S         | 67.5W         | 12.0S        | 63.6W        | 15 | HO | 250 | N | Y | 19910409 | 183648 | 245 | 297 | 49        | 65 |
| 78  | 102 | BOLIVIA         | SALT DE UYUNI               | 21.5S         | 68.0W         | 12.2S        | 63.4W        | 15 | HO | 250 | N | Y | 19910409 | 183652 | 245 | 297 | 49        | 65 |
| 78  | 103 | BOLIVIA         | BENT, MADRE DE DIOS R.      | 11.0S         | 66.0W         | 12.6S        | 62.5W        | 65 | LO | 250 | N | N | 19910409 | 183708 | 245 | 297 | 48        | 65 |
| 78  | 104 | BOLIVIA         | MOJOS PLAIN, SMOKE          | 12.8S         | 62.1W         | 12.8S        | 62.1W        | 25 | LO | 250 | N | N | 19910409 | 183715 | 245 | 297 | 48        | 65 |
| 78  | 105 | BOLIVIA         | MOJOS PLAIN, SMOKE          | 12.8S         | 61.9W         | 12.8S        | 61.9W        | 35 | LO | 250 | N | N | 19910409 | 183718 | 245 | 297 | 48        | 65 |
| 78  | 106 | BOLIVIA         | MOJOS PLAIN, SMOKE          | 13.0S         | 61.7W         | 13.0S        | 61.7W        | 30 | LO | 250 | N | N | 19910409 | 183722 | 245 | 297 | 47        | 65 |
| 78  | 107 | BOLIVIA         | NEAR THE PARAGUA RIVER      | 13.3S         | 61.1W         | 13.3S        | 61.1W        | 50 | LO | 250 | N | N | 19910409 | 183733 | 245 | 296 | 47        | 65 |
| 78  | 108 | BOLIVIA         | NEAR THE PARAGUA RIVER      | 13.4S         | 60.9W         | 13.4S        | 60.9W        | 55 | LO | 250 | N | N | 19910409 | 183737 | 245 | 296 | 46        | 65 |
| 78  | 109 | BOLIVIA         | NEAR THE PARAGUA RIVER      | 13.5S         | 60.7W         | 13.5S        | 60.7W        | 65 | LO | 250 | N | N | 19910409 | 183740 | 245 | 296 | 46        | 65 |
| 78  | 110 | BOLIVIA         | NEAR THE PARAGUA RIVER      | 13.6S         | 60.5W         | 13.6S        | 60.5W        | 75 | LO | 250 | N | N | 19910409 | 183744 | 245 | 296 | 46        | 65 |
| 91  | 88  | BOLIVIA         | ANDES, CLOUDS, V.DARK       | 14.4S         | 66.6W         | 14.4S        | 66.6W        | 75 | LO | 250 | N | N | 19910405 | 211157 | 243 | 281 | 16        | 5  |
| 91  | 89  | BOLIVIA         | ANDES, STREAM, CLDS, V.DARK | 14.4S         | 66.4W         | 14.4S        | 66.4W        | 80 | LO | 250 | N | N | 19910405 | 211159 | 243 | 281 | 16        | 5  |
| 91  | 90  | BOLIVIA         | ANDES, CLDS, V.DARK         | 14.5S         | 66.3W         | 14.5S        | 66.3W        | 80 | LO | 250 | N | N | 19910405 | 211202 | 243 | 281 | 16        | 5  |
| 91  | 91  | BOLIVIA         | ANDES, CLDS, STREAM, V.DARK | 14.6S         | 66.0W         | 14.6S        | 66.0W        | 75 | LO | 250 | N | N | 19910405 | 211206 | 243 | 281 | 16        | 5  |
| 91  | 92  | BOLIVIA         | ANDES, CLDS, STREAMS, V.DK. | 15.8S         | 63.6W         | 15.8S        | 63.6W        | 75 | LO | 250 | N | N | 19910405 | 211249 | 243 | 280 | 13        | 5  |
| 91  | 93  | BOLIVIA         | RIO PARAPETI, VERY DARK     | 19.5S         | 62.5W         | 16.8S        | 61.4W        | 40 | LO | 250 | N | N | 19910405 | 211328 | 243 | 279 | 11        | 5  |
| 92  | 28  | BOLIVIA         | RIO MADRE DE DIOS AREA      | 11.0S         | 66.0W         | 12.6S        | 68.3W        | 80 | LO | 250 | N | N | 19910406 | 203226 | 243 | 284 | 28        | 20 |
| 92  | 29  | BOLIVIA         | RIO MADRE DE DIOS AREA      | 11.0S         | 66.0W         | 13.0S        | 67.5W        | 80 | LO | 250 | N | N | 19910406 | 203240 | 243 | 284 | 27        | 20 |
| 92  | 30  | BOLIVIA         | CLDS, JUNGLE, RIVER         | 14.0S         | 65.4W         | 14.0S        | 65.4W        | 80 | LO | 250 | N | N | 19910406 | 203318 | 243 | 284 | 24        | 20 |
| 92  | 31  | BOLIVIA         | CLDS, JUNGLE, RIVER         | 14.1S         | 65.1W         | 14.1S        | 65.1W        | 90 | LO | 250 | N | N | 19910406 | 203323 | 243 | 284 | 24        | 20 |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC    | TL | FL | E   | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|----------------------------|----------------------|---------------------|-------|----|----|-----|---|----------|--------|-----|-----|-----------|----|
| 92  | 32  | BOLIVIA         | CLDS, JUNGLE, RIVER        |                      | 14.3S               | 64.8W | 80 | LO | 250 | N | 19910406 | 203328 | 243 | 284 | 24        | 20 |
| 92  | 33  | BOLIVIA         | CLDS, JUNGLE, RIVER        |                      | 14.5S               | 64.3W | 90 | LO | 250 | N | 19910406 | 203337 | 243 | 283 | 23        | 20 |
| 92  | 34  | BOLIVIA         | CLDS, JUNGLE, RIVER        |                      | 14.7S               | 63.9W | 95 | LO | 250 | N | 19910406 | 203344 | 243 | 283 | 23        | 20 |
| 92  | 110 | BOLIVIA         | N. CENTRAL, RIVERS & LAKES |                      | 12.8S               | 66.0W | 40 | LO | 250 | N | 19910407 | 195403 | 244 | 287 | 34        | 35 |
| 92  | 111 | BOLIVIA         | N. CENTRAL, RIVERS & LAKES |                      | 13.0S               | 65.4W | 50 | LO | 250 | N | 19910407 | 195413 | 244 | 287 | 34        | 35 |
| 92  | 112 | BOLIVIA         | N. CENTRAL, RIVERS & LAKES |                      | 13.2S               | 65.2W | 40 | LO | 250 | N | 19910407 | 195417 | 244 | 287 | 33        | 35 |
| 92  | 113 | BOLIVIA         | N. CENTRAL, RIVERS & LAKES |                      | 13.3S               | 64.9W | 60 | LO | 250 | N | 19910407 | 195422 | 244 | 287 | 33        | 35 |
| 92  | 114 | BOLIVIA         | N. CENTRAL, RIVERS & LAKES |                      | 13.5S               | 64.6W | 70 | LO | 250 | N | 19910407 | 195428 | 244 | 287 | 33        | 35 |
| 92  | 115 | BOLIVIA         | N. CENTRAL, RIVERS & LAKES |                      | 13.8S               | 63.9W | 80 | LO | 250 | N | 19910407 | 195441 | 244 | 287 | 32        | 35 |
| 92  | 116 | BOLIVIA         | BORDER BRAZIL, DEFOREST.   |                      | 15.4S               | 60.5W | 70 | LO | 250 | N | 19910407 | 195541 | 244 | 286 | 28        | 35 |
| 92  | 117 | BOLIVIA         | BORDER BRAZIL, LAKES       |                      | 15.6S               | 60.0W | 60 | LO | 250 | N | 19910407 | 195549 | 244 | 286 | 27        | 35 |
| 93  | 11  | BOLIVIA         | EASTERN FOOTHILLS, ANDES   |                      | 13.9S               | 67.4W | 55 | LO | 250 | U | 19910405 | 211141 | 243 | 281 | 17        | 5  |
| 93  | 12  | BOLIVIA         | EASTERN FOOTHILLS, ANDES   |                      | 14.0S               | 67.3W | 55 | LO | 250 | U | 19910405 | 211143 | 243 | 281 | 17        | 5  |
| 93  | 13  | BOLIVIA         | EASTERN FOOTHILLS, ANDES   |                      | 14.1S               | 67.2W | 60 | LO | 250 | U | 19910405 | 211146 | 243 | 281 | 17        | 5  |
| 93  | 14  | BOLIVIA         | EASTERN FOOTHILLS, ANDES   |                      | 14.2S               | 67.0W | 60 | LO | 250 | U | 19910405 | 211149 | 243 | 281 | 17        | 5  |
| 93  | 15  | BOLIVIA         | EASTERN FOOTHILLS, ANDES   |                      | 14.2S               | 66.8W | 40 | LO | 250 | U | 19910405 | 211152 | 243 | 281 | 17        | 5  |
| 93  | 16  | BOLIVIA         | EASTERN ANDES              |                      | 15.2S               | 64.8W | 50 | LO | 250 | N | 19910405 | 211229 | 243 | 280 | 14        | 5  |
| 93  | 17  | BOLIVIA         | ICHOA RIVER                | 17.0S                | 65.5W               | 64.1W | 65 | LO | 250 | U | 19910405 | 211241 | 243 | 280 | 14        | 5  |
| 93  | 20  | BOLIVIA         | THUNDERSTORM, PANTANAL     |                      | 18.1S               | 58.2W | 60 | NV | 250 | N | 19910405 | 211424 | 243 | 279 | 7         | 5  |
| 93  | 21  | BOLIVIA         | THUNDERSTORM, PANTANAL     |                      | 18.4S               | 57.6W | 85 | NV | 250 | N | 19910405 | 211433 | 243 | 278 | 7         | 5  |
| 94  | 37  | BOLIVIA         | GRANDE R., SANTA CRUZ      | 17.0S                | 62.0W               |       | 50 | HO | 100 | N |          |        |     |     |           |    |
| 153 | 81  | BOLIVIA         | L. POOPO, UYUNI SALAR      | 19.5S                | 68.5W               | 19.1S | 15 | LO | 250 | N | 19910409 | 201449 | 247 | 292 | 32        | 66 |
| 153 | 103 | BOLIVIA         | COLORADO LAKE, ANDES MTS   | 22.0S                | 68.0W               |       | 0  | LO | 250 | N |          |        |     |     |           |    |
| 153 | 104 | BOLIVIA         | COLORADO LAKE, ANDES MTS   | 21.5S                | 66.0W               | 21.2S | 10 | LO | 250 | N | 19910409 | 201624 | 247 | 290 | 26        | 66 |
| 153 | 105 | BOLIVIA         | TUMUSLA R., ANDES MTNS.    | 21.0S                | 66.0W               |       | 5  | LO | 250 | N |          |        |     |     |           |    |
| 153 | 106 | BOLIVIA         | TUMUSLA R., ANDES MTNS.    | 21.5S                | 65.0W               | 21.3S | 25 | LO | 250 | N | 19910409 | 201629 | 247 | 290 | 26        | 66 |
| 153 | 107 | BOLIVIA         | TUMUSLA R., ANDES MTNS.    | 21.5S                | 64.5W               |       | 45 | LO | 250 | N |          |        |     |     |           |    |
| 153 | 108 | BOLIVIA         | POZUELOS L. ANDES MTNS.    | 22.0S                | 64.5W               | 21.4S | 45 | LO | 250 | N | 19910409 | 201634 | 247 | 290 | 25        | 66 |
| 15  | 2   | BOTSWANA        | OKAVANGO SWAMP, SHUA PAN   | 20.0S                | 23.0E               | 16.1S | 0  | LO | 35  | N | 19910410 | 132053 | 247 | 300 | 46        | 77 |
| 15  | 5   | BOTSWANA        | OKAVANGO SWAMP, SHUA PAN   | 20.0S                | 25.0E               | 16.6S | 0  | LO | 35  | N | 19910410 | 132112 | 247 | 299 | 44        | 77 |
| 15  | 8   | BOTSWANA        | MAKGADIKGADI PANS          | 21.0S                | 25.0E               | 18.3S | 0  | LO | 35  | N | 19910410 | 132220 | 246 | 298 | 40        | 77 |
| 15  | 11  | BOTSWANA        | ZAMBEZI, LINYANTI RIVERS   | 18.0S                | 25.0E               | 19.2S | 0  | LO | 35  | N | 19910410 | 132257 | 246 | 297 | 38        | 77 |
| 15  | 12  | BOTSWANA        | ZAMBEZI, LINYANTI RIVERS   | 18.0S                | 25.0E               | 19.4S | 0  | LO | 35  | N | 19910410 | 132307 | 246 | 297 | 37        | 77 |
| 74  | 65  | BOTSWANA        | OKAVANGO DELTA, CUBANGO R  | 19.0S                | 21.0E               | 16.8S | 0  | LO | 250 | N | 19910409 | 135933 | 244 | 294 | 40        | 62 |
| 74  | 69  | BOTSWANA        | OKAVANGO DELTA, SALT PANS  | 20.0S                | 23.4E               | 17.9S | 0  | LO | 250 | N | 19910409 | 140016 | 244 | 293 | 37        | 62 |
| 74  | 71  | BOTSWANA        | MAKGADIKGADI PANS          | 20.4S                | 25.5E               | 18.2S | 0  | LO | 250 | N | 19910409 | 140028 | 244 | 293 | 37        | 62 |
| 74  | 72  | BOTSWANA        | MAKGADIKGADI PANS          | 20.5S                | 25.3E               | 21.8E | 5  | LO | 250 | N | 19910409 | 140039 | 244 | 293 | 36        | 62 |
| 74  | 75  | BOTSWANA        | MAKGADIKGADI PANS AREA     |                      | 18.8S               | 22.8E | 30 | HO | 250 | N | 19910409 | 140057 | 244 | 293 | 35        | 62 |
| 74  | 78  | BOTSWANA        | AREA E. MAKGADIKGADI PANS  |                      | 19.2S               | 23.8E | 50 | HO | 250 | N | 19910409 | 140113 | 244 | 292 | 34        | 62 |
| 74  | 79  | BOTSWANA        | MAKGADIKGADI PANS AREA     | 20.0S                | 26.0E               | 19.5S | 0  | LO | 250 | N | 19910409 | 140124 | 244 | 292 | 33        | 62 |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|-----------------|---------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 77 | 100 | BOTSWANA        | MAKGADIKGADI PANS         | 20.5S         | 25.6E         | 12.7S        | 27.5E        | 40 | LO | 250 | N | N | 19910406 | 141846 | 242 | 283 | 25        | 16 |
| 77 | 101 | BOTSWANA        | MAKGADIKGADI PANS         | 20.5S         | 25.6E         | 13.0S        | 28.1E        | 40 | LO | 250 | N | N | 19910406 | 141857 | 242 | 283 | 25        | 16 |
| 80 | 98  | BOTSWANA        | ZAMBEZI R., OKAVANGO S.   | 19.0S         | 22.0E         | 11.0S        | 29.9E        | 0  | HO | 250 | N | N | 19910409 | 122234 | 245 | 296 | 50        | 61 |
| 80 | 99  | BOTSWANA        | ZAMBEZI R., OKAVANGO S.   | 19.5S         | 21.5E         | 11.1S        | 30.1E        | 0  | HO | 250 | N | N | 19910409 | 122238 | 245 | 296 | 50        | 61 |
| 80 | 100 | BOTSWANA        | ZAMBEZI R., OKAVANGO S.   | 19.5S         | 24.0E         | 11.6S        | 31.0E        | 0  | HO | 250 | N | N | 19910409 | 122255 | 245 | 296 | 49        | 61 |
| 80 | 103 | BOTSWANA        | MAKARIKARI PANS           | 20.5S         | 24.5E         | 12.4S        | 32.5E        | 0  | HO | 250 | N | Y | 19910409 | 122322 | 245 | 295 | 47        | 61 |
| 83 | 85  | BOTSWANA        | KALAHARI DES, DUNE FIELD  | 26.5S         | 20.6E         | 24.3S        | 15.2E        | 0  | LO | 100 | N | N | 19910409 | 153843 | 245 | 285 | 15        | 63 |
| 83 | 89  | BOTSWANA        | OKAVANGO SWAMP, SALT PANS | 19.8S         | 23.8E         | 25.6S        | 21.0E        | 15 | HO | 100 | N | N | 19910409 | 154012 | 245 | 283 | 9         | 63 |
| 87 | 41  | BOTSWANA        | MAKGADIKGADI SALT PANS    | 21.0S         | 25.0E         | 11.5S        | 30.9E        | 0  | HO | 250 | N | N | 19910409 | 122252 | 245 | 296 | 49        | 61 |
| 87 | 94  | BOTSWANA        | OKAVANGO DELTA/SWAMP      | 19.5S         | 23.0E         | 16.3S        | 16.9E        | 0  | LO | 250 | N | N | 19910409 | 135915 | 244 | 293 | 38        | 62 |
| 87 | 95  | BOTSWANA        | INTERIOR, DARK            |               |               |              | 16.5S        | 0  | LO | 250 | N | N | 19910409 | 135920 | 244 | 293 | 38        | 62 |
| 87 | 96  | BOTSWANA        | MAKGADIKGADI SALT PANS    | 20.0S         | 23.5E         | 16.6S        | 17.6E        | 0  | LO | 250 | Y | Y | 19910409 | 135927 | 244 | 293 | 37        | 62 |
| 87 | 97  | BOTSWANA        | NTWETWE SALT PAN, DARK    | 21.0S         | 25.0E         | 16.9S        | 18.2E        | 5  | LO | 250 | Y | Y | 19910409 | 135938 | 244 | 293 | 36        | 62 |
| 87 | 98  | BOTSWANA        | SUA SALT PAN, DARK        | 20.0S         | 26.0E         | 17.0S        | 18.5E        | 5  | LO | 250 | Y | Y | 19910409 | 135943 | 244 | 293 | 36        | 62 |
| 87 | 100 | BOTSWANA        | MAKGADIKGADI SALT PANS    | 22.0S         | 26.0E         | 17.4S        | 19.3E        | 0  | LO | 250 | N | N | 19910409 | 135956 | 244 | 293 | 35        | 62 |
| 87 | 103 | BOTSWANA        | LIMPOPO R., PANORAMA SE.  |               |               |              | 17.8S        | 25 | HO | 250 | N | N | 19910409 | 140012 | 244 | 292 | 34        | 62 |
| 87 | 104 | BOTSWANA        | MAKGADIKGADI SALT PANS    | 22.0S         | 25.5E         | 18.0S        | 20.8E        | 0  | LO | 250 | N | N | 19910409 | 140023 | 244 | 292 | 34        | 62 |
| 87 | 105 | BOTSWANA        | HILLS, PRAIRIE, PANOR. SE | 19.8S         | 26.2E         | 18.1S        | 21.0E        | 0  | LO | 250 | N | N | 19910409 | 140026 | 244 | 292 | 33        | 62 |
| 87 | 107 | BOTSWANA        | EASTERN PRAIRIE           |               |               |              | 18.4S        | 5  | LO | 250 | N | N | 19910409 | 140040 | 244 | 292 | 33        | 62 |
| 87 | 108 | BOTSWANA        | EASTERN PRAIRIE           |               |               |              | 18.5S        | 20 | LO | 250 | N | N | 19910409 | 140044 | 244 | 292 | 32        | 62 |
| 87 | 110 | BOTSWANA        | EASTERN PRAIRIE, DARK     |               |               |              | 18.8S        | 30 | LO | 250 | N | N | 19910409 | 140057 | 244 | 292 | 31        | 62 |
| 87 | 111 | BOTSWANA        | EASTERN PRAIRIE, DARK     |               |               |              | 19.1S        | 30 | LO | 250 | N | N | 19910409 | 140108 | 244 | 291 | 31        | 62 |
| 87 | 112 | BOTSWANA        | EASTERN PRAIRIE, DARK     |               |               |              | 19.2S        | 50 | LO | 250 | N | N | 19910409 | 140114 | 244 | 291 | 30        | 62 |
| 90 | 72  | BOTSWANA        | NTWETWE PAN, DESERT       | 20.5S         | 24.5E         | 12.0S        | 26.1E        | 40 | LO | 250 | Y | Y | 19910406 | 141820 | 242 | 283 | 27        | 16 |
| 90 | 73  | BOTSWANA        | SUA PAN, DESERT           | 20.5S         | 26.5E         | 12.1S        | 26.3E        | 50 | LO | 250 | Y | Y | 19910406 | 141825 | 242 | 283 | 27        | 16 |
| 96 | 45  | BOTSWANA        | MAKARIKARI PAN, OKAVANGO  | 21.0S         | 26.0E         |              |              | 15 | LO | 100 | N | Y |          |        |     |     |           |    |
| 10 | 1   | BRAZIL          | SAO TOME CAPE             | 22.0S         | 40.0W         | 23.1S        | 35.5W        | 30 | HO | 35  | N | N | 19910410 | 180625 | 246 | 293 | 27        | 80 |
| 10 | 2   | BRAZIL          | SAO TOME CAPE             | 23.0S         | 39.0W         | 23.2S        | 35.1W        | 30 | HO | 35  | N | N | 19910410 | 180631 | 246 | 293 | 27        | 80 |
| 10 | 20  | BRAZIL          | THUNDERSTORMS             |               |               |              | 24.0S        | 65 | LO | 35  | N | N | 19910410 | 194042 | 247 | 292 | 25        | 81 |
| 10 | 21  | BRAZIL          | THUNDERSTORMS             |               |               |              | 24.1S        | 75 | LO | 35  | N | N | 19910410 | 194049 | 247 | 292 | 24        | 81 |
| 10 | 22  | BRAZIL          | PARANA BASIN              |               |               |              | 24.3S        | 60 | LO | 35  | N | N | 19910410 | 194059 | 247 | 291 | 24        | 81 |
| 10 | 23  | BRAZIL          | PARANA BASIN, CLOUDS      |               |               |              | 24.8S        | 90 | LO | 35  | N | N | 19910410 | 194132 | 246 | 290 | 22        | 81 |
| 10 | 24  | BRAZIL          | PARANA BASIN, CLOUDS      |               |               |              | 25.7S        | 85 | LO | 35  | N | N | 19910410 | 194233 | 246 | 288 | 18        | 81 |
| 10 | 25  | BRAZIL          | EASTERN BRAZIL HIGHLANDS  |               |               |              | 25.9S        | 50 | LO | 35  | N | N | 19910410 | 194243 | 246 | 288 | 17        | 81 |
| 16 | 30  | BRAZIL          | AMAZON, TAPAJOS RIVERS    | 2.0S          | 55.0W         | 3.5S         | 53.3W        | 60 | LO | 35  | N | N | 19910410 | 162035 | 248 | 315 | 74        | 79 |
| 16 | 31  | BRAZIL          | AMAZON RIVER              | 2.0S          | 53.0W         | 3.7S         | 53.1W        | 75 | LO | 35  | N | N | 19910410 | 162039 | 248 | 315 | 74        | 79 |
| 16 | 32  | BRAZIL          | AMAZON RIVER DELTA        | 0.0S          | 49.0W         | 4.5S         | 51.8W        | 70 | LO | 35  | N | N | 19910410 | 162105 | 248 | 313 | 72        | 79 |
| 16 | 33  | BRAZIL          | NEAR SAN MARCOS BAY       | 3.0S          | 43.0W         | 8.8S         | 44.1W        | 65 | LO | 35  | N | N | 19910410 | 162330 | 247 | 307 | 63        | 79 |
| 16 | 34  | BRAZIL          | NEAR SAO FRANCISCO BASIN  |               |               |              | 9.7S         | 85 | LO | 35  | N | N | 19910410 | 162402 | 247 | 306 | 61        | 79 |
| 16 | 35  | BRAZIL          | NEAR SAO FRANCISCO BASIN  |               |               |              | 10.2S        | 85 | LO | 35  | N | N | 19910410 | 162417 | 247 | 306 | 60        | 79 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | LONG  | NADIR<br>LAT | LONG  | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|---------------------------|---------------|-------|--------------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 16 | 36 | BRAZIL          | SAO FRANCISCO RESERVOIR   | 10.0S         | 42.0W | 10.8S        | 40.5W | 60 | L0 | 35  | N | N | 19910410 | 162438 | 247 | 305 | 59        | 79 |
| 16 | 37 | BRAZIL          | SAO FRANCISCO RESERVOIR   | 10.0S         | 42.0W | 10.9S        | 40.2W | 65 | L0 | 35  | N | N | 19910410 | 162443 | 247 | 305 | 58        | 79 |
| 44 | 1  | BRAZIL          | RIO SAO FRANCISCO RESERV  | 9.0S          | 38.0W | 12.2S        | 37.8W | 60 | L0 | 35  | N | Y | 19910410 | 162526 | 247 | 304 | 56        | 79 |
| 44 | 2  | BRAZIL          | RIO SAO FRANCISCO RESERV  | 9.0S          | 38.0W | 12.2S        | 37.7W | 60 | L0 | 35  | N | Y | 19910410 | 162529 | 247 | 304 | 55        | 79 |
| 44 | 3  | BRAZIL          | RIO SAO FRANCISCO MOUTH   | 10.0S         | 37.0W | 12.4S        | 37.3W | 60 | L0 | 35  | N | N | 19910410 | 162536 | 247 | 304 | 55        | 79 |
| 44 | 4  | BRAZIL          | RIO ITAPICURU             | 10.5S         | 38.0W | 12.6S        | 37.0W | 50 | L0 | 35  | N | N | 19910410 | 162541 | 247 | 304 | 55        | 79 |
| 44 | 5  | BRAZIL          | RIO ITAPICURU             | 11.0S         | 38.5W | 12.8S        | 36.6W | 60 | L0 | 35  | N | Y | 19910410 | 162548 | 247 | 304 | 54        | 79 |
| 44 | 6  | BRAZIL          | RIO ITAPICURU             | 11.0S         | 38.0W | 12.9S        | 36.3W | 60 | L0 | 35  | N | Y | 19910410 | 162554 | 247 | 303 | 54        | 79 |
| 44 | 7  | BRAZIL          | RIO ITAPICURU, COAST      | 11.5S         | 37.5W | 13.1S        | 36.0W | 50 | L0 | 35  | N | Y | 19910410 | 162559 | 247 | 303 | 53        | 79 |
| 44 | 7A | BRAZIL          | RIO ITAPICURU, COAST      | 10.5S         | 37.0W |              |       | 40 | L0 | 35  | N | Y |          |        |     |     |           |    |
| 44 | 8  | BRAZIL          | BORBOREMA PLAT, EAST CST. | 7.0S          | 37.0W | 13.5S        | 35.3W | 60 | H0 | 35  | N | N | 19910410 | 162613 | 247 | 303 | 53        | 79 |
| 44 | 9  | BRAZIL          | PANORAMA-RIO FRANC. BASIN | 10.0S         | 42.0W | 13.8S        | 34.7W | 75 | H0 | 35  | N | N | 19910410 | 162624 | 247 | 303 | 52        | 79 |
| 44 | 18 | BRAZIL          | AMAZON BASIN, CLOUDS      |               |       | 6.6S         | 72.0W | 80 | H0 | 35  | N | N | 19910410 | 175543 | 248 | 311 | 88        | 80 |
| 44 | 19 | BRAZIL          | AMAZON BASIN, CLOUDS      |               |       | 8.7S         | 68.2W | 80 | L0 | 35  | N | N | 19910410 | 175655 | 248 | 308 | 64        | 80 |
| 44 | 20 | BRAZIL          | RIO TIETE, CLOUDS         | 21.0S         | 50.5W | 18.5S        | 48.2W | 80 | L0 | 35  | N | Y | 19910410 | 180255 | 247 | 299 | 41        | 80 |
| 44 | 21 | BRAZIL          | RIO PARANA, JUPTA RESERV. | 20.5S         | 50.5W | 18.6S        | 48.0W | 80 | L0 | 35  | N | Y | 19910410 | 180258 | 247 | 299 | 41        | 80 |
| 44 | 22 | BRAZIL          | RIO PARANAIBA/RESERVOIR   | 19.0S         | 49.0W | 18.7S        | 47.7W | 75 | L0 | 35  | N | N | 19910410 | 180303 | 247 | 298 | 40        | 80 |
| 44 | 23 | BRAZIL          | RIO PARANAIBA/RESERVOIR   | 18.5S         | 47.5W | 18.8S        | 47.5W | 60 | L0 | 35  | N | Y | 19910410 | 180307 | 247 | 298 | 40        | 80 |
| 44 | 24 | BRAZIL          | HILLS, CLOUDS             | 18.0S         | 47.0W | 18.9S        | 47.2W | 60 | L0 | 35  | N | Y | 19910410 | 180312 | 247 | 298 | 40        | 80 |
| 44 | 25 | BRAZIL          | RIO PARANAIBA, CLOUDS     | 18.0S         | 50.0W | 19.1S        | 46.8W | 70 | L0 | 35  | N | N | 19910410 | 180319 | 247 | 298 | 39        | 80 |
| 44 | 26 | BRAZIL          | TRES MARIAS RESERVOIR     | 19.0S         | 45.0W | 19.3S        | 46.3W | 40 | L0 | 35  | N | N | 19910410 | 180327 | 246 | 298 | 39        | 80 |
| 44 | 27 | BRAZIL          | DE PEIXOTO RESERVOIR      | 20.5S         | 47.0W | 19.4S        | 46.0W | 75 | L0 | 35  | N | N | 19910410 | 180331 | 246 | 298 | 38        | 80 |
| 44 | 28 | BRAZIL          | TRES MARIAS RESERVOIR     | 18.0S         | 44.5W | 19.8S        | 45.0W | 50 | L0 | 35  | N | Y | 19910410 | 180349 | 246 | 297 | 37        | 80 |
| 44 | 29 | BRAZIL          | TRES MARIAS RESERVOIR     | 18.5S         | 45.0W | 19.9S        | 44.6W | 40 | L0 | 35  | N | Y | 19910410 | 180355 | 246 | 297 | 37        | 80 |
| 44 | 30 | BRAZIL          | RIO DOCE, CLOUDS          | 19.5S         | 42.5W | 20.5S        | 43.2W | 60 | L0 | 35  | N | N | 19910410 | 180419 | 246 | 296 | 35        | 80 |
| 44 | 31 | BRAZIL          | CABO SAO TOME, CABO FRIO  | 22.0S         | 42.0W | 20.7S        | 42.6W | 50 | L0 | 35  | N | Y | 19910410 | 180429 | 246 | 296 | 35        | 80 |
| 44 | 32 | BRAZIL          | CABO SAO TOME, COAST      | 20.5S         | 41.5W | 20.8S        | 42.4W | 50 | L0 | 35  | N | Y | 19910410 | 180433 | 246 | 296 | 34        | 80 |
| 44 | 33 | BRAZIL          | RIO DOCE-MOUTH, COAST     | 19.5S         | 41.0W | 21.0S        | 41.9W | 60 | L0 | 35  | N | N | 19910410 | 180441 | 246 | 296 | 34        | 80 |
| 44 | 36 | BRAZIL          | CABO SAO TOME, CAMPOS     | 21.5S         | 41.5W | 21.0S        | 41.6W | 30 | L0 | 35  | N | N | 19910410 | 180445 | 246 | 296 | 34        | 80 |
| 44 | 37 | BRAZIL          | TRES MARIAS RESERVOIR     | 19.0S         | 45.0W | 21.2S        | 41.2W | 60 | L0 | 35  | N | N | 19910410 | 180452 | 246 | 295 | 33        | 80 |
| 44 | 38 | BRAZIL          | CABO FRIO, COAST, CLOUDS  | 22.5S         | 42.5W | 21.3S        | 40.8W | 50 | L0 | 35  | N | N | 19910410 | 180459 | 246 | 295 | 33        | 80 |
| 71 | 73 | BRAZIL          | RIO UACA, CABO ORANGE     | 4.5N          | 51.5W | 3.6N         | 51.2W | 20 | L0 | 250 | N | N | 19910405 | 175455 | 243 | 275 | 53        | 3  |
| 71 | 74 | BRAZIL          | AMAZON R. DELTA/EFFLUENT  | 1.0N          | 50.0W | 2.7N         | 49.7W | 20 | L0 | 250 | N | N | 19910405 | 175525 | 243 | 276 | 51        | 3  |
| 72 | 52 | BRAZIL          | ARAGUAIA R. DEFORESTATION | 10.0S         | 50.5W | 8.3S         | 54.3W | 25 | L0 | 100 | N | Y | 19910405 | 193457 | 242 | 281 | 29        | 4  |
| 72 | 53 | BRAZIL          | ARAGUAIA R. - AGRICULTURE | 9.5S          | 50.0W | 8.9S         | 53.3W | 20 | L0 | 100 | N | Y | 19910405 | 193516 | 242 | 281 | 28        | 4  |
| 72 | 54 | BRAZIL          | RIO ARAGUAIA              | 9.0S          | 49.5W | 9.8S         | 51.6W | 20 | L0 | 100 | N | Y | 19910405 | 193548 | 242 | 281 | 26        | 4  |
| 72 | 55 | BRAZIL          | RIO TOCANTINS             | 12.5S         | 47.5W | 10.5S        | 50.4W | 15 | L0 | 100 | N | Y | 19910405 | 193611 | 242 | 281 | 25        | 4  |
| 72 | 56 | BRAZIL          | RIO PARANA                | 13.5S         | 47.0W | 10.8S        | 49.8W | 15 | L0 | 100 | N | Y | 19910405 | 193622 | 242 | 281 | 24        | 4  |
| 72 | 57 | BRAZIL          | RIO TOCANTINS             | 9.0S          | 48.0W | 12.5S        | 46.5W | 35 | L0 | 100 | N | Y | 19910405 | 193722 | 243 | 281 | 20        | 4  |
| 72 | 58 | BRAZIL          | RIO TOCANTINS             | 8.5S          | 48.0W | 12.7S        | 46.0W | 45 | L0 | 100 | N | Y | 19910405 | 193730 | 243 | 281 | 20        | 4  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC    | TL    | FL | E  | S   | DATE | GMT      | AL     | AZ  | SUN<br>EL | OR |    |
|----|-----|-----------------|---------------------------|----------------------|---------------------|-------|-------|----|----|-----|------|----------|--------|-----|-----------|----|----|
| 72 | 59  | BRAZIL          | NE OF TOCANTINS R. & 8.0S | 10.5S                | 42.5W               | 13.3S | 44.8W | 40 | LO | 100 | N    | 19910405 | 193752 | 243 | 281       | 19 | 4  |
| 72 | 60  | BRAZIL          | RIO SAO FRANCISCO, RES.   | 10.5S                | 42.5W               | 13.9S | 43.8W | 20 | LO | 100 | N    | 19910405 | 193811 | 243 | 281       | 17 | 4  |
| 72 | 61  | BRAZIL          | RIO SAO FRANCISCO, RES.   | 10.0S                | 42.0W               | 14.2S | 43.1W | 20 | LO | 100 | N    | 19910405 | 193823 | 243 | 281       | 17 | 4  |
| 72 | 62  | BRAZIL          | RIO SAO FRANCISCO, RES.   | 11.0S                | 42.5W               | 14.5S | 42.5W | 20 | LO | 100 | N    | 19910405 | 193834 | 243 | 280       | 16 | 4  |
| 72 | 63  | BRAZIL          | RIO SAO FRANCISCO, RES.   | 10.0S                | 41.5W               | 14.7S | 42.0W | 20 | LO | 100 | N    | 19910405 | 193843 | 243 | 280       | 15 | 4  |
| 72 | 64  | BRAZIL          | BAIA DE TODOS OS SANTOS   | 13.0S                | 38.5W               | 15.9S | 39.3W | 20 | LO | 100 | N    | 19910405 | 193930 | 243 | 280       | 12 | 4  |
| 72 | 65  | BRAZIL          | SALVADOR-COAST            | 13.0S                | 38.5W               | 16.2S | 38.8W | 20 | LO | 100 | N    | 19910405 | 193939 | 243 | 280       | 12 | 4  |
| 72 | 66  | BRAZIL          | SALVADOR-COAST            | 13.0S                | 39.0W               | 16.4S | 38.2W | 25 | LO | 100 | N    | 19910405 | 193949 | 243 | 280       | 11 | 4  |
| 72 | 67  | BRAZIL          | CLOUDS-HALF FRAME EXPOSE  |                      |                     | 18.2S | 34.1W | 95 | LO | 100 | N    | 19910405 | 194101 | 243 | 278       | 7  | 4  |
| 75 | 104 | BRAZIL          | MOUTH AMAZON RIVER        | 2.0N                 | 49.5W               | 3.9N  | 49.8W | 90 | LO | 250 | N    | 19910406 | 171620 | 243 | 276       | 61 | 18 |
| 76 | 82  | BRAZIL          | AREA NEAR SALVADOR        |                      |                     | 12.8S | 38.2W | 80 | LO | 250 | N    | 19910409 | 170350 | 245 | 296       | 47 | 64 |
| 76 | 83  | BRAZIL          | AREA NEAR SALVADOR        |                      |                     | 13.3S | 37.1W | 95 | LO | 250 | N    | 19910409 | 170409 | 245 | 296       | 46 | 64 |
| 76 | 84  | BRAZIL          | NEAR SALVADOR, COAST      |                      |                     | 13.8S | 36.1W | 70 | LO | 250 | N    | 19910409 | 170427 | 245 | 296       | 45 | 64 |
| 76 | 85  | BRAZIL          | NEAR SALVADOR, COAST      |                      |                     | 13.9S | 35.9W | 95 | LO | 250 | N    | 19910409 | 170430 | 245 | 296       | 45 | 64 |
| 78 | 67  | BRAZIL          | RIO SAO FRANCISCO BASIN   | 11.5S                | 43.5W               | 9.2S  | 45.1W | 60 | LO | 250 | N    | 19910409 | 170143 | 245 | 298       | 55 | 64 |
| 78 | 68  | BRAZIL          | RIO SAO FRANCISCO BASIN   | 10.0S                | 41.5W               | 9.3S  | 44.9W | 65 | LO | 250 | N    | 19910409 | 170146 | 245 | 298       | 55 | 64 |
| 78 | 69  | BRAZIL          | RIO SAO FRANCISCO BASIN   | 9.0S                 | 40.0W               | 9.4S  | 44.7W | 55 | LO | 250 | N    | 19910409 | 170149 | 245 | 298       | 55 | 64 |
| 78 | 70  | BRAZIL          | RIO SAO FRANCISCO BASIN   | 9.0S                 | 39.0W               | 9.7S  | 44.2W | 60 | HO | 250 | N    | 19910409 | 170159 | 245 | 298       | 54 | 64 |
| 78 | 71  | BRAZIL          | RIO SAO FRANCISCO BASIN   |                      |                     | 9.8S  | 44.0W | 60 | HO | 250 | N    | 19910409 | 170203 | 245 | 298       | 54 | 64 |
| 78 | 72  | BRAZIL          | ESPERANCA RESERVOIR       | 7.0S                 | 43.0W               | 10.1S | 43.3W | 65 | LO | 250 | N    | 19910409 | 170215 | 245 | 298       | 53 | 64 |
| 78 | 73  | BRAZIL          | ESPERANCA RESERVOIR       | 7.0S                 | 44.0W               | 10.3S | 43.0W | 70 | LO | 250 | N    | 19910409 | 170221 | 245 | 297       | 53 | 64 |
| 78 | 74  | BRAZIL          | OROS RESERVOIR            | 7.0S                 | 38.0W               | 10.5S | 42.6W | 75 | LO | 250 | N    | 19910409 | 170229 | 245 | 297       | 52 | 64 |
| 78 | 75  | BRAZIL          | BORBOREMA PLATEAU         |                      |                     | 10.9S | 42.0W | 70 | LO | 250 | N    | 19910409 | 170240 | 245 | 297       | 52 | 64 |
| 78 | 76  | BRAZIL          | CITY OF MACEIO, COAST     | 9.5S                 | 36.0W               | 11.2S | 41.4W | 55 | LO | 250 | N    | 19910409 | 170251 | 245 | 297       | 51 | 64 |
| 78 | 77  | BRAZIL          | EASTERN BRAZIL            |                      |                     | 11.5S | 40.8W | 65 | HO | 250 | N    | 19910409 | 170301 | 245 | 297       | 50 | 64 |
| 78 | 78  | BRAZIL          | COAST NORTH OF RECIFE     | 7.0S                 | 35.0W               | 11.6S | 40.5W | 60 | HO | 250 | N    | 19910409 | 170307 | 245 | 297       | 50 | 64 |
| 78 | 79  | BRAZIL          | COAST NEAR RECIFE         | 8.0S                 | 35.0W               | 11.8S | 40.2W | 60 | HO | 250 | N    | 19910409 | 170312 | 245 | 297       | 50 | 64 |
| 78 | 80  | BRAZIL          | EASTERN BRAZIL            |                      |                     | 12.0S | 39.8W | 70 | HO | 250 | N    | 19910409 | 170321 | 245 | 297       | 49 | 64 |
| 78 | 81  | BRAZIL          | EASTERN BRAZIL            |                      |                     | 12.4S | 38.9W | 65 | LO | 250 | N    | 19910409 | 170336 | 245 | 296       | 48 | 64 |
| 78 | 82  | BRAZIL          | COAST NORTH OF MACEIO     | 9.0S                 | 35.5W               | 12.9S | 38.1W | 55 | LO | 250 | N    | 19910409 | 170352 | 245 | 296       | 47 | 64 |
| 78 | 83  | BRAZIL          | COAST NORTH OF MACEIO     | 8.5S                 | 35.0W               | 13.1S | 37.6W | 60 | HO | 250 | N    | 19910409 | 170400 | 245 | 296       | 47 | 64 |
| 78 | 84  | BRAZIL          | CITY OF MACEIO, COAST     | 9.5S                 | 36.0W               | 13.5S | 36.8W | 65 | LO | 250 | N    | 19910409 | 170415 | 245 | 296       | 46 | 64 |
| 79 | 35  | BRAZIL          | PT. ORANGE, OIAROUQUE R.  | 4.0N                 | 51.5W               | 5.3N  | 52.1W | 30 | LO | 250 | N    | 19910406 | 171536 | 243 | 273       | 64 | 18 |
| 79 | 36  | BRAZIL          | CALCONE RIVER MOUTH       | 2.5N                 | 51.0W               | 4.1N  | 50.0W | 75 | LO | 250 | N    | 19910406 | 171616 | 243 | 275       | 61 | 18 |
| 79 | 37  | BRAZIL          | ARAGUARI R. MOUTH, PLUME  | 1.5N                 | 50.0W               | 3.4N  | 48.9W | 55 | LO | 250 | N    | 19910406 | 171637 | 243 | 276       | 60 | 18 |
| 79 | 38  | BRAZIL          | AMAZON RIVER DELTA        | 1.0N                 | 50.0W               | 3.3N  | 48.7W | 65 | LO | 250 | N    | 19910406 | 171641 | 243 | 277       | 60 | 18 |
| 79 | 39  | BRAZIL          | AMAZON RIVER DELTA        | 0.5N                 | 50.5W               | 3.1N  | 48.4W | 70 | LO | 250 | N    | 19910406 | 171647 | 243 | 277       | 59 | 18 |
| 79 | 40  | BRAZIL          | AMAZON RIVER DELTA        | 0.5N                 | 49.5W               | 2.8N  | 47.8W | 60 | LO | 250 | N    | 19910406 | 171659 | 243 | 277       | 59 | 18 |
| 79 | 41  | BRAZIL          | TOCANTINS, PARA RIVERS    | 2.5S                 | 49.5W               | 2.1N  | 46.8W | 65 | LO | 250 | N    | 19910406 | 171722 | 243 | 278       | 57 | 18 |
| 79 | 42  | BRAZIL          | MARACANA BAY              | 0.5S                 | 47.5W               | 1.4N  | 45.4W | 65 | NV | 250 | N    | 19910406 | 171744 | 243 | 279       | 56 | 18 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 79 | 43 | BRAZIL          | MAIAU, CAETE BAYS         | 1.0S 46.5W           | 1.3N 45.2W          | 45 | NV | 250 | N | Y | 19910406 | 171748 | 243 | 279 | 58        | 18 |
| 79 | 44 | BRAZIL          | GURUPI BAY                | 1.0S 46.0W           | 1.1N 45.0W          | 35 | NV | 250 | N | Y | 19910406 | 171753 | 243 | 279 | 55        | 18 |
| 79 | 45 | BRAZIL          | TURIACU BAY, MATAU IS.    | 1.5S 45.0W           | 0.9N 44.6W          | 55 | NV | 250 | N | Y | 19910406 | 171800 | 243 | 279 | 55        | 18 |
| 79 | 46 | BRAZIL          | ST. MARCOS, ST. JOSE BAYS | 2.5S 44.0W           | 0.2S 42.8W          | 35 | NV | 250 | N | Y | 19910406 | 171835 | 243 | 280 | 53        | 18 |
| 79 | 47 | BRAZIL          | COASTAL SAND DUNE FIELD   | 2.5S 43.0W           | 0.4S 42.4W          | 25 | NV | 250 | N | Y | 19910406 | 171842 | 243 | 281 | 52        | 18 |
| 79 | 48 | BRAZIL          | PARNAIBA RIVER MOUTH      | 2.5S 42.0W           | 0.5S 42.2W          | 30 | LO | 250 | N | Y | 19910406 | 171847 | 243 | 281 | 52        | 18 |
| 79 | 49 | BRAZIL          | PARNAIBA RIVER MOUTH      | 3.0S 41.5W           | 0.7S 41.8W          | 20 | LO | 250 | N | Y | 19910406 | 171853 | 243 | 281 | 52        | 18 |
| 79 | 50 | BRAZIL          | PARNAIBA RIVER            | 3.5S 42.0W           | 1.0S 41.4W          | 50 | LO | 250 | N | Y | 19910406 | 171902 | 243 | 281 | 51        | 18 |
| 79 | 51 | BRAZIL          | COAST NEAR ACARAU         | 3.0S 40.0W           | 1.7S 40.1W          | 35 | LO | 250 | N | Y | 19910406 | 171926 | 243 | 282 | 50        | 18 |
| 79 | 52 | BRAZIL          | COAST NEAR PATOS          | 3.0S 39.5W           | 1.9S 39.8W          | 30 | LO | 250 | N | Y | 19910406 | 171932 | 243 | 282 | 49        | 18 |
| 79 | 53 | BRAZIL          | COAST NEAR TRAIRA         | 3.5S 39.5W           | 2.0S 39.6W          | 30 | LO | 250 | N | Y | 19910406 | 171936 | 243 | 282 | 49        | 18 |
| 79 | 54 | BRAZIL          | COAST NEAR FORTALEZA      | 3.5S 39.0W           | 2.3S 39.2W          | 20 | LO | 250 | N | Y | 19910406 | 171943 | 243 | 282 | 49        | 18 |
| 79 | 55 | BRAZIL          | FORTALEZA, PT. MUCURIPE   | 3.5S 38.5W           | 3.4S 37.2W          | 15 | LO | 250 | N | Y | 19910406 | 172021 | 243 | 283 | 46        | 18 |
| 79 | 56 | BRAZIL          | COAST SOUTH OF FORTALEZA  | 4.0S 38.0W           | 3.5S 37.0W          | 25 | LO | 250 | N | Y | 19910406 | 172025 | 243 | 283 | 46        | 18 |
| 79 | 57 | BRAZIL          | MOUTH OF JAGUARIBE R.     | 4.5S 37.5W           | 3.7S 36.8W          | 25 | LO | 250 | N | Y | 19910406 | 172029 | 243 | 283 | 46        | 18 |
| 79 | 58 | BRAZIL          | AREIA BRANCA, MOCORO      | 5.0S 37.5W           | 3.9S 36.5W          | 30 | LO | 250 | N | Y | 19910406 | 172036 | 243 | 283 | 45        | 18 |
| 79 | 59 | BRAZIL          | PIRANHAS R., MARCAU       | 5.0S 36.5W           | 4.1S 36.0W          | 30 | LO | 250 | N | Y | 19910406 | 172044 | 243 | 283 | 45        | 18 |
| 79 | 60 | BRAZIL          | COAST NEAR TOUROS         | 5.0S 35.5W           | 4.5S 35.3W          | 30 | LO | 250 | N | Y | 19910406 | 172058 | 243 | 283 | 44        | 18 |
| 79 | 61 | BRAZIL          | COAST NEAR NATAL          | 5.5S 35.5W           | 4.7S 35.0W          | 25 | LO | 250 | N | Y | 19910406 | 172103 | 243 | 283 | 44        | 18 |
| 79 | 62 | BRAZIL          | COAST NEAR NATAL          | 6.0S 35.0W           | 4.9S 34.7W          | 15 | LO | 250 | N | Y | 19910406 | 172109 | 243 | 283 | 43        | 18 |
| 79 | 63 | BRAZIL          | COAST NEAR JOAO PESSOA    | 7.5S 35.0W           | 5.6S 33.3W          | 30 | LO | 250 | N | Y | 19910406 | 172135 | 243 | 283 | 42        | 18 |
| 79 | 64 | BRAZIL          | COAST NEAR RECIFE         | 8.0S 35.0W           | 5.9S 32.9W          | 25 | LO | 250 | N | Y | 19910406 | 172143 | 243 | 284 | 41        | 18 |
| 79 | 65 | BRAZIL          | COAST NEAR MACEIO         | 9.0S 35.0W           | 6.7S 31.4W          | 30 | LO | 250 | N | Y | 19910406 | 172211 | 243 | 284 | 40        | 18 |
| 79 | 80 | BRAZIL          | AMAZON R., LAKE PIORINI   | 3.5S 63.5W           | 0.6S 66.0W          | 35 | LO | 250 | N | Y | 19910406 | 185214 | 243 | 281 | 53        | 19 |
| 79 | 81 | BRAZIL          | AMAZON R., LAKE TEFE      | 3.5S 64.5W           | 0.7S 65.8W          | 35 | LO | 250 | N | Y | 19910406 | 185217 | 243 | 281 | 52        | 19 |
| 79 | 82 | BRAZIL          | AMAZON R., JUPURA R.      | 2.5S 65.5W           | 0.7S 65.7W          | 30 | LO | 250 | N | Y | 19910406 | 185220 | 243 | 281 | 52        | 19 |
| 79 | 83 | BRAZIL          | AMAZON RIVER              | 2.5S 66.0W           | 0.8S 65.5W          | 20 | NV | 250 | N | Y | 19910406 | 185223 | 243 | 281 | 52        | 19 |
| 79 | 84 | BRAZIL          | MADEIRA RIVER             | 5.5S 60.5W           | 4.0S 60.0W          | 65 | LO | 250 | N | Y | 19910406 | 185408 | 243 | 283 | 46        | 19 |
| 79 | 85 | BRAZIL          | TELES PIRES RIVER         | 9.0S 57.5W           | 5.7S 57.1W          | 55 | LO | 250 | N | Y | 19910406 | 185504 | 243 | 284 | 42        | 19 |
| 79 | 86 | BRAZIL          | TELES PIRES RIVER         | 9.5S 56.5W           | 5.9S 56.9W          | 50 | LO | 250 | N | Y | 19910406 | 185508 | 243 | 284 | 42        | 19 |
| 79 | 87 | BRAZIL          | S. AMAZON BASIN           | 6.4S 55.9W           | 6.4S 55.9W          | 65 | NV | 250 | N | Y | 19910406 | 185526 | 243 | 284 | 41        | 19 |
| 79 | 88 | BRAZIL          | AMAZON BASIN LAND USE     | 6.9S 55.1W           | 6.9S 55.1W          | 35 | LO | 250 | N | Y | 19910406 | 185542 | 243 | 284 | 40        | 19 |
| 79 | 89 | BRAZIL          | AMAZON BASIN LAND USE     | 7.1S 54.6W           | 7.1S 54.6W          | 35 | LO | 250 | N | Y | 19910406 | 185550 | 243 | 284 | 39        | 19 |
| 79 | 90 | BRAZIL          | AMAZON BASIN LAND USE     | 8.2S 52.6W           | 8.2S 52.6W          | 55 | NV | 250 | N | Y | 19910406 | 185628 | 243 | 284 | 37        | 19 |
| 79 | 91 | BRAZIL          | TOCANTINIS RIVER BASIN    | 10.8S 48.5W          | 10.8S 48.3W         | 15 | LO | 250 | N | Y | 19910406 | 185748 | 243 | 284 | 32        | 19 |
| 79 | 92 | BRAZIL          | GERAL DO PARANA HILLS     | 10.6S 47.9W          | 10.6S 47.9W         | 15 | NV | 250 | N | Y | 19910406 | 185755 | 243 | 284 | 31        | 19 |
| 79 | 93 | BRAZIL          | LAND USE PATTERNS         | 10.9S 47.7W          | 10.9S 47.7W         | 50 | NV | 250 | N | Y | 19910406 | 185759 | 243 | 284 | 31        | 19 |
| 79 | 94 | BRAZIL          | LAND USE PATTERNS         | 11.2S 47.2W          | 11.2S 47.2W         | 55 | NV | 250 | N | Y | 19910406 | 185809 | 243 | 284 | 31        | 19 |
| 79 | 95 | BRAZIL          | LAND USE PATTERNS         | 11.3S 46.9W          | 11.3S 46.9W         | 40 | LO | 250 | N | Y | 19910406 | 185814 | 243 | 284 | 30        | 19 |
| 79 | 96 | BRAZIL          | LAND USE PATTERNS         | 11.4S 46.7W          | 11.4S 46.7W         | 40 | LO | 250 | N | Y | 19910406 | 185818 | 243 | 284 | 30        | 19 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | SUN<br>AZ | EL | OR |
|----|-----|-----------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----------|----|----|
| 79 | 97  | BRAZIL          | LAND USE PATTERNS        |                      | 11.5S 46.5W         | 50 | LO | 250 | N | N | 19910406 | 185822 | 243 | 284       | 30 | 19 |
| 79 | 98  | BRAZIL          | LAND USE PATTERNS        |                      | 12.1S 45.3W         | 45 | LO | 250 | N | N | 19910406 | 185843 | 243 | 284       | 28 | 19 |
| 79 | 99  | BRAZIL          | RES. NEAR SAO FRANCISCO  | 12.0S 43.0W          | 14.2S 41.1W         | 65 | LO | 250 | N | N | 19910406 | 185959 | 243 | 283       | 24 | 19 |
| 79 | 100 | BRAZIL          | JEQUITINHONHA RIVER      | 15.5S 39.5W          | 14.4S 40.7W         | 60 | HO | 250 | N | Y | 19910406 | 190007 | 243 | 283       | 23 | 19 |
| 79 | 101 | BRAZIL          | JEQUITINHONHA RIVER      | 16.5S 40.0W          | 14.5S 40.4W         | 70 | HO | 250 | N | Y | 19910406 | 190011 | 243 | 283       | 23 | 19 |
| 81 | 28  | BRAZIL          | AMAZON BAS. THUNDERSTORM |                      | 0.1S 68.7W          | 95 | LO | 250 | N | N | 19910405 | 193025 | 243 | 278       | 46 | 4  |
| 81 | 29  | BRAZIL          | AMAZON BAS. THUNDERSTORM |                      | 0.6S 67.8W          | 95 | LO | 250 | N | N | 19910405 | 193041 | 243 | 279       | 46 | 4  |
| 81 | 30  | BRAZIL          | RIO NEGRO                | 0.0 67.0W            | 1.3S 66.7W          | 35 | NV | 250 | U | N | 19910405 | 193103 | 243 | 279       | 44 | 4  |
| 81 | 31  | BRAZIL          | RIO NEGRO                | 0.5S 64.5W           | 1.4S 66.5W          | 70 | LO | 250 | U | N | 19910405 | 193106 | 243 | 279       | 43 | 4  |
| 81 | 32  | BRAZIL          | CENTRAL AMAZON BASIN     |                      | 1.8S 65.7W          | 65 | NV | 250 | U | N | 19910405 | 193121 | 243 | 280       | 43 | 4  |
| 81 | 33  | BRAZIL          | AMAZON RIVER             | 2.5S 66.0W           | 2.3S 65.0W          | 65 | NV | 250 | N | N | 19910405 | 193135 | 242 | 280       | 42 | 4  |
| 81 | 34  | BRAZIL          | AMAZON RIVER, JAPURA R.  | 2.5S 65.5W           | 2.4S 64.8W          | 45 | NV | 250 | N | N | 19910405 | 193138 | 242 | 280       | 42 | 4  |
| 81 | 35  | BRAZIL          | AMAZON RIVER, JAPURA R.  | 3.0S 65.0W           | 2.5S 64.7W          | 40 | NV | 250 | N | N | 19910405 | 193141 | 242 | 280       | 41 | 4  |
| 81 | 36  | BRAZIL          | AMAZON RIVER, PARANA CR. | 3.5S 64.0W           | 3.1S 63.5W          | 40 | NV | 250 | N | N | 19910405 | 193203 | 242 | 280       | 40 | 4  |
| 81 | 37  | BRAZIL          | AMAZON R., TEFF LAKE     | 3.5S 64.5W           | 3.3S 63.3W          | 50 | NV | 250 | N | N | 19910405 | 193208 | 242 | 280       | 40 | 4  |
| 81 | 38  | BRAZIL          | AMAZON R., MAK LAKE      | 4.0S 63.0W           | 3.8S 62.3W          | 65 | NV | 250 | N | N | 19910405 | 193227 | 242 | 281       | 39 | 4  |
| 81 | 39  | BRAZIL          | MADEIRA RIVER            | 4.0S 59.5W           | 4.5S 61.2W          | 60 | LO | 250 | N | Y | 19910405 | 193247 | 242 | 281       | 37 | 4  |
| 81 | 40  | BRAZIL          | MADEIRA RIVER            | 4.5S 60.0W           | 4.5S 61.1W          | 55 | NV | 250 | N | Y | 19910405 | 193249 | 242 | 281       | 37 | 4  |
| 81 | 41  | BRAZIL          | MADEIRA RIVER            | 5.0S 60.0W           | 4.6S 61.0W          | 70 | NV | 250 | N | Y | 19910405 | 193252 | 242 | 281       | 37 | 4  |
| 81 | 42  | BRAZIL          | MADEIRA RIVER            | 4.5S 60.0W           | 4.9S 60.4W          | 50 | NV | 250 | N | Y | 19910405 | 193302 | 242 | 281       | 36 | 4  |
| 81 | 43  | BRAZIL          | MADEIRA RIVER            | 4.5S 59.5W           | 5.1S 60.2W          | 55 | NV | 250 | N | Y | 19910405 | 193307 | 242 | 281       | 36 | 4  |
| 81 | 44  | BRAZIL          | MADEIRA R., THUNDERSTORM | 4.0S 59.5W           | 5.4S 59.6W          | 75 | NV | 250 | U | N | 19910405 | 193318 | 242 | 281       | 35 | 4  |
| 81 | 45  | BRAZIL          | THUNDERSTORMS, AMAZON B. |                      | 7.8S 55.2W          | 95 | LO | 250 | N | N | 19910405 | 193440 | 242 | 281       | 30 | 4  |
| 81 | 46  | BRAZIL          | AMAZON B. LAND USE       |                      | 8.6S 53.8W          | 30 | NV | 250 | U | N | 19910405 | 193507 | 242 | 281       | 29 | 4  |
| 81 | 47  | BRAZIL          | LAND USE TAPIRAPE HILLS  | 10.5S 51.5W          | 9.9S 51.5W          | 15 | NV | 250 | N | N | 19910405 | 193550 | 242 | 281       | 26 | 4  |
| 81 | 48  | BRAZIL          | LAND USE TAPIRAPE HILLS  | 10.5S 51.5W          | 9.9S 51.4W          | 15 | NV | 250 | N | Y | 19910405 | 193552 | 242 | 281       | 26 | 4  |
| 81 | 49  | BRAZIL          | LAND USE, ARAGUAIA RIVER | 10.5S 51.0W          | 10.0S 51.2W         | 15 | NV | 250 | N | Y | 19910405 | 193555 | 242 | 281       | 26 | 4  |
| 81 | 50  | BRAZIL          | LAND USE, ARAGUAIA RIVER | 11.0S 50.5W          | 10.1S 51.1W         | 15 | NV | 250 | U | Y | 19910405 | 193557 | 242 | 281       | 26 | 4  |
| 81 | 51  | BRAZIL          | ISLAND OF THE BANANAL    | 11.0S 50.0W          | 10.2S 51.0W         | 30 | NV | 250 | U | Y | 19910405 | 193600 | 242 | 281       | 25 | 4  |
| 81 | 52  | BRAZIL          | ISLAND OF THE BANANAL    | 11.0S 50.0W          | 10.2S 50.8W         | 40 | NV | 250 | U | Y | 19910405 | 193602 | 242 | 281       | 25 | 4  |
| 81 | 53  | BRAZIL          | ARAGUAIA RIVER           | 11.0S 50.0W          | 10.3S 50.7W         | 25 | NV | 250 | U | N | 19910405 | 193604 | 242 | 281       | 25 | 4  |
| 81 | 54  | BRAZIL          | LAND USE NEAR ARAGUAIA R | 10.5S 51.0W          | 10.3S 50.6W         | 20 | LO | 250 | N | N | 19910405 | 193606 | 242 | 281       | 25 | 4  |
| 81 | 55  | BRAZIL          | LAND USE TAPIRAPE HILLS  | 10.5S 51.5W          | 10.6S 50.1W         | 15 | LO | 250 | N | N | 19910405 | 193615 | 242 | 281       | 24 | 4  |
| 81 | 56  | BRAZIL          | TOCANTINS RIVER          | 11.5S 48.5W          | 11.7S 48.1W         | 30 | LO | 250 | N | Y | 19910405 | 193652 | 242 | 281       | 22 | 4  |
| 81 | 57  | BRAZIL          | TOCANTINS RIVER          | 12.0S 48.5W          | 11.7S 48.0W         | 10 | LO | 250 | N | N | 19910405 | 193655 | 242 | 281       | 22 | 4  |
| 81 | 58  | BRAZIL          | TOCANTINS RIVER, V. DARK | 11.5S 48.5W          | 12.1S 47.3W         | 25 | NV | 250 | U | N | 19910405 | 193708 | 243 | 281       | 21 | 4  |
| 81 | 59  | BRAZIL          | E. OF TOCANTINS R., DARK |                      | 12.2S 47.1W         | 15 | NV | 250 | U | N | 19910405 | 193711 | 243 | 281       | 21 | 4  |
| 81 | 60  | BRAZIL          | TOCANTINS RIVER, V. DARK | 12.5S 48.0W          | 12.6S 46.4W         | 10 | NV | 250 | U | N | 19910405 | 193724 | 243 | 281       | 20 | 4  |
| 81 | 61  | BRAZIL          | PARANA RIVER             | 13.5S 47.5W          | 12.9S 45.8W         | 10 | NV | 250 | N | Y | 19910405 | 193735 | 243 | 281       | 19 | 4  |
| 81 | 62  | BRAZIL          | PARANA, TOCANTINS RIVERS | 13.0S 48.0W          | 13.0S 45.5W         | 10 | LO | 250 | N | Y | 19910405 | 193740 | 243 | 281       | 19 | 4  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|-----|-----------------|---------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |     |                 |                           | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 81 | 63  | BRAZIL          | SAO FRANCISCO RIVER B.    | 11.5S  | 43.5W | 13.6S | 44.3W | 45 | LO | 250 | N | Y | 19910405 | 193802 | 243 | 281 | 18  | 4  |    |
| 81 | 64  | BRAZIL          | SAO FRANCISCO RIVER B.    | 12.0S  | 43.5W | 13.7S | 44.2W | 15 | NV | 250 | U | Y | 19910405 | 193804 | 243 | 281 | 18  | 4  |    |
| 81 | 65  | BRAZIL          | SAO FRANCISCO RIVER B.    | 12.5S  | 43.5W | 13.7S | 44.0W | 10 | NV | 250 | U | Y | 19910405 | 193807 | 243 | 281 | 17  | 4  |    |
| 81 | 66  | BRAZIL          | SAO FRANCISCO RIVER B.    | 12.5S  | 43.5W | 13.9S | 43.7W | 10 | NV | 250 | U | Y | 19910405 | 193813 | 243 | 281 | 17  | 4  |    |
| 81 | 67  | BRAZIL          | SAO FRANCISCO RIVER B.    | 12.5S  | 43.5W | 14.0S | 43.5W | 10 | NV | 250 | U | Y | 19910405 | 193816 | 243 | 281 | 17  | 4  |    |
| 81 | 68  | BRAZIL          | SAO FRANCISCO RIVER B.    | 13.0S  | 43.5W | 14.1S | 43.3W | 15 | NV | 250 | U | Y | 19910405 | 193819 | 243 | 281 | 17  | 4  |    |
| 81 | 69  | BRAZIL          | SAO FRANCISCO RIVER B.    | 14.0S  | 43.5W | 14.1S | 43.2W | 20 | NV | 250 | U | Y | 19910405 | 193821 | 243 | 281 | 17  | 4  |    |
| 81 | 70  | BRAZIL          | SAO FRANCISCO RIVER B.    | 14.5S  | 44.0W | 14.2S | 43.0W | 15 | LO | 250 | U | Y | 19910405 | 193825 | 243 | 281 | 18  | 4  |    |
| 81 | 71  | BRAZIL          | PINHACO HILLS             | 15.0S  | 43.0W | 14.7S | 42.1W | 25 | LO | 250 | U | N | 19910405 | 193841 | 243 | 280 | 15  | 4  |    |
| 81 | 72  | BRAZIL          | PINHACO HILLS             | 15.5S  | 42.5W | 14.7S | 41.9W | 35 | LO | 250 | U | Y | 19910405 | 193844 | 243 | 280 | 15  | 4  |    |
| 81 | 73  | BRAZIL          | PINHACO HILLS             | 16.0S  | 42.0W | 14.8S | 41.8W | 15 | LO | 250 | U | Y | 19910405 | 193846 | 243 | 280 | 15  | 4  |    |
| 81 | 74  | BRAZIL          | PINHACO HILLS, CLOUDS     |        |       | 14.9S | 41.6W | 80 | LO | 250 | N | N | 19910405 | 193848 | 243 | 280 | 15  | 4  |    |
| 81 | 75  | BRAZIL          | COAST NEAR SALVADOR       | 13.5S  | 39.0W | 15.9S | 39.5W | 5  | LO | 250 | U | Y | 19910405 | 193927 | 243 | 280 | 12  | 4  |    |
| 81 | 76  | BRAZIL          | COAST S. OF SALVADOR      | 14.0S  | 39.0W | 15.9S | 39.3W | 15 | LO | 250 | U | Y | 19910405 | 193930 | 243 | 280 | 12  | 4  |    |
| 81 | 77  | BRAZIL          | COAST, CLOUDS             |        |       | 16.1S | 39.0W | 55 | LO | 250 | U | N | 19910405 | 193935 | 243 | 280 | 12  | 4  |    |
| 81 | 78  | BRAZIL          | COAST, CLOUDS             | 17.0S  | 39.0W | 16.2S | 38.7W | 65 | LO | 250 | N | N | 19910405 | 193941 | 243 | 280 | 12  | 4  |    |
| 83 | 93  | BRAZIL          | FOLDED RIDGES, AGR.       | 15.5S  | 56.8W | 9.2S  | 74.9W | 50 | LO | 250 | N | Y | 19910409 | 183917 | 240 | 295 | 40  | 65 |    |
| 83 | 94  | BRAZIL          | RIO CUIABA, RIDGES        | 15.5S  | 56.6W | 9.2S  | 75.0W | 50 | LO | 250 | N | Y | 19910409 | 183920 | 240 | 295 | 40  | 65 |    |
| 83 | 95  | BRAZIL          | RIO CUIABA, CUIABA        | 15.7S  | 56.0W | 9.1S  | 75.1W | 50 | LO | 250 | N | Y | 19910409 | 183923 | 240 | 295 | 39  | 65 |    |
| 83 | 96  | BRAZIL          | RIO CUIABA, CUIABA        | 16.0S  | 56.0W | 9.1S  | 75.2W | 40 | LO | 250 | N | Y | 19910409 | 183925 | 240 | 295 | 39  | 65 |    |
| 83 | 97  | BRAZIL          | RIO CUIABA, SWAMP         | 16.1S  | 56.0W | 9.0S  | 75.4W | 40 | LO | 250 | N | Y | 19910409 | 183928 | 240 | 294 | 39  | 65 |    |
| 83 | 98  | BRAZIL          | RIO CUIABA, SWAMP         | 16.4S  | 55.6W | 8.9S  | 75.5W | 50 | LO | 250 | N | Y | 19910409 | 183933 | 240 | 294 | 39  | 65 |    |
| 83 | 99  | BRAZIL          | SWAMP, AGR.               | 16.3S  | 55.4W | 8.8S  | 75.6W | 40 | LO | 250 | N | Y | 19910409 | 183936 | 240 | 294 | 39  | 65 |    |
| 83 | 100 | BRAZIL          | AGR, RIO SAO LOURENCO     | 16.0S  | 55.4W | 8.7S  | 75.8W | 40 | LO | 250 | N | Y | 19910409 | 183940 | 240 | 294 | 38  | 65 |    |
| 83 | 101 | BRAZIL          | RONDONOPOLIS, R. LOURENCO | 16.4S  | 54.6W | 8.6S  | 76.0W | 50 | LO | 250 | N | Y | 19910409 | 183946 | 240 | 294 | 38  | 65 |    |
| 83 | 102 | BRAZIL          | RIO SAO LOURENCO, AGR.    | 16.1S  | 54.2W | 8.5S  | 76.1W | 50 | LO | 250 | N | Y | 19910409 | 183949 | 240 | 294 | 38  | 65 |    |
| 83 | 103 | BRAZIL          | AGRICULTURE               |        |       | 8.4S  | 76.3W | 60 | LO | 250 | N | Y | 19910409 | 183955 | 240 | 294 | 37  | 65 |    |
| 83 | 104 | BRAZIL          | AGRICULTURE               |        |       | 8.3S  | 76.5W | 60 | LO | 250 | N | Y | 19910409 | 184000 | 240 | 294 | 37  | 65 |    |
| 83 | 105 | BRAZIL          | AGRICULTURE               |        |       | 8.2S  | 76.7W | 50 | LO | 250 | N | N | 19910409 | 184005 | 240 | 294 | 37  | 65 |    |
| 83 | 106 | BRAZIL          | AGRICULTURE               |        |       | 8.1S  | 76.9W | 50 | LO | 250 | N | N | 19910409 | 184011 | 240 | 294 | 36  | 65 |    |
| 83 | 107 | BRAZIL          | AGRICULTURE               |        |       | 8.0S  | 77.1W | 40 | LO | 250 | N | N | 19910409 | 184016 | 240 | 294 | 36  | 65 |    |
| 85 | 21  | BRAZIL          | AMAZON BASIN, E. MANAUS   |        |       | 2.7S  | 58.5W | 90 | LO | 250 | N | N | 19910408 | 173649 | 245 | 291 | 62  | 49 |    |
| 85 | 22  | BRAZIL          | AMAZON BASIN, E. MANAUS   |        |       | 2.8S  | 58.4W | 80 | LO | 250 | N | N | 19910408 | 173651 | 245 | 291 | 62  | 49 |    |
| 85 | 23  | BRAZIL          | AMAZON BASIN, E. MANAUS   |        |       | 2.9S  | 58.2W | 80 | LO | 250 | N | N | 19910408 | 173655 | 245 | 291 | 62  | 49 |    |
| 85 | 24  | BRAZIL          | AMAZON R. JUNCTION TAPAJO | 2.7S   | 55.0W | 5.0S  | 54.5W | 80 | LO | 250 | N | N | 19910408 | 173805 | 245 | 292 | 58  | 49 |    |
| 85 | 25  | BRAZIL          | AMAZON R. JUNCTION TAPAJO | 2.3S   | 54.8W | 5.2S  | 54.3W | 80 | LO | 250 | N | N | 19910408 | 173810 | 245 | 292 | 57  | 49 |    |
| 85 | 26  | BRAZIL          | AMAZON R. JUNCTION TAPAJO | 2.3S   | 54.8W | 5.3S  | 54.0W | 80 | LO | 250 | N | N | 19910408 | 173816 | 245 | 292 | 57  | 49 |    |
| 85 | 27  | BRAZIL          | AMAZON RIVER, E. MANAUS   |        |       | 6.1S  | 52.7W | 90 | LO | 250 | N | N | 19910408 | 173841 | 245 | 292 | 55  | 49 |    |
| 85 | 28  | BRAZIL          | COAST, CAMAMU AREA        | 14.0S  | 39.2W | 14.0S | 37.7W | 80 | LO | 250 | N | N | 19910408 | 174317 | 245 | 291 | 38  | 49 |    |
| 85 | 29  | BRAZIL          | COAST, BELMONTE AREA      | 15.9S  | 39.0W | 14.3S | 37.1W | 70 | LO | 250 | N | N | 19910408 | 174328 | 245 | 291 | 37  | 49 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|-----------------|----------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 86 | 100 | BRAZIL          | AMAZON RIVER, SEDIMENT     |                   | 6.2N 50.0W       | 90 | LO | 250 | N | N | 19910408 | 155828 | 248 | 276 | 80        | 48 |
| 86 | 101 | BRAZIL          | AMAZON RIVER, SEDIMENT     |                   | 5.4N 48.7W       | 90 | LO | 250 | N | N | 19910408 | 155853 | 246 | 279 | 79        | 48 |
| 86 | 102 | BRAZIL          | TREVARTHA'S MUMP AREA      |                   | 3.7S 32.9W       | 40 | LO | 250 | N | N | 19910408 | 160355 | 245 | 291 | 60        | 48 |
| 86 | 103 | BRAZIL          | JOAO PESSOA AREA           | 5.5S 35.3W        | 6.8S 34.9W       | 60 | LO | 250 | N | N | 19910408 | 160458 | 245 | 292 | 56        | 48 |
| 89 | 67  | BRAZIL          | RIO NEGRO, RIO BRANCO      | 1.7S 61.4W        | 2.3S 59.3W       | 65 | LO | 250 | U | Y | 19910408 | 173634 | 245 | 291 | 64        | 49 |
| 89 | 68  | BRAZIL          | RIO NEGRO, RIO BRANCO      | 1.4S 61.8W        | 2.4S 59.0W       | 70 | LO | 250 | U | Y | 19910408 | 173640 | 245 | 291 | 63        | 49 |
| 89 | 69  | BRAZIL          | RIO JAUAPERI, RIO BRANCO   | 1.0S 61.7W        | 2.5S 58.9W       | 60 | LO | 250 | U | Y | 19910408 | 173642 | 245 | 291 | 63        | 49 |
| 89 | 70  | BRAZIL          | ROADS, AGR. HILLS          |                   | 10.4S 44.9W      | 80 | LO | 250 | U | Y | 19910408 | 174106 | 245 | 292 | 46        | 49 |
| 89 | 71  | BRAZIL          | RIO GURGUEIA, ROADS        | 9.7S 45.0W        | 10.6S 44.5W      | 85 | NV | 250 | U | Y | 19910408 | 174114 | 245 | 292 | 46        | 49 |
| 89 | 72  | BRAZIL          | RIO GURGUEIA, L. PARNAGUA  | 9.9S 44.8W        | 10.8S 44.1W      | 85 | NV | 250 | U | Y | 19910408 | 174121 | 245 | 292 | 45        | 49 |
| 89 | 73  | BRAZIL          | RIO GURGUEIA, L. PARNAGUA  | 10.2S 44.7W       | 11.0S 43.7W      | 85 | NV | 250 | U | Y | 19910408 | 174128 | 245 | 292 | 45        | 49 |
| 89 | 74  | BRAZIL          | RIO SAO FRANCISCO          | 10.0S 42.2W       | 11.6S 42.6W      | 80 | LO | 250 | U | N | 19910408 | 174148 | 245 | 292 | 44        | 49 |
| 89 | 75  | BRAZIL          | RIO SAO FRANCISCO          | 11.0S 43.0W       | 11.9S 41.9W      | 85 | LO | 250 | U | Y | 19910408 | 174201 | 245 | 291 | 43        | 49 |
| 89 | 76  | BRAZIL          | RIO SAO FRANCISCO          | 10.8S 42.6W       | 12.0S 41.8W      | 85 | LO | 250 | U | Y | 19910408 | 174204 | 245 | 291 | 43        | 49 |
| 89 | 77  | BRAZIL          | RIO SAO FRANCISCO          | 11.8S 43.3W       | 12.4S 41.0W      | 75 | LO | 250 | U | N | 19910408 | 174218 | 245 | 291 | 42        | 49 |
| 89 | 78  | BRAZIL          | RIO CONTAS, SRA SINCORA    | 14.0S 41.5W       | 12.7S 40.3W      | 50 | LO | 250 | U | Y | 19910408 | 174230 | 245 | 291 | 41        | 49 |
| 89 | 79  | BRAZIL          | RIO CONTAS, SRA SINCORA    | 14.1S 41.1W       | 12.9S 40.1W      | 50 | LO | 250 | U | Y | 19910408 | 174235 | 245 | 291 | 41        | 49 |
| 89 | 80  | BRAZIL          | RIO CONTAS, HILLS, AGR     | 13.9S 40.8W       | 13.2S 39.3W      | 75 | LO | 250 | U | Y | 19910408 | 174248 | 245 | 291 | 40        | 49 |
| 89 | 81  | BRAZIL          | RIO CONTAS, HILLS, AGR     | 13.9S 40.4W       | 13.3S 39.1W      | 80 | LO | 250 | U | Y | 19910408 | 174252 | 245 | 291 | 40        | 49 |
| 89 | 82  | BRAZIL          | COAST                      | 13.4S 39.0W       | 13.7S 38.3W      | 75 | NV | 250 | U | N | 19910408 | 174306 | 245 | 291 | 39        | 49 |
| 89 | 86  | BRAZIL          | DARK                       |                   | 25.5S 53.2W      | 5  | LO | 250 | U | N | 19910408 | 205908 | 244 | 280 | 5         | 51 |
| 90 | 116 | BRAZIL          | CAPE/RIO CASIPORE, COAST   | 3.5N 51.0W        | 4.7N 51.1W       | 70 | LO | 250 | N | N | 19910408 | 171555 | 243 | 274 | 62        | 18 |
| 90 | 118 | BRAZIL          | RIO ARAGUARI, AMAZON DEL.  | 1.2N 50.1W        | 3.4N 48.9W       | 70 | LO | 250 | N | N | 19910408 | 171637 | 243 | 276 | 60        | 18 |
| 90 | 119 | BRAZIL          | CAVIANA I., AMAZON DELTA   | 0.4N 49.6W        | 3.3W 48.7W       | 75 | LO | 250 | N | N | 19910408 | 171642 | 243 | 277 | 60        | 18 |
| 90 | 120 | BRAZIL          | AMAZON RIVER               | 0.8S 51.2W        | 2.2N 46.8W       | 70 | LO | 250 | N | N | 19910408 | 171718 | 243 | 278 | 57        | 18 |
| 90 | 121 | BRAZIL          | COAST                      | 1.0S 47.0W        | 1.5N 45.8W       | 80 | LO | 250 | U | N | 19910408 | 171741 | 243 | 279 | 56        | 18 |
| 90 | 122 | BRAZIL          | COAST                      | 1.0S 46.0W        | 1.4N 45.4W       | 80 | LO | 250 | U | N | 19910408 | 171744 | 243 | 279 | 56        | 18 |
| 91 | 43  | BRAZIL          | RIO NEGRO, RIO ICAMA, DARK | 0.5N 67.5W        | 0.3W 69.4W       | 75 | LO | 250 | U | N | 19910405 | 193011 | 243 | 278 | 47        | 4  |
| 91 | 44  | BRAZIL          | RIO NEGRO, FOREST, DARK    | 0.5S 66.5W        | 0.1S 68.7W       | 75 | LO | 250 | U | Y | 19910405 | 193024 | 243 | 279 | 46        | 4  |
| 91 | 45  | BRAZIL          | RIO NEGRO, FOREST, V. DARK | 0.0 67.0W         | 0.6S 67.9W       | 85 | NV | 250 | U | Y | 19910405 | 193039 | 243 | 279 | 45        | 4  |
| 91 | 46  | BRAZIL          | AMAZON R. FOREST, DARK     | 2.5S 65.5W        | 2.2S 65.1W       | 80 | NV | 250 | N | N | 19910405 | 193133 | 242 | 280 | 42        | 4  |
| 91 | 47  | BRAZIL          | AMAZON R. RIO JAPURA       | 3.0S 65.0W        | 2.3S 64.9W       | 70 | LO | 250 | N | N | 19910405 | 193136 | 242 | 280 | 42        | 4  |
| 91 | 48  | BRAZIL          | AMAZON RIVER               | 3.5S 64.5W        | 2.4S 64.8W       | 60 | NV | 250 | N | N | 19910405 | 193139 | 242 | 280 | 41        | 4  |
| 91 | 49  | BRAZIL          | AMAZON R. PARANA COPEA R.  | 4.0S 63.5W        | 3.1S 63.6W       | 50 | NV | 250 | N | N | 19910405 | 193201 | 242 | 280 | 40        | 4  |
| 91 | 50  | BRAZIL          | AMAZON RIVER, FOREST       | 3.5S 64.5W        | 3.2S 63.4W       | 50 | LO | 250 | N | N | 19910405 | 193206 | 242 | 280 | 40        | 4  |
| 91 | 51  | BRAZIL          | RIO PURUS, CLOUDS          | 5.0S 62.5W        | 4.6S 61.2W       | 85 | LO | 250 | N | N | 19910405 | 193247 | 242 | 281 | 37        | 4  |
| 91 | 52  | BRAZIL          | RIO MADEIRA, CLOUDS        | 5.5S 60.5W        | 5.0S 60.3W       | 80 | NV | 250 | N | Y | 19910405 | 193304 | 242 | 281 | 36        | 4  |
| 91 | 53  | BRAZIL          | RIO MADEIRA, CLOUDS        | 5.0S 60.5W        | 5.5S 59.4W       | 80 | NV | 250 | N | Y | 19910405 | 193322 | 242 | 281 | 35        | 4  |
| 91 | 54  | BRAZIL          | VERY DARK, CLOUDS          |                   | 8.3S 54.4W       | 60 | LO | 250 | U | N | 19910405 | 193456 | 242 | 281 | 29        | 4  |
| 91 | 55  | BRAZIL          | VERY DARK, CLOUDS          |                   | 9.9S 51.5W       | 70 | LO | 250 | U | N | 19910405 | 193550 | 242 | 281 | 26        | 4  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                     | CENTER<br>LAT | LONG  | MADIR<br>LAT | LONG  | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|-----------------------------|---------------|-------|--------------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 91 | 56  | BRAZIL          | VERY DARK, CLOUDS           |               |       | 10.2S        | 50.9W | 70 | LO | 250 | U | N | 19910405 | 193601 | 242 | 281 | 26        | 4  |
| 91 | 57  | BRAZIL          | VERY DARK, CLOUDS           |               |       | 10.6S        | 50.2W | 60 | LO | 250 | U | Y | 19910405 | 193613 | 242 | 281 | 24        | 4  |
| 91 | 58  | BRAZIL          | VERY DARK, CLOUDS           |               |       | 10.7S        | 50.0W | 60 | LO | 250 | U | Y | 19910405 | 193617 | 242 | 281 | 24        | 4  |
| 91 | 59  | BRAZIL          | VERY DARK, CLOUDS           |               |       | 11.1S        | 49.2W | 70 | LO | 250 | U | Y | 19910405 | 193632 | 242 | 281 | 23        | 4  |
| 91 | 60  | BRAZIL          | RIO TOCANTINS, VERY DARK    | 11.5S         | 48.5W | 11.7S        | 48.1W | 60 | NV | 250 | U | N | 19910405 | 193663 | 242 | 281 | 22        | 4  |
| 91 | 61  | BRAZIL          | RIO TOCANTINS, VERY DARK    | 12.0S         | 48.5W | 11.8S        | 47.9W | 40 | NV | 250 | U | N | 19910405 | 193657 | 243 | 281 | 22        | 4  |
| 91 | 62  | BRAZIL          | R. TOCANTINS, R. PARANA-NO. | 12.5S         | 48.0W | 11.9S        | 47.7W | 30 | NV | 250 | U | N | 19910405 | 193700 | 243 | 281 | 22        | 4  |
| 91 | 63  | BRAZIL          | VERY DARK, CLOUDS           |               |       | 12.0S        | 47.5W | 60 | LO | 250 | U | N | 19910405 | 193704 | 243 | 281 | 21        | 4  |
| 91 | 64  | BRAZIL          | VERY DARK, STREAM           |               |       | 12.1S        | 47.3W | 50 | LO | 250 | U | N | 19910405 | 193708 | 243 | 281 | 21        | 4  |
| 91 | 65  | BRAZIL          | VERY DARK, CLOUDS           |               |       | 12.3S        | 46.8W | 30 | LO | 250 | U | N | 19910405 | 193716 | 243 | 281 | 21        | 4  |
| 91 | 66  | BRAZIL          | VERY DARK, CLOUDS           |               |       | 12.6S        | 46.2W | 50 | LO | 250 | U | N | 19910405 | 193727 | 243 | 281 | 20        | 4  |
| 91 | 67  | BRAZIL          | VERY DARK, CLOUDS           |               |       | 13.7S        | 44.1W | 30 | LO | 250 | U | N | 19910405 | 193805 | 243 | 281 | 17        | 4  |
| 91 | 68  | BRAZIL          | VERY DARK, CLOUDS           |               |       | 14.0S        | 43.4W | 40 | LO | 250 | U | N | 19910405 | 193817 | 243 | 281 | 17        | 4  |
| 91 | 69  | BRAZIL          | RIO SAO FRANCISCO, V. DARK  | 14.5S         | 43.5W | 14.2S        | 43.1W | 40 | NV | 250 | U | N | 19910405 | 193823 | 243 | 281 | 16        | 4  |
| 91 | 70  | BRAZIL          | VERY DARK, HILLS, CLOUDS    |               |       | 14.6S        | 42.2W | 30 | LO | 250 | U | N | 19910405 | 193839 | 243 | 280 | 15        | 4  |
| 91 | 71  | BRAZIL          | VERY DARK, HILLS, CLOUDS    |               |       | 14.8S        | 41.9W | 60 | LO | 250 | U | N | 19910405 | 193845 | 243 | 280 | 15        | 4  |
| 91 | 72  | BRAZIL          | VERY DARK, HILLS, CLOUDS    |               |       | 16.1S        | 38.9W | 30 | LO | 250 | U | N | 19910405 | 193937 | 243 | 280 | 12        | 4  |
| 91 | 73  | BRAZIL          | RIO DOCE, COAST             | 19.5S         | 40.0W | 17.3S        | 36.3W | 60 | LO | 250 | U | N | 19910405 | 194022 | 243 | 279 | 9         | 4  |
| 92 | 1   | BRAZIL          | TREWARHA HUMP AREA          | 5.0S          | 35.0W | 6.7S         | 31.5W | 50 | LO | 250 | U | N | 19910406 | 172210 | 243 | 284 | 39        | 18 |
| 92 | 2   | BRAZIL          | TREWARHA HUMP AREA          | 5.5S          | 35.4W | 7.1S         | 30.8W | 50 | LO | 250 | N | N | 19910406 | 172223 | 243 | 284 | 39        | 18 |
| 92 | 16  | BRAZIL          | AMAZON RIVER                | 2.5S          | 66.5W | 0.1N         | 67.1W | 70 | LO | 250 | N | N | 19910406 | 185152 | 243 | 280 | 54        | 19 |
| 92 | 17  | BRAZIL          | AMAZON RIVER                | 2.6S          | 65.5W | 0.0N         | 67.0W | 70 | LO | 250 | N | N | 19910406 | 185155 | 243 | 281 | 54        | 19 |
| 92 | 18  | BRAZIL          | AMAZON RIVER                | 3.2S          | 64.5W | 0.1S         | 66.8W | 60 | LO | 250 | N | N | 19910406 | 185159 | 243 | 281 | 53        | 19 |
| 92 | 19  | BRAZIL          | PARA PROV. FORESTRY, AGRI.  |               |       | 7.5S         | 53.9W | 80 | LO | 250 | N | N | 19910406 | 185604 | 243 | 284 | 38        | 19 |
| 92 | 20  | BRAZIL          | PARA PROV., VRY CLOUDY      |               |       | 7.9S         | 53.3W | 95 | LO | 250 | N | N | 19910406 | 185616 | 243 | 284 | 37        | 19 |
| 92 | 21  | BRAZIL          | PARA PROV., VRY CLOUDY      |               |       | 8.8S         | 51.5W | 90 | LO | 250 | N | N | 19910406 | 185649 | 243 | 284 | 35        | 19 |
| 92 | 108 | BRAZIL          | NEAR MANAUS, AMAZON FLOOD   |               |       | 2.7S         | 60.4W | 80 | LO | 250 | N | N | 19910407 | 181455 | 243 | 286 | 55        | 34 |
| 92 | 109 | BRAZIL          | AMAZON R., NEAR MANAUS      |               |       | 3.0S         | 59.9W | 99 | LO | 250 | N | N | 19910407 | 181504 | 243 | 286 | 55        | 34 |
| 94 | 1   | BRAZIL          | AMAZON R. DELTA PLUME       | 0.5N          | 49.5W |              |       | 40 | HO | 100 | N | N |          |        |     |     |           |    |
| 94 | 2   | BRAZIL          | NE BRAZIL COAST             | 0.6S          | 47.0W |              |       | 50 | LO | 100 | N | Y |          |        |     |     |           |    |
| 94 | 3   | BRAZIL          | NE BRAZIL COAST             | 1.0S          | 46.0W |              |       | 50 | LO | 100 | N | Y |          |        |     |     |           |    |
| 94 | 4   | BRAZIL          | NE BRAZIL C., SAO LUIS      | 2.0S          | 44.0W |              |       | 40 | LO | 100 | N | N |          |        |     |     |           |    |
| 94 | 5   | BRAZIL          | NE BRAZIL C., PARNAIBA      | 2.5S          | 42.5W |              |       | 40 | LO | 100 | U | Y |          |        |     |     |           |    |
| 94 | 6   | BRAZIL          | NE BRAZIL C., PARNAIBA      | 2.5S          | 41.0W |              |       | 35 | LO | 100 | N | Y |          |        |     |     |           |    |
| 94 | 7   | BRAZIL          | NE BRAZIL C., FORTALEZA     | 3.5S          | 38.5W |              |       | 40 | LO | 100 | N | N |          |        |     |     |           |    |
| 94 | 8   | BRAZIL          | NE BRAZIL COAST             | 5.0S          | 36.5W |              |       | 30 | LO | 100 | N | N |          |        |     |     |           |    |
| 94 | 9   | BRAZIL          | NE BRAZIL C., NATAL         | 6.0S          | 35.5W |              |       | 30 | LO | 100 | N | Y |          |        |     |     |           |    |
| 94 | 10  | BRAZIL          | NE BRAZIL C., RECIFE        | 7.5S          | 35.0W |              |       | 35 | LO | 100 | U | Y |          |        |     |     |           |    |
| 94 | 11  | BRAZIL          | BRAZIL COAST SHIP WAKES     | 5.0S          | 36.5W |              |       | 35 | HO | 100 | N | N |          |        |     |     |           |    |
| 94 | 20  | BRAZIL          | AMAZON, JAPURA RIVERS       | 3.0S          | 66.0W |              |       | 55 | LO | 100 | N | N |          |        |     |     |           |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | CENTER<br>LONG | NADIR<br>LAT | NADIR<br>LONG | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL OR |    |
|-----|----|-----------------|--------------------------|---------------|----------------|--------------|---------------|----|----|-----|---|---|----------|--------|-----|-----|--------------|----|
| 94  | 21 | BRAZIL          | THUNDERSTORMS AMAZON BAS |               |                |              |               | 75 | LO | 100 | U | N |          |        |     |     |              |    |
| 94  | 22 | BRAZIL          | ARAGUAIA RIVER           | 13.0S         | 50.5W          |              |               | 40 | LO | 100 | N | N |          |        |     |     |              |    |
| 94  | 23 | BRAZIL          | TOCANTINS RIVER BASIN    | 11.0S         | 48.5W          |              |               | 45 | LO | 100 | N | N |          |        |     |     |              |    |
| 94  | 24 | BRAZIL          | LAND USE E. TOCANTINS R. |               |                |              |               | 50 | LO | 100 | N | N |          |        |     |     |              |    |
| 94  | 25 | BRAZIL          | SAO FRANCISCO R. BASIN   | 13.0S         | 43.5W          |              |               | 30 | LO | 100 | N | N |          |        |     |     |              |    |
| 94  | 26 | BRAZIL          | SAO FRANCISCO R. MOUTH   | 10.5S         | 36.5W          |              |               | 65 | HO | 100 | N | N |          |        |     |     |              |    |
| 94  | 27 | BRAZIL          | SAO FRANCISCO R. MOUTH   | 11.0S         | 36.0W          |              |               | 70 | HO | 100 | U | N |          |        |     |     |              |    |
| 96  | 56 | BRAZIL          | AMAZON RIVER             | 2.0S          | 56.0W          |              |               | 70 | LO | 100 | N | Y |          |        |     |     |              |    |
| 96  | 57 | BRAZIL          | AMAZON RIVER             | 2.0S          | 56.0W          |              |               | 70 | LO | 100 | N | Y |          |        |     |     |              |    |
| 96  | 58 | BRAZIL          | SAO FRANCISCO RIVER      | 9.5S          | 40.5W          |              |               | 65 | LO | 100 | N | Y |          |        |     |     |              |    |
| 96  | 59 | BRAZIL          | SAO FRANCISCO RIVER      | 8.5S          | 40.5W          |              |               | 55 | LO | 100 | N | Y |          |        |     |     |              |    |
| 96  | 60 | BRAZIL          | SAO FRANCISCO RIVER      | 9.0S          | 40.0W          |              |               | 70 | HO | 100 | N | Y |          |        |     |     |              |    |
| 96  | 61 | BRAZIL          | COAST NEAR CARAVELAS     | 18.0S         | 38.0W          |              |               | 65 | HO | 100 | U | N |          |        |     |     |              |    |
| 98  | 88 | BRAZIL          | INTERIOR                 |               |                | 4.0S         | 58.1W         | 90 | LO | 250 | N | N | 19910407 | 181538 | 243 | 287 | 53           | 34 |
| 98  | 89 | BRAZIL          |                          |               |                | 5.8S         | 55.0W         | 90 | LO | 250 | N | N | 19910407 | 181637 | 243 | 287 | 49           | 34 |
| 98  | 90 | BRAZIL          |                          |               |                | 6.3S         | 54.2W         | 90 | LO | 250 | N | N | 19910407 | 181652 | 243 | 287 | 48           | 34 |
| 98  | 91 | BRAZIL          | PANTANAL AREA            |               |                | 16.6S        | 57.9W         | 40 | LO | 250 | N | N | 19910407 | 195627 | 244 | 286 | 25           | 35 |
| 98  | 92 | BRAZIL          | PANTANAL AREA            |               |                | 17.1S        | 56.8W         | 70 | LO | 250 | N | N | 19910407 | 195646 | 244 | 286 | 24           | 35 |
| 98  | 93 | BRAZIL          | PANTANAL AREA            |               |                | 17.2S        | 56.4W         | 80 | LO | 250 | N | N | 19910407 | 195652 | 244 | 285 | 23           | 35 |
| 98  | 94 | BRAZIL          | SE. OF PANTANAL AREA     |               |                | 17.7S        | 55.4W         | 40 | LO | 250 | N | N | 19910407 | 195710 | 244 | 285 | 22           | 35 |
| 98  | 95 | BRAZIL          | SE. OF PANTANAL AREA     |               |                | 18.0S        | 54.6W         | 60 | LO | 250 | N | N | 19910407 | 195724 | 244 | 285 | 21           | 35 |
| 151 | 36 | BRAZIL          | RIO NEGRO                | 0.0           | 67.0W          | 0.6S         | 67.9W         | 50 | NV | 250 | N | Y | 19910406 | 193039 | 243 | 279 | 45           | 4  |
| 151 | 37 | BRAZIL          | RIO NEGRO                | 0.5S          | 66.5W          | 0.7S         | 67.7W         | 55 | LO | 250 | N | Y | 19910406 | 193044 | 243 | 279 | 45           | 4  |
| 151 | 38 | BRAZIL          | AMAZON RIVER             | 2.5S          | 66.5W          | 1.0S         | 67.1W         | 60 | LO | 250 | N | N | 19910406 | 193055 | 243 | 279 | 44           | 4  |
| 151 | 39 | BRAZIL          | AMAZON RIVER             | 2.5S          | 65.0W          | 1.8S         | 65.8W         | 70 | LO | 250 | N | Y | 19910406 | 193120 | 243 | 280 | 43           | 4  |
| 151 | 40 | BRAZIL          | AMAZON RIVER             | 3.5S          | 65.0W          | 1.9S         | 65.6W         | 70 | LO | 250 | N | Y | 19910406 | 193124 | 243 | 280 | 42           | 4  |
| 151 | 41 | BRAZIL          | AMAZON RIVER             | 3.5S          | 64.5W          | 2.1S         | 65.3W         | 70 | LO | 250 | N | Y | 19910406 | 193129 | 243 | 280 | 42           | 4  |
| 151 | 42 | BRAZIL          | RIO NEGRO, RIO JAPURA    | 1.0S          | 66.0W          | 2.5S         | 64.6W         | 70 | LO | 250 | N | N | 19910406 | 193142 | 242 | 280 | 41           | 4  |
| 151 | 43 | BRAZIL          | AMAZON RIVER             | 3.5S          | 64.0W          | 2.9S         | 63.9W         | 65 | NV | 250 | N | Y | 19910406 | 193156 | 242 | 280 | 40           | 4  |
| 151 | 44 | BRAZIL          | AMAZON RIVER             | 3.5S          | 64.0W          | 3.5S         | 62.8W         | 65 | LO | 250 | N | Y | 19910406 | 193216 | 242 | 280 | 39           | 4  |
| 151 | 45 | BRAZIL          | RIO MADEIRA              | 4.5S          | 60.5W          | 5.1S         | 60.1W         | 70 | NV | 250 | N | N | 19910406 | 193309 | 242 | 281 | 36           | 4  |
| 151 | 46 | BRAZIL          | RIO ARIQUANA, ROAD       | 7.5S          | 61.0W          | 5.9S         | 58.7W         | 70 | LO | 250 | N | N | 19910406 | 193334 | 242 | 281 | 34           | 4  |
| 151 | 47 | BRAZIL          | RIVER, AGRICULTURE       |               |                | 7.7S         | 56.5W         | 55 | LO | 250 | N | N | 19910406 | 193436 | 242 | 281 | 31           | 4  |
| 151 | 48 | BRAZIL          | RIO PEIXOTO DE AZEVEDO   | 10.0S         | 55.0W          | 8.3S         | 54.4W         | 50 | LO | 250 | N | Y | 19910406 | 193455 | 242 | 281 | 29           | 4  |
| 151 | 49 | BRAZIL          | SERRA DO CACHIMBO        | 10.0S         | 54.0W          | 8.5S         | 54.1W         | 50 | LO | 250 | N | Y | 19910406 | 193502 | 242 | 281 | 29           | 4  |
| 151 | 50 | BRAZIL          | RIO XINGU, AGRICULTURE   | 10.5S         | 53.0W          | 9.0S         | 53.1W         | 40 | LO | 250 | N | Y | 19910406 | 193520 | 242 | 281 | 28           | 4  |
| 151 | 51 | BRAZIL          | RIO XINGU, AGRICULTURE   | 10.0S         | 52.5W          | 9.1S         | 52.9W         | 50 | NV | 250 | N | Y | 19910406 | 193523 | 242 | 281 | 28           | 4  |
| 151 | 52 | BRAZIL          | RIO XINGU                | 9.0S          | 52.0W          | 9.2S         | 52.7W         | 30 | NV | 250 | N | Y | 19910406 | 193528 | 242 | 281 | 27           | 4  |
| 151 | 53 | BRAZIL          | RIO XINGU                | 9.0S          | 53.0W          | 9.3S         | 52.5W         | 30 | NV | 250 | N | Y | 19910406 | 193531 | 242 | 281 | 27           | 4  |
| 151 | 54 | BRAZIL          | RIVER, AGRICULTURE       | 8.0S          | 51.5W          | 9.6S         | 52.0W         | 35 | LO | 250 | N | Y | 19910406 | 193541 | 242 | 281 | 27           | 4  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM | EL | OR |
|-----|----|-----------------|---------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |    |                 |                           | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 151 | 55 | BRAZIL          | AGRICULTURE               | 10.0S  | 51.5W | 9.7S  | 51.8W | 20 | NV | 250 | N | Y | 19910405 | 193545 | 242 | 281 | 26  | 4  |    |
| 151 | 56 | BRAZIL          | AGRICULTURE, RIO TAPIRAPE | 10.5S  | 51.0W | 9.9S  | 51.5W | 15 | NV | 250 | N | Y | 19910405 | 193549 | 242 | 281 | 26  | 4  |    |
| 151 | 57 | BRAZIL          | RIO ARAGUAIA              | 11.5S  | 51.0W | 10.0S | 51.2W | 15 | LO | 250 | N | Y | 19910405 | 193555 | 242 | 281 | 26  | 4  |    |
| 151 | 58 | BRAZIL          | RIO ARAGUAIA              | 10.0S  | 50.0W | 10.5S | 50.3W | 15 | NV | 250 | N | N | 19910405 | 193612 | 242 | 281 | 25  | 4  |    |
| 151 | 59 | BRAZIL          | RIO ARAGUAIA              | 10.0S  | 50.0W | 10.6S | 50.1W | 15 | NV | 250 | N | Y | 19910405 | 193616 | 242 | 281 | 24  | 4  |    |
| 151 | 60 | BRAZIL          | RIO LEVER, RIO ARAGUAIA   | 10.5S  | 50.0W | 10.7S | 49.9W | 20 | NV | 250 | N | Y | 19910405 | 193619 | 242 | 281 | 24  | 4  |    |
| 151 | 61 | BRAZIL          | RIO ARAGUAIA              | 11.5S  | 50.0W | 10.9S | 49.7W | 20 | NV | 250 | N | Y | 19910405 | 193624 | 242 | 281 | 24  | 4  |    |
| 151 | 62 | BRAZIL          | RIO ARAGUAIA              | 12.5S  | 50.0W | 11.2S | 49.1W | 20 | LO | 250 | N | Y | 19910405 | 193635 | 242 | 281 | 23  | 4  |    |
| 151 | 63 | BRAZIL          | RIO TOCANTINS             | 12.0S  | 49.0W | 11.3S | 48.9W | 20 | NV | 250 | N | Y | 19910405 | 193638 | 242 | 281 | 23  | 4  |    |
| 151 | 64 | BRAZIL          | RIO TOCANTINS             | 11.5S  | 48.5W | 11.4S | 48.7W | 15 | NV | 250 | N | Y | 19910405 | 193642 | 242 | 281 | 23  | 4  |    |
| 151 | 65 | BRAZIL          | RIO TOCANTINS             | 10.5S  | 48.0W | 11.5S | 48.4W | 15 | LO | 250 | N | Y | 19910405 | 193647 | 242 | 281 | 22  | 4  |    |
| 151 | 66 | BRAZIL          | RIO TOCANTINS             | 13.0S  | 48.5W | 11.7S | 48.1W | 20 | LO | 250 | N | Y | 19910405 | 193653 | 242 | 281 | 22  | 4  |    |
| 151 | 67 | BRAZIL          | RIO TOCANTINS             | 12.5S  | 48.0W | 11.8S | 47.9W | 10 | NV | 250 | N | Y | 19910405 | 193657 | 243 | 281 | 22  | 4  |    |
| 151 | 68 | BRAZIL          | HILLS, RIO TOCANTINS      | 12.0S  | 47.5W | 11.9S | 47.6W | 15 | NV | 250 | N | Y | 19910405 | 193701 | 243 | 281 | 22  | 4  |    |
| 151 | 69 | BRAZIL          | HILLS, SERRA NEGRA        | 11.0S  | 47.0W | 12.1S | 47.4W | 20 | LO | 250 | N | Y | 19910405 | 193706 | 243 | 281 | 21  | 4  |    |
| 151 | 70 | BRAZIL          | TOCANTINS R.-GERAL DO PA  | 14.5S  | 48.0W | 12.4S | 46.8W | 20 | LO | 250 | N | Y | 19910405 | 193717 | 243 | 281 | 21  | 4  |    |
| 151 | 71 | BRAZIL          | PARANA R.GERAL DO PARANA  | 14.0S  | 47.0W | 12.5S | 46.5W | 20 | LO | 250 | N | Y | 19910405 | 193721 | 243 | 281 | 20  | 4  |    |
| 151 | 72 | BRAZIL          | PARANA R.GERAL DO PARANA  | 13.5S  | 47.0W | 12.6S | 46.4W | 20 | NV | 250 | N | Y | 19910405 | 193724 | 243 | 281 | 20  | 4  |    |
| 151 | 73 | BRAZIL          | ESPIGAO RIDGE, ESPRAIAD S | 12.5S  | 46.5W | 12.7S | 46.1W | 30 | NV | 250 | N | Y | 19910405 | 193729 | 243 | 281 | 20  | 4  |    |
| 151 | 74 | BRAZIL          | ESPIGAO RIDGE             | 11.5S  | 46.5W | 12.9S | 45.8W | 40 | LO | 250 | N | Y | 19910405 | 193735 | 243 | 281 | 19  | 4  |    |
| 151 | 75 | BRAZIL          | PARANA R.-ESPIGAO RIDGE   | 15.0S  | 46.5W | 13.5S | 44.5W | 30 | LO | 250 | N | Y | 19910405 | 193757 | 243 | 281 | 18  | 4  |    |
| 151 | 76 | BRAZIL          | AGRICULTURE-SMOKE         | 14.0S  | 45.5W | 13.6S | 44.4W | 25 | LO | 250 | N | Y | 19910405 | 193800 | 243 | 281 | 18  | 4  |    |
| 151 | 77 | BRAZIL          | RIO SAO FRANCISCO-SMOKE?  | 15.0S  | 45.0W | 13.7S | 44.0W | 20 | LO | 250 | N | Y | 19910405 | 193806 | 243 | 281 | 18  | 4  |    |
| 151 | 78 | BRAZIL          | RIO SAO FRANCISCO-SMOKE?  | 14.5S  | 44.5W | 13.8S | 43.9W | 20 | NV | 250 | N | Y | 19910405 | 193809 | 243 | 281 | 17  | 4  |    |
| 151 | 79 | BRAZIL          | SAO FRANCISCO R. AGRICUL  | 14.0S  | 44.0W | 13.9S | 43.7W | 15 | NV | 250 | N | Y | 19910405 | 193812 | 243 | 281 | 17  | 4  |    |
| 151 | 80 | BRAZIL          | SAO FRANCISCO R. AGRICUL  | 13.0S  | 44.0W | 14.0S | 43.5W | 15 | NV | 250 | N | Y | 19910405 | 193815 | 243 | 281 | 17  | 4  |    |
| 151 | 81 | BRAZIL          | SAO FRANCISCO R. AGRICUL  | 12.0S  | 44.0W | 14.1S | 43.2W | 20 | LO | 250 | N | Y | 19910405 | 193821 | 243 | 281 | 17  | 4  |    |
| 151 | 82 | BRAZIL          | SAO FRANCISCO R.-HILLS    | 12.5S  | 43.0W | 14.2S | 43.0W | 20 | LO | 250 | N | Y | 19910405 | 193825 | 243 | 281 | 16  | 4  |    |
| 151 | 83 | BRAZIL          | CAETITE-HILLS             | 13.5S  | 43.0W | 14.3S | 42.8W | 15 | NV | 250 | N | Y | 19910405 | 193829 | 243 | 280 | 16  | 4  |    |
| 151 | 84 | BRAZIL          | CAETITE-HILLS             | 14.5S  | 42.5W | 14.5S | 42.5W | 15 | NV | 250 | N | Y | 19910405 | 193834 | 243 | 280 | 16  | 4  |    |
| 151 | 85 | BRAZIL          | HILLS, RIVERS, JEQUIE     | 13.5S  | 40.5W | 15.0S | 41.3W | 25 | LO | 250 | N | Y | 19910405 | 193855 | 243 | 280 | 14  | 4  |    |
| 151 | 86 | BRAZIL          | POCOES, HILLS             | 14.5S  | 40.5W | 15.1S | 41.1W | 30 | LO | 250 | N | Y | 19910405 | 193858 | 243 | 280 | 14  | 4  |    |
| 151 | 87 | BRAZIL          | JEQUIE, COASTLINE         | 14.0S  | 39.5W | 15.3S | 40.7W | 40 | LO | 250 | N | Y | 19910405 | 193905 | 243 | 280 | 14  | 4  |    |
| 151 | 88 | BRAZIL          | MACEIO, NE COAST BRAZIL   | 9.5S   | 35.5W | 16.2S | 36.8W | 25 | HO | 250 | N | N | 19910405 | 193940 | 243 | 280 | 12  | 4  |    |
| 151 | 90 | BRAZIL          | COAST, RIO DOCE           | 19.0S  | 39.0W | 17.1S | 36.7W | 60 | LO | 250 | N | N | 19910405 | 194018 | 243 | 279 | 9   | 4  |    |
| 152 | 68 | BRAZIL          | AMAZON RIVER-CLOUDS       | 2.5S   | 64.5W | 2.6S  | 62.4W | 50 | LO | 250 | N | N | 19910406 | 185322 | 243 | 282 | 48  | 19 |    |
| 152 | 69 | BRAZIL          | AMAZON RIVER-CLOUDS       | 3.5S   | 62.5W | 2.9S  | 62.0W | 85 | LO | 250 | N | N | 19910406 | 185331 | 243 | 283 | 48  | 19 |    |
| 152 | 70 | BRAZIL          | RIO SAO FRANCISCO, GRIDS  | 13.0S  | 43.5W | 13.4S | 42.8W | 25 | NV | 250 | N | N | 19910406 | 185928 | 243 | 284 | 25  | 19 |    |
| 153 | 42 | BRAZIL          | PARANA R., SAO SIMAO RES  | 19.5S  | 52.0W | 7.5S  | 77.8W | 25 | NV | 250 | N | N | 19910409 | 184039 | 240 | 293 | 34  | 65 |    |
| 153 | 43 | BRAZIL          | PARANA R., SOLTEIRA IS.   | 20.0S  | 50.5W |       |       | 25 | LO | 250 | N | Y |          |        |     |     |     |    |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER |       | NADIR |       | CC |    | TL  | FL | E | S        | DATE   | GMT | AL  | AZ | SUN | EL | OR |
|-----|-----|-----------------|--------------------------|--------|-------|-------|-------|----|----|-----|----|---|----------|--------|-----|-----|----|-----|----|----|
|     |     |                 |                          | LAT    | LONG  | LAT   | LONG  |    |    |     |    |   |          |        |     |     |    |     |    |    |
| 153 | 44  | BRAZIL          | SAO SIMAO R. PARANAIBA R | 19.0S  | 49.5W | 7.4S  | 77.9W | 25 | LO | 250 | N  | Y | 19910409 | 184045 | 240 | 293 | 34 | 65  |    |    |
| 153 | 45  | BRAZIL          | SAO SIMAO R. PARANAIBA R | 18.0S  | 50.0W |       |       | 30 | LO | 250 | N  | Y |          |        |     |     |    |     |    |    |
| 153 | 46  | BRAZIL          | TIETE R., VERMELHA RES.  | 20.5S  | 50.5W | 7.3S  | 78.2W | 20 | NV | 250 | N  | Y | 19910409 | 184054 | 240 | 293 | 33 | 65  |    |    |
| 153 | 47  | BRAZIL          | TIETE R., RIO GRANDE     | 21.0S  | 49.0W |       |       | 25 | LO | 250 | N  | Y |          |        |     |     |    |     |    |    |
| 153 | 48  | BRAZIL          | RIO GRANDE, LAND PATTERN | 21.0S  | 48.0W | 7.2S  | 78.3W | 45 | LO | 250 | N  | Y | 19910409 | 184059 | 240 | 293 | 33 | 65  |    |    |
| 153 | 49  | BRAZIL          | PROMISSAO RES., TIETE R. | 22.5S  | 49.0W |       |       | 35 | LO | 250 | N  | Y |          |        |     |     |    |     |    |    |
| 153 | 50  | BRAZIL          | AREA W. OF SAO PAULA     | 23.0S  | 47.5W | 7.0S  | 78.6W | 60 | LO | 250 | N  | N | 19910409 | 184110 | 240 | 292 | 32 | 65  |    |    |
| 153 | 51  | BRAZIL          | PARANA, PARANAPANEMA R.  | 22.5S  | 51.5W |       |       | 45 | LO | 250 | N  | N |          |        |     |     |    |     |    |    |
| 153 | 52  | BRAZIL          | UBERLANDIA, AGRICULTURE  | 19.0S  | 49.0W | 6.8S  | 78.9W | 50 | LO | 250 | U  | N | 19910409 | 184123 | 240 | 292 | 32 | 65  |    |    |
| 153 | 53  | BRAZIL          | AG. LAND USE             |        |       |       |       | 70 | HO | 250 | N  | N |          |        |     |     |    |     |    |    |
| 153 | 54  | BRAZIL          | AG. LAND USE             |        |       | 6.6S  | 79.3W | 65 | HO | 250 | U  | N | 19910409 | 184139 | 240 | 292 | 31 | 65  |    |    |
| 153 | 55  | BRAZIL          | PARANAIBA RIVER          | 18.5S  | 47.0W |       |       | 60 | HO | 250 | U  | N |          |        |     |     |    |     |    |    |
| 153 | 56  | BRAZIL          | FURNAS RES., GRANDE R.   | 19.5S  | 46.0W | 6.4S  | 79.6W | 60 | LO | 250 | N  | N | 19910409 | 184157 | 240 | 291 | 29 | 65  |    |    |
| 153 | 57  | BRAZIL          | FURNAS RES., GRANDE R.   | 21.5S  | 45.5W |       |       | 35 | LO | 250 | N  | Y |          |        |     |     |    |     |    |    |
| 153 | 58  | BRAZIL          | FURNAS RES., GRANDE R.   | 21.0S  | 44.5W | 6.3S  | 79.7W | 65 | LO | 250 | N  | Y | 19910409 | 184203 | 240 | 291 | 29 | 65  |    |    |
| 153 | 59  | BRAZIL          | SIERRA DO ES PINHACO     | 19.5S  | 43.5W | 6.1S  | 80.1W | 50 | LO | 250 | N  | N | 19910409 | 184228 | 240 | 291 | 27 | 65  |    |    |
| 153 | 60  | BRAZIL          | COAST NEAR CAPE FREE     | 22.5S  | 42.5W |       |       | 65 | LO | 250 | N  | N |          |        |     |     |    |     |    |    |
| 153 | 61  | BRAZIL          | SERRA DA MANTIQUEIRA     | 21.0S  | 43.0W | 6.0S  | 80.3W | 35 | LO | 250 | N  | N | 19910409 | 184238 | 240 | 290 | 27 | 65  |    |    |
| 153 | 62  | BRAZIL          | SERRA DA MANTIQUEIRA     | 20.5S  | 42.5W |       |       | 25 | LO | 250 | N  | Y |          |        |     |     |    |     |    |    |
| 153 | 63  | BRAZIL          | SERRA DA MANTIQUEIRA     | 20.5S  | 42.0W | 5.9S  | 80.4W | 30 | LO | 250 | N  | Y | 19910409 | 184246 | 240 | 290 | 26 | 65  |    |    |
| 153 | 64  | BRAZIL          | PARAIBA DO SUL RIVER     | 21.5S  | 41.5W |       |       | 30 | LO | 250 | N  | Y |          |        |     |     |    |     |    |    |
| 153 | 65  | BRAZIL          | DOCE R. MOUTH, VITORIA   | 20.5S  | 40.5W | 5.8S  | 80.5W | 30 | LO | 250 | N  | Y | 19910409 | 184256 | 240 | 290 | 26 | 65  |    |    |
| 153 | 66  | BRAZIL          | PARAIBA DO SUL R. MOUTH  | 21.5S  | 41.0W |       |       | 15 | LO | 250 | N  | Y |          |        |     |     |    |     |    |    |
| 153 | 67  | BRAZIL          | PARAIBA DO SUL R. MOUTH  | 22.5S  | 41.5W | 5.7S  | 80.6W | 45 | LO | 250 | N  | Y | 19910409 | 184305 | 240 | 290 | 25 | 65  |    |    |
| 153 | 68  | BRAZIL          | SAO TOME CAPE            | 22.5S  | 40.5W |       |       | 55 | LO | 250 | N  | Y |          |        |     |     |    |     |    |    |
| 153 | 136 | BRAZIL          | PARANA RIVER             | 25.5S  | 54.5W | 24.4S | 56.0W | 30 | LO | 250 | N  | Y | 19910409 | 201909 | 247 | 286 | 16 | 66  |    |    |
| 153 | 137 | BRAZIL          | PARANA RIVER             | 25.0S  | 54.0W |       |       | 15 | LO | 250 | N  | Y |          |        |     |     |    |     |    |    |
| 153 | 138 | BRAZIL          | PARANA RIVER, GUAIRA     | 24.0S  | 54.0W | 24.5S | 55.6W | 15 | LO | 250 | N  | Y | 19910409 | 201916 | 247 | 286 | 15 | 66  |    |    |
| 153 | 141 | BRAZIL          | PEPERI GUACO RIVER       | 26.5S  | 53.0W |       |       | 35 | LO | 250 | U  | Y |          |        |     |     |    |     |    |    |
| 153 | 142 | BRAZIL          | URUGUAY RIVER            | 26.5S  | 52.5W | 24.7S | 54.6W | 30 | LO | 250 | U  | Y | 19910409 | 201932 | 246 | 285 | 14 | 66  |    |    |
| 153 | 143 | BRAZIL          | PARANA RIVER, GUAIRA     | 24.0S  | 54.0W |       |       | 15 | LO | 250 | N  | N |          |        |     |     |    |     |    |    |
| 153 | 144 | BRAZIL          | PIGUARI RIVER            | 24.0S  | 53.0W | 24.9S | 54.0W | 55 | LO | 250 | U  | Y | 19910409 | 201941 | 246 | 285 | 13 | 66  |    |    |
| 153 | 145 | BRAZIL          | IGUACU RIVER             | 24.5S  | 53.5W |       |       | 45 | LO | 250 | U  | Y |          |        |     |     |    |     |    |    |
| 153 | 146 | BRAZIL          | IVAI RIVER               | 24.0S  | 51.5W | 25.1S | 53.0W | 35 | LO | 250 | U  | N | 19910409 | 201956 | 246 | 285 | 13 | 66  |    |    |
| 153 | 147 | BRAZIL          | NEAR PONTA GROSSA        | 24.5S  | 50.0W |       |       | 30 | LO | 250 | U  | Y |          |        |     |     |    |     |    |    |
| 153 | 148 | BRAZIL          | IVAI RIVER               | 24.5S  | 51.0W | 25.3S | 52.4W | 30 | LO | 250 | U  | Y | 19910409 | 202005 | 246 | 284 | 12 | 66  |    |    |
| 153 | 149 | BRAZIL          | NEAR PORTO UNIAO         | 25.6S  | 51.0W |       |       | 30 | LO | 250 | U  | N |          |        |     |     |    |     |    |    |
| 153 | 150 | BRAZIL          | NEAR LAJES               | 27.0S  | 50.5W | 25.4S | 51.7W | 25 | LO | 250 | U  | Y | 19910409 | 202017 | 246 | 284 | 11 | 66  |    |    |
| 153 | 151 | BRAZIL          | GREAL MTNS.              | 28.5S  | 50.5W |       |       | 10 | LO | 250 | U  | N |          |        |     |     |    |     |    |    |
| 153 | 152 | BRAZIL          | COAST S. OF CRICITUMA    | 29.0S  | 50.0W | 25.6S | 50.7W | 10 | LO | 250 | U  | Y | 19910409 | 202031 | 246 | 283 | 10 | 66  |    |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME    | FEATURE                  | CENTER<br>LAT<br>LON | MADR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|--------------------|--------------------------|----------------------|--------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 153 | 153 | BRAZIL             | CRICUMA, TUBARAO         | 29.0S 49.0W          |                    | 25 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 154 | BRAZIL             | DOS PATOS LAKE           | 31.0S 50.0W          | 25.8S 49.9W        | 60 | LO | 250 | N | N | 19910408 | 202044 | 246 | 283 | 9         | 86 |
| 153 | 155 | BRAZIL             | COAST S. OF TUBARAO      | 29.5S 49.0W          |                    | 30 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 156 | BRAZIL             | SAINT CATHERINE ISLAND   | 27.6S 48.5W          | 26.0S 48.9W        | 20 | LO | 250 | U | N | 19910409 | 202059 | 246 | 283 | 8         | 86 |
| 91  | 104 | BURMA              | HENG TUAN MTNS., CLOUDS  |                      | 27.7N 97.8E        | 30 | LO | 250 | N | N | 19910408 | 011722 | 246 | 97  | 26        | 8  |
| 96  | 33  | BURMA              | FOLDED RANGES            |                      |                    | 80 | LO | 100 | N | N |          |        |     |     |           |    |
| 151 | 137 | BURMA              | IRRAWADDY RIVER DELTA    | 16.0N 94.0E          | 15.9N 94.6E        | 50 | NV | 250 | N | Y | 19910406 | 061518 | 244 | 218 | 77        | 11 |
| 151 | 138 | BURMA              | IRRAWADDY RIVER DELTA    | 16.5N 94.5E          | 15.8N 95.4E        | 40 | LO | 250 | N | Y | 19910406 | 061532 | 244 | 222 | 77        | 11 |
| 152 | 112 | BURMA              | RAMRE I.-COMBERMERE BAY  | 19.5N 93.5E          | 18.2N 91.5E        | 60 | LO | 250 | N | N | 19910407 | 053523 | 245 | 164 | 77        | 26 |
| 152 | 113 | BURMA              | COAST-DANSON BAY         | 17.0N 94.0E          | 17.6N 92.8E        | 40 | LO | 250 | N | N | 19910407 | 053546 | 245 | 160 | 78        | 26 |
| 152 | 114 | BURMA              | IRRAWADDY RIVER DELTA    | 16.5N 96.0E          | 16.3N 95.8E        | 15 | NV | 250 | N | N | 19910407 | 053639 | 245 | 176 | 80        | 26 |
| 152 | 115 | BURMA              | SALWEEN R.-CLOUDS-HAZE   | 18.0N 98.0E          | 15.9N 98.5E        | 75 | LO | 250 | N | N | 19910407 | 053651 | 245 | 180 | 80        | 26 |
| 152 | 116 | BURMA              | HEINZE R.-RESERVOIR      | 14.5N 98.0E          | 15.5N 97.5E        | 25 | LO | 250 | N | Y | 19910407 | 053708 | 245 | 187 | 81        | 26 |
| 152 | 118 | BURMA              | MALAY PEN.-TEWASSERIM R. | 12.0N 99.0E          | 14.2N 100.3E       | 30 | LO | 250 | N | N | 19910407 | 053758 | 245 | 208 | 81        | 26 |
| 84  | 53  | CAMEROON           | CHARI R. LOWLANDS        | 11.5N 15.0E          |                    | 15 | NV | 250 | N | N |          |        |     |     |           |    |
| 84  | 54  | CAMEROON           | CHARI R. LOWLANDS        | 12.0N 15.0E          |                    | 15 | NV | 250 | N | N |          |        |     |     |           |    |
| 88  | 57  | CAMEROON           | L. CHAD,CHARI R/DELTA    | 13.0N 14.4E          | 12.0N 12.9E        | 15 | LO | 250 | N | N | 19910409 | 103616 | 246 | 117 | 80        | 60 |
| 88  | 60  | CAMEROON           | L. CHAD,CHARI R/DELTA    | 13.0N 14.4E          | 11.6N 13.7E        | 20 | LO | 250 | N | Y | 19910409 | 103632 | 246 | 117 | 81        | 60 |
| 88  | 61  | CAMEROON           | L. CHAD,CHARI R/DELTA    | 13.0N 14.5E          | 11.5N 13.8E        | 15 | LO | 250 | N | Y | 19910409 | 103634 | 246 | 118 | 81        | 60 |
| 88  | 63  | CAMEROON           | SOUTH LOBE L.CHAD, HAZE  | 12.6N 14.2E          | 11.2N 14.4E        | 25 | LO | 250 | N | Y | 19910409 | 103645 | 246 | 118 | 82        | 60 |
| 88  | 64  | CAMEROON           | CHARI RIVER,HAZE/SMOKE   | 12.4N 14.7E          | 11.1N 14.6E        | 10 | LO | 250 | N | Y | 19910409 | 103648 | 246 | 118 | 82        | 60 |
| 90  | 44  | CAMEROON           | LAKE CHAD, CHARI RIVER   | 12.5N 14.5E          | 10.0N 11.0E        | 65 | LO | 250 | N | N | 19910406 | 123239 | 243 | 260 | 71        | 15 |
| 153 | 0   | J CAMEROON         | MANDARA MOUNTAINS        | 11.0N 14.0E          |                    | 15 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0   | L CAMEROON         | MANDARA MOUNTAINS        | 10.5N 13.5E          |                    | 30 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0   | M CAMEROON         | MANDARA MTS., BENOUE R.  | 9.5N 13.5E           |                    | 25 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0   | N CAMEROON         | MANDARA MOUNTAINS        | 10.5N 14.0E          |                    | 25 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0   | P CAMEROON         | SE OF MANDARA MTNS.      | 10.0N 13.5E          |                    | 5  | LO | 250 | N | Y |          |        |     |     |           |    |
| 9   | 24  | CANARY ISLANDS     | CLOUDS, VORTICES         |                      | 24.6N 15.3W        | 99 | LO | 35  | N | N | 19910411 | 091113 | 245 | 96  | 33        | 90 |
| 9   | 25  | CANARY ISLANDS     | CLOUDS, VORTICES         |                      | 24.3N 14.1W        | 95 | HO | 35  | N | N | 19910411 | 091131 | 245 | 96  | 34        | 90 |
| 97  | 55  | CANARY ISLANDS     | DK.IMAGE.CLOUD VORTEXES  | 28.2N 22.1W          | 28.1N 22.2W        | 90 | LO | 250 | N | N | 19910406 | 104339 | 246 | 110 | 44        | 14 |
| 97  | 56  | CANARY ISLANDS     | DK.IMAGE.CLOUD VORTEXES  | 28.0N 19.8W          | 28.0N 20.0W        | 90 | LO | 250 | N | N | 19910406 | 104412 | 246 | 112 | 46        | 14 |
| 97  | 58  | CANARY ISLANDS     | LAS PALMAS               | 28.0N 15.6W          | 27.2N 13.9W        | 70 | LO | 250 | N | N | 19910406 | 104543 | 246 | 117 | 52        | 14 |
| 97  | 59  | CANARY ISLANDS     | SANTA CRUZ, LAS PALMAS   | 28.1N 17.0W          | 27.1N 13.4W        | 70 | LO | 250 | N | N | 19910406 | 104550 | 246 | 117 | 52        | 14 |
| 98  | 35  | CANARY ISLANDS     | SANTA CRUZ               | 28.3N 16.6W          | 27.8N 16.7W        | 60 | LO | 250 | N | N | 19910407 | 100605 | 246 | 107 | 41        | 29 |
| 98  | 36  | CANARY ISLANDS     | LAS PALMAS               | 27.9N 15.6W          | 27.8N 16.3W        | 60 | LO | 250 | N | N | 19910407 | 100611 | 246 | 107 | 42        | 29 |
| 98  | 37  | CANARY ISLANDS     | FUERTEVENTURE            | 28.5N 14.0W          | 27.7N 15.6W        | 90 | LO | 250 | N | N | 19910407 | 100621 | 246 | 107 | 42        | 29 |
| 99  | 27  | CANARY ISLANDS     | CLOUD WAKES              | 27.0N 17.0W          | 23.4N 18.6W        | 70 | NV | 40  | N | N | 19910407 | 114507 | 246 | 123 | 62        | 30 |
| 151 | 239 | CANARY ISLANDS     | HIERRO-CLOUD VORTICES    |                      | 27.9N 19.0W        | 80 | LO | 250 | N | N | 19910406 | 104426 | 246 | 113 | 47        | 14 |
| 77  | 63  | CAPE VERDE ISLANDS | FOGO,BRAVA,IS.WAKES      | 14.9N 24.4W          | 15.3N 23.4W        | 0  | LO | 250 | N | N | 19910406 | 140253 | 244 | 216 | 78        | 16 |
| 77  | 64  | CAPE VERDE ISLANDS | SANTIAGO                 | 15.0N 23.6W          | 15.2N 23.2W        | 0  | LO | 250 | N | N | 19910406 | 140257 | 244 | 218 | 78        | 16 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME      | FEATURE                   | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | EL | OR |
|-----|-----|----------------------|---------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|----|----|
| 77  | 65  | CAPE VERDE ISLANDS   | SANTIAGO, MAIO ISLANDS    | 15.3N         | 23.4W         | 15.0N        | 22.8W        | 0  | LO | 250 | N | N | 19910406 | 140305 | 244 | 220 | 78 | 16 |
| 77  | 66  | CAPE VERDE ISLANDS   | BOA VISTA, CLD WAKE       | 16.1N         | 22.7W         | 14.9N        | 22.6W        | 20 | LO | 250 | N | N | 19910406 | 140308 | 244 | 221 | 78 | 16 |
| 77  | 67  | CAPE VERDE ISLANDS   | BOA VISTA, SAL, CLD WAKES | 16.3N         | 22.8W         | 14.7N        | 22.1W        | 40 | LO | 250 | N | N | 19910406 | 140316 | 244 | 224 | 78 | 16 |
| 77  | 68  | CAPE VERDE ISLANDS   | BOA VISTA, SAL, CLD WAKES | 16.1N         | 22.8W         | 14.0N        | 20.7W        | 60 | LO | 250 | N | N | 19910406 | 140342 | 244 | 231 | 77 | 16 |
| 86  | 70  | CAPE VERDE ISLANDS   | SANTO ANTAO & VICENTE     | 17.0N         | 25.2W         | 18.0N        | 25.7W        | 40 | LO | 250 | N | N | 19910408 | 124425 | 247 | 124 | 71 | 46 |
| 86  | 71  | CAPE VERDE ISLANDS   | SAO NICOLAU               | 16.5N         | 24.4W         | 17.5N        | 24.6W        | 50 | LO | 250 | N | N | 19910408 | 124445 | 247 | 125 | 72 | 46 |
| 86  | 72  | CAPE VERDE ISLANDS   | BOA VISTA & SAL           | 16.3N         | 22.9W         | 17.0N        | 23.3W        | 80 | LO | 250 | N | N | 19910408 | 124507 | 247 | 127 | 74 | 46 |
| 86  | 73  | CAPE VERDE ISLANDS   | BOA VISTA                 | 16.3N         | 23.3W         | 16.9N        | 23.1W        | 40 | LO | 250 | N | N | 19910408 | 124511 | 247 | 127 | 74 | 46 |
| 86  | 74  | CAPE VERDE ISLANDS   | BOA VISTA                 | 16.1N         | 22.8W         | 16.7N        | 22.7W        | 40 | LO | 250 | N | N | 19910408 | 124518 | 247 | 128 | 74 | 46 |
| 86  | 75  | CAPE VERDE ISLANDS   | SANTIAGO & MAIO           | 15.2N         | 23.7W         | 16.5N        | 22.3W        | 40 | LO | 250 | N | N | 19910408 | 124525 | 247 | 128 | 75 | 46 |
| 96  | 39  | CAPE VERDE ISLANDS   | ISLAND, CLOUD WAKES       | 16.5N         | 23.5W         |              |              | 40 | HO | 100 | N | N |          |        |     |     |    |    |
| 96  | 40  | CAPE VERDE ISLANDS   | ISLAND, CLOUD WAKES       | 16.0N         | 23.0W         |              |              | 35 | HO | 100 | N | N |          |        |     |     |    |    |
| 71  | 69  | CARIBBEAN SEA        | CIRRUS & LOW CLOUDS       |               |               | 15.8N        | 74.1W        | 25 | LO | 250 | N | N | 19910405 | 174753 | 244 | 232 | 74 | 3  |
| 76  | 81  | CARIBBEAN SEA        | UNIDENTIFIED CAYS         |               |               | 13.8N        | 86.2W        | 40 | LO | 250 | N | N | 19910408 | 164847 | 245 | 112 | 74 | 64 |
| 151 | 115 | CAROLINE ISLANDS     | PALAU ISLANDS             | 7.5N          | 134.0E        | 7.9N         | 134.2E       | 30 | NV | 250 | N | N | 19910406 | 044639 | 243 | 267 | 64 | 10 |
| 151 | 116 | CAROLINE ISLANDS     | NGULU ATOLL               | 7.5N          | 138.0E        | 5.3N         | 138.8E       | 70 | LO | 250 | N | N | 19910406 | 044806 | 243 | 273 | 60 | 10 |
| 71  | 62  | CAYMAN ISLANDS       | GRAND CAYMAN              | 19.5N         | 81.5W         | 19.3N        | 82.2W        | 15 | NV | 250 | N | Y | 19910405 | 174533 | 244 | 195 | 76 | 3  |
| 71  | 63  | CAYMAN ISLANDS       | GRAND CAYMAN              | 19.5N         | 81.5W         | 19.1N        | 81.8W        | 15 | NV | 250 | N | Y | 19910405 | 174540 | 244 | 197 | 76 | 3  |
| 71  | 64  | CAYMAN ISLANDS       | CAYMAN BRAC               | 19.5N         | 80.0W         | 18.8N        | 81.1W        | 20 | NV | 250 | N | N | 19910405 | 174552 | 244 | 200 | 76 | 3  |
| 72  | 13  | CAYMAN ISLANDS       | GRAND CAYMAN              | 19.5N         | 81.0W         | 18.9N        | 81.4W        | 15 | NV | 100 | N | N | 19910405 | 174547 | 244 | 197 | 76 | 3  |
| 13  | 3   | CENTRAL AFRICAN REP. | CLOUDS                    |               |               | 9.7N         | 19.3E        | 45 | HO | 35  | N | N | 19910410 | 095926 | 247 | 98  | 79 | 75 |
| 13  | 4   | CENTRAL AFRICAN REP. | CLOUDS                    |               |               | 8.6N         | 21.2E        | 50 | LO | 35  | N | N | 19910410 | 100002 | 248 | 94  | 81 | 75 |
| 77  | 27  | CENTRAL AFRICAN REP. | BORDER AREA WITH ZAIRE    | 5.0N          | 20.0E         | 5.9N         | 18.4E        | 50 | NV | 250 | N | N | 19910406 | 123458 | 243 | 272 | 63 | 15 |
| 77  | 28  | CENTRAL AFRICAN REP. | BORDER AREA WITH ZAIRE    | 5.0N          | 20.5E         | 5.4N         | 19.2E        | 50 | NV | 250 | N | N | 19910406 | 123513 | 243 | 273 | 62 | 15 |
| 77  | 29  | CENTRAL AFRICAN REP. | BORDER AREA WITH ZAIRE    |               |               | 5.1N         | 19.8E        | 40 | LO | 250 | N | N | 19910406 | 123524 | 243 | 273 | 62 | 15 |
| 77  | 30  | CENTRAL AFRICAN REP. | BORDER AREA WITH ZAIRE    |               |               | 4.9N         | 20.1E        | 50 | LO | 250 | N | N | 19910408 | 123529 | 243 | 274 | 61 | 15 |
| 86  | 41  | CENTRAL AFRICAN REP. | OUHAM RIVER AREA          | 7.6N          | 18.0E         | 8.0N         | 18.5E        | 40 | LO | 250 | N | N | 19910408 | 111704 | 246 | 263 | 82 | 45 |
| 86  | 42  | CENTRAL AFRICAN REP. | OUHAM RIVER AREA          | 7.3N          | 18.2E         | 7.8N         | 18.8E        | 50 | LO | 250 | N | N | 19910408 | 111710 | 246 | 264 | 82 | 45 |
| 86  | 43  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 6.9N         | 20.3E        | 60 | LO | 250 | N | N | 19910408 | 111739 | 246 | 271 | 80 | 45 |
| 86  | 44  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 6.9N         | 20.6E        | 70 | LO | 250 | N | N | 19910408 | 111742 | 246 | 271 | 80 | 45 |
| 86  | 45  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 6.5N         | 21.1E        | 80 | LO | 250 | N | N | 19910408 | 111753 | 246 | 273 | 80 | 45 |
| 86  | 46  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 5.8N         | 22.4E        | 90 | LO | 250 | N | N | 19910408 | 111818 | 246 | 277 | 78 | 45 |
| 86  | 47  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 5.5N         | 22.8E        | 90 | LO | 250 | N | N | 19910408 | 111826 | 245 | 278 | 78 | 45 |
| 86  | 48  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 5.4N         | 23.0E        | 90 | LO | 250 | N | N | 19910408 | 111829 | 245 | 278 | 77 | 45 |
| 86  | 49  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 5.3N         | 23.2E        | 90 | LO | 250 | N | N | 19910408 | 111834 | 245 | 278 | 77 | 45 |
| 86  | 50  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 5.1N         | 23.5E        | 90 | LO | 250 | N | N | 19910408 | 111839 | 245 | 279 | 77 | 45 |
| 86  | 51  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 4.9N         | 23.9E        | 90 | LO | 250 | N | N | 19910408 | 111847 | 245 | 280 | 76 | 45 |
| 86  | 52  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 4.6N         | 24.4E        | 90 | LO | 250 | N | N | 19910408 | 111856 | 245 | 280 | 76 | 45 |
| 86  | 53  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 4.4N         | 24.8E        | 90 | LO | 250 | N | N | 19910408 | 111903 | 245 | 281 | 75 | 45 |
| 86  | 54  | CENTRAL AFRICAN REP. | CLDY, HAZY                |               |               | 4.3N         | 24.9E        | 90 | LO | 250 | N | N | 19910408 | 111908 | 245 | 281 | 75 | 45 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME        | FEATURE                  | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|----|------------------------|--------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 86  | 55 | CENTRAL AFRICAN REP.   | CLDY,HAZY                |               |               | 4.2N         | 25.1E        | 90 | LO | 250 | N | N | 19910408 | 111909 | 245 | 281 | 76        | 45 |
| 86  | 56 | CENTRAL AFRICAN REP.   | CLDY,HAZY                |               |               | 4.1N         | 25.2E        | 90 | LO | 250 | N | N | 19910408 | 111912 | 245 | 282 | 75        | 45 |
| 86  | 57 | CENTRAL AFRICAN REP.   | CLDY,HAZY                |               |               | 4.0N         | 25.5E        | 80 | LO | 250 | N | N | 19910408 | 111917 | 245 | 282 | 74        | 45 |
| 86  | 58 | CENTRAL AFRICAN REP.   | CLDY,HAZY                |               |               | 3.8N         | 25.9E        | 80 | LO | 250 | N | N | 19910408 | 111924 | 245 | 282 | 74        | 45 |
| 152 | 17 | CENTRAL AFRICAN REP.   | OUHMAN R.-BOSSANGOA      | 6.5N          | 17.0E         | 6.4N         | 17.5E        | 25 | NV | 250 | N | Y | 19910408 | 123440 | 243 | 271 | 84        | 15 |
| 152 | 18 | CENTRAL AFRICAN REP.   | OUHMAN R.-BOSSANGOA      | 6.0N          | 18.0E         | 5.7N         | 18.6E        | 45 | NV | 250 | N | Y | 19910406 | 123502 | 243 | 272 | 63        | 15 |
| 153 | 0  | V CENTRAL AFRICAN REP. | OUHAM RIVER              | 8.0N          | 17.5E         |              |              | 40 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0  | W CENTRAL AFRICAN REP. | GRIBINGUI RIVER          | 8.5N          | 18.5E         |              |              | 30 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0  | X CENTRAL AFRICAN REP. | OUHAM, BAKASSA RIVERS    | 7.5N          | 17.5E         |              |              | 50 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0  | Y CENTRAL AFRICAN REP. | MPOKO RIVER              | 6.0N          | 17.5E         |              |              | 60 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0  | Z CENTRAL AFRICAN REP. | LAND PATTERNS, CLOUDS    |               |               |              |              | 80 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0  | A CENTRAL AFRICAN REP. | LAND PATTERNS, CLOUDS    |               |               |              |              | 80 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 0  | B CENTRAL AFRICAN REP. | LAND PATTERNS, CLOUDS    |               |               |              |              | 80 | LO | 250 | N | N |          |        |     |     |           |    |
| 8   | 10 | CHAD                   | TIBESTI MTN. AREA        | 22.0N         | 15.0E         | 27.6N        | 15.4E        | 0  | HO | 35  | N | N | 19910410 | 063812 | 245 | 94  | 25        | 73 |
| 8   | 12 | CHAD                   | TIBESTI MTNS AREA        | 21.0N         | 18.5E         | 27.2N        | 18.4E        | 40 | HO | 35  | N | N | 19910410 | 063857 | 245 | 96  | 28        | 73 |
| 8   | 14 | CHAD                   | TIBESTI, OVEREXPOSED     |               |               | 26.5N        | 22.3E        | 0  | HO | 35  | N | N | 19910410 | 063955 | 245 | 98  | 32        | 73 |
| 8   | 16 | CHAD                   | TIBESTI AREA             |               |               | 26.1N        | 24.5E        | 70 | HO | 35  | N | N | 19910410 | 064028 | 245 | 98  | 34        | 73 |
| 9   | 33 | CHAD                   | LAKE CHAD,VRY CLDY       | 13.0N         | 14.0E         | 15.1N        | 10.5E        | 80 | LO | 35  | N | N | 19910411 | 091824 | 247 | 100 | 60        | 90 |
| 13  | 1  | CHAD                   | LAKE IRO REGION          | 11.0N         | 19.0E         | 11.3N        | 16.3E        | 10 | LO | 35  | N | N | 19910410 | 095830 | 247 | 102 | 75        | 75 |
| 13  | 2  | CHAD                   | LAKE IRO REGION          | 10.0N         | 19.0E         | 10.4N        | 18.0E        | 10 | LO | 35  | N | N | 19910410 | 095901 | 247 | 100 | 77        | 75 |
| 14  | 8  | CHAD                   | TIBESTI MASSIF           | 21.0N         | 18.0E         | 22.4N        | 14.4E        | 0  | HO | 35  | N | N | 19910410 | 081733 | 246 | 103 | 47        | 74 |
| 14  | 9  | CHAD                   | TIBESTI MASSIF           | 21.0N         | 18.0E         | 21.7N        | 16.6E        | 0  | LO | 35  | N | N | 19910410 | 081808 | 246 | 104 | 50        | 74 |
| 42  | 26 | CHAD                   | TIBESTI SANDS            | 23.0N         | 15.0E         | 23.6N        | 12.2E        | 0  | LO | 35  | N | N | 19910411 | 073841 | 245 | 98  | 37        | 89 |
| 42  | 32 | CHAD                   | TIBESTI MASSIF           | 21.0N         | 18.0E         | 22.3N        | 16.5E        | 10 | LO | 35  | N | N | 19910411 | 073950 | 246 | 99  | 41        | 89 |
| 42  | 37 | CHAD                   | EASTERN TIBESTI MTNS.    | 21.0N         | 20.0E         | 20.9N        | 20.6E        | 5  | LO | 35  | N | N | 19910411 | 074057 | 246 | 100 | 45        | 89 |
| 45  | 33 | CHAD                   | L.CHAD,CHARI R,CONGO BAS | 9.0N          | 18.0E         | 15.2N        | 8.6E         | 70 | HO | 35  | O | N | 19910410 | 095810 | 247 | 105 | 67        | 75 |
| 45  | 34 | CHAD                   | BODELE DES,L.CHAD,TIBEST | 17.0N         | 17.0E         | 14.3N        | 10.4E        | 30 | HO | 35  | N | N | 19910410 | 095843 | 247 | 105 | 69        | 75 |
| 45  | 35 | CHAD                   | L.CHAD,CHARI R,CONGO BAS | 9.0N          | 19.0E         | 13.9N        | 11.1E        | 30 | HO | 35  | N | N | 19910410 | 095855 | 247 | 105 | 69        | 75 |
| 45  | 36 | CHAD                   | BODELE DES,CHARI R,BASIN | 14.0N         | 17.0E         | 13.8N        | 11.3E        | 40 | HO | 35  | N | N | 19910410 | 095659 | 247 | 105 | 70        | 75 |
| 45  | 37 | CHAD                   | BODELE DES,TIBESTI MTNS  | 18.0N         | 17.0E         | 13.6N        | 11.8E        | 30 | HO | 35  | N | N | 19910410 | 095708 | 247 | 105 | 70        | 75 |
| 45  | 38 | CHAD                   | LAKE CHAD                | 13.0N         | 15.0E         | 13.4N        | 12.1E        | 30 | HO | 35  | N | N | 19910410 | 095713 | 247 | 105 | 71        | 75 |
| 77  | 25 | CHAD                   | LAKE CHAD AREA           | 13.0N         | 14.5E         | 8.2N         | 14.3E        | 40 | LO | 250 | N | N | 19910406 | 123341 | 243 | 266 | 68        | 15 |
| 77  | 26 | CHAD                   | LAKE CHAD AREA           | 13.2N         | 14.5E         | 7.8N         | 14.9E        | 40 | LO | 250 | N | N | 19910406 | 123352 | 243 | 267 | 67        | 15 |
| 84  | 47 | CHAD                   | LAKE CHAD, SOUTH BASIN   | 13.0N         | 15.0E         |              |              | 5  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 48 | CHAD                   | THE BIR LOUR PLATEAU     | 14.0N         | 16.0E         |              |              | 15 | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 49 | CHAD                   | LAKE CHAD, NORTH BASIN   | 14.0N         | 14.0E         |              |              | 10 | LO | 250 | N | N |          |        |     |     |           |    |
| 84  | 55 | CHAD                   | CHARI RIVER              | 11.5N         | 15.5E         |              |              | 10 | LO | 250 | N | N |          |        |     |     |           |    |
| 84  | 56 | CHAD                   | CHARI RIVER              | 11.0N         | 15.5E         |              |              | 5  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 57 | CHAD                   | CHARI RIVER, HAZE        | 11.5N         | 15.5E         |              |              | 50 | LO | 250 | N | N |          |        |     |     |           |    |
| 84  | 58 | CHAD                   | CHARI RIVER, HAZE        | 10.5N         | 16.5E         |              |              | 50 | LO | 250 | N | N |          |        |     |     |           |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT LON | HAZDIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | EL | OR |
|----|----|-----------------|---------------------------|-------------------|-------------------|----|----|-----|---|---|----------|--------|-----|-----|----|----|
| 84 | 59 | CHAD            | CHARI RIVER, HAZE         | 10.0N 17.5E       |                   | 40 | LO | 250 | N | N | 19910409 | 085649 | 246 | 110 | 57 | 59 |
| 85 | 74 | CHAD            | TIBESTI, PIC TOUSIDE      | 21.0N 16.0E       | 21.1N 15.9E       | 0  | LO | 250 | N | N | 19910409 | 085656 | 246 | 110 | 58 | 59 |
| 85 | 75 | CHAD            | TIBESTI, PIC TOUSIDE      | 21.0N 17.0E       | 21.0N 16.4E       | 0  | LO | 250 | N | N | 19910409 | 085702 | 246 | 110 | 58 | 59 |
| 85 | 76 | CHAD            | TIBESTI MTNS.             |                   | 20.9N 16.7E       | 0  | LO | 250 | N | N | 19910409 | 085707 | 246 | 110 | 58 | 59 |
| 85 | 77 | CHAD            | TIBESTI MTNS.             | 20.5N 19.0E       | 20.8N 17.0E       | 0  | LO | 250 | N | N | 19910409 | 085713 | 246 | 111 | 59 | 59 |
| 85 | 78 | CHAD            | TIBESTI MTNS.             | 20.5N 19.2E       | 20.6N 17.4E       | 0  | LO | 250 | N | N | 19910409 | 085720 | 246 | 111 | 59 | 59 |
| 85 | 79 | CHAD            | TIBESTI MTNS.             | 20.6N 18.7E       | 20.5N 17.8E       | 0  | LO | 250 | N | N | 19910409 | 085727 | 246 | 111 | 60 | 59 |
| 85 | 80 | CHAD            | TIBESTI, ENI KOUSSI       | 19.8N 18.5E       | 20.3N 18.2E       | 0  | LO | 250 | N | N | 19910409 | 085738 | 246 | 111 | 60 | 59 |
| 85 | 81 | CHAD            | TIBESTI, ENI KOUSSI       | 19.3N 18.8E       | 20.1N 18.9E       | 0  | LO | 250 | N | N | 19910409 | 085744 | 246 | 111 | 61 | 59 |
| 85 | 82 | CHAD            | AREA BTN TIBESTI-ENNEDI   |                   | 19.9N 19.2E       | 0  | LO | 250 | N | N | 19910409 | 085806 | 246 | 112 | 62 | 59 |
| 85 | 83 | CHAD            | AREA BTN TIBESTI-ENNEDI   |                   | 19.4N 20.5E       | 0  | LO | 250 | N | N | 19910409 | 085813 | 246 | 112 | 63 | 59 |
| 85 | 84 | CHAD            | AREA BTN TIBESTI-ENNEDI   |                   | 19.3N 21.0E       | 0  | LO | 250 | N | N | 19910409 | 085822 | 246 | 112 | 63 | 59 |
| 85 | 85 | CHAD            | AREA BTN TIBESTI-ENNEDI   |                   | 19.0N 21.5E       | 0  | LO | 250 | N | N | 19910409 | 085827 | 246 | 112 | 63 | 59 |
| 85 | 86 | CHAD            | AREA BTN TIBESTI-ENNEDI   |                   | 18.9N 21.8E       | 0  | LO | 250 | N | N | 19910409 | 085832 | 246 | 113 | 64 | 59 |
| 85 | 87 | CHAD            | SW. ENNEDI PLATEAU AREA   | 16.8N 22.0E       | 18.8N 22.1E       | 0  | LO | 250 | N | N | 19910409 | 085845 | 246 | 113 | 65 | 59 |
| 85 | 88 | CHAD            | ENNEDI PLATEAU AREA       |                   | 18.5N 22.8E       | 0  | LO | 250 | N | N | 19910409 | 085855 | 246 | 113 | 65 | 59 |
| 85 | 89 | CHAD            | ENNEDI PLATEAU AREA       | 18.3N 23.4E       |                   | 5  | LO | 250 | N | N | 19910408 | 111513 | 246 | 190 | 85 | 45 |
| 86 | 29 | CHAD            | CAMEROON BORDER, LOGONE R | 10.8N 15.2E       | 11.2N 12.5E       | 5  | LO | 250 | N | N | 19910408 | 111535 | 246 | 210 | 85 | 45 |
| 86 | 30 | CHAD            | AREA NEAR BONGOR          |                   | 10.6N 13.7E       | 5  | LO | 250 | N | N | 19910408 | 111545 | 246 | 219 | 85 | 45 |
| 86 | 31 | CHAD            | AREA NEAR BONGOR          |                   | 10.3N 14.2E       | 0  | LO | 250 | N | N | 19910408 | 111548 | 246 | 221 | 85 | 45 |
| 86 | 32 | CHAD            | CHARI RIVER, S. NDJAMENA  | 11.3N 15.1E       | 10.2N 14.4E       | 0  | LO | 250 | N | N | 19910408 | 111552 | 246 | 225 | 85 | 45 |
| 86 | 33 | CHAD            | CHARI RIVER, S. NDJAMENA  | 11.0N 15.5E       | 10.1N 14.6E       | 10 | LO | 250 | N | N | 19910408 | 111558 | 246 | 227 | 85 | 45 |
| 86 | 34 | CHAD            | CHARI RIVER, S. NDJAMENA  | 10.8N 16.0E       | 10.0N 14.8E       | 20 | LO | 250 | N | N | 19910408 | 111620 | 246 | 244 | 84 | 45 |
| 86 | 35 | CHAD            | CHARI RIVER, S. NDJAMENA  | 10.5N 16.5E       | 9.9N 14.9E        | 80 | LO | 250 | N | N | 19910408 | 111625 | 246 | 247 | 84 | 45 |
| 86 | 36 | CHAD            | CLDY, HAZY                |                   | 9.3N 16.1E        | 80 | LO | 250 | N | N | 19910408 | 111630 | 246 | 250 | 84 | 45 |
| 86 | 37 | CHAD            | CLDY, HAZY                |                   | 9.1N 16.4E        | 80 | LO | 250 | N | N | 19910408 | 111649 | 246 | 258 | 83 | 45 |
| 86 | 38 | CHAD            | CLDY, HAZY                |                   | 9.0N 16.7E        | 80 | LO | 250 | N | N | 19910408 | 111655 | 246 | 260 | 83 | 45 |
| 86 | 39 | CHAD            | CLDY, HAZY                |                   | 8.4N 17.7E        | 50 | LO | 250 | N | N | 19910408 | 111655 | 246 | 260 | 83 | 45 |
| 86 | 40 | CHAD            | OUHAM RIVER AREA          | 8.4N 17.8E        | 8.2N 18.0E        | 60 | LO | 250 | N | N | 19910408 | 085817 | 246 | 112 | 63 | 59 |
| 88 | 1  | CHAD            | DESERT, SAND STORM        |                   | 19.2N 21.1E       | 0  | LO | 250 | N | N | 19910409 | 085820 | 246 | 112 | 63 | 59 |
| 88 | 2  | CHAD            | DESERT, SAND STORM        |                   | 19.2N 21.2E       | 0  | LO | 250 | N | N | 19910409 | 085822 | 246 | 112 | 63 | 59 |
| 88 | 3  | CHAD            | SAND STORM, LINEAR OUTCR. |                   | 19.1N 21.4E       | 0  | LO | 250 | N | N | 19910409 | 085824 | 246 | 112 | 63 | 59 |
| 88 | 4  | CHAD            | SAND STORM, LINEAR OUTCR. |                   | 19.0N 21.5E       | 0  | LO | 250 | N | N | 19910409 | 085826 | 246 | 112 | 63 | 59 |
| 88 | 5  | CHAD            | SAND ST. DEPR. DU MOURDI  |                   | 19.0N 21.6E       | 0  | LO | 250 | N | N | 19910409 | 085828 | 246 | 112 | 63 | 59 |
| 88 | 6  | CHAD            | SAND ST. DEPR. DU MOURDI  |                   | 19.0N 21.7E       | 0  | LO | 250 | N | N | 19910409 | 085831 | 246 | 112 | 63 | 59 |
| 88 | 7  | CHAD            | SAND ST. DEPR. DU MOURDI  | 18.5N 23.8E       | 18.9N 21.8E       | 0  | LO | 250 | N | N | 19910409 | 085831 | 246 | 112 | 63 | 59 |
| 88 | 8  | CHAD            | SAND ST. DEPR. DU MOURDI  | 18.5N 23.5E       | 18.8N 22.0E       | 25 | LO | 250 | N | N | 19910409 | 103625 | 246 | 117 | 80 | 60 |
| 88 | 59 | CHAD            | EAST LOBE LAKE CHAD, DUST | 13.5N 14.5E       | 11.8N 13.3E       | 60 | LO | 250 | N | N | 19910409 | 103637 | 246 | 118 | 81 | 60 |
| 88 | 62 | CHAD            | CENTRAL L. CHAD, DUST     | 13.2N 14.3E       | 11.4N 14.0E       | 30 | LO | 250 | N | N | 19910409 | 103653 | 246 | 118 | 82 | 60 |
| 88 | 65 | CHAD            | CHARI RIVER, HAZE/SMOKE   | 12.2N 15.0E       | 11.0N 14.9E       | 30 | LO | 250 | N | N | 19910409 | 103653 | 246 | 118 | 82 | 60 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LAT | CENTER<br>LON<br>LON | NADIR<br>LAT<br>LAT | NADIR<br>LON<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|--------------------------|----------------------|----------------------|---------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 88 | 66  | CHAD            | CHARI RIVER,HAZE/SMOKE   | 11.7N                | 15.4E                | 10.8N               | 15.2E               | 25 | LO | 250 | N | Y | 19910409 | 103659 | 246 | 118 | 83        | 60 |
| 88 | 67  | CHAD            | CHARI RIVER,HAZE/SMOKE   | 11.5N                | 15.4E                | 10.5N               | 15.8E               | 20 | LO | 250 | N | Y | 19910409 | 103710 | 246 | 119 | 83        | 80 |
| 88 | 68  | CHAD            | CHARI RIVER,HAZE,MINING  | 11.2N                | 15.7E                | 10.3N               | 16.1E               | 0  | LO | 250 | N | Y | 19910409 | 103715 | 246 | 119 | 84        | 80 |
| 88 | 69  | CHAD            | CHARI RIVER,HAZE/SMOKE   | 10.7N                | 16.3E                | 10.1N               | 16.5E               | 30 | LO | 250 | N | Y | 19910409 | 103723 | 246 | 119 | 84        | 60 |
| 88 | 70  | CHAD            | CHARI RIVER,HAZE/SMOKE   | 10.5N                | 17.0E                | 10.0N               | 16.7E               | 30 | LO | 250 | N | Y | 19910409 | 103727 | 246 | 119 | 84        | 60 |
| 88 | 71  | CHAD            | CHARI RIVER,HAZE/SMOKE   | 10.2N                | 17.5E                | 9.9N                | 16.9E               | 60 | LO | 250 | N | Y | 19910409 | 103731 | 246 | 120 | 85        | 60 |
| 89 | 109 | CHAD            | TIBESTI AREA-WEST SIDE   | 21.4N                | 15.6E                | 21.6N               | 14.7E               | 0  | LO | 250 | N | Y | 19910409 | 085628 | 246 | 109 | 56        | 59 |
| 89 | 110 | CHAD            | TIBESTI AREA-WEST SIDE   | 21.4N                | 15.9E                | 21.5N               | 14.8E               | 0  | LO | 250 | N | Y | 19910409 | 085631 | 246 | 109 | 56        | 59 |
| 89 | 111 | CHAD            | TIBESTI AREA-WEST SIDE   | 21.4N                | 16.3E                | 21.5N               | 15.0E               | 0  | LO | 250 | N | Y | 19910409 | 085633 | 246 | 110 | 56        | 59 |
| 89 | 112 | CHAD            | TIBESTI AREA-WEST SIDE   | 21.6N                | 16.4E                | 21.4N               | 15.1E               | 0  | LO | 250 | N | Y | 19910409 | 085635 | 246 | 110 | 56        | 59 |
| 89 | 113 | CHAD            | MASSIF D'ABO,N.TIBESTI   | 21.7N                | 16.2E                | 21.4N               | 15.2E               | 0  | LO | 250 | N | Y | 19910409 | 085637 | 246 | 110 | 56        | 59 |
| 89 | 114 | CHAD            | TIBESTI MTNS,PIC TOUSIDE | 21.0N                | 16.5E                | 21.0N               | 16.4E               | 0  | NV | 250 | N | Y | 19910409 | 085657 | 246 | 110 | 57        | 59 |
| 89 | 115 | CHAD            | TIBESTI MTNS,VOLC.CRATER | 20.9N                | 16.9E                | 20.9N               | 16.6E               | 0  | NV | 250 | N | Y | 19910409 | 085700 | 246 | 110 | 58        | 59 |
| 89 | 116 | CHAD            | TIBESTI MTNS,OLD CRATER  | 20.4N                | 17.4E                | 20.9N               | 16.7E               | 0  | LO | 250 | N | Y | 19910409 | 085702 | 246 | 110 | 58        | 59 |
| 89 | 117 | CHAD            | TIBESTI,TARSO TOON VOLC. | 20.8N                | 17.7E                | 20.8N               | 16.8E               | 0  | LO | 250 | N | Y | 19910409 | 085704 | 246 | 110 | 58        | 59 |
| 89 | 118 | CHAD            | TIBESTI,TARSO TOON VOLC. | 21.0N                | 17.3E                | 20.8N               | 17.0E               | 0  | NV | 250 | N | Y | 19910409 | 085707 | 246 | 110 | 58        | 59 |
| 89 | 119 | CHAD            | TIBESTI,NO.PIC TOUSIDE   | 21.4N                | 16.7E                | 20.7N               | 17.2E               | 0  | NV | 250 | N | Y | 19910409 | 085710 | 246 | 110 | 58        | 59 |
| 89 | 120 | CHAD            | TIBESTI,NE. PIC TOUSIDE  | 21.7N                | 17.1E                | 20.6N               | 17.3E               | 0  | LO | 250 | N | Y | 19910409 | 085712 | 246 | 110 | 58        | 59 |
| 89 | 121 | CHAD            | TIBESTI,WADI ZUMRI       | 21.1N                | 17.2E                | 20.6N               | 17.4E               | 0  | NV | 250 | N | Y | 19910409 | 085714 | 246 | 111 | 58        | 59 |
| 89 | 122 | CHAD            | TIBESTI, EAST SLOPE      | 21.0N                | 19.0E                | 20.6N               | 17.6E               | 0  | LO | 250 | N | Y | 19910409 | 085716 | 246 | 111 | 59        | 59 |
| 90 | 31  | CHAD            | TIBESTI MTNS,EMI KOUSSI  | 19.7N                | 18.7E                | 18.4N               | 17.3E               | 0  | LO | 250 | N | Y | 19910406 | 105359 | 245 | 180 | 77        | 14 |
| 90 | 32  | CHAD            | TIBESTI,AOROUNGA CRATER  | 19.1N                | 19.4E                | 18.3N               | 17.6E               | 0  | LO | 250 | N | Y | 19910406 | 105404 | 245 | 182 | 78        | 14 |
| 90 | 33  | CHAD            | TIBESTI MTNS,PIC TOUSIDE | 21.0N                | 16.5E                | 17.8N               | 18.8E               | 0  | LO | 250 | N | Y | 19910406 | 105425 | 245 | 188 | 78        | 14 |
| 94 | 93  | CHAD            | TIBESTI, PIC TOUSIDE V.  | 21.0N                | 17.0E                |                     |                     | 0  | LO | 100 | N | Y |          |        |     |     |           |    |
| 94 | 94  | CHAD            | TIBESTI, EMI KOUSSI VOL. | 20.5N                | 17.5E                |                     |                     | 0  | LO | 100 | N | Y |          |        |     |     |           |    |
| 94 | 95  | CHAD            | TIBESTI, KEGUEUR TERBI   | 21.5N                | 18.0E                |                     |                     | 0  | LO | 100 | N | Y |          |        |     |     |           |    |
| 95 | 50  | CHAD            | DUST STORM,WIND STREAKS  |                      |                      | 21.0N               | 10.7E               | 0  | LO | 250 | N | Y | 19910406 | 105208 | 245 | 154 | 74        | 14 |
| 95 | 51  | CHAD            | DUST STORM,WIND STREAKS  |                      |                      | 20.9N               | 10.9E               | 0  | LO | 250 | N | Y | 19910406 | 105210 | 245 | 155 | 74        | 14 |
| 95 | 52  | CHAD            | DUST STORM,WIND STREAKS  |                      |                      | 20.9N               | 11.0E               | 0  | LO | 250 | N | Y | 19910406 | 105212 | 245 | 155 | 74        | 14 |
| 95 | 53  | CHAD            | DUST STORM               |                      |                      | 20.8N               | 11.1E               | 0  | LO | 250 | N | Y | 19910406 | 105214 | 245 | 155 | 74        | 14 |
| 95 | 54  | CHAD            | DUST STORM               |                      |                      | 20.7N               | 11.5E               | 0  | LO | 250 | N | Y | 19910406 | 105220 | 245 | 156 | 74        | 14 |
| 95 | 55  | CHAD            | TIBESTI MTNS.            | 21.0N                | 16.5E                | 20.3N               | 12.4E               | 0  | LO | 250 | N | Y | 19910406 | 105236 | 245 | 160 | 75        | 14 |
| 95 | 56  | CHAD            | LAKE CHAD                | 13.0N                | 13.6E                | 20.0N               | 13.2E               | 20 | LO | 250 | N | Y | 19910406 | 105249 | 245 | 162 | 75        | 14 |
| 95 | 57  | CHAD            | SAND, LONGITUDINAL DUNES |                      |                      | 19.6N               | 14.4E               | 0  | LO | 250 | N | Y | 19910406 | 105310 | 245 | 167 | 76        | 14 |
| 95 | 58  | CHAD            | SAND, LONGITUDINAL DUNES |                      |                      | 19.5N               | 14.6E               | 0  | LO | 250 | N | Y | 19910406 | 105313 | 245 | 168 | 76        | 14 |
| 95 | 59  | CHAD            | SAND, LONGITUDINAL DUNES |                      |                      | 19.1N               | 15.6E               | 0  | LO | 250 | N | Y | 19910406 | 105329 | 245 | 172 | 77        | 14 |
| 95 | 60  | CHAD            | SAND, LONGITUDINAL DUNES |                      |                      | 19.0N               | 15.7E               | 0  | LO | 250 | N | Y | 19910406 | 105332 | 245 | 173 | 77        | 14 |
| 95 | 61  | CHAD            | SAND, LONGITUDINAL DUNES |                      |                      | 19.0N               | 15.9E               | 0  | LO | 250 | N | Y | 19910406 | 105335 | 245 | 174 | 77        | 14 |
| 95 | 62  | CHAD            | TIBESTI MTNS.            | 20.0N                | 18.6E                | 18.7N               | 16.6E               | 0  | LO | 250 | N | Y | 19910406 | 105346 | 245 | 177 | 77        | 14 |
| 95 | 63  | CHAD            | TIBESTI,EMI KOUSSI       | 19.8N                | 18.6E                | 18.3N               | 17.7E               | 0  | LO | 250 | N | Y | 19910406 | 105405 | 245 | 183 | 78        | 14 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT     | LONG  | NADIR<br>LAT | LONG  | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|----------------------------|-------------------|-------|--------------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 95  | 64  | CHAD            | TIBESTI MTNS., WIND STRKS. | 18.5N             | 19.0E | 18.1N        | 18.0E | 0  | LO | 250 | N | N | 19910406 | 105410 | 245 | 184 | 78        | 14 |
| 95  | 65  | CHAD            | WIND STRKS., NR TIBESTI    | 19.0N             | 19.5E | 18.1N        | 18.1E | 0  | LO | 250 | N | N | 19910406 | 105412 | 245 | 185 | 78        | 14 |
| 95  | 66  | CHAD            | ERG DU DJOURAB, SALT FLTS  | 17.5N             | 19.0E | 18.0N        | 18.3E | 0  | LO | 250 | N | N | 19910406 | 105415 | 245 | 186 | 78        | 14 |
| 95  | 67  | CHAD            | LARGE SALT FLATS           | 17.3N             | 18.6E | 17.7N        | 19.0E | 0  | LO | 250 | N | N | 19910406 | 105428 | 245 | 190 | 78        | 14 |
| 95  | 68  | CHAD            | LARGE SALT FLATS           | 17.0N             | 18.3E | 17.6N        | 19.3E | 0  | LO | 250 | N | N | 19910406 | 105433 | 245 | 191 | 78        | 14 |
| 95  | 69  | CHAD            | LARGE SALT FLATS           | 17.0N             | 18.2E | 17.5N        | 19.5E | 0  | LO | 250 | N | N | 19910406 | 105437 | 245 | 193 | 78        | 14 |
| 95  | 70  | CHAD            | ENNEDI PLATEAU             | 17.2N             | 22.5E | 17.2N        | 20.2E | 10 | LO | 250 | N | N | 19910406 | 105449 | 245 | 197 | 78        | 14 |
| 95  | 71  | CHAD            | ENNEDI PLATEAU             | 17.0N             | 23.0E | 17.0N        | 20.6E | 10 | LO | 250 | N | N | 19910406 | 105455 | 245 | 199 | 78        | 14 |
| 95  | 72  | CHAD            | ENNEDI PLATEAU             | 17.5N             | 24.0E | 16.8N        | 21.1E | 0  | LO | 250 | N | N | 19910406 | 105504 | 245 | 202 | 78        | 14 |
| 95  | 73  | CHAD            | ENNEDI PLATEAU             |                   |       | 16.4N        | 21.9E | 5  | LO | 250 | N | N | 19910406 | 105518 | 245 | 207 | 78        | 14 |
| 95  | 74  | CHAD            | CHAD, SUDAN BORDER         | 16.0N             | 23.1E | 16.0N        | 22.9E | 0  | NV | 250 | N | N | 19910406 | 105535 | 244 | 212 | 78        | 14 |
| 95  | 75  | CHAD            | CHAD, SUDAN BORDER         | 15.7N             | 23.0E | 15.8N        | 23.4E | 10 | LO | 250 | N | N | 19910406 | 105544 | 244 | 215 | 78        | 14 |
| 96  | 78  | CHAD            | TIBESTI, PIC TOUSIDE       | 21.0N             | 17.0E |              |       | 0  | LO | 100 | N | N |          |        |     |     |           |    |
| 96  | 79  | CHAD            | TIBESTI, EMI KOUSSI        | 20.5N             | 18.5E |              |       | 0  | LO | 100 | N | N |          |        |     |     |           |    |
| 96  | 80  | CHAD            | DESERT E. OF TIBESTI       | 19.5N             | 19.5E |              |       | 0  | LO | 100 | N | Y |          |        |     |     |           |    |
| 96  | 81  | CHAD            | DESERT E. OF TIBESTI       | 20.5N             | 20.0E |              |       | 0  | LO | 100 | N | Y |          |        |     |     |           |    |
| 96  | 82  | CHAD            | DESERT N. OF ENNEDI PLAT   | 19.0N             | 22.0E |              |       | 0  | LO | 100 | N | N |          |        |     |     |           |    |
| 96  | 83  | CHAD            | DESERT N. OF ENNEDI PLAT   | 18.0N             | 22.0E |              |       | 0  | LO | 100 | N | Y |          |        |     |     |           |    |
| 96  | 84  | CHAD            | ENNEDI P., MOURDI DEPRES   | 18.0N             | 23.0E |              |       | 5  | LO | 100 | N | Y |          |        |     |     |           |    |
| 96  | 85  | CHAD            | MOURDI DEPRESSION, DUST    | 18.5N             | 23.5E |              |       | 5  | LO | 100 | N | Y |          |        |     |     |           |    |
| 97  | 75  | CHAD            | TIBESTI MTNS.              | 21.0N             | 16.5E | 21.5N        | 9.1E  | 0  | LO | 250 | N | N | 19910406 | 105141 | 245 | 149 | 72        | 14 |
| 97  | 76  | CHAD            | TIBESTI MTNS.              | 20.4N             | 18.0E | 20.5N        | 12.1E | 0  | LO | 250 | N | N | 19910406 | 105230 | 245 | 158 | 74        | 14 |
| 97  | 77  | CHAD            | TIBESTI MTNS.              | 21.0N             | 16.5E | 20.2N        | 12.7E | 0  | LO | 250 | N | N | 19910406 | 105241 | 245 | 160 | 75        | 14 |
| 97  | 78  | CHAD            | TIBESTI MTNS.              | 21.0N             | 18.0E | 19.3N        | 15.0E | 0  | LO | 250 | N | N | 19910406 | 105320 | 245 | 169 | 76        | 14 |
| 97  | 79  | CHAD            | TIBESTI MTNS., EMI KOUSSI  | 19.8N             | 18.5E | 18.8N        | 18.3E | 0  | LO | 250 | N | N | 19910406 | 105342 | 245 | 175 | 77        | 14 |
| 97  | 80  | CHAD            | ENNEDI PLAT.               | 17.2N             | 22.8E | 17.9N        | 18.4E | 10 | LO | 250 | N | N | 19910406 | 105418 | 245 | 186 | 78        | 14 |
| 97  | 81  | CHAD            | ENNEDI PLAT.               | 17.0N             | 23.0E | 17.7N        | 19.1E | 10 | LO | 250 | N | N | 19910406 | 105429 | 245 | 189 | 78        | 14 |
| 97  | 82  | CHAD            | ENNEDI PLAT.               | 17.0N             | 23.0E | 17.4N        | 19.6E | 0  | LO | 250 | N | N | 19910406 | 105438 | 245 | 192 | 78        | 14 |
| 98  | 50  | CHAD            | TIBESTI MTNS., MT. KOUSSI  | 18.9N             | 18.6E | 19.6N        | 16.2E | 0  | LO | 250 | N | N | 19910407 | 101440 | 245 | 139 | 73        | 29 |
| 98  | 51  | CHAD            | TIBESTI MTNS., EMI KOUSSI  | 19.8N             | 18.5E | 19.3N        | 17.0E | 0  | LO | 250 | N | N | 19910407 | 101453 | 245 | 141 | 74        | 29 |
| 98  | 52  | CHAD            | TIBESTI MTNS., PIC TOUSID  | 21.0N             | 16.4E | 19.0N        | 17.9E | 0  | LO | 250 | N | N | 19910407 | 101508 | 245 | 143 | 75        | 29 |
| 98  | 53  | CHAD            | SE. OF TIBESTI MTNS.       |                   |       | 18.8N        | 18.2E | 0  | LO | 250 | N | N | 19910407 | 101514 | 245 | 144 | 75        | 29 |
| 98  | 54  | CHAD            | BODELE DESERT              |                   |       | 18.5N        | 19.1E | 0  | LO | 250 | N | N | 19910407 | 101529 | 245 | 146 | 76        | 29 |
| 98  | 55  | CHAD            | ENNEDI PLATEAU             |                   |       | 18.3N        | 19.4E | 0  | LO | 250 | N | N | 19910407 | 101534 | 245 | 147 | 76        | 29 |
| 98  | 56  | CHAD            | ENNEDI PLATEAU             |                   |       | 17.8N        | 20.8E | 0  | LO | 250 | N | N | 19910407 | 101558 | 245 | 152 | 77        | 29 |
| 151 | 254 | CHAD            | NEAR TIBESTI               |                   |       | 18.2N        | 17.8E | 0  | LO | 250 | N | N | 19910406 | 105407 | 245 | 183 | 78        | 14 |
| 151 | 255 | CHAD            | ERG DU DJOURAB             | 16.5N             | 18.5E | 17.5N        | 19.4E | 10 | LO | 250 | N | N | 19910406 | 105434 | 245 | 191 | 78        | 14 |
| 151 | 256 | CHAD            | ENNEDI PLAT.-HABILI HILLS  | 16.0N             | 23.0E | 16.3N        | 22.2E | 15 | LO | 250 | N | N | 19910406 | 105524 | 245 | 208 | 78        | 14 |
| 151 | 257 | CHAD            | WADI UMM SAQAT             | 15.5N             | 23.0E | 15.5N        | 23.9E | 25 | LO | 250 | N | N | 19910406 | 105553 | 244 | 218 | 78        | 14 |
| 153 | 0   | Q               | CHAD                       | CHARI RIVER BASIN | 10.0N | 16.0E        |       | 5  | LO | 250 | N | Y |          |        |     |     |           |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|--------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 153 | 0   | R CHAD          | LOGONE RIVER             | 10.5N         | 15.5E         |              |              | 10 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0   | S CHAD          | AREA WEST OF LOGONE R.   | 9.5N          | 14.5E         |              |              | 45 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0   | T CHAD          | CHARI RIVER BASIN        | 10.5N         | 16.5E         |              |              | 30 | LO | 250 | N | N |          |        |     |     |           |    |
| 10  | 15  | CHILE           | S. VIEW OF ANDES MTS.    |               |               | 21.2S        | 65.1W        | 60 | HO | 35  | N | N | 19910410 | 193822 | 247 | 296 | 34        | 81 |
| 39  | 11  | CHILE           | ATACAMA DESERT           | 25.0S         | 70.0W         | 25.7S        | 73.3W        | 15 | LO | 35  | N | N | 19910410 | 211601 | 246 | 289 | 18        | 82 |
| 39  | 12  | CHILE           | ATACAMA DESERT           | 25.0S         | 69.0W         | 25.8S        | 73.1W        | 5  | LO | 35  | N | N | 19910410 | 211604 | 246 | 289 | 18        | 82 |
| 39  | 13  | CHILE           | ATACAMA DESERT           | 24.0S         | 69.0W         | 25.8S        | 72.9W        | 5  | LO | 35  | N | N | 19910410 | 211607 | 246 | 288 | 18        | 82 |
| 39  | 14  | CHILE           | ATACAMA DESERT           | 23.0S         | 70.0W         | 26.0S        | 72.2W        | 20 | LO | 35  | N | N | 19910410 | 211618 | 246 | 288 | 17        | 82 |
| 39  | 15  | CHILE           | VIEW SOUTH OF ANDES MTS. | 29.0S         | 69.0W         | 26.1S        | 71.7W        | 35 | LO | 35  | N | N | 19910410 | 211625 | 246 | 288 | 17        | 82 |
| 39  | 16  | CHILE           | VIEW SOUTH OF ANDES MTS. | 27.0S         | 69.0W         | 26.2S        | 71.2W        | 45 | LO | 35  | N | N | 19910410 | 211633 | 246 | 288 | 16        | 82 |
| 39  | 17  | CHILE           | ATACAMA DESERT, ANDES    | 25.0S         | 69.0W         | 26.2S        | 71.0W        | 25 | LO | 35  | N | N | 19910410 | 211636 | 246 | 288 | 16        | 82 |
| 39  | 18  | CHILE           | ANDES MTS., SOCOMPA VOL. | 25.0S         | 68.0W         | 26.3S        | 70.8W        | 5  | LO | 35  | N | N | 19910410 | 211639 | 246 | 287 | 16        | 82 |
| 39  | 19  | CHILE           | ANDES MTS., SOCOMPA VOL. | 26.0S         | 68.0W         | 26.3S        | 70.7W        | 5  | LO | 35  | N | N | 19910410 | 211641 | 246 | 287 | 16        | 82 |
| 39  | 20  | CHILE           | ANDES MTS., ATACAMA DES. | 26.0S         | 69.0W         | 26.3S        | 70.4W        | 5  | LO | 35  | N | N | 19910410 | 211645 | 246 | 287 | 15        | 82 |
| 39  | 21  | CHILE           | ANDES MTS., ATACAMA DES. | 26.0S         | 69.0W         | 26.4S        | 70.3W        | 5  | LO | 35  | N | N | 19910410 | 211647 | 246 | 287 | 15        | 82 |
| 39  | 22  | CHILE           | ANDES MTS., ATACAMA DES. | 24.0S         | 70.0W         | 26.4S        | 70.0W        | 5  | LO | 35  | N | N | 19910410 | 211651 | 246 | 287 | 15        | 82 |
| 153 | 78  | CHILE           | ATACAMA DESERT, ARICA    | 19.5S         | 70.5W         |              |              | 10 | LO | 250 | N | N |          |        |     |     |           |    |
| 153 | 79  | CHILE           | ATACAMA DESERT, IQUIQUE  | 20.0S         | 70.5W         | 18.9S        | 72.6W        | 10 | LO | 250 | N | Y | 19910409 | 201439 | 247 | 293 | 33        | 66 |
| 153 | 80  | CHILE           | ATACAMA DESERT, IQUIQUE  | 20.0S         | 68.5W         |              |              | 10 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 82  | CHILE           | UYUNI SALAR, ATACAMA D.  | 20.5S         | 68.5W         |              |              | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 83  | CHILE           | ATACAMA DES., TOCOPILLA  | 21.0S         | 69.5W         | 19.3S        | 71.6W        | 5  | LO | 250 | N | Y | 19910409 | 201456 | 247 | 292 | 32        | 66 |
| 153 | 84  | CHILE           | ATACAMA DES., TOCOPILLA  | 22.0S         | 70.5W         |              |              | 15 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 85  | CHILE           | UYUNI, ASCOTAN SALARS    | 21.5S         | 68.5W         | 19.5S        | 71.0W        | 0  | LO | 250 | N | Y | 19910409 | 201506 | 247 | 292 | 31        | 66 |
| 153 | 86  | CHILE           | ATACAMA DES., LOA RIVER  | 21.5S         | 69.5W         |              |              | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 87  | CHILE           | ATACAMA DES., LOA RIVER  | 21.0S         | 70.0W         | 19.7S        | 70.4W        | 15 | LO | 250 | N | Y | 19910409 | 201515 | 247 | 292 | 31        | 66 |
| 153 | 88  | CHILE           | ATACAMA DES., CALAMA     | 22.0S         | 69.0W         | 20.0S        | 69.8W        | 0  | LO | 250 | N | Y | 19910409 | 201526 | 247 | 292 | 30        | 66 |
| 153 | 89  | CHILE           | ATACAMA DES., MIRAJE S.  | 22.5S         | 70.0W         |              |              | 10 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 90  | CHILE           | ATACAMA D., ANTOFAGASTA  | 24.0S         | 70.5W         | 20.1S        | 69.4W        | 30 | LO | 250 | N | Y | 19910409 | 201533 | 247 | 291 | 29        | 66 |
| 153 | 91  | CHILE           | ATACAMA, ARIZARO SALARS  | 24.5S         | 69.0W         |              |              | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 95  | CHILE           | PEDERNALES S., C. ANDES  | 27.0S         | 69.0W         |              |              | 30 | HO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 96  | CHILE           | PEDERNALES S., C. ANDES  | 27.0S         | 70.0W         | 20.5S        | 68.2W        | 30 | HO | 250 | N | Y | 19910409 | 201552 | 247 | 291 | 28        | 66 |
| 153 | 97  | CHILE           | CHILE COAST, CEN. ANDES  | 27.5S         | 71.0W         |              |              | 40 | HO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 98  | CHILE           | CHILE C., CAPE BASCUNAN  | 31.5S         | 71.0W         | 20.8S        | 67.5W        | 65 | HO | 250 | N | N | 19910409 | 201605 | 247 | 291 | 27        | 66 |
| 153 | 101 | CHILE           | ATACAMA S., CEN. ANDES   | 23.0S         | 68.0W         |              |              | 5  | LO | 250 | N | N |          |        |     |     |           |    |
| 40  | 7   | CHINA           | VIEW E. TOWARD TERMINAT. |               |               | 28.5N        | 115.0E       | 85 | HO | 35  | N | N | 19910410 | 220743 | 243 | 81  | 1         | 83 |
| 40  | 8   | CHINA           | CLOUDS OVER E. CHINA SEA |               |               | 28.6N        | 118.3E       | 85 | LO | 35  | N | N | 19910410 | 220831 | 243 | 83  | 4         | 83 |
| 72  | 81  | CHINA           | HST-HSIA PANG MA MNTS.   | 28.5N         | 86.0E         | 25.3N        | 83.7E        | 70 | LO | 100 | N | Y | 19910406 | 011350 | 246 | 89  | 12        | 8  |
| 72  | 82  | CHINA           | TIBET PLATEAU            | 29.0N         | 87.0E         | 25.4N        | 84.3E        | 85 | LO | 100 | N | Y | 19910406 | 011359 | 246 | 89  | 13        | 8  |
| 72  | 83  | CHINA           | NA-MU LAKE               | 31.5N         | 91.0E         | 26.1N        | 87.4E        | 20 | HO | 100 | N | Y | 19910406 | 011447 | 246 | 91  | 16        | 8  |
| 72  | 84  | CHINA           | CH'L-LIN LAKE            | 32.0N         | 89.5E         | 26.2N        | 87.8E        | 15 | HO | 100 | N | Y | 19910406 | 011453 | 246 | 91  | 16        | 8  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|----------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 72 | 85  | CHINA           | TIBET PLATEAU-CHEKU LAKE   | 28.5N         | 92.0E         | 26.3N        | 88.7E        | 45 | LO | 100 | N | Y | 19910408 | 011508 | 248 | 91  | 17        | 8  |
| 72 | 86  | CHINA           | BRAMAPUTRA RIVER           | 29.5N         | 91.0E         | 26.6N        | 90.3E        | 15 | LO | 100 | N | Y | 19910408 | 011530 | 246 | 92  | 19        | 8  |
| 72 | 87  | CHINA           | PANORAMA TIBETAN PLATEAU   |               |               | 26.8N        | 91.2E        | 30 | HO | 100 | N | Y | 19910408 | 011544 | 246 | 93  | 19        | 8  |
| 72 | 89  | CHINA           | CHE KU LAKE-HIMALAYAS      | 28.5N         | 92.5E         | 27.2N        | 94.1E        | 25 | LO | 100 | N | Y | 19910408 | 011628 | 246 | 94  | 22        | 8  |
| 72 | 90  | CHINA           | NIEN CH'ING T'ANG KU MNT   | 31.0N         | 93.0E         | 27.4N        | 95.1E        | 20 | LO | 100 | N | Y | 19910408 | 011643 | 246 | 95  | 23        | 8  |
| 72 | 91  | CHINA           | NIEN CH'ING T'ANG KU MNT   | 29.5N         | 90.5E         | 27.5N        | 95.7E        | 10 | HO | 100 | N | Y | 19910408 | 011651 | 246 | 95  | 24        | 8  |
| 72 | 92  | CHINA           | GREAT HIMALAYA RANGE       |               |               | 28.1N        | 101.9E       | 25 | HO | 100 | N | Y | 19910408 | 011823 | 246 | 99  | 29        | 8  |
| 72 | 93  | CHINA           | GREAT HIMALAYA RANGE       |               |               | 28.2N        | 102.3E       | 30 | HO | 100 | N | Y | 19910408 | 011829 | 246 | 99  | 30        | 8  |
| 72 | 94  | CHINA           | FOLDED MOUNTAINS           |               |               | 28.3N        | 104.0E       | 50 | LO | 100 | N | Y | 19910408 | 011853 | 246 | 100 | 31        | 8  |
| 72 | 95  | CHINA           | FOLDED MOUNTAINS           |               |               | 28.3N        | 104.7E       | 70 | HO | 100 | N | Y | 19910408 | 011904 | 246 | 101 | 32        | 8  |
| 72 | 96  | CHINA           | FOLDED MOUNTAINS-KARST     |               |               | 28.4N        | 105.8E       | 50 | LO | 100 | N | Y | 19910408 | 011920 | 246 | 101 | 33        | 8  |
| 72 | 97  | CHINA           | FOLDED MOUNTAINS-KARST     |               |               | 28.5N        | 109.5E       | 50 | LO | 100 | N | Y | 19910408 | 012013 | 246 | 104 | 36        | 8  |
| 91 | 101 | CHINA           | HIMALAYA RANGE, DOGEN L.   | 28.0N         | 89.0E         | 26.1N        | 87.6E        | 15 | LO | 250 | N | Y | 19910408 | 011449 | 246 | 91  | 16        | 8  |
| 91 | 102 | CHINA           | HIMALAYA RA, CHAMLING L.   | 28.0N         | 88.5E         | 26.1N        | 87.6E        | 30 | LO | 250 | N | Y | 19910408 | 011450 | 246 | 91  | 16        | 8  |
| 91 | 103 | CHINA           | HIMALAYAS, BHAMAPUTRA R.   | 27.5N         | 87.5E         | 26.2N        | 88.0E        | 15 | LO | 250 | N | Y | 19910408 | 011455 | 246 | 91  | 17        | 8  |
| 91 | 105 | CHINA           | CHIUNG L, ANNING R, YALONG | 28.0N         | 102.0E        | 27.8N        | 98.6E        | 50 | LO | 250 | N | Y | 19910408 | 011734 | 246 | 97  | 27        | 8  |
| 91 | 106 | CHINA           | CHIUNG L, ANNING R, YALONG | 27.5N         | 102.0E        | 27.9N        | 98.1E        | 40 | LO | 250 | N | Y | 19910408 | 011741 | 246 | 97  | 27        | 8  |
| 91 | 107 | CHINA           | LINGDING BAY-SE PANORAMA   | 24.0N         | 113.0E        | 28.4N        | 106.2E       | 30 | LO | 250 | U | N | 19910408 | 011926 | 246 | 102 | 34        | 8  |
| 91 | 108 | CHINA           | SE PANORAMA-COAST, V. DARK |               |               | 28.4N        | 106.6E       | 50 | LO | 250 | U | N | 19910408 | 011932 | 246 | 102 | 34        | 8  |
| 91 | 109 | CHINA           | VERY DARK, CLOUDS          |               |               | 28.4N        | 107.4E       | 50 | LO | 250 | U | N | 19910408 | 011943 | 246 | 103 | 35        | 8  |
| 92 | 118 | CHINA           | NE.MT. EVEREST             | 28.4N         | 87.2E         | 28.5N        | 87.8E        | 0  | NV | 250 | N | N | 19910408 | 013622 | 247 | 94  | 22        | 39 |
| 92 | 119 | CHINA           | NE.MT. EVEREST             |               |               | 28.5N        | 88.9E        | 20 | LO | 250 | N | N | 19910408 | 013638 | 248 | 94  | 23        | 39 |
| 93 | 28  | CHINA           | HIMALAYAS, TIBET PL.       | 28.5N         | 85.5E         | 25.1N        | 83.1E        | 45 | LO | 250 | N | N | 19910408 | 011340 | 246 | 88  | 12        | 8  |
| 93 | 29  | CHINA           | HIMALAYAS, TIBET PL.       | 28.5N         | 85.5E         | 25.2N        | 83.5E        | 40 | LO | 250 | N | Y | 19910408 | 011347 | 246 | 89  | 12        | 8  |
| 93 | 30  | CHINA           | HIMALAYAS, TIBET PL.       | 28.5N         | 86.0E         | 25.4N        | 84.1E        | 45 | LO | 250 | N | Y | 19910408 | 011358 | 246 | 89  | 13        | 8  |
| 93 | 31  | CHINA           | HIMALAYAS, TIBET PL.       | 28.5N         | 86.5E         | 25.5N        | 84.7E        | 35 | LO | 250 | N | Y | 19910408 | 011405 | 246 | 89  | 13        | 8  |
| 93 | 32  | CHINA           | HIMALAYAS, TIBET PL.       | 28.5N         | 90.5E         | 26.5N        | 89.8E        | 10 | LO | 250 | N | N | 19910408 | 011523 | 246 | 92  | 18        | 8  |
| 93 | 33  | CHINA           | HIMALAYAS, TIBET PL.       | 28.5N         | 91.5E         | 26.8N        | 90.0E        | 25 | LO | 250 | N | Y | 19910408 | 011526 | 246 | 92  | 18        | 8  |
| 93 | 34  | CHINA           | TIBET PL., SILING LK.      | 31.0N         | 90.0E         | 26.8N        | 91.5E        | 0  | HO | 250 | N | N | 19910408 | 011548 | 246 | 93  | 20        | 8  |
| 93 | 35  | CHINA           | TIBET PL., NAM LK.         | 31.0N         | 90.5E         | 26.9N        | 91.7E        | 0  | HO | 250 | N | Y | 19910408 | 011551 | 246 | 93  | 20        | 8  |
| 93 | 36  | CHINA           | TIBET PLATEAU              | 31.5N         | 92.0E         | 26.9N        | 91.9E        | 0  | HO | 250 | N | N | 19910408 | 011554 | 246 | 93  | 20        | 8  |
| 93 | 37  | CHINA           | FOLDED R., CHENG HAI LAKE  | 27.0N         | 101.0E        | 27.2N        | 93.7E        | 65 | HO | 250 | N | N | 19910408 | 011622 | 246 | 94  | 22        | 8  |
| 93 | 38  | CHINA           | YA-LUNG R.-FOLDED MNTS.    | 27.5N         | 101.5E        | 27.4N        | 95.0E        | 60 | LO | 250 | N | Y | 19910408 | 011641 | 246 | 95  | 23        | 8  |
| 93 | 39  | CHINA           | FOLDED RANGES              | 27.5N         | 100.5E        | 27.4N        | 95.4E        | 30 | LO | 250 | N | N | 19910408 | 011646 | 246 | 95  | 23        | 8  |
| 93 | 40  | CHINA           | FOLDED RANGES, YALANG R.   | 28.0N         | 101.0E        | 27.5N        | 96.2E        | 15 | LO | 250 | N | Y | 19910408 | 011659 | 246 | 96  | 24        | 8  |
| 93 | 41  | CHINA           | FOLDED RANGES              | 27.0N         | 101.5E        | 27.9N        | 98.5E        | 45 | LO | 250 | N | N | 19910408 | 011733 | 246 | 97  | 26        | 8  |
| 93 | 42  | CHINA           | FOLDED R., YANGTZE RIVER   | 28.0N         | 99.5E         | 27.8N        | 98.7E        | 60 | LO | 250 | N | N | 19910408 | 011735 | 246 | 97  | 27        | 8  |
| 93 | 43  | CHINA           | FOLDED R., MEKONG RIVER    | 27.0N         | 99.0E         | 27.8N        | 98.9E        | 65 | LO | 250 | N | Y | 19910408 | 011738 | 246 | 97  | 27        | 8  |
| 93 | 44  | CHINA           | FOLDED RANGES              |               |               | 27.9N        | 99.2E        | 75 | LO | 250 | N | N | 19910408 | 011743 | 246 | 97  | 27        | 8  |
| 93 | 45  | CHINA           | FOLDED RANGES              | 28.0N         | 101.5E        | 27.9N        | 99.4E        | 45 | LO | 250 | N | Y | 19910408 | 011746 | 246 | 97  | 27        | 8  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT LON | MADIR<br>LAT LON | CC TL | FL | E   | S | DATE | GMT      | AL     | AZ  | SUN<br>EL OR |
|-----|-----|-----------------|---------------------------|-------------------|------------------|-------|----|-----|---|------|----------|--------|-----|--------------|
| 93  | 46  | CHINA           | FOLDED RANGES             | 28.6N 102.0E      | 27.9N 99.7E      | 50    | LO | 250 | N | Y    | 19910406 | 011750 | 246 | 98 27 8      |
| 93  | 47  | CHINA           | FOLDED RANGES             |                   | 28.0N 100.3E     | 70    | LO | 250 | N | N    | 19910406 | 011759 | 246 | 98 28 8      |
| 94  | 48  | CHINA           | FRONTAL CLOUD, DARK       |                   |                  | 50    | LO | 100 | U | N    |          |        |     |              |
| 94  | 49  | CHINA           | FRONTAL CLOUD, DARK       |                   |                  | 75    | LO | 100 | U | N    |          |        |     |              |
| 94  | 50  | CHINA           | HAZE, FOG WUYI MTS.       |                   |                  | 30    | LO | 100 | N | N    |          |        |     |              |
| 94  | 51  | CHINA           | HAZE, FOG WUYI MTS.       |                   |                  | 50    | LO | 100 | N | N    |          |        |     |              |
| 94  | 52  | CHINA           | HAZE, FOG WUYI MTS.       |                   |                  | 55    | LO | 100 | N | N    |          |        |     |              |
| 94  | 53  | CHINA           | COAST, SED. PLUMES        |                   |                  | 55    | LO | 100 | N | N    |          |        |     |              |
| 94  | 54  | CHINA           | COAST, SED. PLUMES        |                   |                  | 65    | LO | 100 | U | N    |          |        |     |              |
| 96  | 25  | CHINA           | TIBET PLAT., HIMALAYAS    | 30.0N 83.0E       |                  | 30    | LO | 100 | N | Y    |          |        |     |              |
| 96  | 26  | CHINA           | TIBET PLAT., HIMALAYAS    | 29.0N 84.0E       |                  | 35    | LO | 100 | N | Y    |          |        |     |              |
| 96  | 27  | CHINA           | TIBET PLAT., HIMALAYAS    | 29.0N 85.5E       |                  | 25    | LO | 100 | N | Y    |          |        |     |              |
| 96  | 28  | CHINA           | TIBET PLAT., HIMALAYAS    | 30.5N 86.5E       |                  | 15    | LO | 100 | N | Y    |          |        |     |              |
| 96  | 29  | CHINA           | TIBET PLAT., HIMALAYAS    | 30.0N 88.0E       |                  | 25    | LO | 100 | N | Y    |          |        |     |              |
| 96  | 30  | CHINA           | TIBET PLAT., HIMALAYAS    | 30.6N 89.0E       |                  | 35    | LO | 100 | N | Y    |          |        |     |              |
| 96  | 31  | CHINA           | TIBET PLAT., HIMALAYAS    | 30.0N 90.5E       |                  | 55    | LO | 100 | N | Y    |          |        |     |              |
| 96  | 32  | CHINA           | TIBET PLAT., HIMALAYAS    | 29.0N 86.5E       |                  | 35    | HO | 100 | N | N    |          |        |     |              |
| 96  | 34  | CHINA           | FOLDED RANGES, SALWEEN R  | 24.5N 99.0E       |                  | 60    | LO | 100 | N | N    |          |        |     |              |
| 96  | 35  | CHINA           | FOLDED RANGES, MEKONG R.  | 27.5N 101.5E      |                  | 50    | LO | 100 | N | Y    |          |        |     |              |
| 96  | 36  | CHINA           | FOLDED RANGES, MEKONG R.  | 27.5N 102.0E      |                  | 45    | LO | 100 | N | Y    |          |        |     |              |
| 151 | 102 | CHINA           | MEKONG RIVER              | 22.0N 101.0E      | 22.9N 100.4E     | 35    | LO | 250 | N | N    | 19910406 | 043647 | 245 | 145 70 10    |
| 151 | 104 | CHINA           | HAI-NAN TAO               | 19.5N 110.0E      | 19.8N 109.4E     | 70    | NV | 250 | N | Y    | 19910406 | 043916 | 245 | 173 76 10    |
| 151 | 105 | CHINA           | LUICHOW PENINSULA         | 21.0N 110.0E      | 19.5N 110.1E     | 60    | LO | 250 | N | Y    | 19910406 | 043927 | 245 | 176 76 10    |
| 152 | 278 | CHINA           | HSI-PANG MNTS., DOUBLE EX |                   | 28.3N 84.8E      | 25    | LO | 250 | N | N    | 19910408 | 013537 | 247 | 92 19 39     |
| 152 | 279 | CHINA           | NIEN TANG KULA MT-DOU EX  | 30.0N 87.0E       | 28.4N 85.7E      | 5     | LO | 250 | N | N    | 19910408 | 013551 | 247 | 92 20 39     |
| 152 | 280 | CHINA           | HIMAL-CHINA, NEPAL-DOU EX |                   | 28.4N 86.5E      | 15    | LO | 250 | N | N    | 19910408 | 013602 | 247 | 93 20 39     |
| 152 | 281 | CHINA           | MU HSIN-LIN LAKE-TIBET P  | 28.5N 88.5E       | 28.5N 88.1E      | 50    | NV | 250 | N | N    | 19910408 | 013625 | 248 | 94 22 39     |
| 152 | 282 | CHINA           | LAKE NAMU-TIB PLAT-DOUEX  | 30.0N 90.5E       | 28.5N 89.4E      | 80    | LO | 250 | N | N    | 19910408 | 013645 | 248 | 94 23 39     |
| 152 | 284 | CHINA           | TA-YEN, CHENG L.-DOUB EXP | 27.0N 100.0E      | 28.4N 97.5E      | 60    | LO | 250 | N | N    | 19910408 | 013842 | 248 | 99 30 39     |
| 152 | 285 | CHINA           | JINSHA R.-LONGJIE         | 26.5N 102.0E      | 28.1N 102.0E     | 5     | LO | 250 | N | Y    | 19910408 | 013949 | 248 | 101 35 39    |
| 152 | 286 | CHINA           | JINSHA R.-LU-NAN MNTS.    | 27.0N 102.5E      | 27.9N 104.1E     | 5     | LO | 250 | N | Y    | 19910408 | 014020 | 248 | 103 37 39    |
| 152 | 287 | CHINA           | FOLDED MOUNTAINS-CLOUDS   |                   | 27.6N 106.4E     | 80    | LO | 250 | N | N    | 19910408 | 014053 | 248 | 104 39 39    |
| 152 | 288 | CHINA           | MNTS. NEAR COAST-CLOUDS   |                   | 26.0N 115.9E     | 85    | LO | 250 | N | N    | 19910408 | 014317 | 248 | 110 48 39    |
| 153 | 161 | CHINA           | TIBET PLAT., NA-MU LAKE   | 31.0N 92.0E       | 27.5N 79.8E      | 60    | HO | 250 | O | N    | 19910410 | 001643 | 245 | 80 -1 69     |
| 153 | 162 | CHINA           | TIBET PLAT., NA-MU LAKE   | 29.5N 90.0E       | 28.0N 83.8E      | 55    | LO | 250 | N | N    | 19910410 | 001742 | 246 | 82 1 69      |
| 153 | 163 | CHINA           | HIMALAYAS, PAIKU-CO LK.   | 28.5N 85.5E       | 28.2N 86.2E      | 5     | NV | 250 | N | N    | 19910410 | 001817 | 246 | 83 4 69      |
| 153 | 164 | CHINA           | HIMALAYAS, IIXABANGMA     | 28.5N 85.5E       | 28.3N 87.3E      | 5     | NV | 250 | N | Y    | 19910410 | 001834 | 246 | 84 5 69      |
| 153 | 165 | CHINA           | HIMALAYAS                 | 28.5N 86.5E       | 28.3N 88.6E      | 5     | NV | 250 | N | Y    | 19910410 | 001852 | 246 | 84 6 69      |
| 153 | 166 | CHINA           | HIMALAYAS                 | 28.5N 89.0E       | 28.4N 89.7E      | 5     | NV | 250 | N | Y    | 19910410 | 001908 | 246 | 85 7 69      |
| 153 | 167 | CHINA           | HIMALAYAS, PUMA LK.       | 29.0N 90.0E       | 28.4N 90.8E      | 10    | NV | 250 | N | Y    | 19910410 | 001924 | 246 | 85 8 69      |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER |       | NADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM   |
|-----|-----|-----------------|--------------------------|--------|-------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-------|
|     |     |                 |                          | LAT    | LONG  | LAT   | LONG   |    |    |     |   |   |          |        |     |     | EL OR |
| 153 | 168 | CHINA           | HIMALAYAS, PUMA LK.      | 28.5N  | 91.0E | 28.5N | 91.7E  | 25 | NV | 250 | N | Y | 19910410 | 001938 | 246 | 86  | 9 89  |
| 153 | 169 | CHINA           | HIMALAYAS, BRAHMAPUTRA   | 29.5N  | 90.5E |       |        | 10 | LO | 250 | N | N |          |        |     |     |       |
| 153 | 170 | CHINA           | HIMALAYAS, BRAHMAPUTRA   | 29.0N  | 92.0E | 28.5N | 93.4E  | 5  | LO | 250 | N | Y | 19910410 | 002003 | 246 | 87  | 10 69 |
| 153 | 171 | CHINA           | TIBET PLAT., DLB. EXPOS. |        |       |       |        | 50 | HO | 250 | O | N |          |        |     |     |       |
| 153 | 172 | CHINA           | TIBET PLATEAU            | 34.5N  | 91.0E | 28.5N | 98.3E  | 80 | HO | 250 | N | N | 19910410 | 002113 | 247 | 89  | 15 69 |
| 153 | 173 | CHINA           | TIBET PLAT., DBL. EXPOS  |        |       | 28.4N | 100.6E | 60 | HO | 250 | O | N | 19910410 | 002147 | 247 | 90  | 17 69 |
| 153 | 174 | CHINA           | TIBET PLATEAU            |        |       | 28.4N | 101.3E | 70 | HO | 250 | N | N | 19910410 | 002158 | 247 | 90  | 18 69 |
| 153 | 175 | CHINA           | TIBET P., YAMZHO LAKE    | 30.0N  | 89.5E | 28.3N | 103.1E | 40 | HO | 250 | N | N | 19910410 | 002224 | 247 | 91  | 19 69 |
| 153 | 176 | CHINA           | TIBET P., YAMZHO LAKE    | 29.0N  | 88.5E | 28.2N | 103.9E | 40 | HO | 250 | N | Y | 19910410 | 002235 | 247 | 92  | 20 69 |
| 153 | 177 | CHINA           | FOLDED R., DBL. EXPOSURE |        |       |       |        | 55 | HO | 250 | O | N |          |        |     |     |       |
| 153 | 178 | CHINA           | FOLDED RANGES            | 29.5N  | 99.0E | 28.0N | 106.6E | 50 | HO | 250 | N | N | 19910410 | 002315 | 247 | 93  | 23 69 |
| 153 | 179 | CHINA           | FOLDED R., DBL. EXPOSURE |        |       | 18.7N | 143.6E | 55 | HO | 250 | O | N | 19910410 | 003256 | 248 | 107 | 60 69 |
| 71  | 72  | COLOMBIA        | PEN. DELA GUAJIRA        | 12.5N  | 71.5W | 14.2N | 70.8W  | 80 | LO | 250 | N | N | 19910405 | 174852 | 244 | 244 | 72 3  |
| 72  | 50  | COLOMBIA        | CIRRUS, CUMULUS CLOUDS   |        |       | 1.7N  | 71.8W  | 90 | LO | 100 | N | N | 19910405 | 192924 | 243 | 277 | 50 4  |
| 79  | 77  | COLOMBIA        | SIMU RIVER MOUTH         | 9.0N   | 76.0W | 6.3N  | 77.9W  | 65 | LO | 250 | N | N | 19910406 | 184827 | 243 | 271 | 66 19 |
| 79  | 78  | COLOMBIA        | SIMU RIVER MOUTH         | 9.0N   | 76.0W | 5.6N  | 76.5W  | 65 | LO | 250 | U | N | 19910406 | 184853 | 243 | 273 | 65 19 |
| 79  | 79  | COLOMBIA        | SAN JUAN R. DELTA        | 4.0N   | 77.0W | 4.4N  | 74.5W  | 70 | LO | 250 | N | N | 19910406 | 184931 | 243 | 275 | 62 19 |
| 81  | 27  | COLOMBIA        | CLOUDS, LAND USE         |        |       | 3.8N  | 75.4W  | 70 | LO | 250 | N | N | 19910405 | 192816 | 243 | 275 | 54 4  |
| 89  | 66  | COLOMBIA        | CLOUD FRONT, DARK        |        |       | 6.5N  | 74.4W  | 80 | LO | 250 | U | N | 19910408 | 173146 | 246 | 274 | 82 49 |
| 91  | 38  | COLOMBIA        | COAST, CLOUDS            |        |       | 4.9N  | 77.3W  | 80 | LO | 250 | N | Y | 19910405 | 192739 | 243 | 273 | 56 4  |
| 91  | 39  | COLOMBIA        | COAST, CLOUDS            |        |       | 4.3N  | 76.3W  | 80 | LO | 250 | N | Y | 19910405 | 192759 | 243 | 274 | 55 4  |
| 91  | 40  | COLOMBIA        | COLIMA RES, ANDES,CLDS   | 4.0N   | 76.5W | 3.8N  | 75.4W  | 85 | LO | 250 | N | N | 19910405 | 192815 | 243 | 275 | 54 4  |
| 91  | 41  | COLOMBIA        | RIO ARIARI, RIO AGUAPE   | 4.0N   | 74.0W | 3.2N  | 74.3W  | 80 | NV | 250 | N | N | 19910405 | 192836 | 243 | 275 | 52 4  |
| 91  | 42  | COLOMBIA        | RIO ARIARI, LLANOS       | 3.0N   | 73.0W | 3.1N  | 74.1W  | 40 | LO | 250 | N | N | 19910405 | 192840 | 243 | 276 | 52 4  |
| 92  | 9   | COLOMBIA        | RIO ATRATO AREA          | 7.5N   | 77.0W | 6.7N  | 78.5W  | 80 | LO | 250 | N | N | 19910406 | 184815 | 244 | 270 | 67 19 |
| 92  | 10  | COLOMBIA        | RIO ATRATO AREA          |        |       | 6.6N  | 78.3W  | 90 | LO | 250 | N | N | 19910406 | 184819 | 244 | 271 | 66 19 |
| 92  | 11  | COLOMBIA        | RIO ATRATO AREA          | 7.5N   | 77.0W | 6.0N  | 77.3W  | 90 | LO | 250 | N | N | 19910406 | 184837 | 243 | 272 | 65 19 |
| 92  | 12  | COLOMBIA        | RIO ATRATO AREA          |        |       | 5.9N  | 77.1W  | 95 | LO | 250 | N | N | 19910406 | 184841 | 243 | 272 | 65 19 |
| 92  | 13  | COLOMBIA        | BAHIA DE CUPICA AREA     |        |       | 5.8N  | 76.9W  | 95 | LO | 250 | N | N | 19910406 | 184845 | 243 | 272 | 65 19 |
| 92  | 14  | COLOMBIA        | BAHIA SOLANO             | 6.3N   | 77.5W | 5.3N  | 76.0W  | 60 | LO | 250 | N | N | 19910406 | 184902 | 243 | 273 | 64 19 |
| 92  | 15  | COLOMBIA        | MAGDALENA RIVER VALLEY   | 5.7N   | 74.7W | 4.9N  | 75.4W  | 50 | LO | 250 | N | N | 19910406 | 184914 | 243 | 274 | 63 19 |
| 151 | 28  | COLOMBIA        | MEDELLIN                 | 6.5N   | 76.0W | 4.9N  | 77.3W  | 80 | LO | 250 | N | N | 19910405 | 192739 | 243 | 273 | 56 4  |
| 151 | 29  | COLOMBIA        | BOGOTA                   | 4.5N   | 74.5W | 4.2N  | 76.1W  | 80 | LO | 250 | N | Y | 19910405 | 192803 | 243 | 274 | 54 4  |
| 151 | 30  | COLOMBIA        | CORDILLERA ORIENTAL      | 3.5N   | 74.0W | 3.9N  | 75.6W  | 55 | LO | 250 | N | Y | 19910405 | 192813 | 243 | 274 | 54 4  |
| 151 | 31  | COLOMBIA        | CORDILLERA ORIENTAL      | 4.0N   | 73.5W | 3.5N  | 74.9W  | 50 | LO | 250 | N | Y | 19910405 | 192826 | 243 | 275 | 53 4  |
| 151 | 32  | COLOMBIA        | SERRANIA DE LA MACARENA  | 3.0N   | 74.0W | 3.4N  | 74.6W  | 55 | NV | 250 | N | Y | 19910405 | 192832 | 243 | 275 | 53 4  |
| 151 | 33  | COLOMBIA        | RIO GUAYABERO            | 2.5N   | 73.5W | 2.4N  | 72.9W  | 55 | NV | 250 | N | Y | 19910405 | 192903 | 243 | 276 | 51 4  |
| 151 | 34  | COLOMBIA        | RIO CAQUETA              | 0.0    | 72.0W | 0.9N  | 70.3W  | 80 | LO | 250 | N | Y | 19910405 | 192953 | 243 | 278 | 48 4  |
| 151 | 35  | COLOMBIA        | RIO CAQUETA, RIO APAPORI | 1.0S   | 70.5W | 0.4N  | 69.5W  | 90 | LO | 250 | N | Y | 19910405 | 193008 | 243 | 278 | 47 4  |
| 80  | 53  | CONGO           | NEAR THE NIARI RIVER     |        |       | 0.8S  | 11.8E  | 75 | LO | 250 | O | N | 19910409 | 121652 | 246 | 298 | 72 61 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|-----|-----------------|---------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                 |                           | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 80  | 54  | CONGO           | NIARI RIVER               | 3.5S   | 12.5E  | 0.9S  | 11.9E  | 65 | LO | 250 | N | N | 19910409 | 121654 | 246 | 298 | 72  | 61 |    |
| 80  | 55  | CONGO           | NEAR THE NIARI RIVER      |        |        | 1.0S  | 12.1E  | 75 | LO | 250 | O | N | 19910409 | 121658 | 246 | 298 | 72  | 61 |    |
| 80  | 59  | CONGO           | INLAND FROM MBIA LAGOON   |        |        | 1.5S  | 12.9E  | 75 | NV | 250 | O | N | 19910409 | 121714 | 246 | 298 | 71  | 61 |    |
| 80  | 60  | CONGO           | LAND USE PATTERNS         |        |        | 1.6S  | 13.1E  | 80 | NV | 250 | O | N | 19910409 | 121718 | 246 | 298 | 70  | 61 |    |
| 80  | 61  | CONGO           | LAND USE PATTERNS         |        |        | 1.8S  | 13.4E  | 80 | LO | 250 | O | N | 19910409 | 121723 | 246 | 298 | 70  | 61 |    |
| 80  | 62  | CONGO           | COAST S. OF MBIA LAGOON   | 4.0S   | 11.0E  | 1.9S  | 13.7E  | 60 | LO | 250 | N | N | 19910409 | 121728 | 246 | 298 | 70  | 61 |    |
| 80  | 67  | CONGO           | LEFINI RIVER              | 3.0S   | 15.5E  | 2.9S  | 15.4E  | 65 | NV | 250 | N | N | 19910409 | 121802 | 246 | 298 | 67  | 61 |    |
| 87  | 9   | CONGO           | COAST                     | 4.0S   | 11.3E  | 1.0S  | 12.1E  | 50 | LO | 250 | U | Y | 19910409 | 121657 | 246 | 298 | 72  | 61 |    |
| 87  | 14  | CONGO           | CLOUDS, HILLS             |        |        | 2.1S  | 13.9E  | 90 | LO | 250 | U | Y | 19910409 | 121733 | 246 | 298 | 69  | 61 |    |
| 87  | 15  | CONGO           | COAST, POINTE-NOIRE       | 4.7S   | 12.0E  | 2.2S  | 14.1E  | 60 | LO | 250 | U | Y | 19910409 | 121736 | 246 | 298 | 69  | 61 |    |
| 87  | 17  | CONGO           | CONGO RIVER               | 2.7S   | 16.1E  | 2.8S  | 15.1E  | 80 | LO | 250 | N | Y | 19910409 | 121756 | 246 | 298 | 68  | 61 |    |
| 87  | 18  | CONGO           | CONGO RIVER, KWA RIVER    | 3.2S   | 16.1E  | 2.9S  | 15.3E  | 80 | LO | 250 | N | Y | 19910409 | 121800 | 246 | 298 | 68  | 61 |    |
| 87  | 19  | CONGO           | CONGO RIVER               | 3.5S   | 16.0E  | 3.0S  | 15.5E  | 80 | LO | 250 | N | Y | 19910409 | 121803 | 246 | 298 | 67  | 61 |    |
| 87  | 21  | CONGO           | KINSHASA, BRAZZAVILLE     | 4.4S   | 15.1E  | 3.2S  | 15.9E  | 85 | LO | 250 | N | Y | 19910409 | 121811 | 246 | 298 | 67  | 61 |    |
| 87  | 22  | CONGO           | CONGO RIVER               | 4.7S   | 14.7E  | 3.3S  | 16.1E  | 85 | LO | 250 | U | Y | 19910409 | 121814 | 246 | 298 | 67  | 61 |    |
| 90  | 66  | CONGO           | VERY DARK                 |        |        | 4.4S  | 12.2E  | 75 | LO | 250 | U | N | 19910406 | 141400 | 242 | 283 | 43  | 16 |    |
| 152 | 154 | CORAL SEA       | LIHOU REEFS               | 17.0S  | 152.0E | 15.0S | 153.4E | 75 | LO | 250 | N | N | 19910407 | 055432 | 243 | 285 | 25  | 26 |    |
| 152 | 155 | CORAL SEA       | CLOUDS                    |        |        | 16.7S | 157.3E | 80 | LO | 250 | N | N | 19910407 | 055539 | 243 | 284 | 21  | 26 |    |
| 79  | 70  | COSTA RICA      | GULF OF NICOYA            | 10.0N  | 85.0W  | 11.9N | 88.2W  | 30 | LO | 250 | N | N | 19910406 | 184515 | 244 | 246 | 76  | 19 |    |
| 81  | 18  | COSTA RICA      | GULF OF PAPAGAYO          | 10.5N  | 85.5W  | 9.9N  | 86.2W  | 0  | LO | 250 | N | Y | 19910405 | 192453 | 243 | 262 | 65  | 4  |    |
| 81  | 19  | COSTA RICA      | NICOYA PENINSULA          | 10.0N  | 85.5W  | 9.8N  | 86.1W  | 0  | LO | 250 | N | Y | 19910405 | 192455 | 243 | 263 | 65  | 4  |    |
| 81  | 20  | COSTA RICA      | GULF OF NICOYA            | 10.0N  | 85.0W  | 9.8N  | 86.0W  | 5  | LO | 250 | N | Y | 19910405 | 192456 | 243 | 263 | 65  | 4  |    |
| 81  | 21  | COSTA RICA      | NEAR SAN JOSE             | 10.0N  | 84.0W  | 9.3N  | 85.2W  | 70 | LO | 250 | N | N | 19910405 | 192511 | 243 | 264 | 64  | 4  |    |
| 81  | 24  | COSTA RICA      | OSA PEN., GULF OF DULCE   | 9.0N   | 83.5W  | 8.4N  | 83.5W  | 40 | NV | 250 | N | N | 19910405 | 192542 | 243 | 266 | 62  | 4  |    |
| 85  | 14  | COSTA RICA      | CORDILLERA DE GUANACASTE  | 10.8N  | 85.3W  | 11.3N | 83.2W  | 20 | LO | 250 | N | N | 19910408 | 172902 | 246 | 161 | 85  | 49 |    |
| 89  | 61  | COSTA RICA      | L. NICARAGUA, MT. OROSI   | 11.0N  | 85.5W  | 12.2N | 85.0W  | 25 | LO | 250 | N | N | 19910408 | 172829 | 246 | 144 | 83  | 49 |    |
| 91  | 26  | COSTA RICA      | PAPAGAYO GULF, COAST      | 10.5N  | 86.0W  | 9.9N  | 86.3W  | 0  | LO | 250 | N | N | 19910405 | 192450 | 243 | 262 | 65  | 4  |    |
| 91  | 27  | COSTA RICA      | NICOYA PENINSULA          | 10.0N  | 85.5W  | 9.9N  | 86.2W  | 5  | LO | 250 | N | Y | 19910405 | 192452 | 243 | 263 | 65  | 4  |    |
| 91  | 28  | COSTA RICA      | NICOYA PENINSULA/GULF     | 10.0N  | 85.0W  | 9.8N  | 86.1W  | 5  | LO | 250 | N | Y | 19910405 | 192454 | 243 | 263 | 65  | 4  |    |
| 91  | 29  | COSTA RICA      | SAN JOSE, CLOUDS          | 10.0N  | 84.0W  | 9.4N  | 85.3W  | 60 | LO | 250 | N | N | 19910405 | 192509 | 243 | 264 | 64  | 4  |    |
| 91  | 31  | COSTA RICA      | PT. BURICA, PENINSULA     | 8.5N   | 83.0W  | 8.6N  | 83.8W  | 30 | NV | 250 | N | N | 19910405 | 192537 | 243 | 266 | 63  | 4  |    |
| 91  | 32  | COSTA RICA      | CST, PT UVITA             | 9.0N   | 84.0W  | 8.5N  | 83.6W  | 40 | LO | 250 | N | N | 19910405 | 192540 | 243 | 266 | 62  | 4  |    |
| 91  | 35  | COSTA RICA      | PT. BURICA, PENINSULA     | 8.0N   | 83.0W  | 7.0N  | 81.0W  | 30 | LO | 250 | N | N | 19910405 | 192630 | 243 | 270 | 60  | 4  |    |
| 92  | 4   | COSTA RICA      | GOLFO DE NICOYA           | 10.0N  | 85.4W  | 10.6N | 85.6W  | 40 | LO | 250 | N | N | 19910406 | 184602 | 244 | 255 | 74  | 19 |    |
| 92  | 5   | COSTA RICA      | RIO TENPISQUE AREA        | 10.3N  | 85.6W  | 10.5N | 85.5W  | 40 | LO | 250 | N | N | 19910406 | 184605 | 244 | 256 | 74  | 19 |    |
| 92  | 6   | COSTA RICA      | WATER DETAIL, GULF PAPAGA | 10.9N  | 85.7W  | 10.4N | 85.3W  | 40 | LO | 250 | N | N | 19910406 | 184608 | 244 | 256 | 74  | 19 |    |
| 96  | 52  | COSTA RICA      | L. NICARAGUA, NICOYA PEN  | 11.0N  | 85.5W  |       |        | 55 | LO | 100 | N | Y |          |        |     |     |     |    |    |
| 151 | 18  | COSTA RICA      | PACIFIC COAST             | 10.0N  | 86.0W  | 10.6N | 87.5W  | 15 | LO | 250 | N | Y | 19910405 | 182428 | 243 | 260 | 66  | 4  |    |
| 151 | 19  | COSTA RICA      | GULF OF NICOYA            | 10.5N  | 85.0W  | 10.4N | 87.2W  | 25 | LO | 250 | N | Y | 19910405 | 192434 | 243 | 261 | 66  | 4  |    |
| 151 | 20  | COSTA RICA      | LAGO DE NICARAGUA         | 11.0N  | 85.0W  | 10.1N | 86.7W  | 35 | LO | 250 | N | Y | 19910405 | 192444 | 243 | 262 | 66  | 4  |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 151 | 22  | COSTA RICA      | SUNGLINT-GULF OF NICOYA   | 9.0N 84.5W           | 8.8N 84.2W          | 35 | NV | 250 | N | Y | 19910405 | 192530 | 243 | 265 | 63        | 4  |
| 151 | 23  | COSTA RICA      | PENINSULA DE OSA          | 8.5N 83.5W           | 8.7N 84.0W          | 35 | NV | 250 | N | Y | 19910405 | 192534 | 243 | 266 | 63        | 4  |
| 151 | 24  | COSTA RICA      | PUNTA BURICA              | 8.5N 83.0W           | 8.5N 83.8W          | 25 | NV | 250 | N | Y | 19910405 | 192540 | 243 | 266 | 63        | 4  |
| 16  | 25  | CUBA            | ISLE OF PINES, W. CUBA    | 22.0N 83.0W          | 15.2N 87.0W         | 55 | HO | 35  | O | N | 19910410 | 161002 | 247 | 104 | 65        | 79 |
| 16  | 27  | CUBA            | OVEREXPOSED               | 22.0N 80.0W          | 13.8N 84.1W         | 40 | HO | 35  | O | N | 19910410 | 161055 | 247 | 103 | 68        | 79 |
| 16  | 28  | CUBA            | JAMAICA, CAYMAN ISLANDS   | 20.0N 78.0W          | 11.5N 79.7W         | 35 | HO | 35  | N | Y | 19910410 | 161215 | 247 | 100 | 73        | 79 |
| 72  | 10  | CUBA            | GULF OF BATABANO          | 22.0N 82.5W          | 19.8N 83.5W         | 45 | LO | 100 | N | Y | 19910405 | 174511 | 244 | 187 | 76        | 3  |
| 72  | 11  | CUBA            | CORTES BAY                | 22.0N 84.0W          | 19.6N 83.0W         | 60 | LO | 100 | N | Y | 19910405 | 174520 | 244 | 190 | 76        | 3  |
| 72  | 12  | CUBA            | PEN. DE ZAPATA            | 22.5N 81.5W          | 19.4N 82.7W         | 60 | LO | 100 | N | Y | 19910405 | 174525 | 244 | 191 | 76        | 3  |
| 72  | 14  | CUBA            | MIDDLE-SOUTHERN PART      | 21.5N 79.5W          | 18.8N 80.9W         | 45 | LO | 100 | N | Y | 19910405 | 174554 | 244 | 199 | 76        | 3  |
| 72  | 15  | CUBA            | MIDDLE-NORTHERN PART      | 22.5N 79.0W          | 18.4N 80.1W         | 50 | LO | 100 | N | Y | 19910405 | 174608 | 244 | 203 | 76        | 3  |
| 72  | 19  | CUBA            | EASTERN END               | 20.5N 76.5W          | 16.1N 74.8W         | 45 | LO | 100 | N | Y | 19910405 | 174741 | 244 | 228 | 75        | 3  |
| 74  | 29  | CUBA            | EASTERN CUBA              | 20.5N 75.5W          | 4.7N 18.6W          | 60 | LO | 250 | N | N | 19910409 | 133349 | 245 | 102 | 40        | 62 |
| 74  | 30  | CUBA            | EASTERN CUBA              | 20.5N 76.5W          | 4.8N 18.7W          | 70 | LO | 250 | N | N | 19910409 | 133352 | 245 | 102 | 40        | 62 |
| 78  | 29  | CUBA            | ZAPATA PEN., BAY OF PIGS  | 22.5N 81.5W          | 5.0N 43.4W          | 25 | LO | 250 | N | N | 19910409 | 151041 | 245 | 109 | 56        | 63 |
| 78  | 30  | CUBA            | RIO CAONAO RESERVOIR      | 21.5N 78.0W          | 5.2N 43.6W          | 15 | LO | 250 | N | N | 19910409 | 151054 | 245 | 109 | 57        | 63 |
| 78  | 31  | CUBA            | GULF OF GUACANAYABO       | 20.5N 77.0W          | 5.5N 44.4W          | 35 | LO | 250 | N | N | 19910409 | 151126 | 245 | 109 | 59        | 63 |
| 78  | 32  | CUBA            | GULF OF GUACANAYABO       | 20.0N 77.5W          | 5.5N 44.5W          | 15 | LO | 250 | N | Y | 19910409 | 151129 | 245 | 109 | 59        | 63 |
| 78  | 33  | CUBA            | SIERRA MAESTRA            | 20.0N 76.5W          | 5.5N 44.6W          | 20 | LO | 250 | N | N | 19910409 | 151133 | 245 | 110 | 60        | 63 |
| 78  | 34  | CUBA            | GUANTANAMO BAY            | 20.0N 75.0W          | 5.8N 45.4W          | 25 | LO | 250 | N | N | 19910409 | 151158 | 245 | 110 | 61        | 63 |
| 78  | 35  | CUBA            | PTS. DEL FRAILE, CALETA   | 20.5N 74.5W          | 5.9N 45.4W          | 30 | LO | 250 | N | S | 19910409 | 151200 | 245 | 110 | 61        | 63 |
| 78  | 36  | CUBA            | POINT CABANAS             | 20.5N 75.0W          | 5.9N 45.5W          | 30 | LO | 250 | N | S | 19910409 | 151203 | 245 | 110 | 62        | 63 |
| 78  | 37  | CUBA            | NIPE BAY, PT. GARCIA      | 21.0N 75.5W          | 5.9N 45.6W          | 25 | LO | 250 | N | Y | 19910409 | 151205 | 245 | 110 | 62        | 63 |
| 83  | 67  | CUBA            | WEST AREA, ISLE OF PINES  | 22.0N 82.0W          | 4.9N 42.9W          | 30 | LO | 100 | N | N | 19910409 | 151016 | 245 | 108 | 55        | 63 |
| 83  | 68  | CUBA            | CENTRAL SECTION           | 21.8N 79.0W          | 5.2N 43.9W          | 30 | LO | 100 | N | Y | 19910409 | 151103 | 245 | 109 | 58        | 63 |
| 83  | 69  | CUBA            | CENTRAL SECTION           | 21.8N 78.6W          | 5.3N 44.1W          | 30 | LO | 100 | N | Y | 19910409 | 151113 | 245 | 109 | 59        | 63 |
| 83  | 70  | CUBA            | CENTRAL-EAST SECTION      | 20.7N 76.1W          | 5.6N 44.8W          | 30 | LO | 100 | N | Y | 19910409 | 151139 | 245 | 110 | 60        | 63 |
| 83  | 71  | CUBA            | EAST END                  | 20.7N 75.0W          | 5.7N 45.1W          | 30 | LO | 100 | N | Y | 19910409 | 151149 | 245 | 110 | 61        | 63 |
| 153 | 30  | CUBA            | BAY OF PIGS, HAVANA       | 23.0N 82.5W          | 4.9N 42.8W          | 60 | LO | 250 | N | N | 19910409 | 151006 | 245 | 108 | 54        | 63 |
| 153 | 31  | CUBA            | BAY OF PIGS, ISLE OF PINE | 22.5N 82.5W          |                     | 45 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 32  | CUBA            | CANNARREOS ARCHIPELAGO    | 22.5N 80.5W          | 4.9N 43.0W          | 35 | LO | 250 | N | Y | 19910409 | 151023 | 245 | 108 | 56        | 63 |
| 153 | 33  | CUBA            | CITY OF CIENFUEGOS        | 22.5N 81.0W          |                     | 50 | LO | 250 | N | Y |          |        |     |     |           |    |
| 152 | 255 | CYPRUS          | MEDITERRANEAN-NILE DELTA  |                      | 23.3N 29.3E         | 20 | HO | 250 | N | Y | 19910407 | 083816 | 246 | 124 | 63        | 28 |
| 14  | 29  | DJIBOUTI        | AFAR REGION, ERTA ALE     | 12.0N 43.0E          | 12.9N 37.0E         | 15 | HO | 35  | N | N | 19910410 | 082402 | 247 | 105 | 72        | 74 |
| 14  | 32  | DJIBOUTI        | AFAR REGION, L. ASSAL     | 12.0N 43.0E          | 11.0N 40.7E         | 15 | LO | 35  | N | N | 19910410 | 082511 | 247 | 102 | 76        | 74 |
| 88  | 34  | DJIBOUTI        | TADJOURA GULF, L. ASSAL   | 11.8N 43.0E          | 10.2N 40.2E         | 10 | LO | 250 | N | N | 19910409 | 090356 | 246 | 122 | 84        | 59 |
| 88  | 38  | DJIBOUTI        | GULF TADJOURA, L. ASSAL   | 11.5N 43.0E          | 7.5N 45.2E          | 40 | LO | 250 | N | N | 19910409 | 090529 | 246 | 266 | 88        | 59 |
| 94  | 98  | DJIBOUTI        | AFAR REGION, LAKE ABBE    | 11.0N 42.0E          |                     | 15 | HO | 100 | N | Y |          |        |     |     |           |    |
| 98  | 64  | DJIBOUTI        | LAKE ABBE                 | 11.5N 42.2E          | 8.0N 40.5E          | 10 | LO | 250 | N | N | 19910407 | 102154 | 244 | 266 | 74        | 29 |
| 98  | 65  | DJIBOUTI        | LAKE ABBE                 | 11.5N 42.2E          | 7.9N 40.7E          | 10 | LO | 250 | N | N | 19910407 | 102157 | 244 | 266 | 74        | 29 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME    | FEATURE                   | CENTER<br>LAT<br>LAT | NADIR<br>LAT<br>LAT | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|----|--------------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 98 | 66 | DJIBOUTI           | GULF OF ADEN              | 11.7N 43.5E          | 7.8N 40.8E          | 10 | LO | 250 | N | N | 19910407 | 102200 | 244 | 267 | 74        | 29 |
| 72 | 20 | DOMINICAN REPUBLIC | LAKE ENRIQUILLO           | 18.5N 71.5W          | 15.3N 73.1W         | 40 | LO | 100 | N | Y | 19910405 | 174810 | 244 | 235 | 74        | 3  |
| 72 | 21 | DOMINICAN REPUBLIC | COAST-CARIBBEAN SEA       | 18.0N 70.5W          | 15.1N 72.7W         | 40 | LO | 100 | N | Y | 19910405 | 174817 | 244 | 236 | 73        | 3  |
| 74 | 36 | DOMINICAN REPUBLIC | SW. CENTRAL               | 19.0N 71.0W          | 5.0N 19.3W          | 40 | LO | 250 | N | N | 19910409 | 133413 | 245 | 103 | 42        | 62 |
| 74 | 37 | DOMINICAN REPUBLIC | CENTRAL                   | 18.9N 70.3W          | 5.0N 19.5W          | 80 | LO | 250 | N | N | 19910409 | 133418 | 245 | 103 | 42        | 62 |
| 74 | 38 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.8N 69.8W          | 5.1N 19.6W          | 90 | LO | 250 | N | N | 19910409 | 133421 | 245 | 103 | 42        | 62 |
| 75 | 46 | DOMINICAN REPUBLIC | HISPANIOLA, VRY HI OBLIQ  | 27.5N 64.1W          | 27.4N 63.3W         | 80 | HO | 250 | N | N | 19910406 | 135158 | 246 | 114 | 49        | 16 |
| 75 | 47 | DOMINICAN REPUBLIC | HISPANIOLA, VRY HI OBLIQ  | 27.4N 63.3W          | 27.4N 63.3W         | 80 | HO | 250 | N | N | 19910406 | 135210 | 246 | 114 | 50        | 16 |
| 76 | 19 | DOMINICAN REPUBLIC | SIERRA DE BAORUCO         | 18.0N 71.5W          | 6.9N 47.9W          | 20 | LO | 250 | N | N | 19910409 | 151317 | 244 | 111 | 66        | 63 |
| 76 | 20 | DOMINICAN REPUBLIC | RIFT AREA, BARAHONA       | 18.2N 71.2W          | 7.0N 48.0W          | 10 | LO | 250 | N | N | 19910409 | 151320 | 244 | 111 | 66        | 63 |
| 76 | 21 | DOMINICAN REPUBLIC | RIFT AREA, BARAHONA       | 18.2N 70.8W          | 7.0N 48.0W          | 10 | LO | 250 | N | N | 19910409 | 151322 | 244 | 111 | 67        | 63 |
| 76 | 22 | DOMINICAN REPUBLIC | CORDILLERA CENTRAL        | 18.8N 71.2W          | 7.0N 48.1W          | 20 | LO | 250 | N | N | 19910409 | 151325 | 244 | 111 | 67        | 63 |
| 76 | 23 | DOMINICAN REPUBLIC | RIFT VALLEY               | 18.8N 71.7W          | 7.1N 48.2W          | 20 | LO | 250 | N | N | 19910409 | 151328 | 244 | 111 | 67        | 63 |
| 76 | 28 | DOMINICAN REPUBLIC | NORTHWEST AREA            | 19.4N 71.5W          | 7.3N 48.8W          | 30 | LO | 250 | N | N | 19910409 | 151346 | 244 | 112 | 68        | 63 |
| 76 | 29 | DOMINICAN REPUBLIC | CENTRAL AREA              | 19.0N 70.7W          | 7.4N 48.8W          | 60 | LO | 250 | N | N | 19910409 | 151348 | 244 | 112 | 68        | 63 |
| 76 | 30 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.6N 69.0W          | 7.6N 49.4W          | 60 | LO | 250 | N | N | 19910409 | 151406 | 244 | 112 | 69        | 63 |
| 76 | 31 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.6N 69.4W          | 7.7N 49.5W          | 60 | LO | 250 | N | N | 19910409 | 151411 | 244 | 112 | 70        | 63 |
| 76 | 32 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.6N 69.8W          | 7.8N 49.7W          | 70 | LO | 250 | N | N | 19910409 | 151418 | 244 | 112 | 70        | 63 |
| 76 | 33 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.8N 69.8W          | 7.8N 49.9W          | 70 | LO | 250 | N | N | 19910409 | 151424 | 244 | 112 | 71        | 63 |
| 76 | 34 | DOMINICAN REPUBLIC | EASTERN TIP               | 18.0N 68.0W          | 7.9N 50.1W          | 60 | LO | 250 | N | N | 19910409 | 151431 | 244 | 112 | 71        | 63 |
| 78 | 43 | DOMINICAN REPUBLIC | CENTRAL RANGE             | 19.5N 71.5W          | 6.5N 46.9W          | 30 | LO | 250 | N | Y | 19910409 | 151246 | 244 | 111 | 64        | 63 |
| 78 | 44 | DOMINICAN REPUBLIC | CENTRAL RANGE             | 19.0N 71.0W          | 6.5N 47.0W          | 20 | NV | 250 | N | Y | 19910409 | 151249 | 244 | 111 | 65        | 63 |
| 78 | 45 | DOMINICAN REPUBLIC | LAKE ENRIQUILLO           | 18.5N 71.5W          | 6.6N 47.0W          | 15 | NV | 250 | N | Y | 19910409 | 151251 | 244 | 111 | 65        | 63 |
| 78 | 46 | DOMINICAN REPUBLIC | NEIBA, OCOA BAYS          | 18.5N 71.0W          | 6.6N 47.2W          | 5  | NV | 250 | N | Y | 19910409 | 151255 | 244 | 111 | 65        | 63 |
| 78 | 47 | DOMINICAN REPUBLIC | NEIBA, OCOA BAYS          | 18.0N 71.0W          | 6.7N 47.4W          | 5  | NV | 250 | N | Y | 19910409 | 151302 | 244 | 111 | 65        | 63 |
| 78 | 48 | DOMINICAN REPUBLIC | SAONA IS., YUMA BAY       | 18.5N 68.5W          | 7.1N 48.2W          | 35 | LO | 250 | N | N | 19910409 | 151328 | 244 | 112 | 67        | 63 |
| 83 | 72 | DOMINICAN REPUBLIC | SW SECTION, ENRIQUILLO L. | 18.5N 70.6W          | 6.9N 47.7W          | 35 | LO | 100 | N | N | 19910409 | 151312 | 244 | 111 | 66        | 63 |
| 83 | 73 | DOMINICAN REPUBLIC | EAST SECTION              | 18.5N 69.5W          | 6.9N 47.8W          | 50 | LO | 100 | N | N | 19910409 | 151316 | 244 | 111 | 66        | 63 |
| 87 | 71 | DOMINICAN REPUBLIC | CORD. CENTRAL, NORTH SIDE | 19.2N 71.3W          | 4.7N 18.5W          | 40 | LO | 250 | U | Y | 19910409 | 133347 | 245 | 104 | 43        | 62 |
| 87 | 72 | DOMINICAN REPUBLIC | CORD. CENTRAL, NORTH SIDE | 19.3N 71.0W          | 4.7N 18.6W          | 60 | LO | 250 | U | N | 19910409 | 133350 | 245 | 104 | 43        | 62 |
| 87 | 73 | DOMINICAN REPUBLIC | SANTO DOMINGO, SOUTH SIDE | 18.7N 69.8W          | 4.8N 18.7W          | 70 | LO | 250 | U | N | 19910409 | 133354 | 245 | 104 | 44        | 62 |
| 87 | 74 | DOMINICAN REPUBLIC | EAST END                  | 19.0N 69.0W          | 4.8N 18.9W          | 75 | LO | 250 | U | N | 19910409 | 133359 | 245 | 104 | 44        | 62 |
| 44 | 13 | ECUADOR            | RIO NAPO, RIO COCA, ANDES | 1.0S 77.0W           | 2.3S 79.4W          | 75 | LO | 70  | N | N | 19910410 | 175322 | 248 | 320 | 77        | 80 |
| 76 | 86 | ECUADOR            | COAST, S OF MANTA         | 2.2S 80.4W           | 1.3S 82.8W          | 90 | LO | 250 | N | N | 19910409 | 183046 | 245 | 301 | 73        | 65 |
| 76 | 87 | ECUADOR            | NEAR MANTA                | 2.2S 80.4W           | 1.4S 82.6W          | 95 | LO | 250 | N | N | 19910409 | 183050 | 245 | 301 | 73        | 65 |
| 76 | 88 | ECUADOR            | NEAR MANTA, COAST         | 2.2S 80.4W           | 2.5S 80.9W          | 70 | LO | 250 | N | N | 19910409 | 183123 | 245 | 301 | 70        | 65 |
| 76 | 90 | ECUADOR            | PUNTA SANTA ELENA AREA    | 2.2S 80.4W           | 2.6S 80.7W          | 70 | LO | 250 | N | N | 19910409 | 183127 | 245 | 301 | 70        | 65 |
| 8  | 18 | EGYPT              | PANORAMA, MILE VALLEY     | 28.0N 32.0E          | 25.3N 28.0E         | 10 | HO | 35  | N | N | 19910410 | 064122 | 245 | 100 | 38        | 73 |
| 8  | 19 | EGYPT              | PANORAMA, MILE VALLEY     | 25.0N 34.0E          | 25.2N 28.5E         | 5  | HO | 35  | N | N | 19910410 | 064130 | 246 | 100 | 38        | 73 |
| 8  | 20 | EGYPT              | PANORAMA, ARABIAN DESERT  | 23.0N 36.0E          | 25.1N 28.7E         | 5  | HO | 35  | N | N | 19910410 | 064133 | 246 | 100 | 38        | 73 |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL  | FL  | E | S        | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|--------------------------|-------------------|------------------|----|-----|-----|---|----------|----------|--------|-----|-----|-----------|----|
| 8  | 21  | EGYPT           | GILF KEBIR PLATEAU, NILE | 24.0N 30.0E 24.9N | 29.6E            | 0  | LO  | 35  | N | N        | 19910410 | 084148 | 246 | 101 | 39        | 73 |
| 8  | 22  | EGYPT           | GILF KEBIR PLATEAU       | 23.0N 26.0E 24.8N | 30.0E            | 0  | LO  | 35  | N | N        | 19910410 | 084153 | 246 | 101 | 39        | 73 |
| 8  | 24  | EGYPT           | NILE, ASWAN DAM AREA     | 25.5N 30.0E 24.3N | 31.9E            | 0  | LO  | 35  | N | N        | 19910410 | 084224 | 246 | 101 | 41        | 73 |
| 8  | 25  | EGYPT           | NILE, N. ASWAN DAM AREA  | 25.5N 33.0E 24.2N | 32.5E            | 0  | LO  | 35  | N | N        | 19910410 | 084233 | 246 | 102 | 42        | 73 |
| 8  | 27  | EGYPT           | S. ARABIAN DESERT        | 23.0N 34.0E 23.7N | 34.2E            | 5  | LO  | 35  | N | N        | 19910410 | 084300 | 246 | 102 | 44        | 73 |
| 14 | 11  | EGYPT           | GILF KEBIR PLATEAU       | 22.0N 25.0E 21.0N | 18.6E            | 15 | HO  | 35  | N | N        | 19910410 | 081842 | 246 | 104 | 52        | 74 |
| 38 | 1   | EGYPT           | SINAI PEN., JET STREAM   | 29.0N 31.0E       |                  | 25 | HO  | 35  | N | N        |          |        |     |     |           |    |
| 38 | 2   | EGYPT           | GREAT SAND SEA           | 27.0N 29.0E 28.6N | 26.8E            | 10 | LO  | 35  | N | N        | 19910411 | 042325 | 243 | 84  | 6         | 87 |
| 38 | 3   | EGYPT           | GULF OF SUEZ, NILE RIVER | 29.0N 33.0E 28.5N | 29.5E            | 20 | LO  | 35  | N | N        | 19910411 | 042404 | 243 | 85  | 8         | 87 |
| 38 | 4   | EGYPT           | AL-FAYYUM AG. AREA       | 28.0N 31.0E 28.5N | 30.6E            | 5  | LO  | 35  | N | N        | 19910411 | 042421 | 243 | 86  | 9         | 87 |
| 38 | 5   | EGYPT           | SUEZ CANAL               | 30.0N 32.0E 28.5N | 30.9E            | 25 | LO  | 35  | N | N        | 19910411 | 042424 | 243 | 86  | 10        | 87 |
| 38 | 33  | EGYPT           | NILE RIVER VALLEY        | 28.0N 31.0E 25.5N | 29.0E            | 15 | HO  | 35  | N | N        | 19910411 | 080322 | 245 | 95  | 30        | 88 |
| 38 | 34  | EGYPT           | NILE R., ARABIAN DESERT  | 27.0N 32.0E 25.3N | 29.6E            | 20 | LO  | 35  | N | N        | 19910411 | 080331 | 245 | 96  | 31        | 88 |
| 38 | 35  | EGYPT           | NILE RIVER, SINAI PEN.   | 28.0N 33.0E 25.1N | 30.6E            | 20 | HO  | 35  | N | N        | 19910411 | 080346 | 245 | 96  | 32        | 88 |
| 38 | 36  | EGYPT           | NILE R., VALLEY OF KINGS | 25.0N 33.0E 24.9N | 31.4E            | 25 | LO  | 35  | N | N        | 19910411 | 080359 | 245 | 96  | 32        | 88 |
| 38 | 38  | EGYPT           | NILE RIVER VALLEY        | 26.0N 32.0E 23.2N | 37.4E            | 0  | LO  | 35  | N | N        | 19910411 | 080534 | 246 | 98  | 39        | 88 |
| 73 | 97  | EGYPT           | SINAI, RED SEA, GU.AQABA | 29.5N 34.6E 23.1N | 30.0E            | 0  | HO  | 250 | N | N        | 19910407 | 083828 | 246 | 125 | 63        | 28 |
| 73 | 98  | EGYPT           | SINAI, RED SEA, GU.AQABA | 28.5N 34.8E 22.9N | 30.8E            | 0  | HO  | 250 | N | N        | 19910407 | 083840 | 246 | 126 | 64        | 28 |
| 73 | 99  | EGYPT           | NILE RIVER               | 26.0N 32.0E 22.5N | 31.9E            | 0  | LO  | 250 | N | N        | 19910407 | 083858 | 246 | 127 | 65        | 28 |
| 73 | 100 | EGYPT           | NILE RIVER               | 26.0N 32.8E 22.0N | 33.4E            | 0  | LO  | 250 | N | N        | 19910407 | 083923 | 246 | 129 | 67        | 28 |
| 82 | 42  | EGYPT           | HIGHLANDS, LIBYAN DESERT | 24.0N 25.0E       |                  | 0  | LO  | 250 | N | Y        | 19910406 | 091606 | 246 | 135 | 66        | 13 |
| 82 | 43  | EGYPT           | HIGHLANDS, LIBYAN DESERT | 24.0N 25.2E       |                  | 0  | LO  | 250 | N | Y        | 19910406 | 091609 | 246 | 136 | 66        | 13 |
| 82 | 44  | EGYPT           | HIGHLANDS, LIBYAN DESERT | 23.9N 25.4E       |                  | 0  | LO  | 250 | N | Y        | 19910406 | 091612 | 246 | 135 | 66        | 13 |
| 82 | 45  | EGYPT           | HIGHLANDS, LIBYAN DESERT | 23.9N 25.6E       |                  | 0  | LO  | 250 | N | Y        | 19910406 | 091615 | 246 | 136 | 66        | 13 |
| 82 | 46  | EGYPT           | HIGHLANDS, LIBYA DESERT  | 23.8N 26.8E       |                  | 0  | LO  | 250 | N | Y        | 19910406 | 091619 | 246 | 136 | 66        | 13 |
| 82 | 47  | EGYPT           | GILF KEBIR PLAT, DESERT  | 24.0N 26.0E 23.7N | 26.0E            | 0  | LO  | 250 | N | Y        | 19910406 | 091622 | 246 | 136 | 67        | 13 |
| 82 | 48  | EGYPT           | GILF KEBIR PLAT, DESERT  | 23.7N 26.0E 23.7N | 26.2E            | 0  | LO  | 250 | N | Y        | 19910406 | 091625 | 246 | 137 | 67        | 13 |
| 82 | 49  | EGYPT           | GILF KEBIR PLAT, DESERT  | 24.0N 27.0E 23.6N | 26.5E            | 0  | LO  | 250 | N | Y        | 19910406 | 091630 | 246 | 137 | 67        | 13 |
| 82 | 50  | EGYPT           | LIBYAN SAND SEA          | 23.5N 26.8E       |                  | 0  | LO  | 250 | N | Y        | 19910406 | 091635 | 246 | 138 | 67        | 13 |
| 82 | 51  | EGYPT           | LIBYAN SAND SEA          | 23.3N 27.4E       |                  | 0  | LO  | 250 | N | Y        | 19910406 | 091644 | 246 | 139 | 68        | 13 |
| 82 | 52  | EGYPT           | LIBYAN SAND SEA          | 23.3N 27.6E       |                  | 0  | LO  | 250 | N | Y        | 19910406 | 091647 | 246 | 139 | 68        | 13 |
| 82 | 53  | EGYPT           | LIBYAN SAND SEA          | 23.2N 27.8E       |                  | 0  | LO  | 250 | N | Y        | 19910406 | 091650 | 246 | 139 | 68        | 13 |
| 82 | 54  | EGYPT           | LIBYAN SAND SEA          | 23.1N 28.0E       |                  | 0  | LO  | 250 | N | N        | 19910406 | 091654 | 246 | 140 | 68        | 13 |
| 82 | 55  | EGYPT           | WESTERN DESERT           | 23.0N 28.6E       |                  | 0  | LO  | 250 | N | N        | 19910406 | 091703 | 246 | 141 | 69        | 13 |
| 82 | 56  | EGYPT           | WESTERN DESERT           | 22.9N 28.9E       |                  | 0  | LO  | 250 | N | N        | 19910406 | 091709 | 246 | 142 | 69        | 13 |
| 82 | 57  | EGYPT           | WESTERN DESERT           | 22.8N 29.1E       |                  | 0  | LO  | 250 | N | N        | 19910406 | 091712 | 246 | 142 | 69        | 13 |
| 82 | 58  | EGYPT           | WESTERN DESERT           | 22.7N 29.5E       |                  | 0  | LO  | 250 | N | N        | 19910406 | 091718 | 246 | 143 | 70        | 13 |
| 82 | 59  | EGYPT           | WESTERN DESERT           | 22.6N 29.8E       |                  | 0  | LO  | 250 | N | N        | 19910406 | 091723 | 246 | 143 | 70        | 13 |
| 82 | 60  | EGYPT           | WESTERN DESERT           | 22.5N 30.0E       |                  | 0  | LO  | 250 | N | N        | 19910406 | 091726 | 246 | 144 | 70        | 13 |
| 82 | 63  | EGYPT           | NILE RIVER, DESERT       | 22.1N 31.5E 22.2N | 31.0E            | NV | 250 | N   | Y | 19910406 | 091743   | 245    | 146 | 71  | 13        |    |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                     | CENTER<br>LAT | LONG  | MADIR<br>LAT | LONG  | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|-----------------------------|---------------|-------|--------------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 82  | 64  | EGYPT           | NILE RIVER, NASSER RES.     | 22.3N         | 31.7E | 22.1N        | 31.2E | 0  | NV | 250 | N | Y | 19910406 | 091746 | 245 | 146 | 71        | 13 |
| 82  | 65  | EGYPT           | NILE RIVER, NASSER RES.     | 22.5N         | 31.9E | 22.1N        | 31.3E | 0  | NV | 250 | N | Y | 19910406 | 091748 | 245 | 147 | 71        | 13 |
| 82  | 66  | EGYPT           | NILE RIVER, NASSER RES.     | 22.6N         | 32.1E | 22.0N        | 31.5E | 0  | LO | 250 | N | Y | 19910406 | 091750 | 245 | 147 | 71        | 13 |
| 82  | 67  | EGYPT           | NILE RIVER, NASSER RES.     | 22.7N         | 32.4E | 22.0N        | 31.6E | 0  | LO | 250 | N | Y | 19910406 | 091752 | 245 | 147 | 71        | 13 |
| 82  | 68  | EGYPT           | NILE RIVER, LAKE NASSER     | 22.9N         | 32.7E | 21.9N        | 31.8E | 10 | LO | 250 | N | Y | 19910406 | 091755 | 245 | 148 | 71        | 13 |
| 82  | 69  | EGYPT           | NILE RIVER, LAKE NASSER     | 23.1N         | 33.0E | 21.9N        | 32.0E | 10 | LO | 250 | N | Y | 19910406 | 091759 | 245 | 148 | 72        | 13 |
| 82  | 70  | EGYPT           | NUBIAN DES, WADI ALLAQI     | 22.6N         | 33.4E | 21.8N        | 32.3E | 20 | LO | 250 | N | Y | 19910406 | 091804 | 245 | 149 | 72        | 13 |
| 82  | 71  | EGYPT           | NUBIAN DES, WADI ALLAQI     | 22.2N         | 34.4E | 21.7N        | 32.6E | 20 | LO | 250 | N | Y | 19910406 | 091809 | 245 | 150 | 72        | 13 |
| 82  | 72  | EGYPT           | NUBIAN DES, WADI ALLAQI     | 21.5N         | 34.6E | 21.5N        | 33.1E | 20 | LO | 250 | N | Y | 19910406 | 091817 | 245 | 151 | 72        | 13 |
| 82  | 73  | EGYPT           | NUBIAN DES, WADI ALLAQI     | 22.1N         | 34.5E | 21.4N        | 33.2E | 10 | LO | 250 | N | Y | 19910406 | 091819 | 245 | 152 | 73        | 13 |
| 82  | 74  | EGYPT           | WADI ALLAQI, NUBIAN DES.    | 22.1N         | 35.0E | 21.4N        | 33.4E | 5  | LO | 250 | N | Y | 19910406 | 091821 | 245 | 152 | 73        | 13 |
| 82  | 75  | EGYPT           | MT. IS, WADI ALLAQI, DESERT | 21.6N         | 35.3E | 21.3N        | 33.5E | 5  | LO | 250 | N | Y | 19910406 | 091824 | 245 | 152 | 73        | 13 |
| 82  | 76  | EGYPT           | MT. JARF, NUBIAN DESERT     | 22.8N         | 34.9E | 21.3N        | 33.8E | 10 | LO | 250 | N | Y | 19910406 | 091828 | 245 | 153 | 73        | 13 |
| 82  | 77  | EGYPT           | MT. JARF, RED SEA COAST     | 22.6N         | 35.3E | 21.2N        | 34.0E | 5  | LO | 250 | N | Y | 19910406 | 091832 | 245 | 154 | 73        | 13 |
| 82  | 78  | EGYPT           | MT. JARF, RED SEA COAST     | 23.3N         | 35.5E | 21.1N        | 34.3E | 5  | LO | 250 | N | Y | 19910406 | 091837 | 245 | 155 | 73        | 13 |
| 82  | 79  | EGYPT           | MT. JARF, RED SEA COAST     | 22.6N         | 35.7E | 21.0N        | 34.5E | 10 | LO | 250 | N | Y | 19910406 | 091840 | 245 | 155 | 74        | 13 |
| 82  | 89  | EGYPT           | COAST RANGE, PORT SUDAN     | 19.6N         | 36.7E | 20.3N        | 36.4E | 15 | NV | 250 | N | Y | 19910406 | 091912 | 245 | 162 | 75        | 13 |
| 82  | 90  | EGYPT           | COAST RANGE, RED SEA CST    | 19.0N         | 37.0E | 20.2N        | 36.7E | 15 | NV | 250 | N | Y | 19910406 | 091917 | 245 | 163 | 75        | 13 |
| 90  | 1   | EGYPT           | GULF KEBIR PLAT, SAND STM   | 23.5N         | 25.5E | 23.5N        | 26.7E | 0  | LO | 250 | N | N | 19910406 | 091633 | 246 | 137 | 67        | 13 |
| 90  | 2   | EGYPT           | E-W ROCK RIDGE, G. KEBIR    | 23.5N         | 27.5E | 23.2N        | 27.9E | 0  | NV | 250 | N | N | 19910406 | 091652 | 246 | 139 | 68        | 13 |
| 90  | 3   | EGYPT           | GULF KEBIR PLAT, SAND STM   | 23.5N         | 25.5E | 23.0N        | 28.6E | 0  | LO | 250 | N | N | 19910406 | 091703 | 246 | 141 | 69        | 13 |
| 90  | 4   | EGYPT           | LAKE NASSER                 | 22.5N         | 31.8E | 22.1N        | 31.3E | 0  | NV | 250 | N | N | 19910406 | 091747 | 245 | 147 | 71        | 13 |
| 90  | 8   | EGYPT           | NUBIAN DES, WADI ALLAQI     | 22.4N         | 34.0E | 21.1N        | 34.3E | 0  | LO | 250 | N | N | 19910406 | 091837 | 245 | 155 | 73        | 13 |
| 94  | 71  | EGYPT           | GULF KEBIR PLATEAU          | 26.5N         | 28.0E |              |       | 5  | LO | 100 | N | N |          |        |     |     |           |    |
| 94  | 72  | EGYPT           | NILE RIVER VALLEY           | 26.0N         | 30.5E |              |       | 0  | LO | 100 | N | Y |          |        |     |     |           |    |
| 94  | 77  | EGYPT           | NUBIAN DES., RED SEA        | 22.0N         | 35.5E |              |       | 15 | LO | 100 | N | N |          |        |     |     |           |    |
| 97  | 19  | EGYPT           | CENTRAL, NILE, SINAI        | 27.5N         | 30.0E | 24.5N        | 23.1E | 5  | HO | 250 | N | N | 19910406 | 091536 | 246 | 132 | 64        | 13 |
| 97  | 20  | EGYPT           | SO. CENTRAL, NILE           |               |       | 24.1N        | 24.6E | 5  | HO | 250 | N | N | 19910406 | 091600 | 246 | 134 | 65        | 13 |
| 97  | 21  | EGYPT           | SO. CENTRAL, NILE           |               |       | 24.0N        | 25.2E | 5  | HO | 250 | N | N | 19910406 | 091609 | 246 | 135 | 66        | 13 |
| 97  | 22  | EGYPT           | NILE VALLEY, SINAI          | 28.5N         | 32.0E | 23.8N        | 25.7E | 0  | HO | 250 | N | N | 19910406 | 091618 | 246 | 136 | 66        | 13 |
| 97  | 23  | EGYPT           | NILE VALLEY, SINAI          | 28.5N         | 29.0E | 23.6N        | 26.4E | 0  | HO | 250 | N | N | 19910406 | 091628 | 246 | 137 | 67        | 13 |
| 97  | 24  | EGYPT           | LAKE NASSER                 | 22.7N         | 32.8E | 23.3N        | 27.5E | 5  | LO | 250 | N | N | 19910406 | 091646 | 246 | 139 | 68        | 13 |
| 97  | 25  | EGYPT           | NILE RIVER, RED SEA         | 25.8N         | 33.8E | 23.0N        | 28.4E | 5  | LO | 250 | N | N | 19910406 | 091701 | 246 | 141 | 69        | 13 |
| 97  | 26  | EGYPT           | NILE RIVER, RED SEA, SINAI  | 29.5N         | 33.5E | 22.9N        | 28.9E | 0  | LO | 250 | N | N | 19910406 | 091709 | 246 | 142 | 69        | 13 |
| 97  | 27  | EGYPT           | NILE RIVER, RED SEA, SINAI  | 29.5N         | 34.0E | 22.6N        | 29.7E | 0  | HO | 250 | N | N | 19910406 | 091721 | 246 | 143 | 70        | 13 |
| 97  | 28  | EGYPT           | ARABIAN DESERT              |               |       | 22.4N        | 30.4E | 10 | LO | 250 | N | N | 19910406 | 091732 | 245 | 144 | 70        | 13 |
| 97  | 29  | EGYPT           | SE. EGYPT                   | 23.0N         | 34.0E | 22.2N        | 31.0E | 5  | LO | 250 | N | N | 19910406 | 091743 | 245 | 146 | 71        | 13 |
| 97  | 30  | EGYPT           | SE. EGYPT, RED SEA          |               |       | 21.4N        | 33.3E | 10 | LO | 250 | N | N | 19910406 | 091820 | 245 | 152 | 73        | 13 |
| 151 | 91  | C EGYPT         | SOMALIA JET STREAM-NILE     |               |       | 24.5N        | 32.7E | 90 | LO | 250 | N | N | 19910406 | 041954 | 246 | 87  | 9         | 10 |
| 151 | 120 | EGYPT           | NILE RIVER DELTA            | 31.0N         | 30.5E | 27.9N        | 27.5E | 10 | LO | 250 | N | Y | 19910406 | 055801 | 246 | 96  | 26        | 11 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER |       | NADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|-----|-----------------|--------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                 |                          | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 151 | 121 | EGYPT           | NILE RIVER DELTA         | 31.0N  | 31.0E | 27.9N | 28.3E | 15 | LO | 250 | N | Y | 19910406 | 055812 | 246 | 97  | 26  | 11 |    |
| 151 | 122 | EGYPT           | NILE RIVER DELTA         | 31.0N  | 32.0E | 28.2N | 31.5E | 10 | LO | 250 | N | Y | 19910406 | 055859 | 246 | 99  | 29  | 11 |    |
| 151 | 123 | EGYPT           | SINAI PENINSULA          | 28.5N  | 33.5E | 28.3N | 32.7E | 0  | NV | 250 | N | Y | 19910406 | 055917 | 246 | 100 | 30  | 11 |    |
| 151 | 208 | EGYPT           | ROCKY DESERT-AL KUFRAH   | 24.5N  | 24.5E | 24.4N | 23.5E | 0  | NV | 250 | N | Y | 19910406 | 091542 | 246 | 132 | 64  | 13 |    |
| 151 | 209 | EGYPT           | GLIF KEBIR PLATEAU       | 24.0N  | 25.5E | 24.1N | 24.7E | 0  | NV | 250 | N | Y | 19910406 | 091601 | 246 | 134 | 65  | 13 |    |
| 151 | 210 | EGYPT           | GREAT SAND SEA           | 25.5N  | 27.5E | 23.9N | 25.4E | 0  | LO | 250 | N | Y | 19910406 | 091613 | 246 | 135 | 66  | 13 |    |
| 151 | 211 | EGYPT           | GLIF KEBIR PLATEAU       | 24.0N  | 27.0E | 23.7N | 26.1E | 0  | NV | 250 | N | Y | 19910406 | 091623 | 246 | 136 | 67  | 13 |    |
| 151 | 212 | EGYPT           | GREAT SAND SEA           | 24.0N  | 28.0E | 23.4N | 27.3E | 0  | NV | 250 | N | Y | 19910406 | 091642 | 246 | 138 | 68  | 13 |    |
| 151 | 213 | EGYPT           | ROCKY AREA               | 23.0N  | 28.5E | 23.1N | 28.2E | 0  | NV | 250 | N | Y | 19910406 | 091657 | 246 | 140 | 68  | 13 |    |
| 151 | 214 | EGYPT           | LAKE MASSER              | 22.5N  | 30.5E | 22.6N | 29.8E | 0  | NV | 250 | N | Y | 19910406 | 091723 | 246 | 143 | 70  | 13 |    |
| 151 | 215 | EGYPT           | LAKE MASSER              | 22.0N  | 31.5E | 22.2N | 31.0E | 5  | NV | 250 | N | Y | 19910406 | 091742 | 245 | 146 | 71  | 13 |    |
| 151 | 216 | EGYPT           | NUBIAN DESERT            | 22.0N  | 33.0E | 21.8N | 32.1E | 25 | NV | 250 | N | Y | 19910406 | 091801 | 245 | 149 | 72  | 13 |    |
| 151 | 217 | EGYPT           | NUBIAN DESERT            | 21.5N  | 34.0E | 21.4N | 33.4E | 25 | NV | 250 | N | Y | 19910406 | 091822 | 245 | 152 | 73  | 13 |    |
| 151 | 218 | EGYPT           | NUBIAN DESERT            | 21.5N  | 35.0E | 21.1N | 34.2E | 15 | NV | 250 | N | Y | 19910406 | 091834 | 245 | 154 | 73  | 13 |    |
| 151 | 219 | EGYPT           | NUBIAN DESERT            | 21.0N  | 35.5E | 20.9N | 34.9E | 5  | NV | 250 | N | Y | 19910406 | 091846 | 245 | 156 | 74  | 13 |    |
| 151 | 220 | EGYPT           | COAST-VUDEB WADI         | 20.0N  | 36.5E | 20.0N | 35.6E | 10 | NV | 250 | N | Y | 19910406 | 091858 | 245 | 159 | 74  | 13 |    |
| 151 | 221 | EGYPT           | COAST-RED SEA            | 20.0N  | 37.0E | 20.3N | 36.3E | 20 | NV | 250 | N | Y | 19910406 | 091910 | 245 | 161 | 75  | 13 |    |
| 152 | 78  | EGYPT           | SALT PANS NEAR QATTARA D | 28.5N  | 27.0E | 27.6N | 26.7E | 0  | NV | 250 | N | Y | 19910407 | 051853 | 246 | 91  | 17  | 26 |    |
| 152 | 79  | EGYPT           | NILE R. VALLEY-G.OF SUEZ | 27.5N  | 31.5E | 27.7N | 27.9E | 0  | LO | 250 | N | Y | 19910407 | 051911 | 246 | 91  | 18  | 26 |    |
| 152 | 80  | EGYPT           | GR. BITTER L.-FIRES,NILE | 30.5N  | 33.0E | 27.8N | 28.6E | 0  | LO | 250 | N | Y | 19910407 | 051922 | 246 | 92  | 18  | 26 |    |
| 152 | 81  | EGYPT           | SINAI PEN.-G.OF AQABA    | 28.5N  | 34.5E | 28.2N | 33.1E | 0  | NV | 250 | N | Y | 19910407 | 052028 | 246 | 94  | 23  | 26 |    |
| 152 | 83  | EGYPT           | SINAI PEN.-SUEZ CANAL    | 30.5N  | 33.5E | 28.4N | 35.7E | 0  | LO | 250 | N | Y | 19910407 | 052106 | 246 | 96  | 25  | 26 |    |
| 152 | 166 | EGYPT           | QATTARA DEPRESSION       | 30.0N  | 29.0E | 28.1N | 28.4E | 0  | LO | 250 | N | Y | 19910407 | 065833 | 247 | 106 | 40  | 27 |    |
| 152 | 167 | EGYPT           | QATTARA DEP., NILE DELTA | 30.0N  | 30.0E | 28.0N | 29.3E | 0  | LO | 250 | N | Y | 19910407 | 065847 | 247 | 106 | 41  | 27 |    |
| 152 | 168 | EGYPT           | LAKE QARUN-NILE DELTA    | 30.0N  | 30.5E | 27.9N | 30.3E | 0  | LO | 250 | N | Y | 19910407 | 065901 | 247 | 107 | 41  | 27 |    |
| 152 | 169 | EGYPT           | NILE-CAIRO               | 29.5N  | 31.0E | 27.8N | 30.9E | 0  | LO | 250 | N | Y | 19910407 | 065910 | 247 | 107 | 42  | 27 |    |
| 152 | 170 | EGYPT           | GULF OF SUEZ-CAIRO       | 29.5N  | 32.5E | 27.7N | 31.9E | 0  | LO | 250 | N | Y | 19910407 | 065925 | 247 | 108 | 43  | 27 |    |
| 152 | 171 | EGYPT           | SINAI PEN.-GULF OF SUEZ  | 29.5N  | 33.0E | 27.6N | 33.3E | 0  | LO | 250 | N | Y | 19910407 | 065945 | 247 | 109 | 44  | 27 |    |
| 152 | 172 | EGYPT           | SINAI PEN.-WADI GERARA   | 30.5N  | 34.0E | 27.5N | 34.0E | 0  | LO | 250 | N | Y | 19910407 | 065956 | 246 | 109 | 45  | 27 |    |
| 152 | 252 | EGYPT           | GLIF KEBIR PLATEAU       | 23.5N  | 25.0E | 24.6N | 24.8E | 0  | LO | 250 | N | Y | 19910407 | 083706 | 246 | 120 | 58  | 28 |    |
| 152 | 253 | EGYPT           | GREAT SAND SEA           | 25.0N  | 26.0E | 24.4N | 25.4E | 0  | NV | 250 | N | Y | 19910407 | 083715 | 246 | 121 | 59  | 28 |    |
| 152 | 254 | EGYPT           | GREAT SAND SEA           | 25.5N  | 27.0E | 23.9N | 27.3E | 5  | LO | 250 | N | Y | 19910407 | 083745 | 246 | 122 | 61  | 28 |    |
| 152 | 257 | EGYPT           | LAKE MASSER              | 23.5N  | 32.0E | 22.2N | 32.9E | 75 | LO | 250 | N | Y | 19910407 | 083914 | 246 | 129 | 66  | 28 |    |
| 85  | 9   | EL SALVADOR     | COAST WETLANDS,SE SAN SA | 13.2N  | 88.7W | 14.6N | 89.8W | 40 | LO | 250 | N | Y | 19910408 | 172702 | 246 | 130 | 78  | 49 |    |
| 85  | 10  | EL SALVADOR     | GULF OF FONSECA,SUNGLNT  | 13.3N  | 87.6W | 14.0N | 88.6W | 0  | LO | 250 | N | Y | 19910408 | 172723 | 246 | 133 | 80  | 49 |    |
| 151 | 13  | EL SALVADOR     | SAN SALVADOR             | 13.5N  | 89.0W | 12.2N | 90.7W | 45 | LO | 250 | N | Y | 19910405 | 192330 | 244 | 253 | 69  | 4  |    |
| 14  | 25  | ETHIOPIA        | L. TANA, DANAKIL DEPRESS | 15.0N  | 38.0E | 15.2N | 32.3E | 15 | HO | 35  | N | Y | 19910410 | 082238 | 247 | 106 | 67  | 74 |    |
| 14  | 26  | ETHIOPIA        | L. TANA, DANAKIL DEPRESS | 14.0N  | 41.0E | 14.6N | 33.5E | 15 | HO | 35  | N | Y | 19910410 | 082300 | 247 | 106 | 68  | 74 |    |
| 14  | 28  | ETHIOPIA        | DANAKIL DEP., ERTA ALE   | 13.0N  | 42.0E | 13.5N | 35.8E | 20 | HO | 35  | N | Y | 19910410 | 082341 | 247 | 105 | 71  | 74 |    |
| 14  | 30  | ETHIOPIA        | HIGHLANDS, ERTA ALE VOL. | 14.0N  | 39.0E | 12.4N | 38.1E | 20 | LO | 35  | N | Y | 19910410 | 082422 | 247 | 104 | 73  | 74 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM | EL | OR |
|----|-----|-----------------|----------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |     |                 |                            | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 56 | 7   | ETHIOPIA        | BLUE NILE RIVER            | 10.0N  | 36.0E | 14.4N | 36.8E | 30 | LO | 35  | N | N | 19910411 | 074521 | 247 | 99  | 62  | 89 |    |
| 56 | 8   | ETHIOPIA        | MT. RASDAJAN               | 13.0N  | 38.0E | 13.7N | 37.2E | 10 | LO | 35  | N | N | 19910411 | 074545 | 247 | 99  | 63  | 89 |    |
| 84 | 1   | ETHIOPIA        | BLUE NILE, GUNA PEAK       | 11.5N  | 38.0E |       |       | 5  | NV | 250 | N | N |          |        |     |     |     |    |    |
| 84 | 2   | ETHIOPIA        | LAKE TANA                  | 12.0N  | 37.0E |       |       | 10 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 3   | ETHIOPIA        | LAKE TANA                  | 12.0N  | 37.5E |       |       | 5  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 4   | ETHIOPIA        | AWASH RIVER                | 11.0N  | 40.0E |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 5   | ETHIOPIA        | AWASH RIVER, L. YARDI      | 10.5N  | 40.5E |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 6   | ETHIOPIA        | AWASH RIVER, L. YARDI      | 10.0N  | 40.5E |       |       | 0  | NV | 250 | U | Y |          |        |     |     |     |    |    |
| 84 | 7   | ETHIOPIA        | AWASH RIVER, L. YARDI      | 10.0N  | 40.0E |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 8   | ETHIOPIA        | AWASH RIVER, L. YARDI      | 9.5N   | 40.5E |       |       | 10 | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84 | 9   | ETHIOPIA        | AWASH RIVER, RIFT VALLEY   | 9.0N   | 40.0E |       |       | 15 | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 88 | 28  | ETHIOPIA        | LAKE TANA                  | 12.0N  | 37.2E | 12.5N | 35.8E | 10 | LO | 250 | N | Y | 19910409 | 090235 | 246 | 118 | 79  | 59 |    |
| 88 | 29  | ETHIOPIA        | LAKE TANA, SUNGLINT        | 11.9N  | 37.3E | 11.9N | 36.9E | 10 | LO | 250 | N | Y | 19910409 | 090255 | 246 | 119 | 81  | 59 |    |
| 88 | 30  | ETHIOPIA        | BLUE NILE, SNGLT. BESHLO R | 11.0N  | 38.3E | 11.3N | 38.1E | 15 | LO | 250 | N | N | 19910409 | 090316 | 246 | 120 | 82  | 59 |    |
| 88 | 31  | ETHIOPIA        | DAMAKIL DEPR. AFERA LAKE   | 13.4N  | 41.2E | 10.4N | 39.8E | 10 | LO | 250 | N | N | 19910409 | 090348 | 246 | 122 | 84  | 59 |    |
| 88 | 32  | ETHIOPIA        | AFAR DEPRESSION, COAST     | 13.2N  | 41.8E | 10.3N | 39.9E | 0  | LO | 250 | N | N | 19910409 | 090350 | 246 | 122 | 84  | 59 |    |
| 88 | 33  | ETHIOPIA        | AFAR DEPR. HALBA I, COAST  | 12.6N  | 42.8E | 10.3N | 40.1E | 5  | LO | 250 | N | N | 19910409 | 090353 | 246 | 122 | 84  | 59 |    |
| 88 | 35  | ETHIOPIA        | AFAR DEPRESSION            |        |       | 9.9N  | 40.8E | 25 | LO | 250 | U | N | 19910409 | 090407 | 246 | 123 | 85  | 59 |    |
| 94 | 97  | ETHIOPIA        | RIFT VALLEY, AWASH RIVER   | 10.5N  | 40.5E |       |       | 25 | LO | 100 | N | Y |          |        |     |     |     |    |    |
| 94 | 99  | ETHIOPIA        | DAMAKIL DEP., ERTE ALLE    | 12.5N  | 40.5E |       |       | 15 | HO | 100 | N | Y |          |        |     |     |     |    |    |
| 95 | 91  | ETHIOPIA        | ETHIOPIAN PLATEAU, RESVR   | 9.2N   | 36.3E | 9.3N  | 36.1E | 60 | LO | 250 | N | N | 19910406 | 105935 | 244 | 263 | 69  | 14 |    |
| 95 | 92  | ETHIOPIA        | ETHIOPIAN PLATEAU, LAKES   | 6.0N   | 37.8E | 9.0N  | 36.7E | 60 | LO | 250 | N | N | 19910406 | 105946 | 244 | 264 | 68  | 14 |    |
| 95 | 93  | ETHIOPIA        | RIFT VALLEY, LAKE          |        |       | 8.7N  | 37.2E | 70 | LO | 250 | N | N | 19910406 | 105956 | 244 | 265 | 68  | 14 |    |
| 95 | 94  | ETHIOPIA        | RIFT VALLEY, ABAYA         | 6.3N   | 37.8E | 8.0N  | 38.5E | 60 | LO | 250 | N | N | 19910406 | 110020 | 243 | 267 | 67  | 14 |    |
| 95 | 95  | ETHIOPIA        | ETHIOPIAN PLATEAU          |        |       | 7.3N  | 39.8E | 80 | LO | 250 | N | N | 19910406 | 110044 | 243 | 269 | 65  | 14 |    |
| 95 | 96  | ETHIOPIA        | SE ETHIOPIA                |        |       | 6.8N  | 40.7E | 40 | LO | 250 | N | N | 19910406 | 110102 | 243 | 270 | 64  | 14 |    |
| 95 | 97  | ETHIOPIA        | SE ETHIOPIA                |        |       | 6.7N  | 40.9E | 30 | LO | 250 | N | N | 19910406 | 110105 | 243 | 270 | 64  | 14 |    |
| 95 | 98  | ETHIOPIA        | SE ETHIOPIA                |        |       | 6.5N  | 41.1E | 30 | LO | 250 | N | N | 19910406 | 110109 | 243 | 271 | 64  | 14 |    |
| 95 | 99  | ETHIOPIA        | SE ETHIOPIA                |        |       | 6.2N  | 41.6E | 30 | LO | 250 | N | N | 19910406 | 110119 | 243 | 271 | 63  | 14 |    |
| 95 | 100 | ETHIOPIA        | SE ETHIOPIA, RED SOILS     |        |       | 5.9N  | 42.2E | 20 | LO | 250 | N | N | 19910406 | 110130 | 243 | 272 | 63  | 14 |    |
| 95 | 101 | ETHIOPIA        | SE ETHIOPIA, RED SOILS     |        |       | 5.7N  | 42.6E | 50 | LO | 250 | N | N | 19910406 | 110137 | 243 | 272 | 62  | 14 |    |
| 95 | 102 | ETHIOPIA        | SE ETHIOPIA, RED SOILS     |        |       | 5.6N  | 42.8E | 40 | LO | 250 | N | N | 19910406 | 110141 | 243 | 273 | 62  | 14 |    |
| 95 | 103 | ETHIOPIA        | SE ETHIOPIA, RED SOILS     |        |       | 5.5N  | 43.0E | 30 | LO | 250 | N | N | 19910406 | 110145 | 243 | 273 | 62  | 14 |    |
| 95 | 104 | ETHIOPIA        | SE ETHIOPIA, RED SOILS     |        |       |       |       | 40 | LO | 250 | N | N |          |        |     |     |     |    |    |
| 96 | 94  | ETHIOPIA        | BLUE NILE, PLATEAU         | 10.5N  | 35.5E |       |       | 5  | LO | 100 | N | N |          |        |     |     |     |    |    |
| 96 | 95  | ETHIOPIA        | LAKE TANA                  | 12.0N  | 37.0E |       |       | 10 | NV | 100 | N | N |          |        |     |     |     |    |    |
| 96 | 96  | ETHIOPIA        | LAKE TANA                  | 12.0N  | 37.5E |       |       | 10 | NV | 100 | U | N |          |        |     |     |     |    |    |
| 96 | 97  | ETHIOPIA        | FERIT MTN., CITY OF DESE   | 11.0N  | 39.5E |       |       | 10 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 96 | 98  | ETHIOPIA        | AFAR, DANAKIL PLAIN        | 12.0N  | 41.0E |       |       | 10 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 96 | 99  | ETHIOPIA        | RIFT VALLEY, AWASH RIVER   | 10.0N  | 40.5E |       |       | 30 | LO | 100 | N | Y |          |        |     |     |     |    |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 96  | 102 | ETHIOPIA        | DESERT, CLOUDS            |                      |                     | 75 | LO | 100 | N | N | 19910406 | 105843 | 244 | 256 | 72        | 14 |
| 97  | 91  | ETHIOPIA        | PANORAMA, GULF ADEN       |                      | 10.8N 33.3E         | 60 | HO | 250 | N | N | 19910406 | 110038 | 243 | 268 | 66        | 14 |
| 97  | 93  | ETHIOPIA        | PANORAMA                  |                      | 7.5N 39.5E          | 60 | LO | 250 | N | N | 19910406 | 110106 | 243 | 270 | 64        | 14 |
| 97  | 94  | ETHIOPIA        | SOMALI, E. TIP OF AFRICA  |                      | 6.6N 40.9E          | 70 | HO | 250 | N | N | 19910406 | 110114 | 243 | 271 | 64        | 14 |
| 97  | 95  | ETHIOPIA        | SOMALI, E. TIP OF AFRICA  |                      | 6.4N 41.4E          | 70 | HO | 250 | N | N | 19910406 | 110123 | 243 | 271 | 63        | 14 |
| 97  | 96  | ETHIOPIA        | SOMALI, E. TIP OF AFRICA  |                      | 6.1N 41.8E          | 70 | HO | 250 | N | N | 19910407 | 102012 | 244 | 246 | 78        | 29 |
| 98  | 59  | ETHIOPIA        | LAKE TANA                 | 12.0N 37.3E          | 10.9N 35.0E         | 60 | LO | 250 | N | N | 19910407 | 102036 | 244 | 253 | 78        | 29 |
| 98  | 60  | ETHIOPIA        | LAKE ABAYA                | 6.5N 37.9E           | 10.2N 36.3E         | 70 | LO | 250 | N | N | 19910407 | 102046 | 244 | 255 | 78        | 29 |
| 98  | 61  | ETHIOPIA        | RIFT VALLEY LAKES         | 7.6N 38.6E           | 10.0N 36.9E         | 60 | LO | 250 | N | N | 19910407 | 102049 | 244 | 255 | 78        | 29 |
| 98  | 62  | ETHIOPIA        | RIFT VALLEY LAKES         | 8.0N 38.9E           | 9.9N 37.0E          | 60 | LO | 250 | N | N | 19910407 | 102147 | 244 | 265 | 75        | 29 |
| 98  | 63  | ETHIOPIA        | DANAKIL DEPRESSION        | 13.5N 40.8E          | 8.2N 40.1E          | 30 | LO | 250 | N | N | 19910406 | 091929 | 245 | 165 | 76        | 13 |
| 151 | 222 | ETHIOPIA        | COAST-DEHALAK ISLAND      | 16.5N 39.0E          | 19.9N 37.5E         | 40 | LO | 250 | N | N | 19910406 | 110022 | 243 | 267 | 67        | 14 |
| 152 | 1   | ETHIOPIA        | LAKE ABAYA, LAKE CH'AMO   | 6.5N 37.5E           | 7.9N 38.6E          | 70 | LO | 250 | N | N | 19910406 | 110118 | 243 | 271 | 63        | 14 |
| 152 | 2   | ETHIOPIA        | GENALE RIVER              | 5.0N 41.5E           | 6.3N 41.6E          | 60 | LO | 250 | N | Y | 19910406 | 110122 | 243 | 272 | 63        | 14 |
| 152 | 3   | ETHIOPIA        | WABE GESTRO RIVER         | 6.0N 41.5E           | 6.2N 41.8E          | 50 | NV | 250 | N | Y | 19910406 | 110127 | 243 | 273 | 63        | 14 |
| 152 | 4   | ETHIOPIA        | KUS DULAMC MOUNTAINS      | 7.0N 42.5E           | 6.0N 42.0E          | 40 | NV | 250 | N | Y | 19910406 | 110143 | 243 | 273 | 62        | 14 |
| 152 | 5   | ETHIOPIA        | SHEBELE RIVER             | 5.0N 44.5E           | 5.5N 42.9E          | 40 | LO | 250 | N | N | 19910406 | 171530 | 243 | 273 | 63        | 18 |
| 75  | 102 | FRENCH GUIANA   | KOUROU AREA, COAST        | 6.0N 52.3W           | 5.5N 52.5W          | 60 | LO | 250 | N | N | 19910406 | 171537 | 243 | 273 | 63        | 18 |
| 75  | 103 | FRENCH GUIANA   | BORDER WITH BRAZIL        | 5.2N 51.8W           | 5.2N 52.1W          | 70 | LO | 250 | N | N | 19910406 | 171520 | 243 | 272 | 65        | 18 |
| 79  | 34  | FRENCH GUIANA   | MAHURY RIVER, CAYENNE     | 5.0N 52.5W           | 5.8N 53.0W          | 40 | LO | 250 | N | N | 19910406 | 171559 | 243 | 275 | 62        | 18 |
| 90  | 117 | FRENCH GUIANA   | RIO CALCOENE, NAZARE, CST | 2.6N 50.8W           | 4.6N 50.9W          | 80 | LO | 250 | N | N | 19910406 | 141255 | 242 | 282 | 47        | 16 |
| 77  | 84  | GABON           | CLDY, COASTLINE           | 2.8S 10.2E           | 2.4S 8.7E           | 70 | LO | 250 | N | N | 19910406 | 141258 | 242 | 282 | 47        | 16 |
| 77  | 85  | GABON           | T-STORM, CLDY             |                      | 2.5S 8.9E           | 80 | LO | 250 | N | N | 19910409 | 121558 | 246 | 298 | 75        | 61 |
| 80  | 43  | GABON           | OGOUE R., L. ONANGUE      | 1.0S 10.0E           | 0.8N 9.0E           | 75 | LO | 250 | N | Y | 19910409 | 121602 | 246 | 298 | 75        | 61 |
| 80  | 44  | GABON           | OGOUE R., L. ONANGUE      | 1.0S 9.5E            | 0.7N 9.2E           | 75 | LO | 250 | N | Y | 19910409 | 121609 | 246 | 298 | 75        | 61 |
| 80  | 45  | GABON           | OGOUE R., NKOMI LAGOON    | 1.5S 9.0E            | 0.5N 9.5E           | 60 | LO | 250 | N | Y | 19910409 | 121629 | 246 | 298 | 73        | 61 |
| 80  | 46  | GABON           | OGOUE R.                  | 0.5S 11.0E           | 0.1S 10.6E          | 75 | NV | 250 | O | N | 19910409 | 121631 | 246 | 298 | 73        | 61 |
| 80  | 47  | GABON           | OGOUE R., L. ONANGUE      | 1.0S 10.5E           | 0.2S 10.7E          | 70 | NV | 250 | O | N | 19910409 | 121634 | 246 | 298 | 73        | 61 |
| 80  | 48  | GABON           | OGOUE R., L. ONANGUE      | 1.0S 10.0E           | 0.3S 10.9E          | 65 | NV | 250 | O | N | 19910409 | 121638 | 246 | 298 | 73        | 61 |
| 80  | 49  | GABON           | OGOUE R., NKOOMI LAGOON   | 1.0S 9.0E            | 0.4S 11.1E          | 75 | NV | 250 | O | N | 19910409 | 121642 | 246 | 298 | 72        | 61 |
| 80  | 50  | GABON           | OGOUE R., NKOOMI LAGOON   | 1.5S 9.0E            | 0.5S 11.3E          | 50 | NV | 250 | O | N | 19910409 | 121645 | 246 | 298 | 72        | 61 |
| 80  | 51  | GABON           | MBIA LAGOON               | 3.5S 11.0E           | 0.6S 11.4E          | 55 | LO | 250 | O | N | 19910409 | 121703 | 246 | 298 | 71        | 61 |
| 80  | 52  | GABON           | INLAND FROM MBIA LAGOON   | 0.7S 11.6E           | 0.7S 11.6E          | 75 | LO | 250 | O | N | 19910409 | 121706 | 246 | 298 | 71        | 61 |
| 80  | 56  | GABON           | NDOGO LAGOON              | 2.5S 10.0E           | 1.1S 12.4E          | 65 | LO | 250 | O | N | 19910409 | 121710 | 246 | 298 | 71        | 61 |
| 80  | 57  | GABON           | NDOGO LAGOON, MBIA L.     | 3.0S 10.5E           | 1.2S 12.5E          | 70 | NV | 250 | O | N | 19910409 | 121710 | 246 | 298 | 73        | 61 |
| 80  | 58  | GABON           | INLAND FROM MBIA LAGOON   |                      | 1.4S 12.7E          | 70 | LO | 250 | O | N | 19910409 | 121630 | 246 | 298 | 73        | 61 |
| 87  | 3   | GABON           | CLOUDS                    |                      | 0.1S 10.6E          | 85 | LO | 250 | N | N | 19910409 | 121633 | 246 | 298 | 73        | 61 |
| 87  | 4   | GABON           | CLOUDS                    |                      | 0.2S 10.8E          | 90 | LO | 250 | N | N | 19910409 | 121643 | 246 | 298 | 73        | 61 |
| 87  | 5   | GABON           | COAST, SWAMP, LAGOONS     | 1.8S 9.0E            | 0.5S 11.3E          | 60 | LO | 250 | N | Y | 19910409 | 121646 | 246 | 298 | 73        | 61 |
| 87  | 6   | GABON           | COAST, LAGOONS            | 2.3S 9.4E            | 0.6S 11.5E          | 40 | LO | 250 | U | Y | 19910409 | 121646 | 246 | 298 | 72        | 61 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME   | FEATURE                     | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|----|-------------------|-----------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 87  | 7  | GABON             | COAST, LAGOONS              | 2.9S 9.9E            | 0.7S 11.6E          | 50 | LO | 250 | U | Y | 19910409 | 121649 | 246 | 298 | 72        | 61 |
| 87  | 8  | GABON             | COAST, LAGOON, NYANGO R.    | 3.5S 10.9E           | 0.8S 11.8E          | 50 | LO | 250 | U | Y | 19910409 | 121652 | 246 | 298 | 72        | 61 |
| 87  | 10 | GABON             | NGOUNIE RIVER               | 1.6S 10.8E           | 1.4S 12.8E          | 85 | LO | 250 | U | Y | 19910409 | 121711 | 246 | 298 | 71        | 61 |
| 87  | 11 | GABON             | NGOUNIE RIVER               | 1.9S 11.0E           | 1.5S 12.9E          | 85 | LO | 250 | U | Y | 19910409 | 121714 | 246 | 298 | 71        | 61 |
| 87  | 12 | GABON             | RIVER, CLOUDS               |                      | 1.5S 13.0E          | 85 | LO | 250 | U | Y | 19910409 | 121716 | 246 | 298 | 70        | 61 |
| 87  | 13 | GABON             | CLOUDS, HILLS               |                      | 1.7S 13.2E          | 90 | LO | 250 | U | Y | 19910409 | 121720 | 246 | 298 | 70        | 61 |
| 87  | 16 | GABON             | IVINDO R, OGOUE R.          | 0.2N 12.4E           | 2.5S 14.7E          | 85 | LO | 250 | N | Y | 19910409 | 121747 | 246 | 298 | 68        | 61 |
| 44  | 10 | GALAPAGOS ISLANDS | PANORAMA                    | 0.5S 89.0W           | 2.4N 87.3W          | 15 | LO | 35  | N | N | 19910410 | 175050 | 248 | 359 | 84        | 80 |
| 73  | 3  | GALAPAGOS ISLANDS | ISABELA, FERNANDINA ISLS.   | 0.4S 91.4W           | 1.6N 93.5W          | 60 | LO | 100 | N | N | 19910406 | 202430 | 243 | 279 | 57        | 20 |
| 73  | 4  | GALAPAGOS ISLANDS | ISLA SAN CRISTOBAL          | 0.8S 89.5W           | 0.1N 90.9W          | 30 | LO | 250 | N | N | 19910406 | 202520 | 243 | 281 | 54        | 20 |
| 73  | 5  | GALAPAGOS ISLANDS | ISLA SANTA CRUZ             | 0.6S 90.4W           | 0.0N 90.8W          | 50 | LO | 250 | N | N | 19910406 | 202523 | 243 | 281 | 54        | 20 |
| 73  | 6  | GALAPAGOS ISLANDS | ISLA ISABELA                | 0.8S 91.1W           | 0.2S 90.5W          | 60 | LO | 250 | N | N | 19910406 | 202527 | 243 | 281 | 54        | 20 |
| 73  | 7  | GALAPAGOS ISLANDS |                             |                      | 0.4S 90.1W          | 15 | LO | 250 | N | N | 19910406 | 202535 | 243 | 281 | 53        | 20 |
| 81  | 82 | GALAPAGOS ISLANDS | FERNANDINA, ISABELA IS.     | 0.0 91.5W            | 0.3N 93.2W          | 35 | LO | 250 | N | Y | 19910405 | 210339 | 243 | 278 | 47        | 5  |
| 81  | 83 | GALAPAGOS ISLANDS | FERNANDINA, ISABELA IS.     | 0.5S 91.5W           | 0.2N 93.0W          | 35 | LO | 250 | N | Y | 19910405 | 210342 | 243 | 278 | 47        | 5  |
| 81  | 84 | GALAPAGOS ISLANDS | FERNANDINA, ISABELA IS.     | 0.5S 91.0W           | 0.1N 92.9W          | 30 | LO | 250 | N | Y | 19910405 | 210345 | 243 | 278 | 47        | 5  |
| 81  | 85 | GALAPAGOS ISLANDS | FERNANDINA IS.              | 0.5S 91.0W           | 0.0N 92.7W          | 35 | LO | 250 | N | Y | 19910405 | 210348 | 243 | 279 | 47        | 5  |
| 81  | 86 | GALAPAGOS ISLANDS | FERNANDINA IS.              | 1.0S 91.0W           | 0.2S 92.4W          | 25 | NV | 250 | N | Y | 19910405 | 210353 | 243 | 279 | 46        | 5  |
| 81  | 87 | GALAPAGOS ISLANDS | SAN SALVADOR, ST. CRUZ      | 0.5S 90.5W           | 0.3S 92.2W          | 25 | LO | 250 | N | Y | 19910405 | 210357 | 243 | 279 | 46        | 5  |
| 81  | 88 | GALAPAGOS ISLANDS | SANTA CRUZ ISLAND           | 0.5S 90.5W           | 0.4S 92.0W          | 20 | NV | 250 | N | Y | 19910405 | 210401 | 243 | 279 | 46        | 5  |
| 81  | 89 | GALAPAGOS ISLANDS | SAN CRISTOBAL ISLAND        | 1.0S 89.5W           | 1.5S 90.1W          | 5  | NV | 250 | N | N | 19910405 | 210437 | 243 | 280 | 44        | 5  |
| 91  | 75 | GALAPAGOS ISLANDS | I. FERNANDINA, I. ISABELA   | 0.5S 91.5W           | 0.6S 91.7W          | 40 | NV | 250 | U | Y | 19910405 | 210407 | 243 | 279 | 45        | 5  |
| 91  | 76 | GALAPAGOS ISLANDS | I. ISABELA, VERY DARK       | 1.0S 91.0W           | 0.7S 91.5W          | 70 | NV | 250 | U | Y | 19910405 | 210411 | 243 | 279 | 45        | 5  |
| 91  | 77 | GALAPAGOS ISLANDS | ISLA SANTA CRUZ, DARK       | 0.5S 90.5W           | 0.9S 91.2W          | 50 | NV | 250 | U | Y | 19910405 | 210416 | 243 | 279 | 45        | 5  |
| 91  | 78 | GALAPAGOS ISLANDS | I. STA CRUZ, I. SAN SALVAD. | 0.5S 90.5W           | 1.0S 91.1W          | 60 | NV | 250 | U | Y | 19910405 | 210419 | 243 | 279 | 45        | 5  |
| 91  | 79 | GALAPAGOS ISLANDS | ISLA SAN CRISTOBAL, DARK    | 1.0S 89.5W           | 1.2S 90.7W          | 10 | NV | 250 | U | N | 19910405 | 210426 | 243 | 279 | 44        | 5  |
| 92  | 22 | GALAPAGOS ISLANDS | FERNANDINA                  | 0.5S 91.5W           | 1.3N 93.0W          | 60 | LO | 250 | N | N | 19910406 | 202440 | 243 | 280 | 57        | 20 |
| 92  | 23 | GALAPAGOS ISLANDS | SAN SALVADOR, SANTA CRUZ    | 0.4S 90.5W           | 1.1N 92.6W          | 60 | LO | 250 | N | N | 19910406 | 202447 | 243 | 280 | 56        | 20 |
| 92  | 24 | GALAPAGOS ISLANDS | PINTA, MARCHENA             | 0.5N 90.5W           | 0.9N 92.3W          | 30 | LO | 250 | N | N | 19910406 | 202453 | 243 | 280 | 56        | 20 |
| 94  | 36 | GALAPAGOS ISLANDS | SUNGLINT, INT. WAVES        | 0.5S 90.5W           |                     | 15 | LO | 100 | N | N |          |        |     |     |           |    |
| 152 | 71 | GALAPAGOS ISLANDS | SAN SALVADOR, ISABELA ISLS  | 0.5S 90.5W           | 0.9S 89.2W          | 25 | NV | 250 | N | N | 19910406 | 202552 | 243 | 281 | 52        | 20 |
| 84  | 65 | GAMBIA            | GAMBIA RIVER                | 13.5N 16.5W          |                     | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 86  | 78 | GAMBIA            | BANJUL AREA, GAMBIA RVR     | 13.5N 17.0W          | 14.2N 17.2W         | 0  | LO | 250 | N | N | 19910408 | 124655 | 246 | 139 | 80        | 46 |
| 86  | 79 | GAMBIA            | BANJUL AREA, GAMBIA RVR     | 13.5N 16.8W          | 14.0N 16.9W         | 0  | LO | 250 | N | N | 19910408 | 124700 | 246 | 140 | 81        | 46 |
| 86  | 80 | GAMBIA            | BANJUL AREA, GAMBIA RVR     | 13.2N 16.7W          | 13.9N 16.6W         | 0  | LO | 250 | N | N | 19910408 | 124705 | 246 | 141 | 81        | 46 |
| 86  | 81 | GAMBIA            | BANJUL AREA, GAMBIA RVR     | 13.4N 16.2W          | 13.8N 16.5W         | 0  | LO | 250 | N | N | 19910408 | 124708 | 246 | 141 | 81        | 46 |
| 86  | 82 | GAMBIA            | GAMBIA RIVER, INLAND        | 13.5N 15.5W          | 13.7N 16.3W         | 0  | LO | 250 | N | N | 19910408 | 124712 | 246 | 142 | 81        | 46 |
| 86  | 83 | GAMBIA            | GAMBIA RIVER, INLAND        | 13.7N 15.0W          | 13.6N 16.0W         | 0  | LO | 250 | N | N | 19910408 | 124717 | 246 | 143 | 82        | 46 |
| 86  | 84 | GAMBIA            | GAMBIA RIVER, BANJUL AREA   | 13.3N 16.6W          | 12.7N 14.3W         | 0  | LO | 250 | N | N | 19910408 | 124748 | 246 | 152 | 83        | 46 |
| 96  | 41 | GAMBIA            | DAKAR, GAMBIA R., GEBE R    | 13.5N 15.5W          |                     | 0  | LO | 100 | N | Y |          |        |     |     |           |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL OR |
|-----|-----|-----------------|----------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|--------------|
| 153 | OC6 | GAMBIA          | GAMBIA, SADOUM RIVERS      | 13.5N 16.5W       |                  | 0  | LO | 250 | N | Y |          |        |     |     |              |
| 80  | 27  | GHANA           | BUI RESERVOIR              | 8.5N 2.5W         | 7.6N 2.8W        | 40 | NV | 250 | N | Y | 19910409 | 121214 | 246 | 121 | 89 61        |
| 80  | 28  | GHANA           | BUI RESERVOIR              | 8.0N 2.5W         | 7.5N 2.7W        | 50 | NV | 250 | N | Y | 19910409 | 121216 | 246 | 126 | 89 61        |
| 80  | 29  | GHANA           | HIGHLANDS W. OF L. VOLTA   |                   | 7.6N 2.5W        | 60 | NV | 250 | N | Y | 19910409 | 121219 | 246 | 284 | 89 61        |
| 80  | 30  | GHANA           | HIGHLANDS W. OF L. VOLTA   |                   | 7.4N 2.4W        | 60 | NV | 250 | N | Y | 19910409 | 121222 | 246 | 293 | 89 61        |
| 80  | 31  | GHANA           | HIGHLANDS W. OF L. VOLTA   |                   | 7.2N 2.1W        | 80 | NV | 250 | N | Y | 19910409 | 121226 | 246 | 295 | 89 61        |
| 80  | 32  | GHANA           | HIGHLANDS W. OF L. VOLTA   |                   | 7.2N 2.0W        | 85 | NV | 250 | N | Y | 19910409 | 121229 | 246 | 296 | 89 61        |
| 80  | 33  | GHANA           | HIGHLANDS NEAR L. VOLTA    |                   | 7.0N 1.8W        | 75 | NV | 250 | N | Y | 19910409 | 121233 | 246 | 298 | 89 61        |
| 80  | 34  | GHANA           | HIGHLANDS NEAR L. VOLTA    |                   | 6.8N 1.3W        | 55 | LO | 250 | N | Y | 19910409 | 121241 | 246 | 297 | 88 61        |
| 80  | 35  | GHANA           | VOLTA R., KETA LAGOON      | 6.0N 0.5E         | 6.5N 0.8W        | 30 | LO | 250 | N | Y | 19910409 | 121251 | 246 | 297 | 87 61        |
| 80  | 38  | GHANA           | CITY OF ACCRA              | 5.5N 0.5W         | 6.1N 0.1W        | 35 | LO | 250 | N | Y | 19910409 | 121304 | 246 | 297 | 87 61        |
| 80  | 39  | GHANA           | WINNEBA, CAPE COAST        | 5.0N 0.5W         | 5.9N 0.2E        | 45 | LO | 250 | N | Y | 19910409 | 121311 | 246 | 297 | 86 61        |
| 80  | 40  | GHANA           | VOLTA R., SONGAW LAGOON    | 6.0N 0.5E         | 5.7N 0.6E        | 50 | LO | 250 | N | Y | 19910409 | 121318 | 246 | 297 | 86 61        |
| 87  | 1   | GHANA           | ACCRA, COAST               | 5.0N 0.0          | 4.1N 3.4E        | 30 | L  | 250 | N | Y | 19910409 | 121412 | 246 | 298 | 82 61        |
| 88  | 115 | GHANA           | AGR. V. DARK               |                   | 7.2N 2.1W        | 40 | LO | 250 | N | Y | 19910409 | 121226 | 246 | 295 | 89 61        |
| 88  | 116 | GHANA           | AGR. V. DARK               |                   | 7.2N 2.0W        | 30 | LO | 250 | N | Y | 19910409 | 121229 | 246 | 296 | 89 61        |
| 88  | 117 | GHANA           | AGR. V. DARK               |                   | 7.1N 1.8W        | 35 | LO | 250 | N | Y | 19910409 | 121232 | 246 | 296 | 89 61        |
| 88  | 118 | GHANA           | AGR. V. DARK               |                   | 6.9N 1.6W        | 75 | LO | 250 | N | Y | 19910409 | 121237 | 246 | 296 | 88 61        |
| 88  | 119 | GHANA           | AGR. V. DARK, CLOUDS       |                   | 6.8N 1.3W        | 90 | LO | 250 | N | Y | 19910409 | 121242 | 246 | 297 | 88 61        |
| 88  | 120 | GHANA           | AGR. V. DARK, CLOUDS       |                   | 6.6W 0.9W        | 90 | LO | 250 | N | Y | 19910409 | 121249 | 246 | 297 | 88 61        |
| 88  | 121 | GHANA           | VOLTA R/DELTA, COAST       | 5.9N 0.8E         | 5.8N 0.5E        | 25 | NV | 250 | N | Y | 19910409 | 121316 | 246 | 297 | 86 61        |
| 85  | 34  | GILBERT ISLANDS | CHRISTMAS IS.              | 2.0N 157.4W       | 0.3S 158.1W      | 60 | LO | 250 | N | Y | 19910408 | 234916 | 245 | 292 | 69 53        |
| 91  | 21  | GUATEMALA       | ANGOSTURA RESERVOIR        | 15.5N 92.0W       | 12.8N 91.7W      | 80 | LO | 250 | N | Y | 19910405 | 192311 | 244 | 251 | 70 4         |
| 94  | 16  | GUATEMALA       | COAST                      | 14.0N 91.0W       |                  | 55 | LO | 100 | N | Y |          |        |     |     |              |
| 74  | 46  | GUINEA          | VRY HIGH OBLIQUE           |                   | 2.0N 18.9W       | 5  | HO | 250 | N | Y | 19910409 | 134844 | 245 | 300 | 82 62        |
| 77  | 77  | GUINEA          | CONAKRY AREA, HAZY         | 9.5N 13.8W        | 10.3N 13.4W      | 5  | LO | 250 | N | Y | 19910408 | 140554 | 244 | 258 | 72 16        |
| 77  | 78  | GUINEA          | COASTAL AREA N. OF CONAKRY | 10.0N 14.6W       | 9.9N 12.6W       | 0  | LO | 250 | N | Y |          |        |     |     |              |
| 84  | 79  | GUINEA          | KOULONTOU, CORUBAL R.      | 12.5N 13.5W       |                  | 0  | NV | 250 | N | Y |          |        |     |     |              |
| 84  | 84  | GUINEA          | GAMBIA RIVER               | 12.5N 13.0W       |                  | 0  | LO | 250 | N | Y |          |        |     |     |              |
| 84  | 85  | GUINEA          | TOMINE RIVER               | 12.0N 13.5W       |                  | 0  | NV | 250 | N | Y |          |        |     |     |              |
| 84  | 86  | GUINEA          | TOMINE, KOMBE RIVERS       | 11.5N 13.0W       |                  | 0  | NV | 250 | N | Y |          |        |     |     |              |
| 84  | 87  | GUINEA          | LOMA HILLS, KOMBE RIVER    | 11.5N 13.0W       |                  | 0  | NV | 250 | N | Y |          |        |     |     |              |
| 84  | 88  | GUINEA          | LOMA HILLS, KOMBE RIVER    | 11.5N 12.5W       |                  | 0  | NV | 250 | N | Y |          |        |     |     |              |
| 84  | 89  | GUINEA          | LOMA HILLS, TOMINE R.      | 11.5N 13.5W       |                  | 0  | NV | 250 | N | Y |          |        |     |     |              |
| 84  | 90  | GUINEA          | LOMA HILLS                 | 11.0N 13.0W       |                  | 0  | NV | 250 | N | Y |          |        |     |     |              |
| 84  | 91  | GUINEA          | LOMA HILLS                 | 11.5N 12.5W       |                  | 0  | NV | 250 | N | Y |          |        |     |     |              |
| 84  | 95  | GUINEA          | BAFING RIVER               | 12.0N 10.5W       |                  | 0  | LO | 250 | N | Y |          |        |     |     |              |
| 84  | 96  | GUINEA          | BAFING RIVER               | 11.5N 11.0W       |                  | 0  | LO | 250 | N | Y |          |        |     |     |              |
| 84  | 97  | GUINEA          | BAFING RIVER, LOMA HILLS   | 11.5N 10.5W       |                  | 0  | LO | 250 | N | Y |          |        |     |     |              |
| 84  | 98  | GUINEA          | BAFING RIVER, LOMA HILLS   |                   |                  | 0  | LO | 250 | N | Y |          |        |     |     |              |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 84  | 99  | GUINEA          | BAFING RIVER, LOMA HILLS | 12.0N 10.5W          |                     | 0  | LO | 250 | N | N |          |        |     |     |           |    |
| 84  | 100 | GUINEA          | TINKISSI RIVER           | 11.5N 10.5W          |                     | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 101 | GUINEA          | TINKISSI RIVER           | 11.0N 10.0W          |                     | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 102 | GUINEA          | NIGER RIVER              | 11.0N 9.5W           |                     | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 103 | GUINEA          | NIGER RIVER              | 10.5N 9.5W           |                     | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 104 | GUINEA          | NIGER RIVER              | 10.5N 10.0W          |                     | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 86  | 87  | GUINEA          | N.CENTRAL,SUNGLINT RIVRS |                      | 12.0N 12.9W         | 0  | LO | 250 | N | N | 19910408 | 124813 | 246 | 164 | 84        | 46 |
| 86  | 88  | GUINEA          | UNIDENTIFIED RESERVOIR   |                      | 11.5N 12.0W         | 0  | LO | 250 | N | N | 19910408 | 124829 | 246 | 174 | 85        | 46 |
| 86  | 89  | GUINEA          | INLAND AREA              |                      | 11.2N 11.3W         | 0  | LO | 250 | N | N | 19910408 | 124843 | 246 | 185 | 85        | 46 |
| 86  | 90  | GUINEA          | NIGER RIVER              | 11.0N 9.0W           | 10.5N 10.0W         | 0  | LO | 250 | N | N | 19910408 | 124908 | 246 | 206 | 86        | 46 |
| 86  | 91  | GUINEA          | NIGER RIVER AREA/TRIBUTY |                      | 10.3N 9.7W          | 20 | LO | 250 | N | N | 19910408 | 124912 | 246 | 212 | 86        | 46 |
| 86  | 80  | GUINEA          | COAST, VERY DARK         |                      | 13.4N 13.8W         | 0  | LO | 250 | N | N | 19910409 | 120851 | 246 | 115 | 76        | 61 |
| 86  | 86  | GUINEA          | TOMINE R, AGR, DARK      | 12.2N 13.6W          | 12.7N 12.3W         | 0  | LO | 250 | N | N | 19910409 | 120918 | 246 | 115 | 78        | 61 |
| 88  | 90  | GUINEA          | BAFING R, AGR.           | 12.1N 10.5W          | 12.0N 11.0W         | 0  | NV | 250 | U | Y | 19910409 | 120942 | 246 | 116 | 79        | 61 |
| 88  | 91  | GUINEA          | BAFING R, AGR.           | 11.6N 10.8W          | 11.9N 10.8W         | 0  | NV | 250 | U | Y | 19910409 | 120945 | 246 | 116 | 80        | 61 |
| 88  | 92  | GUINEA          | HILLS, AGR, DARK         |                      | 11.9N 10.7W         | 0  | LO | 250 | N | N | 19910409 | 120947 | 246 | 116 | 80        | 61 |
| 88  | 93  | GUINEA          | TINKISSO RIVER,AGR,DARK  | 11.4N 10.0W          | 11.7N 10.5W         | 0  | NV | 250 | U | Y | 19910409 | 120951 | 246 | 116 | 80        | 61 |
| 88  | 94  | GUINEA          | TINKISSO R,NIGER R,DARK  | 11.2N 9.6W           | 11.6N 10.2W         | 0  | NV | 250 | U | Y | 19910409 | 120956 | 246 | 116 | 80        | 61 |
| 88  | 95  | GUINEA          | TINKISSO R,NIGER R,AGR.  | 11.1N 9.2W           | 11.4N 9.8W          | 0  | NV | 250 | U | Y | 19910409 | 121004 | 246 | 116 | 81        | 61 |
| 88  | 96  | GUINEA          | NIGER R,MILO R,AGR,DARK  | 10.7N 9.2W           | 11.2N 9.4W          | 5  | NV | 250 | U | Y | 19910409 | 121010 | 246 | 116 | 81        | 61 |
| 88  | 97  | GUINEA          | NIGER R,FIE R,AGR,DARK   | 11.3N 9.0W           | 10.8N 8.6W          | 5  | NV | 250 | U | Y | 19910409 | 121025 | 246 | 116 | 82        | 61 |
| 88  | 99  | GUINEA          | NIGER R,MILO R,AGR,DARK  | 10.6N 9.2W           | 10.3N 7.8W          | 5  | LO | 250 | N | N | 19910409 | 121041 | 246 | 116 | 83        | 61 |
| 88  | 100 | GUINEA          | SANKARANI R,TRIBUTARY,DK | 10.0N 8.5W           | 10.2N 7.6W          | 0  | LO | 250 | N | N | 19910409 | 121044 | 246 | 116 | 83        | 61 |
| 152 | 46  | GUINEA          | COAST-SHUTTLE TAIL       | 10.0N 14.5W          | 23.1S 163.7W        | 10 | NV | 250 | N | Y | 19910408 | 050525 | 243 | 275 | -4        | 10 |
| 152 | 47  | GUINEA          | CONAKRY-SHUTTLE TAIL     | 9.5N 13.5W           | 10.8N 14.4W         | 30 | LO | 250 | N | Y | 19910408 | 140537 | 244 | 256 | 73        | 16 |
| 153 | OCK | GUINEA          | LOMA HILLS, TOMINE RIVER | 12.0N 13.0W          |                     | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCL | GUINEA          | LOMA HILLS               | 12.0N 12.0W          |                     | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCM | GUINEA          | LOMA HILLS               |                      |                     | 40 | LO | 250 | N | N |          |        |     |     |           |    |
| 74  | 45  | GUINEA BISSAU   | SENEGAL                  |                      | 2.2N 17.3W          | 5  | HO | 250 | N | N | 19910409 | 134837 | 245 | 300 | 82        | 62 |
| 77  | 70  | GUINEA BISSAU   | COAST AREA,RIO CACHEU    |                      | 12.2N 17.1W         | 0  | LO | 250 | N | N | 19910406 | 140447 | 244 | 247 | 75        | 16 |
| 77  | 71  | GUINEA BISSAU   | ARQUIPELAGO DOS BIJAGOS  | 11.5N 15.9W          | 12.1N 16.9W         | 0  | LO | 250 | N | N | 19910406 | 140451 | 244 | 248 | 75        | 16 |
| 77  | 72  | GUINEA BISSAU   | ARQUIPELAGO DOS BIJAGOS  | 11.5N 16.2W          | 12.0N 16.8W         | 0  | LO | 250 | N | N | 19910406 | 140453 | 244 | 248 | 75        | 16 |
| 77  | 73  | GUINEA BISSAU   | ARQUIPELAGO DOS BIJAGOS  |                      | 11.8N 16.3W         | 0  | LO | 250 | N | N | 19910406 | 140502 | 244 | 250 | 74        | 16 |
| 77  | 74  | GUINEA BISSAU   | SUNGLINT COASTAL WATERS  |                      | 11.3N 15.3W         | 0  | LO | 250 | N | N | 19910406 | 140519 | 244 | 253 | 74        | 16 |
| 77  | 75  | GUINEA BISSAU   | SUNGLINT COASTAL WATERS  |                      | 11.0N 14.9W         | 0  | LO | 250 | N | N | 19910406 | 140528 | 244 | 254 | 73        | 16 |
| 77  | 76  | GUINEA BISSAU   | SUNGLINT COASTAL WATERS  |                      | 10.6N 14.0W         | 0  | LO | 250 | N | N | 19910406 | 140543 | 244 | 256 | 72        | 16 |
| 84  | 68  | GUINEA BISSAU   | CAHEU, MANSOA RIVERS     | 12.0N 16.0W          |                     | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 69  | GUINEA BISSAU   | GEBA RIVER               | 12.0N 15.5W          |                     | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 77  | GUINEA BISSAU   | CASAMANCE, GEBA RIVERS   | 12.5N 15.0W          |                     | 0  | NV | 250 | N | Y |          |        |     |     |           |    |
| 84  | 78  | GUINEA BISSAU   | GEBA, CORUBAL RIVERS     | 12.5N 14.5W          |                     | 0  | NV | 250 | N | Y |          |        |     |     |           |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME  | FEATURE                    | CENTER<br>LAT LON | NADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|------------------|----------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 86  | 85  | GUINEA BISSAU    | ARCHIPELAGO DOS BIJAGOSA   | 11.4N 15.9W       | 12.4N 13.6W      | 0  | LO | 250 | N | N | 19910408 | 124800 | 246 | 157 | 84        | 46 |
| 86  | 86  | GUINEA BISSAU    | CANAL DO GEBIA             | 11.8N 15.0W       | 12.3N 13.4W      | 0  | LO | 250 | N | N | 19910408 | 124804 | 246 | 159 | 84        | 46 |
| 86  | 76  | GUINEA BISSAU    | CASAMANCE R, RIO CACHEU    | 12.3N 16.1W       | 13.7N 14.3W      | 0  | LO | 250 | U | Y | 19910409 | 120841 | 246 | 115 | 76        | 61 |
| 88  | 77  | GUINEA BISSAU    | GEBIA CANAL, DOS BIJAGOS I | 11.6N 15.6W       | 13.6N 14.2W      | 0  | LO | 250 | U | Y | 19910409 | 120843 | 246 | 115 | 76        | 61 |
| 88  | 78  | GUINEA BISSAU    | R. GRANDE, DOS BIJAGOS IS  | 11.1N 15.4W       | 13.5N 14.0W      | 15 | LO | 250 | U | N | 19910409 | 120847 | 246 | 115 | 76        | 61 |
| 88  | 79  | GUINEA BISSAU    | RIO CASSEINE, COAST        | 11.0N 15.1W       | 13.5N 13.9W      | 15 | LO | 250 | U | Y | 19910409 | 120849 | 246 | 115 | 76        | 61 |
| 88  | 87  | GUINEA BISSAU    | RIO CORUBAL, AGR, DARK     | 11.8N 14.2W       | 12.5N 12.0W      | 0  | LO | 250 | U | N | 19910409 | 120923 | 246 | 115 | 76        | 61 |
| 153 | OCJ | GUINEA BISSAU    | GEBIA, CASAMANCE RIVERS    | 12.5N 14.5W       |                  | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 12  | 7   | GULF OF ADEN     | STRAIT OF MANDEB           | 12.0N 46.0E       | 18.6N 48.7E      | 10 | HO | 35  | O | N | 19910410 | 064659 | 247 | 106 | 59        | 73 |
| 12  | 13  | GULF OF ADEN     | HORN OF AFRICA, SOCOTRA    | 12.0N 51.0E       | 16.6N 53.3E      | 10 | HO | 35  | O | N | 19910410 | 064819 | 247 | 107 | 64        | 73 |
| 14  | 31  | GULF OF ADEN     | AFAR REGION, RIFT VALLEY   | 13.0N 46.0E       | 11.5N 39.7E      | 15 | HO | 35  | N | N | 19910410 | 082452 | 247 | 103 | 75        | 74 |
| 96  | 103 | GULF OF ADEN     | VALE OF TEARS ST. AFAR     | 11.5N 42.5E       |                  | 15 | HO | 100 | N | N |          |        |     |     |           |    |
| 97  | 92  | GULF OF ADEN     | PANORAMA                   |                   | 8.2N 38.2E       | 40 | HO | 250 | N | N | 19910406 | 110015 | 243 | 266 | 67        | 14 |
| 74  | 27  | GULF OF MEXICO   | VRY HAZY                   |                   | 28.5N 95.4W      | 60 | HO | 250 | N | N | 19910409 | 132658 | 245 | 89  | 14        | 62 |
| 74  | 28  | GULF OF MEXICO   |                            |                   | 28.5N 94.6W      | 90 | HO | 250 | N | N | 19910409 | 132709 | 245 | 89  | 14        | 62 |
| 78  | 26  | GULF OF MEXICO   | ALACRAN REEF               | 22.5N 89.5W       | 5.1N 42.9W       | 0  | LO | 250 | N | N | 19910409 | 150830 | 245 | 105 | 48        | 63 |
| 92  | 91  | GULF OF MEXICO   | CLDY, SOME LAND            |                   | 28.1N 88.0W      | 95 | LO | 250 | N | N | 19910407 | 130713 | 246 | 92  | 19        | 31 |
| 92  | 92  | GULF OF MEXICO   | CLDY, SOME LAND            |                   | 28.1N 87.1W      | 95 | LO | 250 | N | N | 19910407 | 130725 | 246 | 93  | 20        | 31 |
| 92  | 93  | GULF OF MEXICO   | CLDY, SHIP WAKE            |                   | 28.3N 85.1W      | 70 | LO | 250 | N | N | 19910407 | 130755 | 246 | 94  | 21        | 31 |
| 92  | 94  | GULF OF MEXICO   | CLDY, CLOUD WAVES          |                   | 28.3N 83.7W      | 99 | LO | 250 | N | N | 19910407 | 130815 | 246 | 94  | 23        | 31 |
| 38  | 24  | GULF OF OMAN     | SHIP WAKES                 | 24.0N 60.0E       | 25.3N 53.8E      | 60 | LO | 35  | N | N | 19910411 | 043006 | 245 | 96  | 31        | 87 |
| 38  | 29  | GULF OF OMAN     | STRAIT OF HORMUZ           | 25.0N 57.0E       | 23.8N 59.4E      | 55 | LO | 35  | N | N | 19910411 | 043135 | 246 | 98  | 37        | 87 |
| 91  | 36  | GULF OF PANAMA   | CLOUDS                     |                   | 6.0N 79.2W       | 90 | LO | 250 | N | N | 19910405 | 192704 | 243 | 271 | 58        | 4  |
| 151 | 143 | GULF OF THAILAND | SOUTH TIP VIETNAM, SUNGLI  | 9.0N 104.0E       | 10.2N 106.0E     | 20 | LO | 250 | N | Y | 19910406 | 061845 | 244 | 260 | 69        | 11 |
| 16  | 29  | GUYANA           | ESSEQUIBO RIVER MOUTH      | 7.0N 58.0W        | 2.1N 62.9W       | 70 | HO | 35  | N | N | 19910410 | 161731 | 248 | 350 | 84        | 79 |
| 75  | 98  | GUYANA           | COAST, BOR. SURINAM        | 7.0N 56.5W        | 8.5N 57.9W       | 60 | LO | 250 | N | N | 19910406 | 171347 | 244 | 265 | 70        | 18 |
| 79  | 28  | GUYANA           | WAINI RIVER MOUTH          | 8.5N 60.0W        | 10.4N 61.4W      | 60 | LO | 250 | N | N | 19910406 | 171242 | 244 | 256 | 73        | 18 |
| 79  | 29  | GUYANA           | ESSEQUIBO RIVER MOUTH      | 7.0N 58.5W        | 9.3N 59.4W       | 65 | LO | 250 | N | N | 19910406 | 171319 | 244 | 261 | 71        | 18 |
| 79  | 30  | GUYANA           | COASTAL REG., SED. PLUME   | 7.0N 58.0W        | 8.9N 58.6W       | 60 | LO | 250 | N | N | 19910406 | 171335 | 244 | 263 | 70        | 18 |
| 79  | 31  | GUYANA           | BERBICE RIVER MOUTH        | 6.5N 57.5W        | 8.3N 57.4W       | 35 | LO | 250 | N | N | 19910406 | 171356 | 244 | 265 | 69        | 18 |
| 90  | 107 | GUYANA           | ESSEQUIBO R/D DELTA        | 7.0N 58.5W        | 9.3N 59.4W       | 75 | LO | 250 | N | N | 19910406 | 171319 | 244 | 262 | 71        | 18 |
| 90  | 110 | GUYANA           | BERBICE R, NEW AMSTERDAM   | 6.5N 57.5W        | 8.3N 57.6W       | 40 | LO | 250 | U | N | 19910406 | 171354 | 244 | 265 | 69        | 18 |
| 72  | 18  | HAITI            | DU SUC CHANNEL             | 18.5N 73.5W       | 16.4N 75.5W      | 35 | LO | 100 | N | N | 19910405 | 174728 | 244 | 225 | 75        | 3  |
| 74  | 34  | HAITI            | NORTHERN PENINSULA         | 19.7N 73.0W       | 4.9N 19.1W       | 30 | LO | 250 | N | N | 19910409 | 133407 | 245 | 103 | 41        | 62 |
| 74  | 35  | HAITI            | OBLIQUE VIEW OF HAITI      | 19.3N 72.2W       | 5.0N 19.2W       | 30 | LO | 250 | N | N | 19910409 | 133411 | 245 | 103 | 41        | 62 |
| 76  | 13  | HAITI            | MASSIF DU SUD              | 18.3N 74.0W       | 6.7N 47.3W       | 60 | LO | 250 | N | N | 19910409 | 151300 | 244 | 111 | 65        | 63 |
| 76  | 14  | HAITI            | MASSIF DU SUD              | 18.3N 73.3W       | 6.7N 47.4W       | 60 | LO | 250 | N | N | 19910409 | 151303 | 244 | 111 | 65        | 63 |
| 76  | 15  | HAITI            | PORT AU PRINCE AREA        | 18.3N 72.3W       | 6.8N 47.5W       | 30 | LO | 250 | N | N | 19910409 | 151305 | 244 | 111 | 65        | 63 |
| 76  | 16  | HAITI            | PORT AU PRINCE AREA        | 18.3N 72.0W       | 6.8N 47.5W       | 30 | LO | 250 | N | N | 19910409 | 151307 | 244 | 111 | 66        | 63 |
| 76  | 17  | HAITI            | PORT AU PRINCE AREA        | 18.7N 72.8W       | 6.8N 47.6W       | 30 | LO | 250 | N | N | 19910409 | 151310 | 244 | 111 | 66        | 63 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER |       | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|-----|-----------------|---------------------------|--------|-------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                 |                           | LAT    | LONG  | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 76  | 18  | HAITI           | PORT AU PRINCE AREA       | 19.0N  | 72.3W | 6.9N  | 47.7W  | 20 | LO | 250 | N | N | 19910409 | 151313 | 244 | 111 | 66  | 63 |    |
| 76  | 24  | HAITI           | NORTH CENTRAL AREA        | 19.2N  | 72.1W | 7.1N  | 48.3W  | 20 | LO | 250 | N | N | 19910409 | 151332 | 244 | 112 | 67  | 63 |    |
| 76  | 25  | HAITI           | NORTHWEST AREA            | 19.5N  | 72.5W | 7.2N  | 48.5W  | 20 | LO | 250 | N | N | 19910409 | 151337 | 244 | 112 | 68  | 63 |    |
| 76  | 26  | HAITI           | NORTHWEST AREA            | 19.3N  | 72.2W | 7.3N  | 48.6W  | 20 | LO | 250 | N | N | 19910409 | 151340 | 244 | 112 | 68  | 63 |    |
| 76  | 27  | HAITI           | NORTHEAST AREA            | 19.3N  | 71.9W | 7.3N  | 48.7W  | 30 | LO | 250 | N | N | 19910409 | 151343 | 244 | 112 | 68  | 63 |    |
| 78  | 38  | HAITI           | GONAVE IS., CAPE ST MARC  | 19.0N  | 73.0W | 6.2N  | 46.3W  | 15 | NV | 250 | N | Y | 19910409 | 151228 | 244 | 111 | 63  | 63 |    |
| 78  | 39  | HAITI           | GULF OF GONAVE            | 19.5N  | 73.0W | 6.3N  | 46.4W  | 10 | LO | 250 | N | Y | 19910409 | 151231 | 244 | 111 | 63  | 63 |    |
| 78  | 40  | HAITI           | TORTURE IS. CAPE MOLE     | 20.0N  | 73.0W | 6.3N  | 46.5W  | 5  | LO | 250 | N | Y | 19910409 | 151234 | 244 | 111 | 64  | 63 |    |
| 78  | 41  | HAITI           | TORTURE IS. CAPE HAITIEN  | 20.0N  | 72.5W | 6.4N  | 46.7W  | 10 | LO | 250 | N | Y | 19910409 | 151240 | 244 | 111 | 64  | 63 |    |
| 78  | 42  | HAITI           | MANZANILLO BAY            | 20.0N  | 72.0W | 6.4N  | 46.8W  | 20 | LO | 250 | N | Y | 19910409 | 151243 | 244 | 111 | 64  | 63 |    |
| 87  | 70  | HAITI           | TORTUE I., NORTH SIDE     | 19.4N  | 72.8W | 4.7N  | 18.4W  | 40 | LO | 250 | U | Y | 19910409 | 133344 | 245 | 103 | 43  | 62 |    |
| 72  | 38  | HONDURAS        | COAST-FONSECA GULF        | 13.0N  | 87.5W | 18.2N | 103.4W | 45 | LO | 100 | N | Y | 19910405 | 191945 | 244 | 204 | 76  | 4  |    |
| 81  | 14  | HONDURAS        | GULF OF FONSECA           | 13.0N  | 87.5W | 11.3N | 88.9W  | 5  | NV | 250 | N | N | 19910405 | 192402 | 243 | 257 | 68  | 4  |    |
| 151 | 14  | HONDURAS        | GULF OF FONSECA           | 13.0N  | 87.5W | 11.6N | 89.4W  | 20 | LO | 250 | N | Y | 19910405 | 192353 | 243 | 256 | 68  | 4  |    |
| 72  | 98  | INDIA           | MANGALORE-SUNGLINT        | 13.0N  | 74.5E | 13.6N | 75.7E  | 10 | NV | 100 | N | Y | 19910406 | 075013 | 244 | 240 | 75  | 12 |    |
| 72  | 99  | INDIA           | BHADRA RESERVOIR          | 13.5N  | 75.5E | 13.3N | 76.2E  | 15 | NV | 100 | N | Y | 19910406 | 075023 | 244 | 242 | 75  | 12 |    |
| 72  | 100 | INDIA           | KRISHNARAJA SAGARA        | 12.5N  | 77.0E | 12.9N | 77.1E  | 45 | NV | 100 | N | N | 19910406 | 075038 | 244 | 245 | 74  | 12 |    |
| 72  | 101 | INDIA           | PALAR RIVER               | 13.5N  | 79.0E | 12.1N | 78.6E  | 40 | LO | 100 | N | Y | 19910406 | 075106 | 244 | 250 | 73  | 12 |    |
| 72  | 102 | INDIA           | PALAR RIVER               | 12.5N  | 79.5E | 11.7N | 79.4E  | 40 | NV | 100 | N | Y | 19910406 | 075121 | 244 | 252 | 72  | 12 |    |
| 72  | 103 | INDIA           | COAST-SUNGLINT-PALAR R.   | 11.5N  | 80.5E | 10.9N | 81.0E  | 25 | NV | 100 | N | Y | 19910406 | 075149 | 244 | 256 | 71  | 12 |    |
| 93  | 26  | INDIA           | CLOUDS, VERY DARK         |        |       | 21.2N | 69.8E  | 75 | LO | 250 | U | N | 19910406 | 011008 | 245 | 83  | -0  | 8  |    |
| 93  | 27  | INDIA           | CLOUDS, VERY DARK         |        |       | 21.4N | 70.4E  | 75 | LO | 250 | U | N | 19910406 | 011018 | 245 | 83  | -0  | 8  |    |
| 95  | 13  | INDIA           | SO. COAST, GULF OF MANNAR | 9.1N   | 79.5E | 1.8N  | 73.1E  | 20 | HO | 250 | N | N | 19910406 | 093018 | 243 | 278 | 54  | 13 |    |
| 151 | 98  | INDIA           | GULF OF KUTCH             | 22.0N  | 69.0E | 28.2N | 72.4E  | 20 | HO | 250 | N | N | 19910406 | 042942 | 246 | 111 | 45  | 10 |    |
| 151 | 99  | INDIA           | PANJAL RANGE, RAVI R.     | 32.5N  | 76.0E | 27.8N | 76.7E  | 15 | LO | 250 | N | Y | 19910406 | 043045 | 246 | 115 | 49  | 10 |    |
| 151 | 100 | INDIA           | GREAT HIMALAYA RANGE      | 29.0N  | 80.0E | 27.6N | 79.0E  | 20 | LO | 250 | N | Y | 19910406 | 043119 | 246 | 117 | 51  | 10 |    |
| 151 | 101 | INDIA           | RAPTI R.-GREAT HIMALAYA   | 27.5N  | 82.5E | 27.1N | 82.0E  | 30 | NV | 250 | N | N | 19910406 | 043204 | 246 | 119 | 54  | 10 |    |
| 151 | 132 | INDIA           | KUTCH PENINSULA           | 23.0N  | 69.5E | 24.4N | 71.5E  | 30 | LO | 250 | N | N | 19910406 | 060854 | 246 | 135 | 65  | 11 |    |
| 151 | 133 | INDIA           | UKAL RESERVOIR-WARMADA R  | 21.5N  | 74.0E | 23.0N | 76.3E  | 35 | LO | 250 | N | N | 19910406 | 061010 | 245 | 143 | 69  | 11 |    |
| 151 | 134 | INDIA           | PENNER RIVER-KRISHNA DEL  | 14.0N  | 79.0E | 20.4N | 84.0E  | 30 | HO | 250 | N | N | 19910406 | 061216 | 245 | 165 | 75  | 11 |    |
| 151 | 135 | INDIA           | MAHANADI RIVER            | 20.5N  | 85.5E | 19.4N | 86.6E  | 60 | LO | 250 | N | N | 19910406 | 061300 | 245 | 176 | 76  | 11 |    |
| 152 | 103 | INDIA           | GULF OF KUTCH             | 23.0N  | 70.0E | 25.5N | 68.7E  | 50 | LO | 250 | N | N | 19910407 | 052913 | 246 | 118 | 55  | 26 |    |
| 152 | 104 | INDIA           | GULF OF KHAMBHAT          | 22.0N  | 72.5E | 25.1N | 70.5E  | 20 | LO | 250 | N | Y | 19910407 | 052941 | 246 | 120 | 57  | 26 |    |
| 152 | 105 | INDIA           | GULF OF KHAMBHAT          | 22.0N  | 73.0E | 24.3N | 73.7E  | 15 | LO | 250 | N | Y | 19910407 | 053032 | 246 | 123 | 60  | 26 |    |
| 152 | 106 | INDIA           | WARMADA R.-RESERVOIR      | 22.5N  | 78.0E | 23.7N | 75.7E  | 5  | LO | 250 | N | Y | 19910407 | 053103 | 246 | 125 | 62  | 26 |    |
| 152 | 107 | INDIA           | WAINGANG R., RESERVOIRS   | 21.0N  | 80.5E | 22.7N | 79.1E  | 5  | LO | 250 | N | N | 19910407 | 053157 | 246 | 129 | 65  | 26 |    |
| 152 | 108 | INDIA           | HIRAKUD RES.-MAHANADI R.  | 21.0N  | 83.5E | 21.7N | 82.1E  | 5  | NV | 250 | N | N | 19910407 | 053246 | 246 | 133 | 68  | 26 |    |
| 152 | 109 | INDIA           | MAHANADI R.-COAST         | 20.5N  | 85.0E | 21.0N | 84.1E  | 15 | NV | 250 | N | Y | 19910407 | 053319 | 246 | 136 | 70  | 26 |    |
| 152 | 110 | INDIA           | MAHANADI R.DELTA-COAST    | 20.0N  | 87.0E | 20.2N | 86.4E  | 50 | NV | 250 | N | Y | 19910407 | 053358 | 245 | 140 | 72  | 26 |    |
| 152 | 196 | INDIA           | COAST-KALINADI RIVER      | 15.0N  | 75.0E | 14.8N | 75.1E  | 5  | NV | 250 | N | Y | 19910407 | 071100 | 245 | 194 | 81  | 27 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|---------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 197 | INDIA           | TUNGHADRA R.-DECCAN P.    | 14.5N         | 75.5E         | 14.5N        | 75.0E        | 15 | NV | 250 | N | Y | 19910407 | 071110 | 245 | 199 | 81        | 27 |
| 152 | 198 | INDIA           | TUNGHADRA R.-DECCAN P.    | 14.5N         | 76.0E         | 14.3N        | 76.1E        | 20 | NV | 250 | N | Y | 19910407 | 071118 | 245 | 202 | 81        | 27 |
| 152 | 199 | INDIA           | VENDAVATI R.-DECCAN PLAT  | 14.0N         | 76.5E         | 14.1N        | 76.6E        | 20 | NV | 250 | N | Y | 19910407 | 071128 | 245 | 207 | 81        | 27 |
| 152 | 200 | INDIA           | RIVER-DECCAN PLAT         | 14.0N         | 77.0E         | 13.8N        | 77.1E        | 20 | NV | 250 | N | Y | 19910407 | 071137 | 245 | 211 | 81        | 27 |
| 152 | 201 | INDIA           | BANGALORE                 | 13.5N         | 77.5E         | 13.6N        | 77.6E        | 20 | NV | 250 | N | Y | 19910407 | 071145 | 245 | 215 | 81        | 27 |
| 152 | 202 | INDIA           | BANGALORE                 | 13.5N         | 78.0E         | 13.4N        | 78.0E        | 20 | NV | 250 | N | Y | 19910407 | 071153 | 245 | 218 | 81        | 27 |
| 152 | 203 | INDIA           | PALAR R.-EASTERN GHATS    | 13.0N         | 78.5E         | 13.1N        | 78.5E        | 20 | NV | 250 | N | Y | 19910407 | 071202 | 245 | 222 | 81        | 27 |
| 152 | 204 | INDIA           | PALAR R.-EASTERN GHATS    | 13.0N         | 79.0E         | 12.8N        | 79.2E        | 20 | NV | 250 | N | Y | 19910407 | 071214 | 245 | 227 | 81        | 27 |
| 152 | 205 | INDIA           | PALAR R.-COAST            | 12.5N         | 79.5E         | 12.5N        | 79.8E        | 35 | NV | 250 | N | Y | 19910407 | 071225 | 244 | 231 | 80        | 27 |
| 152 | 206 | INDIA           | PALAR R.-COAST            | 14.5N         | 80.5E         | 11.8N        | 81.5E        | 35 | LO | 250 | N | Y | 19910407 | 071256 | 244 | 241 | 79        | 27 |
| 152 | 283 | INDIA           | BRAMHAPUTRA R.-DOUBLE EX  |               |               | 28.4N        | 95.7E        | 45 | LO | 250 | N | N | 19910408 | 013817 | 248 | 98  | 29        | 39 |
| 15  | 30  | INDIAN OCEAN    | LINEAR CLOUD FORMATION    |               |               | 26.4S        | 49.3E        | 85 | HO | 35  | N | N | 19910410 | 132926 | 245 | 286 | 13        | 77 |
| 15  | 31  | INDIAN OCEAN    | THUNDERSTORM              |               |               | 26.8S        | 51.4E        | 90 | HO | 35  | N | N | 19910410 | 132957 | 245 | 285 | 11        | 77 |
| 15  | 32  | INDIAN OCEAN    | AREA NW. OF MADAGASCAR    |               |               | 28.3S        | 64.0E        | 75 | LO | 35  | N | N | 19910410 | 133304 | 244 | 278 | -1        | 77 |
| 77  | 55  | INDIAN OCEAN    | SEYCHELLES                |               |               | 9.1S         | 44.5E        | 20 | LO | 250 | N | N | 19910406 | 124314 | 242 | 283 | 33        | 15 |
| 77  | 56  | INDIAN OCEAN    | PALK ST., G. OF MANNAR    | 9.8S          | 47.6E         | 10.7S        | 47.5E        | 40 | LO | 250 | N | N | 19910406 | 124409 | 242 | 283 | 29        | 15 |
| 94  | 64  | INDIAN OCEAN    | SUNGLINT, COLLAPSED TS    | 9.0N          | 80.0E         |              |              | 30 | HO | 100 | N | N |          |        |     |     |           |    |
| 94  | 103 | INDIAN OCEAN    | SUNGLINT, COLLAPSED TS    |               |               |              |              | 35 | LO | 100 | U | N |          |        |     |     |           |    |
| 94  | 104 | INDIAN OCEAN    | PANORAMA                  |               |               | 0.8N         | 51.1E        | 50 | HO | 250 | N | N | 19910406 | 110419 | 243 | 279 | 53        | 14 |
| 97  | 99  | INDIAN OCEAN    | CLOUD PATTERNS            |               |               | 0.1N         | 52.2E        | 60 | HO | 250 | N | N | 19910406 | 110441 | 243 | 280 | 51        | 14 |
| 97  | 100 | INDIAN OCEAN    | CLOUD PATTERNS            |               |               | 2.5S         | 56.7E        | 50 | HO | 250 | N | N | 19910406 | 110606 | 243 | 281 | 46        | 14 |
| 98  | 11  | INDIAN OCEAN    | SUNGLINT, WAVE PATTERNS   |               |               | 12.7N        | 55.5E        | 10 | LO | 250 | N | N | 19910407 | 084543 | 245 | 227 | 81        | 28 |
| 98  | 12  | INDIAN OCEAN    | SUNGLINT, WAVE PATTERNS   |               |               | 10.8N        | 59.1E        | 40 | LO | 250 | N | N | 19910407 | 084649 | 244 | 248 | 79        | 28 |
| 98  | 13  | INDIAN OCEAN    | SUNGLINT, WAVE PATTERNS   |               |               | 10.6N        | 59.5E        | 40 | LO | 250 | N | N | 19910407 | 084657 | 244 | 250 | 78        | 28 |
| 41  | 17  | INDONESIA       | EASTERN END OF JAVA       | 10.0S         | 115.0E        | 15.8S        | 114.6E       | 55 | HO | 35  | N | N | 19910411 | 082900 | 248 | 305 | 51        | 88 |
| 41  | 18  | INDONESIA       | EASTERN END OF JAVA       | 10.0S         | 116.0E        | 16.4S        | 115.9E       | 60 | HO | 35  | N | N | 19910411 | 082923 | 248 | 304 | 49        | 88 |
| 92  | 50  | INDONESIA       | W.END SUMATRA, S.COAST    | 4.0N          | 96.5E         | 4.4N         | 94.4E        | 70 | LO | 250 | N | N | 19910407 | 071659 | 244 | 276 | 66        | 27 |
| 92  | 51  | INDONESIA       | W.END SUMATRA, S.COAST    | 4.4N          | 96.0E         | 4.4N         | 94.6E        | 60 | LO | 250 | N | N | 19910407 | 071702 | 244 | 276 | 66        | 27 |
| 92  | 52  | INDONESIA       | W.END SUMATRA, S.COAST    | 4.6N          | 95.8E         | 4.3N         | 94.8E        | 60 | LO | 250 | N | N | 19910407 | 071705 | 244 | 276 | 66        | 27 |
| 92  | 53  | INDONESIA       | W.END SUMATRA, N.COAST    | 5.0N          | 95.7E         | 4.0N         | 95.2E        | 80 | LO | 250 | N | N | 19910407 | 071714 | 244 | 277 | 65        | 27 |
| 92  | 54  | INDONESIA       | SUMATRA, LAKE DANAU TOBA  | 2.8N          | 98.7E         | 3.6N         | 95.9E        | 90 | LO | 250 | N | N | 19910407 | 071726 | 244 | 278 | 65        | 27 |
| 92  | 55  | INDONESIA       | SUMATRA, PASAR SINGKIL    | 2.5N          | 98.0E         | 3.5N         | 96.0E        | 70 | LO | 250 | N | N | 19910407 | 071729 | 244 | 278 | 65        | 27 |
| 92  | 56  | INDONESIA       | ISLAND OF PULAU NIAS      | 1.0N          | 97.6E         | 3.4N         | 96.2E        | 30 | LO | 250 | N | N | 19910407 | 071733 | 244 | 278 | 64        | 27 |
| 92  | 57  | INDONESIA       | KUANTAN RIVER, DELTA AREA | 0.6S          | 102.5E        | 0.4S         | 102.8E       | 80 | LO | 250 | N | N | 19910407 | 071938 | 243 | 283 | 57        | 27 |
| 92  | 58  | INDONESIA       | KUANTAN RIVER, DELTA AREA | 0.4S          | 103.1E        | 0.7S         | 103.2E       | 90 | LO | 250 | N | N | 19910407 | 071947 | 243 | 283 | 56        | 27 |
| 92  | 59  | INDONESIA       | HARI RIVER, DELTA AREA    | 1.1S          | 103.7E        | 0.9S         | 103.6E       | 70 | LO | 250 | N | N | 19910407 | 071955 | 243 | 283 | 56        | 27 |
| 92  | 60  | INDONESIA       | HARI RIVER, DELTA AREA    | 1.5S          | 104.0E        | 1.2S         | 104.1E       | 60 | LO | 250 | N | N | 19910407 | 072003 | 243 | 283 | 55        | 27 |
| 92  | 61  | INDONESIA       | AIR TJALAK RIVER AREA     | 2.0S          | 104.6E        | 1.4S         | 104.4E       | 60 | LO | 250 | N | N | 19910407 | 072010 | 243 | 283 | 55        | 27 |
| 92  | 62  | INDONESIA       | PALEMBANG AREA            | 3.0S          | 104.5E        | 2.2S         | 105.8E       | 80 | LO | 250 | N | N | 19910407 | 072037 | 243 | 284 | 53        | 27 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC     | TL  | FL  | E  | S  | DATE | GMT | AL | AZ | SUN<br>EL | OR |
|-----|-----|-----------------|---------------------------|---------------|---------------|--------------|--------------|--------|-----|-----|----|----|------|-----|----|----|-----------|----|
| 92  | 63  | INDONESIA       | H20 DETAIL, SELAT BANGKA  | 2.5S 105.7E   | 2.4S 106.3E   | 30 LO 250 N  | 19910407     | 072045 | 243 | 284 | 53 | 27 |      |     |    |    |           |    |
| 92  | 64  | INDONESIA       | PULAU BANGKA, S. TIP      | 3.1S 106.7E   | 3.1S 107.4E   | 60 LO 250 N  | 19910407     | 072107 | 243 | 284 | 51 | 27 |      |     |    |    |           |    |
| 151 | 149 | INDONESIA       | BORNEO-SESAPAP RIVER      | 3.5N 117.0E   | 4.1N 116.9E   | 40 NV 250 N  | 19910406     | 062210 | 243 | 275 | 58 | 11 |      |     |    |    |           |    |
| 151 | 150 | INDONESIA       | BORNEO-BERAU RIVER        | 2.0N 118.0E   | 3.7N 117.6E   | 40 LO 250 N  | 19910406     | 062223 | 243 | 275 | 57 | 11 |      |     |    |    |           |    |
| 151 | 151 | INDONESIA       | BORNEO-STIBUKO BAY        | 4.0N 118.5E   | 3.2N 118.6E   | 40 NV 250 N  | 19910406     | 062241 | 243 | 276 | 56 | 11 |      |     |    |    |           |    |
| 151 | 152 | INDONESIA       | BORNEO-MAHAKAM RIVER DEL  | 0.5N 118.0E   | 2.5N 119.8E   | 45 LO 250 N  | 19910406     | 062305 | 243 | 277 | 55 | 11 |      |     |    |    |           |    |
| 151 | 153 | INDONESIA       | SULAWESI-DONDO BAY        | 1.0N 120.5E   | 2.1N 120.5E   | 30 LO 250 N  | 19910406     | 062318 | 243 | 277 | 54 | 11 |      |     |    |    |           |    |
| 151 | 154 | INDONESIA       | SULAWESI                  | 1.0N 121.5E   | 1.9N 120.9E   | 25 NV 250 N  | 19910406     | 062325 | 243 | 278 | 53 | 11 |      |     |    |    |           |    |
| 151 | 155 | INDONESIA       | UNALUA ISLAND, SULAWESI   | 0.0 121.0E    | 1.8N 121.3E   | 25 LO 250 N  | 19910406     | 062333 | 243 | 278 | 53 | 11 |      |     |    |    |           |    |
| 151 | 156 | INDONESIA       | UNALUA ISLAND, SUNGLINT   | 0.0 121.0E    | 0.1N 123.8E   | 20 LO 250 N  | 19910406     | 062422 | 243 | 279 | 50 | 11 |      |     |    |    |           |    |
| 151 | 157 | INDONESIA       | SULA ISLANDS              | 2.0S 126.0E   | 0.9S 125.5E   | 35 LO 250 N  | 19910406     | 062454 | 243 | 280 | 48 | 11 |      |     |    |    |           |    |
| 151 | 158 | INDONESIA       | NEW GUINEA, RIVER DELTA   | 5.5S 138.0E   | 6.8S 135.8E   | 50 LO 250 N  | 19910406     | 062810 | 242 | 282 | 36 | 11 |      |     |    |    |           |    |
| 151 | 161 | INDONESIA       | SUMBA-CLOUDS              | 10.5S 120.5E  | 11.6S 120.8E  | 30 LO 250 N  | 19910406     | 080421 | 242 | 283 | 26 | 12 |      |     |    |    |           |    |
| 151 | 162 | INDONESIA       | SAMU ISLAND-CLOUDS        | 11.0S 121.5E  | 12.0S 121.5E  | 30 LO 250 N  | 19910406     | 080434 | 242 | 283 | 25 | 12 |      |     |    |    |           |    |
| 152 | 138 | INDONESIA       | BORNEO-STIBUKO BAY-SUNGLT | 4.0N 118.0E   | 3.8N 119.5E   | 40 LO 250 N  | 19910407     | 054355 | 244 | 277 | 65 | 26 |      |     |    |    |           |    |
| 152 | 140 | INDONESIA       | SULAWESI-NORTHERN SHORE   | 1.5N 122.0E   | 2.3N 122.0E   | 25 NV 250 N  | 19910407     | 054443 | 243 | 279 | 62 | 26 |      |     |    |    |           |    |
| 152 | 141 | INDONESIA       | SULAWESI-EASTERN END      | 1.0N 124.5E   | 1.7N 123.0E   | 25 NV 250 N  | 19910407     | 054503 | 243 | 280 | 61 | 26 |      |     |    |    |           |    |
| 152 | 142 | INDONESIA       | SULAWESI-EAST END-SUNGLT  | 0.5N 124.5E   | 0.3S 126.4E   | 25 LO 250 N  | 19910407     | 054608 | 243 | 282 | 57 | 26 |      |     |    |    |           |    |
| 152 | 143 | INDONESIA       | SERAM-SED PLUMES-STORMS   | 3.0S 130.0E   | 2.3S 129.8E   | 30 NV 250 N  | 19910407     | 054713 | 243 | 284 | 52 | 26 |      |     |    |    |           |    |
| 152 | 144 | INDONESIA       | SERAM-SED PLUMES-STORMS   | 3.0S 130.0E   | 2.7S 130.6E   | 30 NV 250 N  | 19910407     | 054727 | 243 | 284 | 52 | 26 |      |     |    |    |           |    |
| 152 | 145 | INDONESIA       | BINTUNI BAY               | 2.5S 133.5E   | 3.7S 132.3E   | 50 LO 250 N  | 19910407     | 054801 | 243 | 284 | 50 | 26 |      |     |    |    |           |    |
| 152 | 146 | INDONESIA       | SAREBA BAY                | 3.5S 135.5E   | 4.4S 133.4E   | 55 LO 250 N  | 19910407     | 054822 | 243 | 285 | 48 | 26 |      |     |    |    |           |    |
| 152 | 147 | INDONESIA       | COAST-ARAFURA SEA-DELTA   | 7.1S 138.2E   | 7.1S 138.2E   | 90 LO 250 N  | 19910407     | 054952 | 243 | 285 | 43 | 26 |      |     |    |    |           |    |
| 152 | 148 | INDONESIA       | COAST-PAPUA N. GUINEA BOR | 8.5S 140.5E   | 7.6S 139.2E   | 75 LO 250 N  | 19910407     | 055011 | 243 | 286 | 41 | 26 |      |     |    |    |           |    |
| 152 | 208 | INDONESIA       | SUMATERA-LHOKSEUMAWA      | 5.5N 96.5E    | 2.7N 97.5E    | 80 LO 250 N  | 19910407     | 071757 | 244 | 279 | 63 | 27 |      |     |    |    |           |    |
| 152 | 209 | INDONESIA       | SUMATERA-NE COAST         | 5.0N 98.0E    | 2.6N 97.7E    | 50 LO 250 N  | 19910407     | 071801 | 244 | 279 | 63 | 27 |      |     |    |    |           |    |
| 152 | 210 | INDONESIA       | SUMATERA-NE COAST         | 4.5N 98.5E    | 2.4N 97.9E    | 60 LO 250 N  | 19910407     | 071805 | 243 | 279 | 62 | 27 |      |     |    |    |           |    |
| 152 | 211 | INDONESIA       | SUMATERA-WEIH RIVER       | 4.0N 98.0E    | 2.3N 98.2E    | 80 LO 250 N  | 19910407     | 071810 | 243 | 280 | 62 | 27 |      |     |    |    |           |    |
| 152 | 212 | INDONESIA       | SUMATERA-LAKE TOBA        | 3.0N 98.0E    | 2.2N 98.3E    | 75 NV 250 N  | 19910407     | 071813 | 243 | 280 | 62 | 27 |      |     |    |    |           |    |
| 152 | 213 | INDONESIA       | SUMATERA-LAKE TOBA        | 3.0N 99.0E    | 2.0N 98.6E    | 75 NV 250 N  | 19910407     | 071819 | 243 | 280 | 62 | 27 |      |     |    |    |           |    |
| 152 | 214 | INDONESIA       | SUMATERA-LAKE TOBA        | 2.0N 98.5E    | 1.8N 99.0E    | 65 NV 250 N  | 19910407     | 071825 | 243 | 280 | 61 | 27 |      |     |    |    |           |    |
| 152 | 215 | INDONESIA       | NIAS ISLAND-SUNGLINT      | 1.5N 98.0E    | 1.7N 99.2E    | 10 LO 250 N  | 19910407     | 071830 | 243 | 280 | 61 | 27 |      |     |    |    |           |    |
| 152 | 216 | INDONESIA       | TUANGKU, BANGKARU IS.     | 2.5N 97.5E    | 1.5N 99.5E    | 50 LO 250 N  | 19910407     | 071835 | 243 | 281 | 61 | 27 |      |     |    |    |           |    |
| 152 | 217 | INDONESIA       | SUMATERA-MUSALA I-SUNGLT  | 2.0N 99.0E    | 1.4N 99.7E    | 50 NV 250 N  | 19910407     | 071840 | 243 | 281 | 60 | 27 |      |     |    |    |           |    |
| 152 | 218 | INDONESIA       | SUMATERA-RIVER EFFLUENT   | 2.5N 101.0E   | 1.1N 100.3E   | 50 LO 250 N  | 19910407     | 071850 | 243 | 281 | 60 | 27 |      |     |    |    |           |    |
| 152 | 219 | INDONESIA       | SUMATERA-RUPAT ISLAND     | 2.0N 101.5E   | 0.8N 100.7E   | 50 LO 250 N  | 19910407     | 071858 | 243 | 281 | 59 | 27 |      |     |    |    |           |    |
| 152 | 220 | INDONESIA       | SUMATERA-INTERIOR-CLOUDS  | 0.5N 100.0E   | 0.5N 101.2E   | 70 LO 250 N  | 19910407     | 071908 | 243 | 282 | 59 | 27 |      |     |    |    |           |    |
| 152 | 223 | INDONESIA       | SUMATERA-SE PART-SED PLU  | 0.0 103.5E    | 0.5S 102.9E   | 50 NV 250 N  | 19910407     | 071941 | 243 | 283 | 57 | 27 |      |     |    |    |           |    |
| 152 | 224 | INDONESIA       | SUMATERA-HARI R. SED PLUM | 1.0S 104.0E   | 0.8S 103.4E   | 45 NV 250 N  | 19910407     | 071951 | 243 | 283 | 56 | 27 |      |     |    |    |           |    |
| 152 | 225 | INDONESIA       | SUMATERA-BANGKA ISLAND    | 2.0S 105.0E   | 1.1S 103.9E   | 50 LO 250 N  | 19910407     | 072000 | 243 | 283 | 55 | 27 |      |     |    |    |           |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL  | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|---------------------------|----------------------|---------------------|----|-----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 226 | INDONESIA       | BANGKA ISLAND-N. PART     | 1.5S 105.5E          | 1.3S 104.4E         | 40 | NV  | 250 | N | Y | 19910407 | 072009 | 243 | 283 | 65        | 27 |
| 152 | 227 | INDONESIA       | SUMATERA-BANGKA I.        | 2.0S 105.0E          | 1.7S 105.0E         | 55 | NV  | 250 | N | Y | 19910407 | 072020 | 243 | 283 | 54        | 27 |
| 152 | 228 | INDONESIA       | BANGKA I.-SOUTHERN PART   | 2.5S 106.5E          | 2.0S 105.4E         | 50 | NV  | 250 | N | Y | 19910407 | 072028 | 243 | 284 | 54        | 27 |
| 152 | 229 | INDONESIA       | BANGKA I.-SOUTHERN PART   | 3.0S 106.0E          | 2.3S 106.0E         | 50 | NV  | 250 | N | Y | 19910407 | 072040 | 243 | 284 | 53        | 27 |
| 152 | 230 | INDONESIA       | BORNEO-CAPE PUTING        | 2.5S 112.0E          | 4.6S 110.0E         | 80 | LO  | 250 | N | Y | 19910407 | 072157 | 243 | 285 | 48        | 27 |
| 152 | 231 | INDONESIA       | BORNEO-LAUT ISLAND        | 4.0S 118.0E          | 6.6S 113.5E         | 40 | LO  | 250 | N | N | 19910407 | 072303 | 243 | 286 | 44        | 27 |
| 153 | 189 | INDONESIA       | SULAWESI, BANGKA STRAIT   | 2.5N 124.0E          | 3.8N 125.2E         | 25 | LO  | 250 | N | N | 19910410 | 034849 | 247 | 332 | 85        | 71 |
| 153 | 191 | INDONESIA       | HALMAHERA, KAU BAY        | 1.5N 127.5E          |                     | 30 | LO  | 250 | U | N |          |        |     |     |           |    |
| 153 | 193 | INDONESIA       | W. N. GUINEA, MACCLURE G  | 2.0S 132.5E          |                     | 50 | LO  | 250 | U | N |          |        |     |     |           |    |
| 38  | 22  | IRAN            | ZAGROS MTS., BAKHTEGAN L  | 30.0N 54.0E          | 25.6N 52.3E         | 5  | LO  | 35  | N | N | 19910411 | 042944 | 245 | 95  | 30        | 87 |
| 38  | 23  | IRAN            | ZAGROS MTS.               | 28.0N 54.0E          | 25.5N 53.0E         | 30 | LO  | 35  | N | N | 19910411 | 042954 | 245 | 96  | 31        | 87 |
| 38  | 28  | IRAN            | S. ZAGROS MTS.            | 26.0N 58.0E          | 24.3N 57.7E         | 35 | LO  | 35  | N | N | 19910411 | 043107 | 245 | 97  | 35        | 87 |
| 151 | 96  | IRAN            | ZAGROS MNTS., QESHM       | 28.0N 56.0E          | 28.2N 55.7E         | 20 | NV  | 250 | N | N | 19910406 | 042538 | 246 | 99  | 30        | 10 |
| 151 | 130 | IRAN            | QESHM-SUNGLINT            | 27.0N 55.0E          | 27.7N 53.9E         | 5  | NV  | 250 | N | Y | 19910406 | 060426 | 246 | 115 | 49        | 11 |
| 152 | 95  | IRAN            | TIGRIS R. DELTA-OIL FIRE  | 30.1N 48.8E          | 28.2N 51.3E         | 0  | LO  | 250 | N | Y | 19910407 | 052453 | 246 | 105 | 39        | 26 |
| 152 | 96  | IRAN            | ZAGROS MOUNTAINS          | 28.0N 52.0E          | 28.0N 52.9E         | 0  | LO  | 250 | N | N | 19910407 | 052517 | 246 | 106 | 41        | 26 |
| 152 | 97  | IRAN            | ZAGROS MNTS.-SALT PANS    | 30.5N 54.5E          | 27.9N 54.0E         | 0  | LO  | 250 | N | N | 19910407 | 052533 | 246 | 107 | 42        | 26 |
| 152 | 98  | IRAN            | COAST-HORNOZ I.-LAKAR I.  | 27.0N 57.0E          | 27.6N 56.7E         | 10 | NV  | 250 | N | N | 19910407 | 052612 | 246 | 109 | 44        | 26 |
| 152 | 100 | IRAN            | IRAN-PAKISTAN BOR.-MNTS.  | 28.0N 62.0E          | 27.2N 59.8E         | 5  | LO  | 250 | N | N | 19910407 | 052658 | 246 | 111 | 47        | 26 |
| 38  | 7   | IRAQ            | BAGHDAD REGION            | 33.0N 43.0E          | 27.6N 40.9E         | 40 | HO  | 35  | N | N | 19910411 | 042651 | 244 | 91  | 19        | 87 |
| 38  | 8   | IRAQ            | BASRA REG., KUWAIT FIRES  | 31.0N 47.0E          | 27.6N 41.5E         | 10 | HO  | 35  | N | N | 19910411 | 042700 | 244 | 91  | 20        | 87 |
| 73  | 44  | IRAQ            | BAGHDAD                   | 33.4N 43.8E          | 25.5N 44.9E         | 0  | LO  | 250 | N | N | 19910407 | 070240 | 246 | 117 | 55        | 27 |
| 73  | 45  | IRAQ            | SO. OF BAGHDAD            | 32.0N 45.6E          | 25.4N 45.5E         | 0  | LO  | 250 | N | N | 19910407 | 070250 | 246 | 118 | 56        | 27 |
| 73  | 46  | IRAQ            | BASRAH AREA               | 30.5N 47.8E          | 25.1N 46.7E         | 0  | LO  | 250 | N | N | 19910407 | 070308 | 246 | 119 | 57        | 27 |
| 152 | 90  | IRAQ            | TIGRIS R.-HAMMAR MARSH    | 31.0N 47.5E          | 28.4N 46.6E         | 0  | LO  | 250 | N | Y | 19910407 | 052345 | 246 | 102 | 35        | 26 |
| 152 | 92  | IRAQ            | ZUBAY R. -KUWAIT FIRES    | 30.0N 48.0E          | 28.3N 48.7E         | 0  | LO  | 250 | N | Y | 19910407 | 052415 | 246 | 104 | 37        | 26 |
| 152 | 94  | IRAQ            | IRAQ-IRAN BOR.-OIL FIRES  | 30.5N 48.3E          | 28.2N 50.8E         | 0  | LO  | 250 | N | Y | 19910407 | 052445 | 246 | 105 | 39        | 26 |
| 152 | 179 | IRAQ            | EUPHRATES RIVER-BAGHDAD   | 35.0N 42.5E          | 28.4N 40.8E         | 20 | HO  | 250 | N | N | 19910407 | 070135 | 246 | 114 | 51        | 27 |
| 152 | 188 | IRAQ            | LOOKING TOWARD PERSIAN G  |                      | 24.4N 49.5E         | 30 | HO  | 250 | N | N | 19910407 | 070352 | 246 | 122 | 60        | 27 |
| 94  | 73  | ISRAEL          | SINAI PEN., DEAD SEA RIFT | 31.0N 35.5E          |                     | 0  | HO  | 100 | N | N |          |        |     |     |           |    |
| 151 | 124 | ISRAEL          | DEAD SEA                  | 31.0N 35.0E          | 28.4N 35.4E         | 10 | LO  | 250 | N | Y | 19910406 | 055956 | 246 | 101 | 33        | 11 |
| 151 | 124 | A ISRAEL        | DEAD SEA                  | 30.0N 35.0E          | 28.5N 36.3E         | 10 | LO  | 250 | N | Y | 19910406 | 060010 | 246 | 102 | 34        | 11 |
| 152 | 258 | ISRAEL          | NEAR COAST-DOUBLE EXPOS   |                      | 21.9N 33.8E         | 40 | LO  | 250 | N | N | 19910407 | 083930 | 246 | 130 | 67        | 28 |
| 80  | 4   | IVORY COAST     | LAND USE                  | 10.0N 7.0W           | 9.9N 7.0W           | 0  | NV  | 250 | N | N | 19910409 | 121055 | 246 | 117 | 84        | 61 |
| 80  | 5   | IVORY COAST     | NEAR CITY OF BOUNDIALI    | 10.0N 7.0W           | 9.9N 6.9W           | 0  | NV  | 250 | N | Y | 19910409 | 121057 | 246 | 117 | 84        | 61 |
| 80  | 6   | IVORY COAST     | NEAR CITY OF BOUNDIALI    | 9.5N 6.5W            | 9.8N 6.7W           | 0  | NV  | 250 | N | Y | 19910409 | 121100 | 246 | 117 | 85        | 61 |
| 80  | 7   | IVORY COAST     | NEAR CITY OF BOUNDIALI    | 9.5N 6.5W            | 9.7N 6.6W           | 0  | NV  | 250 | N | Y | 19910409 | 121102 | 246 | 117 | 85        | 61 |
| 80  | 8   | IVORY COAST     | LAND USE PATTERNS         |                      | 9.6N 6.5W           | 0  | NV  | 250 | N | N | 19910409 | 121105 | 246 | 117 | 85        | 61 |
| 80  | 9   | IVORY COAST     | LAND USE PATTERNS         | 9.5N 6.5W            | 9.6N 6.4W           | NV | 250 | N   | Y | N | 19910409 | 121107 | 246 | 117 | 85        | 61 |
| 80  | 10  | IVORY COAST     | LAND USE PATTERNS         | 9.5N 6.5W            | 9.5N 6.1W           | 0  | NV  | 250 | N | Y | 19910409 | 121111 | 246 | 117 | 85        | 61 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|----------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 80  | 11  | IVORY COAST     | LAND USE PATTERNS          | 9.0N 6.5W            | 9.4N 6.0W           | 0  | NV | 250 | N | Y | 19910409 | 121113 | 246 | 117 | 85        | 61 |
| 80  | 12  | IVORY COAST     | BANDAMA BLANC RIVER        | 9.0N 6.5W            | 9.3N 5.8W           | 5  | NV | 250 | N | Y | 19910409 | 121117 | 246 | 117 | 86        | 61 |
| 80  | 13  | IVORY COAST     | BANDAMA BLANC RIVER        | 8.5N 5.5W            | 9.2N 5.7W           | 10 | NV | 250 | N | Y | 19910409 | 121119 | 246 | 117 | 86        | 61 |
| 80  | 14  | IVORY COAST     | LAND USE PATTERNS          |                      | 9.1N 5.6W           | 5  | NV | 250 | N | Y | 19910409 | 121122 | 246 | 117 | 86        | 61 |
| 80  | 15  | IVORY COAST     | LAND USE PATTERNS          |                      | 9.1N 5.4W           | 5  | NV | 250 | N | Y | 19910409 | 121124 | 246 | 117 | 86        | 61 |
| 80  | 16  | IVORY COAST     | LAND USE PATTERNS          |                      | 9.0N 5.3W           | 15 | NV | 250 | N | Y | 19910409 | 121126 | 246 | 117 | 86        | 61 |
| 80  | 17  | IVORY COAST     | BANDAMA BLANC RIVER        | 8.5N 5.5W            | 8.9N 5.2W           | 10 | NV | 250 | N | Y | 19910409 | 121129 | 246 | 117 | 86        | 61 |
| 80  | 18  | IVORY COAST     | BANDAMA BLANC RIVER        | 8.5N 5.0W            | 8.8N 5.0W           | 20 | NV | 250 | N | Y | 19910409 | 121132 | 246 | 117 | 87        | 61 |
| 80  | 19  | IVORY COAST     | EAST OF KOSSOU RESERVOIR   | 8.0N 5.0W            | 8.8N 4.9W           | 30 | NV | 250 | N | Y | 19910409 | 121135 | 246 | 117 | 87        | 61 |
| 80  | 20  | IVORY COAST     | NE OF KOSSOU RESERVOIR     | 8.0N 5.0W            | 8.7N 4.7W           | 40 | NV | 250 | N | Y | 19910409 | 121138 | 246 | 117 | 87        | 61 |
| 80  | 21  | IVORY COAST     | KOSSOU RESERVOIR           | 7.5N 5.5W            | 8.4N 4.2W           | 65 | NV | 250 | N | Y | 19910409 | 121148 | 246 | 117 | 88        | 61 |
| 80  | 22  | IVORY COAST     | NEAR KOSSOU RESERVOIR      |                      | 8.1N 3.6W           | 60 | NV | 250 | N | Y | 19910409 | 121158 | 246 | 118 | 88        | 61 |
| 80  | 23  | IVORY COAST     | WEST OF KOMOE RIVER        | 8.0N 4.5W            | 8.0N 3.5W           | 35 | NV | 250 | N | Y | 19910409 | 121201 | 246 | 118 | 88        | 61 |
| 80  | 24  | IVORY COAST     | KOMOE RIVER                | 8.0N 4.0W            | 7.9N 3.3W           | 25 | NV | 250 | N | Y | 19910409 | 121204 | 246 | 118 | 89        | 61 |
| 80  | 25  | IVORY COAST     | EAST OF KOMOE RIVER        | 8.0N 3.5W            | 7.8N 3.2W           | 10 | NV | 250 | N | Y | 19910409 | 121207 | 246 | 118 | 89        | 61 |
| 80  | 26  | IVORY COAST     | EAST OF KOMOE RIVER        | 8.0N 3.0W            | 7.7N 3.0W           | 10 | NV | 250 | N | Y | 19910409 | 121210 | 246 | 119 | 89        | 61 |
| 88  | 104 | IVORY COAST     | AGRICULTURE, DARK          |                      | 9.4N 6.0W           | 0  | LO | 250 | U | N | 19910409 | 121113 | 246 | 117 | 85        | 61 |
| 88  | 105 | IVORY COAST     | AGRICULTURE, DARK          |                      | 9.3N 5.9W           | 5  | LO | 250 | U | N | 19910409 | 121115 | 246 | 117 | 85        | 61 |
| 88  | 106 | IVORY COAST     | AGRICULTURE, DARK          |                      | 9.2N 5.8W           | 5  | LO | 250 | U | N | 19910409 | 121118 | 246 | 117 | 86        | 61 |
| 88  | 107 | IVORY COAST     | BANDAMA BLANC R. AGR. DARK | 8.8N 5.5W            | 9.0N 5.3W           | 25 | NV | 250 | U | Y | 19910409 | 121127 | 246 | 117 | 86        | 61 |
| 88  | 108 | IVORY COAST     | AGRICULTURE, DARK          |                      | 8.7N 4.7W           | 50 | LO | 250 | U | Y | 19910409 | 121138 | 246 | 117 | 87        | 61 |
| 88  | 109 | IVORY COAST     | KOMO R. AGR. DARK          | 8.5N 4.0W            | 8.5N 4.5W           | 20 | NV | 250 | U | Y | 19910409 | 121142 | 246 | 117 | 87        | 61 |
| 88  | 110 | IVORY COAST     | KOMO R. AGR. DARK          | 8.0N 4.0W            | 8.4N 4.3W           | 60 | NV | 250 | U | Y | 19910409 | 121146 | 246 | 117 | 87        | 61 |
| 88  | 111 | IVORY COAST     | AGR. DARK, CLOUDS          |                      | 8.0N 3.5W           | 85 | LO | 250 | U | N | 19910409 | 121200 | 246 | 118 | 88        | 61 |
| 88  | 112 | IVORY COAST     | KOMOE R. AGR. V. DARK      | 7.2N 3.7W            | 7.6N 2.8W           | 40 | LO | 250 | U | Y | 19910409 | 121213 | 246 | 120 | 89        | 61 |
| 88  | 113 | IVORY COAST     | KOMOE R. AGR. V. DARK      | 6.9N 3.6W            | 7.5N 2.7W           | 50 | LO | 250 | U | Y | 19910409 | 121216 | 246 | 123 | 89        | 61 |
| 88  | 114 | IVORY COAST     | AGR. V. DARK, CLOUDS       |                      | 7.4N 2.5W           | 85 | LO | 250 | U | Y | 19910409 | 121220 | 246 | 284 | 89        | 61 |
| 90  | 63  | IVORY COAST     | KOSSOU RESERVOIR           | 7.5N 5.5W            | 6.1N 5.9W           | 70 | LO | 250 | N | N | 19910406 | 140815 | 243 | 271 | 64        | 16 |
| 71  | 65  | JAMAICA         | EASTERN END                | 18.0N 76.0W          | 17.0N 76.8W         | 15 | NV | 250 | N | Y | 19910405 | 174706 | 244 | 221 | 75        | 3  |
| 71  | 66  | JAMAICA         | KINGSTON                   | 18.0N 76.5W          | 16.9N 76.5W         | 20 | LO | 250 | N | Y | 19910405 | 174710 | 244 | 222 | 75        | 3  |
| 71  | 67  | JAMAICA         | KINGSTON                   | 18.0N 77.0W          | 16.8N 76.3W         | 25 | LO | 250 | N | Y | 19910405 | 174714 | 244 | 223 | 75        | 3  |
| 71  | 68  | JAMAICA         | WESTERN END                | 18.0N 78.0W          | 16.7N 76.1W         | 25 | LO | 250 | N | Y | 19910405 | 174718 | 244 | 224 | 75        | 3  |
| 72  | 16  | JAMAICA         | WHOLE ISLAND-CLOUDS        | 18.0N 77.5W          | 17.8N 78.6W         | 30 | NV | 100 | N | N | 19910405 | 174634 | 244 | 211 | 76        | 3  |
| 72  | 17  | JAMAICA         | PEDRO CAYS-VERY BRIGHT     | 17.0N 77.5W          | 17.4N 77.8W         | 20 | NV | 100 | N | Y | 19910405 | 174648 | 244 | 215 | 76        | 3  |
| 94  | 65  | JAVA SEA        | SULOYS, SUMATERA, BANGKA   | 4.5S 107.5E          |                     | 55 | LO | 100 | U | N |          |        |     |     |           |    |
| 94  | 66  | JAVA SEA        | SULOYS, SUMATERA, BANGKA   | 5.0S 108.0E          |                     | 50 | HO | 100 | U | N |          |        |     |     |           |    |
| 94  | 67  | JAVA SEA        | CLOUDS, SUMATERA, BANGKA   | 5.0S 108.0E          |                     | 60 | HO | 100 | U | N |          |        |     |     |           |    |
| 94  | 74  | JORDAN          | SINAI PEN..DEAD SEA RIFT   | 31.0N 36.0E          |                     | 0  | HO | 100 | N | Y |          |        |     |     |           |    |
| 94  | 75  | JORDAN          | SINAI PEN..DEAD SEA RIFT   | 31.0N 37.0E          |                     | 0  | HO | 100 | N | Y |          |        |     |     |           |    |
| 152 | 82  | JORDAN          | DEAD SEA                   | 31.0N 35.5E          | 28.3N 34.0E         | 0  | LO | 250 | N | N | 19910407 | 052041 | 246 | 95  | 23        | 26 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LAT | CENTER<br>LON<br>LON | MADIR<br>LAT<br>LAT | MADIR<br>LON<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|---------------------------|----------------------|----------------------|---------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 173 | JORDAN          | DEAD SEA RIFT VALLEY      | 30.5N                | 35.5E                | 27.3N               | 34.9E               | 0  | LO | 250 | N | Y | 19910407 | 070010 | 246 | 110 | 46        | 27 |
| 152 | 119 | KAMPUCHEA       | MNTS. NEAR COAST&CHANG I. | 13.5N                | 102.5E               | 13.7N               | 101.2E              | 80 | NV | 250 | N | Y | 19910407 | 053815 | 245 | 216 | 81        | 26 |
| 152 | 120 | KAMPUCHEA       | MNTS.-COAST-CHANG I.      | 13.0N                | 102.5E               | 13.0N               | 102.7E              | 70 | NV | 250 | N | Y | 19910407 | 053841 | 244 | 226 | 80        | 26 |
| 152 | 124 | KAMPUCHEA       | LAKE SAP                  | 12.5N                | 104.5E               | 11.5N               | 105.5E              | 65 | LO | 250 | N | Y | 19910407 | 053933 | 244 | 243 | 79        | 26 |
| 152 | 125 | KAMPUCHEA       | MEKONG RIVER-CLOUDS       | 12.5N                | 106.5E               | 11.2N               | 108.1E              | 90 | LO | 250 | N | Y | 19910407 | 053943 | 244 | 246 | 78        | 26 |
| 13  | 8   | KENYA           | LAKE RUDOLPH/TURKANA      | 3.0N                 | 36.0E                | 2.7N                | 31.6E               | 65 | HO | 35  | N | Y | 19910410 | 100319 | 248 | 338 | 84        | 75 |
| 13  | 10  | KENYA           | LAKE NATRON, RIFT VALLEY  | 2.0S                 | 37.0E                | 0.5N                | 35.2E               | 55 | HO | 35  | N | Y | 19910410 | 100428 | 248 | 321 | 81        | 75 |
| 13  | 11  | KENYA           | EASTERN KENYA, L. NATRON  | 3.0S                 | 38.0E                | 0.2N                | 35.8E               | 55 | HO | 35  | N | Y | 19910410 | 100439 | 248 | 319 | 80        | 75 |
| 13  | 12  | KENYA           | FORMOSA BAY, COAST        | 2.0S                 | 41.0E                | 1.7S                | 39.1E               | 50 | HO | 35  | N | Y | 19910410 | 100542 | 248 | 314 | 76        | 75 |
| 75  | 26  | KENYA           | COAST                     | 2.0S                 | 41.0E                | 5.1S                | 37.3E               | 70 | LO | 250 | N | Y | 19910406 | 124058 | 242 | 283 | 41        | 15 |
| 77  | 35  | KENYA           | NE LAKE VICTORIA          | 0.5S                 | 34.0E                | 0.5S                | 29.4E               | 60 | LO | 250 | N | Y | 19910406 | 123827 | 243 | 280 | 51        | 15 |
| 77  | 38  | KENYA           | NE.LK.VICTORIA,KAVIRONDO  | 0.0S                 | 34.0E                | 1.2S                | 30.5E               | 60 | LO | 250 | N | Y | 19910406 | 123849 | 243 | 281 | 49        | 15 |
| 77  | 39  | KENYA           | NE.LK.VICTORIA,KAVIRONDO  | 0.8S                 | 34.1E                | 1.4S                | 30.8E               | 60 | LO | 250 | N | Y | 19910406 | 123855 | 243 | 281 | 49        | 15 |
| 77  | 53  | KENYA           | MATONDOI AREA,COAST       | 2.1S                 | 41.0E                | 5.5S                | 37.9E               | 30 | LO | 250 | N | Y | 19910406 | 124110 | 242 | 283 | 41        | 15 |
| 86  | 66  | KENYA           | MOMBASA AREA,GOOD SHOT    | 4.0S                 | 39.5E                | 4.3S                | 39.8E               | 30 | LO | 250 | N | Y | 19910408 | 112350 | 245 | 290 | 57        | 45 |
| 89  | 1   | KENYA           | L.VICTORIA,KAVIRONDO G.   | 0.2S                 | 34.3E                | 0.2S                | 32.7E               | 25 | LO | 250 | N | Y | 19910408 | 112135 | 245 | 288 | 66        | 45 |
| 89  | 2   | KENYA           | L.VICTORIA,SIGULU I.      | 0.3N                 | 33.5E                | 0.3S                | 32.8E               | 65 | LO | 250 | U | N | 19910408 | 112137 | 245 | 288 | 66        | 45 |
| 89  | 6   | KENYA           | L.VICTORIA,KAVIRONDO G.   | 0.4S                 | 34.4E                | 0.9S                | 33.8E               | 25 | LO | 250 | N | Y | 19910408 | 112156 | 245 | 288 | 65        | 45 |
| 89  | 10  | KENYA           | LAKE VICTORIA, CLOUDS     | 1.0S                 | 34.0E                | 1.3S                | 34.6E               | 85 | NV | 250 | N | Y | 19910408 | 112212 | 245 | 289 | 64        | 45 |
| 89  | 11  | KENYA           | L.VICTORIA,MFANGANO I.    | 0.8S                 | 34.1E                | 1.4S                | 34.8E               | 75 | NV | 250 | N | Y | 19910408 | 112215 | 245 | 289 | 64        | 45 |
| 89  | 12  | KENYA           | L.VICTORIA,KAVIRONDO G.   | 0.3S                 | 34.5E                | 1.6S                | 35.0E               | 40 | NV | 250 | N | Y | 19910408 | 112219 | 245 | 289 | 63        | 45 |
| 89  | 15  | KENYA           | AGR. VALLEY, ROAD         | 1.1S                 | 36.0E                | 2.4S                | 36.5E               | 15 | LO | 250 | N | Y | 19910408 | 112247 | 245 | 289 | 62        | 45 |
| 89  | 16  | KENYA           | NGIRO STREAM,L.MAGADI     | 1.5S                 | 36.1E                | 2.5S                | 36.6E               | 10 | LO | 250 | N | Y | 19910408 | 112249 | 245 | 289 | 61        | 45 |
| 89  | 22  | KENYA           | MT.KILIMANJARO,CLD COV.   | 2.9S                 | 37.7E                | 3.1S                | 37.7E               | 75 | NV | 250 | N | Y | 19910408 | 112310 | 245 | 290 | 60        | 45 |
| 89  | 32  | KENYA           | MOMBASA,AFLD.COAST        | 4.2S                 | 39.7E                | 4.4S                | 39.9E               | 30 | NV | 250 | N | Y | 19910408 | 112353 | 245 | 290 | 57        | 45 |
| 89  | 33  | KENYA           | GALANA R, COAST           | 3.5S                 | 40.0E                | 4.5S                | 40.1E               | 25 | NV | 250 | N | Y | 19910408 | 112356 | 245 | 290 | 57        | 45 |
| 89  | 34  | KENYA           | TANA RIVER, CLOUDS        | 1.7S                 | 39.9E                | 4.7S                | 40.5E               | 85 | LO | 250 | N | Y | 19910408 | 112404 | 245 | 290 | 57        | 45 |
| 89  | 35  | KENYA           | FORMOSA BAY, TANA RIVER   | 2.6S                 | 40.2E                | 4.8S                | 40.6E               | 50 | LO | 250 | N | Y | 19910408 | 112406 | 245 | 290 | 57        | 45 |
| 89  | 36  | KENYA           | FORMOSA BAY,PATE I,CST    | 2.3S                 | 40.7E                | 5.0S                | 40.9E               | 60 | LO | 250 | U | N | 19910408 | 112412 | 245 | 290 | 56        | 45 |
| 152 | 32  | KENYA           | COAST-PEMBA ISLAND        | 4.5S                 | 39.0E                | 4.8S                | 36.9E               | 45 | LO | 250 | N | Y | 19910406 | 124050 | 242 | 283 | 42        | 15 |
| 153 | 0AV | KENYA           | L. VICTORIA, KAVIRONDO G  | 0.5S                 | 34.0E                |                     |                     | 30 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0AW | KENYA           | E. HALF OF L. VICTORIA    | 1.0S                 | 34.0E                |                     |                     | 55 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0BQ | KENYA           | AREA S. OF KILIMANJARO    | 3.5S                 | 38.0E                |                     |                     | 40 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0BR | KENYA           | L. KIKULEIWA, JIPE        | 3.5S                 | 38.0E                |                     |                     | 55 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 0BU | KENYA           | CITY OF MOMBASA           | 4.0S                 | 39.0E                |                     |                     | 35 | LO | 250 | N | Y |          |        |     |     |           |    |
| 73  | 47  | KUWAIT          | OIL WELL FIRES            | 29.1N                | 48.0E                | 24.3N               | 49.7E               | 0  | LO | 250 | N | N | 19910407 | 070355 | 246 | 122 | 60        | 27 |
| 92  | 43  | KUWAIT          | OIL WELL SMOKE PLUMES     | 29.0N                | 48.0E                | 25.5N               | 45.1E               | 0  | LO | 250 | N | N | 19910407 | 070244 | 246 | 118 | 55        | 27 |
| 92  | 44  | KUWAIT          | OIL WELL SMOKE PLUMES     | 29.0N                | 48.0E                | 25.4N               | 45.4E               | 0  | LO | 250 | N | N | 19910407 | 070248 | 246 | 118 | 56        | 27 |
| 92  | 47  | KUWAIT          | OIL WELL SMOKE PLUMES     | 28.8N                | 47.5E                | 24.4N               | 49.2E               | 0  | LO | 250 | N | N | 19910407 | 070348 | 246 | 121 | 59        | 27 |
| 151 | 127 | KUWAIT          | BUBYAN ISLAND             | 29.5N                | 48.0E                | 28.3N               | 47.6E               | 90 | LO | 250 | N | N | 19910406 | 060254 | 246 | 110 | 44        | 11 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|----------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 91  | KUWAIT          | FAYLAKA I.-KUWAIT FIRES    | 29.5N         | 48.5E         | 28.4N        | 47.9E        | 0  | LO | 250 | N | Y | 19910407 | 052403 | 246 | 103 | 36        | 26 |
| 152 | 184 | KUWAIT          | KUWAIT OIL WELL FIRES      | 29.3N         | 47.5E         | 25.4N        | 45.5E        | 0  | LO | 250 | N | Y | 19910407 | 070250 | 246 | 118 | 56        | 27 |
| 91  | 110 | LAOS            | WULIANG SHAN, CLOUDS       | 22.0N         | 102.0E        | 28.5N        | 113.3E       | 40 | LO | 250 | N | N | 19910406 | 012109 | 246 | 107 | 40        | 8  |
| 151 | 103 | LAOS            | MEKONG RIVER               | 20.0N         | 101.5E        | 22.3N        | 102.5E       | 10 | LO | 250 | N | N | 19910406 | 043721 | 245 | 150 | 71        | 10 |
| 74  | 41  | LESSER ANTILLES | ST. MARTIN & ANGUILLA IS.  | 18.0N         | 63.0W         | 6.3N         | 22.6W        | 40 | LO | 250 | N | N | 19910409 | 133557 | 245 | 106 | 48        | 62 |
| 74  | 42  | LESSER ANTILLES | ANTIGUA & BARBUDA IS.      | 17.6N         | 61.8W         | 6.3N         | 22.8W        | 50 | LO | 250 | N | N | 19910409 | 133601 | 245 | 106 | 48        | 62 |
| 74  | 43  | LESSER ANTILLES | ANTIGUA & BARBUDA IS.      | 17.5N         | 62.0W         | 6.5N         | 23.2W        | 40 | LO | 250 | N | N | 19910409 | 133616 | 245 | 106 | 49        | 62 |
| 76  | 42  | LESSER ANTILLES | ST VINCENT                 | 13.2N         | 61.2W         | 8.7N         | 51.8W        | 30 | NV | 250 | N | N | 19910409 | 151549 | 244 | 113 | 76        | 63 |
| 76  | 43  | LESSER ANTILLES | ST LUCIA                   | 13.7N         | 60.9W         | 8.7N         | 51.8W        | 40 | LO | 250 | N | N | 19910409 | 151552 | 244 | 113 | 76        | 63 |
| 76  | 44  | LESSER ANTILLES | MARTINIQUE, CLDY OVR ISL.  | 14.5N         | 61.0W         | 8.8N         | 51.9W        | 40 | LO | 250 | N | N | 19910409 | 151600 | 244 | 113 | 77        | 63 |
| 76  | 45  | LESSER ANTILLES | ST. CHRISTOPHER, NEVI IS.  | 17.1N         | 62.6W         | 8.8N         | 52.0W        | 50 | LO | 250 | N | N | 19910409 | 151606 | 244 | 113 | 77        | 63 |
| 76  | 46  | LESSER ANTILLES | BARBUDA, ANTIQUA IS.       | 17.1N         | 61.9W         | 8.8N         | 52.1W        | 50 | LO | 250 | N | N | 19910409 | 151611 | 244 | 113 | 77        | 63 |
| 76  | 47  | LESSER ANTILLES | BARBADOS                   | 13.2N         | 59.6W         | 8.9N         | 52.3W        | 60 | LO | 250 | N | N | 19910409 | 151635 | 244 | 113 | 79        | 63 |
| 78  | 51  | LESSER ANTILLES | ST CHRISTOPHER, NEVIS IS   | 17.0N         | 62.5W         | 8.5N         | 51.2W        | 40 | LO | 250 | N | N | 19910409 | 151519 | 244 | 113 | 74        | 63 |
| 78  | 52  | LESSER ANTILLES | ANTIGUA AND BARBUDA IS.    | 17.5N         | 62.0W         | 8.5N         | 51.4W        | 30 | LO | 250 | N | N | 19910409 | 151526 | 244 | 113 | 75        | 63 |
| 79  | 27  | LESSER ANTILLES | GRENADA, CARRIACOU IS.     | 12.0N         | 61.5W         | 11.2N        | 62.8W        | 25 | LO | 250 | N | N | 19910406 | 171216 | 244 | 252 | 74        | 18 |
| 87  | 76  | LESSER ANTILLES | ANGUILLA, DARK             | 18.0N         | 63.5W         | 5.0N         | 19.4W        | 70 | LO | 250 | U | N | 19910409 | 133415 | 245 | 104 | 45        | 62 |
| 87  | 77  | LESSER ANTILLES | BARBUDA, ANTUGUA, DARK     | 17.1N         | 61.8W         | 6.2N         | 22.5W        | 50 | LO | 250 | U | N | 19910409 | 133552 | 245 | 107 | 51        | 62 |
| 87  | 78  | LESSER ANTILLES | ANGUILLA, SAINT MARTIN, DK | 18.0N         | 62.5W         | 6.3N         | 22.6W        | 50 | LO | 250 | U | N | 19910409 | 133557 | 245 | 107 | 52        | 62 |
| 77  | 80  | LIBERIA         | HAZY, CLDY, T-STORM        | 8.5N          | 10.2W         | 8.5N         | 10.2W        | 80 | LO | 250 | N | N | 19910406 | 140655 | 243 | 265 | 69        | 16 |
| 77  | 81  | LIBERIA         | HAZY, CLDY                 | 7.8N          | 8.9W          | 7.8N         | 8.9W         | 80 | LO | 250 | N | N | 19910406 | 140718 | 243 | 267 | 67        | 16 |
| 77  | 82  | LIBERIA         | HAZY, CLDY, COASTLINE      | 6.4N          | 6.4W          | 6.4N         | 6.4W         | 80 | LO | 250 | N | N | 19910406 | 140808 | 243 | 271 | 65        | 16 |
| 77  | 83  | LIBERIA         | HAZY, CLDY, COASTLINE      | 6.1N          | 5.9W          | 6.1N         | 5.9W         | 80 | LO | 250 | N | N | 19910406 | 140816 | 243 | 272 | 84        | 16 |
| 83  | 43  | LIBERIA         | NE PANORAMA-COAST, DUST    | 2.7N          | 18.0W         | 2.7N         | 18.0W        | 50 | HO | 100 | N | N | 19910409 | 134823 | 245 | 299 | 80        | 62 |
| 90  | 61  | LIBERIA         | LAKE PISO, CAPE MOUNT, CST | 6.8N          | 11.5W         | 7.4N         | 8.1W         | 50 | LO | 250 | N | N | 19910406 | 140733 | 243 | 268 | 67        | 16 |
| 90  | 62  | LIBERIA         | COAST                      | 5.5N          | 9.5W          | 6.8N         | 7.0W         | 65 | LO | 250 | N | N | 19910406 | 140754 | 243 | 270 | 65        | 16 |
| 8   | 5   | LIBYA           | UBARI & MURZUK SAND SEAS   | 28.4N         | 7.0E          | 28.4N        | 7.0E         | 20 | LO | 35  | N | N | 19910410 | 063608 | 244 | 90  | 17        | 73 |
| 8   | 8   | LIBYA           | MARZUQ DESERT AREA         | 26.0N         | 12.5E         | 28.2N        | 10.3E        | 10 | LO | 35  | N | N | 19910410 | 063657 | 244 | 92  | 21        | 73 |
| 8   | 9   | LIBYA           | MARZUQ DESERT AREA         | 26.2N         | 13.2E         | 27.9N        | 13.1E        | 5  | LO | 35  | N | N | 19910410 | 063738 | 245 | 93  | 23        | 73 |
| 8   | 11  | LIBYA           | EL HARUJ EL ASWAD AREA     | 27.0N         | 17.0E         | 27.4N        | 16.8E        | 0  | LO | 35  | N | N | 19910410 | 063832 | 245 | 95  | 27        | 73 |
| 8   | 13  | LIBYA           | LIBYAN DESERT              | 26.8N         | 21.0E         | 26.8N        | 21.0E        | 0  | LO | 35  | N | N | 19910410 | 063935 | 245 | 97  | 31        | 73 |
| 8   | 15  | LIBYA           | LIBYAN DESERT              | 26.0N         | 23.0E         | 26.4N        | 23.1E        | 0  | LO | 35  | N | N | 19910410 | 064008 | 245 | 98  | 33        | 73 |
| 8   | 17  | LIBYA           | REBIANA SAND SEA           | 25.8N         | 26.0E         | 25.8N        | 26.0E        | 5  | LO | 35  | N | N | 19910410 | 064052 | 245 | 99  | 36        | 73 |
| 14  | 4   | LIBYA           | MARZUQ D., AS-SABAH HILL   | 17.0E         | 24.1N         | 8.7E         | 8.7E         | 5  | HO | 35  | N | N | 19910410 | 081603 | 246 | 101 | 42        | 74 |
| 14  | 5   | LIBYA           | MARZUQ D., TIBESTI MTNS.   | 25.0N         | 13.0E         | 23.7N        | 10.1E        | 0  | HO | 35  | N | N | 19910410 | 081625 | 246 | 102 | 43        | 74 |
| 14  | 6   | LIBYA           | EL HARUJ EL ASWAD PLAT.    | 26.0N         | 18.0E         | 23.1N        | 12.3E        | 0  | HO | 35  | N | N | 19910410 | 081700 | 246 | 103 | 45        | 74 |
| 14  | 7   | LIBYA           | MARZUQ DESERT              | 25.0N         | 13.0E         | 22.8N        | 13.2E        | 0  | LO | 35  | N | N | 19910410 | 081714 | 246 | 103 | 46        | 74 |
| 14  | 10  | LIBYA           | REBIANA SAND SEA           | 24.0N         | 21.0E         | 21.5N        | 17.1E        | 15 | LO | 35  | N | N | 19910410 | 081818 | 246 | 104 | 50        | 74 |
| 42  | 27  | LIBYA           | AREA N. OF TIBESTI MTNS.   | 24.0N         | 16.0E         | 23.6N        | 12.4E        | 0  | LO | 35  | N | N | 19910411 | 073845 | 246 | 98  | 37        | 89 |
| 42  | 28  | LIBYA           | TIBESTI MTS., UAUEN NAMUS  | 24.0N         | 18.0E         | 23.3N        | 13.3E        | 15 | HO | 35  | N | N | 19910411 | 073859 | 246 | 98  | 38        | 89 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|----|-----------------|----------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 42 | 29 | LIBYA           | TIBESTI MTS., UAUEN NAMUS  | 25.0N 18.0E          | 23.2N 13.8E         | 10 | HO | 35  | N | N | 19910411 | 073906 | 246 | 98  | 38        | 89 |
| 42 | 30 | LIBYA           | UAU EN NAMUS               | 26.0N 16.0E          | 22.8N 15.0E         | 0  | HO | 35  | N | N | 19910411 | 073926 | 246 | 98  | 40        | 89 |
| 42 | 31 | LIBYA           | NE TIBESTI MTS.            | 24.0N 20.0E          | 22.5N 15.8E         | 20 | HO | 35  | N | N | 19910411 | 073939 | 246 | 99  | 40        | 89 |
| 42 | 33 | LIBYA           | UAU EN NAMUS               | 25.0N 17.0E          | 22.2N 16.9E         | 0  | HO | 35  | N | N | 19910411 | 073957 | 246 | 99  | 41        | 89 |
| 42 | 34 | LIBYA           | AREA NE OF TIBESTI         | 22.0N 21.0E          | 22.0N 17.5E         | 5  | LO | 35  | N | N | 19910411 | 074007 | 246 | 99  | 42        | 89 |
| 42 | 35 | LIBYA           | AREA NE OF TIBESTI         | 23.0N 21.0E          | 21.4N 19.0E         | 10 | LO | 35  | N | N | 19910411 | 074032 | 246 | 99  | 44        | 89 |
| 42 | 36 | LIBYA           | AREA NE OF TIBESTI         | 22.0N 21.0E          | 21.1N 19.9E         | 5  | LO | 35  | N | N | 19910411 | 074046 | 246 | 99  | 45        | 89 |
| 73 | 86 | LIBYA           | STONE DESERT AREA          | 27.6N 9.0E           | 27.6N 9.0E          | 0  | LO | 250 | N | N | 19910407 | 083305 | 247 | 108 | 43        | 28 |
| 73 | 87 | LIBYA           | HAMMADAT MARZUQ, CTR PVT   | 26.5N 13.0E          | 27.2N 12.2E         | 0  | LO | 250 | N | N | 19910407 | 083353 | 246 | 110 | 46        | 28 |
| 73 | 88 | LIBYA           | HAMMADAT MARZUQ, CTR PVT   | 27.0N 13.0E          | 27.0N 13.0E         | 0  | LO | 250 | N | N | 19910407 | 083405 | 246 | 111 | 47        | 28 |
| 73 | 89 | LIBYA           | RAMLA EL MARZUCHIA         | 26.2N 15.2E          | 26.8N 14.8E         | 0  | LO | 250 | N | N | 19910407 | 083429 | 246 | 112 | 49        | 28 |
| 73 | 90 | LIBYA           | RAMLA EL MARZUCHIA         | 26.2N 15.2E          | 26.7N 15.1E         | 0  | LO | 250 | N | N | 19910407 | 083437 | 246 | 112 | 49        | 28 |
| 73 | 91 | LIBYA           | QUR AL FARID               | 26.5N 16.4E          | 26.5N 16.4E         | 0  | LO | 250 | N | N | 19910407 | 083456 | 246 | 113 | 50        | 28 |
| 73 | 92 | LIBYA           | VOLCANO OF THE FLIES       | 26.2N 17.8E          | 26.2N 17.8E         | 0  | LO | 250 | N | N | 19910407 | 083517 | 246 | 114 | 52        | 28 |
| 73 | 93 | LIBYA           | AL JAWF, CTR. PIVOT IR     | 24.2N 23.3E          | 25.1N 22.7E         | 0  | LO | 250 | N | N | 19910407 | 083544 | 246 | 116 | 53        | 28 |
| 73 | 94 | LIBYA           | SE., JABAL ARKENU          | 26.2N 13.3E          | 27.0N 11.5E         | 0  | LO | 250 | N | N | 19910407 | 083704 | 246 | 120 | 58        | 28 |
| 73 | 95 | LIBYA           | MARZUQ SS, PIVOT IRRIG.    | 26.3N 12.5E          | 26.9N 11.7E         | 0  | LO | 250 | N | N | 19910406 | 091239 | 246 | 119 | 54        | 13 |
| 82 | 1  | LIBYA           | HAMADA MARZUQ, PIVOT IRR.  | 26.3N 12.5E          | 26.9N 11.7E         | 0  | LO | 250 | N | N | 19910406 | 091242 | 246 | 119 | 54        | 13 |
| 82 | 2  | LIBYA           | MESACH MELLET, SAND SEA    | 26.0N 12.0E          | 26.9N 11.8E         | 0  | LO | 250 | N | N | 19910406 | 091244 | 246 | 119 | 54        | 13 |
| 82 | 4  | LIBYA           | MESACH MELLET, SAND SEA    | 25.5N 11.7E          | 26.9N 12.2E         | 0  | LO | 250 | N | N | 19910406 | 091249 | 246 | 119 | 54        | 13 |
| 82 | 5  | LIBYA           | TIRERENE DUNES, PIVOT IRR  | 26.5N 11.8E          | 26.8N 12.6E         | 0  | LO | 250 | N | N | 19910406 | 091255 | 246 | 120 | 54        | 13 |
| 82 | 6  | LIBYA           | UBARI SS, AWBARI, PIVOT IR | 26.6N 12.2E          | 26.7N 12.8E         | 0  | LO | 250 | N | N | 19910406 | 091259 | 246 | 120 | 55        | 13 |
| 82 | 7  | LIBYA           | UBARI SAND SEA, AWBARI     | 27.7N 12.7E          | 26.7N 13.0E         | 0  | LO | 250 | N | N | 19910406 | 091302 | 246 | 120 | 55        | 13 |
| 82 | 8  | LIBYA           | ZELLAF DUNES, SABHAH, AFLD | 27.0N 14.3E          | 26.6N 13.4E         | 0  | LO | 250 | N | N | 19910406 | 091308 | 246 | 121 | 55        | 13 |
| 82 | 9  | LIBYA           | ZELLAF DUNES, SAMNU        | 27.2N 14.9E          | 26.6N 13.7E         | 0  | LO | 250 | N | N | 19910406 | 091312 | 246 | 121 | 56        | 13 |
| 82 | 10 | LIBYA           | ZELLAF DUNES, TOWNS, IRRIG | 27.5N 14.5E          | 26.6N 13.9E         | 0  | LO | 250 | N | N | 19910406 | 091315 | 246 | 121 | 56        | 13 |
| 82 | 11 | LIBYA           | UBARI SS, WADI SHATI       | 27.6N 13.7E          | 26.5N 14.2E         | 0  | LO | 250 | N | N | 19910406 | 091320 | 246 | 121 | 56        | 13 |
| 82 | 12 | LIBYA           | DOREL-GUSSA, DIKE          | 25.6N 16.5E          | 26.2N 15.8E         | 0  | LO | 250 | N | N | 19910406 | 091343 | 246 | 123 | 57        | 13 |
| 82 | 13 | LIBYA           | DOREL-GUSSA, DIKE          | 26.0N 17.0E          | 26.2N 15.9E         | 0  | LO | 250 | N | N | 19910406 | 091345 | 246 | 123 | 57        | 13 |
| 82 | 14 | LIBYA           | BLACK HARUJ                | 26.5N 17.5E          | 26.1N 16.1E         | 0  | LO | 250 | N | N | 19910406 | 091348 | 246 | 123 | 58        | 13 |
| 82 | 15 | LIBYA           | BLACK HARUJ                | 26.8N 17.1E          | 26.1N 16.3E         | 0  | LO | 250 | N | N | 19910406 | 091351 | 246 | 123 | 58        | 13 |
| 82 | 16 | LIBYA           | BLACK HARUJ                | 26.4N 16.9E          | 26.1N 16.5E         | 0  | LO | 250 | N | N | 19910406 | 091354 | 246 | 124 | 58        | 13 |
| 82 | 17 | LIBYA           | DOREL-GUSSA, WADI SCEBERM  | 26.0N 16.3E          | 26.0N 16.7E         | 0  | LO | 250 | N | N | 19910406 | 091358 | 246 | 124 | 58        | 13 |
| 82 | 18 | LIBYA           | RAMLA EL MARZUCHIA         | 26.2N 16.1E          | 26.0N 17.0E         | 0  | LO | 250 | N | N | 19910406 | 091402 | 246 | 124 | 58        | 13 |
| 82 | 19 | LIBYA           | BLACK HARUJ, MANDIL DEPR.  | 26.6N 16.8E          | 25.9N 17.3E         | 0  | LO | 250 | N | N | 19910406 | 091406 | 246 | 125 | 59        | 13 |
| 82 | 20 | LIBYA           | BLACK HARUJ                | 27.0N 17.0E          | 25.9N 17.5E         | 0  | LO | 250 | N | N | 19910406 | 091409 | 246 | 125 | 59        | 13 |
| 82 | 21 | LIBYA           | FARID HILLS                | 25.6N 18.4E          | 25.6N 18.4E         | 0  | LO | 250 | N | N | 19910406 | 091424 | 246 | 126 | 60        | 13 |
| 82 | 22 | LIBYA           | FARID HILLS                | 25.6N 18.6E          | 25.6N 18.6E         | 0  | LO | 250 | N | N | 19910406 | 091427 | 246 | 126 | 60        | 13 |
| 82 | 23 | LIBYA           | FARID HILLS, SAND DUNES    | 25.5N 19.0E          | 25.5N 19.0E         | 0  | LO | 250 | N | N | 19910406 | 091432 | 246 | 126 | 60        | 13 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|---------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 82 | 24  | LIBYA           | SAND DUNES                |                      | 25.5N 19.2E         | 0  | LO | 250 | N | Y | 19910406 | 091436 | 246 | 127 | 60        | 13 |
| 82 | 25  | LIBYA           | SAND DUNES                |                      | 25.4N 19.4E         | 0  | LO | 250 | N | Y | 19910406 | 091439 | 246 | 127 | 61        | 13 |
| 82 | 26  | LIBYA           | SAND DUNES                |                      | 25.4N 19.7E         | 0  | LO | 250 | N | Y | 19910406 | 091444 | 246 | 127 | 61        | 13 |
| 82 | 27  | LIBYA           | LIBYA DESERT, ROADS       | 27.0N 22.0E          | 25.1N 20.8E         | 0  | LO | 250 | N | Y | 19910406 | 091500 | 246 | 129 | 62        | 13 |
| 82 | 28  | LIBYA           | LIBYA DESERT, PIVOT       | 27.0N 22.4E          | 25.0N 21.2E         | 0  | LO | 250 | N | Y | 19910406 | 091507 | 246 | 129 | 62        | 13 |
| 82 | 29  | LIBYA           | LIBYA DESERT, PIVOT       | 26.5N 22.4E          | 25.0N 21.4E         | 0  | LO | 250 | N | Y | 19910406 | 091510 | 246 | 130 | 62        | 13 |
| 82 | 30  | LIBYA           | HIGHLANDS, REBIANA SS     | 24.0N 22.4E          | 24.8N 22.1E         | 0  | NV | 250 | N | Y | 19910406 | 091520 | 246 | 130 | 63        | 13 |
| 82 | 31  | LIBYA           | HIGHLANDS, KUFRAH OASIS   | 24.5N 22.8E          | 24.7N 22.2E         | 0  | LO | 250 | N | Y | 19910406 | 091523 | 246 | 131 | 63        | 13 |
| 82 | 32  | LIBYA           | HIGHLANDS, KUFRAH OASIS   | 24.6N 23.0E          | 24.7N 22.5E         | 0  | LO | 250 | N | Y | 19910406 | 091527 | 246 | 131 | 63        | 13 |
| 82 | 33  | LIBYA           | HIGHLANDS, DESERT         | 25.0N 23.3E          | 24.6N 22.8E         | 0  | LO | 250 | N | Y | 19910406 | 091532 | 246 | 131 | 64        | 13 |
| 82 | 34  | LIBYA           | HIGHLANDS, DESERT         | 25.3N 23.0E          | 24.6N 23.0E         | 0  | LO | 250 | N | Y | 19910406 | 091535 | 246 | 132 | 64        | 13 |
| 82 | 35  | LIBYA           | HIGHLANDS, DESERT         | 25.6N 23.8E          | 24.5N 23.3E         | 0  | LO | 250 | N | Y | 19910406 | 091539 | 246 | 132 | 64        | 13 |
| 82 | 36  | LIBYA           | HIGHLANDS, DESERT         | 25.8N 24.5E          | 24.4N 23.6E         | 0  | LO | 250 | N | Y | 19910406 | 091544 | 246 | 132 | 64        | 13 |
| 82 | 37  | LIBYA           | HIGHLANDS, DESERT         | 25.3N 24.5E          | 24.3N 23.9E         | 0  | LO | 250 | N | Y | 19910406 | 091549 | 246 | 133 | 65        | 13 |
| 82 | 38  | LIBYA           | HIGHLANDS, DESERT         |                      | 24.2N 24.3E         | 0  | LO | 250 | N | Y | 19910406 | 091555 | 246 | 134 | 65        | 13 |
| 82 | 39  | LIBYA           | HIGHLANDS, DESERT         |                      | 24.2N 24.5E         | 0  | LO | 250 | N | Y | 19910406 | 091558 | 246 | 134 | 65        | 13 |
| 82 | 40  | LIBYA           | HIGHLANDS, LIBYAN DESERT  |                      | 24.1N 24.7E         | 0  | LO | 250 | N | Y | 19910406 | 091601 | 246 | 134 | 65        | 13 |
| 82 | 41  | LIBYA           | HIGHLANDS, LIBYAN DESERT  |                      | 24.1N 24.8E         | 0  | LO | 250 | N | Y | 19910406 | 091603 | 246 | 134 | 65        | 13 |
| 89 | 102 | LIBYA           | PLAT. MANGENI AREA        | 22.8N 14.1E          | 22.0N 13.4E         | 0  | LO | 250 | N | N | 19910409 | 085608 | 246 | 109 | 54        | 59 |
| 89 | 103 | LIBYA           | EDGE-MARZUQ SAND SEA      | 23.2N 13.9E          | 22.0N 13.6E         | 0  | LO | 250 | N | N | 19910409 | 085610 | 246 | 109 | 54        | 59 |
| 91 | 117 | LIBYA           | MESACH MELLET, YELLOW SPT | 26.0N 12.5E          | 26.8N 12.2E         | 0  | LO | 250 | N | N | 19910406 | 091250 | 246 | 120 | 54        | 13 |
| 91 | 118 | LIBYA           | PIVOT IRRIG, MARZUQ SS    | 26.0N 13.5E          | 26.6N 13.6E         | 0  | LO | 250 | N | N | 19910406 | 091311 | 246 | 121 | 56        | 13 |
| 91 | 119 | LIBYA           | AGR. IRRIG, UBARI SS.     | 27.5N 14.5E          | 26.5N 14.2E         | 0  | LO | 250 | N | Y | 19910406 | 091319 | 246 | 121 | 58        | 13 |
| 91 | 120 | LIBYA           | AGR. IRRIG, UBARI SS.     | 27.6N 14.7E          | 26.3N 15.5E         | 0  | LO | 250 | N | Y | 19910406 | 091339 | 246 | 123 | 57        | 13 |
| 91 | 121 | LIBYA           | DOREL-GUSSA HILLS, DIKE   | 25.5N 16.8E          | 25.9N 17.5E         | 0  | LO | 250 | N | N | 19910406 | 091409 | 246 | 125 | 59        | 13 |
| 91 | 122 | LIBYA           | SAND DUNES                |                      |                     | 0  | LO | 250 | N | N |          |        |     |     |           |    |
| 92 | 79  | LIBYA           | UBARI SAND SEA, ADRI AREA | 27.0N 13.4E          | 26.9N 13.6E         | 0  | NV | 250 | N | N | 19910407 | 083414 | 246 | 111 | 48        | 28 |
| 92 | 80  | LIBYA           | UBARI SAND SEA, ADRI AREA | 27.5N 13.0E          | 26.8N 14.3E         | 0  | LO | 250 | N | N | 19910407 | 083425 | 246 | 112 | 49        | 28 |
| 92 | 81  | LIBYA           | UBARI SAND SEA, ADRI AREA | 27.5N 14.0E          | 26.7N 15.1E         | 0  | LO | 250 | N | N | 19910407 | 083436 | 246 | 112 | 49        | 28 |
| 92 | 82  | LIBYA           | SABHAH AREA, AZ ZALLAF    | 26.9N 14.5E          | 26.6N 15.4E         | 0  | LO | 250 | N | N | 19910407 | 083441 | 246 | 113 | 50        | 28 |
| 92 | 83  | LIBYA           | RAMIA EL-MARZUCHIA AREA   | 26.0N 15.0E          | 26.5N 16.4E         | 0  | LO | 250 | N | N | 19910407 | 083456 | 246 | 113 | 50        | 28 |
| 92 | 84  | LIBYA           | EL HARUJ EL ASWAD         | 17.5N 18.0E          | 25.9N 19.1E         | 0  | LO | 250 | N | N | 19910407 | 083537 | 246 | 115 | 53        | 28 |
| 92 | 85  | LIBYA           | REBIANA SAND SEA          |                      | 25.5N 21.1E         | 0  | LO | 250 | N | N | 19910407 | 083608 | 246 | 117 | 55        | 28 |
| 94 | 92  | LIBYA           | MARZUQ DESERT             | 25.0N 13.0E          |                     | 0  | LO | 100 | N | N |          |        |     |     |           |    |
| 96 | 75  | LIBYA           | MARZUQ DES., TCHIGAI P.   | 23.5N 13.0E          |                     | 0  | LO | 100 | N | Y |          |        |     |     |           |    |
| 97 | 3   | LIBYA           | COAST, VRY CLOUDY         |                      | 28.2N 0.7E          | 95 | HO | 250 | N | N | 19910406 | 090959 | 246 | 110 | 44        | 13 |
| 97 | 8   | LIBYA           | MARZUQ DESERT, BLK HARUJ  | 26.0N 12.5E          | 27.6N 7.2E          | 0  | LO | 250 | N | N | 19910406 | 091134 | 246 | 115 | 50        | 13 |
| 97 | 9   | LIBYA           | MARZUQ DESERT, BLK HARUJ  | 26.0N 14.0E          | 27.2N 10.1E         | 0  | LO | 250 | N | N | 19910406 | 091218 | 246 | 117 | 52        | 13 |
| 97 | 10  | LIBYA           | BLACK HARUJ               | 27.0N 18.3E          | 27.0N 11.5E         | 0  | LO | 250 | N | N | 19910406 | 091239 | 246 | 119 | 54        | 13 |
| 97 | 11  | LIBYA           | BLACK HARUJ, REBIANA SAND | 25.0N 21.0E          | 26.4N 14.5E         | 0  | LO | 250 | N | N | 19910406 | 091324 | 246 | 122 | 56        | 13 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                         | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|---------------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 97  | 12  | LIBYA           | BLACK HARUJ, REBIANA SAND COAST | 25.5N         | 21.0E         | 26.3N        | 15.4E        | 0  | LO | 250 | N | N | 19910406 | 091337 | 246 | 123 | 57        | 13 |
| 97  | 13  | LIBYA           |                                 |               |               | 26.1N        | 16.5E        | 10 | HO | 250 | N | N | 19910406 | 091355 | 246 | 124 | 58        | 13 |
| 97  | 14  | LIBYA           | LIBYAN DESERT, CTR. PST. IR     | 26.3N         | 23.0E         | 25.7N        | 18.3E        | 0  | LO | 250 | N | N | 19910406 | 091422 | 246 | 126 | 60        | 13 |
| 97  | 15  | LIBYA           | LIBYAN DESERT, CTR. PST. IR     | 25.0N         | 24.0E         | 25.5N        | 19.1E        | 0  | LO | 250 | N | N | 19910406 | 091434 | 246 | 127 | 60        | 13 |
| 97  | 16  | LIBYA           | LIBYAN DESERT, CTR. PST. IR     | 25.0N         | 24.0E         | 25.3N        | 19.8E        | 0  | LO | 250 | N | N | 19910406 | 091447 | 246 | 128 | 61        | 13 |
| 97  | 17  | LIBYA           | COAST                           |               |               | 25.1N        | 20.8E        | 0  | HO | 250 | N | N | 19910406 | 091500 | 246 | 129 | 62        | 13 |
| 97  | 18  | LIBYA           | LIBYAN DESERT                   | 23.5N         | 25.0E         | 25.0N        | 21.3E        | 0  | LO | 250 | N | N | 19910406 | 091509 | 246 | 129 | 62        | 13 |
| 97  | 72  | LIBYA           | W.EDGE MARZUQ DESERT            | 24.8N         | 9.5E          | 22.2N        | 7.1E         | 0  | LO | 250 | N | N | 19910406 | 105108 | 245 | 144 | 71        | 14 |
| 97  | 73  | LIBYA           | W.EDGE MARZUQ DESERT            | 24.0N         | 12.0E         | 22.1N        | 7.4E         | 0  | LO | 250 | N | N | 19910406 | 105113 | 245 | 145 | 71        | 14 |
| 151 | 117 | LIBYA           | EL MARZUCHIA SAND DUNES         | 26.5N         | 15.5E         | 26.1N        | 15.7E        | 0  | NV | 250 | N | N | 19910406 | 055504 | 246 | 90  | 15        | 11 |
| 151 | 118 | LIBYA           | PIVOT IRRIGATION                | 27.5N         | 21.5E         | 26.6N        | 18.8E        | 0  | LO | 250 | N | Y | 19910406 | 055551 | 246 | 91  | 18        | 11 |
| 151 | 119 | LIBYA           | PIVOT IRRIGATION                | 27.0N         | 23.0E         | 27.1N        | 21.8E        | 0  | LO | 250 | N | Y | 19910406 | 055636 | 246 | 93  | 20        | 11 |
| 151 | 197 | LIBYA           | SAHARA-PIVOT IRRIGATION         | 27.0N         | 10.5E         | 27.1N        | 10.6E        | 0  | NV | 250 | N | Y | 19910406 | 091226 | 246 | 118 | 53        | 13 |
| 151 | 198 | LIBYA           | MARZUQ ROCKY PLAIN              | 26.0N         | 12.5E         | 26.9N        | 12.0E        | 0  | LO | 250 | N | Y | 19910406 | 091246 | 246 | 119 | 54        | 13 |
| 151 | 199 | LIBYA           | ZEGHER ROCKY PLAIN              | 27.0N         | 13.0E         | 26.8N        | 12.4E        | 0  | NV | 250 | N | Y | 19910406 | 091252 | 246 | 120 | 54        | 13 |
| 151 | 200 | LIBYA           | ZEGHER ROCKY PLAIN              | 26.5N         | 14.0E         | 26.7N        | 13.0E        | 0  | NV | 250 | N | Y | 19910406 | 091302 | 246 | 120 | 55        | 13 |
| 151 | 201 | LIBYA           | SABHAH                          | 27.0N         | 15.0E         | 26.5N        | 14.3E        | 0  | NV | 250 | N | Y | 19910406 | 091321 | 246 | 121 | 56        | 13 |
| 151 | 202 | LIBYA           | EL MARZUCHIA SAND DUNES         | 26.0N         | 16.5E         | 26.2N        | 15.7E        | 0  | NV | 250 | N | Y | 19910406 | 091342 | 246 | 123 | 57        | 13 |
| 151 | 203 | LIBYA           | BLACK HARUJ-AL FARID HIL        | 26.0N         | 17.0E         | 26.0N        | 17.0E        | 0  | NV | 250 | N | Y | 19910406 | 091402 | 246 | 124 | 58        | 13 |
| 151 | 204 | LIBYA           | AL FARID HILLS                  | 26.0N         | 19.0E         | 25.7N        | 18.3E        | 0  | NV | 250 | N | Y | 19910406 | 091422 | 246 | 126 | 60        | 13 |
| 151 | 205 | LIBYA           | DUNES                           | 25.5N         | 20.5E         | 25.4N        | 19.6E        | 0  | NV | 250 | N | Y | 19910406 | 091442 | 246 | 127 | 61        | 13 |
| 151 | 206 | LIBYA           | CALANCIO SAND SEA               | 25.0N         | 21.5E         | 25.1N        | 21.0E        | 0  | NV | 250 | N | Y | 19910406 | 091503 | 246 | 129 | 62        | 13 |
| 151 | 207 | LIBYA           | AL KUFRAH-PIVOT IRR.            | 25.0N         | 23.0E         | 24.8N        | 22.2E        | 0  | NV | 250 | N | Y | 19910406 | 091522 | 246 | 131 | 63        | 13 |
| 152 | 77  | LIBYA           | COAST-MED. -CRETE               |               |               | 27.2N        | 24.1E        | 50 | HO | 250 | N | N | 19910407 | 051814 | 246 | 89  | 14        | 26 |
| 152 | 162 | LIBYA           | EL ASWAD                        | 29.0N         | 14.0E         | 28.4N        | 13.0E        | 0  | NV | 250 | N | Y | 19910407 | 065448 | 246 | 96  | 25        | 27 |
| 152 | 163 | LIBYA           | JABAL AS SAWDA                  | 28.0N         | 15.5E         | 28.5N        | 14.7E        | 0  | NV | 250 | N | Y | 19910407 | 065514 | 246 | 97  | 27        | 27 |
| 152 | 164 | LIBYA           | NEAR CALANCIO SAND SEA          | 29.5N         | 19.5E         | 28.5N        | 20.8E        | 0  | LO | 250 | N | N | 19910407 | 065642 | 247 | 101 | 33        | 27 |
| 152 | 165 | LIBYA           | CLOUDS-JET STREAM-DESERT        |               |               | 28.4N        | 22.4E        | 80 | LO | 250 | N | N | 19910407 | 065706 | 247 | 102 | 34        | 27 |
| 152 | 242 | LIBYA           | IDCHAN OF UBARI                 | 27.5N         | 11.0E         | 27.4N        | 10.4E        | 0  | NV | 250 | N | Y | 19910407 | 083326 | 247 | 109 | 45        | 28 |
| 152 | 243 | LIBYA           | EL ASWAD                        | 28.5N         | 14.0E         | 27.3N        | 11.4E        | 5  | LO | 250 | N | N | 19910407 | 083341 | 247 | 110 | 46        | 28 |
| 152 | 244 | LIBYA           | ZEGHER ROCKY PLAIN              | 27.0N         | 13.0E         | 27.2N        | 12.2E        | 0  | NV | 250 | N | Y | 19910407 | 083353 | 246 | 110 | 46        | 28 |
| 152 | 245 | LIBYA           | MARZUQ-WADI AN NASHU            | 26.0N         | 14.0E         | 26.9N        | 14.0E        | 0  | NV | 250 | N | Y | 19910407 | 083420 | 246 | 112 | 48        | 28 |
| 152 | 246 | LIBYA           | EL MARZUCHIA SAND DUNES         | 26.5N         | 16.0E         | 26.7N        | 15.2E        | 0  | NV | 250 | N | Y | 19910407 | 083438 | 246 | 112 | 49        | 28 |
| 152 | 247 | LIBYA           | BLACK HARUJ                     | 27.5N         | 17.5E         | 26.4N        | 16.5E        | 0  | NV | 250 | N | Y | 19910407 | 083457 | 246 | 113 | 50        | 28 |
| 152 | 248 | LIBYA           | BLACK HARUJ-DUNES               | 26.0N         | 19.0E         | 26.2N        | 18.0E        | 0  | NV | 250 | N | Y | 19910407 | 083520 | 246 | 115 | 52        | 28 |
| 152 | 249 | LIBYA           | TIBESTI                         | 24.0N         | 18.5E         | 25.9N        | 19.3E        | 0  | LO | 250 | N | N | 19910407 | 083541 | 246 | 116 | 53        | 28 |
| 152 | 250 | LIBYA           | MAABUS IUSEF                    | 25.5N         | 21.0E         | 25.7N        | 20.3E        | 0  | NV | 250 | N | N | 19910407 | 083555 | 246 | 116 | 54        | 28 |
| 152 | 251 | LIBYA           | CALANCIO SAND SEA-JAWF          | 25.0N         | 22.5E         | 25.2N        | 22.1E        | 15 | NV | 250 | N | N | 19910407 | 083624 | 246 | 118 | 56        | 28 |
| 85  | 37  | LINE ISLANDS    | MALDEN IS.                      | 4.0S          | 154.9W        | 3.3S         | 153.0W       | 5  | LO | 250 | N | N | 19910408 | 235054 | 245 | 293 | 63        | 53 |
| 89  | 87  | LINE ISLANDS    | CHRISTMAS I., CLD COVER         | 1.9N          | 157.3W        | 0.6S         | 157.8W       | 60 | LO | 250 | N | N | 19910408 | 234923 | 245 | 292 | 69        | 53 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|----|-----------------|---------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |    |                 |                           | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 89 | 88 | LINE ISLANDS    | MALDEN ISLAND             | 4.0S   | 155.0W | 3.8S  | 152.1W | 15 | L0 | 250 | N | N | 19910408 | 235111 | 245 | 293 | 82  | 53 |    |
| 15 | 25 | MADAGASCAR      | SW COAST                  | 25.0S  | 44.0E  | 24.2S | 40.0E  | 75 | H0 | 35  | N | N | 19910410 | 132701 | 245 | 290 | 22  | 77 |    |
| 15 | 26 | MADAGASCAR      | SW COAST, LINTA RIVER     | 25.0S  | 44.0E  | 24.5S | 40.9E  | 75 | L0 | 35  | N | N | 19910410 | 132716 | 245 | 290 | 21  | 77 |    |
| 15 | 27 | MADAGASCAR      | SW COAST, MEMARANDRA R.   | 25.0S  | 46.0E  | 25.1S | 43.4E  | 70 | L0 | 35  | N | N | 19910410 | 132755 | 245 | 289 | 19  | 77 |    |
| 15 | 28 | MADAGASCAR      | S. MADAGASCAR MOUNTAINS   | 25.0S  | 44.0E  | 25.4S | 44.8E  | 70 | L0 | 35  | N | N | 19910410 | 132816 | 245 | 288 | 17  | 77 |    |
| 15 | 29 | MADAGASCAR      | S. MADAGASCAR MOUNTAINS   | 25.0S  | 44.0E  | 25.6S | 45.4E  | 70 | L0 | 35  | N | N | 19910410 | 132825 | 245 | 288 | 17  | 77 |    |
| 74 | 11 | MADAGASCAR      | CENTRAL MTNS.             | 20.2S  | 45.2E  | 20.0S | 49.7E  | 50 | L0 | 250 | N | N | 19910409 | 122824 | 245 | 291 | 31  | 61 |    |
| 74 | 12 | MADAGASCAR      | ANTANANARIVO AREA         | 19.1S  | 47.5E  | 20.3S | 50.6E  | 60 | NV | 250 | N | N | 19910409 | 122838 | 245 | 291 | 30  | 61 |    |
| 74 | 13 | MADAGASCAR      | SO. OF ANTANANARIVO       | 20.5S  | 50.9E  | 20.5S | 50.9E  | 90 | L0 | 250 | N | N | 19910409 | 122843 | 245 | 291 | 30  | 61 |    |
| 74 | 14 | MADAGASCAR      | CSTL MTNS. NEAR MAHANORO  | 20.6S  | 51.4E  | 20.6S | 51.4E  | 90 | L0 | 250 | N | N | 19910409 | 122851 | 245 | 291 | 29  | 61 |    |
| 74 | 15 | MADAGASCAR      | CSTL MTNS. NEAR MAHANORO  | 20.9S  | 52.2E  | 20.9S | 52.2E  | 90 | L0 | 250 | N | N | 19910409 | 122905 | 245 | 290 | 28  | 61 |    |
| 75 | 35 | MADAGASCAR      | STORM CLOUD, N. END IS.   | 10.6S  | 47.3E  | 10.6S | 47.3E  | 95 | H0 | 250 | N | N | 19910408 | 124406 | 242 | 283 | 30  | 15 |    |
| 75 | 36 | MADAGASCAR      | STORM CLOUD, N. END IS.   | 11.0S  | 48.1E  | 11.0S | 48.1E  | 95 | H0 | 250 | N | N | 19910408 | 124420 | 242 | 283 | 29  | 15 |    |
| 75 | 37 | MADAGASCAR      | STORM CLOUD, N. END IS.   | 11.4S  | 48.7E  | 11.4S | 48.7E  | 95 | H0 | 250 | N | N | 19910408 | 124432 | 242 | 283 | 28  | 15 |    |
| 75 | 38 | MADAGASCAR      | STORM CLOUD, N. END IS.   | 11.5S  | 49.0E  | 11.5S | 49.0E  | 95 | H0 | 250 | N | N | 19910408 | 124437 | 242 | 283 | 28  | 15 |    |
| 75 | 39 | MADAGASCAR      | STORM CLOUD, N. END IS.   | 12.2S  | 49.2E  | 11.8S | 49.5E  | 80 | L0 | 250 | N | N | 19910408 | 124446 | 242 | 283 | 27  | 15 |    |
| 77 | 57 | MADAGASCAR      | NW COAST, VRY CLOUD, DARK | 11.1S  | 48.2E  | 11.1S | 48.2E  | 80 | L0 | 250 | N | N | 19910408 | 124423 | 242 | 283 | 29  | 15 |    |
| 77 | 58 | MADAGASCAR      | NW COAST, VRY CLOUD, DARK | 11.4S  | 48.8E  | 11.4S | 48.8E  | 80 | L0 | 250 | N | N | 19910408 | 124433 | 242 | 283 | 28  | 15 |    |
| 83 | 38 | MADAGASCAR      | SW PANORAMA-TR. WIND CLDS | 20.1S  | 50.0E  | 20.1S | 50.0E  | 80 | H0 | 100 | N | N | 19910409 | 122828 | 245 | 290 | 27  | 61 |    |
| 87 | 52 | MADAGASCAR      | TSIRIBITHINA R/DELTA, CST | 19.8S  | 44.3E  | 18.1S | 44.8E  | 85 | L0 | 250 | U | N | 19910409 | 122700 | 245 | 292 | 33  | 61 |    |
| 87 | 53 | MADAGASCAR      | MAHARIVO R/MOUTH, COAST   | 20.5S  | 44.5E  | 18.1S | 45.0E  | 70 | L0 | 250 | U | N | 19910409 | 122703 | 245 | 292 | 33  | 61 |    |
| 87 | 54 | MADAGASCAR      | RIVERS, COAST             | 21.3S  | 43.9E  | 18.2S | 45.2E  | 50 | L0 | 250 | N | N | 19910409 | 122707 | 245 | 292 | 33  | 61 |    |
| 87 | 55 | MADAGASCAR      | COASTAL PLAIN             | 21.5S  | 44.2E  | 18.3S | 45.4E  | 45 | L0 | 250 | N | Y | 19910409 | 122711 | 245 | 292 | 32  | 61 |    |
| 87 | 56 | MADAGASCAR      | MAHARIVO R, COASTAL PLAIN | 20.8S  | 44.7E  | 18.4S | 45.6E  | 60 | L0 | 250 | N | Y | 19910409 | 122714 | 245 | 292 | 32  | 61 |    |
| 87 | 57 | MADAGASCAR      | COASTAL PLAIN, HILLS      | 20.4S  | 45.2E  | 18.5S | 45.8E  | 60 | L0 | 250 | N | Y | 19910409 | 122717 | 245 | 292 | 32  | 61 |    |
| 87 | 58 | MADAGASCAR      | SAKENY R, TSIRIBITHINA R. | 20.0S  | 45.5E  | 18.5S | 46.0E  | 40 | L0 | 250 | N | Y | 19910409 | 122720 | 245 | 292 | 32  | 61 |    |
| 87 | 59 | MADAGASCAR      | MOUNTAINS                 | 18.8S  | 46.5E  | 18.8S | 46.5E  | 80 | L0 | 250 | N | Y | 19910409 | 122730 | 245 | 291 | 31  | 61 |    |
| 87 | 60 | MADAGASCAR      | MOUNTAINS                 | 18.9S  | 46.7E  | 18.9S | 46.7E  | 85 | L0 | 250 | N | Y | 19910409 | 122733 | 245 | 291 | 31  | 61 |    |
| 87 | 61 | MADAGASCAR      | MOUNTAINS                 | 18.9S  | 46.9E  | 18.9S | 46.9E  | 85 | L0 | 250 | N | Y | 19910409 | 122736 | 245 | 291 | 31  | 61 |    |
| 87 | 62 | MADAGASCAR      | MOUNTAINS, CLOUDS         | 19.1S  | 47.3E  | 19.1S | 47.3E  | 90 | L0 | 250 | N | N | 19910409 | 122742 | 245 | 291 | 30  | 61 |    |
| 87 | 63 | MADAGASCAR      | MOUNTAINS, WEST CST, CLDS | 17.9S  | 49.3E  | 19.4S | 48.0E  | 85 | L0 | 250 | N | Y | 19910409 | 122755 | 245 | 291 | 30  | 61 |    |
| 87 | 64 | MADAGASCAR      | MOUNTAINS, WEST CST, CLDS | 18.4S  | 49.2E  | 19.4S | 48.2E  | 90 | L0 | 250 | N | Y | 19910409 | 122758 | 245 | 291 | 29  | 61 |    |
| 87 | 65 | MADAGASCAR      | WEST COAST, CLOUDS        | 19.0S  | 49.0E  | 19.5S | 48.4E  | 75 | L0 | 250 | N | Y | 19910409 | 122802 | 245 | 291 | 29  | 61 |    |
| 87 | 66 | MADAGASCAR      | WEST COAST, CLOUDS        | 19.5S  | 48.8E  | 19.6S | 48.6E  | 75 | L0 | 250 | N | Y | 19910409 | 122805 | 245 | 291 | 29  | 61 |    |
| 87 | 67 | MADAGASCAR      | WEST COAST, CLOUDS        | 20.1S  | 48.6E  | 19.7S | 48.8E  | 80 | L0 | 250 | N | Y | 19910409 | 122808 | 245 | 291 | 29  | 61 |    |
| 89 | 37 | MADAGASCAR      | EAST COAST                | 14.0S  | 50.1E  | 12.2S | 54.2E  | 80 | L0 | 250 | N | Y | 19910408 | 112820 | 245 | 290 | 40  | 45 |    |
| 89 | 38 | MADAGASCAR      | EAST COAST                | 15.2S  | 50.6E  | 12.5S | 54.8E  | 80 | L0 | 250 | N | Y | 19910408 | 112831 | 245 | 290 | 40  | 45 |    |
| 89 | 48 | MADAGASCAR      | MANAMBOLO R, COAST        | 19.2S  | 44.3E  | 18.9S | 44.9E  | 40 | NV | 250 | U | N | 19910408 | 130606 | 244 | 287 | 24  | 46 |    |
| 89 | 49 | MADAGASCAR      | TSIRIBITHINA R/DELTA      | 19.8S  | 44.5E  | 19.1S | 45.5E  | 60 | NV | 250 | U | N | 19910408 | 130615 | 244 | 287 | 24  | 46 |    |
| 89 | 50 | MADAGASCAR      | TSIRIBITHINA R, SAKENY R. | 19.8S  | 45.4E  | 19.3S | 45.9E  | 50 | NV | 250 | U | N | 19910408 | 130623 | 244 | 287 | 23  | 46 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|----------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 89  | 51  | MADAGASCAR      | SAKENY RIVER               | 20.4S 45.6E       | 19.4S 46.2E      | 40 | LO | 250 | U | N | 19910408 | 130628 | 244 | 287 | 23        | 46 |
| 89  | 52  | MADAGASCAR      | MOUNTAINS                  |                   | 19.7S 47.0E      | 60 | LO | 250 | U | N | 19910408 | 130640 | 244 | 286 | 22        | 46 |
| 89  | 53  | MADAGASCAR      | MOUNTAINS                  |                   | 20.0S 47.6E      | 80 | LO | 250 | U | N | 19910408 | 130651 | 244 | 286 | 21        | 46 |
| 89  | 54  | MADAGASCAR      | MOUNTAINS                  |                   | 20.0S 47.8E      | 80 | LO | 250 | U | N | 19910408 | 130654 | 244 | 286 | 21        | 46 |
| 89  | 55  | MADAGASCAR      | MOUNTAINS                  |                   | 20.1S 48.0E      | 80 | LO | 250 | U | Y | 19910408 | 130657 | 244 | 286 | 21        | 46 |
| 89  | 56  | MADAGASCAR      | MOUNTAINS                  |                   | 20.2S 48.1E      | 70 | LO | 250 | U | Y | 19910408 | 130700 | 244 | 286 | 21        | 46 |
| 89  | 57  | MADAGASCAR      | MOUNTAINS                  |                   | 20.4S 48.7E      | 70 | LO | 250 | U | N | 19910408 | 130709 | 244 | 286 | 20        | 46 |
| 89  | 58  | MADAGASCAR      | MANGORO R. COAST, MTNS     | 20.0S 48.6E       | 21.0S 50.4E      | 30 | LO | 250 | U | N | 19910408 | 130738 | 244 | 285 | 18        | 46 |
| 152 | 41  | MADAGASCAR      | MAHAJAMBA BAY              | 14.5S 47.0E       | 10.9S 47.9E      | 50 | LO | 250 | N | Y | 19910406 | 124416 | 242 | 283 | 29        | 15 |
| 152 | 42  | MADAGASCAR      | MAHAJAMBA, BOMBETOKA BAY   |                   | 11.1S 48.1E      | 75 | LO | 250 | N | N | 19910406 | 124421 | 242 | 283 | 29        | 15 |
| 152 | 43  | MADAGASCAR      | CAP D' AMBRE               | 12.5S 49.0E       | 11.4S 48.8E      | 45 | NV | 250 | N | Y | 19910406 | 124434 | 242 | 283 | 28        | 15 |
| 152 | 44  | MADAGASCAR      | CAP D' AMBRE               | 12.0S 48.5E       | 11.8S 49.2E      | 30 | NV | 250 | N | Y | 19910406 | 124440 | 242 | 283 | 28        | 15 |
| 152 | 45  | MADAGASCAR      | NORTH EASTERN TIP          | 12.5S 48.5E       | 11.8S 49.6E      | 45 | LO | 250 | N | Y | 19910406 | 124448 | 242 | 283 | 27        | 15 |
| 74  | 1   | MALAWI          | LAKE CHILWA AREA           | 15.4S 36.7E       | 15.7S 39.3E      | 60 | LO | 250 | N | N | 19910409 | 122525 | 245 | 294 | 42        | 61 |
| 74  | 2   | MALAWI          | LAKE CHILWA AREA           | 15.0S 35.9E       | 15.8S 39.5E      | 70 | LO | 250 | N | N | 19910409 | 122528 | 245 | 294 | 42        | 61 |
| 74  | 3   | MALAWI          | LAKE CHILWA AREA           | 14.9S 36.0E       | 15.9S 39.9E      | 70 | LO | 250 | N | N | 19910409 | 122535 | 245 | 294 | 42        | 61 |
| 87  | 45  | MALAWI          | LAKE CHILWA                | 15.3S 35.7E       | 14.2S 36.1E      | 70 | LO | 250 | U | Y | 19910409 | 122428 | 245 | 294 | 43        | 61 |
| 87  | 46  | MALAWI          | LAKE CHILWA                | 15.8S 35.7E       | 14.6S 37.0E      | 70 | LO | 250 | U | Y | 19910409 | 122443 | 245 | 294 | 42        | 61 |
| 87  | 47  | MALAWI          | LAKE CHILWA                | 15.5S 35.8E       | 15.4S 38.8E      | 70 | LO | 250 | N | N | 19910409 | 122516 | 245 | 294 | 40        | 61 |
| 89  | 46  | MALAWI          | L. NYASA-NORTH END         | 9.8S 33.8E        | 13.0S 31.9E      | 75 | LO | 250 | U | Y | 19910408 | 130216 | 245 | 290 | 39        | 46 |
| 89  | 47  | MALAWI          | L. NYASA-NO. END           | 10.4S 34.0E       | 13.1S 32.1E      | 75 | LO | 250 | U | Y | 19910408 | 130221 | 245 | 290 | 39        | 46 |
| 90  | 79  | MALAWI          | LAKE NYASA, DARK           | 12.5S 34.3E       | 15.7S 33.6E      | 70 | LO | 250 | U | N | 19910406 | 142036 | 242 | 282 | 19        | 16 |
| 90  | 80  | MALAWI          | SIDE OF MTN RIDGE, DARK    |                   | 16.4S 35.2E      | 40 | LO | 250 | U | N | 19910406 | 142103 | 242 | 282 | 17        | 16 |
| 151 | 148 | MALAYSIA        | BORNEO-KOTA KINABALU       | 6.0N 116.0E       | 4.5N 116.3E      | 40 | LO | 250 | N | Y | 19910406 | 062157 | 243 | 274 | 58        | 11 |
| 152 | 134 | MALAYSIA        | BORNEO-PAPAR-SUNGLINT      | 6.0N 116.0E       | 5.7N 116.2E      | 40 | NV | 250 | N | Y | 19910407 | 054252 | 244 | 273 | 68        | 26 |
| 152 | 135 | MALAYSIA        | BORNEO-PEGATAN R.-SUNGLT   | 5.5N 116.0E       | 5.3N 116.8E      | 45 | NV | 250 | N | Y | 19910407 | 054304 | 244 | 274 | 68        | 26 |
| 152 | 221 | MALAYSIA        | SINGAPORE                  | 1.5N 103.5E       | 0.1S 102.2E      | 50 | LO | 250 | N | Y | 19910407 | 071827 | 243 | 282 | 57        | 27 |
| 152 | 222 | MALAYSIA        | SINGAPORE-S.CHINA SEA CO   | 2.0N 104.0E       | 0.2S 102.5E      | 50 | LO | 250 | N | Y | 19910407 | 071933 | 243 | 282 | 57        | 27 |
| 153 | 184 | MALAYSIA        | MARUDU BAY, CROCKER MTNS   | 6.5N 116.0E       | 8.9N 116.2E      | 30 | LO | 250 | N | N | 19910410 | 034557 | 247 | 97  | 82        | 71 |
| 41  | 11  | MALDIVES        | MALCOLM ATOLL              | 7.0N 73.0E        | 7.9N 72.1E       | 5  | LO | 35  | N | N | 19910411 | 061540 | 248 | 88  | 78        | 88 |
| 41  | 12  | MALDIVES        | IHAVANDIFFULU ATOLL        | 7.0N 73.0E        | 7.0N 73.6E       | 10 | LO | 35  | N | N | 19910411 | 061608 | 248 | 84  | 77        | 88 |
| 41  | 13  | MALDIVES        | MALE, ARI, FELIDU ATOLLS   | 4.0N 73.0E        | 6.7N 74.1E       | 25 | LO | 35  | N | N | 19910411 | 061618 | 248 | 82  | 78        | 88 |
| 41  | 14  | MALDIVES        | MALE, ARI, FELIDU ATOLLS   | 3.0N 74.0E        | 5.4N 76.5E       | 25 | LO | 35  | N | N | 19910411 | 061703 | 248 | 73  | 80        | 88 |
| 90  | 22  | MALDIVES        | MALCOLM ATOLL, KOFENBE I   | 6.2N 72.6E        | 3.7N 69.9E       | 50 | LO | 250 | U | N | 19910406 | 092917 | 243 | 276 | 58        | 13 |
| 90  | 23  | MALDIVES        | ARI ATOLL, HULULE, RASDU A | 3.9N 72.9E        | 3.2N 70.7E       | 50 | LO | 250 | U | N | 19910406 | 092932 | 243 | 276 | 57        | 13 |
| 90  | 24  | MALDIVES        | KOLUMADULU A, HADDUMMATI   | 2.3N 73.2E        | 2.6N 71.8E       | 35 | LO | 250 | U | N | 19910406 | 092952 | 243 | 277 | 56        | 13 |
| 90  | 25  | MALDIVES        | SUVADIVA ATOLL             | 0.6N 73.2E        | 1.0N 74.6E       | 30 | LO | 250 | N | N | 19910406 | 093046 | 243 | 279 | 53        | 13 |
| 90  | 26  | MALDIVES        | SUVADIVA ATOLL             | 0.5N 73.2E        | 0.7N 75.1E       | 30 | LO | 250 | N | N | 19910406 | 093056 | 243 | 279 | 52        | 13 |
| 95  | 7   | MALDIVES        | ATOLLS                     | 4.9N 73.0E        | 4.2N 69.1E       | 20 | NV | 250 | N | N | 19910406 | 092901 | 243 | 275 | 59        | 13 |
| 95  | 8   | MALDIVES        | ATOLLS                     | 4.4N 73.2E        | 4.0N 69.5E       | 10 | NV | 250 | N | N | 19910406 | 092908 | 243 | 275 | 58        | 13 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                      | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|------------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 95  | 9   | MALDIVES        | ATOLLS                       | 3.4N          | 73.2E         | 3.9N         | 69.6E        | 10 | NV | 250 | N | N | 19910406 | 092911 | 243 | 276 | 58        | 13 |
| 95  | 10  | MALDIVES        | ATOLLS                       | 2.7N          | 73.2E         | 3.8N         | 69.7E        | 10 | NV | 250 | N | N | 19910406 | 092915 | 243 | 276 | 58        | 13 |
| 95  | 11  | MALDIVES        | ATOLLS                       | 2.2N          | 73.2E         | 3.8N         | 69.8E        | 10 | NV | 250 | N | N | 19910406 | 092915 | 243 | 276 | 58        | 13 |
| 95  | 12  | MALDIVES        | ATOLLS                       | 2.2N          | 73.2E         | 2.5N         | 72.0E        | 10 | NV | 250 | N | N | 19910406 | 092956 | 243 | 277 | 56        | 13 |
| 97  | 42  | MALDIVES        | INDIAN OCEAN                 |               |               | 5.5N         | 66.8E        | 40 | HO | 250 | N | N | 19910406 | 092818 | 243 | 273 | 61        | 13 |
| 97  | 43  | MALDIVES        | ATOLLS                       | 4.0N          | 73.0E         | 5.3N         | 67.2E        | 50 | LO | 250 | N | N | 19910406 | 092825 | 243 | 273 | 61        | 13 |
| 97  | 44  | MALDIVES        | ATOLLS                       | 3.8N          | 73.2E         | 4.2N         | 69.1E        | 50 | LO | 250 | N | N | 19910406 | 092900 | 243 | 276 | 59        | 13 |
| 97  | 45  | MALDIVES        | ATOLLS                       | 3.3N          | 73.3E         | 4.0N         | 69.5E        | 40 | LO | 250 | N | N | 19910406 | 092908 | 243 | 276 | 58        | 13 |
| 97  | 46  | MALDIVES        | ATOLLS                       | 2.4N          | 73.2E         | 3.7N         | 69.9E        | 50 | LO | 250 | N | N | 19910406 | 092917 | 243 | 276 | 58        | 13 |
| 97  | 47  | MALDIVES        | ATOLLS                       | 0.8N          | 73.2E         | 3.4N         | 70.4E        | 40 | LO | 250 | N | N | 19910406 | 092926 | 243 | 276 | 57        | 13 |
| 97  | 48  | MALDIVES        | ATOLLS                       |               |               | 3.1N         | 70.9E        | 40 | LO | 250 | N | N | 19910406 | 092936 | 243 | 276 | 57        | 13 |
| 97  | 49  | MALDIVES        | ATOLLS                       | 3.6N          | 73.4E         | 2.8N         | 71.5E        | 40 | LO | 250 | N | N | 19910406 | 092947 | 243 | 277 | 56        | 13 |
| 151 | 237 | MALDIVES        | KOLUMADULU, MILANDU ATOLS    | 2.5N          | 72.5E         | 2.7N         | 71.6E        | 15 | NV | 250 | N | N | 19910406 | 092949 | 243 | 277 | 56        | 13 |
| 9   | 30  | MALI            | N CENTRAL AREA               |               |               | 19.9N        | 0.7W         | 0  | LO | 35  | N | N | 19910411 | 091510 | 246 | 100 | 48        | 90 |
| 9   | 31  | MALI            | NIGER RIVER, NE. INL. DELTA  | 18.0N         | 1.0W          | 19.1N        | 1.5E         | 0  | LO | 35  | N | N | 19910411 | 091546 | 246 | 100 | 50        | 90 |
| 45  | 30  | MALI            | L. FAGUTBINE, IRGUI AZAOUD   | 19.0N         | 2.0W          | 20.1N        | 2.9W         | 0  | LO | 35  | N | N | 19910410 | 095251 | 247 | 105 | 54        | 75 |
| 75  | 4   | MALI            | NIGER R., LTD VIEW EARTH     |               |               | 22.9N        | 19.0W        | 0  | HO | 250 | N | N | 19910406 | 122359 | 245 | 139 | 68        | 15 |
| 77  | 14  | MALI            | NIGER RIVER                  |               |               | 17.3N        | 3.9W         | 0  | LO | 250 | N | N | 19910406 | 122810 | 244 | 192 | 78        | 15 |
| 77  | 15  | MALI            | INLAND DELTA AREA            | 4.0N          | 16.5W         | 17.0N        | 3.3W         | 0  | LO | 250 | N | N | 19910406 | 122822 | 244 | 198 | 78        | 15 |
| 77  | 16  | MALI            | NIGER RIVER AREA             | 17.0N         | 1.5W          | 16.8N        | 2.4W         | 0  | LO | 250 | N | N | 19910406 | 122837 | 244 | 201 | 79        | 15 |
| 77  | 17  | MALI            | SE. MALI                     |               |               | 16.0N        | 1.0W         | 0  | LO | 250 | N | N | 19910406 | 122902 | 244 | 210 | 78        | 15 |
| 80  | 1   | MALI            | BAOULE, DEGOU RIVERS         | 10.5N         | 7.5W          | 10.1N        | 7.3W         | 0  | NV | 250 | N | Y | 19910409 | 121049 | 246 | 116 | 84        | 61 |
| 80  | 2   | MALI            | BAOULE, BANIFING RIVERS      | 10.5N         | 7.5W          | 10.0N        | 7.2W         | 5  | NV | 250 | N | Y | 19910409 | 121051 | 246 | 116 | 84        | 61 |
| 80  | 3   | MALI            | BANIFING RIVER               | 10.5N         | 7.0W          | 10.0N        | 7.1W         | 5  | NV | 250 | N | Y | 19910409 | 121053 | 246 | 117 | 84        | 61 |
| 83  | 15  | MALI            | GASRAOUAT DEPR., DUNES       | 18.5N         | 5.0W          | 20.0N        | 4.7W         | 0  | LO | 100 | N | Y | 19910409 | 103107 | 246 | 111 | 60        | 60 |
| 83  | 16  | MALI            | LAC FAGUTBINE, NIGER R.      | 16.6N         | 3.7W          | 19.4N        | 3.1W         | 0  | LO | 100 | N | Y | 19910409 | 103134 | 246 | 111 | 62        | 60 |
| 83  | 17  | MALI            | NIGER R., IRGUI AZAOUD       | 18.5N         | 2.5W          | 19.1N        | 2.5W         | 0  | LO | 100 | N | Y | 19910409 | 103145 | 246 | 112 | 63        | 60 |
| 83  | 18  | MALI            | NIGER RIVER, NIGER           | 15.0N         | 1.0W          | 18.4N        | 0.9W         | 10 | LO | 100 | N | N | 19910409 | 103212 | 246 | 112 | 64        | 60 |
| 83  | 19  | MALI            | NIGER R., GAO, TIELEMSI WADI | 18.0N         | 0.5E          | 18.2N        | 0.3W         | 0  | LO | 100 | N | Y | 19910409 | 103223 | 246 | 112 | 65        | 60 |
| 83  | 20  | MALI            | WADI TELMSI, MT. ILEBJANE    | 18.0N         | 1.0E          | 18.0N        | 0.3E         | 0  | LO | 100 | N | Y | 19910409 | 103232 | 246 | 113 | 66        | 60 |
| 83  | 21  | MALI            | DESERT, DUST                 |               |               | 17.3N        | 1.9E         | 0  | LO | 100 | N | Y | 19910409 | 103300 | 246 | 113 | 67        | 60 |
| 83  | 22  | MALI            | DESERT, DUST                 |               |               | 16.8N        | 2.8E         | 0  | LO | 100 | N | Y | 19910409 | 103317 | 246 | 114 | 68        | 60 |
| 84  | 35  | MALI            | NIGER RIVER, SAND DUNES      | 17.0N         | 2.0W          |              |              | 0  | NV | 250 | N | Y |          |        |     |     |           |    |
| 84  | 36  | MALI            | NIGER RIVER, SAND DUNES      | 17.0N         | 1.0W          |              |              | 0  | NV | 250 | N | Y |          |        |     |     |           |    |
| 84  | 37  | MALI            | NIGER RIVER, SAND DUNES      | 16.5N         | 0.0           |              |              | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 38  | MALI            | ESCARPMENTS N. OF NIGER      | 18.5N         | 0.5E          |              |              | 0  | LO | 250 | N | N |          |        |     |     |           |    |
| 84  | 39  | MALI            | ILEBJANE ESCARPMENT          | 18.5N         | 1.0E          |              |              | 0  | LO | 250 | N | N |          |        |     |     |           |    |
| 84  | 40  | MALI            | SAKAREZOU, TAKADAMOU MTS     | 16.5N         | 3.5E          |              |              | 0  | LO | 250 | N | N |          |        |     |     |           |    |
| 84  | 92  | MALI            | BAFING RIVER RESERVOIR       | 13.0N         | 10.5W         |              |              | 0  | LO | 250 | N | N |          |        |     |     |           |    |
| 84  | 93  | MALI            | BAFING RIVER                 | 13.5N         | 11.0W         |              |              | 0  | LO | 250 | N | Y |          |        |     |     |           |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME   | FEATURE                  | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-------------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 84  | 94  | MALI              | BAFING RIVER             | 12.5N 10.5W          |                     | 0  | LO | 250 | N | Y | 19910409 | 120937 | 246 | 116 | 79        | 61 |
| 88  | 89  | MALI              | BAFING R/RESERVOIR, AGR. | 13.0N 10.5W          | 12.1N 11.2W         | 0  | LO | 250 | N | Y | 19910409 | 121031 | 246 | 116 | 83        | 61 |
| 88  | 98  | MALI              | NIGER R,BALE R/RESERVOIR | 11.5N 8.2W           | 10.6N 8.3W          | 20 | NV | 250 | U | N | 19910409 | 121056 | 246 | 117 | 84        | 61 |
| 88  | 101 | MALI              | NIGER R,BANI R,FALA R.   | 13.4N 6.3W           | 9.9N 6.9W           | 0  | LO | 250 | N | Y | 19910409 | 121059 | 246 | 117 | 84        | 61 |
| 88  | 102 | MALI              | NIGER R,BAOULE R.        | 13.0N 7.3W           | 9.8N 6.8W           | 15 | LO | 250 | N | Y | 19910409 | 121111 | 246 | 117 | 85        | 61 |
| 88  | 103 | MALI              | BANI RIVER, DARK         | 13.0N 5.2W           | 9.5N 6.1W           | 0  | LO | 250 | N | Y | 19910409 | 110945 | 247 | 121 | 67        | 45 |
| 98  | 100 | MALI              | NE OF INLAND DELTA       |                      | 19.7N 18.0N         | 5  | LO | 250 | N | N | 19910408 | 111058 | 247 | 125 | 72        | 45 |
| 98  | 101 | MALI              | NE OF INLAND DELTA       |                      | 18.0N 17.9N         | 0  | LO | 250 | N | N | 19910408 | 111100 | 247 | 125 | 72        | 45 |
| 98  | 102 | MALI              | NE OF INLAND DELTA       |                      | 17.9N 17.9N         | 0  | LO | 250 | N | N | 19910408 | 111102 | 247 | 126 | 72        | 45 |
| 98  | 103 | MALI              | NE OF INLAND DELTA       |                      | 17.9N 17.9N         | 0  | LO | 250 | N | N | 19910408 | 111104 | 247 | 126 | 72        | 45 |
| 98  | 104 | MALI              | NE OF INLAND DELTA       |                      | 17.8N 17.7N         | 0  | LO | 250 | N | N | 19910408 | 111109 | 247 | 126 | 72        | 45 |
| 98  | 105 | MALI              | NE OF INLAND DELTA       |                      | 17.7N 17.3N         | 0  | LO | 250 | N | N | 19910408 | 111126 | 247 | 127 | 73        | 45 |
| 98  | 106 | MALI              | NE OF INLAND DELTA       |                      | 17.3N 17.3N         | 0  | LO | 250 | N | N | 19910408 | 111128 | 247 | 127 | 74        | 45 |
| 98  | 107 | MALI              | NE OF INLAND DELTA       |                      | 17.3N 17.3N         | 0  | LO | 250 | N | N | 19910408 | 111128 | 247 | 127 | 74        | 45 |
| 98  | 108 | MALI              | NE OF INLAND DELTA       |                      | 17.3N 17.3N         | 0  | LO | 250 | N | N | 19910408 | 111128 | 247 | 127 | 74        | 45 |
| 151 | 243 | MALI              | ERG CHECH                | 25.5N 5.0W           | 25.5N 4.7W          | 0  | NV | 250 | N | Y | 19910406 | 104802 | 246 | 126 | 60        | 14 |
| 85  | 38  | MARQUESAS ISLANDS |                          | 9.0S 140.0W          | 9.9S 141.2W         | 40 | LO | 250 | N | N | 19910408 | 235437 | 245 | 293 | 49        | 53 |
| 85  | 39  | MARQUESAS ISLANDS |                          | 10.3S 140.6W         | 10.3S 140.6W        | 40 | LO | 250 | N | N | 19910408 | 235449 | 245 | 293 | 48        | 53 |
| 89  | 89  | MARQUESAS ISLANDS | NUKU HIVA, DARK          | 8.9S 140.1W          | 10.2S 140.8W        | 35 | LO | 250 | U | N | 19910408 | 235445 | 245 | 293 | 48        | 53 |
| 89  | 90  | MARQUESAS ISLANDS | UA POU, DARK             | 9.4S 140.0W          | 10.3S 140.6W        | 35 | LO | 250 | U | N | 19910408 | 235449 | 245 | 293 | 48        | 53 |
| 89  | 91  | MARQUESAS ISLANDS | HIVA OA, TAHUATA, DARK   | 9.9S 139.1W          | 10.8S 139.6W        | 50 | LO | 250 | U | N | 19910408 | 235506 | 245 | 293 | 47        | 53 |
| 89  | 92  | MARQUESAS ISLANDS | FATU IVA, DARK           | 10.5S 138.6W         | 11.3S 138.6W        | 50 | LO | 250 | U | N | 19910408 | 235526 | 245 | 293 | 46        | 53 |
| 9   | 23  | MAURITANIA        | PANORAMIC VIEW           | 20.0N 12.0W          | 25.0N 16.9W         | 5  | HO | 35  | N | N | 19910411 | 091048 | 245 | 96  | 31        | 90 |
| 9   | 29  | MAURITANIA        | N CENTRAL AREA           | 22.0N 10.0W          | 20.8N 3.1W          | 0  | LO | 35  | N | N | 19910411 | 091430 | 246 | 99  | 45        | 90 |
| 45  | 28  | MAURITANIA        | RICHAT STRUCTURE         | 22.0N 10.0W          | 22.6N 10.2W         | 0  | LO | 35  | N | N | 19910410 | 095051 | 246 | 103 | 46        | 75 |
| 75  | 3   | MAURITANIA        | RICHAT,LTD.VIEW OF EARTH | 21.0N 16.8W          | 23.8N 21.9W         | 0  | HO | 250 | N | N | 19910408 | 122312 | 246 | 134 | 66        | 15 |
| 77  | 10  | MAURITANIA        | BAIE DU LEVRIER AREA     | 21.0N 16.8W          | 22.2N 16.8W         | 5  | LO | 250 | N | N | 19910406 | 122434 | 245 | 143 | 70        | 15 |
| 77  | 11  | MAURITANIA        | RICHAT STRUCTURE         | 21.8N 12.3W          | 21.3N 14.0W         | 0  | LO | 250 | N | N | 19910406 | 122520 | 245 | 150 | 73        | 15 |
| 77  | 12  | MAURITANIA        | RICHAT STRUCTURE         | 21.8N 12.3W          | 21.0N 13.2W         | 0  | LO | 250 | N | N | 19910406 | 122534 | 245 | 152 | 73        | 15 |
| 77  | 13  | MAURITANIA        | DESERT                   |                      | 19.0N 7.9W          | 0  | LO | 250 | N | N | 19910406 | 122702 | 245 | 171 | 77        | 15 |
| 83  | 4   | MAURITANIA        | A ZEFAL DUNE FIELD       | 20.5N 15.0W          | 23.2N 14.3W         | 5  | LO | 100 | N | N | 19910409 | 102831 | 246 | 107 | 50        | 60 |
| 83  | 5   | MAURITANIA        | RICHAT STRUCTURE         | 21.1N 11.4W          | 22.6N 12.4W         | 0  | LO | 100 | N | Y | 19910409 | 102901 | 246 | 108 | 52        | 60 |
| 83  | 6   | MAURITANIA        | RICHAT STRUCTURE         | 21.1N 11.4W          | 22.5N 11.9W         | 0  | LO | 100 | N | Y | 19910409 | 102909 | 246 | 108 | 53        | 60 |
| 83  | 7   | MAURITANIA        | DHAR ADRAR,RICHAT STRUCT | 20.0N 12.5W          | 22.0N 10.5W         | 0  | LO | 100 | N | Y | 19910409 | 102932 | 246 | 109 | 54        | 60 |
| 83  | 8   | MAURITANIA        | DHAR ADRAR,RICHAT STRUCT | 20.0N 12.5W          | 21.7N 9.4W          | 0  | LO | 100 | N | Y | 19910409 | 102949 | 246 | 109 | 55        | 60 |
| 83  | 9   | MAURITANIA        | TAMOKHART DUNE FIELD     | 20.0N 11.0W          | 21.5N 8.9W          | 0  | LO | 100 | N | Y | 19910409 | 102958 | 246 | 109 | 56        | 60 |
| 83  | 10  | MAURITANIA        | TAGANT PLAT,AOUKER BASIN | 18.5N 9.5W           | 21.3N 8.3W          | 0  | LO | 100 | N | Y | 19910409 | 103007 | 246 | 109 | 56        | 60 |
| 83  | 11  | MAURITANIA        | AOUKER BASIN RIM, DEPR.  | 19.5N 7.5W           | 21.2N 8.0W          | 0  | LO | 100 | N | Y | 19910409 | 103012 | 246 | 109 | 57        | 60 |
| 83  | 12  | MAURITANIA        | IJAFENE D,KNACHICH HILLS | 20.5N 6.5W           | 21.0N 7.6W          | 0  | LO | 100 | N | Y | 19910409 | 103020 | 246 | 110 | 57        | 60 |
| 83  | 13  | MAURITANIA        | GASRAOUAT DEPRESSION     | 19.0N 6.0W           | 20.9N 7.3W          | 0  | LO | 100 | N | Y | 19910409 | 103025 | 246 | 110 | 57        | 60 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | LONG  | MADIR<br>LAT | LONG  | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|----|-----------------|---------------------------|---------------|-------|--------------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 83  | 14 | MAURITANIA      | AOUER BASIN/NORTH RIM     | 18.0N         | 8.5W  | 20.4N        | 5.8W  | 0  | LO | 100 | N | Y | 19910409 | 103049 | 246 | 110 | 59        | 60 |
| 84  | 19 | MAURITANIA      | MALICHIGDANE DUNES        | 20.0N         | 14.5W |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 20 | MAURITANIA      | NEAR VILLAGE OF ATAR      | 20.0N         | 13.5W |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 21 | MAURITANIA      | NEAR VILLAGE OF ATAR      | 20.5N         | 13.0W |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 22 | MAURITANIA      | AROUBA DUNES NEAR ATAR    | 21.0N         | 13.0W |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 23 | MAURITANIA      | KHZEHA DUNES              | 21.0N         | 13.5W |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 24 | MAURITANIA      | KHZEHA DUNES              | 21.0N         | 14.0W |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 25 | MAURITANIA      | KHZEHA DUNES              | 20.5N         | 14.5W |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 26 | MAURITANIA      | RICHAT STRUCTURE          | 21.0N         | 11.5W |              |       | 0  | NV | 250 | N | Y |          |        |     |     |           |    |
| 84  | 27 | MAURITANIA      | RICHAT STRUCTURE          | 21.0N         | 11.5W |              |       | 0  | NV | 250 | N | Y |          |        |     |     |           |    |
| 84  | 28 | MAURITANIA      | D'ALAFIA DUNES            | 22.0N         | 11.5W |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 29 | MAURITANIA      | CLIFFS, SAND DUNES        | 18.5N         | 10.5W |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 30 | MAURITANIA      | CLIFFS, SAND DUNES        | 18.5N         | 9.5W  |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 31 | MAURITANIA      | CLIFFS, SAND DUNES        | 18.5N         | 8.5W  |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 32 | MAURITANIA      | CLIFFS, SAND DUNES        | 17.5N         | 7.5W  |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 33 | MAURITANIA      | NEMA CLIFF, SAND DUNES    | 17.0N         | 7.0W  |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 84  | 34 | MAURITANIA      | NEMA CLIFFS, SAND DUNES   | 16.0N         | 6.5W  |              |       | 0  | LO | 250 | N | Y |          |        |     |     |           |    |
| 88  | 45 | MAURITANIA      | HASSIANE CUESTA, DESERT   | 22.0N         | 12.2W | 22.6N        | 12.3W | 0  | NV | 250 | N | Y | 19910409 | 102903 | 246 | 108 | 52        | 60 |
| 88  | 46 | MAURITANIA      | HASSIANE CUESTA, DESERT   | 22.1N         | 12.0W | 22.5N        | 12.0W | 0  | NV | 250 | N | Y | 19910408 | 102908 | 246 | 108 | 52        | 60 |
| 88  | 47 | MAURITANIA      | ADRAR DHAR, DESERT        | 21.3N         | 11.9W | 22.4N        | 11.5W | 0  | NV | 250 | N | Y | 19910409 | 102916 | 246 | 108 | 53        | 60 |
| 88  | 48 | MAURITANIA      | RICHAT STRUCTURE, DESERT  | 21.2N         | 11.5W | 22.2N        | 11.1W | 0  | NV | 250 | N | Y | 19910409 | 102922 | 246 | 108 | 53        | 60 |
| 88  | 49 | MAURITANIA      | RICHAT STRUCTURE, DESERT  | 21.1N         | 11.3W | 22.0N        | 10.5W | 0  | NV | 250 | N | Y | 19910409 | 102932 | 246 | 108 | 54        | 60 |
| 88  | 50 | MAURITANIA      | ADRAR DHAR, DESERT        | 21.0N         | 10.5W | 21.9N        | 10.2W | 0  | NV | 250 | N | Y | 19910409 | 102936 | 246 | 109 | 54        | 60 |
| 90  | 36 | MAURITANIA      | AZEFAL DUNES, RCK OUTCRPS | 22.0N         | 13.0W | 21.3N        | 14.1W | 0  | LO | 250 | N | N | 19910408 | 122519 | 245 | 150 | 73        | 15 |
| 90  | 37 | MAURITANIA      | RICHAT STRUCTURE          | 21.2N         | 11.5W | 20.9N        | 13.1W | 0  | LO | 250 | N | N | 19910408 | 122535 | 245 | 152 | 73        | 15 |
| 90  | 38 | MAURITANIA      | SEBKHA DE CHEMCHANE       | 21.0N         | 12.2W | 20.7N        | 12.4W | 0  | NV | 250 | N | N | 19910408 | 122547 | 245 | 154 | 74        | 15 |
| 90  | 39 | MAURITANIA      | RICHAT STRUCTURE          | 21.1N         | 11.3W | 20.4N        | 11.6W | 0  | LO | 250 | N | N | 19910408 | 122600 | 245 | 157 | 74        | 15 |
| 92  | 90 | MAURITANIA      | RICHAT STRUCTURE          | 21.0N         | 11.4W | 21.3N        | 12.1W | 0  | LO | 250 | N | N | 19910407 | 114651 | 246 | 130 | 68        | 30 |
| 96  | 38 | MAURITANIA      | RICHAT ST., ANTI ATLAS    | 25.0N         | 11.5W |              |       | 10 | HO | 100 | N | N |          |        |     |     |           |    |
| 97  | 66 | MAURITANIA      | VIEW TO SE, NIGER RIVER   |               |       | 25.2N        | 3.6W  | 0  | HO | 250 | N | N | 19910408 | 104818 | 246 | 127 | 61        | 14 |
| 97  | 67 | MAURITANIA      | VIEW TO SE, NIGER RIVER   |               |       | 25.1N        | 3.1W  | 0  | HO | 250 | N | N | 19910408 | 104828 | 246 | 128 | 62        | 14 |
| 98  | 68 | MAURITANIA      | ADRAR MTNS.               | 21.9N         | 13.6W | 21.9N        | 14.0W | 20 | LO | 250 | N | N | 19910407 | 114621 | 246 | 128 | 67        | 30 |
| 98  | 69 | MAURITANIA      | RICHAT STRUCTURE          | 21.0N         | 11.2W | 21.5N        | 12.7W | 5  | LO | 250 | N | N | 19910407 | 114641 | 246 | 130 | 68        | 30 |
| 98  | 70 | MAURITANIA      | RICHAT STRUCTURE          | 21.0N         | 11.8W | 21.0N        | 11.4W | 5  | LO | 250 | N | N | 19910407 | 114703 | 246 | 131 | 69        | 30 |
| 98  | 71 | MAURITANIA      | ERG CHECH                 | 22.8N         | 8.5W  | 20.3N        | 9.4W  | 0  | LO | 250 | N | N | 19910407 | 114736 | 245 | 135 | 71        | 30 |
| 98  | 72 | MAURITANIA      | ERG CHECH                 | 22.5N         | 8.0W  | 20.2N        | 9.2W  | 0  | LO | 250 | N | N | 19910407 | 114740 | 245 | 136 | 71        | 30 |
| 99  | 28 | MAURITANIA      | RICHAT STRUCTURE          | 21.0N         | 11.5W | 20.7N        | 10.6W | 0  | LO | 40  | N | N | 19910407 | 114717 | 245 | 133 | 70        | 30 |
| 152 | 13 | MAURITANIA      | RICHAT STRUCTURE-E. CHECH | 20.5N         | 10.5W | 19.9N        | 10.3W | 0  | NV | 250 | N | N | 19910408 | 122622 | 245 | 161 | 75        | 15 |
| 74  | 20 | MAURITIUS       | VRY CLDY OVER ISLAND      | 20.5S         | 57.6E | 23.5S        | 60.2E | 60 | LO | 250 | N | N | 19910409 | 123115 | 245 | 287 | 20        | 61 |
| 86  | 67 | MAURITIUS       |                           | 20.0S         | 57.5E | 14.3S        | 58.5E | 70 | LO | 250 | N | N | 19910408 | 112937 | 244 | 289 | 35        | 45 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME   | FEATURE                  | CENTER<br>LAT | CENTER<br>LON | MADR<br>LAT | MADR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-------------------|--------------------------|---------------|---------------|-------------|-------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 86  | 68  | MAURITIUS         | CARADOS CARAJOS SHOALS   | 16.7S         | 59.7E         | 15.0S       | 59.9E       | 40 | LO | 250 | N | N | 19910408 | 113003 | 244 | 289 | 34        | 45 |
| 86  | 69  | MAURITIUS         | RODRIGUES                | 19.7S         | 63.3E         | 16.8S       | 63.8E       | 40 | LO | 250 | N | N | 19910408 | 113112 | 244 | 288 | 29        | 45 |
| 87  | 69  | MAURITIUS         | CLOUD COVERED, DARK      | 20.4S         | 57.5E         | 22.2S       | 55.8E       | 50 | LO | 250 | U | N | 19910409 | 123004 | 245 | 288 | 21        | 61 |
| 152 | 256 | MEDITERRANEAN SEA | NILE DELTA-CYPRUS        |               | 23.1N         | 30.0E       |             | 20 | HO | 250 | N | Y | 19910407 | 083827 | 246 | 125 | 63        | 28 |
| 16  | 3   | MEXICO            | N. BAJA PEN., COL. RIVER | 31.0N         | 116.0W        | 25.5N       | 115.9W      | 15 | LO | 35  | N | N | 19910410 | 160203 | 245 | 98  | 34        | 79 |
| 16  | 5   | MEXICO            | CENTRAL BAJA CALIFORNIA  | 26.0N         | 112.0W        | 24.5N       | 112.0W      | 5  | LO | 35  | N | N | 19910410 | 160305 | 246 | 99  | 38        | 79 |
| 16  | 6   | MEXICO            | SIERRA MADRE OCCIDENTAL  | 28.0N         | 109.0W        | 24.2N       | 111.0W      | 0  | LO | 35  | N | N | 19910410 | 160320 | 246 | 100 | 39        | 79 |
| 16  | 7   | MEXICO            | SIERRA MADRE OCCIDENTAL  | 28.0N         | 108.0W        | 24.1N       | 110.7W      | 5  | HO | 35  | N | N | 19910410 | 160325 | 246 | 100 | 39        | 79 |
| 16  | 8   | MEXICO            | GULF OF CALIFORNIA       | 28.0N         | 112.0W        | 23.5N       | 108.4W      | 10 | HO | 35  | N | N | 19910410 | 160402 | 246 | 101 | 42        | 79 |
| 16  | 9   | MEXICO            | LAKE CHAPEL, FIRES       | 20.0N         | 103.0W        | 23.2N       | 107.5W      | 10 | LO | 35  | N | N | 19910410 | 160416 | 246 | 101 | 43        | 79 |
| 16  | 10  | MEXICO            | SIERRA MADRE OCCIDENTAL  | 26.0N         | 109.0W        | 22.8N       | 106.3W      | 10 | HO | 35  | N | N | 19910410 | 160436 | 246 | 101 | 44        | 79 |
| 16  | 11  | MEXICO            | CENTRAL MEXICAN PLATEAU  | 29.0N         | 106.0W        | 22.5N       | 105.2W      | 5  | HO | 35  | N | N | 19910410 | 160453 | 246 | 102 | 45        | 79 |
| 16  | 12  | MEXICO            | BAJA PEN., G. OF CALIF.  | 27.0N         | 112.0W        | 22.2N       | 104.3W      | 20 | HO | 35  | N | N | 19910410 | 160508 | 246 | 102 | 46        | 79 |
| 16  | 13  | MEXICO            | SIERRA MADRE OCCIDENTAL  | 23.0N         | 105.0W        | 21.5N       | 102.4W      | 20 | HO | 35  | N | N | 19910410 | 160539 | 246 | 102 | 48        | 79 |
| 16  | 14  | MEXICO            | SIERRA MADRE ORIENTAL    | 24.0N         | 100.0W        | 21.3N       | 101.8W      | 60 | LO | 35  | N | N | 19910410 | 160548 | 246 | 102 | 49        | 79 |
| 16  | 15  | MEXICO            | EAST MEXICAN COAST       | 25.0N         | 98.0W         | 20.6N       | 99.7W       | 60 | HO | 35  | N | N | 19910410 | 160623 | 246 | 103 | 51        | 79 |
| 16  | 16  | MEXICO            | WESTERN MEXICO           | 25.0N         | 106.0W        | 20.4N       | 99.1W       | 20 | HO | 35  | N | N | 19910410 | 160633 | 246 | 103 | 51        | 79 |
| 16  | 17  | MEXICO            | LAKE CHAPEL, VOLCANOES   | 21.0N         | 102.0W        | 20.0N       | 98.2W       | 0  | LO | 35  | N | N | 19910410 | 160849 | 247 | 103 | 52        | 79 |
| 16  | 18  | MEXICO            | MEXICO CITY, SMOG        | 20.0N         | 99.0W         | 19.2N       | 96.3W       | 5  | LO | 35  | N | N | 19910410 | 160721 | 247 | 104 | 54        | 79 |
| 16  | 19  | MEXICO            | COLIMA VOL., L. CHAPEL   | 19.0N         | 101.0W        | 19.1N       | 95.9W       | 10 | LO | 35  | N | N | 19910410 | 160727 | 247 | 104 | 55        | 79 |
| 16  | 20  | MEXICO            | SIERRA MADRE DEL SUR     | 17.0N         | 97.0W         | 17.0N       | 90.9W       | 20 | HO | 35  | N | N | 19910410 | 160854 | 247 | 104 | 60        | 79 |
| 16  | 21  | MEXICO            | YUCATAN PENINSULA        | 20.0N         | 89.0W         | 16.8N       | 90.5W       | 35 | LO | 35  | N | N | 19910410 | 160901 | 247 | 104 | 61        | 79 |
| 16  | 22  | MEXICO            | E. COAST YUCATAN PENIN.  | 19.0N         | 88.0W         | 16.5N       | 89.7W       | 55 | LO | 35  | N | N | 19910410 | 160914 | 247 | 104 | 62        | 79 |
| 16  | 23  | MEXICO            | YUCATAN PENINSULA        | 20.0N         | 88.0W         | 15.8N       | 88.3W       | 40 | LO | 35  | N | N | 19910410 | 160940 | 247 | 104 | 63        | 79 |
| 16  | 24  | MEXICO            | S. MEXICO, EL CHICHON V. | 16.0N         | 92.0W         | 15.6N       | 87.9W       | 35 | HO | 35  | N | N | 19910410 | 160847 | 247 | 104 | 64        | 79 |
| 16  | 26  | MEXICO            | YUCATAN PENINSULA        | 19.0N         | 89.0W         | 14.5N       | 85.5W       | 45 | HO | 35  | N | N | 19910410 | 161029 | 247 | 103 | 66        | 79 |
| 71  | 3   | MEXICO            | GUADALUPE ISLAND         | 29.0N         | 118.5W        | 28.0N       | 116.7W      | 0  | LO | 250 | N | N | 19910405 | 155717 | 246 | 100 | 30        | 2  |
| 71  | 4   | MEXICO            | GUADALUPE I.-DARK FRAME  | 29.0N         | 118.5W        | 28.0N       | 116.3W      | 0  | LO | 250 | N | N | 19910405 | 155723 | 246 | 100 | 31        | 2  |
| 71  | 5   | MEXICO            | LAGUNA SALADA-SALTON SEA | 32.5N         | 115.5W        | 28.2N       | 114.5W      | 0  | LO | 250 | N | N | 19910405 | 155750 | 246 | 101 | 32        | 2  |
| 71  | 19  | MEXICO            | BAJA-MAGDALENA BAY       | 24.5N         | 112.0W        | 27.5N       | 113.7W      | 10 | LO | 250 | N | N | 19910405 | 173717 | 246 | 121 | 54        | 3  |
| 71  | 20  | MEXICO            | BAJA-SOUTHERN TIP        | 23.5N         | 110.0W        | 27.4N       | 112.8W      | 10 | LO | 250 | N | Y | 19910405 | 173730 | 246 | 122 | 55        | 3  |
| 71  | 21  | MEXICO            | BAJA-LA PAZ BAY          | 24.5N         | 110.5W        | 27.4N       | 112.3W      | 10 | LO | 250 | N | Y | 19910405 | 173737 | 246 | 122 | 55        | 3  |
| 71  | 22  | MEXICO            | BAJA-CARMEN I., SUNGLINT | 26.0N         | 111.0W        | 27.3N       | 112.1W      | 0  | LO | 250 | N | N | 19910405 | 173741 | 246 | 123 | 55        | 3  |
| 71  | 23  | MEXICO            | BAJA-CHIVATO POINT       | 27.0N         | 112.0W        | 27.3N       | 111.7W      | 0  | NV | 250 | N | N | 19910405 | 173746 | 246 | 123 | 56        | 3  |
| 71  | 24  | MEXICO            | BAJA-LAGUNA SAN IGNACIO  | 27.0N         | 113.0W        | 27.2N       | 111.5W      | 5  | LO | 250 | N | N | 19910405 | 173749 | 246 | 123 | 56        | 3  |
| 71  | 25  | MEXICO            | BAJA-SEBASTIAN VIZCAINO  | 28.0N         | 114.5W        | 27.2N       | 111.2W      | 0  | LO | 250 | F | N | 19910405 | 173754 | 246 | 124 | 56        | 3  |
| 71  | 26  | MEXICO            | RIO SINALOA-CANALS       | 26.0N         | 108.0W        | 27.1N       | 110.3W      | 5  | LO | 250 | N | N | 19910405 | 173807 | 246 | 124 | 57        | 3  |
| 71  | 27  | MEXICO            | MNT FIRES-SONALOMA RIVER | 25.0N         | 106.5W        | 26.9N       | 109.2W      | 5  | LO | 250 | N | Y | 19910405 | 173824 | 246 | 126 | 58        | 3  |
| 71  | 28  | MEXICO            | MNT FIRES-LORENZO RIVER  | 25.0N         | 106.5W        | 26.7N       | 108.2W      | 5  | LO | 250 | U | Y | 19910405 | 173839 | 246 | 127 | 59        | 3  |
| 71  | 29  | MEXICO            | COAST-TACHICHTLE I.      | 25.0N         | 108.0W        | 26.6N       | 107.9W      | 20 | LO | 250 | N | Y | 19910405 | 173844 | 246 | 127 | 59        | 3  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | LONG   | MADIR<br>LAT | LONG   | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|----------------------------|---------------|--------|--------------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 71 | 30 | MEXICO          | GUAMUCHIL, RESERVOIR       | 25.5N         | 108.0W | 26.5N        | 106.8W | 5  | LO | 250 | N | Y | 19910405 | 173900 | 246 | 129 | 60        | 3  |
| 71 | 31 | MEXICO          | OHVIRA BAY-FUZZY FOCUS     | 25.5N         | 109.0W | 26.4N        | 106.5W | 5  | LO | 250 | N | Y | 19910405 | 173904 | 246 | 129 | 60        | 3  |
| 71 | 32 | MEXICO          | LORENZO R.-RESERVOIR       | 24.5N         | 107.0W | 26.2N        | 105.5W | 5  | LO | 250 | N | Y | 19910405 | 173920 | 246 | 130 | 61        | 3  |
| 71 | 33 | MEXICO          | BADIRAGUATO R.-RESERVOIR   | 25.0N         | 107.0W | 26.2N        | 105.3W | 5  | LO | 250 | N | Y | 19910405 | 173923 | 246 | 131 | 61        | 3  |
| 71 | 34 | MEXICO          | SIERRA MADRE ORIENTAL      | 25.0N         | 100.5W | 25.9N        | 103.8W | 60 | LO | 250 | N | Y | 19910405 | 173946 | 246 | 133 | 62        | 3  |
| 71 | 35 | MEXICO          | BAY OF CAMPECHE            | 19.5N         | 95.5W  | 23.4N        | 94.2W  | 50 | LO | 250 | N | Y | 19910405 | 174216 | 245 | 151 | 70        | 3  |
| 71 | 36 | MEXICO          | BAY OF CAMPECHE            | 18.5N         | 94.5W  | 23.3N        | 93.9W  | 20 | LO | 250 | N | Y | 19910405 | 174220 | 245 | 151 | 70        | 3  |
| 71 | 37 | MEXICO          | B. OF CAMPECHE, FRONTERA   | 19.0N         | 92.5W  | 23.3N        | 93.7W  | 15 | LO | 250 | N | Y | 19910405 | 174224 | 245 | 152 | 70        | 3  |
| 71 | 38 | MEXICO          | B. CAMPECHE-L. DE TERMINOS | 19.0N         | 91.5W  | 23.2N        | 93.5W  | 20 | LO | 250 | N | Y | 19910405 | 174226 | 245 | 152 | 71        | 3  |
| 71 | 39 | MEXICO          | YUCATAN P. B. OF CAMPECHE  | 20.0N         | 91.0W  | 23.2N        | 93.4W  | 40 | LO | 250 | N | Y | 19910405 | 174229 | 245 | 153 | 71        | 3  |
| 71 | 40 | MEXICO          | YUCATAN PENINSULA          | 21.0N         | 90.5W  | 23.1N        | 93.1W  | 60 | LO | 250 | N | Y | 19910405 | 174233 | 245 | 154 | 71        | 3  |
| 71 | 41 | MEXICO          | YUCATAN PENINSULA          | 21.5N         | 90.0W  | 23.0N        | 92.9W  | 60 | LO | 250 | N | Y | 19910405 | 174237 | 245 | 154 | 71        | 3  |
| 71 | 42 | MEXICO          | CHINCHORRO BANK            | 19.0N         | 87.5W  | 22.7N        | 91.8W  | 60 | LO | 250 | F | N | 19910405 | 174254 | 245 | 157 | 72        | 3  |
| 71 | 43 | MEXICO          | YUCATAN PEN.-NW TIP        | 21.5N         | 87.0W  | 22.4N        | 90.9W  | 25 | LO | 250 | N | Y | 19910405 | 174308 | 245 | 160 | 72        | 3  |
| 71 | 44 | MEXICO          | YUCATAN PEN.-NW TIP        | 21.5N         | 87.0W  | 22.1N        | 89.9W  | 25 | LO | 250 | N | Y | 19910405 | 174325 | 245 | 163 | 73        | 3  |
| 71 | 45 | MEXICO          | YUCATAN PEN.-COZUMEL       | 20.5N         | 87.0W  | 21.8N        | 89.0W  | 60 | LO | 250 | N | Y | 19910405 | 174339 | 245 | 166 | 73        | 3  |
| 71 | 46 | MEXICO          | YUCATAN PEN.-NW TIP        | 21.0N         | 87.5W  | 21.7N        | 88.7W  | 60 | NV | 250 | N | Y | 19910405 | 174344 | 245 | 167 | 74        | 3  |
| 71 | 47 | MEXICO          | YUCATAN PEN.-NORTH TIP     | 21.5N         | 88.0W  | 21.6N        | 88.5W  | 45 | NV | 250 | N | Y | 19910405 | 174347 | 245 | 168 | 74        | 3  |
| 71 | 48 | MEXICO          | YUCATAN PEN.-NORTH TIP     | 21.5N         | 88.5W  | 21.5N        | 88.2W  | 50 | NV | 250 | N | Y | 19910405 | 174352 | 245 | 169 | 74        | 3  |
| 71 | 49 | MEXICO          | CAMPECHE-YUCATAN PEN.      | 20.0N         | 90.5W  | 21.3N        | 87.5W  | 45 | LO | 250 | N | Y | 19910405 | 174404 | 245 | 171 | 74        | 3  |
| 71 | 50 | MEXICO          | YUCATAN PEN.-WESTERN PART  | 20.5N         | 90.5W  | 21.2N        | 87.4W  | 60 | LO | 250 | N | Y | 19910405 | 174406 | 245 | 172 | 74        | 3  |
| 71 | 51 | MEXICO          | MERIDA-YUCATAN PENINSULA   | 21.0N         | 89.5W  | 21.2N        | 87.3W  | 65 | LO | 250 | N | Y | 19910405 | 174408 | 245 | 172 | 74        | 3  |
| 71 | 52 | MEXICO          | YUCATAN PEN.-NE TIP        | 21.5N         | 88.0W  | 21.0N        | 86.9W  | 45 | LO | 250 | N | Y | 19910405 | 174414 | 245 | 174 | 75        | 3  |
| 71 | 53 | MEXICO          | COZUMEL-FUZZY FOCUS        | 20.5N         | 87.0W  | 20.9N        | 86.6W  | 20 | NV | 250 | F | N | 19910405 | 174419 | 245 | 175 | 75        | 3  |
| 71 | 60 | MEXICO          | ESPIRITO SANTO BAY         | 19.0N         | 88.0W  | 19.6N        | 83.1W  | 60 | LO | 250 | N | Y | 19910405 | 174517 | 244 | 190 | 76        | 3  |
| 71 | 61 | MEXICO          | YUCATAN PEN.-ASCENSION B   | 20.0N         | 87.5W  | 19.6N        | 83.0W  | 55 | LO | 250 | N | Y | 19910405 | 174519 | 244 | 191 | 76        | 3  |
| 71 | 77 | MEXICO          | BAJA-SOUTHERN TIP          | 23.0N         | 109.5W | 23.5N        | 118.3W | 5  | LO | 250 | N | Y | 19910405 | 191538 | 245 | 149 | 70        | 4  |
| 71 | 78 | MEXICO          | BAJA-LA PAZ BAY            | 24.0N         | 110.5W | 23.4N        | 118.0W | 5  | LO | 250 | N | Y | 19910405 | 191543 | 245 | 150 | 70        | 4  |
| 71 | 79 | MEXICO          | BAJA-MAGDALENA BAY         | 24.5N         | 111.5W | 23.4N        | 117.8W | 5  | LO | 250 | N | Y | 19910405 | 191546 | 245 | 150 | 70        | 4  |
| 71 | 81 | MEXICO          | BAJA-SAN CRISTOBAL BAY     | 27.0N         | 115.0W | 22.8N        | 115.9W | 0  | LO | 250 | N | Y | 19910405 | 191617 | 245 | 155 | 71        | 4  |
| 71 | 82 | MEXICO          | BAJA-LAGUNA SAN IGNACIO    | 26.5N         | 113.5W | 22.7N        | 115.6W | 5  | LO | 250 | N | Y | 19910405 | 191622 | 245 | 156 | 72        | 4  |
| 71 | 83 | MEXICO          | BAJA-MAGDALENA BAY         | 24.5N         | 112.0W | 22.5N        | 115.1W | 0  | LO | 250 | N | Y | 19910405 | 191630 | 245 | 157 | 72        | 4  |
| 71 | 86 | MEXICO          | BANDERAS BAY               | 20.5N         | 105.5W | 18.1N        | 103.3W | 55 | LO | 250 | N | Y | 19910405 | 191947 | 244 | 207 | 76        | 4  |
| 72 | 2  | MEXICO          | SIERRA MADRE OCC.-FIRES    | 22.0N         | 105.0W | 26.5N        | 107.3W | 15 | LO | 100 | N | Y | 19910405 | 173853 | 246 | 128 | 59        | 3  |
| 72 | 3  | MEXICO          | SIERRA MADRE ORIENTAL      | 25.5N         | 100.5W | 25.3N        | 101.4W | 40 | LO | 100 | N | Y | 19910405 | 174023 | 245 | 136 | 64        | 3  |
| 72 | 4  | MEXICO          | SIERRA MADRE ORIENTAL      | 24.5N         | 101.5W | 25.2N        | 100.7W | 10 | NV | 100 | N | Y | 19910405 | 174034 | 245 | 137 | 65        | 3  |
| 72 | 5  | MEXICO          | COAST-GULF OF MEXICO       | 23.0N         | 98.0W  | 25.0N        | 99.9W  | 65 | LO | 100 | N | Y | 19910405 | 174046 | 245 | 138 | 65        | 3  |
| 72 | 6  | MEXICO          | YUCATAN PEN.-COZUMEL       | 21.0N         | 87.0W  | 21.6N        | 88.5W  | 45 | LO | 100 | N | Y | 19910405 | 174348 | 245 | 167 | 74        | 3  |
| 72 | 7  | MEXICO          | YUCATAN PEN.-COZUMEL       | 21.5N         | 87.0W  | 21.4N        | 87.9W  | 45 | LO | 100 | N | Y | 19910405 | 174358 | 245 | 169 | 74        | 3  |
| 72 | 8  | MEXICO          | YUCATAN P.-COZUMEL-BRIGHT  | 21.5N         | 87.0W  | 21.2N        | 87.3W  | 45 | NV | 100 | N | Y | 19910405 | 174407 | 245 | 171 | 74        | 3  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER |        | NADIR |        | CC | TL | FL  | E | S | DATE     | GMT   | AL  | AZ  | SUN | EL | OR |
|----|----|-----------------|----------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|-------|-----|-----|-----|----|----|
|    |    |                 |                            | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |       |     |     |     |    |    |
| 72 | 9  | MEXICO          | TURNER ISLANDS             | 17.0N  | 87.5W  | 20.1N | 84.4W  | 50 | LO | 100 | N | N | 19910405 | 17455 | 245 | 183 | 75  | 3  |    |
| 72 | 33 | MEXICO          | BAJA-SANTA ROSALIA BAY     | 28.5N  | 114.0W | 24.1N | 120.3W | 10 | HO | 100 | N | N | 19910405 | 19150 | 245 | 144 | 68  | 4  |    |
| 72 | 34 | MEXICO          | SIERRA MADRE OCCID.-BAJA   |        |        | 23.3N | 117.6W | 20 | HO | 100 | N | N | 19910405 | 19154 | 245 | 150 | 70  | 4  |    |
| 72 | 35 | MEXICO          | COAST-SIERRA MADRE OCCID   | 21.5N  | 104.5W | 20.6N | 109.7W | 45 | HO | 100 | N | Y | 19910405 | 19175 | 245 | 175 | 75  | 4  |    |
| 72 | 36 | MEXICO          | MEXICAN PLATEAU            |        |        | 20.2N | 108.5W | 25 | HO | 100 | N | N | 19910405 | 19181 | 245 | 180 | 75  | 4  |    |
| 72 | 37 | MEXICO          | COAST-SIERRAMADRE DELSUR   | 17.0N  | 99.0W  | 18.9N | 105.3W | 20 | LO | 100 | N | N | 19910405 | 19191 | 244 | 195 | 76  | 4  |    |
| 75 | 40 | MEXICO          | LAKE CHAPALA, SMOKE PLUMS  |        |        | 26.1N | 103.3W | 60 | HO | 250 | N | N | 19910406 | 13422 | 246 | 89  | 13  | 16 |    |
| 75 | 41 | MEXICO          | LAKE CHAPALA, SMOKE PLUMS  |        |        | 26.3N | 102.5W | 80 | HO | 250 | N | N | 19910406 | 13423 | 246 | 89  | 14  | 16 |    |
| 75 | 72 | MEXICO          | BAJA CALIFORNIA            |        |        | 28.3N | 109.8W | 40 | HO | 250 | N | N | 19910406 | 15200 | 246 | 98  | 29  | 17 |    |
| 75 | 73 | MEXICO          | WEST OF CHIHUAHUA          |        |        | 28.4N | 108.4W | 0  | LO | 250 | N | N | 19910406 | 15205 | 246 | 99  | 30  | 17 |    |
| 75 | 74 | MEXICO          | WEST OF CHIHUAHUA          |        |        | 28.4N | 107.7W | 10 | HO | 250 | N | N | 19910406 | 15203 | 246 | 100 | 30  | 17 |    |
| 75 | 75 | MEXICO          | WEST OF CHIHUAHUA          |        |        | 28.5N | 107.0W | 0  | LO | 250 | N | N | 19910406 | 15204 | 246 | 100 | 31  | 17 |    |
| 75 | 76 | MEXICO          | NW MEXICO                  |        |        | 28.5N | 106.5W | 20 | HO | 250 | N | N | 19910406 | 15205 | 246 | 100 | 32  | 17 |    |
| 75 | 77 | MEXICO          | ORB. TAIL, BAJA CALIFORNIA |        |        | 28.5N | 105.7W | 30 | HO | 250 | N | N | 19910406 | 15210 | 246 | 101 | 32  | 17 |    |
| 75 | 78 | MEXICO          | ORB. TAIL, BAJA CALIFORNIA |        |        | 28.5N | 104.2W | 20 | HO | 250 | N | N | 19910406 | 15212 | 246 | 102 | 34  | 17 |    |
| 75 | 88 | MEXICO          | IS. WAKES, BAJA CALIF.     |        |        | 28.4N | 122.4W | 80 | LO | 250 | N | N | 19910406 | 16561 | 246 | 105 | 38  | 18 |    |
| 75 | 90 | MEXICO          | BAJA CA., VIZCAINO DESERT  | 28.0N  | 113.0W | 28.1N | 116.9W | 20 | LO | 250 | N | N | 19910406 | 16573 | 246 | 109 | 43  | 18 |    |
| 75 | 91 | MEXICO          | YUCATAN, NE TIP            | 20.0N  | 86.0W  | 21.0N | 84.8W  | 70 | LO | 250 | N | N | 19910406 | 17055 | 245 | 147 | 73  | 18 |    |
| 76 | 77 | MEXICO          | SMOKE VALLEYS S. MEXICO    |        |        | 17.6N | 94.4W  | 50 | LO | 250 | N | N | 19910409 | 16462 | 245 | 110 | 64  | 64 |    |
| 76 | 78 | MEXICO          | PRESA DE LA ANGOSTURA      | 16.2N  | 92.0W  | 17.4N | 94.0W  | 30 | LO | 250 | N | N | 19910409 | 16463 | 245 | 111 | 65  | 64 |    |
| 78 | 6  | MEXICO          | COLORADO RIVER DELTA       | 32.5N  | 115.0W | 28.1N | 111.9W | 0  | LO | 250 | N | N | 19910409 | 15020 | 244 | 94  | 23  | 63 |    |
| 78 | 7  | MEXICO          | GRAND DESERT, PIMACATES    | 31.5N  | 113.5W | 28.1N | 111.6W | 0  | LO | 250 | N | N | 19910409 | 15020 | 244 | 94  | 24  | 63 |    |
| 78 | 25 | MEXICO          | SIERRA MADRE ORIENTAL      | 25.5N  | 100.5W | 26.3N | 98.5W  | 15 | NV | 250 | N | N | 19910409 | 15052 | 245 | 100 | 36  | 63 |    |
| 78 | 53 | MEXICO          | MAGDALENA BAY IN SUNGLIN   | 25.0N  | 111.5W | 24.8N | 115.4W | 0  | LO | 250 | N | Y | 19910409 | 16403 | 246 | 103 | 43  | 64 |    |
| 78 | 54 | MEXICO          | LA PAZ BAY IN SUNGLIN      | 24.0N  | 110.5W | 24.7N | 114.9W | 0  | LO | 250 | N | Y | 19910409 | 16404 | 246 | 103 | 43  | 64 |    |
| 78 | 55 | MEXICO          | LA PAZ BAY IN SUNGLIN      | 23.5N  | 110.0W | 24.5N | 114.4W | 0  | LO | 250 | N | Y | 19910409 | 16405 | 246 | 103 | 44  | 64 |    |
| 78 | 56 | MEXICO          | SIERRA DE LA GIGANTA       | 23.5N  | 110.0W | 24.4N | 114.0W | 0  | LO | 250 | N | Y | 19910409 | 16410 | 246 | 104 | 44  | 64 |    |
| 78 | 57 | MEXICO          | SIERRA DE LA GIGANTA       | 23.0N  | 109.5W | 24.3N | 113.5W | 0  | LO | 250 | N | Y | 19910409 | 16410 | 246 | 104 | 44  | 64 |    |
| 78 | 58 | MEXICO          | MIGUEL HIDALGO RES.        | 27.0N  | 109.0W | 23.3N | 110.0W | 0  | LO | 250 | N | N | 19910409 | 16420 | 246 | 105 | 48  | 64 |    |
| 78 | 59 | MEXICO          | MIGUEL HIDALGO RES.        | 26.5N  | 108.0W | 23.2N | 109.6W | 0  | LO | 250 | N | N | 19910409 | 16420 | 246 | 105 | 48  | 64 |    |
| 78 | 60 | MEXICO          | SIERRA MADRE OCCIDENTAL    | 22.5N  | 104.5W | 22.8N | 108.4W | 65 | LO | 250 | N | N | 19910409 | 16429 | 246 | 106 | 50  | 64 |    |
| 78 | 61 | MEXICO          | SIERRA MADRE OCCIDENTAL    | 23.0N  | 104.0W | 22.7N | 108.1W | 45 | LO | 250 | N | N | 19910409 | 16423 | 246 | 106 | 50  | 64 |    |
| 78 | 62 | MEXICO          | SMOKE PALL                 |        |        | 21.9N | 105.7W | 35 | HO | 250 | N | N | 19910409 | 16431 | 246 | 107 | 52  | 64 |    |
| 78 | 63 | MEXICO          | SMOKE PALL                 |        |        | 21.9N | 105.4W | 35 | HO | 250 | N | N | 19910409 | 16431 | 246 | 107 | 53  | 64 |    |
| 78 | 64 | MEXICO          | MALINCHE VOL., PUEBLA      | 19.5N  | 98.5W  | 20.1N | 100.4W | 5  | NV | 250 | N | Y | 19910409 | 16440 | 246 | 109 | 58  | 64 |    |
| 78 | 65 | MEXICO          | APIZACO                    | 19.5N  | 98.0W  | 19.9N | 100.1W | 15 | LO | 250 | N | Y | 19910409 | 16446 | 246 | 109 | 58  | 64 |    |
| 78 | 66 | MEXICO          | INFIERNILLO RES., SMOKE    | 18.5N  | 102.5W | 19.7N | 99.5W  | 40 | HO | 250 | N | N | 19910409 | 16456 | 246 | 109 | 59  | 64 |    |
| 79 | 1  | MEXICO          | GUADALUPE ISLAND           | 29.0N  | 118.5W | 27.4N | 119.9W | 60 | NV | 250 | N | Y | 19910406 | 15173 | 246 | 92  | 19  | 17 |    |
| 79 | 2  | MEXICO          | GUADALUPE ISLAND           | 29.0N  | 118.5W | 27.4N | 119.4W | 60 | NV | 250 | N | Y | 19910406 | 15174 | 246 | 93  | 19  | 17 |    |
| 79 | 17 | MEXICO          | COAST NEAR MAZATLAN        | 23.5N  | 106.5W | 27.4N | 110.5W | 5  | LO | 250 | N | Y | 19910406 | 16591 | 246 | 114 | 49  | 18 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER |        | NADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|-----|-----------------|----------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |     |                 |                            | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 79 | 18  | MEXICO          | OCCIDENTAL MTS., SMOKE     | 23.0N  | 104.5W | 27.2N | 109.4W | 5  | LO | 250 | N | Y | 19910406 | 165927 | 246 | 115 | 50  | 18 |    |
| 79 | 19  | MEXICO          | CHAPALA LK., GUADALAJARA   | 20.5N  | 103.5W | 26.3N | 104.3W | 5  | LO | 250 | N | N | 19910406 | 170043 | 246 | 119 | 55  | 18 |    |
| 79 | 20  | MEXICO          | S. MEXICAN PLATEAU         | 21.0N  | 101.0W | 25.6N | 100.7W | 10 | LO | 250 | N | N | 19910406 | 170138 | 246 | 122 | 58  | 18 |    |
| 79 | 67  | MEXICO          | SHIP WAKES OFF MEXICO      | 15.0N  | 96.0W  | 15.9N | 96.2W  | 25 | NV | 250 | N | N | 19910406 | 184251 | 245 | 201 | 79  | 19 |    |
| 81 | 1   | MEXICO          | PETACALCO BAY              | 18.0N  | 102.0W | 16.9N | 100.4W | 10 | NV | 250 | N | Y | 19910405 | 192036 | 244 | 220 | 76  | 4  |    |
| 81 | 2   | MEXICO          | TEQUILA BAY, SMOKE         | 17.0N  | 101.0W | 16.5N | 99.6W  | 10 | NV | 250 | N | Y | 19910405 | 192051 | 244 | 224 | 75  | 4  |    |
| 81 | 3   | MEXICO          | ACAPULCO, RES PALO LAG.    | 16.5N  | 99.5W  | 16.4N | 99.4W  | 0  | NV | 250 | N | N | 19910405 | 192054 | 244 | 224 | 75  | 4  |    |
| 81 | 4   | MEXICO          | NOLENGA LAGOON             | 16.0N  | 98.0W  | 16.3N | 98.2W  | 5  | NV | 250 | N | N | 19910405 | 192058 | 244 | 225 | 75  | 4  |    |
| 81 | 5   | MEXICO          | COAST WEST OF PORT ANGEL   | 16.0N  | 97.0W  | 16.2N | 98.9W  | 30 | NV | 250 | N | Y | 19910405 | 192102 | 244 | 226 | 75  | 4  |    |
| 81 | 6   | MEXICO          | SUPERIOR, INFERIOR LAG.    | 16.0N  | 95.0W  | 15.3N | 96.9W  | 15 | NV | 250 | N | N | 19910405 | 192139 | 244 | 235 | 74  | 4  |    |
| 81 | 7   | MEXICO          | SAN DIEGO BAY              | 16.0N  | 96.0W  | 15.2N | 96.6W  | 30 | NV | 250 | N | Y | 19910405 | 192143 | 244 | 236 | 74  | 4  |    |
| 81 | 8   | MEXICO          | PORT ANGEL                 | 16.0N  | 95.0W  | 15.0N | 96.3W  | 20 | NV | 250 | N | N | 19910405 | 192149 | 244 | 237 | 74  | 4  |    |
| 81 | 9   | MEXICO          | COATZACOALCOS              | 18.0N  | 94.5W  | 14.0N | 94.3W  | 65 | LO | 250 | N | N | 19910405 | 192225 | 244 | 244 | 72  | 4  |    |
| 81 | 10  | MEXICO          | ANGOSTURA RESERVOIR        | 16.0N  | 92.5W  | 13.9N | 94.0W  | 50 | LO | 250 | N | N | 19910405 | 192230 | 244 | 245 | 72  | 4  |    |
| 81 | 13  | MEXICO          | ANGOSTURA RESERVOIR        | 16.0N  | 92.0W  | 12.7N | 91.6W  | 65 | LO | 250 | N | N | 19910405 | 192313 | 244 | 251 | 70  | 4  |    |
| 83 | 39  | MEXICO          | DELICIAS, RIO CONCHOS      | 27.7N  | 104.7W | 28.2N | 105.7W | 0  | NV | 100 | N | N | 19910409 | 132428 | 244 | 85  | 7   | 62 |    |
| 83 | 40  | MEXICO          | DELICIAS, RIO CONCHOS, DK  | 27.6N  | 104.8W | 28.3N | 105.0W | 0  | NV | 100 | U | Y | 19910409 | 132437 | 244 | 85  | 8   | 62 |    |
| 83 | 41  | MEXICO          | SRA SALSIPUEDES/DE PINO    | 28.4N  | 101.8W | 28.3N | 104.4W | 20 | LO | 100 | N | Y | 19910409 | 132447 | 244 | 86  | 9   | 62 |    |
| 83 | 42  | MEXICO          | SRA SALSIPUEDES/ENCANTAD   | 28.5N  | 101.6W | 28.4N | 102.9W | 25 | LO | 100 | N | Y | 19910409 | 132508 | 244 | 87  | 10  | 62 |    |
| 83 | 62  | MEXICO          | WEST PANORAMA, BAJA, GULF  | 29.0N  | 105.5W | 26.2N | 97.6W  | 5  | HO | 100 | N | Y | 19910409 | 150538 | 245 | 101 | 37  | 63 |    |
| 83 | 63  | MEXICO          | WEST PANORAMA, BAJA, GULF  | 28.0N  | 104.0W | 26.0N | 96.8W  | 5  | HO | 100 | N | Y | 19910409 | 150550 | 245 | 101 | 38  | 63 |    |
| 83 | 65  | MEXICO          | NO. PLATEAU, SRA MADRE MTN | 26.1N  | 101.2W | 25.8N | 95.9W  | 30 | LO | 100 | N | N | 19910409 | 150604 | 245 | 101 | 39  | 63 |    |
| 83 | 90  | MEXICO          | CLDS/FOG/SRA MADRE, CST    | 25.5N  | 100.5W | 19.2N | 98.2W  | 85 | HO | 100 | N | N | 19910409 | 164517 | 246 | 109 | 61  | 64 |    |
| 83 | 91  | MEXICO          | YUCATAN PEN, LAG. TERMINOS | 18.5N  | 89.5W  | 18.9N | 97.6W  | 50 | HO | 100 | N | N | 19910409 | 164528 | 246 | 110 | 61  | 64 |    |
| 83 | 92  | MEXICO          | NW PAN, CLDS/FOG/SRA MADR  | 28.0N  | 103.0W | 18.0N | 96.6W  | 90 | HO | 100 | N | N | 19910409 | 164544 | 245 | 110 | 62  | 64 |    |
| 85 | 1   | MEXICO          | S.MEX., OAXACA AREA        | 17.0N  | 97.4W  | 17.7N | 96.7W  | 0  | LO | 250 | N | N | 19910408 | 172501 | 247 | 122 | 71  | 49 |    |
| 85 | 2   | MEXICO          | S.MEX., OAXACA AREA        | 16.3N  | 96.7W  | 17.6N | 96.4W  | 0  | LO | 250 | N | N | 19910408 | 172506 | 247 | 122 | 71  | 49 |    |
| 85 | 3   | MEXICO          | COAST, SSE OAXACA AREA     | 16.2N  | 96.3W  | 17.4N | 95.8W  | 10 | LO | 250 | N | N | 19910408 | 172515 | 247 | 122 | 72  | 49 |    |
| 85 | 4   | MEXICO          | COAST, W. OF PUERTO ESCONO | 16.2N  | 97.5W  | 17.1N | 95.3W  | 10 | LO | 250 | N | N | 19910408 | 172525 | 247 | 123 | 72  | 49 |    |
| 85 | 5   | MEXICO          | MAR MUERTO                 | 16.0N  | 94.0W  | 16.9N | 94.8W  | 10 | LO | 250 | N | N | 19910408 | 172534 | 247 | 123 | 73  | 49 |    |
| 85 | 6   | MEXICO          | HEADWATER, RIO ENCAJONADO  | 16.7N  | 94.2W  | 16.5N | 93.7W  | 0  | LO | 250 | N | N | 19910408 | 172552 | 247 | 125 | 74  | 49 |    |
| 85 | 7   | MEXICO          | PRESA DE LA ANGOSTURA      | 16.0N  | 92.5W  | 16.2N | 93.2W  | 10 | LO | 250 | N | N | 19910408 | 172602 | 247 | 125 | 75  | 49 |    |
| 85 | 8   | MEXICO          | S.MEX., INLAND             |        |        | 15.6N | 91.9W  | 40 | LO | 250 | N | N | 19910408 | 172624 | 246 | 127 | 76  | 49 |    |
| 86 | 96  | MEXICO          | MONTERREY AREA             | 25.8N  | 100.4W | 28.5N | 98.5W  | 10 | LO | 250 | N | N | 19910408 | 140514 | 247 | 94  | 22  | 47 |    |
| 86 | 97  | MEXICO          | AREA E. OF MONTERREY       | 25.8N  | 99.7W  | 28.5N | 97.2W  | 70 | LO | 250 | N | N | 19910408 | 140533 | 247 | 95  | 24  | 47 |    |
| 86 | 98  | MEXICO          | AREA E. OF MONTERREY       |        |        | 28.5N | 95.7W  | 95 | LO | 250 | N | N | 19910408 | 140555 | 247 | 95  | 25  | 47 |    |
| 86 | 99  | MEXICO          | AREA N. OF MONTERREY       |        |        | 28.4N | 95.3W  | 70 | LO | 250 | N | N | 19910408 | 140601 | 247 | 96  | 25  | 47 |    |
| 86 | 108 | MEXICO          | SO. TIP BAJA               | 23.5N  | 110.0W | 22.7N | 109.9W | 0  | LO | 250 | N | N | 19910408 | 172120 | 247 | 113 | 57  | 49 |    |
| 86 | 109 | MEXICO          | SO. BAJA                   | 23.8N  | 110.2W | 22.6N | 109.6W | 0  | LO | 250 | N | N | 19910408 | 172125 | 247 | 113 | 57  | 49 |    |
| 90 | 101 | MEXICO          | GUADALAJARA, LAG. CHAPALA  | 21.0N  | 103.0W | 26.4N | 104.5W | 0  | LO | 250 | U | N | 19910406 | 170040 | 246 | 119 | 55  | 18 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                     | CENTER |        | MADIR |        | CC | IL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|-----|-----------------|-----------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                 |                             | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 90  | 102 | MEXICO          | TORREON, RDS, RR, AGR.      | 25.5N  | 103.5W | 26.1N | 103.0W | 25 | LO | 250 | N | N | 19910406 | 170103 | 246 | 120 | 56  | 18 |    |
| 90  | 103 | MEXICO          | SIERRA MADRE, AGR.          | 26.5N  | 102.5W | 25.9N | 102.0W | 40 | LO | 250 | N | N | 19910406 | 170119 | 246 | 121 | 57  | 18 |    |
| 90  | 104 | MEXICO          | GUADALAJARA, LAG. CHAPALA   | 21.0N  | 103.0W | 25.7N | 101.0W | 0  | LO | 250 | U | N | 19910406 | 170134 | 246 | 122 | 58  | 18 |    |
| 90  | 105 | MEXICO          | YUCATAN COAST               | 21.5N  | 88.0W  | 22.3N | 88.6W  | 30 | LO | 250 | N | N | 19910406 | 170449 | 246 | 139 | 69  | 18 |    |
| 90  | 106 | MEXICO          | YUCATAN CST, COZUMEL I.     | 20.5N  | 87.0W  | 21.4N | 85.9W  | 60 | LO | 250 | N | N | 19910406 | 170533 | 245 | 144 | 72  | 18 |    |
| 91  | 2   | MEXICO          | BAJA, SO. END, SRA GIGANTA  | 23.3N  | 109.9W | 20.8N | 110.1W | 10 | LO | 250 | U | N | 19910405 | 191752 | 245 | 175 | 75  | 4  |    |
| 91  | 3   | MEXICO          | COAST                       | 18.2N  | 103.2W | 19.1N | 105.5W | 20 | LO | 250 | M | Y | 19910405 | 191908 | 244 | 195 | 76  | 4  |    |
| 91  | 4   | MEXICO          | COAST                       | 18.5N  | 103.5W | 19.0N | 105.4W | 60 | LO | 250 | N | Y | 19910405 | 191910 | 244 | 196 | 76  | 4  |    |
| 91  | 5   | MEXICO          | COAST                       | 19.0N  | 104.0W | 18.9N | 105.3W | 80 | LO | 250 | N | Y | 19910405 | 191913 | 244 | 197 | 76  | 4  |    |
| 91  | 6   | MEXICO          | COAST, MANZANILLO BAY       | 19.0N  | 104.5W | 18.9N | 105.1W | 80 | LO | 250 | N | Y | 19910405 | 191915 | 244 | 197 | 76  | 4  |    |
| 91  | 7   | MEXICO          | COAST, SRA MADRE OCCID.     | 19.5N  | 104.5W | 18.8N | 104.9W | 90 | LO | 250 | N | Y | 19910405 | 191919 | 244 | 198 | 76  | 4  |    |
| 91  | 8   | MEXICO          | PUNTA MITA, COAST           | 12.5N  | 105.5W | 18.6N | 104.5W | 20 | LO | 250 | N | Y | 19910405 | 191926 | 244 | 200 | 76  | 4  |    |
| 91  | 9   | MEXICO          | SANTIAGO/ACAPONETA BASIN    | 22.0N  | 105.5W | 18.6N | 104.3W | 5  | LO | 250 | N | Y | 19910405 | 191929 | 244 | 201 | 76  | 4  |    |
| 91  | 10  | MEXICO          | COAST, SHEAR LINE           | 17.0N  | 101.0W | 16.6N | 99.7W  | 10 | LO | 250 | N | N | 19910405 | 192049 | 244 | 224 | 75  | 4  |    |
| 91  | 11  | MEXICO          | LAG. TRES PALO, AFLD, SHEAR | 16.5N  | 99.5W  | 16.5N | 99.5W  | 5  | LO | 250 | N | N | 19910405 | 192052 | 244 | 224 | 75  | 4  |    |
| 91  | 12  | MEXICO          | LAG. CHICAHUA, COAST        | 15.6N  | 97.7W  | 16.4N | 99.3W  | 0  | LO | 250 | U | N | 19910405 | 192056 | 244 | 225 | 75  | 4  |    |
| 91  | 13  | MEXICO          | RIO COLOTEPEC, AFLD, CST.   | 15.5N  | 97.0W  | 16.3N | 99.1W  | 0  | LO | 250 | U | N | 19910405 | 192100 | 244 | 226 | 75  | 4  |    |
| 91  | 14  | MEXICO          | LAG. SUPERIOR/INFERIOR      | 16.0N  | 94.5W  | 15.3N | 97.0W  | 5  | LO | 250 | N | N | 19910405 | 192137 | 244 | 235 | 74  | 4  |    |
| 91  | 15  | MEXICO          | SRA MADRE DEL SUR, CST.     | 15.5N  | 95.5W  | 15.2N | 96.7W  | 25 | LO | 250 | N | N | 19910405 | 192141 | 244 | 236 | 74  | 4  |    |
| 91  | 16  | MEXICO          | RIO COLOTEPEC, COAST        | 15.5N  | 96.5W  | 15.1N | 96.4W  | 10 | LO | 250 | N | N | 19910405 | 192147 | 244 | 237 | 74  | 4  |    |
| 91  | 17  | MEXICO          | MALPASO RESERVOIR           | 17.0N  | 93.5W  | 14.1N | 94.4W  | 85 | LO | 250 | N | N | 19910405 | 192223 | 244 | 244 | 72  | 4  |    |
| 91  | 18  | MEXICO          | ANGOSTURA RESERVOIR         | 16.0N  | 92.5W  | 13.9N | 94.1W  | 70 | LO | 250 | N | N | 19910405 | 192228 | 244 | 245 | 72  | 4  |    |
| 92  | 3   | MEXICO          | S. COAST, BAHIA DULCE AREA  | 16.7N  | 99.0W  | 17.1N | 99.0W  | 40 | LO | 250 | N | N | 19910406 | 184202 | 245 | 184 | 79  | 19 |    |
| 92  | 107 | MEXICO          | SMOKE PLUMES, DARK FRAME    |        |        | 15.4N | 93.3W  | 70 | LO | 250 | N | N | 19910407 | 180438 | 245 | 162 | 81  | 34 |    |
| 94  | 14  | MEXICO          | CAPE CORRIENTES             | 20.0N  | 105.5W |       |        | 0  | LO | 100 | N | N |          |        |     |     |     |    |    |
| 94  | 15  | MEXICO          | COAST, ANGOSTUTURA RES.     | 14.5N  | 92.5W  |       |        | 35 | LO | 100 | N | Y |          |        |     |     |     |    |    |
| 96  | 50  | MEXICO          | SIERRA MADRE DEL SUR        | 21.0N  | 101.0W |       |        | 40 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 98  | 82  | MEXICO          | CIUDAD OBREGON              | 27.8N  | 109.9W | 27.4N | 108.6W | 0  | LO | 250 | N | N | 19910407 | 162041 | 246 | 107 | 43  | 33 |    |
| 98  | 85  | MEXICO          | NW. OF CHIHUAHUA            |        |        | 26.9N | 105.6W | 0  | LO | 250 | N | N | 19910407 | 162125 | 246 | 109 | 46  | 33 |    |
| 98  | 86  | MEXICO          | CHIHUAHUA                   | 28.5N  | 105.6W | 26.9N | 105.3W | 0  | LO | 250 | N | N | 19910407 | 162130 | 246 | 110 | 46  | 33 |    |
| 98  | 87  | MEXICO          | MONTERREY                   | 25.3N  | 104.4W | 25.8N | 99.6W  | 5  | LO | 250 | N | N | 19910407 | 162256 | 246 | 113 | 52  | 33 |    |
| 99  | 80  | MEXICO          | GRO DEPLOY - SO. CA/MEX     |        |        | 28.2N | 110.1W | 30 | HO | 40  | N | N | 19910407 | 144104 | 246 | 93  | 20  | 32 |    |
| 99  | 81  | MEXICO          | GRO DEPLOY - SO. CA/MEX     |        |        | 28.3N | 109.2W | 20 | HO | 40  | N | N | 19910407 | 144117 | 246 | 93  | 21  | 32 |    |
| 99  | 82  | MEXICO          | GRO DEPLOY - SO. CA/MEX     |        |        | 28.3N | 108.0W | 10 | HO | 40  | N | N | 19910407 | 144135 | 246 | 94  | 22  | 32 |    |
| 99  | 83  | MEXICO          | GRO DEPLOY - MEX            |        |        | 28.5N | 103.6W | 10 | HO | 40  | N | N | 19910407 | 144239 | 246 | 96  | 26  | 32 |    |
| 99  | 84  | MEXICO          | GRO DEPLOY - MEX            |        |        | 28.5N | 101.9W | 10 | HO | 40  | N | N | 19910407 | 144303 | 246 | 97  | 27  | 32 |    |
| 151 | 2   | MEXICO          | SOCORRO, SAN BENEDICTO I.   | 19.0N  | 111.0W | 20.0N | 108.0W | 10 | LO | 250 | N | Y | 19910405 | 191827 | 245 | 183 | 76  | 4  |    |
| 151 | 3   | MEXICO          | PUNTA MITA, BANDERAS BAY    | 20.5N  | 105.5W | 19.2N | 105.8W | 45 | LO | 250 | N | Y | 19910405 | 191903 | 245 | 193 | 76  | 4  |    |
| 151 | 4   | MEXICO          | SAN BLAS, COASTLINE         | 21.5N  | 105.0W | 18.9N | 105.3W | 15 | LO | 250 | N | Y | 19910405 | 191913 | 244 | 196 | 76  | 4  |    |
| 151 | 5   | MEXICO          | SIERRA MADRE OCCIDENTAL     | 21.0N  | 103.5W | 18.8N | 104.9W | 20 | LO | 250 | N | Y | 19910405 | 191919 | 244 | 198 | 76  | 4  |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|----|-----------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 151 | 6  | MEXICO          | INFIERNILLO RESERVOIR    | 18.5N 102.5W         | 18.4N 103.8W        | 20 | L0 | 250 | N | N | 19910405 | 191937 | 244 | 203 | 76        | 4  |
| 151 | 7  | MEXICO          | SIERRA MADRE DEL SUR     | 17.0N 99.0W          | 17.8N 102.5W        | 10 | L0 | 250 | N | Y | 19910405 | 192000 | 244 | 210 | 76        | 4  |
| 151 | 8  | MEXICO          | DULCE BAY                | 16.5N 99.0W          | 17.5N 101.8W        | 15 | L0 | 250 | N | Y | 19910405 | 192013 | 244 | 213 | 76        | 4  |
| 151 | 9  | MEXICO          | POPOCATEPETL VOLCANO     | 18.5N 98.5W          | 16.6N 99.7W         | 15 | L0 | 250 | N | Y | 19910405 | 192048 | 244 | 223 | 75        | 4  |
| 151 | 10 | MEXICO          | SIERRA DEL SUR-FIRES     | 17.0N 100.0W         | 16.4N 99.3W         | 10 | NV | 250 | N | Y | 19910405 | 192056 | 244 | 225 | 75        | 4  |
| 151 | 11 | MEXICO          | GULF OF TEHUANTEPEC      | 16.0N 95.0W          | 15.0N 96.3W         | 25 | L0 | 250 | N | N | 19910405 | 192149 | 244 | 237 | 74        | 4  |
| 151 | 12 | MEXICO          | SIERRA DE SOCONUSCO      | 15.5N 92.0W          | 13.5N 93.3W         | 40 | L0 | 250 | N | N | 19910405 | 192243 | 244 | 247 | 71        | 4  |
| 152 | 62 | MEXICO          | RIO FUERTE, LA MOCHIS    | 26.0N 109.0W         | 27.0N 108.0W        | 5  | L0 | 250 | N | N | 19910406 | 165948 | 246 | 116 | 51        | 18 |
| 152 | 63 | MEXICO          | SIERRA MADRE OCCIDENTAL  | 26.0N 106.5W         | 26.6N 105.8W        | 30 | L0 | 250 | N | N | 19910406 | 170021 | 246 | 118 | 53        | 18 |
| 152 | 64 | MEXICO          | TORREON                  | 25.0N 103.5W         | 26.4N 104.4W        | 35 | L0 | 250 | N | Y | 19910406 | 170042 | 246 | 119 | 55        | 18 |
| 152 | 65 | MEXICO          | NEAR TORREON             | 24.5N 103.5W         | 26.1N 102.8W        | 25 | L0 | 250 | N | Y | 19910406 | 170106 | 246 | 121 | 56        | 18 |
| 152 | 66 | MEXICO          | CLOUDS                   |                      | 25.4N 100.0W        | 95 | L0 | 250 | N | N | 19910406 | 170149 | 246 | 123 | 59        | 18 |
| 153 | 1  | MEXICO          | BANDERAS BAY, INT. WAVES | 20.5N 105.5W         | 21.4N 106.0W        | 10 | L0 | 250 | N | N | 19910408 | 172224 | 247 | 115 | 61        | 49 |
| 153 | 3  | MEXICO          | CITY OF OAXACA           | 18.5N 97.5W          | 18.0N 97.2W         | 5  | NV | 250 | N | N | 19910408 | 172452 | 247 | 121 | 70        | 49 |
| 153 | 24 | MEXICO          | SIERRA MADRE ORIENTAL    | 25.5N 99.5W          | 26.1N 97.1W         | 65 | NV | 250 | N | N | 19910409 | 150546 | 245 | 101 | 38        | 63 |
| 153 | 25 | MEXICO          | SIERRA MADRE ORIENTAL    | 26.5N 100.0W         |                     | 70 | L0 | 250 | N | Y |          |        |     |     |           |    |
| 153 | 26 | MEXICO          | SIERRA MADRE ORIENTAL    | 28.0N 103.0W         | 26.0N 96.6W         | 35 | L0 | 250 | N | Y | 19910409 | 150553 | 245 | 101 | 38        | 63 |
| 153 | 28 | MEXICO          | MEXICAN PLATEAU          | 28.0N 103.0W         | 25.9N 96.1W         | 45 | L0 | 250 | N | Y | 19910409 | 150601 | 245 | 101 | 39        | 63 |
| 153 | 29 | MEXICO          | NEAR BROWNSVILLE         | 26.0N 97.0W          |                     | 55 | L0 | 250 | N | N |          |        |     |     |           |    |
| 12  | 35 | MOROCCO         | ANTI ATLAS MTNS.         | 29.0N 9.0W           | 27.2N 5.6W          | 35 | H0 | 35  | N | N | 19910410 | 081223 | 245 | 95  | 28        | 74 |
| 42  | 1  | MOROCCO         | W. LOOKING VIEW ATLAS M. | 30.0N 8.0W           | 28.4N 15.8W         | 15 | H0 | 35  | N | N | 19910411 | 073138 | 243 | 86  | 10        | 89 |
| 42  | 2  | MOROCCO         | ANTI-ATLAS MTNS.         | 30.0N 7.0W           | 28.2N 12.8W         | 15 | L0 | 35  | N | N | 19910411 | 073221 | 244 | 87  | 13        | 89 |
| 42  | 3  | MOROCCO         | ANTI-ATLAS MTNS.         | 31.0N 6.0W           | 28.2N 12.3W         | 10 | L0 | 35  | N | N | 19910411 | 073229 | 244 | 88  | 13        | 89 |
| 42  | 4  | MOROCCO         | HIGH ATLAS MTNS.         | 31.0N 7.0W           | 28.0N 9.7W          | 5  | L0 | 35  | N | N | 19910411 | 073307 | 244 | 89  | 15        | 89 |
| 42  | 5  | MOROCCO         | HIGH ATLAS MTNS.         | 32.0N 6.0W           | 27.9N 8.8W          | 15 | L0 | 35  | N | N | 19910411 | 073320 | 244 | 89  | 16        | 89 |
| 42  | 6  | MOROCCO         | HIGH ATLAS MTNS.         | 31.0N 8.0W           | 27.8N 8.4W          | 0  | L0 | 35  | N | N | 19910411 | 073326 | 244 | 89  | 17        | 89 |
| 42  | 7  | MOROCCO         | ANTI-ATLAS MTNS.         | 31.0N 7.0W           | 27.8N 7.9W          | 5  | L0 | 35  | N | N | 19910411 | 073334 | 244 | 90  | 17        | 89 |
| 42  | 8  | MOROCCO         | TELL ATLAS MTNS.         | 35.0N 5.0W           | 27.7N 7.3W          | 35 | H0 | 35  | N | N | 19910411 | 073342 | 244 | 90  | 18        | 89 |
| 90  | 28 | MOROCCO         | SEBKHA TAN, COAST        | 27.8N 12.7W          | 26.7N 10.7W         | 5  | L0 | 250 | N | N | 19910406 | 104630 | 246 | 120 | 55        | 14 |
| 93  | 48 | MOROCCO         | ANTI-ATLAS, OUARKZIZ MTN | 28.5N 10.0W          | 28.5N 8.4W          | 10 | NV | 250 | N | N | 19910406 | 090746 | 247 | 103 | 36        | 13 |
| 93  | 49 | MOROCCO         | ANTI-ATLAS, OUARKZIZ MTN | 29.0N 9.0W           | 28.5N 7.9W          | 0  | NV | 250 | N | Y | 19910406 | 090754 | 247 | 104 | 36        | 13 |
| 93  | 50 | MOROCCO         | ANTI-ATLAS, OUARKZIZ MTS | 29.5N 8.5W           | 28.5N 7.7W          | 0  | NV | 250 | N | Y | 19910406 | 090756 | 247 | 104 | 36        | 13 |
| 93  | 51 | MOROCCO         | ANTI-ATLAS MTNS.         | 30.0N 9.0W           | 28.5N 6.7W          | 10 | L0 | 250 | N | N | 19910406 | 090811 | 247 | 104 | 37        | 13 |
| 93  | 52 | MOROCCO         | ANTI-ATLAS MTNS.         | 30.0N 8.5W           | 28.5N 6.5W          | 10 | L0 | 250 | N | Y | 19910406 | 090814 | 247 | 105 | 37        | 13 |
| 93  | 53 | MOROCCO         | ANTI-ATLAS MTNS., SOUS R | 30.5N 8.5W           | 28.5N 6.4W          | 0  | L0 | 250 | N | Y | 19910406 | 090816 | 247 | 105 | 37        | 13 |
| 93  | 54 | MOROCCO         | ANTI-ATLAS MTNS.         | 30.0N 8.0W           | 28.5N 6.2W          | 0  | L0 | 250 | N | Y | 19910406 | 090818 | 247 | 105 | 38        | 13 |
| 93  | 55 | MOROCCO         | ANTI-ATLAS MTNS.         | 29.0N 8.0W           | 28.5N 6.0W          | 0  | NV | 250 | N | Y | 19910406 | 090821 | 247 | 105 | 38        | 13 |
| 93  | 57 | MOROCCO         | HIGH ATLAS MTNS.         | 31.0N 8.0W           | 28.5N 4.6W          | 5  | L0 | 250 | N | N | 19910406 | 090841 | 247 | 106 | 39        | 13 |
| 93  | 58 | MOROCCO         | HIGH ATLAS MTNS.         | 31.5N 7.5W           | 28.5N 4.5W          | 5  | L0 | 250 | N | Y | 19910406 | 090843 | 247 | 106 | 39        | 13 |
| 93  | 59 | MOROCCO         | HIGH ATLAS MTNS.         | 31.5N 6.0W           | 28.5N 4.3W          | 5  | L0 | 250 | N | Y | 19910406 | 090846 | 247 | 106 | 39        | 13 |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|-----------------|---------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 93 | 60  | MOROCCO         | HIGH ATLAS MTHS.          | 31.0N 6.5W        | 28.5N 4.0W       | 5  | LO | 250 | N | Y | 19910406 | 090851 | 247 | 106 | 40        | 13 |
| 93 | 61  | MOROCCO         | HIGH ATLAS MTHS.          | 31.0N 5.0W        | 28.4N 3.7W       | 0  | LO | 250 | N | Y | 19910406 | 090855 | 247 | 107 | 40        | 13 |
| 93 | 64  | MOROCCO         | PLANTATIONS NEAR ZAGORA   | 30.5N 6.0W        | 28.4N 3.1W       | 0  | LO | 250 | N | Y | 19910406 | 090904 | 247 | 107 | 40        | 13 |
| 94 | 89  | MOROCCO         | ATLAS, QUARKIZ MTHS.      | 29.0N 9.0W        |                  | 15 | LO | 100 | N | N |          |        |     |     |           |    |
| 95 | 17  | MOROCCO         | ANTI ATLAS MTHS.          | 30.5N 8.8W        | 27.2N 13.7W      | 10 | LO | 250 | N | N | 19910406 | 104546 | 246 | 117 | 52        | 14 |
| 95 | 18  | MOROCCO         | STRAIT OF GIBRALTAR       | 36.0N 5.5W        | 26.9N 12.2W      | 0  | HO | 250 | N | N | 19910406 | 104608 | 246 | 118 | 53        | 14 |
| 95 | 19  | MOROCCO         | NORTHEAST MOROCCO         | 35.2N 4.1W        | 26.9N 11.8W      | 0  | HO | 250 | N | N | 19910406 | 104614 | 246 | 119 | 54        | 14 |
| 95 | 20  | MOROCCO         | NORTHEAST MOROCCO         | 34.5N 3.0W        | 26.8N 11.5W      | 10 | HO | 250 | N | N | 19910406 | 104619 | 246 | 119 | 54        | 14 |
| 95 | 21  | MOROCCO         | NORTHEAST MOROCCO         | 33.5N 2.0W        | 26.7N 11.0W      | 20 | HO | 250 | N | N | 19910406 | 104626 | 246 | 120 | 54        | 14 |
| 98 | 39  | MOROCCO         | SW. MOROCCO               |                   | 27.2N 12.0W      | 20 | LO | 250 | N | N | 19910407 | 100715 | 246 | 110 | 46        | 29 |
| 15 | 14  | MOZAMBIQUE      | OVEREXPOSED               |                   | 20.2S 27.6E      |    | HO | 35  | O | N | 19910410 | 132340 | 246 | 296 | 35        | 77 |
| 15 | 17  | MOZAMBIQUE      | LIMPOPO RIVER             | 22.0S 33.0E       | 20.9S 29.6E      | 5  | LO | 35  | N | N | 19910410 | 132414 | 246 | 295 | 33        | 77 |
| 15 | 18  | MOZAMBIQUE      | LOURENCO MARQUES BAY      | 26.0S 33.0E       | 21.4S 31.0E      | 25 | HO | 35  | N | N | 19910410 | 132437 | 246 | 294 | 31        | 77 |
| 15 | 22  | MOZAMBIQUE      | BAZARUTO IS., SAVE RIVER  | 21.0S 35.0E       | 22.9S 35.6E      | 35 | LO | 35  | N | N | 19910410 | 132551 | 246 | 292 | 27        | 77 |
| 15 | 23  | MOZAMBIQUE      | BAZARUTO IS., SAVE RIVER  | 22.0S 35.0E       | 23.0S 35.9E      | 25 | LO | 35  | N | N | 19910410 | 132556 | 246 | 292 | 26        | 77 |
| 15 | 24  | MOZAMBIQUE      | POELELA LAKE, COAST       | 25.0S 35.0E       | 23.8S 38.5E      | 25 | LO | 35  | N | N | 19910410 | 132637 | 245 | 291 | 24        | 77 |
| 74 | 4   | MOZAMBIQUE      |                           | 16.2S 40.6E       |                  | 60 | LO | 250 | N | N | 19910409 | 122547 | 245 | 294 | 41        | 61 |
| 74 | 5   | MOZAMBIQUE      | COASTLINE, SEDIMENT       | 17.0S 42.3E       |                  | 70 | LO | 250 | N | N | 19910409 | 122617 | 245 | 294 | 39        | 61 |
| 74 | 6   | MOZAMBIQUE      | COASTLINE, SEDIMENT       | 17.3S 42.9E       |                  | 70 | LO | 250 | N | N | 19910409 | 122627 | 245 | 293 | 39        | 61 |
| 74 | 7   | MOZAMBIQUE      | COASTLINE, SEDIMENT       | 17.8S 44.1E       |                  | 70 | LO | 250 | N | N | 19910409 | 122648 | 245 | 293 | 37        | 61 |
| 74 | 8   | MOZAMBIQUE      | BELO SUR TSIRIBIHINA      | 19.6S 44.6E       | 19.7S 48.8E      | 70 | LO | 250 | N | N | 19910409 | 122808 | 245 | 292 | 32        | 61 |
| 74 | 9   | MOZAMBIQUE      | TSIRIBIHINA RIVER         | 19.5S 45.3E       | 19.8S 49.1E      | 70 | LO | 250 | N | N | 19910409 | 122813 | 245 | 291 | 32        | 61 |
| 74 | 10  | MOZAMBIQUE      | TSIRIBIHINA RIVER         | 19.7S 45.3E       | 19.9S 49.5E      | 70 | LO | 250 | N | N | 19910409 | 122820 | 245 | 291 | 31        | 61 |
| 74 | 93  | MOZAMBIQUE      | BORDER AREA, ZIMBABWE     |                   | 23.4S 36.1E      | 0  | LO | 250 | N | N | 19910409 | 140435 | 244 | 288 | 21        | 62 |
| 74 | 94  | MOZAMBIQUE      | BORDER AREA, ZIMBABWE     |                   | 23.5S 36.4E      | 5  | LO | 250 | N | N | 19910409 | 140440 | 244 | 288 | 20        | 62 |
| 74 | 95  | MOZAMBIQUE      |                           | 24.1S 38.4E       |                  | 0  | HO | 250 | N | N | 19910409 | 140511 | 244 | 287 | 18        | 62 |
| 74 | 96  | MOZAMBIQUE      | COASTAL AREA              | 24.1S 38.6E       |                  | 0  | LO | 250 | N | N | 19910409 | 140515 | 244 | 287 | 18        | 62 |
| 74 | 97  | MOZAMBIQUE      | COASTAL AREA              | 24.2S 39.0E       |                  | 0  | HO | 250 | N | N | 19910409 | 140521 | 244 | 287 | 18        | 62 |
| 75 | 33  | MOZAMBIQUE      | HIGH OBLIQUE, VRY CLOUDY  | 8.7S 43.8E        |                  | 95 | HO | 250 | N | N | 19910406 | 124301 | 242 | 283 | 34        | 15 |
| 75 | 34  | MOZAMBIQUE      | HIGH OBLIQUE, VRY CLOUDY  | 9.0S 44.3E        |                  | 95 | HO | 250 | N | N | 19910406 | 124311 | 242 | 283 | 33        | 15 |
| 75 | 58  | MOZAMBIQUE      | ZAMBESI R., MEGA FAN      |                   | 13.7S 29.4E      | 60 | HO | 250 | N | N | 19910406 | 141921 | 242 | 283 | 23        | 16 |
| 75 | 59  | MOZAMBIQUE      | ZAMBESI R., MEGA FAN      |                   | 13.8S 29.8E      | 60 | HO | 250 | N | N | 19910406 | 141927 | 242 | 283 | 23        | 16 |
| 75 | 60  | MOZAMBIQUE      | ZAMBESI R., MEGA FAN      |                   | 14.1S 30.3E      | 60 | HO | 250 | N | N | 19910406 | 141936 | 242 | 283 | 22        | 16 |
| 75 | 61  | MOZAMBIQUE      |                           |                   | 14.8S 31.8E      | 60 | LO | 250 | N | N | 19910406 | 142003 | 242 | 283 | 21        | 16 |
| 75 | 63  | MOZAMBIQUE      |                           |                   | 15.4S 33.0E      | 60 | LO | 250 | N | N | 19910406 | 142024 | 242 | 282 | 19        | 16 |
| 75 | 64  | MOZAMBIQUE      | COAST                     |                   | 15.7S 33.7E      | 50 | HO | 250 | N | N | 19910406 | 142038 | 242 | 282 | 18        | 16 |
| 75 | 65  | MOZAMBIQUE      | COAST, SAVE & PUNGUE RVS. | 20.2S 34.2E       | 15.9S 34.2E      | 0  | LO | 250 | N | N | 19910406 | 142046 | 242 | 282 | 18        | 16 |
| 75 | 66  | MOZAMBIQUE      | COAST, MEGA FANS          | 21.2S 35.5E       | 16.6S 35.7E      | 0  | LO | 250 | N | N | 19910406 | 142112 | 242 | 282 | 16        | 16 |
| 75 | 67  | MOZAMBIQUE      | PUNGUE RV. DELTA          | 20.0S 36.0E       | 17.3S 37.2E      | 0  | LO | 250 | N | N | 19910406 | 142138 | 242 | 281 | 15        | 16 |
| 77 | 105 | MOZAMBIQUE      | MOUNTAINOUS, HAZY         |                   | 14.7S 31.5E      | 20 | LO | 250 | N | N | 19910406 | 141958 | 242 | 283 | 21        | 16 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER |       | NADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|-----|-----------------|----------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                 |                            | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 87  | 48  | MOZAMBIQUE      | COAST, RIVER EFFLUENT      | 17.8S  | 37.4E | 16.1S | 40.3E | 80 | LO | 250 | N | N | 19910409 | 122541 | 245 | 293 | 38  | 61 |    |
| 87  | 49  | MOZAMBIQUE      | COAST, ATOLLS              | 17.3S  | 38.5E | 16.2S | 40.4E | 60 | LO | 250 | N | N | 19910409 | 122544 | 245 | 293 | 38  | 61 |    |
| 87  | 50  | MOZAMBIQUE      | COAST, ATOLLS              | 17.2S  | 39.2E | 16.3S | 40.7E | 60 | LO | 250 | N | N | 19910409 | 122549 | 245 | 293 | 38  | 61 |    |
| 87  | 51  | MOZAMBIQUE      | COAST, ATOLLS              | 16.8S  | 39.5E | 16.4S | 40.9E | 70 | LO | 250 | N | N | 19910409 | 122553 | 245 | 293 | 37  | 61 |    |
| 87  | 118 | MOZAMBIQUE      | VERY DARK                  | 22.6S  | 33.3E | 22.6S | 33.3E | 10 | LO | 250 | N | N | 19910409 | 140350 | 244 | 288 | 20  | 62 |    |
| 87  | 119 | MOZAMBIQUE      | COAST, SE PANORAMA, DARK   | 22.8S  | 33.9E | 22.8S | 33.9E | 10 | HO | 250 | N | N | 19910409 | 140400 | 244 | 287 | 20  | 62 |    |
| 87  | 120 | MOZAMBIQUE      | COAST, VERY DARK           | 23.9S  | 37.6E | 23.9S | 37.6E | 0  | LO | 250 | N | N | 19910409 | 140459 | 244 | 286 | 18  | 62 |    |
| 90  | 78  | MOZAMBIQUE      | DRAINAGE BASIN, DARK       | 15.2S  | 32.7E | 15.2S | 32.7E | 75 | LO | 250 | N | N | 19910406 | 142019 | 242 | 282 | 20  | 16 |    |
| 90  | 81  | MOZAMBIQUE      | ZAMBEZI RIVER, VERY DARK   | 18.0S  | 35.5E | 16.9S | 36.4E | 20 | LO | 250 | N | N | 19910406 | 142124 | 242 | 282 | 16  | 16 |    |
| 90  | 82  | MOZAMBIQUE      | ZAMBEZI R, CST, VERY DARK  | 18.5S  | 36.5E | 17.2S | 36.9E | 5  | LO | 250 | N | N | 19910406 | 142134 | 242 | 281 | 15  | 16 |    |
| 90  | 83  | MOZAMBIQUE      | VERY DARK                  | 17.4S  | 37.5E | 17.4S | 37.5E | 10 | LO | 250 | N | N | 19910406 | 142143 | 242 | 281 | 14  | 16 |    |
| 90  | 84  | MOZAMBIQUE      | COAST, VERY DARK           | 17.0S  | 38.5E | 17.6S | 38.0E | 15 | LO | 250 | N | N | 19910406 | 142152 | 242 | 281 | 14  | 16 |    |
| 90  | 85  | MOZAMBIQUE      | RIO MELULI, COAST, V. DARK | 16.3S  | 39.6E | 17.9S | 38.6E | 15 | LO | 250 | N | N | 19910406 | 142202 | 242 | 281 | 13  | 16 |    |
| 90  | 86  | MOZAMBIQUE      | ZAMBEZI R/DELTA, COAST     | 18.5S  | 35.5E | 18.3S | 39.7E | 10 | LO | 250 | N | N | 19910406 | 142221 | 242 | 281 | 12  | 16 |    |
| 90  | 87  | MOZAMBIQUE      | RIO PUNGUE R/DELTA, CST.   | 19.5S  | 35.0E | 18.4S | 40.0E | 5  | LO | 250 | N | N | 19910406 | 142226 | 242 | 281 | 12  | 16 |    |
| 152 | 39  | MOZAMBIQUE      | CABO DEGADO, COAST         | 11.0S  | 41.0E | 7.6S  | 41.7E | 60 | LO | 250 | N | N | 19910406 | 124221 | 242 | 283 | 36  | 15 |    |
| 152 | 40  | MOZAMBIQUE      | CABO DEGADO, COAST         | 11.0S  | 40.0E | 8.2S  | 42.8E | 65 | LO | 250 | N | N | 19910406 | 124242 | 242 | 283 | 35  | 15 |    |
| 152 | 59  | MOZAMBIQUE      | RIO SAVE                   | 22.0S  | 33.5E | 16.4S | 35.3E | 40 | LO | 250 | N | N | 19910406 | 142105 | 242 | 282 | 17  | 16 |    |
| 152 | 60  | MOZAMBIQUE      | RIO SAVE - COAST - HAZE    | 21.0S  | 34.0E | 17.2S | 37.0E | 40 | LO | 250 | N | N | 19910406 | 142135 | 242 | 281 | 15  | 16 |    |
| 152 | 61  | MOZAMBIQUE      | ZAMBEZI RIVER DELTA        | 19.0S  | 36.0E | 17.7S | 38.2E | 5  | LO | 250 | N | N | 19910406 | 142155 | 242 | 281 | 14  | 16 |    |
| 46  | 2   | MOZAMBIQUE      | SULOY, CURRENT BOUND, SGLT | 4.0S   | 44.8E | 4.0S  | 44.8E | 40 | LO | 35  | N | N | 19910411 | 092909 | 249 | 331 | 76  | 90 |    |
| 46  | 3   | MOZAMBIQUE      | SULOY, CURRENT BOUND, SGLT | 4.1S   | 45.0E | 4.1S  | 45.0E | 30 | LO | 35  | N | N | 19910411 | 092912 | 249 | 331 | 76  | 90 |    |
| 46  | 4   | MOZAMBIQUE      | SULOY, CURRENT BOUND, SGLT | 4.3S   | 45.2E | 4.3S  | 45.2E | 30 | LO | 35  | N | N | 19910411 | 092917 | 249 | 330 | 76  | 90 |    |
| 46  | 5   | MOZAMBIQUE      | SULOY, CURRENT BOUND, SGLT | 4.4S   | 45.4E | 4.4S  | 45.4E | 40 | LO | 35  | N | N | 19910411 | 092921 | 249 | 329 | 75  | 90 |    |
| 46  | 6   | MOZAMBIQUE      | SULOY, CURRENT BOUND, SGLT | 4.6S   | 45.7E | 4.6S  | 45.7E | 30 | LO | 35  | N | N | 19910411 | 092927 | 249 | 329 | 75  | 90 |    |
| 46  | 7   | MOZAMBIQUE      | SULOY, CURRENT BOUND, SGLT | 4.7S   | 46.0E | 4.7S  | 46.0E | 40 | LO | 35  | N | N | 19910411 | 092932 | 249 | 328 | 75  | 90 |    |
| 46  | 8   | MOZAMBIQUE      | SULOY, CURRENT BOUND, SGLT | 4.9S   | 46.2E | 4.9S  | 46.2E | 30 | LO | 35  | N | N | 19910411 | 092936 | 249 | 327 | 75  | 90 |    |
| 46  | 9   | MOZAMBIQUE      | SULOY, CURRENT BOUND, SGLT | 5.0S   | 46.4E | 5.0S  | 46.4E | 30 | LO | 35  | N | N | 19910411 | 092940 | 249 | 327 | 74  | 90 |    |
| 15  | 3   | NAMIBIA         | NAMIB DESERT               | 24.0S  | 15.0E | 16.3S | 18.4E | 5  | HO | 35  | N | N | 19910410 | 132102 | 247 | 300 | 45  | 77 |    |
| 15  | 4   | NAMIBIA         | WESTERN KALAHARI DESERT    | 22.0S  | 19.0E | 16.4S | 18.6E | 0  | LO | 35  | N | N | 19910410 | 132105 | 247 | 300 | 45  | 77 |    |
| 15  | 6   | NAMIBIA         | NAMIB DES., KARAS MTNS.    | 27.0S  | 18.0E | 16.8S | 19.6E | 5  | HO | 35  | N | N | 19910410 | 132123 | 247 | 299 | 44  | 77 |    |
| 15  | 9   | NAMIBIA         | ETOSHA PAN, NW KALAHARI    | 20.0S  | 18.0E | 18.7S | 24.0E | 0  | HO | 35  | N | N | 19910410 | 132239 | 246 | 297 | 39  | 77 |    |
| 15  | 10  | NAMIBIA         | CAPRIVI STRIP              | 18.0S  | 24.0E | 19.0S | 24.8E | 0  | LO | 35  | N | N | 19910410 | 132252 | 246 | 297 | 38  | 77 |    |
| 15  | 33  | NAMIBIA         | BRANDBERG STRUCTURE        | 21.0S  | 14.0E | 23.7S | 14.2E | 0  | LO | 35  | N | N | 19910410 | 145959 | 246 | 291 | 25  | 78 |    |
| 15  | 34  | NAMIBIA         | BRANDBERG STRUCTURE        | 21.0S  | 15.0E | 24.0S | 15.3E | 0  | LO | 35  | N | N | 19910410 | 150017 | 246 | 291 | 23  | 78 |    |
| 15  | 35  | NAMIBIA         | NAMIB DESERT               | 22.0S  | 15.0E | 24.1S | 15.6E | 0  | LO | 35  | N | N | 19910410 | 150021 | 245 | 291 | 23  | 78 |    |
| 15  | 36  | NAMIBIA         | NAMIB DESERT               | 24.0S  | 16.0E | 24.2S | 16.1E | 0  | LO | 35  | N | N | 19910410 | 150030 | 245 | 290 | 23  | 78 |    |
| 15  | 37  | NAMIBIA         | NAMIB DESERT               | 25.0S  | 15.0E | 24.4S | 16.8E | 0  | LO | 35  | N | N | 19910410 | 150041 | 245 | 290 | 22  | 78 |    |
| 74  | 55  | NAMIBIA         | BORDER WITH ANGOLA         | 17.6S  | 12.2E | 13.9S | 11.8E | 0  | LO | 250 | N | N | 19910409 | 135743 | 245 | 296 | 47  | 62 |    |
| 74  | 56  | NAMIBIA         | BORDER WITH ANGOLA         | 18.3S  | 12.3E | 14.0S | 12.0E | 0  | LO | 250 | N | N | 19910409 | 135747 | 245 | 296 | 47  | 62 |    |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER |       | NADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | EL | SUN |
|----|----|-----------------|---------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|----|-----|
|    |    |                 |                           | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |    |     |
| 74 | 57 | NAMIBIA         | SKELTON COAST             | 18.7S  | 12.8E | 14.1S | 12.1E | 0  | HO | 250 | N | N | 19910409 | 135749 | 245 | 296 | 47 | 62  |
| 74 | 62 | NAMIBIA         | ETOSHA PAN AREA           | 17.6S  | 15.7E | 15.7S | 15.1E | 0  | LO | 250 | N | N | 19910409 | 135851 | 244 | 295 | 43 | 62  |
| 74 | 63 | NAMIBIA         | ETOSHA PAN AREA           | 17.8S  | 16.2E | 15.8S | 15.7E | 0  | LO | 250 | N | N | 19910409 | 135853 | 244 | 295 | 43 | 62  |
| 75 | 80 | NAMIBIA         | HAZY, OVER EXPOSED        |        |       | 14.4S | 7.0E  | 70 | HO | 250 | N | N | 19910406 | 155313 | 243 | 283 | 22 | 17  |
| 75 | 81 | NAMIBIA         | ETOSHA PAN AREA           | 18.8S  | 16.5E | 17.2S | 13.1E | 60 | LO | 250 | N | N | 19910406 | 155500 | 243 | 282 | 15 | 17  |
| 75 | 82 | NAMIBIA         | ETOSHA PAN AREA           | 18.8S  | 16.5E | 17.3S | 13.4E | 60 | LO | 250 | N | N | 19910406 | 155505 | 243 | 282 | 15 | 17  |
| 75 | 83 | NAMIBIA         | CLDY, HAZY                |        |       | 18.4S | 16.0E | 60 | LO | 250 | N | N | 19910406 | 155560 | 243 | 281 | 12 | 17  |
| 75 | 84 | NAMIBIA         | CLDY, HAZY                |        |       | 18.8S | 17.1E | 60 | LO | 250 | N | N | 19910406 | 155609 | 243 | 280 | 11 | 17  |
| 76 | 48 | NAMIBIA         | BRANDBERG AREA            | 21.5S  | 15.0E | 23.3S | 11.8E | 0  | LO | 250 | N | N | 19910409 | 153745 | 245 | 287 | 19 | 63  |
| 76 | 49 | NAMIBIA         | BORDER WITH REP. S.AFRICA | 23.7S  | 15.0E | 24.0S | 14.0E | 0  | LO | 250 | N | N | 19910409 | 153824 | 245 | 286 | 16 | 63  |
| 76 | 50 | NAMIBIA         | NAMIB DESERT              | 24.8S  | 15.5E | 24.1S | 14.4E | 0  | LO | 250 | N | N | 19910409 | 153830 | 245 | 286 | 16 | 63  |
| 76 | 51 | NAMIBIA         | NAMIB DESERT              | 24.8S  | 15.8E | 24.2S | 14.9E | 0  | LO | 250 | N | N | 19910409 | 153838 | 245 | 286 | 15 | 63  |
| 76 | 52 | NAMIBIA         | NAMIB DESERT              | 25.2S  | 16.0E | 24.2S | 15.1E | 0  | LO | 250 | N | N | 19910409 | 153841 | 245 | 285 | 15 | 63  |
| 76 | 53 | NAMIBIA         | NAMIB DESERT              | 25.5S  | 16.0E | 24.3S | 15.4E | 0  | LO | 250 | N | N | 19910409 | 153845 | 245 | 285 | 15 | 63  |
| 76 | 54 | NAMIBIA         | NAMIB DESERT              | 25.5S  | 15.5E | 24.4S | 15.6E | 0  | LO | 250 | N | N | 19910409 | 153849 | 245 | 285 | 15 | 63  |
| 76 | 55 | NAMIBIA         | NAMIB DESERT              | 26.0S  | 15.5E | 24.4S | 15.8E | 0  | LO | 250 | N | N | 19910409 | 153852 | 245 | 285 | 14 | 63  |
| 76 | 56 | NAMIBIA         | NAMIB DESERT              | 26.1S  | 16.0E | 24.5S | 16.0E | 0  | LO | 250 | N | N | 19910409 | 153855 | 245 | 285 | 14 | 63  |
| 76 | 57 | NAMIBIA         | RUGGED MTNS E.NAMIB DSRT  | 25.5S  | 16.5E | 24.5S | 16.2E | 0  | LO | 250 | N | N | 19910409 | 153858 | 245 | 285 | 14 | 63  |
| 76 | 58 | NAMIBIA         | RUGGED MTNS E.NAMIB DSRT  | 25.8S  | 16.8E | 24.6S | 16.4E | 0  | LO | 250 | N | N | 19910409 | 153902 | 245 | 285 | 14 | 63  |
| 76 | 59 | NAMIBIA         | RUGGED MTNS E.NAMIB DSRT  | 25.9S  | 16.4E | 24.6S | 16.6E | 0  | LO | 250 | N | N | 19910409 | 153904 | 245 | 285 | 14 | 63  |
| 76 | 60 | NAMIBIA         | RUGGED MTNS E.NAMIB DSRT  | 26.5S  | 17.0E | 24.7S | 16.8E | 0  | LO | 250 | N | N | 19910409 | 153907 | 245 | 285 | 13 | 63  |
| 76 | 61 | NAMIBIA         | LARGE AREA SALT FLATS     | 25.0S  | 17.0E | 24.8S | 17.3E | 0  | LO | 250 | N | N | 19910409 | 153915 | 245 | 285 | 13 | 63  |
| 76 | 62 | NAMIBIA         | RUGGED HILLS              | 24.0S  | 16.0E | 25.0S | 17.9E | 0  | LO | 250 | N | N | 19910409 | 153925 | 245 | 284 | 12 | 63  |
| 76 | 63 | NAMIBIA         | NAUKLUTBERGE              | 24.2S  | 16.2E | 25.2S | 18.8E | 0  | LO | 250 | N | N | 19910409 | 153939 | 245 | 284 | 11 | 63  |
| 76 | 64 | NAMIBIA         | LEWERRIVIER, W.EDGE KALAH | 25.1S  | 17.8E | 25.2S | 19.1E | 0  | LO | 250 | N | N | 19910409 | 153944 | 245 | 284 | 11 | 63  |
| 76 | 65 | NAMIBIA         | MARIENTAL AREA            | 24.9S  | 18.1E | 25.3S | 19.5E | 0  | LO | 250 | N | N | 19910409 | 153950 | 245 | 283 | 11 | 63  |
| 76 | 66 | NAMIBIA         | AREA NNW OF KEETMANSHOOP  | 26.2S  | 18.0E | 25.4S | 19.7E | 0  | LO | 250 | N | N | 19910409 | 153953 | 245 | 283 | 10 | 63  |
| 76 | 67 | NAMIBIA         | AREA N OF KEETMANSHOOP    | 26.2S  | 18.2E | 25.4S | 19.9E | 0  | LO | 250 | N | N | 19910409 | 153955 | 245 | 283 | 10 | 63  |
| 76 | 68 | NAMIBIA         | AREA S. OF KEETMANSHOOP   | 27.3S  | 18.5E | 25.5S | 20.1E | 0  | LO | 250 | N | N | 19910409 | 153959 | 245 | 283 | 10 | 63  |
| 76 | 69 | NAMIBIA         | HAKSKEEN PAN AREA         | 27.2S  | 20.3E | 25.6S | 20.6E | 0  | OO | 250 | N | N | 19910409 | 154007 | 245 | 283 | 10 | 63  |
| 80 | 91 | NAMIBIA         | ETOSHA PAN                | 18.0S  | 17.0E | 8.5S  | 25.2E | 15 | HO | 250 | N | N | 19910409 | 122107 | 246 | 297 | 56 | 61  |
| 83 | 34 | NAMIBIA         | ETOSHA PAN, RIO CUBANGO   | 19.0S  | 20.5E | 7.8S  | 24.2E | 30 | HO | 100 | N | N | 19910409 | 122048 | 246 | 297 | 57 | 61  |
| 83 | 35 | NAMIBIA         | ETOSHA PAN, RIO CUBANGO   | 17.5S  | 12.0E | 8.3S  | 24.9E | 40 | HO | 100 | N | N | 19910409 | 122101 | 246 | 297 | 56 | 61  |
| 83 | 36 | NAMIBIA         | ETOSHA PAN, RIO CUBANGO   | 18.5S  | 12.0E | 9.3S  | 26.7E | 20 | HO | 100 | N | N | 19910409 | 122135 | 246 | 297 | 54 | 61  |
| 83 | 46 | NAMIBIA         | COAST, ETOSHA PAN, DESERT | 22.0S  | 15.0E | 10.6S | 5.2E  | 0  | HO | 100 | N | N | 19910409 | 135543 | 245 | 297 | 51 | 62  |
| 83 | 75 | NAMIBIA         | NAMIB DES, TSAUCHAB WADI  | 24.8S  | 16.1E | 22.9S | 10.4E | 0  | LO | 100 | N | Y | 19910409 | 153727 | 245 | 287 | 20 | 63  |
| 83 | 76 | NAMIBIA         | NAMIB DES, TSARISBERGE    | 26.5S  | 16.0E | 23.0S | 10.9E | 0  | HO | 100 | N | Y | 19910409 | 153734 | 245 | 287 | 19 | 63  |
| 83 | 77 | NAMIBIA         | NAMIB DES, COAST RANGES   | 24.0S  | 18.0E | 23.1S | 11.2E | 0  | HO | 100 | N | Y | 19910409 | 153739 | 245 | 287 | 19 | 63  |
| 83 | 78 | NAMIBIA         | NAMIB DES, COAST RANGES   | 25.5S  | 18.0E | 23.2S | 11.5E | 0  | HO | 100 | N | Y | 19910409 | 153744 | 245 | 287 | 19 | 63  |
| 83 | 79 | NAMIBIA         | NAMIB DES, COAST RANGES   | 24.5S  | 17.5E | 23.5S | 12.6E | 0  | LO | 100 | N | Y | 19910409 | 153801 | 245 | 286 | 17 | 63  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                     | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | OR |
|-----|-----|-----------------|-----------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|
|     |     |                 |                             | LAT    | LON    | LAT   | LON    |    |    |     |   |   |          |        |     |     | EL  |    |
| 83  | 80  | NAMIBIA         | NAMIB DES, COAST RANGES     | 25.0S  | 17.5E  | 23.6S | 12.8E  | 0  | LO | 100 | N | Y | 19910409 | 153804 | 245 | 286 | 17  | 63 |
| 83  | 81  | NAMIBIA         | NAMIB DES, COAST RANGES     | 26.5S  | 17.0E  | 23.7S | 13.1E  | 0  | LO | 100 | N | Y | 19910409 | 153809 | 245 | 286 | 17  | 63 |
| 83  | 82  | NAMIBIA         | NAMIB DES, COAST RANGES     | 26.5S  | 18.0E  | 23.8S | 13.5E  | 0  | LO | 100 | N | Y | 19910409 | 153816 | 245 | 286 | 17  | 63 |
| 83  | 83  | NAMIBIA         | GR. NAMALAND, MT. BRUKKAROS | 25.5S  | 18.5E  | 23.9S | 13.8E  | 0  | LO | 100 | N | N | 19910409 | 153821 | 245 | 286 | 16  | 63 |
| 83  | 84  | NAMIBIA         | KALAHARI DES, DUNE FIELD    | 25.0S  | 20.0E  | 24.2S | 14.9E  | 0  | LO | 100 | N | N | 19910409 | 153838 | 245 | 285 | 15  | 63 |
| 86  | 104 | NAMIBIA         | NAMIB DESERT, LOW SUN ANG   | 26.3S  | 15.4E  | 24.8S | 15.3E  | 0  | LO | 250 | N | N | 19910408 | 161757 | 245 | 281 | 6   | 48 |
| 86  | 105 | NAMIBIA         | NAMIB DESERT, LOW SUN ANG   | 25.5S  | 15.3E  | 24.9S | 15.6E  | 0  | LO | 250 | N | N | 19910408 | 161801 | 245 | 280 | 6   | 48 |
| 86  | 106 | NAMIBIA         | NAMIB DESERT, LOW SUN ANG   | 24.7S  | 15.6E  | 25.1S | 16.6E  | 0  | LO | 250 | N | N | 19910408 | 161816 | 245 | 280 | 5   | 48 |
| 86  | 107 | NAMIBIA         | NAMIB DESERT, LOW SUN ANG   | 23.4S  | 14.9E  | 25.3S | 17.4E  | 0  | LO | 250 | N | N | 19910408 | 161828 | 245 | 280 | 4   | 48 |
| 87  | 38  | NAMIBIA         | ETOSHA PAN, RIO CUBANGO     | 18.8S  | 16.6E  | 10.7S | 29.2E  | 15 | HO | 250 | N | N | 19910409 | 122222 | 245 | 296 | 51  | 61 |
| 87  | 85  | NAMIBIA         | INTERIOR, DARK              |        |        |       |        |    |    |     |   |   |          |        |     |     |     |    |
| 87  | 86  | NAMIBIA         | EKUMA WADI, SALT PAN FLD    | 17.5S  | 16.0E  | 14.4S | 12.8E  | 0  | LO | 250 | N | N | 19910409 | 135723 | 245 | 295 | 45  | 62 |
| 87  | 87  | NAMIBIA         | EKUMA WADI, SALT PAN FLD    | 18.0S  | 15.5E  | 14.5S | 13.0E  | 0  | LO | 250 | N | N | 19910409 | 135801 | 244 | 295 | 43  | 62 |
| 87  | 88  | NAMIBIA         | RIO CUBANGO, KALAHARI DES   | 17.8S  | 18.5E  | 14.6S | 13.1E  | 0  | LO | 250 | N | N | 19910409 | 135808 | 244 | 295 | 42  | 62 |
| 87  | 90  | NAMIBIA         | RIO CUBANGO, KALAHARI DES   | 18.6S  | 19.9E  | 15.2S | 14.5E  | 0  | LO | 250 | N | N | 19910409 | 135833 | 244 | 294 | 41  | 62 |
| 90  | 88  | NAMIBIA         | ETOSHA PAN & SURROUND       | 18.8S  | 16.2E  | 17.4S | 13.6E  | 50 | LO | 250 | N | Y | 19910406 | 155510 | 243 | 281 | 15  | 17 |
| 90  | 89  | NAMIBIA         | ETOSHA PAN-NW AREA          | 18.6S  | 15.7E  | 17.8S | 14.5E  | 50 | LO | 250 | N | Y | 19910406 | 155524 | 243 | 281 | 14  | 17 |
| 90  | 90  | NAMIBIA         | BRANDBERG INTRUSIVE, DES.   | 21.2S  | 14.6E  | 18.0S | 15.0E  | 0  | LO | 250 | N | N | 19910406 | 155533 | 243 | 281 | 13  | 17 |
| 90  | 91  | NAMIBIA         | EBONGBERGE INTRUSIVE        | 21.5S  | 15.5E  | 18.2S | 15.5E  | 0  | LO | 250 | N | N | 19910406 | 155542 | 243 | 281 | 13  | 17 |
| 90  | 94  | NAMIBIA         | NAMIB DESERT, COAST         | 18.5S  | 12.0E  | 19.0S | 17.4E  | 30 | LO | 250 | N | N | 19910406 | 155615 | 243 | 280 | 11  | 17 |
| 90  | 95  | NAMIBIA         | NAMIB DES, HOANIB WADI      | 19.5S  | 13.0E  | 19.2S | 17.9E  | 0  | LO | 250 | N | N | 19910406 | 155623 | 243 | 280 | 10  | 17 |
| 90  | 96  | NAMIBIA         | NAMIB DES, HUAB WADI, CST   | 21.0S  | 13.5E  | 19.3S | 18.1E  | 0  | LO | 250 | N | N | 19910406 | 155627 | 243 | 280 | 10  | 17 |
| 90  | 97  | NAMIBIA         | NAMIB DES, OMARURU WADI     | 22.0S  | 14.5E  | 19.4S | 18.6E  | 0  | LO | 250 | N | N | 19910406 | 155634 | 243 | 280 | 9   | 17 |
| 90  | 98  | NAMIBIA         | NAMIB DES, WALVIS BAY, CST  | 23.0S  | 14.5E  | 19.5S | 18.9E  | 0  | LO | 250 | N | N | 19910406 | 155639 | 243 | 280 | 9   | 17 |
| 90  | 99  | NAMIBIA         | NAMIB DES, TSAUCHAB R, CST  | 25.0S  | 15.5E  | 19.9S | 19.7E  | 0  | LO | 250 | N | N | 19910406 | 155653 | 243 | 280 | 8   | 17 |
| 90  | 100 | NAMIBIA         | NAMIB DES, TSAUCHAB R, CST  | 24.5S  | 15.5E  | 20.1S | 20.4E  | 0  | LO | 250 | N | N | 19910406 | 155705 | 243 | 279 | 8   | 17 |
| 96  | 48  | NAMIBIA         | NAMIB DESERT, DUST STORM    | 25.0S  | 15.0E  |       |        | 0  | LO | 100 | N | Y |          |        |     |     |     |    |
| 96  | 49  | NAMIBIA         | NAMIB DESERT, DUST STORM    | 25.0S  | 14.5E  |       |        | 0  | LO | 100 | N | Y |          |        |     |     |     |    |
| 153 | 39  | NAMIBIA         | KALAHARI DESERT             | 25.5S  | 19.0E  | 25.1S | 18.7E  | 0  | NV | 250 | N | N | 19910409 | 153937 | 245 | 284 | 11  | 63 |
| 91  | 86  | NEPAL           | HIMALAYA RANGE, CLOUDS      |        |        | 25.9N | 86.8E  | 50 | LO | 250 | N | N | 19910406 | 011437 | 246 | 90  | 16  | 8  |
| 91  | 97  | NEPAL           | HIMALAYA RANGE, CLOUDS      |        |        | 26.0N | 86.9E  | 65 | LO | 250 | N | N | 19910406 | 011439 | 246 | 90  | 16  | 8  |
| 91  | 98  | NEPAL           | HIMALAYA RANGE, CLOUDS      |        |        | 26.0N | 87.0E  | 75 | LO | 250 | N | N | 19910406 | 011441 | 246 | 90  | 16  | 8  |
| 91  | 99  | NEPAL           | HIMALAYA RANGE, CLOUDS      |        |        | 26.1N | 87.3E  | 85 | LO | 250 | N | N | 19910406 | 011445 | 246 | 91  | 16  | 8  |
| 152 | 277 | NEPAL           | GR. HIMALAYA RANGE          | 28.0N  | 84.0E  | 28.2N | 83.4E  | 25 | NV | 250 | N | N | 19910408 | 013517 | 247 | 91  | 17  | 39 |
| 152 | 157 | NEW CALEDONIA   | FRANCE, ENTRECASTEAUX R.    | 18.5S  | 163.0E | 19.1S | 162.9E | 25 | NV | 250 | N | N | 19910407 | 055716 | 243 | 282 | 15  | 26 |
| 72  | 39  | NICARAGUA       | LAGO DE NICARAGUA           | 11.0N  | 85.5W  | 12.9N | 92.0W  | 35 | LO | 100 | N | Y | 19910405 | 192308 | 244 | 250 | 71  | 4  |
| 76  | 79  | NICARAGUA       | MANAGUA AREA, HAZY          | 12.2N  | 86.3W  | 16.0N | 90.8W  | 70 | LO | 250 | N | N | 19910409 | 164726 | 245 | 111 | 69  | 64 |
| 76  | 80  | NICARAGUA       | HONDURAS BORDER             |        |        | 15.6N | 90.0W  | 95 | LO | 250 | N | N | 19910409 | 164740 | 245 | 111 | 69  | 64 |
| 79  | 69  | NICARAGUA       | L. NICARAGUA, OMETEPE V.    | 11.5N  | 97.5W  | 12.1N | 88.5W  | 30 | NV | 250 | N | N | 19910406 | 184509 | 244 | 245 | 76  | 19 |
| 79  | 71  | NICARAGUA       | L. MANAGUA, MASAYA VOL.     | 12.0N  | 86.5W  | 11.0N | 86.3W  | 20 | NV | 250 | N | N | 19910406 | 184549 | 244 | 253 | 75  | 19 |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | CENTER<br>LON | MAGR<br>LAT | MAGR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|----|-----------------|---------------------------|---------------|---------------|-------------|-------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 79  | 72 | NICARAGUA       | L. NICARAGUA, OMETEPE V.  | 11.5N         | 85.5W         | 10.9N       | 86.1W       | 20 | NV | 250 | N | N | 19910406 | 184553 | 244 | 253 | 74        | 19 |
| 81  | 15 | NICARAGUA       | MANAGUA LAKE              | 12.5N         | 86.5W         | 11.1N       | 88.6W       | 25 | NV | 250 | N | Y | 19910405 | 192409 | 243 | 258 | 67        | 4  |
| 81  | 16 | NICARAGUA       | AREA NORTH OF L. MANAGUA  | 13.5N         | 86.5W         | 10.9N       | 88.1W       | 65 | LO | 250 | N | Y | 19910405 | 192418 | 243 | 259 | 67        | 4  |
| 81  | 17 | NICARAGUA       | SAINT ELENA BAY           | 11.5N         | 86.0W         | 10.2N       | 86.9W       | 0  | NV | 250 | N | Y | 19910405 | 192440 | 243 | 261 | 66        | 4  |
| 85  | 11 | NICARAGUA       | GULF OF FONSECA, SUNGLNT  | 12.8N         | 87.1W         | 13.9N       | 88.2W       | 5  | LO | 250 | N | N | 19910408 | 172700 | 246 | 134 | 80        | 49 |
| 85  | 12 | NICARAGUA       | GULF OF FONSECA, SUNGLNT  | 13.1N         | 87.4W         | 13.5N       | 87.5W       | 0  | LO | 250 | N | N | 19910408 | 172700 | 246 | 135 | 81        | 49 |
| 85  | 13 | NICARAGUA       | LAGO DE MANAGUA           | 12.2N         | 86.2W         | 13.3N       | 87.0W       | 30 | LO | 250 | N | N | 19910408 | 172752 | 246 | 137 | 81        | 49 |
| 89  | 59 | NICARAGUA       | L. MANAGUA, L. NICARAGUA  | 12.0N         | 86.0W         | 12.5N       | 85.5W       | 35 | NV | 250 | N | Y | 19910408 | 172820 | 246 | 142 | 83        | 49 |
| 89  | 60 | NICARAGUA       | L. MANAGUA, MASAYA VOLC.  | 12.3N         | 86.3W         | 12.4N       | 85.2W       | 40 | NV | 250 | N | Y | 19910408 | 172824 | 246 | 143 | 83        | 49 |
| 91  | 22 | NICARAGUA       | ESTERO REAL R. SWAMP      | 13.0N         | 87.0W         | 11.4N       | 89.0W       | 40 | LO | 250 | N | N | 19910405 | 192400 | 243 | 257 | 68        | 4  |
| 91  | 23 | NICARAGUA       | AGR. (7/8 BLACK FRAME)    |               |               | 11.2N       | 88.7W       | 50 | LO | 250 | U | N | 19910405 | 192407 | 243 | 258 | 67        | 4  |
| 91  | 24 | NICARAGUA       | AGR. (3/4 BLACK FRAME)    |               |               | 11.0N       | 88.2W       | 70 | LO | 250 | U | N | 19910405 | 192415 | 243 | 259 | 67        | 4  |
| 91  | 25 | NICARAGUA       | SANTA ELENA BAY, COAST    | 11.0N         | 86.0W         | 10.3N       | 87.0W       | 0  | LO | 250 | N | N | 19910405 | 192437 | 243 | 261 | 66        | 4  |
| 92  | 7  | NICARAGUA       | W. COAST, LAKE NICARAGUA  | 11.3N         | 85.7W         | 10.2N       | 84.8W       | 50 | LO | 250 | N | N | 19910406 | 184617 | 244 | 258 | 73        | 19 |
| 92  | 8  | NICARAGUA       | MANAGUA AREA              | 12.2N         | 86.4W         | 10.0N       | 84.5W       | 60 | LO | 250 | N | N | 19910406 | 184623 | 244 | 259 | 73        | 19 |
| 94  | 18 | NICARAGUA       | L. NICARAGUA, NICOYA PEN  | 11.0N         | 86.0W         |             |             | 30 | LO | 100 | N | N |          |        |     |     |           |    |
| 96  | 51 | NICARAGUA       | L. NICARAGUA, MASAYA VOL  | 13.5N         | 85.5W         |             |             | 45 | LO | 100 | N | N |          |        |     |     |           |    |
| 151 | 15 | NICARAGUA       | LAGO DE NICARAGUA         | 11.5N         | 86.0W         | 11.3N       | 88.8W       | 25 | LO | 250 | N | Y | 19910405 | 192404 | 243 | 258 | 68        | 4  |
| 151 | 16 | NICARAGUA       | LAGO DE NICARAGUA         | 11.5N         | 86.0W         | 10.8N       | 88.0W       | 25 | LO | 250 | N | Y | 19910405 | 192419 | 243 | 259 | 67        | 4  |
| 151 | 17 | NICARAGUA       | SANTA ELENA BAY           | 11.0N         | 86.0W         | 10.7N       | 87.7W       | 20 | LO | 250 | N | Y | 19910405 | 192424 | 243 | 260 | 67        | 4  |
| 151 | 21 | NICARAGUA       | PACIFIC COAST             | 11.0N         | 86.0W         | 9.2N        | 85.0W       | 15 | LO | 250 | N | Y | 19910405 | 192514 | 243 | 264 | 64        | 4  |
| 42  | 19 | NIGER           | TCHIGAI PLATEAU           | 22.0N         | 12.0E         | 24.4N       | 9.4E        | 0  | LO | 35  | N | N | 19910411 | 073757 | 245 | 97  | 34        | 89 |
| 42  | 20 | NIGER           | TCHIGAI PLATEAU           | 23.0N         | 13.0E         | 24.4N       | 9.6E        | 0  | LO | 35  | N | N | 19910411 | 073800 | 245 | 97  | 34        | 89 |
| 42  | 21 | NIGER           | TCHIGAI PLATEAU           | 22.0N         | 14.0E         | 24.3N       | 9.8E        | 0  | LO | 35  | N | N | 19910411 | 073803 | 245 | 97  | 34        | 89 |
| 42  | 25 | NIGER           | TCHIGAI PLATEAU           | 23.0N         | 13.0E         | 23.8N       | 11.6E       | 0  | LO | 35  | N | N | 19910411 | 073832 | 245 | 97  | 36        | 89 |
| 45  | 31 | NIGER           | TALAK DESERT, TEMERE DES. | 20.0N         | 7.0E          | 18.3N       | 1.5E        | 5  | HO | 35  | N | N | 19910410 | 095406 | 247 | 105 | 59        | 75 |
| 45  | 32 | NIGER           | AIR MTNS, MARZUQ SAND SEA | 19.0N         | 10.0E         | 17.1N       | 4.3E        | 20 | HO | 35  | N | N | 19910410 | 095455 | 247 | 106 | 62        | 75 |
| 77  | 18 | NIGER           | DALLOL BOSSO AREA         | 13.8N         | 3.0E          | 15.0N       | 1.1E        | 10 | LO | 250 | N | N | 19910406 | 122938 | 244 | 222 | 78        | 15 |
| 83  | 26 | NIGER           | WADI, DUST, DESERT        | 13.5N         | 9.5E          | 14.2N       | 8.4E        | 15 | LO | 100 | N | N | 19910409 | 103456 | 246 | 115 | 75        | 60 |
| 83  | 27 | NIGER           | TERMIT MASSIF, W. DILLIA  | 16.3N         | 11.0E         | 13.6N       | 9.8E        | 10 | LO | 100 | N | N | 19910409 | 103520 | 246 | 116 | 76        | 60 |
| 84  | 41 | NIGER           | NEAR TOWN OF TAHOUA       | 15.0N         | 5.5E          |             |             | 0  | LO | 250 | N | N |          |        |     |     |           |    |
| 84  | 45 | NIGER           | MASSIF DE TERNIT          | 16.5N         | 11.5E         |             |             | 0  | LO | 250 | N | N |          |        |     |     |           |    |
| 84  | 50 | NIGER           | LAKE CHAD, NORTH BASIN    | 13.5N         | 13.0E         |             |             | 10 | LO | 250 | N | Y |          |        |     |     |           |    |
| 85  | 68 | NIGER           | TCHIGAI PLAT. AREA        |               |               | 23.3N       | 9.3E        | 0  | LO | 250 | N | N | 19910409 | 085501 | 246 | 107 | 50        | 59 |
| 85  | 69 | NIGER           | TCHIGAI AREA, WIND STRKS  |               |               | 22.5N       | 11.8E       | 0  | LO | 250 | N | N | 19910409 | 085541 | 246 | 108 | 53        | 59 |
| 85  | 70 | NIGER           | TCHIGAI AREA, WIND STRKS  |               |               | 22.2N       | 12.7E       | 0  | LO | 250 | N | N | 19910409 | 085556 | 246 | 109 | 54        | 59 |
| 85  | 71 | NIGER           | TCHIGAI AREA, WIND STRKS  |               |               | 22.0N       | 13.4E       | 0  | LO | 250 | N | N | 19910409 | 085607 | 246 | 109 | 55        | 59 |
| 85  | 72 | NIGER           | TCHIGAI AREA, WIND STRKS  |               |               | 21.8N       | 14.1E       | 0  | LO | 250 | N | N | 19910409 | 085619 | 246 | 109 | 55        | 59 |
| 85  | 73 | NIGER           | TCHIGAI AREA, WIND STRKS  |               |               | 21.5N       | 14.9E       | 0  | LO | 250 | N | N | 19910409 | 085632 | 246 | 110 | 56        | 59 |
| 86  | 1  | NIGER           | DALLOL BOSSO, SAND STORM  | 16.0N         | 4.0E          | 15.5N       | 3.9E        | 0  | LO | 250 | N | N | 19910408 | 111237 | 246 | 134 | 78        | 45 |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LONG | MADIR<br>LAT<br>LONG | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|---------------------------|-----------------------|----------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 86 | 2   | NIGER           | DALLOL BOSSO, SAND STORM  | 15.4N                 | 4.0E                 | 0  | LO | 250 | N | N | 19910408 | 111240 | 246 | 134 | 78        | 45 |
| 86 | 3   | NIGER           | DALLOL BOSSO, SAND STORM  | 15.4N                 | 4.2E                 | 0  | LO | 250 | N | N | 19910408 | 111242 | 246 | 134 | 78        | 45 |
| 86 | 4   | NIGER           | DALLOL BOSSO, SAND STORM  | 15.3N                 | 4.3E                 | 0  | LO | 250 | N | N | 19910408 | 111244 | 246 | 135 | 78        | 45 |
| 86 | 5   | NIGER           | W. NIGER, SANDSTORM       | 15.3N                 | 4.4E                 | 0  | LO | 250 | N | N | 19910408 | 111246 | 246 | 135 | 78        | 45 |
| 86 | 6   | NIGER           | W. NIGER, SANDSTORM       | 15.2N                 | 4.5E                 | 0  | LO | 250 | N | N | 19910408 | 111248 | 246 | 135 | 78        | 45 |
| 86 | 7   | NIGER           | W. NIGER, SANDSTORM       | 14.9N                 | 5.2E                 | 0  | LO | 250 | N | N | 19910408 | 111300 | 246 | 137 | 79        | 45 |
| 86 | 8   | NIGER           | W. NIGER, SANDSTORM       | 14.8N                 | 5.3E                 | 5  | LO | 250 | N | N | 19910408 | 111302 | 246 | 137 | 79        | 45 |
| 86 | 9   | NIGER           | W. NIGER, SANDSTORM       | 14.7N                 | 5.5E                 | 5  | LO | 250 | N | N | 19910408 | 111305 | 246 | 138 | 79        | 45 |
| 86 | 10  | NIGER           | W. NIGER, SANDSTORM       | 14.0N                 | 6.0E                 | 5  | LO | 250 | N | N | 19910408 | 111312 | 246 | 139 | 80        | 45 |
| 86 | 11  | NIGER           | W. NIGER, SANDSTORM       | 14.0N                 | 6.0E                 | 0  | LO | 250 | N | N | 19910408 | 111314 | 246 | 139 | 80        | 45 |
| 86 | 14  | NIGER           | MARADI AREA               | 13.5N                 | 7.0E                 | 0  | LO | 250 | N | N | 19910408 | 111337 | 246 | 144 | 81        | 45 |
| 86 | 21  | NIGER           | NEAR ZINDER               | 13.5N                 | 9.0E                 | 10 | LO | 250 | N | N | 19910408 | 111355 | 246 | 148 | 82        | 45 |
| 86 | 22  | NIGER           | NORTH OF ZINDER           | 14.0N                 | 9.0E                 | 0  | LO | 250 | N | N | 19910408 | 111358 | 246 | 149 | 82        | 45 |
| 88 | 52  | NIGER           | GOULBIN MARADI R.         | 13.3N                 | 7.2E                 | 20 | LO | 250 | N | N | 19910408 | 103449 | 246 | 115 | 74        | 60 |
| 88 | 58  | NIGER           | NORTH LOBE LAKE CHAD      | 13.8N                 | 13.5E                | 10 | LO | 250 | N | N | 19910409 | 103623 | 246 | 117 | 80        | 60 |
| 89 | 98  | NIGER           | DESERT-DUNE FIELD         | 22.5N                 | 12.0E                | 0  | LO | 250 | N | N | 19910409 | 085544 | 246 | 108 | 53        | 59 |
| 89 | 99  | NIGER           | PLATEAU DU JADO AREA      | 22.2N                 | 12.8E                | 0  | LO | 250 | N | N | 19910409 | 085558 | 246 | 109 | 54        | 59 |
| 89 | 100 | NIGER           | PLAT. DU JADO,ACHELOUMO W | 22.3N                 | 12.3E                | 0  | NV | 250 | N | N | 19910409 | 085603 | 246 | 109 | 54        | 59 |
| 89 | 101 | NIGER           | PLAT. DU JADO,ACHELOUMO W | 22.0N                 | 13.1E                | 0  | NV | 250 | N | N | 19910409 | 085605 | 246 | 109 | 54        | 59 |
| 89 | 104 | NIGER           | DESERT                    | 21.9N                 | 13.8E                | 0  | LO | 250 | N | N | 19910409 | 085614 | 246 | 109 | 55        | 59 |
| 89 | 105 | NIGER           | WIND EROSION, DESERT      | 22.5N                 | 14.5E                | 0  | LO | 250 | N | N | 19910409 | 085618 | 246 | 109 | 55        | 59 |
| 89 | 106 | NIGER           | MASSIF DAFIFI,WIND EROSN  | 22.5N                 | 15.0E                | 0  | LO | 250 | N | Y | 19910409 | 085621 | 246 | 109 | 55        | 59 |
| 89 | 107 | NIGER           | MASSIF DAFIFI,WIND EROSN  | 22.0N                 | 15.0E                | 0  | LO | 250 | N | Y | 19910409 | 085623 | 246 | 109 | 55        | 59 |
| 89 | 108 | NIGER           | PLAT. TCHIGAI,WIND EROSN  | 21.5N                 | 15.0E                | 0  | LO | 250 | N | Y | 19910409 | 085626 | 246 | 109 | 55        | 59 |
| 90 | 30  | NIGER           | LAKE CHAD,KOMADOUGOU R.   | 13.7N                 | 13.4E                | 5  | LO | 250 | N | N | 19910406 | 105336 | 245 | 173 | 77        | 14 |
| 95 | 28  | NIGER           | AIR MTNS.                 | 19.0N                 | 9.0E                 | 0  | LO | 250 | N | N | 19910406 | 105015 | 246 | 138 | 68        | 14 |
| 95 | 29  | NIGER           | AIR MTNS.                 | 19.0N                 | 9.0E                 | 0  | LO | 250 | N | N | 19910406 | 105027 | 246 | 140 | 68        | 14 |
| 95 | 33  | NIGER           | TINRHERT PLATEAU          | 23.5N                 | 9.0E                 | 0  | LO | 250 | N | N | 19910406 | 105059 | 245 | 143 | 70        | 14 |
| 95 | 34  | NIGER           | TINRHERT PLATEAU          | 23.5N                 | 8.0E                 | 0  | LO | 250 | N | N | 19910406 | 105102 | 245 | 144 | 70        | 14 |
| 95 | 35  | NIGER           | TINRHERT PLATEAU          | 23.0N                 | 8.0E                 | 0  | LO | 250 | N | N | 19910406 | 105104 | 245 | 144 | 70        | 14 |
| 95 | 36  | NIGER           | DESERT, WIND STREAKS      | 22.2N                 | 7.0E                 | 0  | NV | 250 | N | N | 19910406 | 105107 | 245 | 145 | 71        | 14 |
| 95 | 37  | NIGER           | DESERT, WIND STREAKS      | 22.2N                 | 7.2E                 | 0  | NV | 250 | N | N | 19910406 | 105110 | 245 | 145 | 71        | 14 |
| 95 | 38  | NIGER           | DESERT, WIND STREAKS      | 22.1N                 | 7.4E                 | 0  | NV | 250 | N | N | 19910406 | 105113 | 245 | 145 | 71        | 14 |
| 95 | 39  | NIGER           | TINRHERT PLATEAU          | 24.0N                 | 8.0E                 | 0  | LO | 250 | N | N | 19910406 | 105115 | 245 | 146 | 71        | 14 |
| 95 | 40  | NIGER           | TINRHERT PLATEAU          | 23.5N                 | 8.0E                 | 0  | LO | 250 | N | N | 19910406 | 105117 | 245 | 146 | 71        | 14 |
| 95 | 41  | NIGER           | TINRHERT PLATEAU          | 23.0N                 | 9.0E                 | 0  | LO | 250 | N | N | 19910406 | 105119 | 245 | 146 | 71        | 14 |
| 95 | 42  | NIGER           | DESERT, WIND STREAKS      | 22.0N                 | 7.9E                 | 0  | NV | 250 | N | N | 19910406 | 105121 | 245 | 147 | 71        | 14 |
| 95 | 43  | NIGER           | DESERT, WIND STREAKS      | 21.7N                 | 8.7E                 | 0  | NV | 250 | N | N | 19910406 | 105135 | 245 | 149 | 72        | 14 |
| 95 | 44  | NIGER           | DESERT, WIND STREAKS      | 21.6N                 | 8.9E                 | 0  | NV | 250 | N | N | 19910406 | 105137 | 245 | 149 | 72        | 14 |
| 95 | 45  | NIGER           | DESERT, WIND STREAKS      | 21.6N                 | 9.0E                 | 0  | NV | 250 | N | N | 19910406 | 105139 | 245 | 149 | 72        | 14 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                     | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | EL | SUM | OR |
|-----|----|-----------------|-----------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|----|-----|----|
|     |    |                 |                             | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |    |     |    |
| 95  | 46 | NIGER           | DESERT, WIND STREAKS        | 24.0N  | 10.0E | 21.5N | 9.2E  | 0  | NV | 250 | N | N | 19910408 | 105142 | 245 | 150 | 72 | 14  |    |
| 95  | 47 | NIGER           | TINRHERT PLATEAU            | 24.0N  | 10.0E | 21.4N | 9.5E  | 0  | LO | 250 | N | N | 19910408 | 105147 | 245 | 151 | 73 | 14  |    |
| 95  | 48 | NIGER           | TINRHERT PLATEAU            | 24.0N  | 10.0E | 21.3N | 9.8E  | 0  | LO | 250 | N | N | 19910408 | 105150 | 245 | 151 | 73 | 14  |    |
| 95  | 49 | NIGER           | TINRHERT PLATEAU            | 24.0N  | 11.0E | 21.3N | 9.9E  | 0  | LO | 250 | N | N | 19910408 | 105154 | 245 | 152 | 73 | 14  |    |
| 96  | 76 | NIGER           | MARZUQ DES., TCHIGAI P.     | 22.0N  | 12.5E |       |       | 0  | LO | 100 | N | Y |          |        |     |     |    |     |    |
| 96  | 77 | NIGER           | TCHIGAI PLATEAU             | 21.0N  | 13.0E |       |       | 0  | LO | 100 | N | Y |          |        |     |     |    |     |    |
| 97  | 74 | NIGER           | PLATEAU DU DJADO            | 22.0N  | 15.0E | 21.8N | 8.4E  | 0  | LO | 250 | N | N | 19910408 | 105129 | 245 | 147 | 72 | 14  |    |
| 98  | 47 | NIGER           | TENERE DESERT               |        |       | 22.6N | 7.9E  | 0  | LO | 250 | N | N | 19910407 | 101222 | 246 | 127 | 65 | 29  |    |
| 98  | 48 | NIGER           | TENERE DESERT               |        |       | 22.5N | 8.1E  | 0  | LO | 250 | N | N | 19910407 | 101225 | 246 | 127 | 65 | 29  |    |
| 98  | 49 | NIGER           | TCHIGAI PLATEAU             |        |       | 22.4N | 8.4E  | 0  | LO | 250 | N | N | 19910407 | 101231 | 246 | 127 | 65 | 29  |    |
| 153 | 0  | A NIGER         | TAGAMA DESERT               |        |       |       |       | 15 | LO | 250 | N | N |          |        |     |     |    |     |    |
| 153 | 0  | B NIGER         | TAGAMA DESERT               |        |       |       |       | 20 | LO | 250 | N | Y |          |        |     |     |    |     |    |
| 77  | 19 | NIGERIA         | KAINJI LAKE AREA            | 10.7N  | 4.5E  | 14.7N | 1.8E  | 60 | LO | 250 | N | N | 19910406 | 122951 | 244 | 226 | 78 | 15  |    |
| 77  | 20 | NIGERIA         | SOKOTO AREA                 | 13.0N  | 5.0E  | 13.4N | 4.4E  | 0  | LO | 250 | N | N | 19910406 | 123037 | 244 | 238 | 78 | 15  |    |
| 77  | 21 | NIGERIA         | NIGER BORDER AREA           |        |       | 13.0N | 5.2E  | 0  | LO | 250 | N | N | 19910406 | 123053 | 244 | 242 | 78 | 15  |    |
| 77  | 22 | NIGERIA         | NIGER BORDER AREA           |        |       | 12.4N | 6.4E  | 0  | LO | 250 | N | N | 19910406 | 123114 | 244 | 246 | 75 | 15  |    |
| 77  | 23 | NIGERIA         | LARGE RESERVOIR, UNMAPPED   |        |       | 10.1N | 10.7E | 40 | LO | 250 | N | N | 19910406 | 123233 | 244 | 259 | 71 | 15  |    |
| 77  | 24 | NIGERIA         | LARGE RESERVOIR, UNMAPPED   |        |       | 9.6N  | 11.7E | 40 | LO | 250 | N | N | 19910406 | 123252 | 243 | 261 | 70 | 15  |    |
| 80  | 41 | NIGERIA         | CITY OF LAGOS               | 6.5N   | 3.5E  | 4.7N  | 2.4E  | 65 | LO | 250 | N | N | 19910408 | 121352 | 246 | 297 | 83 | 61  |    |
| 80  | 42 | NIGERIA         | SLAVE COAST                 | 6.5N   | 3.0E  | 4.5N  | 2.7E  | 75 | LO | 250 | N | Y | 19910409 | 121358 | 246 | 297 | 83 | 61  |    |
| 83  | 23 | NIGERIA         | ZAMFARA R, SOKOTO R, DUST   | 13.0N  | 4.8E  | 16.2N | 4.2E  | 10 | LO | 100 | N | Y | 19910409 | 103341 | 246 | 114 | 70 | 60  |    |
| 83  | 24 | NIGERIA         | SOKOTO R, DUST, SOKOTO, AFD | 13.0N  | 5.5E  | 15.7N | 5.4E  | 15 | LO | 100 | N | Y | 19910409 | 103402 | 246 | 114 | 71 | 60  |    |
| 83  | 25 | NIGERIA         | MARADI WADI, NKANABA WADI   | 13.8N  | 7.7E  | 15.0N | 6.8E  | 10 | LO | 100 | N | N | 19910409 | 103428 | 246 | 115 | 73 | 60  |    |
| 83  | 28 | NIGERIA         | LAKE CHAD, CLOUDY, DUST     | 13.5N  | 13.5E | 13.2N | 10.5E | 50 | LO | 100 | N | Y | 19910409 | 103533 | 246 | 116 | 77 | 60  |    |
| 83  | 29 | NIGERIA         | LAKE CHAD, CLOUDY, DUST     | 13.5N  | 13.5E | 12.9N | 11.1E | 60 | LO | 100 | N | Y | 19910409 | 103544 | 246 | 116 | 78 | 60  |    |
| 83  | 30 | NIGERIA         | LAKE CHAD, CLOUDY, DUST     | 13.5N  | 13.5E | 12.7N | 11.5E | 60 | LO | 100 | N | Y | 19910409 | 103552 | 246 | 117 | 78 | 60  |    |
| 83  | 31 | NIGERIA         | LAKE CHAD, CLOUDY, DUST     | 13.5N  | 13.5E | 12.4N | 12.1E | 60 | LO | 100 | N | Y | 19910409 | 103603 | 246 | 117 | 79 | 60  |    |
| 83  | 32 | NIGERIA         | LAKE CHAD, CLOUDY, DUST     | 13.5N  | 13.5E | 11.6N | 13.7E | 60 | LO | 100 | N | Y | 19910409 | 103631 | 246 | 117 | 81 | 60  |    |
| 84  | 42 | NIGERIA         | RIHA RIVER N. OF SOKOTO     | 13.5N  | 5.5E  |       |       | 15 | LO | 250 | N | N |          |        |     |     |    |     |    |
| 84  | 43 | NIGERIA         | NEAR VILLAGE OF ISA         | 13.5N  | 6.5E  |       |       | 5  | LO | 250 | N | N |          |        |     |     |    |     |    |
| 84  | 44 | NIGERIA         | WEST OF LAKE CHAD           | 11.5N  | 11.0E |       |       | 10 | LO | 250 | N | N |          |        |     |     |    |     |    |
| 84  | 46 | NIGERIA         | LAKE CHAD, SOUTH BASIN      | 13.0N  | 14.0E |       |       | 5  | LO | 250 | N | Y |          |        |     |     |    |     |    |
| 84  | 51 | NIGERIA         | LAKE CHAD, MAIDUGURI        | 13.0N  | 13.0E |       |       | 15 | LO | 250 | N | N |          |        |     |     |    |     |    |
| 84  | 52 | NIGERIA         | CHARI R. LOWLANDS           | 12.0N  | 14.5E |       |       | 5  | LO | 250 | N | N |          |        |     |     |    |     |    |
| 86  | 12 | NIGERIA         | SOKOTO AREA                 | 13.3N  | 5.4E  | 14.4N | 6.2E  | 0  | LO | 250 | N | N | 19910408 | 111318 | 246 | 140 | 80 | 45  |    |
| 86  | 13 | NIGERIA         | SOKOTO AREA                 | 13.0N  | 5.2E  | 14.3N | 6.4E  | 0  | LO | 250 | N | N | 19910408 | 111322 | 246 | 140 | 80 | 45  |    |
| 86  | 15 | NIGERIA         | W.OF KANO                   | 12.5N  | 7.3E  | 13.8N | 7.3E  | 0  | LO | 250 | N | N | 19910408 | 111339 | 246 | 144 | 81 | 45  |    |
| 86  | 16 | NIGERIA         | W.OF KANO                   | 12.4N  | 7.2E  | 13.7N | 7.5E  | 0  | LO | 250 | N | N | 19910408 | 111342 | 246 | 145 | 81 | 45  |    |
| 86  | 17 | NIGERIA         | W.OF KANO                   | 12.3N  | 7.5E  | 13.6N | 7.7E  | 0  | LO | 250 | N | N | 19910408 | 111346 | 246 | 146 | 82 | 45  |    |
| 86  | 18 | NIGERIA         | W.OF KANO                   | 12.5N  | 8.0E  | 13.6N | 7.9E  | 0  | LO | 250 | N | N | 19910408 | 111349 | 246 | 146 | 82 | 45  |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|----|-----------------|---------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |    |                 |                           | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 86  | 19 | NIGERIA         | NW. OF KANO               | 13.0N  | 8.0E  | 13.5N | 8.0E  | 0  | LO | 250 | N | N | 19910408 | 111351 | 246 | 147 | 82  | 45 |    |
| 86  | 20 | NIGERIA         | NW. OF KANO               |        |       | 13.4N | 8.1E  | 10 | LO | 250 | N | N | 19910408 | 111353 | 246 | 148 | 82  | 45 |    |
| 86  | 23 | NIGERIA         | HADEJIA AREA              | 12.5N  | 10.0E | 12.7N | 9.7E  | 20 | LO | 250 | N | N | 19910408 | 111421 | 246 | 157 | 83  | 45 |    |
| 86  | 24 | NIGERIA         | HADEJIA AREA              | 12.2N  | 9.3E  | 12.6N | 9.8E  | 20 | LO | 250 | N | N | 19910408 | 111423 | 246 | 158 | 84  | 45 |    |
| 86  | 25 | NIGERIA         | KANO AREA, KANO RIVER     | 12.0N  | 8.7E  | 12.5N | 9.9E  | 30 | LO | 250 | N | N | 19910408 | 111428 | 246 | 159 | 84  | 45 |    |
| 86  | 26 | NIGERIA         | AREA W. OF KANO           | 12.0N  | 8.0E  | 12.5N | 10.1E | 40 | LO | 250 | N | N | 19910408 | 111428 | 246 | 160 | 84  | 45 |    |
| 86  | 27 | NIGERIA         | NEAR POTISKUM             | 12.0N  | 11.0E | 11.8N | 11.4E | 60 | NV | 250 | N | N | 19910408 | 111453 | 246 | 174 | 85  | 45 |    |
| 86  | 28 | NIGERIA         | NEAR POTISKUM             | 11.0N  | 11.5E | 11.7N | 11.6E | 70 | NV | 250 | N | N | 19910408 | 111457 | 246 | 177 | 85  | 45 |    |
| 88  | 51 | NIGERIA         | RIMA R. GOULBIN MARADI R. | 13.7N  | 5.5E  | 14.9N | 7.1E  | 20 | LO | 250 | N | N | 19910409 | 103432 | 246 | 115 | 73  | 60 |    |
| 88  | 53 | NIGERIA         | GRAZING, HAZE             |        |       | 14.1N | 8.7E  | 0  | LO | 250 | N | N | 19910409 | 103500 | 246 | 116 | 76  | 60 |    |
| 88  | 54 | NIGERIA         | KANO, GRAZING             | 13.6N  | 8.8E  | 13.5N | 9.9E  | 0  | NV | 250 | N | Y | 19910409 | 103522 | 246 | 116 | 76  | 60 |    |
| 88  | 55 | NIGERIA         | KANO, KANO R. DUST STORM  | 12.1N  | 9.0E  | 13.3N | 10.3E | 25 | LO | 250 | N | Y | 19910409 | 103530 | 246 | 116 | 77  | 60 |    |
| 88  | 56 | NIGERIA         | KOMADUGU GANA R/SWAMP     | 12.6N  | 11.5E | 12.6N | 11.7E | 25 | NV | 250 | N | N | 19910409 | 103555 | 246 | 117 | 78  | 60 |    |
| 90  | 29 | NIGERIA         | LAKE CHAD                 | 13.0N  | 14.0E | 19.4N | 14.8E | 45 | LO | 250 | N | N | 19910406 | 105318 | 245 | 168 | 76  | 14 |    |
| 90  | 40 | NIGERIA         | KANO, AFLDS, RESERV.      | 12.5N  | 8.5E  | 11.5N | 8.2E  | 5  | LO | 250 | N | N | 19910406 | 123147 | 244 | 252 | 73  | 15 |    |
| 90  | 41 | NIGERIA         | KOMADUGOU Y08E/GANA R.    | 12.8N  | 11.4E | 10.5N | 10.0E | 0  | LO | 250 | N | N | 19910406 | 123220 | 244 | 257 | 72  | 15 |    |
| 90  | 42 | NIGERIA         | L. CHAD, KAMADUGOU R.     | 13.5N  | 13.5E | 10.1N | 10.7E | 0  | LO | 250 | N | N | 19910406 | 123233 | 244 | 259 | 71  | 15 |    |
| 90  | 43 | NIGERIA         | LAKE CHAD                 | 13.0N  | 14.0E | 10.1N | 10.9E | 40 | LO | 250 | N | N | 19910406 | 123236 | 243 | 259 | 71  | 15 |    |
| 152 | 14 | NIGERIA         | BENUE RIVER               | 9.5N   | 11.5E | 9.3N  | 12.3E | 20 | NV | 250 | N | Y | 19910406 | 123303 | 243 | 263 | 70  | 15 |    |
| 152 | 15 | NIGERIA         | BENUE RIVER-RESERVOIR     | 9.0N   | 13.0E | 8.5N  | 13.8E | 25 | NV | 250 | N | Y | 19910406 | 123330 | 243 | 265 | 68  | 15 |    |
| 153 | 0  | C NIGERIA       | AREA EAST OF SOKOTO       |        |       |       |       | 15 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 0  | D NIGERIA       | AREA EAST OF SOKOTO       | 13.0N  | 6.5E  |       |       | 25 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 0  | E NIGERIA       | DNGAIYA RIVER             | 12.0N  | 11.5E |       |       | 10 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 0  | F NIGERIA       | DNGAIYA RIVER             | 12.0N  | 11.0E |       |       | 15 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 0  | G NIGERIA       | DNGAIYA RIVER             | 11.5N  | 10.5E |       |       | 30 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 0  | H NIGERIA       | AREA WEST OF LAKE CHAD    | 13.0N  | 13.0E |       |       | 20 | LO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 0  | K NIGERIA       | MANDARA MOUNTAINS         | 13.0N  | 13.5E |       |       | 20 | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 94  | 38 | OCEAN           | EDDIES, SUNGLINT          |        |       |       |       | 25 | HO | 100 | N | N |          |        |     |     |     |    |    |
| 94  | 39 | OCEAN           | EDDIES, SUNGLINT          |        |       |       |       | 15 | HO | 100 | N | N |          |        |     |     |     |    |    |
| 94  | 40 | OCEAN           | EDDIES, SUNGLINT          |        |       |       |       | 30 | HO | 100 | N | N |          |        |     |     |     |    |    |
| 94  | 41 | OCEAN           | CLOUDS                    |        |       |       |       | 80 | HO | 100 | N | N |          |        |     |     |     |    |    |
| 12  | 5  | OMAN            | EMPTY QUARTER             | 20.0N  | 55.0E | 19.0N | 47.6E | 5  | HO | 35  | O | N | 19910410 | 064640 | 247 | 106 | 58  | 73 |    |
| 12  | 6  | OMAN            | WAHIBA SANDS, OMAN MTNS.  | 23.0N  | 56.0E | 18.9N | 47.8E | 35 | HO | 35  | N | N | 19910410 | 064843 | 247 | 106 | 58  | 73 |    |
| 12  | 9  | OMAN            | EMPTY QUARTER, SALALAH    | 17.0N  | 53.0E | 17.7N | 50.8E | 5  | LO | 35  | N | N | 19910410 | 064735 | 247 | 106 | 61  | 73 |    |
| 12  | 10 | OMAN            | EMPTY QUARTER, SALALAH    | 17.0N  | 54.0E | 17.5N | 51.1E | 5  | LO | 35  | N | N | 19910410 | 064740 | 247 | 106 | 62  | 73 |    |
| 12  | 11 | OMAN            | EMPTY QUARTER, SALALAH    | 18.0N  | 53.0E | 17.2N | 51.8E | 5  | LO | 35  | N | N | 19910410 | 064752 | 247 | 106 | 62  | 73 |    |
| 12  | 12 | OMAN            | EMPTY QUARTER, SALALAH    | 19.0N  | 54.0E | 16.7N | 53.0E | 5  | LO | 35  | N | N | 19910410 | 064813 | 247 | 107 | 64  | 73 |    |
| 12  | 16 | OMAN            | EMPTY QUARTER, SALALAH    | 18.0N  | 56.0E | 15.6N | 55.5E | 10 | HO | 35  | N | N | 19910410 | 064857 | 247 | 107 | 67  | 73 |    |
| 38  | 25 | OMAN            | EMPTY QUARTER, SAND DUNES | 23.0N  | 56.0E | 24.7N | 56.1E | 5  | LO | 35  | N | N | 19910411 | 043042 | 245 | 97  | 34  | 87 |    |
| 38  | 26 | OMAN            | WAHIBA SANDS, ALLUV. FAN  | 22.0N  | 57.0E | 24.5N | 56.8E | 0  | LO | 35  | N | N | 19910411 | 043053 | 245 | 97  | 34  | 87 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | LONG   | MADIR<br>LAT | LONG   | CC  | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|--------------------------|---------------|--------|--------------|--------|-----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 38  | 27  | OMAN            | OMAN MTS., WAHIBA SANDS  | 22.0N         | 58.0E  | 24.4N        | 57.2E  | 10  | LO | 35  | N | N | 19910411 | 043100 | 245 | 97  | 35        | 87 |
| 41  | 1   | OMAN            | CITY OF SALALAH          | 17.0N         | 54.0E  | 18.1N        | 51.6E  | 5   | LO | 35  | N | N | 19910411 | 060929 | 247 | 101 | 53        | 88 |
| 41  | 2   | OMAN            | SALALAH, EMPTY QUARTER   | 18.0N         | 52.0E  | 17.3N        | 53.4E  | 10  | LO | 35  | N | N | 19910411 | 061000 | 247 | 101 | 55        | 88 |
| 41  | 3   | OMAN            | OMAN MTS., WAHIBA SANDS  | 22.0N         | 57.0E  | 15.8N        | 56.8E  | 15  | HO | 35  | N | N | 19910411 | 061100 | 247 | 100 | 59        | 88 |
| 41  | 4   | OMAN            | OMAN MTS., WAHIBA SANDS  | 22.0N         | 60.0E  | 15.4N        | 57.6E  | 20  | HO | 35  | N | N | 19910411 | 061115 | 247 | 100 | 60        | 88 |
| 41  | 7   | OMAN            | EMPTY QUARTER, MASIRAH I | 23.0N         | 56.0E  | 14.5N        | 59.4E  | 15  | HO | 35  | N | N | 19910411 | 061146 | 247 | 100 | 62        | 88 |
| 41  | 8   | OMAN            | EMPTY QUARTER, MASIRAH I |               |        | 14.2N        | 60.0E  | 20  | HO | 35  | O | N | 19910411 | 061157 | 247 | 100 | 63        | 88 |
| 73  | 52  | OMAN            | PIPELINES AND ROADS      |               |        | 21.9N        | 57.7E  | 0   | LO | 250 | N | N | 19910407 | 070603 | 246 | 131 | 67        | 27 |
| 73  | 54  | OMAN            | AL MASIRAH AREA          | 20.5N         | 58.9E  | 20.4N        | 62.0E  | 10  | LO | 250 | N | N | 19910407 | 070715 | 246 | 138 | 72        | 27 |
| 94  | 57  | OMAN            | MADRAKAH PT., SAWQIRAH B | 19.0N         | 56.0E  |              |        | 5   | LO | 100 | N | N |          |        |     |     |           |    |
| 94  | 58  | OMAN            | SAMHAN MTS., QAMAR BAY   | 18.0N         | 54.0E  |              |        | 10  | HO | 100 | N | N |          |        |     |     |           |    |
| 94  | 59  | OMAN            | COAST, EMPTY QUARTER     | 19.0N         | 51.0E  |              |        | 10  | HO | 100 | N | N |          |        |     |     |           |    |
| 94  | 60  | OMAN            | ALLUVIAL FANS, OMAN MTS  | 21.5N         | 57.5E  |              |        | 10  | LO | 100 | N | N |          |        |     |     |           |    |
| 94  | 61  | OMAN            | EMPTY QUARTER, DUST ST.  | 22.0N         | 52.5E  |              |        | 10  | HO | 100 | N | N |          |        |     |     |           |    |
| 94  | 62  | OMAN            | AL MASIRAH IS., ALL. FAN | 20.5N         | 59.0E  |              |        | 5   | LO | 100 | N | N |          |        |     |     |           |    |
| 151 | 131 | OMAN            | MUSANDAM PENINSULA       | 26.5N         | 56.5E  | 27.5N        | 55.4E  | 5   | NV | 250 | N | Y | 19910406 | 060449 | 246 | 116 | 51        | 11 |
| 151 | 171 | OMAN            | NORTHEAST OMAN           | 22.5N         | 57.5E  | 21.9N        | 55.9E  | 10  | LO | 250 | N | Y | 19910406 | 074433 | 245 | 150 | 72        | 12 |
| 151 | 172 | OMAN            | WADIS-COAST-GULF OF OMAN | 22.0N         | 58.0E  | 21.8N        | 56.7E  | 5   | LO | 250 | N | Y | 19910406 | 074446 | 245 | 152 | 72        | 12 |
| 151 | 173 | OMAN            | COAST-AL MASIRAH         | 21.0N         | 58.5E  | 21.1N        | 58.2E  | 10  | LO | 250 | N | Y | 19910406 | 074511 | 245 | 156 | 74        | 12 |
| 152 | 99  | OMAN            | AKHDAR MNTS.-COAST       | 24.5N         | 58.5E  | 27.4N        | 58.1E  | 60  | LO | 250 | N | N | 19910407 | 052634 | 246 | 110 | 46        | 26 |
| 152 | 193 | OMAN            | COAST-ARABIAN SEA        | 22.0N         | 59.5E  | 21.3N        | 59.6E  | 25  | NV | 250 | N | Y | 19910407 | 070634 | 246 | 134 | 69        | 27 |
| 152 | 194 | OMAN            | COAST-ARABIAN SEA        | 22.0N         | 60.0E  | 20.8N        | 60.9E  | 30  | LO | 250 | N | Y | 19910407 | 070656 | 246 | 136 | 71        | 27 |
| 152 | 195 | OMAN            | COAST-AL MASIRAH         | 20.0N         | 59.5E  | 20.3N        | 62.2E  | 25  | LO | 250 | N | Y | 19910407 | 070718 | 245 | 138 | 72        | 27 |
| 39  | 5   | PACIFIC OCEAN   | DYING THUNDERSTORM       |               |        | 9.0S         | 115.4W | 35  | LO | 35  | N | N | 19910410 | 210404 | 248 | 309 | 64        | 82 |
| 39  | 6   | PACIFIC OCEAN   | OCEAN FEATURES           |               |        | 13.6S        | 106.7W | 10  | LO | 35  | N | N | 19910410 | 210843 | 248 | 304 | 54        | 82 |
| 39  | 7   | PACIFIC OCEAN   | CLOUD FORMATIONS         |               |        | 17.5S        | 98.3W  | 100 | LO | 35  | N | N | 19910410 | 210912 | 248 | 300 | 44        | 82 |
| 39  | 8   | PACIFIC OCEAN   | CLOUD FORMATIONS         |               |        | 19.3S        | 94.0W  | 55  | LO | 35  | N | N | 19910410 | 211026 | 247 | 299 | 39        | 82 |
| 39  | 9   | PACIFIC OCEAN   | CLOUD FORMATIONS         |               |        | 22.5S        | 85.2W  | 90  | LO | 35  | N | N | 19910410 | 211253 | 247 | 294 | 30        | 82 |
| 39  | 10  | PACIFIC OCEAN   | VORTICES OVER HUMBOLDT C |               |        | 25.3S        | 75.2W  | 80  | LO | 35  | N | N | 19910410 | 211531 | 246 | 290 | 20        | 82 |
| 40  | 9   | PACIFIC OCEAN   | CLOUDS, OCEAN FEATURES   |               |        | 27.4N        | 138.1E | 40  | LO | 35  | N | N | 19910410 | 221320 | 244 | 92  | 22        | 83 |
| 40  | 10  | PACIFIC OCEAN   | SUNGLINT, EDDIES         |               |        | 26.6N        | 142.9E | 35  | LO | 35  | N | N | 19910410 | 221432 | 244 | 94  | 27        | 83 |
| 40  | 11  | PACIFIC OCEAN   | SUNGLINT, EDDIES         |               |        | 26.3N        | 144.4E | 30  | LO | 35  | N | N | 19910410 | 221456 | 245 | 95  | 28        | 83 |
| 40  | 12  | PACIFIC OCEAN   | SUNGLINT, EDDIES         |               |        | 25.6N        | 147.8E | 30  | LO | 35  | N | N | 19910410 | 221548 | 245 | 96  | 32        | 83 |
| 40  | 13  | PACIFIC OCEAN   | THUNDERSTORM             |               |        | 8.7N         | 169.9W | 75  | LO | 35  | N | N | 19910410 | 222749 | 248 | 92  | 77        | 83 |
| 40  | 14  | PACIFIC OCEAN   | CHRISTMAS ISLAND, WAKES  | 2.0N          | 157.0W | 3.8N         | 161.4W | 25  | LO | 35  | N | N | 19910410 | 223030 | 248 | 44  | 84        | 83 |
| 40  | 15  | PACIFIC OCEAN   | MARQUESAS ISLANDS        | 9.0S          | 140.0W | 7.1S         | 142.7W | 35  | LO | 35  | N | N | 19910410 | 223628 | 248 | 313 | 68        | 83 |
| 40  | 16  | PACIFIC OCEAN   | VIEW W. TOWARD SUNSET    |               |        | 28.6S        | 71.9W  | 70  | HO | 35  | N | N | 19910410 | 225545 | 245 | 276 | -5        | 83 |
| 71  | 80  | PACIFIC OCEAN   | WAVES                    |               |        | 23.2N        | 117.2W | 0   | LO | 250 | N | N | 19910405 | 191556 | 245 | 152 | 70        | 4  |
| 71  | 84  | PACIFIC OCEAN   | S.GLINT-OIL SL.,OC FRONT |               |        | 21.9N        | 113.3W | 0   | LO | 250 | N | N | 19910405 | 191659 | 245 | 163 | 73        | 4  |
| 71  | 85  | PACIFIC OCEAN   | SUNGLINT-OCEAN EDDIES    |               |        | 20.3N        | 108.8W | 10  | LO | 250 | N | N | 19910405 | 191813 | 245 | 180 | 75        | 4  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL OR |
|-----|----|-----------------|---------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|--------------|
| 72  | 1  | PACIFIC OCEAN   | CLOUDS-CLOUD LINE         |                   | 28.3N 122.1W     | 60 | LO | 100 | N | N | 19910405 | 173513 | 246 | 113 | 46 3         |
| 72  | 24 | PACIFIC OCEAN   | OPEN CONVECTION CELLS     |                   | 28.4N 157.1W     | 90 | LO | 100 | N | N | 19910405 | 190557 | 246 | 104 | 36 4         |
| 72  | 25 | PACIFIC OCEAN   | TRADE WINDS CLOUDS        |                   | 28.5N 156.0W     | 85 | HO | 100 | N | N | 19910405 | 190613 | 246 | 105 | 37 4         |
| 72  | 26 | PACIFIC OCEAN   | TRADE WINDS CLOUDS        |                   | 28.5N 154.3W     | 40 | LO | 100 | N | Y | 19910405 | 190639 | 246 | 106 | 38 4         |
| 72  | 27 | PACIFIC OCEAN   | TRADE WINDS CLOUDS        |                   | 28.5N 151.8W     | 40 | LO | 100 | N | Y | 19910405 | 190714 | 246 | 108 | 41 4         |
| 72  | 28 | PACIFIC OCEAN   | TRADE WINDS CLOUDS        |                   | 28.4N 147.3W     | 70 | LO | 100 | N | N | 19910405 | 190820 | 246 | 111 | 45 4         |
| 72  | 29 | PACIFIC OCEAN   | CLOSED CONVECTION CLOUDS  |                   | 26.7N 131.8W     | 30 | LO | 100 | N | N | 19910405 | 191210 | 246 | 126 | 58 4         |
| 72  | 79 | PACIFIC OCEAN   | CLOUDS                    |                   | 19.2N 177.5W     | 30 | LO | 100 | N | N | 19910405 | 235922 | 245 | 186 | 76 7         |
| 75  | 85 | PACIFIC OCEAN   | CLDS. N. OF HAWAII IS.    |                   | 25.1N 155.7W     | 80 | LO | 250 | N | N | 19910408 | 164801 | 246 | 86  | 7 18         |
| 75  | 86 | PACIFIC OCEAN   | CLDS. N. OF HAWAII IS.    |                   | 25.2N 155.3W     | 80 | LO | 250 | N | N | 19910408 | 164808 | 246 | 86  | 8 18         |
| 75  | 87 | PACIFIC OCEAN   | CLDS. N. OF HAWAII IS.    |                   | 25.4N 154.4W     | 80 | LO | 250 | N | N | 19910408 | 164822 | 246 | 87  | 9 18         |
| 75  | 89 | PACIFIC OCEAN   | CLOUDS & WATER            |                   | 28.2N 118.4W     | 60 | LO | 250 | N | N | 19910408 | 165714 | 246 | 108 | 42 18        |
| 79  | 66 | PACIFIC OCEAN   | OCEAN OFF MEXICAN COAST   |                   | 18.8N 102.9W     | 10 | LO | 250 | N | N | 19910408 | 184055 | 245 | 164 | 77 19        |
| 79  | 68 | PACIFIC OCEAN   | SHIP WAKES, WAVES         |                   | 15.1N 94.5W      | 5  | LO | 250 | N | N | 19910408 | 184321 | 244 | 212 | 79 19        |
| 81  | 11 | PACIFIC OCEAN   | SHIP WAKES, SUNGLINT      |                   | 13.6N 93.3W      | 5  | LO | 250 | N | N | 19910405 | 192242 | 244 | 247 | 72 4         |
| 81  | 12 | PACIFIC OCEAN   | SHIP WAKES, OIL SLICKS    |                   | 13.3N 92.7W      | 5  | LO | 250 | N | N | 19910405 | 192253 | 244 | 248 | 71 4         |
| 85  | 35 | PACIFIC OCEAN   | NO OBVIOUS FEATURES       |                   | 1.8S 155.6W      | 5  | LO | 250 | N | N | 19910408 | 235004 | 245 | 293 | 66 53        |
| 85  | 36 | PACIFIC OCEAN   | NO OBVIOUS FEATURES       |                   | 2.3S 154.6W      | 10 | LO | 250 | N | N | 19910408 | 235023 | 245 | 293 | 65 53        |
| 85  | 40 | PACIFIC OCEAN   | NO OBVIOUS FEATURES       |                   | 12.8S 135.8W     | 40 | LO | 250 | N | N | 19910408 | 235617 | 245 | 292 | 42 53        |
| 85  | 41 | PACIFIC OCEAN   | NO OBVIOUS WATER FEATURES |                   | 14.4S 132.4W     | 20 | LO | 250 | N | N | 19910408 | 235718 | 245 | 292 | 39 53        |
| 85  | 42 | PACIFIC OCEAN   | NO OBVIOUS WATER FEATURES |                   | 17.9S 124.6W     | 50 | LO | 250 | N | N | 19910408 | 235934 | 245 | 290 | 30 53        |
| 85  | 43 | PACIFIC OCEAN   | NO OBVIOUS WATER FEATURES |                   | 18.0S 124.4W     | 40 | LO | 250 | N | N | 19910408 | 235938 | 245 | 290 | 30 53        |
| 85  | 44 | PACIFIC OCEAN   | OVEREXPOSED               |                   | 21.7S 114.5W     | 30 | LO | 250 | N | N | 19910408 | 000224 | 245 | 288 | 19 53        |
| 91  | 1  | PACIFIC OCEAN   | EDDIES, SHEARS            |                   | 21.0N 110.7W     | 20 | LO | 250 | N | N | 19910405 | 191742 | 245 | 172 | 75 4         |
| 91  | 19 | PACIFIC OCEAN   | CURRENT STRUCTURE, SNGLT  |                   | 13.6N 93.4W      | 5  | LO | 250 | N | N | 19910405 | 192240 | 244 | 247 | 72 4         |
| 91  | 20 | PACIFIC OCEAN   | CURRENT STRUCTURE         |                   | 13.3N 92.8W      | 5  | LO | 250 | N | N | 19910405 | 192251 | 244 | 248 | 71 4         |
| 91  | 94 | PACIFIC OCEAN   | CLOUDS, CONV. CELLS       |                   | 27.2N 153.3E     | 70 | LO | 250 | N | N | 19910405 | 235139 | 246 | 121 | 55 7         |
| 93  | 22 | PACIFIC OCEAN   | FRONTS, UPWELLING         |                   | 25.0N 164.5E     | 10 | LO | 250 | N | N | 19910405 | 235430 | 246 | 135 | 64 7         |
| 93  | 23 | PACIFIC OCEAN   | COLLAPSING T/S            |                   | 24.5N 166.6E     | 30 | LO | 250 | N | N | 19910405 | 235503 | 246 | 138 | 66 7         |
| 93  | 24 | PACIFIC OCEAN   | JOHNSTON ISLAND           |                   | 16.5N 169.5W     | 10 | LO | 250 | N | N | 19910406 | 000101 | 244 | 216 | 76 7         |
| 94  | 12 | PACIFIC OCEAN   | CLOUDS OFF BAJA CALIF.    |                   |                  | 90 | LO | 100 | U | N |          |        |     |     |              |
| 94  | 13 | PACIFIC OCEAN   | SHIP WAKES IN SUNGLINT    |                   | 19.0N 106.0W     | 0  | LO | 100 | U | N |          |        |     |     |              |
| 94  | 17 | PACIFIC OCEAN   | FRONT OFF GUATEMALA C.    |                   | 13.0N 92.0W      | 25 | LO | 100 | N | N |          |        |     |     |              |
| 94  | 19 | PACIFIC OCEAN   | INT. WAVES, COSTA RICA C  |                   | 9.0N 85.0W       | 50 | LO | 100 | U | N |          |        |     |     |              |
| 94  | 32 | PACIFIC OCEAN   | CLOUDS                    |                   |                  | 85 | LO | 100 | U | N |          |        |     |     |              |
| 94  | 33 | PACIFIC OCEAN   | CLOUDS                    |                   |                  | 95 | LO | 100 | U | N |          |        |     |     |              |
| 96  | 4  | PACIFIC OCEAN   | GRO. PEARL + HERMES REEF  |                   | 28.0N 176.0W     | 15 | NV | 100 | N | N |          |        |     |     |              |
| 96  | 37 | PACIFIC OCEAN   | CLOUDS, SUNGLINT          |                   |                  | 60 | HO | 100 | N | N |          |        |     |     |              |
| 151 | 1  | PACIFIC OCEAN   | SUNGLINT-OCEAN EDDIES     |                   | 21.7N 112.6W     | 0  | LO | 250 | N | N | 19910405 | 191710 | 245 | 165 | 73 4         |
| 151 | 27 | PACIFIC OCEAN   | SUNGLINT-WAVES, SHIPWAKES |                   | 7.5N 82.5W       | 10 | LO | 250 | N | Y | 19910405 | 192633 | 243 | 270 | 60 4         |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME        | FEATURE                    | CENTER<br>LAT<br>LONG | NADIR<br>LAT<br>LONG | CC | TL  | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|------------------------|----------------------------|-----------------------|----------------------|----|-----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 156 | PACIFIC OCEAN          | CLOUDS                     | 17.7S 159.8E          | 17.7S 159.8E         | 80 | LO  | 250 | N | N | 19910407 | 055619 | 243 | 283 | 18        | 26 |
| 152 | 158 | PACIFIC OCEAN          | CLOUDS, HORIZON, UNDEREXPO | 24.4S 179.0E          | 24.4S 179.0E         | HO | 250 | U   | N | N | 19910407 | 060136 | 243 | 276 | -1        | 26 |
| 153 | 13  | PACIFIC OCEAN          | BLANK                      | 28.5N 123.4W          | 28.5N 123.4W         | LO | 250 | O   | N | N | 19910409 | 145918 | 243 | 88  | 13        | 83 |
| 153 | 157 | PACIFIC OCEAN          | CLOUD STREAKS              | 2.6N 137.3W           | 2.6N 137.3W          | 25 | LO  | 250 | N | N | 19910409 | 213533 | 247 | 309 | 81        | 67 |
| 153 | 158 | PACIFIC OCEAN          | CLOUD STREAKS              | 1.6N 135.5W           | 1.6N 135.5W          | 35 | LO  | 250 | N | N | 19910409 | 213607 | 247 | 307 | 79        | 67 |
| 153 | 159 | PACIFIC OCEAN          | CLOUD STREAKS              | 0.5N 133.6W           | 0.5N 133.6W          | 20 | LO  | 250 | N | N | 19910409 | 213643 | 247 | 305 | 77        | 67 |
| 153 | 160 | PACIFIC OCEAN          | OCEAN WAVE PATTERNS        | 1.2S 130.8W           | 1.2S 130.8W          | 30 | LO  | 250 | N | N | 19910409 | 213738 | 247 | 303 | 73        | 67 |
| 91  | 95  | PACIFIC OCEAN ISLAND   | JOHNSON ATOLL              | 16.5N 169.5W          | 16.0N 170.0W         | 10 | NV  | 250 | N | N | 19910406 | 000131 | 244 | 225 | 76        | 7  |
| 92  | 35  | PACIFIC OCEAN ISLAND   | FRENCH FRIGATE SHOALS      | 23.8N 166.1W          | 23.8N 165.1W         | 30 | LO  | 250 | N | N | 19910406 | 214350 | 246 | 129 | 84        | 21 |
| 151 | 1   | A PACIFIC OCEAN ISLAND | SAN BENEDICTO I.-SUNGLIN   | 20.6N 109.5E          | 20.6N 109.5E         | 5  | LO  | 250 | N | Y | 19910405 | 191802 | 245 | 177 | 75        | 4  |
| 151 | 91  | PACIFIC OCEAN ISLAND   | JOHNSTON ATOLL             | 16.0N 169.5W          | 16.5N 171.2W         | 25 | LO  | 250 | N | Y | 19910406 | 000110 | 244 | 219 | 76        | 7  |
| 151 | 91  | A PACIFIC OCEAN ISLAND | JOHNSTON ATOLL             | 16.0N 169.5W          | 16.4N 170.8W         | 25 | LO  | 250 | N | Y | 19910406 | 000118 | 244 | 221 | 76        | 7  |
| 151 | 97  | PAKISTAN               | INDUS RIVER                | 27.0N 68.0E           | 28.4N 68.5E          | 35 | LO  | 250 | N | N | 19910406 | 042845 | 246 | 108 | 42        | 10 |
| 152 | 101 | PAKISTAN               | CENTRAL MAKRAK RANG        | 26.5N 65.0E           | 26.8N 62.3E          | 30 | LO  | 250 | N | N | 19910407 | 052736 | 246 | 113 | 49        | 26 |
| 152 | 102 | PAKISTAN               | INDUS RIVER                | 25.0N 68.5E           | 26.0N 66.3E          | 50 | LO  | 250 | N | N | 19910407 | 052837 | 246 | 116 | 53        | 26 |
| 72  | 40  | PANAMA                 | LAGUNA DE CHIRIQUI         | 8.5N 82.5W            | 11.4N 89.2W          | 50 | LO  | 100 | N | Y | 19910405 | 192358 | 243 | 257 | 68        | 4  |
| 72  | 41  | PANAMA                 | LAGUNA DE CHIRIQUI         | 9.0N 82.0W            | 10.0N 86.4W          | 30 | LO  | 100 | N | Y | 19910405 | 192449 | 243 | 262 | 66        | 4  |
| 72  | 42  | PANAMA                 | CERRO SANTIAGO             | 8.5N 82.0W            | 6.8N 80.6W           | 40 | LO  | 100 | N | Y | 19910405 | 192637 | 243 | 270 | 60        | 4  |
| 72  | 43  | PANAMA                 | BAY OF PANAMA              | 9.0N 79.5W            | 6.3N 79.7W           | 70 | LO  | 100 | N | Y | 19910405 | 192655 | 243 | 271 | 59        | 4  |
| 72  | 44  | PANAMA                 | BAY OF PANAMA              | 8.5N 79.5W            | 5.9N 79.1W           | 70 | LO  | 100 | N | Y | 19910405 | 192706 | 243 | 271 | 58        | 4  |
| 72  | 45  | PANAMA                 | BAY OF PANAMA-BRIGHT       | 5.6N 78.6W            | 5.6N 78.6W           | 80 | LO  | 100 | O | Y | 19910405 | 192716 | 243 | 272 | 57        | 4  |
| 72  | 46  | PANAMA                 | BAY OF PANAMA-BRIGHT       | 5.2N 77.9W            | 5.2N 77.9W           | 80 | LO  | 100 | O | Y | 19910405 | 192729 | 243 | 272 | 57        | 4  |
| 72  | 47  | PANAMA                 | BAY OF PANAMA-BRIGHT       | 4.9N 77.3W            | 4.9N 77.3W           | 80 | LO  | 100 | O | Y | 19910405 | 192740 | 243 | 273 | 56        | 4  |
| 72  | 48  | PANAMA                 | BAY OF PANAMA-BRIGHT       | 4.6N 76.8W            | 4.6N 76.8W           | 90 | LO  | 100 | O | Y | 19910405 | 192750 | 243 | 273 | 55        | 4  |
| 72  | 49  | PANAMA                 | BAY OF PANAMA-BRIGHT       | 4.2N 76.1W            | 4.2N 76.1W           | 90 | LO  | 100 | O | Y | 19910405 | 192802 | 243 | 274 | 55        | 4  |
| 79  | 73  | PANAMA                 | COIBA ISLAND               | 7.5N 81.5W            | 8.5N 81.8W           | 40 | LO  | 250 | N | N | 19910406 | 184713 | 244 | 264 | 70        | 19 |
| 79  | 74  | PANAMA                 | CENTRAL PANAMA             | 8.1N 81.0W            | 8.1N 81.0W           | 80 | HO  | 250 | N | N | 19910406 | 184728 | 244 | 266 | 70        | 19 |
| 79  | 75  | PANAMA                 | CENTRAL PANAMA             | 8.0N 80.8W            | 8.0N 80.8W           | 80 | HO  | 250 | N | N | 19910406 | 184731 | 244 | 266 | 69        | 19 |
| 79  | 76  | PANAMA                 | CENTRAL PANAMA             | 7.7N 80.4W            | 7.7N 80.4W           | 85 | HO  | 250 | N | N | 19910406 | 184740 | 244 | 267 | 69        | 19 |
| 81  | 22  | PANAMA                 | CHIRIQUI BAY               | 9.0N 82.0W            | 8.8N 84.1W           | 30 | LO  | 250 | N | N | 19910405 | 192531 | 243 | 266 | 63        | 4  |
| 81  | 23  | PANAMA                 | CHARCO AZUL BAY            | 8.5N 83.0W            | 8.5N 83.7W           | 20 | LO  | 250 | N | N | 19910405 | 192539 | 243 | 266 | 63        | 4  |
| 81  | 25  | PANAMA                 | CLOUDS                     | 7.3N 81.5W            | 7.3N 81.5W           | 85 | LO  | 250 | N | N | 19910405 | 192620 | 243 | 269 | 60        | 4  |
| 81  | 26  | PANAMA                 | CLOUDS                     | 6.6N 80.2W            | 6.6N 80.2W           | 95 | LO  | 250 | N | N | 19910405 | 192645 | 243 | 270 | 59        | 4  |
| 85  | 15  | PANAMA                 | COLON, PANAMA CANAL        | 9.5N 79.9W            | 10.0N 80.8W          | 60 | LO  | 250 | N | N | 19910408 | 172846 | 246 | 202 | 86        | 49 |
| 85  | 16  | PANAMA                 | ISTHMUS OF PANAMA          | 9.3N 79.8W            | 9.9N 80.6W           | 60 | LO  | 250 | N | N | 19910408 | 172950 | 246 | 207 | 86        | 49 |
| 85  | 17  | PANAMA                 | COLON, CANAL               | 9.4N 79.8W            | 9.6N 80.0W           | 60 | LO  | 250 | N | N | 19910408 | 173000 | 246 | 219 | 86        | 49 |
| 85  | 18  | PANAMA                 | PANAMA CITY, CANAL         | 9.0N 79.6W            | 9.5N 79.9W           | 70 | LO  | 250 | N | N | 19910408 | 173003 | 246 | 222 | 86        | 49 |
| 89  | 62  | PANAMA                 | PANAMA CANAL, COLON        | 9.2N 79.8W            | 8.2N 77.5W           | 75 | LO  | 250 | N | Y | 19910408 | 173047 | 246 | 255 | 85        | 49 |
| 89  | 63  | PANAMA                 | PANAMA CANAL, COLON        | 8.9N 79.9W            | 8.0N 77.1W           | 75 | LO  | 250 | N | Y | 19910408 | 173055 | 246 | 259 | 85        | 49 |
| 89  | 64  | PANAMA                 | PANAMA CANAL, COLON        | 9.0N 80.0W            | 7.6N 76.4W           | 75 | LO  | 250 | N | Y | 19910408 | 173108 | 246 | 264 | 84        | 49 |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME  | FEATURE                  | CENTER<br>LAT LON | MADIR<br>LAT LON | CC TL | FL | E   | S | DATE       | GMT    | AL  | AZ  | SUM<br>EL OR |
|-----|-----|------------------|--------------------------|-------------------|------------------|-------|----|-----|---|------------|--------|-----|-----|--------------|
| 89  | 65  | PANAMA           | PANAMA CANAL, COLON      | 8.5N 79.9W        | 7.5N 76.2W       | 80    | LO | 250 | N | Y 19910408 | 173111 | 246 | 266 | 84 49        |
| 91  | 30  | PANAMA           | LAGUNA CHIRIQUI, ISLANDS | 9.0N 82.0W        | 8.8N 84.2W       | 50    | LO | 250 | N | Y 19910405 | 192529 | 243 | 266 | 63 4         |
| 91  | 33  | PANAMA           | PENINSULA AZUERO         | 7.5N 80.5W        | 8.1W 83.1W       | 40    | LO | 250 | N | Y 19910405 | 192551 | 243 | 267 | 62 4         |
| 91  | 34  | PANAMA           | PENINSULA AZUERO         | 8.0N 80.0W        | 7.4N 81.6W       | 50    | LO | 250 | N | Y 19910405 | 192618 | 243 | 269 | 60 4         |
| 91  | 37  | PANAMA           | ISLANDS, COAST, CLOUDS   |                   | 5.7N 78.7W       | 80    | LO | 250 | U | N 19910405 | 192713 | 243 | 272 | 57 4         |
| 96  | 53  | PANAMA           | CANAL ZONE, COLON        | 9.0N 80.0W        |                  | 60    | LO | 100 | N | Y          |        |     |     |              |
| 96  | 54  | PANAMA           | CANAL ZONE, COLON        | 9.0N 79.0W        |                  | 60    | LO | 100 | N | Y          |        |     |     |              |
| 96  | 55  | PANAMA           | CANAL ZONE, PANAMA CITY  | 9.0N 80.0W        |                  | 60    | LO | 100 | N | Y          |        |     |     |              |
| 151 | 25  | PANAMA           | LAGUNA DE CHIRIQUI       | 9.0N 82.5W        | 8.3N 83.4W       | 30    | NV | 250 | N | Y 19910405 | 192545 | 243 | 267 | 62 4         |
| 151 | 26  | PANAMA           | GULF OF CHIRIQUI         | 8.0N 82.0W        | 8.2N 83.1W       | 30    | LO | 250 | N | Y 19910405 | 192551 | 243 | 267 | 62 4         |
| 153 | 4   | PANAMA           | CITY OF COLON, CLOUDS    | 8.5N 81.0W        | 9.0N 78.8W       | 75    | HO | 250 | N | N 19910408 | 173022 | 246 | 243 | 86 49        |
| 153 | 6   | PANAMA           | CANAL ZONE, COLON        | 9.5N 79.0W        | 7.3N 75.9W       | 70    | HO | 250 | N | N 19910408 | 173118 | 246 | 269 | 83 49        |
| 153 | 7   | PANAMA           | CANAL ZONE, COLON        | 9.5N 79.5W        |                  | 70    | HO | 250 | N | N          |        |     |     |              |
| 151 | 161 | PAPUA NEW GUINEA | EASTERN TIP              | 10.5S 149.0E      | 12.3S 145.9E     | 25    | LO | 250 | N | N 19910406 | 063118 | 242 | 282 | 24 11        |
| 152 | 152 | PAPUA NEW GUINEA | HOOD BAY-COAST-CORAL SEA | 10.0S 148.0E      | 11.9S 147.1E     | 50    | LO | 250 | N | N 19910407 | 055237 | 243 | 285 | 32 26        |
| 152 | 153 | PAPUA NEW GUINEA | LONG REEF-CONFLICT GROUP | 11.0S 151.0E      | 13.6S 150.5E     | 70    | LO | 250 | N | N 19910407 | 055340 | 243 | 285 | 28 26        |
| 10  | 17  | PARAGUAY         | CHACO PLAIN, DARK        | 23.0S 59.7W       | 23.0S 59.7W      | 55    | LO | 35  | U | N 19910410 | 193951 | 247 | 293 | 28 81        |
| 10  | 18  | PARAGUAY         | CHACO PLAIN, DARK        | 23.2S 59.0W       | 23.2S 59.0W      | 40    | LO | 35  | U | N 19910410 | 194002 | 247 | 293 | 27 81        |
| 10  | 19  | PARAGUAY         | CHACO PLAIN, DARK        | 23.6S 57.6W       | 23.6S 57.6W      | 25    | LO | 35  | U | N 19910410 | 194024 | 247 | 292 | 26 81        |
| 89  | 83  | PARAGUAY         | DARK, CLOUDS             | 24.9S 55.7W       | 24.9S 55.7W      | 50    | LO | 250 | U | N 19910408 | 205830 | 244 | 281 | 7 51         |
| 89  | 84  | PARAGUAY         | DARK                     | 25.1S 54.9W       | 25.1S 54.9W      | 5     | LO | 250 | U | N 19910408 | 205843 | 244 | 281 | 6 51         |
| 89  | 85  | PARAGUAY         | DARK                     | 25.3S 54.2W       | 25.3S 54.2W      | 20    | LO | 250 | U | N 19910408 | 205854 | 244 | 280 | 6 51         |
| 96  | 67  | PARAGUAY         | PARANA R., BORDER LAND U | 25.0S 55.5W       |                  | 30    | NV | 100 | U | Y          |        |     |     |              |
| 96  | 68  | PARAGUAY         | PARANA R., BORDER LAND U | 25.0S 54.5W       |                  | 25    | NV | 100 | U | Y          |        |     |     |              |
| 153 | 120 | PARAGUAY         | PARAGUAY R., CONCEPCION  | 23.0S 58.5W       | 23.2S 60.4W      | 30    | LO | 250 | N | N 19910409 | 201800 | 247 | 288 | 20 66        |
| 153 | 121 | PARAGUAY         | PARAGUAY R., ROSARIO     | 22.0S 58.0W       |                  | 30    | LO | 250 | N | Y          |        |     |     |              |
| 153 | 125 | PARAGUAY         | TEBICUARY RIVER          | 26.0S 56.5W       |                  | 35    | LO | 250 | N | Y          |        |     |     |              |
| 153 | 126 | PARAGUAY         | PARAGUAY R., YGUAZI R.   | 25.5S 56.5W       | 23.7S 58.6W      | 15    | LO | 250 | N | N 19910409 | 201828 | 247 | 287 | 18 66        |
| 153 | 127 | PARAGUAY         | TEBICUARY RIVER          | 26.0S 56.5W       |                  | 30    | LO | 250 | N | Y          |        |     |     |              |
| 153 | 128 | PARAGUAY         | PARAGUAY R. ROSARIO      | 24.0S 57.0W       | 23.8S 58.3W      | 10    | LO | 250 | N | N 19910409 | 201834 | 247 | 287 | 18 66        |
| 153 | 129 | PARAGUAY         | PARAGUAY R. ROSARIO      | 24.5S 56.5W       |                  | 10    | LO | 250 | U | Y          |        |     |     |              |
| 153 | 130 | PARAGUAY         | PARAGUAY R. ROSARIO      | 24.0S 57.0W       | 23.9S 57.7W      | 20    | LO | 250 | U | Y 19910409 | 201842 | 247 | 287 | 17 66        |
| 153 | 131 | PARAGUAY         | PARAGUAY R. ROSARIO      | 24.0S 56.5W       |                  | 20    | LO | 250 | U | Y          |        |     |     |              |
| 153 | 132 | PARAGUAY         | PARANA RIVER             | 24.5S 56.0W       | 24.0S 57.3W      | 20    | LO | 250 | N | Y 19910409 | 201849 | 247 | 286 | 17 66        |
| 153 | 133 | PARAGUAY         | PARANA, YGUAZI RIVERS    | 25.0S 55.5W       |                  | 10    | LO | 250 | N | Y          |        |     |     |              |
| 153 | 134 | PARAGUAY         | PARANA, YGUAZI RIVERS    | 25.5S 55.5W       | 24.2S 56.9W      | 15    | LO | 250 | N | Y 19910409 | 201856 | 247 | 286 | 16 66        |
| 153 | 135 | PARAGUAY         | PARANA RIVER             | 26.0S 55.0W       |                  | 40    | LO | 250 | N | Y          |        |     |     |              |
| 38  | 9   | PERSIAN GULF     | KUWAIT OIL WELL FIRES    | 29.0N 49.0E       | 27.4N 42.4E      | 20    | LO | 35  | N | N 19910411 | 042714 | 244 | 91  | 20 87        |
| 38  | 10  | PERSIAN GULF     | KUWAIT OIL WELL FIRES    | 28.0N 49.0E       | 27.3N 43.6E      | 15    | HO | 35  | N | N 19910411 | 042732 | 244 | 92  | 22 87        |
| 38  | 11  | PERSIAN GULF     | KUWAIT OIL WELL FIRES    | 28.0N 49.0E       | 27.2N 44.0E      | 10    | LO | 35  | N | N 19910411 | 042738 | 244 | 92  | 22 87        |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|----------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 38  | 12  | PERSIAN GULF    | KUWAIT OIL WELL FIRES      | 29.0N 49.0E          | 26.9N 45.8E         | 10 | L0 | 35  | N | N | 19910411 | 042804 | 244 | 93  | 24        | 87 |
| 38  | 13  | PERSIAN GULF    | KUWAIT OIL WELL FIRES      | 29.0N 50.0E          | 26.7N 47.1E         | 10 | L0 | 35  | N | N | 19910411 | 042825 | 245 | 93  | 25        | 87 |
| 38  | 14  | PERSIAN GULF    | KUWAIT OIL WELL FIRES      | 29.0N 49.0E          | 26.6N 47.5E         | 5  | L0 | 35  | N | N | 19910411 | 042831 | 245 | 94  | 25        | 87 |
| 38  | 15  | PERSIAN GULF    | KUWAIT OIL WELL FIRES      | 30.0N 49.0E          | 26.6N 47.7E         | 10 | L0 | 35  | N | N | 19910411 | 042833 | 245 | 94  | 25        | 87 |
| 38  | 16  | PERSIAN GULF    | KUWAIT OIL WELL FIRES      | 30.0N 50.0E          | 26.5N 47.9E         | 5  | L0 | 35  | N | N | 19910411 | 042836 | 245 | 94  | 26        | 87 |
| 38  | 17  | PERSIAN GULF    | KUWAIT OIL WELL FIRES      | 30.0N 49.0E          | 26.1N 48.9E         | 5  | L0 | 35  | N | N | 19910411 | 042907 | 245 | 94  | 28        | 87 |
| 38  | 19  | PERSIAN GULF    | KUWAIT OIL WELL FIRES      | 30.0N 49.0E          | 25.9N 51.0E         | 5  | L0 | 35  | N | N | 19910411 | 042924 | 245 | 95  | 29        | 87 |
| 38  | 20  | PERSIAN GULF    | KUWAIT OIL WELL FIRES      | 30.0N 50.0E          | 25.8N 51.5E         | 5  | L0 | 35  | N | N | 19910411 | 042932 | 245 | 95  | 29        | 87 |
| 151 | 128 | PERSIAN GULF    | SUNGLINT-OIL-SHIP WAKES    | 27.0N 52.0E          | 28.1N 49.9E         | 30 | L0 | 250 | N | N | 19910406 | 060328 | 246 | 112 | 46        | 11 |
| 152 | 89  | PERSIAN GULF    | KUWAIT-KUWAIT OIL FIRES    | 29.0N 48.7E          | 28.5N 45.6E         | 0  | L0 | 250 | N | Y | 19910407 | 052330 | 246 | 102 | 34        | 26 |
| 152 | 93  | PERSIAN GULF    | KUWAIT COAST-OIL SMOKE     | 28.5N 49.0E          | 28.3N 49.9E         | 0  | NV | 250 | N | N | 19910407 | 052432 | 246 | 104 | 38        | 26 |
| 10  | 9   | PERU            | COAST NEAR MOLLENDO        | 17.0S 73.0W          | 18.9S 71.1W         | 20 | L0 | 35  | N | N | 19910410 | 193641 | 247 | 299 | 40        | 81 |
| 10  | 10  | PERU            | COAST NEAR MOLLENDO        | 18.0S 72.0W          | 19.0S 70.8W         | 20 | L0 | 35  | N | N | 19910410 | 193647 | 247 | 298 | 40        | 81 |
| 10  | 11  | PERU            | COAST NEAR MOLLENDO        | 18.0S 72.0W          | 19.2S 70.3W         | 20 | L0 | 35  | N | N | 19910410 | 193655 | 247 | 298 | 39        | 81 |
| 44  | 12  | PERU            | COAST                      | 5.0S 80.0W           | 1.7S 80.4W          | 50 | H0 | 70  | N | N | 19910410 | 175302 | 248 | 322 | 78        | 80 |
| 44  | 14  | PERU            | RIO NAPO, CLOUDS           | 1.0S 75.0W           | 2.7S 78.6W          | 75 | L0 | 70  | N | N | 19910410 | 175337 | 248 | 319 | 76        | 80 |
| 44  | 15  | PERU            | AMAZON BASIN, CLOUDS       | 3.4S 77.6W           | 3.4S 77.6W          | 80 | H0 | 70  | N | N | 19910410 | 175357 | 248 | 317 | 75        | 80 |
| 44  | 16  | PERU            | RIO AMAZON, CLOUDS         | 4.0S 72.0W           | 5.3S 74.2W          | 75 | L0 | 70  | N | Y | 19910410 | 175502 | 248 | 313 | 71        | 80 |
| 44  | 17  | PERU            | RIO AMAZON, CLOUDS         | 4.0S 72.0W           | 5.5S 73.9W          | 75 | L0 | 70  | N | Y | 19910410 | 175507 | 248 | 313 | 70        | 80 |
| 73  | 8   | PERU            | CHICLAYO, COAST, AGRICULT. | 6.8S 79.5W           | 6.5S 79.6W          | 60 | L0 | 250 | N | N | 19910406 | 202855 | 243 | 284 | 41        | 20 |
| 73  | 9   | PERU            | VERY CLOUDY                | 6.7S 79.3W           | 6.7S 79.3W          | 99 | L0 | 250 | N | N | 19910406 | 202901 | 243 | 284 | 41        | 20 |
| 73  | 10  | PERU            | E. ANDES MTNS., HUALLAGA R | 6.8S 76.8W           | 6.9S 78.9W          | 50 | L0 | 250 | N | N | 19910406 | 202908 | 243 | 284 | 40        | 20 |
| 73  | 11  | PERU            | E. ANDES MTNS., HUALLAGA R | 7.5S 76.6W           | 7.0S 78.7W          | 60 | L0 | 250 | N | N | 19910406 | 202913 | 243 | 284 | 40        | 20 |
| 73  | 12  | PERU            | HUALLAGA R., YURIMAGUAS    | 6.3S 75.8W           | 7.2S 78.4W          | 60 | L0 | 250 | N | N | 19910406 | 202919 | 243 | 284 | 39        | 20 |
| 73  | 13  | PERU            | HUALLAGA R., YURIMAGUAS    | 5.3S 75.7W           | 7.7S 77.5W          | 70 | L0 | 250 | N | N | 19910406 | 202936 | 243 | 284 | 38        | 20 |
| 73  | 14  | PERU            | HUALLAGA & MARANON RIOS    | 5.0S 75.5W           | 8.1S 76.7W          | 60 | L0 | 250 | N | N | 19910406 | 202950 | 243 | 284 | 37        | 20 |
| 73  | 15  | PERU            | UCAYALI & PACHITEA RIOS    | 8.9S 74.6W           | 8.3S 76.3W          | 60 | L0 | 250 | N | N | 19910406 | 202957 | 243 | 284 | 37        | 20 |
| 73  | 16  | PERU            | RIO UCAYALI                | 9.5S 74.3W           | 8.4S 76.1W          | 50 | L0 | 250 | N | N | 19910406 | 203001 | 243 | 284 | 37        | 20 |
| 73  | 17  | PERU            | TAMBO & URUBAMBA RIOS      | 10.8S 73.8W          | 8.5S 76.0W          | 60 | L0 | 250 | N | N | 19910406 | 203004 | 243 | 284 | 37        | 20 |
| 73  | 18  | PERU            | RIO UCAYALI & PUCALLPA     | 8.0S 74.7W           | 9.2S 74.7W          | 60 | L0 | 250 | N | N | 19910406 | 203027 | 243 | 284 | 35        | 20 |
| 73  | 19  | PERU            | RIO UCAYALI                | 7.8S 74.6W           | 9.4S 74.4W          | 80 | L0 | 250 | N | N | 19910406 | 203034 | 243 | 284 | 35        | 20 |
| 73  | 20  | PERU            | RAINFOREST                 | 9.5S 74.2W           | 9.5S 74.2W          | 70 | L0 | 250 | N | N | 19910406 | 203037 | 243 | 284 | 35        | 20 |
| 73  | 21  | PERU            | RAINFOREST                 | 9.6S 73.9W           | 9.6S 73.9W          | 80 | L0 | 250 | N | N | 19910406 | 203042 | 243 | 284 | 34        | 20 |
| 73  | 22  | PERU            | RAINFOREST                 | 10.0S 73.2W          | 10.0S 73.2W         | 70 | L0 | 250 | N | N | 19910406 | 203055 | 243 | 284 | 33        | 20 |
| 73  | 23  | PERU            | RAINFOREST                 | 10.2S 72.9W          | 10.2S 72.9W         | 60 | L0 | 250 | N | N | 19910406 | 203101 | 243 | 284 | 33        | 20 |
| 73  | 24  | PERU            | RAINFOREST                 | 10.4S 72.5W          | 10.4S 72.5W         | 70 | L0 | 250 | N | N | 19910406 | 203108 | 243 | 284 | 33        | 20 |
| 73  | 25  | PERU            | RAINFOREST                 | 10.9S 71.5W          | 10.9S 71.5W         | 90 | L0 | 250 | N | N | 19910406 | 203127 | 243 | 284 | 31        | 20 |
| 73  | 26  | PERU            | RAINFOREST                 | 11.3S 70.8W          | 11.3S 70.8W         | 60 | L0 | 250 | N | N | 19910406 | 203140 | 243 | 284 | 31        | 20 |
| 73  | 27  | PERU            | EAST LOWLANDS              | 11.4S 70.5W          | 11.4S 70.5W         | 60 | L0 | 250 | N | N | 19910406 | 203145 | 243 | 284 | 30        | 20 |
| 73  | 28  | PERU            | EAST LOWLANDS              | 11.6S 70.1W          | 11.6S 70.1W         | 60 | L0 | 250 | N | N | 19910406 | 203152 | 243 | 284 | 30        | 20 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|-----|-----------------|--------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 73 | 29  | PERU            | MOUNTAINOUS TERRAIN      |                   | 12.5S 68.4W      | 70 | LO | 250 | N | N | 19910406 | 203223 | 243 | 284 | 28        | 20 |
| 76 | 88  | PERU            | HIGH OBLIQUE, W. COAST   |                   | 1.9S 81.8W       | 80 | HO | 250 | N | N | 19910409 | 183106 | 245 | 301 | 71        | 65 |
| 76 | 91  | PERU            | COAST, NEAR TUMBES       |                   | 2.7S 80.4W       | 70 | LO | 250 | N | N | 19910409 | 183132 | 245 | 301 | 70        | 65 |
| 76 | 92  | PERU            | SECHURA DESERT           | 4.8S 81.0W        | 2.9S 80.1W       | 30 | LO | 250 | N | N | 19910409 | 183137 | 245 | 301 | 70        | 65 |
| 76 | 93  | PERU            | SECHURA DESERT           | 5.2S 80.8W        | 3.0S 80.0W       | 20 | LO | 250 | N | N | 19910409 | 183140 | 245 | 301 | 69        | 65 |
| 76 | 94  | PERU            | SECHURA DESERT           | 5.5S 80.8W        | 3.0S 79.9W       | 10 | LO | 250 | N | N | 19910409 | 183142 | 245 | 301 | 69        | 65 |
| 78 | 85  | PERU            | SECHURA DES., PT. AGUJA  | 6.5S 80.5W        | 4.3S 77.6W       | 25 | LO | 250 | N | Y | 19910409 | 183225 | 245 | 300 | 68        | 65 |
| 78 | 86  | PERU            | SECHURA DESERT           | 6.5S 80.5W        | 4.4S 77.5W       | 35 | LO | 250 | N | Y | 19910409 | 183227 | 245 | 300 | 66        | 65 |
| 78 | 87  | PERU            | COAST NEAR CHICLAYO      | 7.0S 80.0W        | 4.6S 77.1W       | 45 | LO | 250 | N | Y | 19910409 | 183235 | 245 | 300 | 66        | 65 |
| 78 | 88  | PERU            | COAST NEAR TRUJILLO      | 8.0S 79.0W        | 4.8S 76.9W       | 50 | LO | 250 | N | Y | 19910409 | 183239 | 245 | 300 | 65        | 65 |
| 78 | 89  | PERU            | COAST SOUTH OF TRUJILLO  | 8.5S 79.0W        | 4.8S 76.8W       | 50 | LO | 250 | N | Y | 19910409 | 183241 | 245 | 300 | 65        | 65 |
| 78 | 90  | PERU            | COAST NEAR FERRAL PEN.   | 9.0S 78.5W        | 4.9S 76.6W       | 55 | LO | 250 | N | Y | 19910409 | 183244 | 245 | 300 | 65        | 65 |
| 78 | 91  | PERU            | COAST SOUTH OF CHIMBOTE  | 9.5S 78.5W        | 5.0S 76.5W       | 60 | LO | 250 | N | Y | 19910409 | 183247 | 245 | 300 | 66        | 65 |
| 78 | 92  | PERU            | UPPER AMAZON BASIN       |                   | 5.4S 75.7W       | 80 | HO | 250 | N | N | 19910409 | 183302 | 245 | 300 | 64        | 65 |
| 78 | 93  | PERU            | MARANON, HUALLAGA RIVERS | 5.0S 75.5W        | 5.8S 75.0W       | 70 | NV | 250 | U | Y | 19910409 | 183315 | 245 | 300 | 63        | 65 |
| 78 | 94  | PERU            | MARANON, HUALLAGA RIVERS | 5.5S 76.0W        | 6.1S 74.5W       | 70 | NV | 250 | U | Y | 19910409 | 183325 | 245 | 300 | 62        | 65 |
| 78 | 95  | PERU            | HUALLAGA RIVER           | 6.0S 75.5W        | 6.2S 74.3W       | 75 | LO | 250 | U | Y | 19910409 | 183328 | 245 | 300 | 62        | 65 |
| 78 | 96  | PERU            | UCAYALI RIVER            |                   | 6.3S 74.1W       | 80 | LO | 250 | U | N | 19910409 | 183332 | 245 | 300 | 62        | 65 |
| 78 | 97  | PERU            | UCAYALI RIVER            |                   | 6.5S 73.8W       | 80 | LO | 250 | U | Y | 19910409 | 183337 | 245 | 299 | 62        | 65 |
| 78 | 98  | PERU            | UCAYALI RIVER            |                   | 6.6S 73.6W       | 85 | LO | 250 | U | Y | 19910409 | 183341 | 245 | 299 | 61        | 65 |
| 78 | 99  | PERU            | LAKE TITICACA            | 16.0S 69.5W       | 11.8S 64.0W      | 60 | HO | 250 | N | N | 19910409 | 183640 | 245 | 297 | 50        | 65 |
| 81 | 90  | PERU            | PERU COAST LOOKING SOUTH |                   | 4.0S 86.0W       | 65 | HO | 250 | N | N | 19910405 | 210557 | 242 | 281 | 39        | 5  |
| 81 | 91  | PERU            | SECHURA DESERT           | 6.0S 80.0W        | 4.1S 85.6W       | 60 | LO | 250 | N | N | 19910405 | 210603 | 242 | 281 | 38        | 5  |
| 81 | 92  | PERU            | SECHURA DESERT           | 5.0S 80.5W        | 4.8S 84.4W       | 65 | LO | 250 | N | N | 19910405 | 210626 | 242 | 281 | 37        | 5  |
| 81 | 93  | PERU            | SECHURA DESERT           | 6.0S 80.5W        | 5.0S 84.1W       | 35 | LO | 250 | N | N | 19910405 | 210632 | 242 | 281 | 37        | 5  |
| 81 | 94  | PERU            | SECHURA DESERT           | 6.5S 80.5W        | 5.2S 83.9W       | 20 | LO | 250 | N | N | 19910405 | 210637 | 242 | 281 | 36        | 5  |
| 81 | 95  | PERU            | SECHURA DESERT           | 5.0S 81.0W        | 6.3S 81.9W       | 40 | NV | 250 | N | N | 19910405 | 210714 | 242 | 281 | 34        | 5  |
| 81 | 96  | PERU            | SECHURA DESERT           | 6.0S 80.5W        | 6.4S 81.7W       | 5  | NV | 250 | N | Y | 19910405 | 210718 | 242 | 281 | 34        | 5  |
| 81 | 97  | PERU            | SECHURA DESERT           | 6.5S 80.5W        | 6.6S 81.4W       | 20 | NV | 250 | N | Y | 19910405 | 210724 | 242 | 281 | 33        | 5  |
| 81 | 98  | PERU            | COAST NEAR CHICLAYO      | 7.0S 80.0W        | 6.8S 81.0W       | 60 | LO | 250 | N | N | 19910405 | 210731 | 242 | 281 | 33        | 5  |
| 81 | 99  | PERU            | COAST NEAR PACASMAYO     | 7.5S 79.5W        | 7.4S 80.0W       | 65 | LO | 250 | N | N | 19910405 | 210750 | 242 | 282 | 32        | 5  |
| 81 | 100 | PERU            | COAST S. OF TRUJILLO     | 8.5S 79.0W        | 7.4S 79.9W       | 40 | LO | 250 | N | N | 19910405 | 210752 | 242 | 282 | 32        | 5  |
| 81 | 101 | PERU            | FERROL PENINSULA         | 9.0S 78.5W        | 7.5S 79.7W       | 20 | LO | 250 | N | N | 19910405 | 210756 | 242 | 282 | 31        | 5  |
| 81 | 102 | PERU            | COAST S. OF FERROL PEN.  | 9.5S 78.5W        | 7.6S 79.5W       | 50 | LO | 250 | N | N | 19910405 | 210759 | 242 | 282 | 31        | 5  |
| 81 | 103 | PERU            | PERU ANDES MTNS.         |                   | 7.8S 79.2W       | 80 | NV | 250 | N | N | 19910405 | 210805 | 242 | 282 | 31        | 5  |
| 81 | 104 | PERU            | COAST NEAR CULEBRAS      | 9.5S 78.0W        | 8.8S 77.4W       | 55 | LO | 250 | N | N | 19910405 | 210838 | 242 | 282 | 29        | 5  |
| 81 | 105 | PERU            | COAST NEAR HUARNEY       | 10.0S 78.0W       | 8.9S 77.2W       | 55 | LO | 250 | N | N | 19910405 | 210843 | 242 | 282 | 29        | 5  |
| 81 | 106 | PERU            | COAST NEAR PT. LACHAY    | 11.0S 77.5W       | 9.1S 76.7W       | 35 | LO | 250 | N | N | 19910405 | 210851 | 242 | 282 | 28        | 5  |
| 81 | 107 | PERU            | COAST S. OF LIMA         | 12.5S 76.5W       | 10.6S 74.1W      | 45 | LO | 250 | N | N | 19910405 | 210940 | 242 | 282 | 25        | 5  |
| 81 | 108 | PERU            | COAST N. OF PARACAS PEN. | 13.5S 76.0W       | 10.6S 74.0W      | 30 | LO | 250 | N | N | 19910405 | 210942 | 242 | 282 | 25        | 5  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT | LONG  | MADIR<br>LAT | LONG   | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|----|-----------------|---------------------------|---------------|-------|--------------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 91  | 80 | PERU            | COAST                     | 7.0S          | 80.0W | 7.1S         | 80.5W  | 40 | LO | 250 | N | N | 19910405 | 210741 | 242 | 282 | 32        | 5  |
| 91  | 81 | PERU            | ANDES, CLOUDS             |               |       | 8.1S         | 78.7W  | 75 | LO | 250 | N | N | 19910405 | 210815 | 242 | 282 | 30        | 5  |
| 91  | 82 | PERU            | COAST, PUNTA LACHAY       | 11.0S         | 77.5W | 9.4S         | 76.4W  | 50 | LO | 250 | N | N | 19910405 | 210858 | 242 | 282 | 27        | 5  |
| 91  | 83 | PERU            | ANDES, CLOUDS             |               |       | 9.7S         | 75.7W  | 70 | LO | 250 | N | Y | 19910405 | 210910 | 242 | 282 | 27        | 5  |
| 91  | 84 | PERU            | ANDES, CLOUDS             |               |       | 9.8S         | 75.5W  | 80 | LO | 250 | N | Y | 19910405 | 210914 | 242 | 282 | 26        | 5  |
| 91  | 85 | PERU            | ANDES, CLOUDS             |               |       | 10.0S        | 75.2W  | 60 | LO | 250 | N | Y | 19910405 | 210920 | 242 | 282 | 26        | 5  |
| 91  | 86 | PERU            | LAKE TITICACA, DARK       | 16.0S         | 70.0W | 13.4S        | 68.6W  | 70 | LO | 250 | U | Y | 19910405 | 211121 | 243 | 281 | 19        | 5  |
| 91  | 87 | PERU            | LAKE TITICACA, DARK       | 15.5S         | 69.5W | 13.5S        | 68.4W  | 75 | LO | 250 | U | Y | 19910405 | 211124 | 243 | 281 | 18        | 5  |
| 92  | 25 | PERU            | RIO MARDE DE DIOS         | 12.5S         | 70.0W | 11.3S        | 70.8W  | 80 | LO | 250 | N | N | 19910406 | 203139 | 243 | 284 | 31        | 20 |
| 92  | 26 | PERU            | RIO MARDE DE DIOS         | 12.5S         | 70.0W | 11.6S        | 70.2W  | 90 | LO | 250 | N | N | 19910406 | 203151 | 243 | 284 | 30        | 20 |
| 92  | 27 | PERU            | RIO MARDE DE DIOS         | 12.5S         | 70.0W | 11.9S        | 69.5W  | 90 | LO | 250 | N | N | 19910406 | 203203 | 243 | 284 | 29        | 20 |
| 93  | 1  | PERU            | CABALLAS, ST. NICHOLS B.  | 15.0S         | 75.5W | 12.0S        | 71.4W  | 25 | LO | 250 | N | N | 19910405 | 211030 | 243 | 281 | 22        | 5  |
| 93  | 2  | PERU            | ACARI, YAUCA CANYONS      | 15.5S         | 74.5W | 12.1S        | 71.2W  | 30 | LO | 250 | N | Y | 19910405 | 211033 | 243 | 281 | 22        | 5  |
| 93  | 3  | PERU            | CHAPARRA CANYON           | 16.0S         | 74.0W | 12.2S        | 71.0W  | 20 | LO | 250 | N | Y | 19910405 | 211036 | 243 | 281 | 22        | 5  |
| 93  | 4  | PERU            | OCONA, COTAHUASI CANYONS  | 15.5S         | 73.0W | 12.2S        | 70.9W  | 10 | LO | 250 | N | Y | 19910405 | 211039 | 243 | 281 | 21        | 5  |
| 93  | 5  | PERU            | COROPUNA VOL., CAMANA     | 16.0S         | 72.5W | 12.3S        | 70.7W  | 15 | LO | 250 | N | Y | 19910405 | 211042 | 243 | 281 | 21        | 5  |
| 93  | 6  | PERU            | AMPATO, CHACHANI VOLCANO  | 16.0S         | 72.0W | 12.4S        | 70.5W  | 15 | LO | 250 | N | Y | 19910405 | 211045 | 243 | 281 | 21        | 5  |
| 93  | 7  | PERU            | EL MISTI VOL., SALT LAKE  | 16.0S         | 71.5W | 12.5S        | 70.3W  | 30 | LO | 250 | N | Y | 19910405 | 211049 | 243 | 281 | 21        | 5  |
| 93  | 8  | PERU            | AMPATO VOL., MOLES CAN.   | 15.5S         | 72.0W | 12.6S        | 70.1W  | 40 | LO | 250 | N | Y | 19910405 | 211053 | 243 | 281 | 20        | 5  |
| 93  | 9  | PERU            | SOLIMANA, COROPUNA MTNS.  | 15.5S         | 73.0W | 12.7S        | 69.9W  | 40 | LO | 250 | N | Y | 19910405 | 211056 | 243 | 281 | 20        | 5  |
| 93  | 10 | PERU            | LAKE TITICACA             | 15.5S         | 69.5W | 13.0S        | 69.3W  | 65 | LO | 250 | N | N | 19910405 | 211107 | 243 | 281 | 20        | 5  |
| 152 | 72 | PERU            | POINT AGUJA, SECHURA BAY  | 6.0S          | 81.0W | 5.5S         | 81.3W  | 20 | NV | 250 | N | N | 19910406 | 202823 | 243 | 284 | 43        | 20 |
| 153 | 70 | PERU            | COAST S. OF SAN JUAN BAY  | 16.0S         | 74.5W | 17.3S        | 78.5W  | 10 | LO | 250 | N | N | 19910409 | 201332 | 247 | 294 | 37        | 66 |
| 153 | 71 | PERU            | ATICO, OCONA RIVERS       | 16.5S         | 74.0W |              |        | 15 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 72 | PERU            | OCONA, CARAVELI RIVERS    | 16.5S         | 73.5W | 17.6S        | 75.7W  | 20 | LO | 250 | N | Y | 19910409 | 201346 | 247 | 294 | 36        | 66 |
| 153 | 73 | PERU            | OCONA, CAMANA RIVERS      | 17.0S         | 73.0W | 17.9S        | 75.0W  | 15 | LO | 250 | N | Y | 19910409 | 201358 | 247 | 294 | 35        | 66 |
| 153 | 74 | PERU            | CAMANA, TAMBO RIVERS      | 17.5S         | 72.5W |              |        | 15 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 75 | PERU            | COAST N. OF PT. COLES     | 18.0S         | 72.5W | 18.3S        | 74.1W  | 15 | LO | 250 | N | Y | 19910409 | 201413 | 247 | 293 | 34        | 66 |
| 153 | 76 | PERU            | POINT COLES, DUST         | 18.0S         | 71.5W |              |        | 15 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 77 | PERU            | POINT COLES, ARICA        | 18.5S         | 71.0W | 18.6S        | 73.2W  | 15 | LO | 250 | N | Y | 19910409 | 201429 | 247 | 293 | 33        | 66 |
| 85  | 33 | PHILIPPINE SEA  | UNDER EXPOSED, SUNGLINT   |               |       | 26.4N        | 139.8E | 50 | LO | 250 | N | N | 19910408 | 233115 | 246 | 103 | 40        | 53 |
| 72  | 68 | PHILIPPINES     | BUSUANGA I.-SHUTTLE TAIL  |               |       | 19.7N        | 113.7E | 90 | HO | 100 | N | Y | 19910405 | 220211 | 245 | 81  | -4        | 6  |
| 72  | 69 | PHILIPPINES     | BUSUANGA I.-SHUTTLE TAIL  |               |       | 19.9N        | 114.1E | 90 | HO | 100 | N | Y | 19910405 | 220217 | 245 | 82  | -3        | 6  |
| 72  | 70 | PHILIPPINES     | BUSUANGA I.-SHUTTLE TAIL  |               |       | 20.0N        | 114.4E | 90 | HO | 100 | N | Y | 19910405 | 220223 | 245 | 82  | -3        | 6  |
| 72  | 71 | PHILIPPINES     | SHUTTLE TAIL-UNDEREXPOSED |               |       | 20.1N        | 114.8E | 90 | HO | 100 | U | Y | 19910405 | 220229 | 245 | 82  | -3        | 6  |
| 72  | 72 | PHILIPPINES     | SHUTTLE TAIL-CLOUDS       |               |       | 20.2N        | 114.8E | 90 | HO | 100 | U | Y | 19910405 | 220230 | 245 | 82  | -3        | 6  |
| 72  | 73 | PHILIPPINES     | SHUTTLE TAIL-CLOUDS       |               |       | 20.6N        | 116.0E | 95 | HO | 100 | N | Y | 19910405 | 220250 | 245 | 82  | -1        | 6  |
| 72  | 74 | PHILIPPINES     | SHUTTLE TAIL-CLOUDS       |               |       | 20.8N        | 116.5E | 80 | HO | 100 | N | Y | 19910405 | 220257 | 245 | 82  | -1        | 6  |
| 72  | 75 | PHILIPPINES     | SHUTTLE TAIL-CLOUDS       |               |       | 20.9N        | 116.9E | 80 | HO | 100 | N | Y | 19910405 | 220305 | 245 | 83  | -0        | 6  |
| 72  | 76 | PHILIPPINES     | SHUTTLE TAIL-CLOUDS       |               |       | 21.2N        | 117.6E | 80 | HO | 100 | O | Y | 19910405 | 220316 | 245 | 83  | -0        | 6  |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER |        | NADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|-----|-----|-----------------|----------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                 |                            | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 151 | 108 | PHILIPPINES     | LUZON-LINGAYEN GULF        | 16.0N  | 120.0E | 15.4N | 119.7E | 25 | NV | 250 | N | Y | 19910406 | 044213 | 244 | 226 | 76  | 10 |    |
| 151 | 109 | PHILIPPINES     | LUZON-SUNGLINT             | 15.0N  | 120.0E | 15.2N | 119.9E | 20 | NV | 250 | N | Y | 19910406 | 044218 | 244 | 231 | 76  | 10 |    |
| 151 | 110 | PHILIPPINES     | LUZON-SHIP WAKES           | 15.0N  | 120.0E | 14.9N | 120.6E | 25 | NV | 250 | N | Y | 19910406 | 044230 | 244 | 227 | 76  | 10 |    |
| 151 | 111 | PHILIPPINES     | LUZON-CABALETE ISLAND      | 14.0N  | 122.0E | 14.4N | 121.8E | 40 | NV | 250 | N | Y | 19910406 | 044251 | 244 | 236 | 75  | 10 |    |
| 151 | 112 | PHILIPPINES     | LUZON-RAGAY GULF-SUNGLIN   | 13.5N  | 123.0E | 13.5N | 123.5E | 25 | NV | 250 | N | Y | 19910406 | 044321 | 244 | 242 | 74  | 10 |    |
| 151 | 113 | PHILIPPINES     | LUZON-MANILLA BAY          | 14.5N  | 121.0E | 12.6N | 125.4E | 25 | LO | 250 | N | N | 19910406 | 044356 | 244 | 249 | 73  | 10 |    |
| 151 | 114 | PHILIPPINES     | SAMAR                      | 12.0N  | 125.0E | 10.9N | 128.6E | 20 | LO | 250 | N | Y | 19910406 | 044454 | 244 | 257 | 70  | 10 |    |
| 152 | 136 | PHILIPPINES     | CULION I.-MINDOR-PANAY     | 12.0N  | 120.0E | 4.7N  | 117.9E | 30 | HO | 250 | N | Y | 19910407 | 054325 | 244 | 275 | 66  | 26 |    |
| 152 | 137 | PHILIPPINES     | CEBU-NEGROS-BOHO-LEYTE     | 11.5N  | 124.0E | 4.3N  | 118.6E | 40 | HO | 250 | N | Y | 19910407 | 054339 | 244 | 276 | 66  | 26 |    |
| 152 | 139 | PHILIPPINES     | LEYTE-CEBU-BOHO            | 11.0N  | 125.0E | 3.1N  | 120.7E | 50 | HO | 250 | N | Y | 19910407 | 054418 | 243 | 278 | 63  | 26 |    |
| 153 | 183 | PHILIPPINES     | PALAWAN, DBL EXPOSURE      | 8.0N   | 116.0E | 9.3N  | 115.4E | 15 | LO | 250 | O | N | 19910410 | 034543 | 247 | 99  | 81  | 71 |    |
| 153 | 186 | PHILIPPINES     | MINDANAO, ILLANA BAY       | 6.5N   | 124.0E | 6.2N  | 120.9E | 25 | LO | 250 | N | N | 19910410 | 034727 | 247 | 57  | 87  | 71 |    |
| 153 | 187 | PHILIPPINES     | SULU ACHIP., SPIR. EDDIES  | 6.5N   | 121.5E | 5.8N  | 121.7E | 30 | NV | 250 | N | N | 19910410 | 034741 | 247 | 39  | 87  | 71 |    |
| 74  | 39  | PUERTO RICO     | ISLAND CLOUDY              | 18.0N  | 66.5W  | 6.1N  | 22.2W  | 60 | LO | 250 | N | N | 19910409 | 133544 | 245 | 105 | 47  | 62 |    |
| 76  | 35  | PUERTO RICO     | MONA PASSAGE               | 18.0N  | 67.7W  | 8.1N  | 50.5W  | 50 | LO | 250 | N | N | 19910409 | 151446 | 244 | 112 | 72  | 63 |    |
| 76  | 36  | PUERTO RICO     | WESTERN 2/3 ISLAND         | 18.2N  | 66.8W  | 8.1N  | 50.5W  | 50 | LO | 250 | N | N | 19910409 | 151449 | 244 | 112 | 72  | 63 |    |
| 76  | 37  | PUERTO RICO     |                            | 18.0N  | 66.4W  | 8.2N  | 50.6W  | 50 | LO | 250 | N | N | 19910409 | 151452 | 244 | 113 | 72  | 63 |    |
| 76  | 38  | PUERTO RICO     | EASTERN HALF IS.           | 18.2N  | 65.8W  | 8.2N  | 50.7W  | 50 | LO | 250 | N | N | 19910409 | 151457 | 244 | 113 | 73  | 63 |    |
| 78  | 49  | PUERTO RICO     | PONCE, WEST HALF OF IS.    | 18.5N  | 66.5W  | 7.7N  | 49.6W  | 30 | LO | 250 | N | N | 19910409 | 151415 | 244 | 112 | 70  | 63 |    |
| 78  | 50  | PUERTO RICO     | ROOSEVELT ROADS, VIEQUES   | 18.0N  | 65.5W  | 7.8N  | 49.8W  | 25 | LO | 250 | N | N | 19910409 | 151420 | 244 | 112 | 70  | 63 |    |
| 83  | 74  | PUERTO RICO     | ENTIRE ISLAND-CLOUDY       | 18.5N  | 66.5W  | 7.5N  | 49.2W  | 40 | LO | 100 | N | N | 19910409 | 151400 | 244 | 112 | 69  | 63 |    |
| 87  | 75  | PUERTO RICO     | CLOUD COVERED, DARK        | 18.0N  | 66.5W  | 4.9N  | 19.2W  | 70 | LO | 250 | U | N | 19910409 | 133409 | 245 | 104 | 45  | 62 |    |
| 8   | 28  | RED SEA         | SE EGYPT, HIJAZ MASSIVE    | 26.0N  | 35.5E  | 23.5N | 34.7E  | 5  | LO | 35  | N | N | 19910410 | 064308 | 246 | 102 | 44  | 73 |    |
| 8   | 29  | RED SEA         |                            | 24.0N  | 37.0E  | 23.4N | 35.3E  | 5  | LO | 35  | N | N | 19910410 | 064317 | 246 | 103 | 45  | 73 |    |
| 8   | 30  | RED SEA         | HIJAZ MASSIVE              | 25.0N  | 37.0E  | 23.1N | 36.2E  | 0  | LO | 35  | N | N | 19910410 | 064332 | 246 | 103 | 46  | 73 |    |
| 8   | 31  | RED SEA         | HIJAZ MASSIVE              | 24.0N  | 37.0E  | 22.8N | 37.0E  | 5  | LO | 35  | N | N | 19910410 | 064345 | 246 | 103 | 47  | 73 |    |
| 8   | 32  | RED SEA         | HIJAZ MASSIVE              | 24.0N  | 37.0E  | 22.7N | 37.5E  | 5  | LO | 35  | N | N | 19910410 | 064353 | 246 | 103 | 47  | 73 |    |
| 8   | 35  | RED SEA         | PANORAMA, N. SUDAN         | 24.0N  | 37.0E  | 21.5N | 41.1E  | 30 | HO | 35  | N | N | 19910410 | 064451 | 246 | 104 | 51  | 73 |    |
| 12  | 2   | RED SEA         | STRAIT OF MANDEB, G. ADEN  | 13.0N  | 44.0E  | 19.9N | 45.5E  | 10 | HO | 35  | N | N | 19910410 | 064604 | 246 | 106 | 56  | 73 |    |
| 38  | 37  | RED SEA         | ARABIAN D., SINAI PEN.     | 25.0N  | 36.0E  | 24.6N | 32.6E  | 35 | LO | 35  | N | N | 19910411 | 060417 | 245 | 97  | 34  | 88 |    |
| 56  | 10  | RED SEA         | VIEW NORTH                 | 19.0N  | 39.0E  | 12.3N | 40.0E  | 15 | HO | 35  | N | N | 19910411 | C74637 | 248 | 98  | 66  | 89 |    |
| 73  | 103 | RED SEA         | SHIP WAKES, OIL SLICKS     |        |        | 19.8N | 39.8E  | 20 | LO | 250 | N | N | 19910407 | 084108 | 245 | 140 | 73  | 28 |    |
| 73  | 104 | RED SEA         | SUN GLINT, SURFACE PATTERN |        |        | 19.6N | 40.1E  | 20 | LO | 250 | N | N | 19910407 | 084113 | 245 | 140 | 73  | 28 |    |
| 94  | 81  | RED SEA         | OBLIQUE LOOKING N. SINAI   | 24.5N  | 36.0E  |       |        | 10 | HO | 100 | N | Y |          |        |     |     |     |    |    |
| 94  | 82  | RED SEA         | OBLIQUE LOOKING N. SINAI   | 24.0N  | 37.0E  |       |        | 15 | HO | 100 | N | Y |          |        |     |     |     |    |    |
| 97  | 32  | RED SEA         | VIEW SOUTHEAST             |        |        | 20.0N | 37.2E  | 30 | HO | 250 | N | N | 19910406 | 091925 | 245 | 165 | 75  | 13 |    |
| 151 | 91  | D RED SEA       | SAUDI ARABIA COAST         | 26.0N  | 36.0E  | 25.2N | 35.6E  | 90 | NV | 250 | N | N | 19910406 | 042038 | 246 | 88  | 11  | 10 |    |
| 151 | 223 | RED SEA         | SUNGLINT-OFF COAST SAUDI   |        |        | 19.6N | 38.2E  | 10 | LO | 250 | N | Y | 19910406 | 091942 | 245 | 169 | 76  | 13 |    |
| 151 | 224 | RED SEA         | CENTRAL SAUDI COAST        | 18.5N  | 40.0E  | 19.1N | 39.4E  | 10 | LO | 250 | N | Y | 19910406 | 092002 | 245 | 174 | 77  | 13 |    |
| 152 | 174 | RED SEA         | TIP OF SINAI PEN.-TIRAN    | 27.5N  | 34.5E  | 27.3N | 35.5E  | 0  | NV | 250 | N | Y | 19910407 | 070018 | 246 | 110 | 46  | 27 |    |

TABLE 4-4. STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL   | FR  | GEOGRAPHIC NAME       | FEATURE                   | CENTER |       | NADIR |       | CC    | TL | FL  | E   | S | DATE     | GMT      | AL     | AZ  | SUN | OR |    |
|------|-----|-----------------------|---------------------------|--------|-------|-------|-------|-------|----|-----|-----|---|----------|----------|--------|-----|-----|----|----|
|      |     |                       |                           | LAT    | LOW   | LAT   | LOW   |       |    |     |     |   |          |          |        |     | EL  |    |    |
| 1152 | 175 | RED SEA               | TIP OF SINAI PEN.-EGYPT   | 27.5N  | 34.5E | 27.2N | 35.9E | 0     | LO | 250 | N   | Y | 19910407 | 070025   | 246    | 111 | 47  | 27 |    |
| 15   | 19  | REPUBLIC SOUTH AFRICA | NORTHERN DRAKENSBURG      |        |       | 22.0S | 32.6E | 25    | LO | 35  | N   | N | 19910410 | 132503   | 246    | 294 | 30  | 77 |    |
| 15   | 20  | REPUBLIC SOUTH AFRICA | NORTHERN DRAKENSBURG      |        |       | 22.1S | 33.1E | 50    | LO | 35  | N   | N | 19910410 | 132511   | 246    | 293 | 29  | 77 |    |
| 15   | 21  | REPUBLIC SOUTH AFRICA | NORTHERN DRAKENSBURG      |        |       | 22.4S | 33.9E | 60    | LO | 35  | N   | N | 19910410 | 132524   | 246    | 293 | 28  | 77 |    |
| 74   | 98  | REPUBLIC SOUTH AFRICA | NEAR SWAZILAND            | 28.0S  | 31.3E | 24.5S | 39.8E | 0     | LO | 250 | N   | N | 19910409 | 140534   | 244    | 286 | 17  | 62 |    |
| 74   | 99  | REPUBLIC SOUTH AFRICA | NEAR SWAZILAND            | 28.8S  | 31.5E | 24.5S | 40.0E | 5     | LO | 250 | N   | N | 19910409 | 140537   | 244    | 286 | 17  | 62 |    |
| 76   | 70  | REPUBLIC SOUTH AFRICA | S. KALAHARI DESERT        | 27.5S  | 20.8E | 25.6S | 21.0E | 0     | LO | 250 | N   | N | 19910409 | 154012   | 245    | 283 | 9   | 63 |    |
| 76   | 71  | REPUBLIC SOUTH AFRICA | MOLOPO RIVER              | 26.8S  | 22.1E | 25.7S | 21.4E | 0     | LO | 250 | N   | N | 19910409 | 154018   | 245    | 283 | 9   | 63 |    |
| 76   | 72  | REPUBLIC SOUTH AFRICA | JUNCTION MOSSOB.          | 26.8S  | 20.9E | 25.9S | 22.1E | 0     | LO | 250 | N   | N | 19910409 | 154030   | 245    | 282 | 8   | 63 |    |
| 76   | 73  | REPUBLIC SOUTH AFRICA | MOLOPO R                  | 26.8S  | 20.9E | 25.9S | 22.1E | 0     | LO | 250 | N   | N | 19910409 | 154037   | 245    | 282 | 8   | 63 |    |
| 76   | 74  | REPUBLIC SOUTH AFRICA |                           |        |       | 26.0S | 22.6E |       |    |     |     |   |          |          |        |     |     |    |    |
| 76   | 74  | REPUBLIC SOUTH AFRICA |                           |        |       | 26.0S | 22.7E |       |    |     |     |   |          |          |        |     |     |    |    |
| 76   | 75  | REPUBLIC SOUTH AFRICA |                           |        |       | 26.1S | 22.9E |       |    |     |     |   |          |          |        |     |     |    |    |
| 76   | 76  | REPUBLIC SOUTH AFRICA |                           |        |       | 26.1S | 23.1E |       |    |     |     |   |          |          |        |     |     |    |    |
| 83   | 86  | REPUBLIC SOUTH AFRICA | KALAHARI DES.SALT PANS    | 28.0S  | 20.5E | 24.3S | 15.5E | 0     | LO | 100 | N   | N | 19910409 | 153847   | 245    | 285 | 15  | 63 |    |
| 83   | 88  | REPUBLIC SOUTH AFRICA | KURUMAN HEWELL, LANGEBERG | 28.0S  | 25.0E | 25.3S | 19.4E | 0     | LO | 100 | N   | N | 19910409 | 153948   | 245    | 283 | 11  | 63 |    |
| 87   | 113 | REPUBLIC SOUTH AFRICA | LIMPOPO R/VALLEY, DARK    |        |       | 19.6S | 24.7E | 60    | HO | 250 | U   | N | 19910409 | 140128   | 244    | 291 | 29  | 62 |    |
| 153  | 38  | REPUBLIC SOUTH AFRICA | MOUTH OF ORANGE RIVER     | 28.5S  | 17.0E | 24.8S | 17.1E | 5     | LO | 250 | N   | N | 19910409 | 153913   | 245    | 284 | 13  | 63 |    |
| 153  | 40  | REPUBLIC SOUTH AFRICA | GREAT KARROO, ORANGE R.   | 30.5S  | 19.5E | 25.4S | 19.9E | 0     | LO | 250 | N   | N | 19910409 | 153955   | 245    | 283 | 10  | 63 |    |
| 153  | 41  | REPUBLIC SOUTH AFRICA | ST. HELEN BAY, CAPE TOWN  | 33.0S  | 19.5E |       |       | 20    | HO | 250 | N   | N |          |          |        |     |     |    |    |
| 74   | 16  | REUNION               | VRY CLDY OVER ISLAND      | 21.0S  | 55.5E | 22.6S | 57.2E | 60    | LO | 250 | N   | N | 19910409 | 123027   | 245    | 289 | 23  | 61 |    |
| 74   | 17  | REUNION               |                           |        |       | 55.5E | 22.7S | 57.5E | 60 | LO  | 250 | N | N        | 19910409 | 123032 | 245 | 288 | 23 | 61 |
| 74   | 18  | REUNION               | VRY CLDY OVER ISLAND      | 21.0S  | 55.5E | 23.0S | 58.3E | 60    | LO | 250 | N   | N | 19910409 | 123045   | 245    | 288 | 22  | 61 |    |
| 74   | 19  | REUNION               | VRY CLDY OVER ISLAND      | 21.0S  | 55.5E | 23.1S | 58.7E | 60    | LO | 250 | N   | N | 19910409 | 123050   | 245    | 288 | 22  | 61 |    |
| 87   | 68  | REUNION               | CLOUD COVERED             | 21.2S  | 55.6E | 21.9S | 55.1E | 50    | LO | 250 | N   | N | 19910409 | 122952   | 245    | 288 | 22  | 61 |    |
| 89   | 39  | RODRIGUES             | ENTIRE ISLAND/CORAL REEF  | 19.7S  | 63.3E | 17.4S | 65.2E | 60    | LO | 250 | N   | N | 19910408 | 113135   | 244    | 288 | 28  | 45 |    |
| 8    | 34  | SAUDI ARABIA          | N. HIJAZ MASSIVE          | 26.0N  | 38.0E | 21.7N | 40.3E | 40    | LO | 35  | N   | N | 19910410 | 064439   | 246    | 104 | 50  | 73 |    |
| 12   | 1   | SAUDI ARABIA          | EMPTY QUARTER             | 16.0N  | 46.0E | 20.1N | 44.9E | 5     | LO | 35  | N   | N | 19910410 | 064554   | 246    | 105 | 55  | 73 |    |
| 12   | 3   | SAUDI ARABIA          | DISSECTED PLAT., G. ADEN  | 15.0N  | 48.0E | 19.5N | 46.5C | 5     | HO | 35  | N   | N | 19910410 | 064621   | 247    | 106 | 57  | 73 |    |
| 12   | 4   | SAUDI ARABIA          | EMPTY QUARTER, G. ADEN    | 17.0N  | 52.0E | 19.2N | 47.0E | 5     | HO | 35  | N   | N | 19910410 | 064630   | 247    | 106 | 57  | 73 |    |
| 12   | 8   | SAUDI ARABIA          | EMPTY QUARTER             | 16.0N  | 48.0E | 18.2N | 49.6E | 0     | LO | 35  | N   | N | 19910410 | 064714   | 247    | 106 | 60  | 73 |    |
| 38   | 6   | SAUDI ARABIA          | MAFUD DESERT, SMOKE PL.   | 30.0N  | 43.0E | 28.3N | 34.6E | 20    | HO | 35  | N   | N | 19910411 | 042518   | 244    | 88  | 13  | 87 |    |
| 38   | 21  | SAUDI ARABIA          | AB-JABAYL, DHAHRAN        | 26.0N  | 50.0E | 25.7N | 51.9E | 5     | LO | 35  | N   | N | 19910411 | 042938   | 245    | 95  | 30  | 87 |    |
| 41   | 5   | SAUDI ARABIA          | EMPTY QUARTER             | 23.0N  | 54.0E | 14.8N | 58.8E | 15    | HO | 35  | N   | N | 19910411 | 061136   | 247    | 100 | 61  | 88 |    |
| 41   | 6   | SAUDI ARABIA          | EMPTY QUARTER             | 19.0N  | 51.0E | 14.7N | 59.0E | 5     | HO | 35  | N   | N | 19910411 | 061140   | 247    | 100 | 61  | 88 |    |
| 56   | 9   | SAUDI ARABIA          | EMPTY QUARTER             | 17.0N  | 46.0E | 12.5N | 39.5E | 15    | HO | 35  | N   | N | 19910411 | 074628   | 247    | 98  | 66  | 89 |    |
| 56   | 11  | SAUDI ARABIA          | DISSECTED PLATEAU         | 16.0N  | 47.0E | 11.8N | 41.0E | 5     | HO | 35  | N   | N | 19910411 | 074655   | 248    | 97  | 68  | 89 |    |
| 56   | 12  | SAUDI ARABIA          | EMPTY QUARTER             | 17.0N  | 46.0E | 11.5N | 41.5E | 5     | LO | 35  | N   | N | 19910411 | 074704   | 248    | 97  | 68  | 89 |    |
| 56   | 13  | SAUDI ARABIA          | HIJAZ MASSIF              | 15.0N  | 45.0E | 11.4N | 41.7E | 20    | LO | 35  | N   | N | 19910411 | 074707   | 248    | 96  | 68  | 89 |    |
| 56   | 14  | SAUDI ARABIA          | HIJAZ MASSIF, ADEN        | 14.0N  | 44.0E | 10.6N | 43.2E | 20    | LO | 35  | N   | N | 19910411 | 074736   | 248    | 95  | 70  | 89 |    |
| 73   | 49  | SAUDI ARABIA          | DHAHRAN AREA              | 26.6N  | 50.1E | 23.7N | 52.1E | 10    | LO | 250 | N   | N | 19910407 | 070433   | 246    | 124 | 62  | 27 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|----------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 73  | 53  | SAUDI ARABIA    | E. TIP RUB AL KHALI        | 21.5N 39.2E       | 21.5N 59.0E      | 0  | LO | 250 | N | N | 19910407 | 070624 | 246 | 133 | 69        | 27 |
| 82  | 91  | SAUDI ARABIA    | JIDDAH, MECCA, COAST       | 21.5N 39.2E       | 21.5N 59.0E      | 5  | LO | 250 | N | Y | 19910406 | 091945 | 245 | 189 | 76        | 13 |
| 82  | 92  | SAUDI ARABIA    | MECCA, RED SEA COAST       | 21.0N 39.8E       | 19.4N 38.8E      | 0  | LO | 250 | N | Y | 19910406 | 091952 | 245 | 171 | 76        | 13 |
| 82  | 93  | SAUDI ARABIA    | HIJAZ MTHS, RED SEA COAST  | 20.4N 40.0E       | 19.3N 39.0E      | 0  | LO | 250 | N | Y | 19910406 | 091955 | 245 | 172 | 76        | 13 |
| 82  | 94  | SAUDI ARABIA    | HIJAZ MTHS, RED SEA COAST  | 20.6N 40.5E       | 19.2N 39.2E      | 10 | LO | 250 | N | Y | 19910406 | 091958 | 245 | 173 | 77        | 13 |
| 82  | 95  | SAUDI ARABIA    | HIJAZ MTHS, RED SEA COAST  | 19.6N 41.1E       | 19.1N 39.4E      | 15 | LO | 250 | N | Y | 19910406 | 092002 | 245 | 174 | 77        | 13 |
| 82  | 96  | SAUDI ARABIA    | HIJAZ MTHS, AHSIBAH WADI   | 19.6N 41.5E       | 18.8N 40.3E      | 15 | LO | 250 | N | Y | 19910406 | 092017 | 245 | 178 | 77        | 13 |
| 82  | 97  | SAUDI ARABIA    | HIJAZ MTHS, QANUNAH WADI   | 19.0N 41.8E       | 18.7N 40.5E      | 20 | LO | 250 | N | Y | 19910406 | 092020 | 245 | 179 | 77        | 13 |
| 82  | 98  | SAUDI ARABIA    | HIJAZ MTHS, CST. OC. EDDY  | 17.7N 42.3E       | 18.2N 41.6E      | 10 | LO | 250 | N | N | 19910406 | 092040 | 245 | 185 | 78        | 13 |
| 82  | 99  | SAUDI ARABIA    | HIJAZ MTHS, WADI DAMAD     | 17.5N 43.0E       | 17.6N 43.1E      | 30 | NV | 250 | N | N | 19910406 | 092105 | 245 | 193 | 78        | 13 |
| 82  | 100 | SAUDI ARABIA    | TUMAYQ IRRIG. AREA         | 20.0N 45.0E       | 17.0N 44.6E      | 0  | LO | 250 | N | N | 19910406 | 092131 | 245 | 201 | 78        | 13 |
| 82  | 101 | SAUDI ARABIA    | BAHR AS SAFI               | 16.6N 45.4E       | 16.6N 45.4E      | 20 | LO | 250 | N | Y | 19910406 | 092145 | 245 | 206 | 78        | 13 |
| 82  | 102 | SAUDI ARABIA    | BAHR AS SAFI               | 16.4N 45.7E       | 16.4N 45.7E      | 20 | LO | 250 | N | Y | 19910406 | 092151 | 245 | 208 | 78        | 13 |
| 90  | 11  | SAUDI ARABIA    | JIDDAH(PART), COAST        | 22.0N 39.0E       | 19.7N 37.9E      | 15 | LO | 250 | N | Y | 19910406 | 091936 | 245 | 167 | 76        | 13 |
| 90  | 12  | SAUDI ARABIA    | JIDDAH, COAST              | 21.3N 39.0E       | 19.5N 38.5E      | 20 | LO | 250 | N | Y | 19910406 | 091947 | 245 | 170 | 76        | 13 |
| 90  | 13  | SAUDI ARABIA    | BARRIER REEF, COAST        | 20.3N 40.1E       | 19.0N 39.8E      | 0  | LO | 250 | N | N | 19910406 | 092009 | 245 | 176 | 77        | 13 |
| 90  | 14  | SAUDI ARABIA    | FARASAN IS, RED SEA, CST   | 16.5N 41.5E       | 17.7N 42.8E      | 10 | LO | 250 | N | N | 19910406 | 092100 | 245 | 191 | 78        | 13 |
| 90  | 15  | SAUDI ARABIA    | TUWAQ IRRIG. PROJECT       | 20.0N 44.7E       | 17.0N 44.4E      | 0  | LO | 250 | N | N | 19910406 | 092128 | 245 | 200 | 78        | 13 |
| 90  | 16  | SAUDI ARABIA    | TUWAQ IRR. DUNE FIELD      | 19.6N 45.3E       | 16.6N 45.3E      | 0  | LO | 250 | N | N | 19910406 | 092144 | 245 | 206 | 78        | 13 |
| 92  | 45  | SAUDI ARABIA    | OIL WELL SMOKE PLUMES      | 28.0N 48.0E       | 25.3N 45.7E      | 0  | LO | 250 | N | N | 19910407 | 070253 | 246 | 118 | 56        | 27 |
| 92  | 46  | SAUDI ARABIA    | AL JUBAYL AREA             | 27.0N 49.0E       | 24.6N 48.5E      | 0  | LO | 250 | N | N | 19910407 | 070337 | 246 | 121 | 59        | 27 |
| 92  | 48  | SAUDI ARABIA    | OIL WELL SMOKE PLUMES      | 28.0N 47.5E       | 24.3N 49.8E      | 0  | LO | 250 | N | N | 19910407 | 070357 | 246 | 122 | 60        | 27 |
| 92  | 86  | SAUDI ARABIA    | NAJRAN AREA, CULT. IRRIGAT | 17.5N 44.2E       | 18.0N 44.2E      | 0  | LO | 250 | N | N | 19910407 | 084223 | 245 | 152 | 77        | 28 |
| 92  | 87  | SAUDI ARABIA    | NAJRAN AREA, CULT. IRRIGAT | 17.3N 44.7E       | 17.6N 45.0E      | 0  | LO | 250 | N | N | 19910407 | 084238 | 245 | 155 | 78        | 28 |
| 94  | 55  | SAUDI ARABIA    | KUWAIT OIL WELL FIRES      | 28.0N 48.5E       |                  | 15 | HO | 100 | N | N |          |        |     |     |           |    |
| 94  | 56  | SAUDI ARABIA    | KUWAIT OIL WELL FIRES      | 27.0N 48.0E       |                  | 15 | HO | 100 | N | N |          |        |     |     |           |    |
| 94  | 76  | SAUDI ARABIA    | G. OF AQABA, NAFUD DES.    | 30.0N 39.0E       |                  | 0  | HO | 100 | N | Y |          |        |     |     |           |    |
| 97  | 31  | SAUDI ARABIA    | MASSIVE, EMPTY QUARTER     | 17.0N 45.0E       | 19.3N 38.9E      | 95 | HO | 250 | N | N | 19910406 | 091917 | 245 | 163 | 75        | 13 |
| 97  | 33  | SAUDI ARABIA    | EMPTY QUARTER              | 17.0N 46.0E       | 18.6N 40.6E      | 30 | LO | 250 | N | N | 19910406 | 091954 | 245 | 172 | 76        | 13 |
| 97  | 34  | SAUDI ARABIA    | EMPTY QUARTER              | 17.0N 46.0E       | 18.6N 40.6E      | 10 | LO | 250 | N | N | 19910406 | 092023 | 245 | 180 | 77        | 13 |
| 97  | 35  | SAUDI ARABIA    | YEMEN (ADEN), GULF ADEN    | 14.5N 47.9E       | 18.2N 41.6E      | 5  | HO | 250 | N | N | 19910406 | 092040 | 245 | 185 | 78        | 13 |
| 97  | 36  | SAUDI ARABIA    | EMPTY QTR., YEMEN(ADEN)    | 16.5N 46.5E       | 18.0N 42.2E      | 5  | LO | 250 | N | N | 19910406 | 092049 | 245 | 188 | 78        | 13 |
| 97  | 41  | SAUDI ARABIA    | RUB AL KHALI               | 15.1N 48.6E       | 15.1N 48.6E      | 0  | HO | 250 | N | N | 19910406 | 082241 | 244 | 224 | 77        | 13 |
| 98  | 1   | SAUDI ARABIA    | COAST, RED SEA, JIZAN AREA | 16.5N 43.0E       | 18.2N 43.6E      | 0  | LO | 250 | N | N | 19910407 | 084212 | 245 | 150 | 76        | 28 |
| 98  | 3   | SAUDI ARABIA    | EMPTY QTR., LONG DUNES     | 17.8N 44.6E       | 17.8N 44.6E      | 0  | LO | 250 | N | N | 19910407 | 084230 | 245 | 154 | 77        | 28 |
| 98  | 5   | SAUDI ARABIA    | EMPTY QUARTER              | 16.9N 46.7E       | 16.9N 46.7E      | 5  | LO | 250 | N | N | 19910407 | 084307 | 245 | 163 | 79        | 28 |
| 98  | 6   | SAUDI ARABIA    | EMPTY QUARTER              | 16.3N 47.8E       | 16.3N 47.8E      | 5  | LO | 250 | N | N | 19910407 | 084328 | 245 | 169 | 80        | 28 |
| 151 | 92  | SAUDI ARABIA    | COAST-JIDDAH               | 22.0N 39.0E       | 25.9N 39.0E      | 60 | HO | 250 | N | N | 19910406 | 042129 | 246 | 90  | 14        | 10 |
| 151 | 93  | SAUDI ARABIA    | MAZHUR IRRIGATION PROJEC   | 26.0N 44.0E       | 26.7N 42.9E      | 50 | LO | 250 | N | N | 19910406 | 042228 | 246 | 92  | 18        | 10 |
| 151 | 94  | SAUDI ARABIA    | ZAWAR POINT-COAST          | 28.0N 49.5E       | 27.7N 48.7E      | 60 | NV | 250 | N | Y | 19910406 | 042409 | 246 | 96  | 24        | 10 |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|----------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 151 | 95  | SAUDI ARABIA    | ABU ALI ISLAND             | 27.0N         | 50.0E         | 27.8N        | 50.4E        | 60 | NV | 250 | N | Y | 19910406 | 042420 | 246 | 96  | 25        | 10 |
| 151 | 125 | SAUDI ARABIA    | HAIL-PIVOT IRR-JABAL AJA   | 27.0N         | 41.0E         | 28.5N        | 42.6E        | 20 | LO | 250 | N | N | 19910406 | 060141 | 246 | 106 | 39        | 11 |
| 151 | 126 | SAUDI ARABIA    | LAKE-DUNES-CLOUDS          |               |               | 28.5N        | 43.8E        | 50 | LO | 250 | N | N | 19910406 | 060158 | 246 | 107 | 40        | 11 |
| 151 | 126 | SAUDI ARABIA    | PERSTAN GULF COAST-SUNGL   | 27.5N         | 49.0E         | 28.4N        | 45.8E        | 30 | LO | 250 | N | N | 19910406 | 060230 | 246 | 109 | 42        | 11 |
| 151 | 129 | SAUDI ARABIA    | ABU ALI ISLAND-COAST       | 28.0N         | 49.0E         | 28.0N        | 51.5E        | 40 | LO | 250 | N | N | 19910406 | 060352 | 246 | 113 | 47        | 11 |
| 151 | 162 | SAUDI ARABIA    | TUMAYQ PIVOT IRRIGATION    | 25.0N         | 45.5E         | 25.2N        | 44.3E        | 10 | NV | 250 | N | Y | 19910406 | 074129 | 246 | 129 | 62        | 12 |
| 151 | 163 | SAUDI ARABIA    | TUMAYQ PIVOT IRRIGATION    | 24.5N         | 45.5E         | 25.0N        | 45.0E        | 10 | NV | 250 | N | Y | 19910406 | 074140 | 246 | 130 | 63        | 12 |
| 151 | 164 | SAUDI ARABIA    | TUMAYQ PIVOT IRR.-RIYAD    | 24.0N         | 47.0E         | 24.7N        | 46.3E        | 10 | NV | 250 | N | Y | 19910406 | 074159 | 246 | 132 | 64        | 12 |
| 151 | 165 | SAUDI ARABIA    | AL HUFUF-DUNES-PIVOT IRR   | 25.5N         | 49.0E         | 24.4N        | 47.4E        | 15 | LO | 250 | N | Y | 19910406 | 074216 | 246 | 133 | 65        | 12 |
| 151 | 166 | SAUDI ARABIA    | GULF OF BAHRAIN-AL HUFUF   | 25.5N         | 50.0E         | 24.1N        | 48.7E        | 15 | LO | 250 | N | Y | 19910406 | 074237 | 246 | 135 | 66        | 12 |
| 151 | 167 | SAUDI ARABIA    | AD DAKHA SANDSEA-PIVOT I   | 23.5N         | 48.5E         | 23.6N        | 50.4E        | 5  | LO | 250 | N | N | 19910406 | 074304 | 246 | 138 | 67        | 12 |
| 151 | 168 | SAUDI ARABIA    | AL JAFURAH-SALWAH BAY      | 24.0N         | 50.5E         | 23.3N        | 51.3E        | 5  | LO | 250 | N | N | 19910406 | 074318 | 246 | 140 | 68        | 12 |
| 151 | 169 | SAUDI ARABIA    | OIL CAMPS-DUNES            | 24.0N         | 53.0E         | 23.0N        | 52.2E        | 10 | NV | 250 | N | N | 19910406 | 074333 | 246 | 142 | 69        | 12 |
| 151 | 170 | SAUDI ARABIA    | RUB AL KHALI               | 22.5N         | 54.0E         | 22.7N        | 53.4E        | 5  | NV | 250 | N | N | 19910406 | 074352 | 245 | 144 | 70        | 12 |
| 151 | 225 | SAUDI ARABIA    | COAST-QUTU ISLAND          | 18.5N         | 41.0E         | 18.7N        | 40.6E        | 20 | NV | 250 | N | Y | 19910406 | 092022 | 245 | 179 | 77        | 13 |
| 151 | 226 | SAUDI ARABIA    | HIBATA-SUNGLINT            | 18.0N         | 42.5E         | 18.2N        | 41.8E        | 15 | NV | 250 | N | Y | 19910406 | 092042 | 245 | 185 | 78        | 13 |
| 151 | 227 | SAUDI ARABIA    | FARASAN ISLANDS            | 16.0N         | 42.0E         | 17.7N        | 42.9E        | 15 | LO | 250 | N | N | 19910406 | 092101 | 245 | 191 | 78        | 13 |
| 151 | 228 | SAUDI ARABIA    | WADI IDIMAH                | 18.5N         | 44.0E         | 17.5N        | 43.3E        | 35 | LO | 250 | N | Y | 19910406 | 092108 | 245 | 194 | 78        | 13 |
| 151 | 229 | SAUDI ARABIA    | WADI NAJRAN-NAIRAN         | 17.5N         | 44.0E         | 17.2N        | 44.1E        | 30 | NV | 250 | N | Y | 19910406 | 092122 | 245 | 198 | 78        | 13 |
| 151 | 230 | SAUDI ARABIA    | TUMAYQ IRRIGATION          | 20.0N         | 45.0E         | 17.0N        | 44.5E        | 5  | LO | 250 | N | N | 19910406 | 092129 | 245 | 201 | 78        | 13 |
| 152 | 84  | SAUDI ARABIA    | AL HIJAZ                   | 27.5N         | 36.5E         | 28.4N        | 36.6E        | 0  | NV | 250 | N | N | 19910407 | 052119 | 246 | 96  | 26        | 26 |
| 152 | 85  | SAUDI ARABIA    | AL HARRAH-VOLCANIC FIELD   | 30.5N         | 38.5E         | 28.5N        | 38.0E        | 0  | LO | 250 | N | N | 19910407 | 052139 | 246 | 97  | 27        | 26 |
| 152 | 86  | SAUDI ARABIA    | WADIS, SMOKE FROM KUWAIT   | 29.5N         | 42.5E         | 28.5N        | 41.4E        | 0  | LO | 250 | N | N | 19910407 | 052229 | 246 | 99  | 30        | 26 |
| 152 | 87  | SAUDI ARABIA    | PIVOT IRR.-KUWAIT SMOKE    | 27.0N         | 47.5E         | 28.5N        | 42.7E        | 15 | LO | 250 | N | Y | 19910407 | 052247 | 246 | 100 | 31        | 26 |
| 152 | 88  | SAUDI ARABIA    | COAST-KUWAIT OIL FIRES     | 28.5N         | 48.5E         | 28.5N        | 44.0E        | 0  | LO | 250 | N | Y | 19910407 | 052307 | 246 | 101 | 33        | 26 |
| 152 | 176 | SAUDI ARABIA    | AR RAHA VOL. FIELD-TABUK   | 28.0N         | 36.5E         | 27.1N        | 36.5E        | 0  | NV | 250 | N | Y | 19910407 | 070034 | 246 | 111 | 47        | 27 |
| 152 | 177 | SAUDI ARABIA    | AR RAHA VOL. FIELD-TABUK   | 27.5N         | 37.0E         | 27.0N        | 37.0E        | 0  | NV | 250 | N | Y | 19910407 | 070041 | 246 | 111 | 48        | 27 |
| 152 | 178 | SAUDI ARABIA    | AL HUFRAH-WADI FAIR        | 29.0N         | 38.0E         | 26.8N        | 38.3E        | 0  | LO | 250 | N | Y | 19910407 | 070101 | 246 | 112 | 49        | 27 |
| 152 | 180 | SAUDI ARABIA    | AJA MNTS.-PIVOT IRRIGATION | 27.5N         | 41.5E         | 26.2N        | 41.7E        | 0  | LO | 250 | N | Y | 19910407 | 070151 | 246 | 115 | 52        | 27 |
| 152 | 181 | SAUDI ARABIA    | SALMA MNTS.-PIVOT IRR.     | 27.0N         | 42.5E         | 26.1N        | 42.0E        | 0  | LO | 250 | N | Y | 19910407 | 070157 | 246 | 115 | 52        | 27 |
| 152 | 182 | SAUDI ARABIA    | MAZUR SAND SEA-KUWAIT SM   | 27.5N         | 44.0E         | 25.7N        | 43.9E        | 0  | LO | 250 | N | Y | 19910407 | 070225 | 246 | 117 | 54        | 27 |
| 152 | 183 | SAUDI ARABIA    | PIVOT IRR.-WADI RUMMAH     | 26.0N         | 43.5E         | 25.6N        | 44.3E        | 0  | NV | 250 | N | Y | 19910407 | 070232 | 246 | 117 | 55        | 27 |
| 152 | 185 | SAUDI ARABIA    | KUWAIT OIL WELL FIRES      | 28.7N         | 47.3E         | 25.1N        | 46.7E        | 0  | LO | 250 | N | Y | 19910407 | 070308 | 246 | 119 | 57        | 27 |
| 152 | 186 | SAUDI ARABIA    | KUWAIT OIL WELL FIRES      | 28.5N         | 47.5E         | 25.0N        | 47.0E        | 0  | LO | 250 | N | Y | 19910407 | 070313 | 246 | 119 | 57        | 27 |
| 152 | 187 | SAUDI ARABIA    | KUWAIT OIL WELL FIRES      | 28.5N         | 48.0E         | 24.8N        | 48.0E        | 0  | LO | 250 | N | Y | 19910407 | 070329 | 246 | 120 | 58        | 27 |
| 152 | 189 | SAUDI ARABIA    | GULF OF BAHRAIN-BAHRAIN    | 25.5N         | 50.5E         | 23.9N        | 51.1E        | 45 | LO | 250 | N | Y | 19910407 | 070418 | 246 | 123 | 61        | 27 |
| 152 | 190 | SAUDI ARABIA    | GULF OF BAHRAIN-BAHRAIN    | 25.5N         | 50.5E         | 23.7N        | 51.8E        | 45 | LO | 250 | N | Y | 19910407 | 070429 | 246 | 124 | 62        | 27 |
| 152 | 191 | SAUDI ARABIA    | OIL FIRES-ZAWAR POINT      | 27.5N         | 49.0E         | 23.4N        | 53.0E        | 10 | LO | 250 | N | N | 19910407 | 070447 | 246 | 125 | 63        | 27 |
| 152 | 262 | SAUDI ARABIA    | RED SEA COAST-SUNGLINT     | 20.0N         | 40.0E         | 19.9N        | 39.3E        | 10 | NV | 250 | N | Y | 19910407 | 084100 | 246 | 139 | 72        | 28 |
| 152 | 263 | SAUDI ARABIA    | HIJAZ MASSIVE-SUNGLINT     | 19.5N         | 41.0E         | 19.5N        | 40.5E        | 15 | NV | 250 | N | Y | 19910407 | 084121 | 245 | 142 | 74        | 28 |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM | EL | OR |
|-----|-----|-----------------|---------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                 |                           | LAT    | LONG  | LAT   | LONG  |    |    |     |   |   |          |        |     |     |     |    |    |
| 152 | 264 | SAUDI ARABIA    | HJAZ MASSIVE              | 19.0N  | 42.5E | 18.8N | 42.2E | 40 | NV | 250 | N | Y | 19910407 | 084149 | 245 | 146 | 75  | 28 |    |
| 152 | 265 | SAUDI ARABIA    | RAHLAT YAM-NAJRAN         | 18.0N  | 45.5E | 17.8N | 44.6E | 5  | NV | 250 | N | N | 19910407 | 084230 | 245 | 163 | 77  | 28 |    |
| 74  | 44  | SENEGAL         | GAMBIA, GUINEA BISSAU     |        |       | 2.0N  | 17.9W | 0  | HO | 250 | N | N | 19910409 | 134825 | 245 | 300 | 83  | 62 |    |
| 77  | 69  | SENEGAL         | COAST AREA, CASAMANCE     | 12.6N  | 16.5W | 12.4N | 17.5W | 0  | LO | 250 | N | N | 19910406 | 140439 | 244 | 245 | 75  | 16 |    |
| 84  | 60  | SENEGAL         | DAKAR                     | 14.5N  | 17.5W |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 61  | SENEGAL         | DAKAR                     | 14.5N  | 17.5W |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 62  | SENEGAL         | DAKAR                     | 14.5N  | 17.0W |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 63  | SENEGAL         | SADOUN RIVER              | 14.0N  | 17.0W |       |       | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 64  | SENEGAL         | SADOUN, GAMBIA RIVERS     | 13.5N  | 16.5W |       |       | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 66  | SENEGAL         | GAMBIA, CASAMANCE RIVERS  | 12.5N  | 16.5W |       |       | 5  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 67  | SENEGAL         | CAHEU, CASAMANCE RIVERS   | 12.5N  | 16.0W |       |       | 5  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 70  | SENEGAL         | CASAMANCE RIVER           | 12.5N  | 15.5W |       |       | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 71  | SENEGAL         | GAMBIA RIVER              | 13.0N  | 15.5W |       |       | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 72  | SENEGAL         | GAMBIA, SALOUM RIVERS     | 14.0N  | 15.5W |       |       | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 73  | SENEGAL         | GAMBIA RIVER              | 14.0N  | 15.0W |       |       | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 74  | SENEGAL         | GAMBIA RIVER              | 14.0N  | 14.5W |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 75  | SENEGAL         | GAMBIA RIVER              | 13.5N  | 14.5W |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 76  | SENEGAL         | GAMBIA, KAYANGE RIVERS    | 13.0N  | 14.5W |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 80  | SENEGAL         | GAMBIA RIVER              | 13.5N  | 13.5W |       |       | 0  | LO | 250 | N | N |          |        |     |     |     |    |    |
| 84  | 81  | SENEGAL         | GAMBIA RIVER              | 13.0N  | 13.5W |       |       | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 82  | SENEGAL         | GAMBIA RIVER              | 13.0N  | 13.0W |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 84  | 83  | SENEGAL         | GAMBIA RIVER              | 13.0N  | 12.5W |       |       | 0  | NV | 250 | N | Y |          |        |     |     |     |    |    |
| 86  | 76  | SENEGAL         | DAKAR AREA                | 14.8N  | 17.5W | 14.6N | 18.2W | 0  | LO | 250 | N | N | 19910408 | 124637 | 246 | 136 | 79  | 46 |    |
| 86  | 77  | SENEGAL         | SALOUM RIVER & DELTA AREA | 14.3N  | 16.8W | 14.4N | 17.7W | 0  | LO | 250 | N | N | 19910408 | 124646 | 246 | 137 | 80  | 46 |    |
| 88  | 72  | SENEGAL         | GAMBIA R/BAY, SALOUM R/D. | 13.8N  | 16.6W | 14.4N | 15.8W | 0  | LO | 250 | N | Y | 19910409 | 120815 | 246 | 114 | 74  | 61 |    |
| 88  | 73  | SENEGAL         | GAMBIA R/BAY, SALOUM R/D. | 13.5N  | 16.6W | 14.1N | 15.2W | 0  | LO | 250 | U | Y | 19910409 | 120826 | 246 | 115 | 75  | 61 |    |
| 88  | 74  | SENEGAL         | DAKAR/PENINSULA, DARK     | 14.4N  | 17.1W | 14.0N | 15.0W | 0  | LO | 250 | N | N | 19910409 | 120828 | 246 | 115 | 75  | 61 |    |
| 88  | 75  | SENEGAL         | CASAMANCE R., COAST, DARK | 12.7N  | 16.6W | 13.8N | 14.5W | 5  | LO | 250 | U | Y | 19910409 | 120837 | 246 | 115 | 75  | 61 |    |
| 88  | 81  | SENEGAL         | AGRICULTURE, DARK         |        |       | 13.3N | 13.6W | 0  | LO | 250 | U | N | 19910409 | 120854 | 246 | 115 | 76  | 61 |    |
| 88  | 88  | SENEGAL         | GAMBIA R., AGR, DARK      | 13.2N  | 13.1W | 12.3N | 11.6W | 0  | LO | 250 | U | N | 19910409 | 120931 | 246 | 115 | 79  | 61 |    |
| 96  | 42  | SENEGAL         | DAKAR, GAMBIA R., GEBE R  | 13.0N  | 16.0W |       |       | 0  | LO | 100 | N | Y |          |        |     |     |     |    |    |
| 153 | 153 | OCE SENEGAL     | DAKAR, CANARY CURRENT     | 15.0N  | 18.0W |       |       | 0  | LO | 250 | N | N |          |        |     |     |     |    |    |
| 153 | 153 | OCE SENEGAL     | DAKAR, CANARY CURRENT     | 14.0N  | 18.0W |       |       | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 153 | OCE SENEGAL     | DAKAR, SADOUM RIVER       | 14.0N  | 17.5W |       |       | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 153 | 153 | OCH SENEGAL     | GAMBIA, CASAMANCE RIVERS  | 12.5N  | 15.5E |       |       | 0  | LO | 250 | N | Y |          |        |     |     |     |    |    |
| 77  | 79  | SIERRA LEONE    | HAZY, CLDY                |        |       | 9.5N  | 11.9W | 60 | LO | 250 | N | N | 19910406 | 140623 | 243 | 262 | 70  | 16 |    |
| 96  | 60  | SIERRA LEONE    | FOREST FIRES              |        |       | 9.3N  | 11.7W | 60 | LO | 250 | N | N | 19910406 | 140627 | 243 | 262 | 70  | 16 |    |
| 85  | 52  | SOCOTRA         | ENTIRE ISLAND             | 12.5N  | 54.0E | 15.7N | 53.1E | 30 | LO | 250 | N | N | 19910409 | 072712 | 246 | 116 | 72  | 58 |    |
| 90  | 21  | SOCOTRA         | ENTIRE ISLAND             | 12.3N  | 53.8E | 10.9N | 57.1E | 15 | LO | 250 | N | N | 19910406 | 092515 | 244 | 256 | 71  | 13 |    |
| 96  | 73  | SOCOTRA         | SOCOTRA ISLAND            | 11.5N  | 54.0E |       |       | 5  | LO | 100 | N | N |          |        |     |     |     |    |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | CENTER<br>LONG | MADIR<br>LAT | MADIR<br>LONG | CC | TL  | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|--------------------------|---------------|----------------|--------------|---------------|----|-----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 97  | 40  | SOCOTRA         |                          | 12.5N         | 54.0E          | 15.0N        | 47.6E         | 20 | HO  | 250 | N | N | 19910406 | 092224 | 244 | 219 | 78        | 13 |
| 98  | 9   | SOCOTRA         |                          | 12.6N         | 54.0E          | 13.9N        | 53.1E         | 20 | LO  | 250 | N | N | 19910407 | 084500 | 246 | 208 | 81        | 28 |
| 98  | 10  | SOCOTRA         | SUNGLINT, WAVE PATTERNS  |               |                | 13.3N        | 54.3E         | 5  | LO  | 250 | N | N | 19910407 | 084522 | 246 | 218 | 81        | 28 |
| 151 | 236 | SOCOTRA         | ENTIRE ISLAND-SUNGLINT   | 12.5N         | 53.5E          | 12.8N        | 53.4E         | 10 | NV  | 250 | N | N | 19910406 | 092407 | 244 | 246 | 76        | 13 |
| 97  | 97  | SOMALI          | COAST                    |               |                | 4.9N         | 44.0E         | 60 | LO  | 250 | N | N | 19910406 | 110204 | 243 | 274 | 61        | 14 |
| 12  | 15  | SOMALIA         | HORN OF AFRICA, SOCOTRA  | 11.0N         | 50.0E          | 15.9N        | 54.7E         | 10 | HO  | 35  | O | N | 19910410 | 084843 | 247 | 107 | 66        | 73 |
| 14  | 33  | SOMALIA         | GULF OF ADEN, SOCOTRA    | 11.0N         | 50.0E          | 10.3N        | 42.0E         | 15 | HO  | 35  | N | N | 19910410 | 082534 | 247 | 101 | 78        | 74 |
| 14  | 34  | SOMALIA         | EAST COAST, ARABIAN SEA  | 8.0N          | 50.0E          | 9.7N         | 43.0E         | 30 | HO  | 35  | N | N | 19910410 | 082554 | 247 | 99  | 79        | 74 |
| 14  | 35  | SOMALIA         | EAST COAST, ARABIAN SEA  | 8.0N          | 49.0E          | 9.4N         | 43.6E         | 30 | HO  | 35  | N | N | 19910410 | 082605 | 247 | 98  | 80        | 74 |
| 14  | 36  | SOMALIA         | CARCAR MTNS.             | 10.0N         | 47.0E          | 8.5N         | 45.3E         | 30 | LO  | 35  | N | N | 19910410 | 082636 | 247 | 94  | 82        | 74 |
| 14  | 37  | SOMALIA         | EAST COAST, ARABIAN SEA  | 8.0N          | 49.0E          | 7.7N         | 46.8E         | 35 | LO  | 35  | N | N | 19910410 | 082704 | 247 | 88  | 83        | 74 |
| 56  | 15  | SOMALIA         | HORN OF AFRICA           | 10.0N         | 50.0E          | 8.7N         | 46.8E         | 15 | LO  | 35  | N | N | 19910411 | 074842 | 248 | 90  | 74        | 89 |
| 77  | 1   | SOMALIA         | CENTRAL COAST            |               |                | 3.0N         | 47.4E         | 30 | LO  | 250 | N | N | 19910406 | 110308 | 243 | 277 | 57        | 14 |
| 77  | 2   | SOMALIA         | CENTRAL COAST            |               |                | 2.9N         | 47.5E         | LO | 250 | N   | N | N | 19910406 | 110311 | 243 | 277 | 57        | 14 |
| 77  | 3   | SOMALIA         | CENTRAL COAST            |               |                | 2.8N         | 47.6E         | LO | 250 | N   | N | N | 19910406 | 110313 | 243 | 277 | 57        | 14 |
| 77  | 4   | SOMALIA         | CENTRAL COAST            |               |                | 2.7N         | 47.8E         | LO | 250 | N   | N | N | 19910406 | 110317 | 243 | 277 | 56        | 14 |
| 77  | 5   | SOMALIA         | CENTRAL COAST            |               |                | 2.6N         | 48.0E         | 20 | LO  | 250 | N | N | 19910406 | 110320 | 243 | 277 | 56        | 14 |
| 77  | 6   | SOMALIA         | CENTRAL COAST            |               |                | 2.3N         | 48.4E         | 20 | LO  | 250 | N | N | 19910406 | 110328 | 243 | 277 | 56        | 14 |
| 84  | 10  | SOMALIA         | GULF OF TADJURA          | 11.5N         | 43.5E          |              |               | 20 | LO  | 250 | N | N |          |        |     |     |           |    |
| 84  | 11  | SOMALIA         | COAST, GULF OF ADEN      | 10.5N         | 44.0E          |              |               | 20 | LO  | 250 | N | N |          |        |     |     |           |    |
| 84  | 12  | SOMALIA         | COAST NEAR BERBERA       | 10.5N         | 45.0E          |              |               | 35 | LO  | 250 | N | N |          |        |     |     |           |    |
| 84  | 13  | SOMALIA         | COAST NEAR CHELIOT HILLS | 7.5N          | 48.5E          |              |               | 35 | HO  | 250 | N | N |          |        |     |     |           |    |
| 84  | 14  | SOMALIA         | COAST NEAR CHELIOT HILLS | 7.0N          | 47.0E          |              |               | 30 | HO  | 250 | N | N |          |        |     |     |           |    |
| 84  | 15  | SOMALIA         | COAST, INTERNAL WAVES    | 6.0N          | 47.0E          |              |               | 35 | HO  | 250 | N | N |          |        |     |     |           |    |
| 84  | 16  | SOMALIA         | COAST, INTERNAL WAVES    | 5.0N          | 47.0E          |              |               | 35 | LO  | 250 | N | N |          |        |     |     |           |    |
| 84  | 17  | SOMALIA         | COAST                    | 4.5N          | 47.0E          |              |               | 40 | LO  | 250 | N | N |          |        |     |     |           |    |
| 84  | 18  | SOMALIA         | COAST, VERY DARK         | 4.0N          | 48.5E          |              |               | 15 | LO  | 250 | N | N |          |        |     |     |           |    |
| 88  | 36  | SOMALIA         | WEST COAST, GULF OF ADEN | 10.0N         | 44.0E          | 9.0N         | 42.4E         | 50 | LO  | 250 | N | N | 19910409 | 090436 | 246 | 128 | 87        | 59 |
| 88  | 37  | SOMALIA         | FAFEM WADI, ERER WADI    | 7.4N          | 43.8E          | 8.3N         | 43.6E         | 60 | LO  | 250 | N | N | 19910409 | 090459 | 246 | 144 | 88        | 59 |
| 88  | 39  | SOMALIA         | INDIAN OCEAN COAST       | 8.6N          | 50.1E          | 6.6N         | 46.7E         | 60 | LO  | 250 | N | N | 19910409 | 090557 | 246 | 286 | 87        | 59 |
| 88  | 40  | SOMALIA         | INDIAN OCEAN COAST       | 7.7N          | 49.6E          | 6.5N         | 46.9E         | 50 | LO  | 250 | N | N | 19910409 | 090601 | 246 | 287 | 87        | 59 |
| 88  | 41  | SOMALIA         | INDIAN OCEAN COAST       | 6.9N          | 49.1E          | 6.4N         | 47.1E         | 45 | LO  | 250 | N | N | 19910409 | 090604 | 246 | 288 | 86        | 59 |
| 88  | 42  | SOMALIA         | COAST/DUNES, SALT PANS   | 5.6N          | 48.5E          | 6.3N         | 47.2E         | 50 | LO  | 250 | N | N | 19910409 | 090607 | 246 | 288 | 86        | 59 |
| 88  | 43  | SOMALIA         | COAST, DUNES, SALT PANS  | 4.9N          | 47.9E          | 6.2N         | 47.4E         | 50 | LO  | 250 | N | N | 19910409 | 090611 | 246 | 289 | 86        | 59 |
| 88  | 44  | SOMALIA         | COAST, DUNES, SALT PANS  | 4.5N          | 47.6E          | 6.1N         | 47.6E         | 50 | LO  | 250 | N | N | 19910409 | 090614 | 246 | 289 | 86        | 59 |
| 94  | 100 | SOMALIA         | GULF OF ADEN             | 11.0N         | 46.0E          |              |               | 15 | HO  | 100 | N | N |          |        |     |     |           |    |
| 94  | 101 | SOMALIA         | COAST, INDIAN OCEAN      | 5.0N          | 48.0E          |              |               | 30 | HO  | 100 | N | N |          |        |     |     |           |    |
| 94  | 102 | SOMALIA         | HORN OF AFRICA, SOCOTRA  | 10.5N         | 51.5E          |              |               | 20 | HO  | 100 | N | N |          |        |     |     |           |    |
| 96  | 100 | SOMALIA         | COAST, TADJOURA GULF     | 10.0N         | 44.0E          |              |               | 30 | LO  | 100 | N | N |          |        |     |     |           |    |
| 96  | 101 | SOMALIA         | COAST, CARCAR MTNS.      | 9.5N          | 45.5E          |              |               | 50 | LO  | 100 | N | N |          |        |     |     |           |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|--------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 96  | 104 | SOMALIA         | COAST NEAR MABBER POINT  | 8.0N 48.5E           |                     | 50 | LO | 100 | N | N | 19910407 | 102220 | 244 | 269 | 73        | 29 |
| 96  | 105 | SOMALIA         | COAST S. OF NEGRO BAY    | 7.0N 48.0E           |                     | 40 | LO | 100 | N | N |          |        |     |     |           |    |
| 96  | 106 | SOMALIA         | COAST S. OF NEGRO BAY    | 7.5N 48.5E           |                     | 40 | LO | 100 | N | Y |          |        |     |     |           |    |
| 96  | 107 | SOMALIA         | NEGRO BAY                | 8.0N 49.0E           |                     | 40 | LO | 100 | N | Y |          |        |     |     |           |    |
| 98  | 67  | SOMALIA         |                          |                      | 7.2N 41.9E          | 60 | LO | 250 | N | N | 19910407 | 102220 | 244 | 269 | 73        | 29 |
| 152 | 6   | SOMALIA         | NEAR COAST-SAND DUNES    | 4.0N 46.5E           | 3.8N 45.8E          | 50 | NV | 250 | N | Y | 19910406 | 110239 | 243 | 275 | 59        | 14 |
| 152 | 7   | SOMALIA         | COAST-ITALA              | 3.0N 45.5E           | 3.7N 46.0E          | 50 | NV | 250 | N | Y | 19910406 | 110242 | 243 | 276 | 59        | 14 |
| 152 | 8   | SOMALIA         | COAST-MUGDISHO           | 2.5N 45.0E           | 3.7N 46.2E          | 55 | LO | 250 | N | Y | 19910406 | 110245 | 243 | 276 | 58        | 14 |
| 152 | 9   | SOMALIA         | COAST-DUNES-MUGDISHO     | 2.0N 44.0E           | 3.4N 46.6E          | 60 | LO | 250 | N | Y | 19910406 | 110253 | 243 | 276 | 58        | 14 |
| 152 | 10  | SOMALIA         | COAST-DUNES-ITALA        | 2.5N 47.0E           | 2.6N 47.9E          | 15 | NV | 250 | N | Y | 19910406 | 110318 | 243 | 277 | 56        | 14 |
| 152 | 11  | SOMALIA         | COAST-DUNES-CLOUDS       | 3.0N 47.5E           | 2.5N 48.1E          | 15 | NV | 250 | N | Y | 19910406 | 110323 | 243 | 277 | 56        | 14 |
| 152 | 12  | SOMALIA         | COAST-DUNES              | 3.5N 48.0E           | 2.3N 48.4E          | 15 | LO | 250 | N | Y | 19910406 | 110328 | 243 | 277 | 56        | 14 |
| 72  | 51  | SOUTH AMERICA   | STORM CELL, RIVER        |                      | 0.2N 69.3W          | 80 | LO | 100 | N | N | 19910405 | 193013 | 243 | 278 | 47        | 4  |
| 152 | 67  | SOUTH AMERICA   | COLUMBIA,PANAMA,G. URABA |                      | 6.9N 78.9W          | 90 | LO | 250 | N | N | 19910406 | 184807 | 244 | 270 | 67        | 19 |
| 151 | 148 | SOUTH CHINA SEA | BORNEO-MALAYSIA-BRUNEI   | 5.0N 114.0E          | 6.5N 112.7E         | 40 | LO | 250 | N | N | 19910406 | 062050 | 243 | 270 | 62        | 11 |
| 151 | 147 | SOUTH CHINA SEA | BORNEO-BRUNEI BAY        | 5.5N 115.0E          | 5.9N 113.8E         | 35 | LO | 250 | N | Y | 19910406 | 062111 | 243 | 272 | 61        | 11 |
| 152 | 127 | SOUTH CHINA SEA | VIETNAM COAST-HAI NAN TA |                      | 10.4N 107.7E        | 70 | HO | 250 | N | N | 19910407 | 054013 | 244 | 253 | 77        | 26 |
| 152 | 132 | SOUTH CHINA SEA | INTERNAL WAVES           |                      | 8.0N 112.0E         | 45 | LO | 250 | N | N | 19910407 | 054133 | 244 | 266 | 73        | 26 |
| 152 | 133 | SOUTH CHINA SEA | DALLAS REEF-CURRENT BOUN | 7.0N 113.0E          | 6.3N 115.1E         | 40 | LO | 250 | N | N | 19910407 | 054232 | 244 | 272 | 70        | 26 |
| 153 | 182 | SOUTH CHINA SEA | SHIP WAKE                |                      | 11.6N 111.0E        | 10 | LO | 250 | N | N | 19910410 | 034422 | 247 | 105 | 76        | 71 |
| 41  | 15  | SRI LANKA       | VIEW OF WHOLE ISLAND     | 7.0N 81.0E           | 3.2N 80.2E          | 25 | LO | 35  | N | N | 19910411 | 061814 | 248 | 48  | 83        | 88 |
| 41  | 16  | SRI LANKA       | VIEW OF WHOLE ISLAND     | 8.0N 81.0E           | 3.1N 80.5E          | 30 | LO | 35  | N | N | 19910411 | 061819 | 248 | 46  | 83        | 88 |
| 8   | 23  | SUDAN           | NUBIAN DESERT AREA,NILE  | 19.0N 28.0E          | 24.7N 30.5E         | 40 | HO | 35  | N | N | 19910410 | 084202 | 246 | 101 | 40        | 73 |
| 8   | 26  | SUDAN           | OVEREXPOSED,BEND IN NILE |                      | 23.8N 33.8E         | 0  | HO | 35  | N | N | 19910410 | 064254 | 246 | 102 | 43        | 73 |
| 8   | 33  | SUDAN           | PANORAMA                 |                      | 22.2N 38.8E         | 40 | HO | 35  | N | N | 19910410 | 064414 | 246 | 104 | 48        | 73 |
| 8   | 36  | SUDAN           | E.NUBIAN DESERT          | 19.0N 35.0E          | 21.1N 42.0E         | 40 | LO | 35  | N | N | 19910410 | 064506 | 246 | 105 | 52        | 73 |
| 14  | 17  | SUDAN           | NILE R., NUBIAN DESERT   | 19.0N 31.0E          | 18.0N 26.2E         | 5  | HO | 35  | N | N | 19910410 | 082052 | 247 | 106 | 60        | 74 |
| 14  | 18  | SUDAN           | NILE R., KHARTOUM        | 16.0N 32.0E          | 17.8N 26.7E         | 15 | HO | 35  | N | N | 19910410 | 082100 | 247 | 106 | 61        | 74 |
| 14  | 19  | SUDAN           | NILE R., NUBIAN DESERT   | 20.0N 32.0E          | 17.6N 27.2E         | 5  | HO | 35  | N | N | 19910410 | 082108 | 247 | 106 | 61        | 74 |
| 14  | 20  | SUDAN           | NILE R., NUBIAN DESERT   | 20.0N 30.0E          | 17.0N 28.3E         | 5  | HO | 35  | N | N | 19910410 | 082128 | 247 | 106 | 62        | 74 |
| 14  | 21  | SUDAN           | NILE R., KHARTOUM        | 17.0N 32.0E          | 16.7N 29.1E         | 10 | LO | 35  | N | N | 19910410 | 082142 | 247 | 106 | 63        | 74 |
| 14  | 22  | SUDAN           | NILE R., KHARTOUM        | 15.0N 30.0E          | 16.3N 30.1E         | 10 | LO | 35  | N | N | 19910410 | 082159 | 247 | 106 | 64        | 74 |
| 14  | 23  | SUDAN           | NILE R., KHARTOUM        | 17.0N 34.0E          | 15.9N 30.8E         | 5  | LO | 35  | N | N | 19910410 | 082212 | 247 | 106 | 65        | 74 |
| 14  | 24  | SUDAN           | NILE R., RED SEA         | 15.0N 36.0E          | 15.5N 31.7E         | 10 | HO | 35  | N | N | 19910410 | 082227 | 247 | 106 | 66        | 74 |
| 14  | 27  | SUDAN           | SUDAN AG., NILE RIVER    | 14.0N 35.0E          | 14.2N 34.5E         | 5  | LO | 35  | N | N | 19910410 | 082317 | 247 | 106 | 69        | 74 |
| 56  | 1   | SUDAN           | KHARTOUM, NILE RIVER     | 16.0N 33.0E          | 16.2N 32.0E         | 5  | LO | 35  | N | N | 19910411 | 074412 | 247 | 100 | 57        | 89 |
| 56  | 2   | SUDAN           | SUDAN AGRICULTURE REGION | 14.0N 32.0E          | 16.1N 32.2E         | 0  | LO | 35  | N | N | 19910411 | 074416 | 247 | 100 | 58        | 89 |
| 56  | 3   | SUDAN           | SUDAN AGRICULTURE REGION | 15.0N 33.0E          | 16.1N 32.3E         | 0  | LO | 35  | N | N | 19910411 | 074418 | 247 | 100 | 58        | 89 |
| 56  | 4   | SUDAN           | SUDAN AGRICULTURE REGION | 14.0N 33.0E          | 15.9N 32.6E         | 5  | LO | 35  | N | N | 19910411 | 074424 | 247 | 100 | 58        | 89 |
| 56  | 5   | SUDAN           | NILE RIVER VALLEY        | 19.0N 33.0E          | 15.7N 33.0E         | 5  | LO | 35  | N | N | 19910411 | 074431 | 247 | 100 | 59        | 89 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT | CENTER<br>LON | MADIR<br>LAT | MADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|----|-----|-----------------|--------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 56 | 6   | SUDAN           | SUDAN AGRICULTURE REGION | 14.0N         | 34.0E         | 14.6N        | 35.4E        | 0  | LO | 35  | N | N | 19910411 | 074514 | 247 | 100 | 61        | 89 |
| 73 | 96  | SUDAN           | NW SUDAN                 |               |               | 23.7N        | 27.9E        | 40 | LO | 250 | N | N | 19910407 | 083754 | 246 | 123 | 61        | 28 |
| 73 | 101 | SUDAN           | E.COAST,RAS ABU SHAGARA  | 21.1N         | 37.2E         | 21.4N        | 35.3E        | 10 | LO | 250 | N | N | 19910407 | 083954 | 246 | 132 | 69        | 28 |
| 73 | 102 | SUDAN           | GULF OF AQIQ             | 18.1N         | 38.5E         | 20.2N        | 38.6E        | 10 | LO | 250 | N | N | 19910407 | 084048 | 246 | 137 | 72        | 28 |
| 82 | 61  | SUDAN           | NILE RIVER, DESERT       | 21.5N         | 31.1E         | 22.3N        | 30.7E        | 0  | NV | 250 | N | Y | 19910408 | 091738 | 245 | 145 | 71        | 13 |
| 82 | 62  | SUDAN           | NILE RIVER, DESERT       | 21.8N         | 31.3E         | 22.2N        | 30.9E        | 0  | NV | 250 | N | Y | 19910408 | 091741 | 245 | 146 | 71        | 13 |
| 82 | 80  | SUDAN           | NUBIAN DESERT,WADI OKO   | 21.3N         | 35.4E         | 20.9N        | 34.7E        | 15 | NV | 250 | N | Y | 19910408 | 091843 | 245 | 156 | 74        | 13 |
| 82 | 81  | SUDAN           | NUBIAN DESERT,WADI OKO   | 20.6N         | 35.5E         | 20.9N        | 34.9E        | 15 | NV | 250 | N | Y | 19910408 | 091846 | 245 | 156 | 74        | 13 |
| 82 | 82  | SUDAN           | NUBIAN DESERT,WADI OKO   | 20.2N         | 35.8E         | 20.8N        | 35.1E        | 15 | NV | 250 | N | Y | 19910408 | 091849 | 245 | 157 | 74        | 13 |
| 82 | 83  | SUDAN           | NUBIAN DES,KOLIBATAB WAD | 19.7N         | 36.0E         | 20.8N        | 35.2E        | 0  | LO | 250 | N | Y | 19910408 | 091851 | 245 | 157 | 74        | 13 |
| 82 | 84  | SUDAN           | NUBIAN DES,HAYET WADI    | 20.0N         | 36.4E         | 20.7N        | 35.4E        | 10 | NV | 250 | N | Y | 19910408 | 091855 | 245 | 158 | 74        | 13 |
| 82 | 85  | SUDAN           | NUBIAN DES, YUDEB WADI   | 20.5N         | 36.3E         | 20.6N        | 35.6E        | 5  | NV | 250 | N | Y | 19910408 | 091858 | 245 | 159 | 74        | 13 |
| 82 | 86  | SUDAN           | NUBIAN DES, YUDEB WADI   | 21.0N         | 36.3E         | 20.5N        | 35.8E        | 10 | LO | 250 | N | Y | 19910408 | 091902 | 245 | 160 | 74        | 13 |
| 82 | 87  | SUDAN           | NUBIAN DES,DUNGUNAB BAY  | 21.0N         | 36.5E         | 20.4N        | 36.1E        | 15 | NV | 250 | N | Y | 19910408 | 091906 | 245 | 160 | 75        | 13 |
| 82 | 88  | SUDAN           | COAST RANGE,MT.ERBA      | 20.5N         | 37.0E         | 20.4N        | 36.3E        | 30 | NV | 250 | N | Y | 19910408 | 091909 | 245 | 161 | 75        | 13 |
| 85 | 90  | SUDAN           | SAND DESERT              |               |               | 17.6N        | 25.0E        | 0  | LO | 250 | N | N | 19910409 | 085923 | 246 | 114 | 67        | 59 |
| 85 | 91  | SUDAN           | SAND DESERT              |               |               | 17.4N        | 25.4E        | 0  | LO | 250 | N | N | 19910409 | 085930 | 246 | 114 | 68        | 59 |
| 85 | 92  | SUDAN           | SAND DESERT              |               |               | 17.0N        | 26.3E        | 0  | LO | 250 | N | N | 19910409 | 085945 | 246 | 114 | 68        | 59 |
| 85 | 93  | SUDAN           | SAND DESERT              |               |               | 16.8N        | 26.7E        | 0  | LO | 250 | N | N | 19910409 | 085952 | 246 | 114 | 69        | 59 |
| 85 | 94  | SUDAN           | DARK ROCK OUTCROP AREA   |               |               | 16.7N        | 27.1E        | 5  | LO | 250 | N | N | 19910409 | 085959 | 246 | 114 | 69        | 59 |
| 85 | 95  | SUDAN           | DARK ROCK OUTCROP AREA   |               |               | 16.5N        | 27.6E        | 0  | LO | 250 | N | N | 19910409 | 090007 | 246 | 115 | 70        | 59 |
| 85 | 96  | SUDAN           | CULTIVATED WADI          |               |               | 16.1N        | 28.3E        | 5  | LO | 250 | N | N | 19910409 | 090020 | 246 | 115 | 71        | 59 |
| 85 | 97  | SUDAN           | CULTIVATED WADI          |               |               | 16.0N        | 28.5E        | 10 | LO | 250 | N | N | 19910409 | 090024 | 246 | 115 | 71        | 59 |
| 85 | 98  | SUDAN           | HAZY,CLOY                |               |               | 15.6N        | 29.5E        | 60 | LO | 250 | N | N | 19910409 | 090041 | 246 | 115 | 72        | 59 |
| 85 | 99  | SUDAN           | SAND DESERT              |               |               | 14.8N        | 31.1E        | 50 | LO | 250 | N | N | 19910409 | 090110 | 246 | 116 | 74        | 59 |
| 85 | 100 | SUDAN           | WHITE NILE,IRR.AGRICULT. | 14.0N         | 32.4E         | 14.6N        | 31.5E        | 20 | LO | 250 | N | N | 19910409 | 090117 | 246 | 116 | 74        | 59 |
| 85 | 101 | SUDAN           | WHITE NILE,IRR.AGRICULT. | 14.3N         | 32.8E         | 14.3N        | 32.2E        | 10 | LO | 250 | N | N | 19910409 | 090129 | 246 | 117 | 75        | 59 |
| 85 | 102 | SUDAN           | WHITE NILE,IRR.AGRICULT. | 14.5N         | 32.8E         | 14.0N        | 32.7E        | 10 | LO | 250 | N | N | 19910409 | 090138 | 246 | 117 | 76        | 59 |
| 85 | 103 | SUDAN           | WHITE NILE,IRR.AGRICULT. | 13.8N         | 32.8E         | 13.9N        | 33.0E        | 0  | LO | 250 | N | N | 19910409 | 090143 | 246 | 117 | 76        | 59 |
| 85 | 104 | SUDAN           | BLUE NILE,IRR.AGRICULT.  | 13.0N         | 34.0E         | 13.7N        | 33.4E        | 0  | LO | 250 | N | N | 19910409 | 090150 | 246 | 117 | 76        | 59 |
| 85 | 105 | SUDAN           | BLUE NILE,IRR.AGRICULT.  | 13.0N         | 34.0E         | 13.6N        | 33.6E        | 0  | LO | 250 | N | N | 19910409 | 090154 | 246 | 117 | 77        | 59 |
| 85 | 106 | SUDAN           | BLUE NILE,IRR.AGRICULT.  | 13.0N         | 34.0E         | 13.5N        | 33.9E        | 0  | LO | 250 | N | N | 19910409 | 090159 | 246 | 117 | 77        | 59 |
| 88 | 9   | SUDAN           | SAND ST,DEPR,OU MOURDI   | 18.6N         | 24.2E         | 18.2N        | 23.5E        | 0  | LO | 250 | N | N | 19910409 | 085857 | 246 | 113 | 65        | 59 |
| 88 | 10  | SUDAN           | SAND STORM,ROCK OUTCROPS |               |               | 18.1N        | 23.8E        | 0  | LO | 250 | N | N | 19910409 | 085901 | 246 | 113 | 66        | 59 |
| 88 | 11  | SUDAN           | SAND STORM,GRANITE INTR. | 17.5N         | 27.0E         | 17.4N        | 25.3E        | 10 | LO | 250 | N | N | 19910409 | 085928 | 246 | 114 | 67        | 59 |
| 88 | 12  | SUDAN           | LIBYAN DESERT,SAND STORM |               |               | 17.2N        | 25.9E        | 0  | LO | 250 | N | N | 19910409 | 085937 | 246 | 114 | 68        | 59 |
| 88 | 13  | SUDAN           | LIBYAN DES,ROCK RIDGE,SS | 16.5N         | 27.5E         | 16.9N        | 26.5E        | 10 | LO | 250 | N | Y | 19910409 | 085948 | 246 | 114 | 69        | 59 |
| 88 | 14  | SUDAN           | SAND ST,EL HEITAN PLAT.  | 15.5N         | 28.0E         | 16.9N        | 26.6E        | 15 | LO | 250 | N | Y | 19910409 | 085950 | 246 | 114 | 69        | 59 |
| 88 | 15  | SUDAN           | JABAL MAYDUB,SAND STORM  | 15.4N         | 26.5E         | 16.5N        | 27.5E        | 15 | LO | 250 | N | N | 19910409 | 090006 | 246 | 115 | 70        | 59 |
| 88 | 16  | SUDAN           | SAND STORM FRONT, DESERT |               |               | 16.1N        | 28.4E        | 20 | LO | 250 | N | N | 19910409 | 090021 | 246 | 115 | 71        | 59 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER |       | MADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|----|-----------------|----------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |    |                 |                            | LAT    | LOW   | LAT   | LOW   |    |    |     |   |   |          |        |     |     |     |    |    |
| 88 | 17 | SUDAN           | WADI MALIK, DESERT         | 16.5N  | 29.5E | 16.0N | 28.6E | 30 | LO | 250 | N | N | 19910409 | 090026 | 246 | 115 | 71  | 59 |    |
| 88 | 18 | SUDAN           | WADI MALIK                 | 14.4N  | 28.2E | 15.7N | 29.3E | 45 | LO | 250 | U | N | 19910409 | 090037 | 246 | 115 | 72  | 59 |    |
| 88 | 19 | SUDAN           | WHITE NILE                 | 14.7N  | 32.1E | 14.7N | 31.4E | 40 | NV | 250 | N | N | 19910409 | 090114 | 246 | 116 | 74  | 59 |    |
| 88 | 20 | SUDAN           | WHITE NILE                 | 14.1N  | 32.3E | 14.0N | 31.5E | 40 | NV | 250 | N | N | 19910409 | 090117 | 246 | 116 | 74  | 59 |    |
| 88 | 21 | SUDAN           | WHITE NILE, CLOUDS         | 13.5N  | 32.6E | 14.5N | 31.7E | 50 | LO | 250 | N | N | 19910409 | 090121 | 246 | 116 | 74  | 59 |    |
| 88 | 22 | SUDAN           | BLUE NILE, DINDAR W, SGLT  | 13.6N  | 33.5E | 13.9N | 33.0E | 0  | LO | 250 | U | N | 19910409 | 090144 | 246 | 117 | 76  | 59 |    |
| 88 | 23 | SUDAN           | WHITE NILE, EL GEZIRA IRR  | 14.0N  | 33.0E | 13.8N | 33.2E | 20 | NV | 250 | N | Y | 19910409 | 090148 | 246 | 117 | 76  | 59 |    |
| 88 | 24 | SUDAN           | WHITE NILE, EL GEZIRA IRR  | 13.9N  | 32.4E | 13.7N | 33.5E | 5  | LO | 250 | N | Y | 19910409 | 090152 | 246 | 117 | 76  | 59 |    |
| 88 | 25 | SUDAN           | WHITE NILE                 | 13.1N  | 32.7E | 13.6N | 33.6E | 0  | LO | 250 | U | N | 19910409 | 090155 | 246 | 117 | 77  | 59 |    |
| 88 | 26 | SUDAN           | ATBARAH R, SATIT R, RESER. | 14.6N  | 35.8E | 13.0N | 34.9E | 0  | LO | 250 | N | N | 19910409 | 090218 | 246 | 118 | 78  | 59 |    |
| 88 | 27 | SUDAN           | ATBARAH R, SATIT R.        | 14.0N  | 36.2E | 12.9N | 35.1E | 0  | LO | 250 | N | N | 19910409 | 090221 | 246 | 118 | 78  | 59 |    |
| 90 | 5  | SUDAN           | LAKE MASSER, MILE RIVER    | 21.5N  | 31.0E | 22.0N | 31.7E | 10 | NV | 250 | N | N | 19910406 | 091753 | 245 | 147 | 71  | 13 |    |
| 90 | 6  | SUDAN           | LAKE MASSER, MILE RIVER    | 21.8N  | 31.2E | 21.8N | 32.2E | 0  | LO | 250 | N | N | 19910406 | 091802 | 245 | 149 | 72  | 13 |    |
| 90 | 7  | SUDAN           | LAKE MASSER, MILE RIVER    | 21.9N  | 31.3E | 21.4N | 33.3E | 0  | LO | 250 | N | N | 19910406 | 091820 | 245 | 152 | 73  | 13 |    |
| 90 | 9  | SUDAN           | MUBIAN DES, DOME, MTS.     | 21.7N  | 35.0E | 20.8N | 35.1E | 20 | LO | 250 | N | N | 19910406 | 091850 | 245 | 157 | 74  | 13 |    |
| 90 | 10 | SUDAN           | DUNGUMAB BAY/PENINSULA     | 21.0N  | 37.3E | 20.2N | 36.8E | 20 | LO | 250 | N | N | 19910406 | 091918 | 245 | 163 | 75  | 13 |    |
| 94 | 78 | SUDAN           | MUBIAN DES., RED SEA       | 20.5N  | 35.5E |       |       | 10 | LO | 100 | N | Y |          |        |     |     |     |    |    |
| 94 | 79 | SUDAN           | MUBIAN DES., MILE RIVER    | 19.0N  | 34.0E |       |       | 15 | LO | 100 | N | Y |          |        |     |     |     |    |    |
| 94 | 80 | SUDAN           | MUBIAN DES., RED SEA       | 21.0N  | 35.5E |       |       | 10 | LO | 100 | N | Y |          |        |     |     |     |    |    |
| 94 | 96 | SUDAN           | MILE R., BAYUDA CRATER     | 18.0N  | 33.0E |       |       | 15 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 95 | 76 | SUDAN           | WEST CENTRAL SUDAN         |        |       | 15.6N | 23.8E | 20 | LO | 250 | N | N | 19910406 | 105551 | 244 | 218 | 78  | 14 |    |
| 95 | 77 | SUDAN           | WEST CENTRAL SUDAN         |        |       | 15.5N | 23.9E | 30 | LO | 250 | N | N | 19910406 | 105554 | 244 | 219 | 78  | 14 |    |
| 95 | 78 | SUDAN           | SUDAN, CHAD BORDER         |        |       | 15.0N | 24.9E | 0  | LO | 250 | N | N | 19910406 | 105611 | 244 | 224 | 78  | 14 |    |
| 95 | 79 | SUDAN           |                            |        |       | 14.6N | 25.8E | 80 | LO | 250 | N | N | 19910406 | 105628 | 244 | 229 | 77  | 14 |    |
| 95 | 80 | SUDAN           | SW OF AL UBAYYID, WADI     |        |       | 14.2N | 26.7E | 5  | LO | 250 | N | N | 19910406 | 105643 | 244 | 233 | 77  | 14 |    |
| 95 | 81 | SUDAN           | SW OF AL UBAYYID, WADI     |        |       | 13.6N | 27.8E | 5  | NV | 250 | N | N | 19910406 | 105703 | 244 | 238 | 76  | 14 |    |
| 95 | 82 | SUDAN           | SW OF AL UBAYYID, WADI     |        |       | 13.6N | 28.0E | 10 | NV | 250 | N | N | 19910406 | 105706 | 244 | 239 | 76  | 14 |    |
| 95 | 83 | SUDAN           |                            |        |       | 12.9N | 29.3E | 40 | LO | 250 | N | N | 19910406 | 105730 | 244 | 244 | 75  | 14 |    |
| 95 | 84 | SUDAN           |                            |        |       | 12.6N | 29.8E | 10 | LO | 250 | N | N | 19910406 | 105739 | 244 | 246 | 75  | 14 |    |
| 95 | 85 | SUDAN           | WHITE NILE, N. OF KUSTI    | 13.1N  | 32.3E | 11.5N | 32.0E | 50 | LO | 250 | N | N | 19910406 | 105820 | 244 | 253 | 73  | 14 |    |
| 95 | 86 | SUDAN           | WHITE NILE, CULTVD FIELDS  | 14.2N  | 32.6E | 11.3N | 32.3E | 40 | LO | 250 | N | N | 19910406 | 105825 | 244 | 254 | 73  | 14 |    |
| 95 | 87 | SUDAN           | WHITE NILE, SO. OF KUSTI   |        |       | 11.2N | 32.6E | 80 | LO | 250 | N | N | 19910406 | 105830 | 244 | 255 | 72  | 14 |    |
| 95 | 88 | SUDAN           | WHITE NILE, SO. OF KUSTI   | 11.9N  | 32.8E | 11.1N | 32.8E | 60 | NV | 250 | N | N | 19910406 | 105834 | 244 | 255 | 72  | 14 |    |
| 95 | 89 | SUDAN           | WHITE NILE, SO. OF KUSTI   | 11.0N  | 32.7E | 11.0N | 33.0E | 70 | NV | 250 | N | N | 19910406 | 105837 | 244 | 256 | 72  | 14 |    |
| 95 | 90 | SUDAN           | WHITE NILE, SO. OF KUSTI   | 10.5N  | 32.3E | 10.9N | 33.2E | 90 | LO | 250 | N | N | 19910406 | 105841 | 244 | 256 | 72  | 14 |    |
| 96 | 86 | SUDAN           | DUST E. OF ENMEDI PLAT.    | 19.0N  | 24.5E |       |       | 5  | LO | 100 | N | Y |          |        |     |     |     |    |    |
| 96 | 87 | SUDAN           | TEIGA PLATEAU, DUST        |        |       |       |       | 10 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 96 | 88 | SUDAN           | REGION NEAR TIEGA PLAT.    |        |       |       |       | 5  | LO | 100 | N | Y |          |        |     |     |     |    |    |
| 96 | 89 | SUDAN           | TEIGA PLAT., TEIJO HILL    | 15.0N  | 26.0E |       |       | 15 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 96 | 90 | SUDAN           | DESERT, ESCARP. W MILE R   | 12.5N  | 30.5E |       |       | 30 | LO | 100 | N | N |          |        |     |     |     |    |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | CENTER<br>LON | NADIR<br>LAT | NADIR<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL |
|-----|-----|-----------------|----------------------------|---------------|---------------|--------------|--------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|
| 96  | 91  | SUDAN           | MILE R. N OF KHARTOUM      | 16.0N         | 33.5E         |              |              | 55 | LO | 100 | U | N |          |        |     |     |           |
| 96  | 92  | SUDAN           | SUDAN AG., NILE RIVER      | 14.0N         | 33.0E         |              |              | 15 | LO | 100 | U | N |          |        |     |     |           |
| 96  | 93  | SUDAN           | SUDAN AG., BLUE NILE R.    | 13.5N         | 33.5E         |              |              | 10 | LO | 100 | U | Y |          |        |     |     |           |
| 97  | 83  | SUDAN           |                            |               |               | 16.8N        | 21.0E        | 40 | LO | 250 | N | N | 19910406 | 105502 | 245 | 201 | 78 14     |
| 97  | 84  | SUDAN           | NW.DESERT, PANORAMA        |               |               | 16.1N        | 22.6E        | 0  | HO | 250 | N | N | 19910406 | 105530 | 244 | 210 | 78 14     |
| 97  | 85  | SUDAN           | NW.DESERT, PANORAMA        |               |               | 15.4N        | 24.2E        | 5  | HO | 250 | N | N | 19910406 | 105559 | 244 | 220 | 78 14     |
| 97  | 86  | SUDAN           |                            |               |               | 14.9N        | 25.2E        | 50 | LO | 250 | N | N | 19910406 | 105617 | 244 | 225 | 77 14     |
| 97  | 87  | SUDAN           | WHITE NILE                 |               |               | 14.1N        | 26.9E        | 30 | HO | 250 | N | N | 19910406 | 105647 | 244 | 233 | 77 14     |
| 97  | 88  | SUDAN           | AGRICULTURAL FIELDS        | 14.0N         | 33.0E         | 13.3N        | 28.4E        | 50 | LO | 250 | N | N | 19910406 | 105714 | 244 | 240 | 76 14     |
| 97  | 89  | SUDAN           | AGRICULTURAL FIELDS        | 14.0N         | 33.0E         | 13.0N        | 29.1E        | 50 | LO | 250 | N | N | 19910406 | 105727 | 244 | 243 | 75 14     |
| 97  | 90  | SUDAN           | AGRICULTURAL FIELDS        | 14.0N         | 33.0E         | 12.7N        | 29.7E        | 50 | LO | 250 | N | N | 19910406 | 105737 | 244 | 245 | 75 14     |
| 98  | 57  | SUDAN           | SO. OF AL UBAYYID          | 12.4N         | 29.5E         | 14.4N        | 28.3E        | 10 | LO | 250 | N | N | 19910407 | 101809 | 245 | 196 | 82 29     |
| 98  | 58  | SUDAN           | SO. OF AL UBAYYID          | 12.5N         | 30.4E         | 14.2N        | 28.5E        | 10 | LO | 250 | N | N | 19910407 | 101814 | 245 | 199 | 82 29     |
| 151 | 258 | SUDAN           | CLOUDS-WADIS               |               |               | 14.5N        | 26.0E        | 75 | LO | 250 | N | N | 19910406 | 105631 | 244 | 229 | 77 14     |
| 151 | 259 | SUDAN           | WADI AL GHALLAH            | 12.0N         | 27.5E         | 13.8N        | 27.5E        | 15 | LO | 250 | N | N | 19910406 | 105657 | 244 | 236 | 76 14     |
| 151 | 260 | SUDAN           | WADI AYAK                  | 13.0N         | 29.0E         | 12.8N        | 29.6E        | 15 | NV | 250 | N | N | 19910406 | 105735 | 244 | 245 | 75 14     |
| 152 | 259 | SUDAN           | NEAR COAST-DOUBLE EXPOS    |               |               |              |              | 20 | LO | 250 | N | N |          |        |     |     |           |
| 152 | 260 | SUDAN           | NEAR COAST-DOUBLE EXPOS    |               |               | 21.2N        | 35.9E        | 20 | LO | 250 | N | N | 19910407 | 084004 | 246 | 133 | 69 28     |
| 152 | 261 | SUDAN           | COAST-TALLATALLA SAQIR I   | 19.0N         | 38.0E         | 20.3N        | 38.4E        | 10 | LO | 250 | N | N | 19910407 | 084045 | 246 | 137 | 72 28     |
| 153 | 185 | SULU SEA        | KAGAYAN IS., INT. WAVES    | 8.0N          | 118.0E        | 7.9N         | 118.0E       | 10 | LO | 250 | N | N | 19910410 | 034632 | 247 | 90  | 84 71     |
| 75  | 99  | SURINAM         | PARAMARIBO AREA            | 7.0N          | 55.0W         | 7.6N         | 55.3W        | 60 | LO | 250 | N | N | 19910406 | 171418 | 244 | 268 | 68 18     |
| 75  | 100 | SURINAM         | PARAMARIBO AREA            | 7.0N          | 55.0W         | 6.7N         | 54.7W        | 60 | LO | 250 | N | N | 19910406 | 171447 | 243 | 270 | 66 18     |
| 75  | 101 | SURINAM         | PARAMARIBO AREA            | 4.6N          | 55.0W         | 6.5N         | 54.3W        | 95 | LO | 250 | N | N | 19910406 | 171456 | 243 | 271 | 66 18     |
| 79  | 32  | SURINAM         | SURINAM R., PARAMARIBO     | 6.0N          | 55.0W         | 7.3N         | 55.7W        | 45 | LO | 250 | N | N | 19910406 | 171428 | 244 | 268 | 68 18     |
| 79  | 33  | SURINAM         | BLOWMESTEIN LAKE           | 6.0N          | 55.0W         | 6.6N         | 54.5W        | 60 | LO | 250 | N | N | 19910406 | 171451 | 243 | 270 | 66 18     |
| 90  | 111 | SURINAM         | COURANTYN R. AGR, GUYANA   | 6.0N          | 57.0W         | 7.7N         | 56.5W        | 45 | LO | 250 | N | N | 19910406 | 171414 | 244 | 267 | 68 18     |
| 90  | 112 | SURINAM         | COURANTYN R. AGR, GUYANA   | 6.0N          | 57.0W         | 6.9N         | 54.9W        | 55 | LO | 250 | N | N | 19910406 | 171443 | 243 | 270 | 67 18     |
| 90  | 113 | SURINAM         | BLOWMESTEIN RESERVOIR      | 5.0N          | 55.0W         | 6.4N         | 54.0W        | 75 | LO | 250 | N | N | 19910406 | 171500 | 243 | 271 | 66 18     |
| 90  | 114 | SURINAM         | BLOWMESTEIN RESERVOIR      | 5.0N          | 55.0W         | 5.8N         | 53.1W        | 75 | LO | 250 | N | N | 19910406 | 171518 | 243 | 272 | 65 18     |
| 90  | 115 | SURINAM         | BLOWMESTEIN RESERVOIR      | 5.0N          | 55.0W         | 5.3N         | 52.2W        | 80 | LO | 250 | N | N | 19910406 | 171535 | 243 | 273 | 64 18     |
| 15  | 13  | SWAZILAND       | ESCARPMENT                 | 26.0S         | 32.0E         | 19.9S        | 27.0E        | 10 | HO | 35  | N | N | 19910410 | 132330 | 246 | 296 | 36 77     |
| 15  | 15  | SWAZILAND       | LAND USE, ESCARPMENT       | 27.0S         | 32.0E         | 20.3S        | 28.0E        | 5  | LO | 35  | N | N | 19910410 | 132347 | 246 | 296 | 35 77     |
| 15  | 16  | SWAZILAND       | LAND USE, ESCARPMENT       | 27.0S         | 31.0E         | 20.6S        | 28.9E        | 0  | LO | 35  | N | N | 19910410 | 132402 | 246 | 295 | 34 77     |
| 74  | 100 | SWAZILAND       | REP. S. AFRICA, MOZIAMB    | 26.5S         | 31.5E         | 24.6S        | 40.5E        | 5  | LO | 250 | N | N | 19910409 | 140545 | 244 | 286 | 16 62     |
| 9   | 37  | TANZANIA        | LAKE NATRON AREA           | 2.0S          | 35.0E         | 1.8N         | 34.8E        | 95 | HO | 35  | N | N | 19910411 | 092557 | 248 | 32  | 82 90     |
| 46  | 1   | TANZANIA        | ZANZIBAR I., PEMBA I., CST | 7.0S          | 39.0E         | 2.5S         | 42.2E        | 60 | HO | 35  | N | N | 19910411 | 092819 | 248 | 340 | 79 90     |
| 75  | 5   | TANZANIA        | S. SHORE LAKE VICTORIA     | 2.2S          | 32.0E         | 1.5S         | 31.2E        | 70 | LO | 250 | N | N | 19910406 | 123901 | 243 | 281 | 49 15     |
| 75  | 6   | TANZANIA        | S. SHORE LAKE VICTORIA     | 1.5S          | 32.2E         | 1.6S         | 31.3E        | 80 | LO | 250 | N | N | 19910406 | 123904 | 243 | 281 | 48 15     |
| 75  | 7   | TANZANIA        | S. SHORE LAKE VICTORIA     |               |               | 1.7S         | 31.4E        | 80 | LO | 250 | N | N | 19910406 | 123906 | 243 | 281 | 48 15     |
| 75  | 8   | TANZANIA        | S. SHORE LAKE VICTORIA     | 1.5S          | 33.1E         | 1.8S         | 31.6E        | 80 | LO | 250 | N | N | 19910406 | 123909 | 243 | 281 | 48 15     |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                     | CENTER<br>LAT<br>LAT | LONG<br>LON | NADIR<br>LAT<br>LAT | LONG<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|-----------------------------|----------------------|-------------|---------------------|-------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 75 | 9  | TANZANIA        | S. SHORE LAKE VICTORIA      | 1.6S                 | 33.0E       | 1.9S                | 31.7E       | 70 | LO | 250 | N | N | 19910406 | 123912 | 243 | 281 | 48        | 15 |
| 75 | 10 | TANZANIA        | S. SHORE LAKE VICTORIA      | 2.0S                 | 33.0E       | 2.0S                | 31.9E       | 70 | LO | 250 | N | N | 19910406 | 123915 | 243 | 281 | 48        | 15 |
| 75 | 11 | TANZANIA        | LK. NATRON                  | 2.5S                 | 35.4E       | 2.4S                | 32.6E       | 80 | LO | 250 | N | N | 19910406 | 123928 | 242 | 282 | 47        | 15 |
| 75 | 12 | TANZANIA        | LK. NATRON                  | 2.4S                 | 35.4E       | 2.5S                | 32.9E       | 80 | LO | 250 | N | N | 19910406 | 123934 | 242 | 282 | 47        | 15 |
| 75 | 13 | TANZANIA        | LK. NATRON                  | 2.4S                 | 36.0E       | 2.8S                | 33.4E       | 70 | LO | 250 | N | N | 19910406 | 123944 | 242 | 282 | 46        | 15 |
| 75 | 14 | TANZANIA        | C. RIFT, LK. MANYARA        | 3.2S                 | 36.0E       | 3.3S                | 34.1E       | 70 | LO | 250 | N | N | 19910406 | 123958 | 242 | 282 | 45        | 15 |
| 75 | 15 | TANZANIA        | C. RIFT, LK. MANYARA        | 3.8S                 | 35.8E       | 3.4S                | 34.3E       | 80 | LO | 250 | N | N | 19910406 | 124001 | 242 | 282 | 45        | 15 |
| 75 | 16 | TANZANIA        | C. RIFT, LKS MANYARA, NTRN  | 3.1S                 | 36.0E       | 3.5S                | 34.4E       | 80 | LO | 250 | N | N | 19910406 | 124004 | 242 | 282 | 45        | 15 |
| 75 | 17 | TANZANIA        | C. RIFT, LKS MANYARA, NTRN  | 3.1S                 | 36.0E       | 3.7S                | 34.9E       | 80 | LO | 250 | N | N | 19910406 | 124012 | 242 | 282 | 44        | 15 |
| 75 | 18 | TANZANIA        | C. RIFT, LK. NATRON         | 2.3S                 | 36.0E       | 4.0S                | 35.4E       | 70 | LO | 250 | N | N | 19910406 | 124022 | 242 | 282 | 44        | 15 |
| 75 | 19 | TANZANIA        | C. RIFT, LK. NATRON         | 2.5S                 | 36.5E       | 4.1S                | 35.5E       | 70 | LO | 250 | N | N | 19910406 | 124025 | 242 | 282 | 43        | 15 |
| 75 | 20 | TANZANIA        | C. RIFT AREA, E. OF NATRON  | 4.4S                 | 36.0E       | 4.4S                | 36.0E       | 80 | LO | 250 | N | N | 19910406 | 124034 | 242 | 283 | 43        | 15 |
| 75 | 21 | TANZANIA        | C. RIFT AREA, E. OF NATRON  | 4.6S                 | 36.4E       | 4.6S                | 36.4E       | 80 | LO | 250 | N | N | 19910406 | 124041 | 242 | 283 | 42        | 15 |
| 75 | 22 | TANZANIA        | C. RIFT AREA, LK. NATRON    | 4.7S                 | 36.6E       | 4.7S                | 36.6E       | 70 | LO | 250 | N | N | 19910406 | 124045 | 242 | 283 | 42        | 15 |
| 75 | 23 | TANZANIA        | C. RIFT AREA, E. OF NATRON  | 4.8S                 | 36.9E       | 4.8S                | 36.9E       | 70 | LO | 250 | N | N | 19910406 | 124050 | 242 | 283 | 42        | 15 |
| 75 | 24 | TANZANIA        | TANGA AREA, COAST           | 4.9S                 | 37.0E       | 4.9S                | 37.0E       | 80 | LO | 250 | N | N | 19910406 | 124053 | 242 | 283 | 42        | 15 |
| 75 | 25 | TANZANIA        | TANGA AREA, COAST, KENYA    | 5.0S                 | 37.2E       | 5.0S                | 37.2E       | 80 | LO | 250 | N | N | 19910406 | 124056 | 242 | 283 | 41        | 15 |
| 75 | 27 | TANZANIA        | LAKE NATRON                 | 2.7S                 | 36.5E       | 5.3S                | 37.7E       | 90 | LO | 250 | N | N | 19910406 | 124105 | 242 | 283 | 41        | 15 |
| 75 | 28 | TANZANIA        | ZANZIBAR ISLAND             | 6.3S                 | 39.3E       | 6.2S                | 39.3E       | 50 | LO | 250 | N | N | 19910406 | 124136 | 242 | 283 | 39        | 15 |
| 75 | 29 | TANZANIA        | ZANZIBAR, PEMBA ISLANDS     | 5.8S                 | 39.4E       | 6.3S                | 39.4E       | 50 | LO | 250 | N | N | 19910406 | 124139 | 242 | 283 | 39        | 15 |
| 75 | 30 | TANZANIA        | COAST, KENYA                | 6.6S                 | 39.9E       | 6.6S                | 39.9E       | 50 | LO | 250 | N | N | 19910406 | 124147 | 242 | 283 | 38        | 15 |
| 75 | 31 | TANZANIA        | VERY CLOUDY                 | 8.3S                 | 42.9E       | 8.3S                | 42.9E       | 70 | LO | 250 | N | N | 19910406 | 124244 | 242 | 283 | 35        | 15 |
| 75 | 32 | TANZANIA        | MAFIA ISLAND, SUN GLINT     | 8.0S                 | 39.8E       | 8.3S                | 43.1E       | 60 | LO | 250 | N | N | 19910406 | 124247 | 242 | 283 | 35        | 15 |
| 77 | 36 | TANZANIA        | S. LAKE VICTORIA            | 1.8S                 | 33.4E       | 0.6S                | 29.6E       | 60 | LO | 250 | N | N | 19910406 | 123832 | 243 | 280 | 50        | 15 |
| 77 | 37 | TANZANIA        | S. LK. VICTORIA, SPEKE GULF | 2.4S                 | 33.0E       | 0.9S                | 30.0E       | 40 | LO | 250 | N | N | 19910406 | 123839 | 243 | 281 | 50        | 15 |
| 77 | 40 | TANZANIA        | LK. NATRON AREA             | 2.4S                 | 36.1E       | 1.8S                | 31.7E       | 60 | LO | 250 | N | N | 19910406 | 123911 | 243 | 281 | 48        | 15 |
| 77 | 41 | TANZANIA        | LK. MANYARA                 | 3.6S                 | 35.8E       | 2.0S                | 31.9E       | 60 | LO | 250 | N | N | 19910406 | 123916 | 242 | 281 | 48        | 15 |
| 77 | 42 | TANZANIA        | AFRICAN RIFT AREA           | 2.2S                 | 32.3E       | 2.2S                | 32.3E       | 60 | LO | 250 | N | N | 19910406 | 123923 | 242 | 281 | 47        | 15 |
| 77 | 43 | TANZANIA        | AFRICAN RIFT AREA           | 2.7S                 | 33.1E       | 2.7S                | 33.1E       | 60 | LO | 250 | N | N | 19910406 | 123938 | 242 | 282 | 46        | 15 |
| 77 | 44 | TANZANIA        | KIKULETWA LK. AREA          | 3.6S                 | 37.4E       | 2.9S                | 33.5E       | 60 | LO | 250 | N | N | 19910406 | 123945 | 242 | 282 | 46        | 15 |
| 77 | 45 | TANZANIA        | KIKULETWA LK. AREA          | 4.4S                 | 37.5E       | 3.0S                | 33.7E       | 60 | LO | 250 | N | N | 19910406 | 123949 | 242 | 282 | 46        | 15 |
| 77 | 46 | TANZANIA        | UNMAPED LAKE/RESVR.         | 3.2S                 | 34.1E       | 3.2S                | 34.1E       | 70 | LO | 250 | N | N | 19910406 | 123957 | 242 | 282 | 45        | 15 |
| 77 | 47 | TANZANIA        | PEMBA ISLAND, TANGA AREA    | 5.1S                 | 39.1E       | 3.5S                | 34.6E       | 60 | LO | 250 | N | N | 19910406 | 124006 | 242 | 282 | 45        | 15 |
| 77 | 48 | TANZANIA        | PEMBA ISLAND, TANGA AREA    | 5.2S                 | 39.6E       | 4.1S                | 35.6E       | 50 | LO | 250 | N | N | 19910406 | 124026 | 242 | 282 | 43        | 15 |
| 77 | 49 | TANZANIA        | ZANZIBAR ISLAND             | 6.3S                 | 39.5E       | 4.2S                | 35.8E       | 40 | LO | 250 | N | N | 19910406 | 124030 | 242 | 282 | 43        | 15 |
| 77 | 50 | TANZANIA        | PEMBA ISLAND                | 5.3S                 | 39.8E       | 4.8S                | 36.9E       | 40 | LO | 250 | N | N | 19910406 | 124050 | 242 | 283 | 42        | 15 |
| 77 | 51 | TANZANIA        | ZANZIBAR ISLAND             | 6.4S                 | 39.4E       | 5.0S                | 37.1E       | 40 | LO | 250 | N | N | 19910406 | 124054 | 242 | 283 | 42        | 15 |
| 77 | 52 | TANZANIA        | MAFIA ISLAND                | 7.8S                 | 39.8E       | 5.2S                | 37.5E       | 50 | LO | 250 | N | N | 19910406 | 124102 | 242 | 283 | 41        | 15 |
| 86 | 62 | TANZANIA        | LAKE NATRON AREA            | 2.3S                 | 36.0E       | 2.0S                | 35.8E       | 20 | LO | 250 | N | N | 19910408 | 112235 | 245 | 289 | 62        | 45 |
| 86 | 63 | TANZANIA        | LAKE MANYARA AREA           | 3.8S                 | 36.0E       | 3.2S                | 37.8E       | 60 | LO | 250 | N | N | 19910408 | 112312 | 245 | 290 | 60        | 45 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                     | CENTER<br>LAT | LOW   | MADIR<br>LAT | LOW   | CC | TL | FL  | E | S        | DATE   | GMT | AL  | AZ | SUN<br>EL | OR |
|-----|----|-----------------|-----------------------------|---------------|-------|--------------|-------|----|----|-----|---|----------|--------|-----|-----|----|-----------|----|
| 86  | 64 | TANZANIA        | KILIMANJARO CLOUDY          | 3.3S          | 37.0E | 3.9S         | 39.0E | 70 | LO | 250 | N | 19910408 | 112336 | 245 | 290 | 58 | 45        |    |
| 86  | 65 | TANZANIA        | KILIMANJARO CLOUDY          | 3.3S          | 37.0E | 4.1S         | 39.4E | 70 | LO | 250 | N | 19910408 | 112344 | 245 | 290 | 58 | 45        |    |
| 89  | 13 | TANZANIA        | LAKE NATRON                 | 2.4S          | 36.9E | 1.8S         | 35.4E | 20 | LO | 250 | N | 19910408 | 112226 | 245 | 289 | 63 | 45        |    |
| 89  | 14 | TANZANIA        | LAKE NATRON                 | 2.1S          | 38.0E | 1.9S         | 35.7E | 15 | LO | 250 | N | 19910408 | 112232 | 245 | 289 | 63 | 45        |    |
| 89  | 17 | TANZANIA        | L. NATRON, L. MAGADI        | 2.4S          | 36.2E | 2.5S         | 36.7E | 30 | NV | 250 | N | 19910408 | 112251 | 245 | 289 | 61 | 45        |    |
| 89  | 18 | TANZANIA        | L. MANYARA, L. BURUNGI      | 3.6S          | 35.9E | 2.6S         | 36.8E | 50 | LO | 250 | N | 19910408 | 112254 | 245 | 289 | 61 | 45        |    |
| 89  | 19 | TANZANIA        | L. MANYARA, L. BURUNGI      | 3.4S          | 35.9E | 2.7S         | 37.0E | 50 | LO | 250 | N | 19910408 | 112257 | 245 | 289 | 61 | 45        |    |
| 89  | 20 | TANZANIA        | MOSHI, AFLD, KIKULEIWA RES  | 3.5S          | 37.2E | 2.8S         | 37.1E | 60 | LO | 250 | N | 19910408 | 112300 | 245 | 289 | 61 | 45        |    |
| 89  | 21 | TANZANIA        | MOSHI, KIKULEIWA RES.       | 3.5S          | 37.5E | 2.9S         | 37.3E | 75 | NV | 250 | N | 19910408 | 112303 | 245 | 290 | 61 | 45        |    |
| 89  | 23 | TANZANIA        | L. NATRON, SUNGLINT         | 2.5S          | 36.0E | 3.3S         | 38.0E | 20 | LO | 250 | N | 19910408 | 112317 | 245 | 290 | 60 | 45        |    |
| 89  | 24 | TANZANIA        | L. NATRON, SUNGLINT         | 2.5S          | 36.0E | 3.4S         | 38.2E | 25 | LO | 250 | N | 19910408 | 112320 | 245 | 290 | 59 | 45        |    |
| 89  | 25 | TANZANIA        | LAKE NATRON                 | 2.3S          | 36.0E | 3.6S         | 38.5E | 30 | LO | 250 | U | 19910408 | 112326 | 245 | 290 | 59 | 45        |    |
| 89  | 26 | TANZANIA        | KIKULEIWA RESERVOIR         | 3.6S          | 37.4E | 3.9S         | 39.0E | 85 | LO | 250 | U | 19910408 | 112335 | 245 | 290 | 59 | 45        |    |
| 89  | 27 | TANZANIA        | LAKE AMBUSSEL               | 4.0S          | 37.3E | 3.9S         | 39.1E | 85 | LO | 250 | N | 19910408 | 112337 | 245 | 290 | 58 | 45        |    |
| 89  | 28 | TANZANIA        | PLAINS, MOUNTAINS           |               |       | 4.0S         | 39.2E | 85 | LO | 250 | N | 19910408 | 112340 | 245 | 290 | 58 | 45        |    |
| 89  | 29 | TANZANIA        | ZANZIBAR, ZANZIBAR ISLAND   | 6.2S          | 39.0E | 4.2S         | 39.5E | 15 | LO | 250 | U | 19910408 | 112345 | 245 | 290 | 58 | 45        |    |
| 89  | 30 | TANZANIA        | ZANZIBAR I., PEMBA I., CST. | 5.5S          | 39.3E | 4.3S         | 39.7E | 20 | LO | 250 | U | 19910408 | 112348 | 245 | 290 | 58 | 45        |    |
| 89  | 31 | TANZANIA        | PEMBA I./CHANNEL, COAST     | 4.9S          | 39.4E | 4.3S         | 39.8E | 20 | NV | 250 | U | 19910408 | 112350 | 245 | 290 | 58 | 45        |    |
| 90  | 45 | TANZANIA        | VERY DARK                   |               |       | 1.4S         | 30.9E | 40 | LO | 250 | U | 19910406 | 123858 | 243 | 281 | 49 | 15        |    |
| 90  | 46 | TANZANIA        | L. VICTORIA-SOUTH COAST     | 2.5S          | 32.5E | 1.5S         | 31.2E | 50 | LO | 250 | U | 19910406 | 123901 | 243 | 281 | 49 | 15        |    |
| 90  | 47 | TANZANIA        | L. VICTORIA-SPEKE GULF      | 2.5S          | 33.5E | 1.7S         | 31.4E | 50 | LO | 250 | U | 19910406 | 123906 | 243 | 281 | 48 | 15        |    |
| 90  | 48 | TANZANIA        | L. VICTORIA-EAST COAST      | 1.5S          | 33.5E | 1.8S         | 31.6E | 50 | LO | 250 | U | 19910406 | 123909 | 243 | 281 | 48 | 15        |    |
| 90  | 49 | TANZANIA        | L. VICTORIA-WEST COAST      | 1.7S          | 31.8E | 2.0S         | 31.9E | 50 | NV | 250 | U | 19910406 | 123916 | 242 | 281 | 48 | 15        |    |
| 90  | 50 | TANZANIA        | L. VICTORIA-WEST COAST      | 2.1S          | 31.8E | 2.1S         | 32.1E | 70 | NV | 250 | U | 19910406 | 123919 | 242 | 281 | 47 | 15        |    |
| 90  | 51 | TANZANIA        | L. VICTORIA-SOUTH COAST     | 2.5S          | 32.5E | 2.2S         | 32.4E | 65 | NV | 250 | U | 19910406 | 123924 | 242 | 281 | 47 | 15        |    |
| 90  | 52 | TANZANIA        | L. VICTORIA-MWANZA/GULF     | 2.5S          | 33.0E | 2.4S         | 32.6E | 60 | NV | 250 | U | 19910406 | 123928 | 242 | 282 | 47 | 15        |    |
| 90  | 53 | TANZANIA        | L. VICTORIA-SPEKE GULF      | 2.5S          | 33.5E | 3.3S         | 34.2E | 60 | LO | 250 | U | 19910406 | 123959 | 242 | 282 | 45 | 15        |    |
| 90  | 54 | TANZANIA        | LAKE EYASI                  | 3.6S          | 34.7E | 3.5S         | 34.6E | 60 | NV | 250 | U | 19910406 | 124006 | 242 | 282 | 45 | 15        |    |
| 90  | 55 | TANZANIA        | LAKE NATRON                 | 2.5S          | 36.0E | 4.4S         | 36.1E | 50 | LO | 250 | U | 19910406 | 124036 | 242 | 283 | 43 | 15        |    |
| 90  | 56 | TANZANIA        | TANGA, COAST, PEMBA CHAN.   | 5.0S          | 39.0E | 5.5S         | 38.0E | 35 | LO | 250 | U | 19910406 | 124112 | 242 | 283 | 41 | 15        |    |
| 90  | 57 | TANZANIA        | TANGA, COAST, PEMBA CHAN.   | 5.1S          | 39.3E | 6.3S         | 39.4E | 30 | LO | 250 | U | 19910406 | 124139 | 242 | 283 | 39 | 15        |    |
| 90  | 58 | TANZANIA        | ZANZIBAR/ISLAND/CHANNEL     | 6.0S          | 39.5E | 6.4S         | 39.7E | 15 | NV | 250 | U | 19910406 | 124143 | 242 | 283 | 39 | 15        |    |
| 90  | 59 | TANZANIA        | DAR ES SALAM, COAST         | 7.0S          | 39.5E | 6.7S         | 40.2E | 30 | LO | 250 | U | 19910406 | 124153 | 242 | 283 | 38 | 15        |    |
| 152 | 23 | TANZANIA        | LAKE VICTORIA               | 2.5S          | 32.5E | 2.7S         | 33.1E | 40 | NV | 250 | N | 19910406 | 123939 | 242 | 282 | 46 | 15        |    |
| 152 | 24 | TANZANIA        | L. NATRON-L. MANYARA        | 3.0S          | 36.0E | 3.1S         | 33.8E | 50 | LO | 250 | N | 19910406 | 123951 | 242 | 282 | 46 | 15        |    |
| 152 | 25 | TANZANIA        | L. MANYARA                  | 4.0S          | 35.5E | 3.2S         | 34.0E | 50 | LO | 250 | N | 19910406 | 123956 | 242 | 282 | 45 | 15        |    |
| 152 | 26 | TANZANIA        | NEAR L. MANYARA             | 4.5S          | 36.0E | 3.4S         | 34.3E | 50 | LO | 250 | N | 19910406 | 124001 | 242 | 282 | 45 | 15        |    |
| 152 | 27 | TANZANIA        | MT. KITUMBEINE              | 3.0S          | 36.5E | 3.7S         | 34.9E | 50 | LO | 250 | N | 19910406 | 124012 | 242 | 282 | 44 | 15        |    |
| 152 | 28 | TANZANIA        | MT. KITUMBEINE, KILIMANJA   | 3.0S          | 36.5E | 3.8S         | 35.1E | 40 | LO | 250 | N | 19910406 | 124017 | 242 | 282 | 44 | 15        |    |
| 152 | 29 | TANZANIA        | SOUTH PARE MNTS.            | 4.5S          | 37.5E | 4.0S         | 35.4E | 45 | LO | 250 | N | 19910406 | 124023 | 242 | 282 | 44 | 15        |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | LOW    | MADIR<br>LAT | LOW    | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|----------------------------|---------------|--------|--------------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 30  | TANZANIA        | MNTS., WOODED AREA         | 5.0S          | 36.0E  | 4.5S         | 36.2E  | 65 | NV | 250 | N | Y | 19910406 | 124038 | 242 | 283 | 43        | 15 |
| 152 | 31  | TANZANIA        | MNTS., NEAR COAST          | 6.0S          | 38.0E  | 4.8S         | 36.7E  | 40 | LO | 250 | N | Y | 19910406 | 124047 | 242 | 283 | 42        | 15 |
| 152 | 33  | TANZANIA        | USAMBARA MOUNTAINS         | 4.5S          | 38.5E  | 5.0S         | 37.1E  | 45 | NV | 250 | N | Y | 19910406 | 124054 | 242 | 283 | 42        | 15 |
| 152 | 34  | TANZANIA        | PENBA, ZANZIBAR ISLANDS    | 5.5S          | 39.5E  | 5.1S         | 37.3E  | 15 | LO | 250 | N | Y | 19910406 | 124058 | 242 | 283 | 41        | 15 |
| 152 | 35  | TANZANIA        | DAR ES SALAM, ZANZIBAR I   | 6.5S          | 39.0E  | 5.2S         | 37.5E  | 25 | LO | 250 | N | Y | 19910406 | 124102 | 242 | 283 | 41        | 15 |
| 152 | 36  | TANZANIA        | L. KITANGIRI, MEMBERE SWAM | 4.5S          | 34.0E  | 5.6S         | 38.0E  | 70 | LO | 250 | N | Y | 19910406 | 124112 | 242 | 283 | 41        | 15 |
| 152 | 37  | TANZANIA        | RUFJI RIVER, COAST         | 8.0S          | 38.5E  | 6.3S         | 39.4E  | 70 | LO | 250 | N | Y | 19910406 | 124139 | 242 | 283 | 39        | 15 |
| 152 | 38  | TANZANIA        | KISWERE HAVEN, COAST       | 9.5S          | 39.5E  | 6.5S         | 39.8E  | 60 | LO | 250 | N | Y | 19910406 | 124146 | 242 | 283 | 38        | 15 |
| 153 | OAX | TANZANIA        | SERENGETI PL., L. NATRON   | 2.5S          | 36.0E  |              |        | 15 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OAY | TANZANIA        | SERENGETI PL., L. NATRON   | 2.5S          | 34.5E  |              |        | 25 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OAZ | TANZANIA        | SERENGETI, L. VICTORIA     | 2.0S          | 34.0E  |              |        | 60 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBA | TANZANIA        | SE HALF OF L. VICTORIA     | 2.0S          | 33.0E  |              |        | 70 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBH | TANZANIA        | E. HALF OF L. VICTORIA     | 1.0S          | 33.0E  |              |        | 75 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBC | TANZANIA        | L. NATRON, ELA MAIBORI C   | 2.5S          | 35.5E  |              |        | 20 | NV | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBD | TANZANIA        | L. NATRON, SERENGETI PL.   | 2.5S          | 35.5E  |              |        | 25 | NV | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBE | TANZANIA        | SERENGETI PL., L. EYASI    | 3.0S          | 36.0E  |              |        | 45 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBF | TANZANIA        | L. NATRON, KITUMBEINE V.   | 2.5S          | 36.5E  |              |        | 20 | NV | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBG | TANZANIA        | L. NATRON, EYASI           | 3.5S          | 36.0E  |              |        | 40 | NV | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBH | TANZANIA        | L. EYASI, MANYARA          | 4.0N          | 38.0E  |              |        | 55 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBJ | TANZANIA        | L. EYASI, KITANGIRI        | 4.0S          | 35.0E  |              |        | 60 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBK | TANZANIA        | L. KITANGIRI, RIFT VAL.    | 4.0S          | 34.1E  |              |        | 70 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBL | TANZANIA        | L. BALANGIDA, HAMANG MT.   | 5.0S          | 35.0E  |              |        | 75 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBM | TANZANIA        | AREA SW OF KILIMANJARO     | 4.5S          | 36.5E  |              |        | 70 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBW | TANZANIA        | S. OF KILIMANJARO          | 4.0S          | 37.0E  |              |        | 50 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBP | TANZANIA        | MT. MERU, L. KIKULEIWA     | 3.5S          | 37.0E  |              |        | 45 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBS | TANZANIA        | L. KIKULEIWA, JIPE         | 4.0S          | 38.0E  |              |        | 50 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBT | TANZANIA        | SOUTH PARE MTS.            | 4.6S          | 38.0E  |              |        | 60 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBV | TANZANIA        | PENBA IS., PENBA CHAM.     | 4.5S          | 38.5E  |              |        | 35 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBW | TANZANIA        | PENBA IS., USAMBARA MTS    | 5.0S          | 38.5E  |              |        | 35 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBX | TANZANIA        | ZANZIBAR CH., USAMBARA M   | 5.5S          | 38.5E  |              |        | 35 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OBZ | TANZANIA        | ZANZIBAR CH., USAMBARA M   | 6.0S          | 38.0E  |              |        | 55 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCA | TANZANIA        | PENBA, ZANZIBAR ISLANDS    | 5.5S          | 39.5E  |              |        | 30 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCB | TANZANIA        | ZANZIBAR ISLAND            | 6.0S          | 39.0E  |              |        | 45 | LO | 250 | N | Y |          |        |     |     |           |    |
| 153 | OCC | TANZANIA        | NEAR DAR ES SALAAM         | 7.0S          | 38.5E  |              |        | 70 | LO | 250 | N | Y |          |        |     |     |           |    |
| 151 | 139 | THAILAND        | MAFIA IS., RUFJI R. DEL.   | 8.0S          | 39.5E  |              |        | 75 | LO | 250 | N | Y |          |        |     |     |           |    |
| 151 | 140 | THAILAND        | RESERVOIR-COAST            | 15.0N         | 98.5E  | 13.6N        | 99.4E  | 55 | LO | 250 | N | Y | 19910406 | 061644 | 244 | 241 | 75        | 11 |
| 151 | 141 | THAILAND        | RESERVOIR-COAST            | 14.0N         | 99.0E  | 13.3N        | 100.1E | 50 | LO | 250 | N | Y | 19910406 | 061657 | 244 | 243 | 74        | 11 |
| 152 | 117 | THAILAND        | BANGKOK, BIGHT OF BANGKOK  | 13.5N         | 100.5E | 12.8N        | 101.1E | 50 | LO | 250 | N | Y | 19910406 | 061714 | 244 | 247 | 74        | 11 |
| 80  | 36  | TOGO            | BANGKOK-HAZE               | 14.5N         | 100.0E | 15.0N        | 98.5E  | 40 | LO | 250 | N | Y | 19910407 | 053726 | 245 | 194 | 81        | 26 |
|     |     |                 | KETA LAGOON, LOME          | 6.0N          | 1.0E   | 6.4N         | 0.7W   | 40 | NV | 250 | N | Y | 19910409 | 121254 | 246 | 297 | 87        | 61 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME      | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC    | TL     | FL  | E  | S   | DATE     | GMT    | AL       | AZ     | SUN<br>EL | OR  |    |    |
|-----|-----|----------------------|---------------------------|----------------------|---------------------|-------|--------|-----|----|-----|----------|--------|----------|--------|-----------|-----|----|----|
| 80  | 37  | TOGO                 | LAKE TOGO, LOME           | 6.5N<br>1.5E         | 6.3N<br>0.4W        | 55    | LO     | 250 | N  | Y   | 19910409 | 121259 | 246      | 297    | 87        | 61  |    |    |
| 79  | 26  | TRINIDAD AND TOBAGO  | TOBAGO ISLAND             | 11.5N<br>60.5W       | 11.3N<br>63.1W      | 20    | LO     | 250 | N  | N   | 19910408 | 171211 | 244      | 251    | 75        | 18  |    |    |
| 9   | 35  | UGANDA               | N. EDGE OF LAKE VICTORIA  | 0.1N<br>33.0E        | 3.2N<br>32.6E       | 95    | LO     | 35  | N  | N   | 19910411 | 092514 | 248      | 51     | 82        | 90  |    |    |
| 9   | 36  | UGANDA               | N. EDGE OF LAKE VICTORIA  | 0.4S<br>33.0E        | 2.8N<br>33.1E       | 90    | LO     | 35  | N  | N   | 19910411 | 092525 | 248      | 47     | 82        | 90  |    |    |
| 13  | 7   | UGANDA               | LAKE VICTORIA REGION      | 0.0N<br>32.0E        | 3.5N<br>30.2E       | 70    | LO     | 35  | N  | N   | 19910410 | 100252 | 248      | 353    | 86        | 75  |    |    |
| 13  | 9   | UGANDA               | LAKES VICTORIA, KYOGA     | 1.0N<br>34.0E        | 1.9N<br>32.9E       | 60    | LO     | 35  | N  | N   | 19910410 | 100344 | 248      | 330    | 83        | 75  |    |    |
| 77  | 34  | UGANDA               | LAKE VICTORIA             | 1.0S<br>33.0E        | 0.3S<br>29.0E       | 60    | LO     | 250 | N  | N   | 19910406 | 123820 | 243      | 280    | 51        | 15  |    |    |
| 86  | 59  | UGANDA               | SW HALF LAKE ALBERT       | 1.4N<br>30.6E        | 0.9N<br>30.9E       | 40    | LO     | 250 | N  | N   | 19910408 | 112100 | 245      | 287    | 88        | 45  |    |    |
| 86  | 60  | UGANDA               | CENTRAL LAKE ALBERT       | 1.8N<br>30.8E        | 0.8N<br>31.0E       | 60    | LO     | 250 | N  | N   | 19910408 | 112102 | 245      | 287    | 88        | 45  |    |    |
| 86  | 61  | UGANDA               | NE SECTION LAKE ALBERT    | 2.1N<br>31.3E        | 0.7N<br>31.1E       | 80    | LO     | 250 | N  | N   | 19910408 | 112104 | 245      | 287    | 88        | 45  |    |    |
| 89  | 7   | UGANDA               | L. VICTORIA, SESE ISLANDS | 0.0                  | 32.3E               | 1.1S  | 34.2E  | 40  | LO | 250 | N        | Y      | 19910408 | 112203 | 245       | 288 | 84 | 45 |
| 89  | 8   | UGANDA               | L. VICTORIA, SESE ISLANDS | 0.6S                 | 32.0E               | 1.1S  | 34.3E  | 40  | LO | 250 | N        | Y      | 19910408 | 112205 | 245       | 289 | 84 | 45 |
| 89  | 9   | UGANDA               | L. VICTORIA, SESE ISLANDS | 0.9S                 | 32.4E               | 1.2S  | 34.4E  | 40  | LO | 250 | N        | Y      | 19910408 | 112207 | 245       | 289 | 84 | 45 |
| 153 | 0A3 | UGANDA               | LAKE ALBERT, RIFT VALLEY  | 3.0N                 | 31.0E               |       |        | 50  | LO | 250 | N        | Y      |          |        |           |     |    |    |
| 153 | 0A4 | UGANDA               | LAKES ALBERT, KYOGA       | 1.0N                 | 31.5E               |       |        | 55  | LO | 250 | N        | Y      |          |        |           |     |    |    |
| 153 | 0A5 | UGANDA               | LAKE ALBERT, RIFT VALLEY  | 1.0N                 | 30.5E               |       |        | 60  | LO | 250 | N        | Y      |          |        |           |     |    |    |
| 153 | 0A6 | UGANDA               | LAKE KYOGA                | 1.5N                 | 32.5E               |       |        | 55  | LO | 250 | N        | N      |          |        |           |     |    |    |
| 153 | 0A7 | UGANDA               | LAKES KYOGA, VICTORIA     | 1.0N                 | 33.0E               |       |        | 60  | LO | 250 | N        | Y      |          |        |           |     |    |    |
| 153 | 0A8 | UGANDA               | N. SHORE OF L. VICTORIA   | 0.0                  | 33.0E               |       |        | 50  | LO | 250 | N        | Y      |          |        |           |     |    |    |
| 153 | 0A9 | UGANDA               | AREA NW OF LAKE VICTORIA  | 0.0                  | 31.0E               |       |        | 65  | LO | 250 | N        | Y      |          |        |           |     |    |    |
| 153 | 0AS | UGANDA               | AREA WNW OF L. VICTORIA   | 0.6S                 | 31.0E               |       |        | 65  | LO | 250 | N        | Y      |          |        |           |     |    |    |
| 153 | 0AT | UGANDA               | N. HALF OF L. VICTORIA    | 1.0S                 | 33.0E               |       |        | 50  | LO | 250 | N        | Y      |          |        |           |     |    |    |
| 153 | 0AU | UGANDA               | NE HALF OF L. VICTORIA    | 0.5S                 | 33.5E               |       |        | 35  | LO | 250 | N        | Y      |          |        |           |     |    |    |
| 73  | 50  | UNITED ARAB EMIRATES | COAST                     | 24.3N                | 52.7E               | 23.3N | 53.4E  | 40  | LO | 250 | N        | N      | 19910407 | 070454 | 246       | 126 | 63 | 27 |
| 73  | 51  | UNITED ARAB EMIRATES | ASH SHARIQAH AREA         |                      |                     | 22.6N | 55.5E  | 80  | LO | 250 | N        | N      | 19910407 | 070527 | 246       | 128 | 65 | 27 |
| 92  | 49  | UNITED ARAB EMIRATES | COAST, OFFSHORE IS.       | 24.3N                | 52.2E               | 23.7N | 51.9E  | 40  | LO | 250 | N        | N      | 19910407 | 070430 | 246       | 124 | 62 | 27 |
| 96  | 71  | UNITED ARAB EMIRATES | SAND DUNES, PERSIAN GULF  | 24.0N                | 51.0E               |       |        | 65  | HO | 100 | N        | N      |          |        |           |     |    |    |
| 96  | 72  | UNITED ARAB EMIRATES | SAND DUNES, PERSIAN GULF  | 23.5N                | 52.0E               |       |        | 55  | HO | 100 | N        | N      |          |        |           |     |    |    |
| 152 | 192 | UNITED ARAB EMIRATES | MUSANDAM PENINSULA        | 25.0N                | 56.5E               | 22.0N | 57.5E  | 70  | LO | 250 | N        | N      | 19910407 | 070601 | 246       | 131 | 67 | 27 |
| 76  | 1   | USA                  |                           |                      |                     | 25.7N | 96.2W  | 50  | HO | 250 | N        | N      | 19910409 | 150615 | 245       | 102 | 39 | 63 |
| 99  | 75  | USA                  | GRO DEPLOY- SW USA        |                      |                     | 27.5N | 116.9W | 20  | HO | 40  | N        | N      | 19910407 | 143924 | 246       | 89  | 14 | 32 |
| 99  | 76  | USA                  | GRO DEPLOY- SW USA        |                      |                     | 27.6N | 115.9W | 20  | HO | 40  | N        | N      | 19910407 | 143938 | 246       | 90  | 14 | 32 |
| 99  | 77  | USA                  | GRO DEPLOY- SW USA        |                      |                     | 27.7N | 115.1W | 20  | HO | 40  | N        | N      | 19910407 | 143951 | 246       | 90  | 15 | 32 |
| 99  | 78  | USA                  | GRO DEPLOY- SO. CA COAST  |                      |                     | 28.0N | 112.8W | 40  | HO | 40  | N        | N      | 19910407 | 144024 | 246       | 91  | 17 | 32 |
| 99  | 79  | USA                  | GRO DEPLOY- SO. CA/MEX    |                      |                     | 28.1N | 111.3W | 40  | HO | 40  | N        | N      | 19910407 | 144046 | 246       | 92  | 19 | 32 |
| 99  | 88  | USA                  | GRO DEPLOY, SW USA/NW MX  |                      |                     | 28.3N | 118.3W | 10  | HO | 40  | N        | N      | 19910407 | 161818 | 246       | 101 | 34 | 33 |
| 99  | 89  | USA                  | GRO DEPLOY, SW USA/NW MX  |                      |                     | 28.3N | 117.9W | 10  | HO | 40  | N        | N      | 19910407 | 161824 | 246       | 102 | 34 | 33 |
| 79  | 16  | USA-AL               | MOBILE AREA               | 30.5N                | 88.0W               | 27.4N | 87.2W  | 55  | LO | 250 | N        | N      | 19910406 | 152536 | 246       | 114 | 49 | 17 |
| 78  | 8   | USA-AZ               | SW ARIZONA DESERT         | 33.0N                | 112.5W              | 28.1N | 111.4W | 0   | LO | 250 | N        | N      | 19910409 | 150212 | 244       | 94  | 24 | 63 |
| 78  | 9   | USA-AZ               | SOMORAN DESERT            | 33.5N                | 114.0W              | 28.1N | 111.2W | 0   | LO | 250 | N        | N      | 19910409 | 150216 | 244       | 94  | 24 | 63 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT LON | NADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|---------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 78  | 10  | USA-AZ          | L. MEAD, GRAND CANYON     | 35.5N 114.0W      | 28.1N 110.8W     | 0  | HO | 250 | N | N | 19910409 | 150221 | 244 | 94  | 24        | 63 |
| 78  | 11  | USA-AZ          | L. MEAD, GRAND CANYON     | 35.5N 113.0W      | 28.0N 110.6W     | 0  | HO | 100 | N | N | 19910409 | 150224 | 244 | 94  | 25        | 63 |
| 78  | 12  | USA-AZ          | PHOENIX, GRAND CANYON     | 35.0N 112.5W      | 28.0N 110.3W     | 0  | LO | 250 | N | N | 19910409 | 150229 | 244 | 95  | 25        | 63 |
| 78  | 13  | USA-AZ          | GRAND CANYON              | 36.0N 113.0W      | 28.0N 110.0W     | 0  | HO | 250 | N | N | 19910409 | 150233 | 244 | 95  | 25        | 63 |
| 78  | 14  | USA-AZ          | PHOENIX REGION            | 33.5N 112.0W      | 27.9N 109.3W     | 0  | LO | 250 | N | N | 19910409 | 150244 | 244 | 95  | 26        | 63 |
| 78  | 15  | USA-AZ          | SAN FRANCISCO VOL. AREA   | 35.0N 112.0W      | 27.9N 109.1W     | 0  | LO | 250 | N | N | 19910409 | 150247 | 244 | 95  | 26        | 63 |
| 78  | 16  | USA-AZ          | COLORADO PLATEAU          | 35.5N 110.5W      | 27.9N 108.9W     | 15 | HO | 250 | N | N | 19910409 | 150250 | 244 | 95  | 26        | 63 |
| 78  | 17  | USA-AZ          | PAINTED DESERT            | 35.5N 111.0W      | 27.8N 108.7W     | 10 | HO | 250 | N | N | 19910409 | 150253 | 244 | 95  | 26        | 63 |
| 78  | 18  | USA-AZ          | CHUSKA MTS. PAINTED DES   | 34.5N 110.0W      | 27.8N 108.5W     | 0  | LO | 250 | N | N | 19910409 | 150256 | 244 | 95  | 27        | 63 |
| 78  | 19  | USA-AZ          | MOGOLLON RIM              | 33.0N 109.0W      | 27.8N 108.1W     | 0  | LO | 250 | N | N | 19910409 | 150301 | 244 | 96  | 27        | 63 |
| 79  | 7   | USA-AZ          | PHOENIX AREA              | 33.5N 112.0W      | 28.2N 112.2W     | 0  | LO | 250 | N | N | 19910406 | 151930 | 246 | 97  | 26        | 17 |
| 79  | 8   | USA-AZ          | GRAND CANYON, FLAGSTAFF   | 35.5N 112.0W      | 28.2N 111.5W     | 40 | HO | 250 | N | N | 19910406 | 151940 | 246 | 97  | 27        | 17 |
| 98  | 76  | USA-AZ          | COLORADO RIVER            | 28.1N 111.0W      | 28.1N 111.0W     | 0  | LO | 250 | N | N | 19910407 | 144051 | 246 | 92  | 19        | 32 |
| 98  | 77  | USA-AZ          | YUMA, COLORADO RIVER      | 32.6N 114.7W      | 28.2N 109.3W     | 0  | LO | 250 | N | N | 19910407 | 144115 | 246 | 93  | 21        | 32 |
| 98  | 78  | USA-AZ          | YUMA, COLORADO RIVER      | 32.7N 114.7W      | 28.3N 108.7W     | 0  | LO | 250 | N | N | 19910407 | 144125 | 246 | 94  | 21        | 32 |
| 98  | 79  | USA-AZ          |                           | 28.4N 105.4W      | 28.4N 105.4W     | 0  | LO | 250 | N | N | 19910407 | 144212 | 246 | 95  | 24        | 32 |
| 98  | 83  | USA-AZ          | EAST OF TUCSON            | 32.2N 109.9W      | 27.2N 107.3W     | 0  | LO | 250 | N | N | 19910407 | 162100 | 246 | 108 | 44        | 33 |
| 153 | 16  | USA-AZ          | YUMA, PHOENIX, PINACATE   | 33.0N 113.0W      | 28.3N 114.5W     | 0  | LO | 250 | N | N | 19910409 | 150128 | 244 | 93  | 21        | 63 |
| 153 | 20  | USA-AZ          | FOUR CORNERS, GRAND CAN.  | 36.0N 110.0W      |                  | 15 | HO | 250 | N | N |          |        |     |     |           |    |
| 16  | 1   | USA-CA          | IMPERIAL VAL., SAN DIEGO  | 34.0N 116.0W      | 26.0N 118.4W     | 10 | HO | 35  | N | N | 19910410 | 160125 | 245 | 97  | 32        | 79 |
| 16  | 2   | USA-CA          | VIEW N. OF CALIF. COAST   | 35.0N 121.0W      | 25.8N 117.2W     | 15 | HO | 35  | N | N | 19910410 | 160143 | 245 | 97  | 33        | 79 |
| 72  | 30  | USA-CA          | SALTON SEA-CA COAST       | 33.5N 116.5W      | 24.9N 123.5W     | 20 | HO | 100 | N | Y | 19910405 | 191417 | 245 | 138 | 65        | 4  |
| 72  | 31  | USA-CA          | CA COAST-SAN CLEMENTE I.  | 34.0N 117.0W      | 24.7N 122.8W     | 20 | HO | 100 | N | Y | 19910405 | 191427 | 245 | 139 | 66        | 4  |
| 72  | 32  | USA-CA          | SALTON SEA-CA COAST       | 33.5N 116.0W      | 24.2N 121.0W     | 10 | HO | 100 | N | N | 19910405 | 191456 | 245 | 142 | 67        | 4  |
| 74  | 101 | USA-CA          | MOJAVE DESERT AREA        | 36.2N 117.8W      | 28.4N 117.1W     | 0  | LO | 250 | N | N | 19910409 | 150049 | 244 | 89  | 15        | 63 |
| 74  | 102 | USA-CA          | S. END SAN JACQUIN VALLEY | 35.2N 119.0W      | 28.4N 116.8W     | 0  | LO | 250 | N | N | 19910409 | 150054 | 244 | 89  | 15        | 63 |
| 74  | 103 | USA-CA          | SIERRA NEVADA MTS         | 36.0N 118.2W      | 28.4N 115.7W     | 10 | LO | 250 | N | N | 19910409 | 150110 | 244 | 90  | 16        | 63 |
| 74  | 104 | USA-CA          | SIERRA NEVADA MTS         | 28.4N 115.5W      | 28.4N 115.5W     | 20 | HO | 250 | N | N | 19910409 | 150113 | 244 | 90  | 17        | 63 |
| 74  | 105 | USA-CA          | AREA NW. LOS ANGELES      | 35.2N 120.0W      | 28.4N 115.3W     | 0  | LO | 250 | N | N | 19910409 | 150116 | 244 | 90  | 17        | 63 |
| 74  | 106 | USA-CA          | MOJAVE, L.A. AREA         | 34.5N 118.0W      | 28.3N 115.1W     | 0  | LO | 250 | N | N | 19910409 | 150119 | 244 | 90  | 17        | 63 |
| 74  | 107 | USA-CA          | LOS ANGELES BASIN         | 34.2N 116.8W      | 28.3N 114.9W     | 0  | LO | 250 | N | N | 19910409 | 150122 | 244 | 90  | 17        | 63 |
| 75  | 70  | USA-CA          | SALTON SEA AREA           | 27.8N 116.5W      | 27.8N 116.5W     | 60 | HO | 250 | N | N | 19910406 | 151826 | 246 | 94  | 22        | 17 |
| 75  | 71  | USA-CA          | SALTON SEA AREA           | 27.9N 115.7W      | 27.9N 115.7W     | 40 | HO | 250 | N | N | 19910406 | 151838 | 246 | 95  | 23        | 17 |
| 78  | 1   | USA-CA          | SALTON SEA, IMP. VALLEY   | 32.5N 115.5W      | 28.2N 113.2W     | 0  | LO | 250 | N | N | 19910409 | 150146 | 244 | 93  | 22        | 63 |
| 78  | 2   | USA-CA          | SALTON SEA, MOJAVE DES.   | 33.5N 116.0W      | 28.2N 113.0W     | 0  | LO | 250 | N | N | 19910409 | 150149 | 244 | 93  | 22        | 63 |
| 78  | 3   | USA-CA          | MOJAVE DES., DEATH VAL.   | 35.0N 116.5W      | 28.2N 112.7W     | 0  | LO | 250 | N | N | 19910409 | 150153 | 244 | 93  | 23        | 63 |
| 78  | 5   | USA-CA          | SO. CAL. COAST/MTNS.      | 33.0N 116.0W      | 28.2N 112.1W     | 0  | LO | 250 | N | N | 19910409 | 150202 | 244 | 94  | 23        | 63 |
| 79  | 3   | USA-CA          | SIERRA NEVADA MTS.        | 37.5N 118.0W      | 27.6N 118.4W     | 65 | HO | 250 | N | N | 19910406 | 151758 | 246 | 93  | 20        | 17 |
| 79  | 4   | USA-CA          | SALTON SEA, IMPERIAL VAL  | 32.5N 115.5W      | 28.0N 114.2W     | 0  | LO | 250 | N | N | 19910406 | 151901 | 246 | 96  | 24        | 17 |
| 79  | 5   | USA-CA          | MOJAVE DESERT             | 35.0N 117.0W      | 28.1N 113.8W     | 70 | LO | 250 | N | N | 19910406 | 151907 | 246 | 96  | 25        | 17 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                     | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | EL | OR |
|-----|-----|-----------------|-----------------------------|----------------------|---------------------|----|----|-----|---|---|----------|--------|-----|-----|----|----|
| 79  | 6   | USA-CA          | SALTON SEA, IMP. VALLEY     | 32.5N 115.5W         | 28.1N 112.7W        | 0  | LO | 250 | N | N | 19910406 | 151922 | 246 | 96  | 26 | 17 |
| 83  | 47  | USA-CA          | SOUTH 1/3 STATE, CST        | 34.8N 117.5W         | 28.5N 120.1W        | 15 | HO | 100 | N | N | 19910409 | 150008 | 243 | 90  | 16 | 63 |
| 83  | 48  | USA-CA          | SOUTH 1/3 STATE, CST        | 34.5N 116.5W         | 28.5N 119.4W        | 15 | HO | 100 | N | Y | 19910409 | 150018 | 243 | 90  | 16 | 63 |
| 83  | 49  | USA-CA          | SOUTH 1/3 STATE, CST        | 35.5N 117.5W         | 28.5N 119.1W        | 15 | HO | 100 | N | Y | 19910409 | 150021 | 243 | 90  | 17 | 63 |
| 83  | 50  | USA-CA          | MID STATE PANORAMA          | 36.5N 118.5W         | 28.5N 118.3W        | 15 | HO | 100 | N | Y | 19910409 | 150032 | 243 | 91  | 17 | 63 |
| 83  | 51  | USA-CA          | MID STATE PANORAMA          | 36.5N 119.5W         | 28.5N 117.5W        | 15 | HO | 100 | N | Y | 19910409 | 150043 | 244 | 91  | 18 | 63 |
| 83  | 52  | USA-CA          | SOUTH 1/3 PANORAMA          | 35.0N 117.5W         | 28.4N 117.1W        | 15 | HO | 100 | N | Y | 19910409 | 150049 | 244 | 91  | 19 | 63 |
| 83  | 53  | USA-CA          | STATE AXIS NO. PANORAMA     | 34.5N 117.5W         | 28.2N 112.1W        | 10 | HO | 100 | N | Y | 19910409 | 150203 | 244 | 94  | 23 | 63 |
| 83  | 54  | USA-CA          | STATE AXIS NO. PANORAMA     | 35.0N 117.5W         | 28.1N 111.4W        | 10 | HO | 100 | N | Y | 19910409 | 150212 | 244 | 94  | 24 | 63 |
| 87  | 121 | USA-CA          | CHANNEL IS., PT. CONCEPCION | 35.0N 120.0W         | 28.3N 114.9W        | 15 | HO | 250 | N | N | 19910409 | 150122 | 244 | 92  | 21 | 63 |
| 87  | 122 | USA-CA          | LOS ANGELES, MOJAVE DES.    | 33.5N 117.5W         | 28.3N 114.7W        | 0  | LO | 250 | N | N | 19910409 | 150125 | 244 | 92  | 21 | 63 |
| 87  | 123 | USA-CA          | SAN DIEGO, COAST            | 33.0N 116.5W         | 28.3N 114.5W        | 0  | LO | 250 | N | N | 19910409 | 150128 | 244 | 92  | 21 | 63 |
| 87  | 124 | USA-CA          | SALTON SEA, IMPERIAL VAL.   | 33.0N 116.0W         | 28.3N 114.2W        | 0  | LO | 250 | N | N | 19910409 | 150131 | 244 | 93  | 21 | 63 |
| 98  | 73  | USA-CA          | MOJAVE DESERT               | 37.6N 116.1W         | 27.6N 116.1W        | 40 | HO | 250 | N | N | 19910407 | 143936 | 246 | 90  | 14 | 32 |
| 98  | 74  | USA-CA          | SALTON SEA, IMPERIAL VLY    | 33.2N 115.8W         | 27.6N 115.7W        | 5  | HO | 250 | N | N | 19910407 | 143941 | 246 | 90  | 15 | 32 |
| 153 | 14  | USA-CA          | LOS ANGELES, MOJAVE DES.    | 35.0N 116.0W         | 28.5N 121.5W        | 10 | HO | 250 | N | N | 19910409 | 145945 | 243 | 89  | 15 | 63 |
| 78  | 23  | USA-CO          | SANGRE DE CRISTO MTS.       | 37.0N 105.0W         | 27.6N 106.8W        | 5  | HO | 250 | N | N | 19910409 | 150320 | 244 | 96  | 28 | 63 |
| 83  | 59  | USA-CO          | PECOS R/VALLEY, E. ROCKIES  | 38.0N 106.0W         | 27.1N 102.9W        | 5  | HO | 100 | N | N | 19910409 | 150418 | 244 | 98  | 32 | 63 |
| 153 | 17  | USA-CO          | ROCKY MTS., COLORADO PL     | 37.0N 107.0W         | 28.2N 112.1W        | 10 | HO | 250 | N | N | 19910409 | 150202 | 244 | 94  | 23 | 63 |
| 153 | 22  | USA-CO          | ROCKY MTS., SAN JUAN MT     | 38.0N 106.0W         |                     | 10 | HO | 250 | N | Y |          |        |     |     |    |    |
| 75  | 42  | USA-FL          | CENTRAL FL., CLDY, HAZEY    | 28.5N 81.5W          | 28.5N 77.1W         | 80 | LO | 250 | N | N | 19910406 | 134848 | 247 | 104 | 37 | 16 |
| 75  | 43  | USA-FL          | CENTRAL FL., CLDY, HAZEY    | 28.5N 81.5W          | 28.5N 76.4W         | 80 | LO | 250 | N | N | 19910406 | 134858 | 247 | 105 | 38 | 16 |
| 75  | 44  | USA-FL          | CENTRAL FL., CLDY, HAZEY    |                      | 28.4N 74.9W         | 90 | HO | 250 | N | N | 19910406 | 134919 | 246 | 106 | 39 | 16 |
| 75  | 45  | USA-FL          | CENTRAL FL., CLDY, HAZEY    |                      | 28.3N 72.5W         | 90 | HO | 250 | N | N | 19910406 | 134954 | 246 | 107 | 41 | 16 |
| 76  | 2   | USA-FL          | AREA E. OF PANAMA CITY      | 30.0N 85.0W          | 6.1N 44.7W          | 50 | LO | 250 | N | N | 19910409 | 150729 | 245 | 104 | 44 | 63 |
| 76  | 3   | USA-FL          | CENTRAL FL., VRY CLDY       | 28.5N 81.5W          | 5.4N 43.4W          | 90 | LO | 250 | N | N | 19910409 | 150808 | 245 | 105 | 46 | 63 |
| 76  | 4   | USA-FL          | CENTRAL FL., VRY CLDY       |                      | 4.9N 42.6W          | 90 | LO | 250 | N | N | 19910409 | 150853 | 245 | 106 | 49 | 63 |
| 77  | 59  | USA-FL          | CENTRAL FL., VRY CLDY       | 28.5N 81.0W          | 28.5N 78.0W         | 90 | LO | 250 | N | N | 19910406 | 134834 | 247 | 104 | 38 | 16 |
| 77  | 60  | USA-FL          | CENTRAL FL., VRY CLDY       | 28.5N 81.0W          | 28.5N 77.5W         | 90 | LO | 250 | N | N | 19910406 | 134842 | 247 | 104 | 37 | 16 |
| 77  | 61  | USA-FL          | TAMPA AREA, VRY CLDY        | 27.8N 81.5W          | 28.5N 76.0W         | 80 | LO | 250 | N | N | 19910406 | 134904 | 247 | 105 | 38 | 16 |
| 78  | 27  | USA-FL          | CAPE CANAVERAL              | 28.5N 80.5W          | 4.8N 42.5W          | 60 | LO | 250 | N | N | 19910409 | 150928 | 245 | 107 | 52 | 63 |
| 78  | 28  | USA-FL          | CENT. FLORIDA, SARASOTA     | 27.5N 80.0W          | 4.9N 42.8W          | 50 | LO | 250 | N | N | 19910409 | 151004 | 245 | 108 | 54 | 63 |
| 92  | 95  | USA-FL          | VRY CLDY                    |                      | 28.4N 82.8W         | 90 | LO | 250 | N | N | 19910407 | 130829 | 246 | 96  | 24 | 31 |
| 92  | 96  | USA-FL          | UNDEREXP., CAPE KENNEDY     | 28.5N 80.5W          | 28.5N 80.6W         | 10 | LO | 250 | N | N | 19910407 | 130900 | 246 | 96  | 26 | 31 |
| 92  | 97  | USA-FL          | CAPE KENNEDY                | 28.5N 80.5W          | 28.5N 78.4W         | 30 | LO | 250 | N | N | 19910407 | 130933 | 246 | 97  | 28 | 31 |
| 92  | 98  | USA-FL          | N. OF CAPE KENNEDY          | 28.7N 80.8W          | 28.5N 78.2W         | 50 | LO | 250 | N | N | 19910407 | 130936 | 246 | 98  | 28 | 31 |
| 92  | 99  | USA-FL          | S. FL. EVERGLADES AREA      | 24.8N 81.0W          | 28.5N 76.2W         | 30 | LO | 250 | N | N | 19910407 | 131004 | 246 | 99  | 30 | 31 |
| 92  | 100 | USA-FL          | S. FL. EVERGLADES AREA      | 26.0N 80.6W          | 28.5N 76.0W         | 30 | LO | 250 | N | N | 19910407 | 131007 | 246 | 99  | 30 | 31 |
| 92  | 105 | USA-FL          | S. FL.                      | 26.2N 80.7W          | 28.4N 72.4W         | 60 | LO | 250 | N | N | 19910407 | 131100 | 246 | 101 | 33 | 31 |
| 97  | 101 | USA-FL          | SO. FL., EVERGLADES, CLDS.  | 25.2N 80.6W          | 25.6N 81.8W         | 90 | LO | 250 | N | N | 19910406 | 120818 | 246 | 88  | 11 | 15 |

**TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)**

| RL | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN | EL | OR |
|----|-----|-----------------|---------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|    |     |                 |                           | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 97 | 103 | USA-FL          | SO. FL., EVERGLADES       | 25.0N  | 80.6W  | 26.1N | 79.4W  | 60 | LO | 250 | N | N | 19910406 | 120855 | 246 | 89  | 13  | 15 |    |
| 99 | 39  | USA-FL          | GRO DEPLOY DK/SO. FLORIDA | 28.5N  | 81.0W  | 28.5N | 79.9W  | 60 | LO | 40  | N | N | 19910407 | 130911 | 246 | 97  | 26  | 31 |    |
| 99 | 40  | USA-FL          | GRO DEPLOY DK/SO. FLORIDA | 28.5N  | 81.0W  | 28.5N | 79.5W  | 60 | LO | 40  | N | N | 19910407 | 130918 | 246 | 97  | 27  | 31 |    |
| 99 | 41  | USA-FL          | GRO DEPLOY DK/SO. FLORIDA | 28.5N  | 81.0W  | 28.5N | 79.1W  | 60 | LO | 40  | N | N | 19910407 | 130922 | 246 | 97  | 27  | 31 |    |
| 99 | 42  | USA-FL          | GRO DEPLOY DK/SO. FLORIDA | 28.5N  | 81.0W  | 28.5N | 78.8W  | 60 | LO | 40  | N | N | 19910407 | 130927 | 246 | 97  | 27  | 31 |    |
| 99 | 43  | USA-FL          | GRO DEPLOY DK/SO. FLORIDA | 28.5N  | 81.0W  | 28.5N | 78.4W  | 60 | LO | 40  | N | N | 19910407 | 130932 | 246 | 97  | 28  | 31 |    |
| 99 | 44  | USA-FL          | GRO DEPLOY DK/SO. FLORIDA | 28.5N  | 80.0W  | 28.5N | 78.0W  | 50 | LO | 40  | N | N | 19910407 | 130938 | 246 | 98  | 28  | 31 |    |
| 99 | 45  | USA-FL          | GRO DEPLOY DK/SO. FLORIDA | 28.5N  | 79.0W  | 28.5N | 77.4W  | 50 | LO | 40  | N | N | 19910407 | 130947 | 246 | 98  | 28  | 31 |    |
| 99 | 46  | USA-FL          | GRO DEPLOY DK/SO. FLORIDA | 28.5N  | 79.0W  | 28.5N | 76.4W  | 60 | HO | 40  | N | N | 19910407 | 131002 | 246 | 99  | 29  | 31 |    |
| 10 | 3   | USA-HI          | HAWAIIAN ISLANDS          | 21.0N  | 158.0W | 26.2N | 167.2W | 35 | HO | 35  | N | N | 19910410 | 190807 | 245 | 96  | 30  | 81 |    |
| 10 | 4   | USA-HI          | OAHU, KAUAI, MOLOKAI      | 21.0N  | 158.0W | 24.2N | 158.7W | 35 | LO | 35  | N | N | 19910410 | 191019 | 245 | 99  | 38  | 81 |    |
| 10 | 5   | USA-HI          | OAHU, MOLOKAI, MAUI       | 21.0N  | 157.0W | 23.9N | 157.7W | 30 | LO | 35  | N | N | 19910410 | 191038 | 245 | 100 | 39  | 81 |    |
| 10 | 6   | USA-HI          | BIG ISLAND OF HAWAII      | 20.0N  | 156.0W | 22.9N | 154.3W | 35 | LO | 35  | N | N | 19910410 | 191129 | 246 | 101 | 43  | 81 |    |
| 10 | 7   | USA-HI          | BIG ISLAND OF HAWAII      | 20.0N  | 155.0W | 22.5N | 153.1W | 35 | LO | 35  | N | N | 19910410 | 191149 | 246 | 101 | 44  | 81 |    |
| 10 | 8   | USA-HI          | HAWAIIAN ISLANDS          | 21.0N  | 157.0W | 22.4N | 152.7W | 35 | HO | 35  | N | N | 19910410 | 191156 | 246 | 101 | 44  | 81 |    |
| 71 | 12  | USA-HI          | KAUAI-CLOUD COVERED       | 22.5N  | 159.5W | 24.7N | 159.1W | 40 | LO | 250 | F | N | 19910405 | 172604 | 246 | 89  | 13  | 3  |    |
| 71 | 13  | USA-HI          | NIHAU, KAUAI              | 22.0N  | 160.0W | 24.8N | 158.6W | 40 | LO | 250 | N | N | 19910405 | 172611 | 246 | 89  | 13  | 3  |    |
| 71 | 14  | USA-HI          | MAUI, LANAI, KAHOO LAWE   | 21.0N  | 156.5W | 25.0N | 158.0W | 40 | LO | 250 | N | N | 19910405 | 172621 | 246 | 89  | 14  | 3  |    |
| 71 | 15  | USA-HI          | MAUI, LANAI, KAHOO LAWE   | 21.0N  | 156.5W | 25.4N | 156.5W | 35 | LO | 250 | N | N | 19910405 | 172645 | 246 | 90  | 15  | 3  |    |
| 71 | 16  | USA-HI          | MAUI, LANAI, KAHOO LAWE   | 21.0N  | 156.5W | 25.5N | 155.7W | 35 | LO | 250 | F | N | 19910405 | 172656 | 246 | 91  | 16  | 3  |    |
| 71 | 17  | USA-HI          | HAWAII, MAUI, KAHOO LAWE  | 20.0N  | 156.0W | 25.7N | 155.0W | 35 | LO | 250 | N | N | 19910405 | 172707 | 246 | 91  | 17  | 3  |    |
| 71 | 76  | USA-HI          | FRENCH FRIGATE SHOALS     | 24.0N  | 166.0W | 28.0N | 164.4W | 45 | LO | 250 | N | N | 19910405 | 190411 | 246 | 99  | 30  | 4  |    |
| 73 | 32  | USA-HI          | MIDWAY ISLANDS            | 28.2N  | 177.3W | 26.5N | 176.9W | 30 | LO | 250 | N | N | 19910406 | 214052 | 246 | 117 | 53  | 21 |    |
| 73 | 33  | USA-HI          | KURE & GREEN ISLANDS      | 28.4N  | 178.2W | 26.2N | 175.4W | 10 | LO | 250 | N | N | 19910406 | 214111 | 246 | 118 | 54  | 21 |    |
| 73 | 34  | USA-HI          | LISIANSKI IS., NEVA SHOAL | 26.0N  | 174.0W | 25.9N | 173.4W | 10 | LO | 250 | N | N | 19910406 | 214138 | 246 | 120 | 56  | 21 |    |
| 73 | 35  | USA-HI          | LISIANSKI IS., NEVA SHOAL |        |        | 25.4N | 171.6W | 30 | LO | 250 | N | N | 19910406 | 214208 | 246 | 121 | 58  | 21 |    |
| 73 | 36  | USA-HI          | FRENCH FRIGATE SHOALS     | 23.8N  | 166.2W | 24.6N | 168.3W | 20 | LO | 250 | N | N | 19910406 | 214300 | 246 | 125 | 61  | 21 |    |
| 73 | 37  | USA-HI          | FRENCH FRIGATE SHOALS     | 23.8N  | 166.2W | 24.1N | 166.3W | 20 | LO | 250 | N | N | 19910406 | 214330 | 246 | 127 | 63  | 21 |    |
| 73 | 38  | USA-HI          | KAUIA                     | 21.9N  | 160.2W | 22.5N | 160.9W | 20 | LO | 250 | N | N | 19910406 | 214457 | 245 | 134 | 68  | 21 |    |
| 73 | 39  | USA-HI          | KAUIA                     | 22.0N  | 159.5W | 22.2N | 160.0W | 50 | LO | 250 | N | N | 19910406 | 214512 | 245 | 136 | 69  | 21 |    |
| 73 | 40  | USA-HI          | OAHUA                     | 21.5N  | 158.0W | 21.3N | 157.5W | 50 | LO | 250 | N | N | 19910406 | 214553 | 245 | 141 | 71  | 21 |    |
| 73 | 41  | USA-HI          | OAHUA                     | 21.5N  | 158.0W | 21.3N | 157.2W | 50 | LO | 250 | N | N | 19910406 | 214557 | 245 | 141 | 71  | 21 |    |
| 73 | 42  | USA-HI          | MAUI                      | 20.9N  | 156.6W | 20.6N | 155.4W | 60 | LO | 250 | N | N | 19910406 | 214627 | 245 | 145 | 73  | 21 |    |
| 73 | 43  | USA-HI          | HAWAII                    | 19.5N  | 155.6W | 20.2N | 154.4W | 50 | LO | 250 | N | N | 19910406 | 214644 | 245 | 148 | 74  | 21 |    |
| 92 | 36  | USA-HI          | NIHAU ISLAND              | 21.9N  | 160.1W | 22.5N | 160.8W | 20 | LO | 250 | N | N | 19910406 | 214458 | 245 | 135 | 68  | 21 |    |
| 92 | 37  | USA-HI          | KAPAA ISLAND              | 22.0N  | 159.5W | 22.4N | 160.5W | 50 | LO | 250 | N | N | 19910406 | 214503 | 245 | 135 | 68  | 21 |    |
| 92 | 38  | USA-HI          | OAHU ISLAND               | 21.5N  | 158.0W | 22.0N | 159.3W | 40 | LO | 250 | N | N | 19910406 | 214523 | 245 | 137 | 69  | 21 |    |
| 92 | 39  | USA-HI          | MOLOKAI, MAUI, LANAI      | 21.1N  | 156.9W | 21.6N | 158.1W | 40 | LO | 250 | N | N | 19910406 | 214542 | 245 | 139 | 70  | 21 |    |
| 92 | 40  | USA-HI          | MAUI                      | 20.8N  | 156.3W | 21.3N | 157.4W | 70 | LO | 250 | N | N | 19910406 | 214554 | 245 | 141 | 71  | 21 |    |
| 92 | 41  | USA-HI          | HAWAII                    | 19.8N  | 155.7W | 21.1N | 156.9W | 70 | LO | 250 | N | N | 19910406 | 214603 | 245 | 142 | 71  | 21 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER |        | MADIR |        | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM | EL | OR |
|-----|-----|-----------------|---------------------------|--------|--------|-------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----|----|----|
|     |     |                 |                           | LAT    | LONG   | LAT   | LONG   |    |    |     |   |   |          |        |     |     |     |    |    |
| 92  | 42  | USA-HI          | HAWAII                    | 19.4N  | 155.7W | 20.9N | 156.3W | 60 | LO | 250 | N | N | 19910406 | 214612 | 245 | 143 | 72  | 21 |    |
| 94  | 42  | USA-HI          | OAHU, MOLOKAI, LANAI      | 22.0N  | 157.5W |       |        | 35 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 94  | 43  | USA-HI          | HAWAII, MONA LOA, KEA V.  | 19.5N  | 155.5W |       |        | 50 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 94  | 44  | USA-HI          | OAHU, KAUAI               | 22.0N  | 159.5W |       |        | 35 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 94  | 45  | USA-HI          | KAUAI, OAHU, MOLOKAI      | 21.5N  | 158.0W |       |        | 25 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 94  | 46  | USA-HI          | HAWAII, MAUI, LANAI       | 21.0N  | 156.5W |       |        | 45 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 94  | 47  | USA-HI          | HAWAII, MAUI, MAUNA LOA   | 20.0N  | 155.0W |       |        | 55 | LO | 100 | N | N |          |        |     |     |     |    |    |
| 152 | 73  | USA-HI          | OAHU, MOLOKAI, LANAI      | 21.5N  | 157.5W | 21.6N | 158.1W | 35 | NV | 250 | N | Y | 19910406 | 214542 | 245 | 139 | 70  | 21 |    |
| 152 | 74  | USA-HI          | MOLOKAI, LANAI, MAUI      | 21.5N  | 157.0W | 21.3N | 157.2W | 40 | NV | 250 | N | Y | 19910406 | 214557 | 245 | 141 | 71  | 21 |    |
| 152 | 75  | USA-HI          | HAWAII, MAUNA KEA-CLOUDS  | 20.5N  | 155.0W | 20.8N | 156.0W | 90 | NV | 250 | N | Y | 19910406 | 214618 | 245 | 144 | 72  | 21 |    |
| 152 | 76  | USA-HI          | MAUI-CLOUDS               | 20.5N  | 155.5W | 20.4N | 154.9W | 90 | NV | 250 | N | Y | 19910406 | 214635 | 245 | 146 | 73  | 21 |    |
| 153 | 69  | USA-HI          | BIG IS. OF HAWAII, VOL.   | 20.5N  | 154.0W | 23.4N | 158.0W | 75 | HO | 250 | N | N | 19910409 | 194852 | 247 | 104 | 47  | 86 |    |
| 153 | 15  | USA-NE          | L. MEAD, GRAND CANYON     | 36.5N  | 115.0W | 28.4N | 115.2W | 15 | HO | 250 | N | N | 19910409 | 150117 | 244 | 92  | 21  | 63 |    |
| 78  | 20  | USA-NM          | SW N. MEXICO NEAR DEMING  | 32.5N  | 108.5W | 27.7N | 107.6W | 0  | LO | 250 | N | N | 19910409 | 150309 | 244 | 96  | 27  | 63 |    |
| 78  | 21  | USA-NM          | WHITE SANDS, LAS CRUCES   | 33.0N  | 106.5W | 27.7N | 107.4W | 0  | LO | 250 | N | N | 19910409 | 150312 | 244 | 96  | 28  | 63 |    |
| 78  | 22  | USA-NM          | N. RIO GRANDE RIFT VAL.   | 35.5N  | 106.0W | 27.7N | 107.1W | 0  | HO | 250 | N | N | 19910409 | 150316 | 244 | 96  | 28  | 63 |    |
| 78  | 24  | USA-NM          | GUADALUPE MTS.            | 32.0N  | 105.0W | 27.6N | 106.4W | 0  | LO | 250 | N | N | 19910409 | 150326 | 244 | 96  | 28  | 63 |    |
| 79  | 9   | USA-NM          | WHITE SANDS, ALAMOGORDO   | 33.0N  | 106.5W | 28.4N | 108.0W | 0  | LO | 250 | N | Y | 19910406 | 152031 | 246 | 99  | 30  | 17 |    |
| 79  | 10  | USA-NM          | WHITE SANDS, ALAMOGORDO   | 33.0N  | 106.5W | 28.4N | 107.7W | 0  | LO | 250 | N | Y | 19910406 | 152035 | 246 | 99  | 30  | 17 |    |
| 79  | 13  | USA-NM          | CABILLO RES., BLACK RA.   | 33.0N  | 107.0W | 28.5N | 105.5W | 0  | LO | 250 | N | Y | 19910406 | 152107 | 246 | 101 | 32  | 17 |    |
| 83  | 56  | USA-NM          | WHITE SANDS, RIO GRANDE   | 33.0N  | 103.5W | 27.6N | 106.2W | 5  | LO | 100 | N | Y | 19910409 | 150330 | 244 | 97  | 29  | 63 |    |
| 83  | 57  | USA-NM          | WHITE SANDS, PECOS R/VAL. | 33.0N  | 105.0W | 27.4N | 104.9W | 5  | HO | 100 | N | Y | 19910409 | 150348 | 244 | 97  | 30  | 63 |    |
| 152 | 271 | USA-NM          | SACRAMENTO MOUNTAINS      | 34.0N  | 105.0W | 28.5N | 101.4W | 20 | HO | 250 | N | Y | 19910407 | 144311 | 246 | 98  | 28  | 32 |    |
| 153 | 19  | USA-NM          | SANGRE DE CRISTO MTS.     | 36.0N  | 104.0W | 28.1N | 111.4W | 10 | HO | 250 | N | N | 19910409 | 150212 | 244 | 94  | 24  | 63 |    |
| 153 | 23  | USA-NM          | RIO GRANDE RIFT VALLEY    | 35.0N  | 106.5W | 27.7N | 107.0W | 5  | LO | 250 | N | Y | 19910409 | 150318 | 244 | 96  | 28  | 63 |    |
| 16  | 4   | USA-NV          | VIEW N. OF GREAT BASIN    | 37.0N  | 115.0W | 25.0N | 113.9W | 15 | HO | 35  | N | N | 19910410 | 160235 | 246 | 99  | 36  | 79 |    |
| 78  | 4   | USA-NV          | LAKE MEAD, LAS VEGAS      | 36.5N  | 115.0W | 28.2N | 112.5W | 0  | HO | 250 | N | N | 19910409 | 150156 | 244 | 93  | 23  | 63 |    |
| 83  | 61  | USA-OK          | RED R, CANADIAN R, PLAINS | 37.0N  | 98.0W  | 26.8N | 100.8W | 10 | HO | 100 | N | N | 19910409 | 150450 | 245 | 99  | 34  | 63 |    |
| 152 | 270 | USA-OK          | LLANO ESTACADO-PALO DURO  | 37.0N  | 100.0W | 28.5N | 102.7W | 25 | HO | 250 | N | N | 19910407 | 144252 | 246 | 97  | 27  | 32 |    |
| 75  | 79  | USA-TX          | AMISTAD RES., VRY CLDY    | 29.5N  | 101.0W | 28.5N | 99.4W  | 90 | LO | 250 | N | N | 19910406 | 152237 | 246 | 105 | 38  | 17 |    |
| 79  | 11  | USA-TX          | EL PASO, RIO GRANDE       | 31.5N  | 106.5W | 28.4N | 107.3W | 0  | LO | 250 | N | Y | 19910406 | 152041 | 246 | 100 | 31  | 17 |    |
| 79  | 12  | USA-TX          | EL PASO, RIO GRANDE       | 31.5N  | 106.5W | 28.5N | 106.5W | 0  | LO | 250 | N | Y | 19910406 | 152053 | 246 | 100 | 31  | 17 |    |
| 79  | 14  | USA-TX          | GUADALUPE PK., SALT BAS.  | 32.0N  | 105.0W | 28.5N | 102.8W | 5  | LO | 250 | N | N | 19910406 | 152147 | 246 | 103 | 35  | 17 |    |
| 79  | 15  | USA-TX          | AMISTAD RESERVOIR         | 29.5N  | 101.0W | 28.5N | 100.5W | 50 | LO | 250 | N | N | 19910406 | 152220 | 246 | 104 | 37  | 17 |    |
| 83  | 58  | USA-TX          | LLANO ESTACADO, RED R.    | 33.5N  | 101.5W | 27.3N | 104.1W | 5  | HO | 100 | N | N | 19910409 | 150401 | 244 | 98  | 31  | 63 |    |
| 83  | 60  | USA-TX          | LLANO ESTACADO, PERMIAN B | 33.0N  | 101.0W | 27.0N | 102.1W | 5  | HO | 100 | N | N | 19910409 | 150431 | 244 | 99  | 33  | 63 |    |
| 83  | 64  | USA-TX          | NW PANORAMA, WHITE SANDS  | 31.0N  | 104.0W | 25.9N | 96.5W  | 10 | HO | 100 | N | N | 19910409 | 150555 | 245 | 101 | 38  | 63 |    |
| 83  | 66  | USA-TX          | NW PANORAMA, WHITE SANDS  | 25.4N  | 93.8W  |       |        | 50 | HO | 100 | N | N | 19910409 | 150636 | 245 | 102 | 41  | 63 |    |
| 98  | 80  | USA-TX          | WEST TEXAS                | 28.5N  | 104.5W |       |        | 50 | HO | 250 | N | N | 19910407 | 144226 | 246 | 96  | 25  | 32 |    |
| 98  | 84  | USA-TX          | WEST TEXAS                | 27.0N  | 106.2W |       |        | 9  | LO | 250 | N | N | 19910407 | 162116 | 246 | 109 | 45  | 33 |    |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|---------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 152 | 272 | USA-TX          | TX-NEW MEXICO-MIDLAND     | 33.0N 103.0W      | 28.5N 100.8W     | 10 | LO | 250 | N | Y | 19910407 | 144320 | 246 | 98  | 29        | 32 |
| 152 | 273 | USA-TX          | TX-NEW MEXICO-AMARILLO    | 36.0N 103.0W      | 28.5N 99.3W      | 40 | HO | 250 | N | N | 19910407 | 144341 | 246 | 99  | 30        | 32 |
| 153 | 27  | USA-TX          | EDWARDS PL., STAKED PLA.  | 32.0N 102.5W      |                  | 25 | HO | 250 | N | N |          |        |     |     |           |    |
| 83  | 55  | USA-UT          | COLORADO PLATEAUS/RIVER   | 37.5N 111.0W      | 27.9N 109.1W     | 10 | HO | 100 | N | N | 19910409 | 150246 | 244 | 95  | 28        | 63 |
| 153 | 18  | USA-UT          | FOUR CORNERS REGION       | 37.0N 109.0W      |                  | 15 | HO | 250 | N | Y |          |        |     |     |           |    |
| 153 | 21  | USA-UT          | FOUR CORNERS, PAINTED D.  | 37.0N 109.5W      | 27.8N 107.8W     | 15 | HO | 250 | N | Y | 19910409 | 150305 | 244 | 96  | 27        | 63 |
| 152 | 274 | USA-VA          | EAST COAST-NC,VA,PAMLICO  | 37.0N 76.0W       | 27.2N 83.5W      | 10 | HO | 250 | N | Y | 19910407 | 144734 | 246 | 109 | 45        | 32 |
| 152 | 275 | USA-VA          | NC,VA,E.COAST-DOUBLE EXP  |                   | 25.8N 75.7W      | 20 | HO | 250 | N | Y | 19910407 | 144931 | 246 | 114 | 52        | 32 |
| 152 | 276 | USA-VA          | NC,VA,E.COAST-DOUBLE EXP  |                   | 25.6N 74.7W      | 20 | HO | 250 | N | Y | 19910407 | 144947 | 246 | 115 | 53        | 32 |
| 71  | 70  | VENEZUELA       | GULF OF VENEZUELA         | 11.0N 71.5W       | 14.7N 71.7W      | 65 | LO | 250 | N | Y | 19910405 | 174835 | 244 | 241 | 73        | 3  |
| 71  | 71  | VENEZUELA       | MARACAIBO                 | 11.0N 71.5W       | 14.5N 71.3W      | 65 | LO | 250 | N | Y | 19910405 | 174842 | 244 | 242 | 72        | 3  |
| 72  | 22  | VENEZUELA       | RIO ORINOCO               | 8.5N 62.5W        | 8.9N 60.6W       | 85 | LO | 100 | N | Y | 19910405 | 175158 | 243 | 265 | 63        | 3  |
| 72  | 23  | VENEZUELA       | RIO GRANDE DELTA          | 9.0N 60.5W        | 8.4N 59.7W       | 70 | NV | 100 | N | Y | 19910405 | 175215 | 243 | 266 | 62        | 3  |
| 75  | 92  | VENEZUELA       | ISLA DE MARGARITA         | 11.0N 64.0W       | 11.2N 63.0W      | 80 | LO | 250 | N | N | 19910406 | 171213 | 244 | 252 | 74        | 18 |
| 75  | 93  | VENEZUELA       | ORINOCO RIVER DELTA       |                   | 10.6N 61.8W      | 95 | LO | 250 | N | N | 19910406 | 171235 | 244 | 256 | 73        | 18 |
| 75  | 94  | VENEZUELA       | ORINOCO RIVER DELTA       |                   | 10.4N 61.4W      | 95 | LO | 250 | N | N | 19910406 | 171242 | 244 | 257 | 73        | 18 |
| 75  | 95  | VENEZUELA       | ORINOCO RIVER DELTA       | 10.0N 62.5W       | 10.3N 61.2W      | 90 | LO | 250 | N | N | 19910406 | 171247 | 244 | 258 | 73        | 18 |
| 75  | 96  | VENEZUELA       | ORINOCO RIVER DELTA       | 10.0N 62.5W       | 10.0N 60.6W      | 90 | LO | 250 | N | N | 19910406 | 171257 | 244 | 259 | 72        | 18 |
| 75  | 97  | VENEZUELA       | ORINOCO RIVER DELTA       | 9.0N 59.7W        | 8.8N 58.5W       | 60 | LO | 250 | N | N | 19910406 | 171336 | 244 | 264 | 70        | 18 |
| 79  | 21  | VENEZUELA       | MARGARITA, COCHE ISLANDS  | 11.5N 64.5W       | 12.9N 66.2W      | 45 | LO | 250 | N | N | 19910406 | 171115 | 244 | 239 | 77        | 18 |
| 79  | 22  | VENEZUELA       | ORINOCO RIVER, CARONI R.  | 9.5N 63.5W        | 12.1N 64.7W      | 70 | LO | 250 | N | Y | 19910406 | 171142 | 244 | 246 | 76        | 18 |
| 79  | 23  | VENEZUELA       | ORINOCO RIVER, CARONI R.  | 9.0N 62.5W        | 12.0N 64.5W      | 70 | LO | 250 | N | Y | 19910406 | 171145 | 244 | 246 | 76        | 18 |
| 79  | 24  | VENEZUELA       | ORINOCO RIVER MOUTH       | 9.0N 62.0W        | 11.9N 64.3W      | 80 | LO | 250 | N | Y | 19910406 | 171149 | 244 | 247 | 76        | 18 |
| 79  | 25  | VENEZUELA       | ORINOCO RIVER MOUTH       | 9.0N 60.5W        | 11.7N 63.8W      | 60 | LO | 250 | N | N | 19910406 | 171158 | 244 | 249 | 75        | 18 |
| 90  | 108 | VENEZUELA       | ORINOCO R/DELTA-CLO COV.  | 9.0N 60.5W        | 9.0N 58.8W       | 50 | LO | 250 | N | N | 19910406 | 171331 | 244 | 263 | 71        | 18 |
| 90  | 109 | VENEZUELA       | CANO MACAREO-ORINOCO DEL  | 9.8N 61.6W        | 8.6N 58.1W       | 70 | LO | 250 | N | N | 19910406 | 171343 | 244 | 264 | 70        | 18 |
| 151 | 106 | VIETNAM         | SOUTHERN PART             |                   | 18.8N 111.8E     | 45 | HO | 250 | N | Y | 19910406 | 043957 | 245 | 185 | 77        | 10 |
| 151 | 107 | VIETNAM         | SOUTHERN PART             |                   | 18.4N 112.9E     | 45 | LO | 250 | N | Y | 19910406 | 044015 | 245 | 190 | 77        | 10 |
| 151 | 142 | VIETNAM         | COAST-GULF OF THAILAND    | 10.5N 104.5E      | 10.4N 105.7E     | 45 | LO | 250 | N | N | 19910406 | 061839 | 244 | 259 | 70        | 11 |
| 151 | 144 | VIETNAM         | SOUTH TIP VIETNAM,SUNG LI | 9.0N 105.0E       | 10.0N 106.4E     | 25 | LO | 250 | N | Y | 19910406 | 061852 | 244 | 261 | 69        | 11 |
| 151 | 145 | VIETNAM         | MOUTHS OF THE MEKONG      | 10.0N 106.5E      | 9.7N 107.1E      | 45 | NV | 250 | N | Y | 19910406 | 061904 | 243 | 262 | 68        | 11 |
| 152 | 121 | VIETNAM         | S. TIP-MOUTHS OF MEKONG   | 9.5N 105.5E       | 12.5N 103.7E     | 55 | LO | 250 | N | N | 19910407 | 053859 | 244 | 233 | 80        | 26 |
| 152 | 122 | VIETNAM         | SOUTH COAST-HO CHI MINH   | 10.5N 107.5E      | 12.1N 104.4E     | 55 | LO | 250 | N | N | 19910407 | 053912 | 244 | 237 | 79        | 26 |
| 152 | 123 | VIETNAM         | EAST COAST-NHA TRANG I.   | 12.5N 109.0E      | 11.8N 104.9E     | 60 | LO | 250 | N | N | 19910407 | 053922 | 244 | 240 | 79        | 26 |
| 152 | 126 | VIETNAM         | SOUTHEAST COAST           | 12.0N 108.5E      | 10.7N 107.0E     | 50 | LO | 250 | N | N | 19910407 | 054000 | 244 | 250 | 78        | 26 |
| 152 | 128 | VIETNAM         | SUNG LINT, EDDIES, MEKONG | 10.0N 108.0E      | 9.9N 108.6E      | 40 | NV | 250 | N | Y | 19910407 | 054030 | 244 | 256 | 76        | 26 |
| 152 | 129 | VIETNAM         | SUNG LINT, EDDIES, MEKONG | 10.5N 107.5E      | 9.5N 109.3E      | 60 | LO | 250 | N | Y | 19910407 | 054043 | 244 | 259 | 76        | 26 |
| 152 | 130 | VIETNAM         | MOUTHS OF MEKONG          | 9.5N 106.5E       | 9.2N 109.8E      | 50 | LO | 250 | N | N | 19910407 | 054052 | 244 | 260 | 75        | 26 |
| 152 | 131 | VIETNAM         | SE COAST                  | 12.0N 109.5E      | 8.8N 110.6E      | 50 | LO | 250 | N | N | 19910407 | 054108 | 244 | 262 | 74        | 26 |
| 153 | 180 | VIETNAM         | NHA TRANG, CAM RANH BAY   | 12.5N 108.5E      | 13.1N 108.1E     | 40 | NV | 250 | N | N | 19910410 | 034328 | 247 | 106 | 73        | 71 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | LONG   | MADR<br>LAT | LONG   | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM<br>EL | OR |
|-----|-----|-----------------|----------------------------|---------------|--------|-------------|--------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 153 | 181 | VIETNAM         | DOUBLE EXPOSURE            | 18.4N         | 109.0E | 12.2N       | 109.0E | 65 | LO | 250 | N | N | 19910410 | 034402 | 247 | 105 | 75        | 71 |
| 74  | 40  | VIRGIN ISLANDS  | VIEQUES TO ANEGADA ISLES   | 18.4N         | 65.0W  | 6.2N        | 22.4W  | 50 | LO | 250 | N | N | 19910409 | 133549 | 245 | 105 | 48        | 62 |
| 76  | 39  | VIRGIN ISLANDS  | ST THOMAS & JOHN ISLANDS   | 18.4N         | 64.9W  | 8.4N        | 51.0W  | 60 | LO | 250 | N | N | 19910409 | 151508 | 244 | 113 | 73        | 63 |
| 76  | 40  | VIRGIN ISLANDS  | ST THOMAS & JOHN ISLANDS   | 18.4N         | 64.8W  | 8.4N        | 51.2W  | 50 | LO | 250 | N | N | 19910409 | 151517 | 244 | 113 | 74        | 63 |
| 76  | 41  | VIRGIN ISLANDS  | ST THOMAS & JOHN ISLANDS   | 18.3N         | 64.8W  | 8.5N        | 51.4W  | 50 | LO | 250 | N | N | 19910409 | 151528 | 244 | 113 | 75        | 63 |
| 9   | 21  | WESTERN SAHARA  | PANORAMIC VIEW             | 23.0N         | 14.0W  | 25.9N       | 20.4W  | 20 | HO | 35  | N | N | 19910411 | 090954 | 245 | 94  | 28        | 90 |
| 9   | 22  | WESTERN SAHARA  | PANORAMIC VIEW             | 21.0N         | 13.0W  | 25.5N       | 18.8W  | 30 | HO | 35  | N | N | 19910411 | 091019 | 245 | 95  | 29        | 90 |
| 9   | 26  | WESTERN SAHARA  | COASTAL AREA               | 24.0N         | 14.0W  | 24.0N       | 13.0W  | 70 | LO | 35  | N | N | 19910411 | 091149 | 245 | 97  | 35        | 90 |
| 9   | 27  | WESTERN SAHARA  | NW MAURITANIA              | 23.4N         | 10.9W  | 23.4N       | 10.9W  | 0  | HO | 35  | N | N | 19910411 | 091223 | 246 | 97  | 37        | 90 |
| 9   | 28  | WESTERN SAHARA  | NW MAURITANIA              | 22.7N         | 8.6W   | 22.7N       | 8.6W   | 0  | LO | 35  | N | N | 19910411 | 091259 | 246 | 98  | 39        | 90 |
| 83  | 1   | WESTERN SAHARA  | CAP BLANC PENINSULA, CST.  | 21.0N         | 17.2W  | 24.3N       | 18.0W  | 25 | LO | 100 | N | N | 19910409 | 102732 | 246 | 105 | 46        | 80 |
| 90  | 27  | WESTERN SAHARA  | TINDOUF SYNCLINE, HAMRA W  | 26.9N         | 11.4W  | 26.8N       | 11.3W  | 5  | NV | 250 | N | N | 19910406 | 104622 | 246 | 119 | 54        | 14 |
| 90  | 34  | WESTERN SAHARA  | RIO DE ORO PEN. COAST      | 23.3N         | 16.0W  | 22.2N       | 16.8W  | 0  | LO | 250 | O | Y | 19910406 | 122435 | 245 | 143 | 70        | 15 |
| 90  | 35  | WESTERN SAHARA  | RIO DE ORO PEN. COAST      | 23.5N         | 15.9W  | 21.9N       | 16.0W  | 0  | LO | 250 | O | Y | 19910406 | 122448 | 245 | 145 | 71        | 15 |
| 95  | 14  | WESTERN SAHARA  | COAST, CONVEYOR BELT       | 26.8N         | 12.9W  | 27.6N       | 17.2W  | 5  | NV | 250 | N | N | 19910406 | 104453 | 246 | 114 | 49        | 14 |
| 95  | 15  | WESTERN SAHARA  | CONVEYOR BELT, INTERIOR    | 26.8N         | 12.9W  | 27.4N       | 15.5W  | 0  | NV | 250 | N | N | 19910406 | 104519 | 246 | 116 | 50        | 14 |
| 95  | 16  | WESTERN SAHARA  | EAST INTERIOR              | 26.7N         | 9.5W   | 27.3N       | 14.6W  | 0  | NV | 250 | N | N | 19910406 | 104532 | 246 | 116 | 51        | 14 |
| 97  | 57  | WESTERN SAHARA  | COAST                      | 26.4N         | 13.0W  | 27.5N       | 15.7W  | 30 | LO | 250 | N | N | 19910406 | 104516 | 246 | 115 | 50        | 14 |
| 97  | 60  | WESTERN SAHARA  | NO. CENTRAL                | 26.9N         | 11.0W  | 27.0N       | 12.6W  | 5  | LO | 250 | N | N | 19910406 | 104602 | 246 | 118 | 53        | 14 |
| 97  | 61  | WESTERN SAHARA  | NO. CENTRAL                | 26.2N         | 11.0W  | 26.8N       | 11.4W  | 0  | LO | 250 | N | N | 19910406 | 104620 | 246 | 119 | 54        | 14 |
| 97  | 62  | WESTERN SAHARA  | COAST, CONVEYOR BELT SCAR  | 26.9N         | 12.0W  | 26.6N       | 10.4W  | 10 | LO | 250 | N | N | 19910406 | 104635 | 246 | 120 | 55        | 14 |
| 98  | 38  | WESTERN SAHARA  | COAST, SALT FLATS          | 27.7N         | 12.8W  | 27.3N       | 12.9W  | 40 | LO | 250 | N | N | 19910407 | 100701 | 246 | 109 | 45        | 29 |
| 151 | 240 | WESTERN SAHARA  | COAST-INDS CONVEYOR BELT   | 26.0N         | 14.5W  | 27.2N       | 13.6W  | 50 | LO | 250 | N | N | 19910406 | 104547 | 246 | 117 | 52        | 14 |
| 151 | 241 | WESTERN SAHARA  | TINDOUF SYNCLINE           | 27.0N         | 12.0W  | 26.7N       | 10.9W  | 20 | LO | 250 | N | N | 19910406 | 104628 | 246 | 120 | 54        | 14 |
| 152 | 266 | YEMEN (SAMA)    | SAB'ATAYN DUNES-MA'RIB     | 16.0N         | 46.0E  | 17.2N       | 45.9E  | 10 | LO | 250 | N | N | 19910407 | 084253 | 245 | 159 | 78        | 28 |
| 82  | 103 | YEMEN (ADEN)    | BAHR AS SAFI               | 16.4N         | 45.9E  | 16.4N       | 45.9E  | 20 | LO | 250 | N | Y | 19910406 | 092154 | 245 | 209 | 78        | 13 |
| 82  | 104 | YEMEN (ADEN)    | BAHR AS SAFI               | 16.3N         | 46.1E  | 16.3N       | 46.1E  | 5  | LO | 250 | N | Y | 19910406 | 092158 | 245 | 210 | 78        | 13 |
| 82  | 105 | YEMEN (ADEN)    | BAHR AS SAFI               | 16.2N         | 46.3E  | 16.2N       | 46.3E  | 5  | LO | 250 | N | Y | 19910406 | 092201 | 245 | 211 | 78        | 13 |
| 82  | 106 | YEMEN (ADEN)    | BAHR AS SAFI               | 16.1N         | 46.5E  | 16.1N       | 46.5E  | 0  | LO | 250 | N | Y | 19910406 | 092204 | 245 | 212 | 78        | 13 |
| 82  | 107 | YEMEN (ADEN)    | BAHR AS SAFI               | 1.4N          | 48.6E  | 14.4N       | 50.1E  | 5  | LO | 250 | N | N | 19910406 | 092309 | 244 | 232 | 77        | 13 |
| 85  | 50  | YEMEN (ADEN)    | COAST, SUNGLINT            | 16.2N         | 52.5E  | 16.5N       | 51.3E  | 0  | LO | 250 | N | N | 19910409 | 072639 | 246 | 115 | 70        | 58 |
| 85  | 51  | YEMEN (ADEN)    | COAST, SUNGLINT            | 16.2N         | 52.5E  | 16.3N       | 51.7E  | 0  | LO | 250 | N | N | 19910409 | 072647 | 246 | 116 | 71        | 58 |
| 90  | 17  | YEMEN (ADEN)    | SHIBAM, WADI SARR, W. AMD  | 16.0N         | 48.0E  | 16.0N       | 46.6E  | 5  | LO | 250 | N | N | 19910406 | 092207 | 244 | 213 | 78        | 13 |
| 90  | 18  | YEMEN (ADEN)    | PT. MUDAH, COAST           | 14.7N         | 49.0E  | 15.1N       | 48.6E  | 15 | NV | 250 | N | N | 19910406 | 092242 | 244 | 224 | 77        | 13 |
| 90  | 19  | YEMEN (ADEN)    | GHAYDAH, MAHRAT MTNS, CST. | 16.0N         | 52.5E  | 14.7N       | 49.4E  | 5  | LO | 250 | N | N | 19910406 | 092256 | 244 | 228 | 77        | 13 |
| 90  | 20  | YEMEN (ADEN)    | PT. SHARWAYN, W. MASILAH   | 15.0N         | 51.0E  | 13.7N       | 51.5E  | 30 | LO | 250 | N | N | 19910406 | 092334 | 244 | 238 | 76        | 13 |
| 92  | 88  | YEMEN (ADEN)    | DISSECTED PLATEAU          | 16.0N         | 48.5E  | 16.3N       | 48.0E  | 0  | LO | 250 | N | N | 19910407 | 084330 | 245 | 170 | 80        | 28 |
| 92  | 89  | YEMEN (ADEN)    | COASTAL AREA               | 15.2N         | 51.5E  | 15.5N       | 49.7E  | 0  | LO | 250 | N | N | 19910407 | 084359 | 245 | 180 | 81        | 28 |
| 95  | 1   | YEMEN (ADEN)    | OIL SLICKS, SHIP WAKES     | 1.4N          | 49.4E  | 14.6N       | 49.6E  | 5  | NV | 250 | N | N | 19910406 | 092300 | 244 | 230 | 77        | 13 |
| 95  | 2   | YEMEN (ADEN)    | COAST                      | 1.4N          | 48.6E  | 14.4N       | 50.1E  | 5  | NV | 250 | N | N | 19910406 | 092309 | 244 | 232 | 77        | 13 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                  | CENTER<br>LAT<br>LON | MADIR<br>LAT<br>LON | CC  | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|--------------------------|----------------------|---------------------|-----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 95  | 3   | YEMEN (ADEN)    | COAST, OIL SLICKS        | 14.0N<br>49.0E       | 14.3N<br>50.4E      | 5   | NV | 250 | N | N | 19910406 | 092313 | 244 | 233 | 76        | 13 |
| 95  | 4   | YEMEN (ADEN)    | COAST                    | 14.8N<br>49.7E       | 14.2N<br>50.5E      | 5   | NV | 250 | N | N | 19910406 | 092316 | 244 | 234 | 76        | 13 |
| 95  | 5   | YEMEN (ADEN)    | COAST                    | 14.8N<br>50.5E       | 14.1N<br>50.8E      | 5   | NV | 250 | N | N | 19910406 | 092321 | 244 | 235 | 76        | 13 |
| 95  | 6   | YEMEN (ADEN)    | COAST, SEDIMENT TRANSP.  | 15.1N<br>51.4E       | 13.4N<br>52.2E      | 5   | NV | 250 | N | N | 19910406 | 092347 | 244 | 241 | 75        | 13 |
| 97  | 37  | YEMEN (ADEN)    | COAST                    | 15.5N<br>49.4E       | 16.7N<br>45.1E      | 5   | LO | 250 | N | N | 19910406 | 092140 | 245 | 204 | 78        | 13 |
| 97  | 38  | YEMEN (ADEN)    | COAST                    | 15.5N<br>50.5E       | 16.2N<br>46.3E      | 5   | LO | 250 | N | N | 19910406 | 092201 | 245 | 211 | 78        | 13 |
| 97  | 39  | YEMEN (ADEN)    | COAST                    | 15.6N<br>50.5E       | 16.1N<br>46.6E      | 5   | LO | 250 | N | N | 19910406 | 092206 | 244 | 213 | 78        | 13 |
| 98  | 7   | YEMEN (ADEN)    | COAST, BURUM             | 14.8N<br>49.0E       | 15.9N<br>48.8E      | 10  | LO | 250 | N | N | 19910407 | 084344 | 245 | 175 | 80        | 28 |
| 98  | 8   | YEMEN (ADEN)    | COAST, GULF OF ADEN      | 15.0N<br>50.0E       | 14.9N<br>50.9E      | 10  | LO | 250 | N | N | 19910407 | 084421 | 245 | 190 | 81        | 28 |
| 151 | 232 | YEMEN (ADEN)    | AS SAB'ATAYN DUNES       | 16.0N<br>47.0E       | 16.2N<br>46.3E      | 5   | NV | 250 | N | Y | 19910406 | 092201 | 245 | 211 | 78        | 13 |
| 151 | 233 | YEMEN (ADEN)    | WADI DAW'AN-COAST        | 15.5N<br>48.5E       | 15.5N<br>47.7E      | 5   | NV | 250 | N | Y | 19910406 | 092226 | 244 | 219 | 78        | 13 |
| 151 | 234 | YEMEN (ADEN)    | HADRAMAWT MNTS. -COAST   | 15.0N<br>49.0E       | 15.1N<br>48.6E      | 5   | NV | 250 | N | Y | 19910406 | 092242 | 244 | 224 | 77        | 13 |
| 151 | 235 | YEMEN (ADEN)    | COAST                    | 14.0N<br>50.5E       | 14.6N<br>49.7E      | 15  | NV | 250 | N | Y | 19910406 | 092302 | 244 | 230 | 77        | 13 |
| 152 | 267 | YEMEN (ADEN)    | HADRAMAUT PLATEAU        | 17.0N<br>49.0E       | 16.5N<br>47.5E      | 15  | LO | 250 | N | N | 19910407 | 084321 | 245 | 166 | 79        | 28 |
| 152 | 268 | YEMEN (ADEN)    | COAST-VOLCANOS-LAVA      | 15.5N<br>51.5E       | 14.9N<br>51.0E      | 10  | NV | 250 | N | N | 19910407 | 084423 | 245 | 190 | 81        | 28 |
| 98  | 2   | YEMEN (SANA)    | COAST, RED SEA           | 16.0N<br>43.0E       | 18.0N<br>44.2E      | 0   | LO | 250 | N | N | 19910407 | 084223 | 245 | 152 | 77        | 28 |
| 98  | 4   | YEMEN (SANA)    | CULTIVATED VALLEYS       | 17.0N<br>44.8E       | 17.7N<br>44.8E      | 0   | LO | 250 | N | N | 19910407 | 084234 | 245 | 155 | 77        | 28 |
| 151 | 231 | YEMEN (SANA)    | WADI NAJRAN-NAIRAN       | 17.0N<br>44.5E       | 16.7N<br>45.2E      | 10  | NV | 250 | N | Y | 19910406 | 092141 | 245 | 205 | 78        | 13 |
| 9   | 34  | ZAIRE           | PART OF LAKE ALBERT      | 2.0N<br>31.0E        | 4.4N<br>30.4E       | 95  | LO | 35  | N | N | 19910411 | 092433 | 248 | 66  | 80        | 90 |
| 13  | 5   | ZAIRE           | CLOUDS                   | 6.5N<br>25.0E        | 6.5N<br>25.0E       | 50  | LO | 35  | U | N | 19910410 | 100113 | 248 | 74  | 85        | 75 |
| 13  | 6   | ZAIRE           | CLOUDS                   | 4.8N<br>28.0E        | 4.8N<br>28.0E       | 70  | LO | 35  | U | N | 19910410 | 100210 | 248 | 30  | 86        | 75 |
| 77  | 31  | ZAIRE           | NORTHERN BORDER W C.A.R. | 4.8N<br>20.6E        | 4.8N<br>20.6E       | 80  | LO | 250 | N | N | 19910406 | 123539 | 243 | 274 | 61        | 15 |
| 77  | 32  | ZAIRE           |                          | 2.8N<br>23.7E        | 2.8N<br>23.7E       | 80  | LO | 250 | N | N | 19910406 | 123639 | 243 | 277 | 57        | 15 |
| 77  | 33  | ZAIRE           | VRY CLOUDY               | 0.6N<br>27.5E        | 0.6N<br>27.5E       | 100 | LO | 250 | N | N | 19910406 | 123752 | 243 | 279 | 53        | 15 |
| 77  | 86  | ZAIRE           |                          | 3.0S<br>9.8E         | 3.0S<br>9.8E        | 90  | LO | 250 | N | N | 19910406 | 141315 | 242 | 282 | 46        | 16 |
| 77  | 87  | ZAIRE           |                          | 3.6S<br>10.6E        | 3.6S<br>10.6E       | 90  | LO | 250 | N | N | 19910406 | 141330 | 242 | 282 | 45        | 16 |
| 77  | 88  | ZAIRE           |                          | 4.5S<br>12.3E        | 4.5S<br>12.3E       | 80  | LO | 250 | N | N | 19910406 | 141403 | 242 | 283 | 43        | 16 |
| 77  | 89  | ZAIRE           |                          | 4.7S<br>12.7E        | 4.7S<br>12.7E       | 80  | LO | 250 | N | N | 19910406 | 141410 | 242 | 283 | 43        | 16 |
| 80  | 63  | ZAIRE           | RIVER PATTERNS           | 2.3S<br>14.3E        | 2.3S<br>14.3E       | 65  | LO | 250 | N | N | 19910409 | 121740 | 246 | 298 | 69        | 61 |
| 80  | 64  | ZAIRE           | RIVER PATTERNS           | 2.5S<br>14.7E        | 2.5S<br>14.7E       | 80  | LO | 250 | N | N | 19910409 | 121747 | 246 | 298 | 68        | 61 |
| 80  | 65  | ZAIRE           | RIVER PATTERNS           | 2.6S<br>14.9E        | 2.6S<br>14.9E       | 85  | LO | 250 | N | N | 19910409 | 121752 | 246 | 298 | 68        | 61 |
| 80  | 66  | ZAIRE           | CONGO RIVER              | 2.8S<br>16.0E        | 2.8S<br>16.0E       | 65  | NV | 250 | N | N | 19910409 | 121758 | 246 | 298 | 68        | 61 |
| 80  | 68  | ZAIRE           | CONGO, KMA RIVERS        | 3.1S<br>15.7E        | 3.1S<br>15.7E       | 45  | LO | 250 | N | Y | 19910409 | 121806 | 246 | 298 | 67        | 61 |
| 80  | 69  | ZAIRE           | CONGO, KMA RIVERS        | 3.2S<br>15.9E        | 3.2S<br>15.9E       | 50  | LO | 250 | N | Y | 19910409 | 121810 | 246 | 298 | 67        | 61 |
| 80  | 70  | ZAIRE           | CONGO RIVER              | 3.3S<br>16.0E        | 3.3S<br>16.0E       | 60  | LO | 250 | N | Y | 19910409 | 121813 | 246 | 298 | 67        | 61 |
| 80  | 71  | ZAIRE           | BRAZZAVILLE, KINSHASA    | 3.4S<br>16.2E        | 3.4S<br>16.2E       | 45  | LO | 250 | N | Y | 19910409 | 121816 | 246 | 298 | 67        | 61 |
| 80  | 72  | ZAIRE           | CONGO RIVER              | 3.7S<br>16.7E        | 3.7S<br>16.7E       | 50  | LO | 250 | N | N | 19910409 | 121826 | 246 | 298 | 66        | 61 |
| 80  | 74  | ZAIRE           | CONGO, KMA RIVERS        | 4.1S<br>17.5E        | 4.1S<br>17.5E       | 60  | LO | 250 | N | Y | 19910409 | 121841 | 246 | 298 | 65        | 61 |
| 80  | 75  | ZAIRE           | CONGO, KMA RIVERS        | 4.2S<br>17.6E        | 4.2S<br>17.6E       | 50  | LO | 250 | N | Y | 19910409 | 121843 | 246 | 298 | 65        | 61 |
| 80  | 76  | ZAIRE           | KWA, FIMI, KWANGO RIVERS | 4.3S<br>17.7E        | 4.3S<br>17.7E       | 55  | LO | 250 | N | Y | 19910409 | 121846 | 246 | 298 | 65        | 61 |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL | FR | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT LON | MADIR<br>LAT LON | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|----|----|-----------------|----------------------------|-------------------|------------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 80 | 77 | ZAIRE           | KWANGO RIVER               | 4.0S 17.5E        | 4.4S 18.0E       | 55 | NV | 250 | N | Y | 19910409 | 121850 | 246 | 298 | 64        | 61 |
| 80 | 78 | ZAIRE           | KASAI RIVER                | 3.5S 18.5E        | 4.7S 18.5E       | 50 | NV | 250 | N | M | 19910409 | 121901 | 246 | 298 | 64        | 61 |
| 80 | 79 | ZAIRE           | KASAI, LOANGE RIVERS       | 4.5S 19.5E        | 5.0S 19.0E       | 20 | LO | 250 | N | Y | 19910409 | 121909 | 246 | 298 | 63        | 61 |
| 80 | 80 | ZAIRE           | KASAI RIVER                | 4.5S 19.5E        | 5.1S 19.1E       | 30 | NV | 250 | N | Y | 19910409 | 121912 | 246 | 298 | 63        | 61 |
| 80 | 81 | ZAIRE           | AREA SOUTH OF KASAI R.     | 4.5S 19.0E        | 5.1S 19.2E       | 50 | NV | 250 | N | Y | 19910409 | 121914 | 246 | 298 | 63        | 61 |
| 80 | 82 | ZAIRE           | KASAI, LOANGE RIVERS       | 4.5S 20.0E        | 5.4S 19.7E       | 15 | NV | 250 | N | Y | 19910409 | 121924 | 246 | 297 | 62        | 61 |
| 80 | 83 | ZAIRE           | KASAI, SANKURU RIVERS      | 4.5S 20.5E        | 5.5S 20.0E       | 15 | NV | 250 | N | Y | 19910409 | 121928 | 246 | 297 | 62        | 61 |
| 80 | 84 | ZAIRE           | KASAI RIVER                | 5.0S 21.0E        | 5.6S 20.1E       | 10 | NV | 250 | N | Y | 19910409 | 121931 | 246 | 297 | 62        | 61 |
| 80 | 85 | ZAIRE           | KASAI RIVER                | 5.5S 21.0E        | 5.7S 20.2E       | 5  | NV | 250 | N | Y | 19910409 | 121933 | 246 | 297 | 62        | 61 |
| 80 | 86 | ZAIRE           | KASAI RIVER                | 5.5S 21.0E        | 5.8S 20.4E       | 20 | LO | 250 | N | Y | 19910409 | 121936 | 246 | 297 | 61        | 61 |
| 80 | 87 | ZAIRE           | KASAI RIVER                | 6.0S 21.0E        | 5.9S 20.5E       | 35 | LO | 250 | N | Y | 19910409 | 121939 | 246 | 297 | 61        | 61 |
| 80 | 88 | ZAIRE           | KASAI RIVER                | 6.0S 21.5E        | 6.0S 20.7E       | 70 | LO | 250 | N | M | 19910409 | 121943 | 246 | 297 | 61        | 61 |
| 80 | 89 | ZAIRE           | LULUA RIVER                | 5.5S 22.0E        | 6.1S 21.0E       | 30 | NV | 250 | N | M | 19910409 | 121948 | 246 | 297 | 61        | 61 |
| 80 | 90 | ZAIRE           | KASAI RIVER                | 7.5S 22.0E        | 6.6S 21.9E       | 30 | LO | 250 | N | M | 19910409 | 122004 | 246 | 297 | 60        | 61 |
| 86 | 92 | ZAIRE           | LAC UPEMBA AREA            | 8.5S 26.5E        | 9.5S 25.2E       | 50 | LO | 250 | N | M | 19910408 | 130013 | 245 | 291 | 47        | 48 |
| 86 | 93 | ZAIRE           | LAKE MWERU AREA            | 9.0S 28.7E        | 10.2S 26.4E      | 50 | LO | 250 | N | M | 19910408 | 130037 | 245 | 291 | 45        | 46 |
| 86 | 94 | ZAIRE           | LAKE TANGANYIKA            |                   | 11.1S 28.1E      | 80 | LO | 250 | N | M | 19910408 | 130108 | 245 | 291 | 43        | 46 |
| 86 | 95 | ZAIRE           | LAKE TANGANYIKA            |                   | 11.2S 28.3E      | 80 | LO | 250 | N | M | 19910408 | 130111 | 245 | 291 | 43        | 46 |
| 87 | 20 | ZAIRE           | KINSHASA, BRAZZAVILLE      | 4.1S 15.7E        | 3.1S 15.7E       | 75 | LO | 250 | N | Y | 19910409 | 121806 | 246 | 298 | 67        | 61 |
| 87 | 23 | ZAIRE           | CONGO RIVER/ESTUARY, CST   | 6.0S 12.5E        | 3.7S 16.8E       | 75 | LO | 250 | U | M | 19910409 | 121828 | 246 | 298 | 66        | 61 |
| 87 | 24 | ZAIRE           | CONGO RIVER, KWA RIVER     | 3.2S 16.2E        | 3.9S 17.1E       | 85 | NV | 250 | N | Y | 19910409 | 121834 | 246 | 298 | 65        | 61 |
| 87 | 25 | ZAIRE           | KWA RIVER, FINI RIVER      | 3.1S 16.8E        | 4.0S 17.3E       | 85 | NV | 250 | U | Y | 19910409 | 121837 | 246 | 298 | 65        | 61 |
| 87 | 26 | ZAIRE           | KWA R, FINI R, BANOUNDU    | 3.3S 17.3E        | 4.1S 17.4E       | 85 | LO | 250 | U | Y | 19910409 | 121840 | 246 | 298 | 65        | 61 |
| 87 | 27 | ZAIRE           | KASAI RIVER, RAINFOREST    | 3.5S 18.1E        | 4.2S 17.6E       | 85 | LO | 250 | U | Y | 19910409 | 121843 | 246 | 298 | 65        | 61 |
| 87 | 28 | ZAIRE           | KASAI RIVER, RAINFOREST    | 3.6S 18.6E        | 4.3S 17.8E       | 85 | LO | 250 | U | Y | 19910409 | 121847 | 246 | 298 | 65        | 61 |
| 87 | 29 | ZAIRE           | KWANGO R, WAMBA R, RNFRST  | 4.1S 17.1E        | 4.8S 18.7E       | 80 | LO | 250 | N | M | 19910409 | 121904 | 246 | 298 | 64        | 61 |
| 87 | 30 | ZAIRE           | DIBAYA-TUBWE, KASAI R.     | 4.4S 19.1E        | 5.4S 19.7E       | 30 | LO | 250 | N | Y | 19910409 | 121923 | 246 | 297 | 62        | 61 |
| 87 | 31 | ZAIRE           | PORT FRANQUI, KASAI R.     | 4.5S 20.6E        | 5.6S 19.8E       | 30 | LO | 250 | N | Y | 19910409 | 121926 | 246 | 297 | 62        | 61 |
| 87 | 32 | ZAIRE           | KASAI R, LULUA R, RNFRST   | 5.0S 21.0E        | 5.6S 20.1E       | 30 | LO | 250 | N | Y | 19910409 | 121930 | 246 | 297 | 62        | 61 |
| 87 | 33 | ZAIRE           | KASAI R, HILLS, RAINFOREST | 5.8S 21.1E        | 5.7S 20.2E       | 30 | LO | 250 | N | Y | 19910409 | 121933 | 246 | 297 | 62        | 61 |
| 87 | 34 | ZAIRE           | LULUA R, LUEBO R.          | 5.6S 21.6E        | 5.8S 20.5E       | 30 | LO | 250 | N | Y | 19910409 | 121938 | 246 | 297 | 61        | 61 |
| 87 | 35 | ZAIRE           | SANKURU RIVER, DARK        | 3.8S 21.7E        | 6.3S 21.3E       | 80 | LO | 250 | U | Y | 19910409 | 121953 | 246 | 297 | 60        | 61 |
| 87 | 36 | ZAIRE           | DARK                       |                   | 6.8S 22.2E       | 80 | LO | 250 | U | Y | 19910409 | 122010 | 246 | 297 | 59        | 61 |
| 87 | 37 | ZAIRE           | SANKURU RIVER, DARK        | 4.0S 21.6E        | 7.0S 22.5E       | 80 | LO | 250 | U | Y | 19910409 | 122017 | 246 | 297 | 59        | 61 |
| 89 | 3  | ZAIRE           | LAKE ALBERT, ALBERT NILE   | 2.1N 31.3E        | 0.4S 33.1E       | 80 | LO | 250 | U | Y | 19910408 | 112142 | 245 | 288 | 66        | 45 |
| 89 | 4  | ZAIRE           | LAKE ALBERT, CLOUDS        | 1.2N 30.4E        | 0.6S 33.4E       | 80 | LO | 250 | U | Y | 19910408 | 112149 | 245 | 288 | 65        | 45 |
| 89 | 5  | ZAIRE           | LAKE ALBERT, CLOUDS        | 1.6N 30.7E        | 0.7S 33.5E       | 80 | LO | 250 | U | Y | 19910408 | 112151 | 245 | 288 | 65        | 45 |
| 89 | 40 | ZAIRE           | L. UPEMBA, L. LUKANGA      | 8.5S 26.5E        | 11.0S 28.0E      | 60 | LO | 250 | U | Y | 19910408 | 130106 | 245 | 291 | 44        | 46 |
| 89 | 41 | ZAIRE           | L. KABAMBA, LUALABA R.     | 7.9S 26.9E        | 11.2S 28.3E      | 60 | LO | 250 | U | Y | 19910408 | 130112 | 245 | 291 | 43        | 46 |
| 89 | 44 | ZAIRE           | LAKE MWERU                 | 8.4S 29.0E        | 11.7S 29.2E      | 40 | LO | 250 | U | Y | 19910408 | 130128 | 245 | 291 | 42        | 46 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                   | CENTER<br>LAT<br>LON | NADIR<br>LAT<br>LON | CC TL FL E S | DATE     | GMT    | AZ  | SUM<br>EL | OR    |
|-----|-----|-----------------|---------------------------|----------------------|---------------------|--------------|----------|--------|-----|-----------|-------|
| 90  | 85  | ZAIRE           | CONGO RIVER               | 5.0S 14.0E           | 3.5S 10.6E          | 50 LO 250 N  | 19910406 | 141330 | 242 | 282       | 45 16 |
| 92  | 120 | ZAIRE           | NE ZAIRE NEAR LK ALBERT   |                      | 1.9N 29.1E          | 70 LO 250 N  | 19910408 | 112026 | 245 | 286       | 70 45 |
| 92  | 121 | ZAIRE           | NE ZAIRE NEAR LK ALBERT   |                      | 1.8N 29.3E          | 80 LO 250 N  | 19910408 | 112029 | 245 | 286       | 70 45 |
| 92  | 122 | ZAIRE           | NE ZAIRE NEAR LK ALBERT   |                      | 1.7N 29.4E          | 90 LO 250 N  | 19910408 | 112031 | 245 | 286       | 70 45 |
| 92  | 123 | ZAIRE           | LAKE ALBERT AREA          | 1.9N 31.2E           | 1.6N 29.7E          | 70 LO 250 N  | 19910408 | 112037 | 245 | 286       | 69 45 |
| 152 | 19  | ZAIRE           | UBANGI R. -BANGUI         | 5.0N 19.5E           | 5.1N 19.8E          | 65 NV 250 N  | 19910406 | 123525 | 243 | 274       | 62 15 |
| 152 | 20  | ZAIRE           | UBANGI RIVER              | 4.0N 20.0E           | 4.4N 21.0E          | 70 LO 250 N  | 19910406 | 123546 | 243 | 275       | 60 15 |
| 152 | 21  | ZAIRE           | UBANGI R. -BUSINGA        | 3.5N 21.0E           | 3.9N 21.9E          | 70 LO 250 N  | 19910406 | 123604 | 243 | 275       | 59 15 |
| 152 | 22  | ZAIRE           | LAKE EDWARD               | 0.5S 29.5E           | 0.8S 29.9E          | 85 NV 250 N  | 19910406 | 123838 | 243 | 281       | 50 15 |
| 153 |     | OAC ZAIRE       | MBOMOU RIVER              | 4.5N 24.0E           |                     | 75 LO 250 N  | Y        |        |     |           |       |
| 153 |     | OAD ZAIRE       | MBOMOU RIVER              | 4.5N 23.5E           |                     | 75 LO 250 N  | Y        |        |     |           |       |
| 153 |     | OAE ZAIRE       | UELE RIVER                | 3.5N 25.5E           |                     | 65 LO 250 N  | N        |        |     |           |       |
| 153 |     | OAF ZAIRE       | WESTERN RIFT VALLEY       | 1.0N 29.5E           |                     | 60 LO 250 N  | N        |        |     |           |       |
| 153 |     | OAG ZAIRE       | LAKE ALBERT, RIFT VALLEY  | 1.5N 30.0E           |                     | 50 LO 250 N  | Y        |        |     |           |       |
| 153 |     | OAH ZAIRE       | LAKE ALBERT, RIFT VALLEY  | 2.0N 30.5E           |                     | 50 LO 250 N  | Y        |        |     |           |       |
| 153 |     | OAM ZAIRE       | AREA WEST OF L. ALBERT    | 1.0N 28.5E           |                     | 80 HO 250 N  | N        |        |     |           |       |
| 74  | 73  | ZAMBIA          |                           |                      | 18.5S 22.0E         | 5 LO 250 N   | 19910409 | 140043 | 244 | 293       | 36 62 |
| 74  | 74  | ZAMBIA          | RHODESIA AREA, KARIBA LK. |                      | 18.7S 22.4E         | 30 HO 250 N  | 19910409 | 140049 | 244 | 293       | 35 62 |
| 74  | 76  | ZAMBIA          | RHODESIA AREA             |                      | 18.9S 23.1E         | 30 HO 250 N  | 19910409 | 140101 | 244 | 293       | 34 62 |
| 74  | 83  | ZAMBIA          |                           |                      | 19.9S 25.6E         | 5 LO 250 N   | 19910409 | 140144 | 244 | 292       | 32 62 |
| 74  | 84  | ZAMBIA          |                           |                      | 20.1S 26.0E         | 10 LO 250 N  | 19910409 | 140150 | 244 | 292       | 31 62 |
| 74  | 85  | ZAMBIA          |                           |                      | 20.3S 26.5E         | 50 LO 250 N  | 19910409 | 140158 | 244 | 291       | 31 62 |
| 74  | 86  | ZAMBIA          |                           |                      | 20.5S 27.1E         | 30 LO 250 N  | 19910409 | 140208 | 244 | 291       | 30 62 |
| 75  | 52  | ZAMBIA          | CLDY. HOLES OVER RIVERS   |                      | 9.6S 21.6E          | 90 HO 250 N  | 19910406 | 141657 | 242 | 284       | 32 16 |
| 75  | 53  | ZAMBIA          | CLDY. HOLES OVER RIVERS   |                      | 10.1S 22.5E         | 90 HO 250 N  | 19910406 | 141715 | 242 | 284       | 31 16 |
| 75  | 54  | ZAMBIA          | CLDY. HOLES OVER RIVERS   |                      | 10.5S 23.3E         | 90 LO 250 N  | 19910406 | 141729 | 242 | 284       | 30 16 |
| 75  | 55  | ZAMBIA          | LAKE KARIBA               |                      | 10.5S 23.3E         | 70 LO 250 N  | 19910406 | 141822 | 242 | 283       | 27 16 |
| 75  | 56  | ZAMBIA          | LUKANGA SWAMP             | 17.2S 27.6E          | 12.4S 26.9E         | 70 LO 250 N  | 19910406 | 141835 | 242 | 283       | 26 16 |
| 77  | 96  | ZAMBIA          | ZAMBEZI RIVER BASIN       |                      | 10.3S 22.8E         | 70 LO 250 N  | 19910406 | 141721 | 242 | 284       | 31 16 |
| 77  | 97  | ZAMBIA          | ZAMBEZI RIVER             | 15.0S 23.0E          | 10.4S 23.1E         | 70 LO 250 N  | 19910406 | 141725 | 242 | 284       | 31 16 |
| 77  | 98  | ZAMBIA          | LAKE KARIBA               | 16.8S 28.0E          | 12.2S 26.4E         | 60 LO 250 N  | 19910406 | 141826 | 242 | 283       | 27 16 |
| 77  | 99  | ZAMBIA          | LAKE KARIBA               | 17.0S 27.7E          | 12.3S 26.6E         | 60 LO 250 N  | 19910406 | 141830 | 242 | 283       | 26 16 |
| 80  | 94  | ZAMBIA          | LIUWA PLAIN, ZAMBEZI R.   | 15.0S 23.0E          | 10.1S 28.2E         | 10 LO 250 N  | 19910409 | 122203 | 245 | 296       | 52 61 |
| 80  | 95  | ZAMBIA          | LIUWA PLAIN, ZAMBEZI R.   | 16.5S 25.0E          | 10.3S 28.5E         | 5 LO 250 N   | 19910409 | 122209 | 245 | 296       | 52 61 |
| 80  | 96  | ZAMBIA          | LUKANGA SWAMP             | 15.5S 27.0E          | 10.7S 29.2E         | 10 LO 250 N  | 19910409 | 122222 | 245 | 296       | 51 61 |
| 80  | 97  | ZAMBIA          | LUKANGA SWAMP             | 16.0S 27.5E          | 10.9S 29.0E         | 5 LO 250 N   | 19910409 | 122229 | 245 | 296       | 50 61 |
| 87  | 39  | ZAMBIA          | ZAMBEZI R/TRIBUTARIES     | 15.8S 26.0E          | 11.1S 30.0E         | 15 LO 250 N  | 19910409 | 122236 | 245 | 296       | 50 61 |
| 87  | 40  | ZAMBIA          | ZAMBEZI R/TRIBUTARIES     | 16.7S 24.2E          | 11.2S 30.3E         | 10 LO 250 N  | 19910409 | 122242 | 245 | 296       | 50 61 |
| 87  | 42  | ZAMBIA          | LAKE KARIBA, HILLS        | 17.5S 27.3E          | 11.7S 31.2E         | 10 LO 250 N  | 19910409 | 122259 | 245 | 296       | 49 61 |
| 87  | 43  | ZAMBIA          | LAKE KARIBA, HILLS        | 17.6S 27.5E          | 12.2S 32.2E         | 10 LO 250 N  | 19910409 | 122316 | 245 | 295       | 47 61 |

TABLE 4-4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Continued)

| RL  | FR  | GEOGRAPHIC NAME | FEATURE                    | CENTER<br>LAT | CENTER<br>LONG | MADIR<br>LAT | MADIR<br>LONG | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUN<br>EL | OR |
|-----|-----|-----------------|----------------------------|---------------|----------------|--------------|---------------|----|----|-----|---|---|----------|--------|-----|-----|-----------|----|
| 89  | 42  | ZAMBIA          | LAKE MWERU                 | 9.25          | 28.4E          | 11.4S        | 28.6E         | 70 | LO | 250 | U | Y | 19910408 | 130117 | 245 | 291 | 43        | 48 |
| 89  | 43  | ZAMBIA          | LAKE MWERU                 | 9.15          | 28.8E          | 11.5S        | 28.8E         | 40 | LO | 250 | U | Y | 19910408 | 130121 | 245 | 291 | 43        | 46 |
| 89  | 45  | ZAMBIA          | CONVECTION CELLS           |               |                | 12.1S        | 30.1E         | 70 | LO | 250 | U | N | 19910408 | 130144 | 245 | 290 | 41        | 46 |
| 90  | 71  | ZAMBIA          | ZAMBEZI R/TRIB. CONVERGE   | 15.5S         | 23.0E          | 11.2S        | 24.5E         | 80 | LO | 250 | U | N | 19910406 | 141751 | 242 | 283 | 29        | 16 |
| 90  | 77  | ZAMBIA          | LUANGWA RIVER, DARK        | 12.7S         | 32.0E          | 14.8S        | 31.8E         | 50 | LO | 250 | U | N | 19910406 | 142003 | 242 | 283 | 21        | 16 |
| 152 | 52  | ZAMBIA          | ZAMBEZI RIVER              | 16.5S         | 22.5E          | 12.1S        | 26.3E         | 85 | LO | 250 | U | Y | 19910406 | 141825 | 242 | 283 | 27        | 16 |
| 152 | 53  | ZAMBIA          | ZAMBEZI RIVER              | 16.5S         | 22.5E          | 12.6S        | 27.3E         | 85 | HO | 250 | N | Y | 19910406 | 141843 | 242 | 283 | 26        | 16 |
| 152 | 54  | ZAMBIA          | LAKE KARIBA                | 17.5S         | 27.5E          | 13.6S        | 29.3E         | 30 | LO | 250 | U | Y | 19910406 | 141919 | 242 | 283 | 23        | 16 |
| 74  | 70  | ZIMBABWE        | VIEW TOWARDS LAKE KARIBA   |               |                | 18.0S        | 20.7E         | 10 | HO | 250 | N | N | 19910409 | 140021 | 244 | 293 | 37        | 62 |
| 74  | 77  | ZIMBABWE        | E. COAST LAKE KARIBA       |               |                | 19.1S        | 23.5E         | 60 | HO | 250 | N | N | 19910409 | 140108 | 244 | 292 | 34        | 62 |
| 74  | 80  | ZIMBABWE        | HWANGE NATIONAL PARK AREA  | 19.0S         | 27.0E          | 19.5S        | 24.6E         | 0  | LO | 250 | N | N | 19910409 | 140127 | 244 | 292 | 33        | 62 |
| 74  | 81  | ZIMBABWE        | LAKE KARIBA AREA           | 18.0S         | 28.0E          | 19.7S        | 25.0E         | 0  | LO | 250 | N | N | 19910409 | 140133 | 244 | 292 | 32        | 62 |
| 74  | 82  | ZIMBABWE        | SW. ZIMBABWE AREA          |               |                | 19.9S        | 25.4E         | 20 | LO | 250 | N | N | 19910409 | 140141 | 244 | 292 | 32        | 62 |
| 74  | 87  | ZIMBABWE        |                            |               |                | 20.6S        | 27.4E         | 30 | LO | 250 | N | N | 19910409 | 140214 | 244 | 291 | 30        | 62 |
| 74  | 88  | ZIMBABWE        |                            |               |                | 20.9S        | 28.3E         | 30 | LO | 250 | N | N | 19910409 | 140228 | 244 | 291 | 29        | 62 |
| 74  | 89  | ZIMBABWE        |                            |               |                | 21.3S        | 29.3E         | 40 | LO | 250 | N | N | 19910409 | 140246 | 244 | 290 | 28        | 62 |
| 74  | 90  | ZIMBABWE        | E. END OF LAKE KARIBA      | 16.3S         | 29.1E          | 21.7S        | 30.4E         | 30 | LO | 250 | N | N | 19910409 | 140304 | 244 | 290 | 27        | 62 |
| 74  | 91  | ZIMBABWE        | MTNS. AREA                 |               |                | 22.6S        | 33.4E         | 50 | LO | 250 | N | N | 19910409 | 140352 | 244 | 289 | 24        | 62 |
| 74  | 92  | ZIMBABWE        | MTNS. AREA                 |               |                | 22.7S        | 33.8E         | 50 | LO | 250 | N | N | 19910409 | 140358 | 244 | 289 | 23        | 62 |
| 75  | 57  | ZIMBABWE        | LAKE KARIBA                | 18.0S         | 29.0E          | 13.4S        | 28.8E         | 60 | LO | 250 | N | N | 19910406 | 141909 | 242 | 283 | 24        | 16 |
| 75  | 62  | ZIMBABWE        | LUNDI, SABI, & SAVE RIVERS | 20.0S         | 32.3E          | 14.9S        | 32.1E         | 40 | LO | 250 | N | N | 19910406 | 142008 | 242 | 282 | 20        | 16 |
| 77  | 102 | ZIMBABWE        | LAKE KARIBA, E. END        | 16.7S         | 28.3E          | 13.4S        | 28.8E         | 30 | LO | 250 | N | N | 19910406 | 141910 | 242 | 283 | 24        | 16 |
| 77  | 103 | ZIMBABWE        | LAKE KARIBA, MIDDLE        | 16.9S         | 28.0E          | 13.5S        | 29.0E         | 30 | LO | 250 | N | N | 19910406 | 141914 | 242 | 283 | 24        | 16 |
| 77  | 104 | ZIMBABWE        | LAKE KARIBA, W. END        | 17.5S         | 27.4E          | 13.6S        | 29.3E         | 40 | LO | 250 | N | N | 19910406 | 141918 | 242 | 283 | 23        | 16 |
| 80  | 101 | ZIMBABWE        | KARIBA L., ZAMBEZI R.      | 19.0S         | 26.0E          | 12.0S        | 31.7E         | 5  | LO | 250 | N | Y | 19910409 | 122308 | 245 | 296 | 48        | 61 |
| 80  | 102 | ZIMBABWE        | KARIBA LAKE                | 19.0S         | 28.0E          | 12.1S        | 32.1E         | 0  | LO | 250 | N | Y | 19910409 | 122314 | 245 | 295 | 47        | 61 |
| 80  | 104 | ZIMBABWE        | S. OF LAKE KARIBA          | 19.0S         | 28.5E          | 12.6S        | 33.0E         | 0  | LO | 250 | N | N | 19910409 | 122332 | 245 | 295 | 46        | 61 |
| 87  | 44  | ZIMBABWE        | MATA R. SUA PAN            | 19.8S         | 27.4E          | 12.8S        | 33.4E         | 5  | LO | 250 | N | N | 19910409 | 122338 | 245 | 295 | 46        | 61 |
| 87  | 99  | ZIMBABWE        | L. KARIBA, PANORAMA SE     | 19.0S         | 31.0E          | 17.2S        | 18.9E         | 25 | HO | 250 | U | N | 19910409 | 135949 | 244 | 293 | 36        | 62 |
| 87  | 101 | ZIMBABWE        | MATABE HILLS, PANORAMA SE  | 21.0S         | 30.0E          | 17.5S        | 19.5E         | 50 | HO | 250 | U | N | 19910409 | 140000 | 244 | 293 | 35        | 62 |
| 87  | 102 | ZIMBABWE        | MASHABA MTNS, PANORAMA SE  | 20.0S         | 31.0E          | 17.6S        | 19.9E         | 50 | HO | 250 | U | N | 19910409 | 140007 | 244 | 293 | 35        | 62 |
| 87  | 106 | ZIMBABWE        | HILLS, PRAIRIE, PANOR. SE  |               |                | 18.3S        | 21.4E         | 0  | LO | 250 | U | N | 19910409 | 140032 | 244 | 292 | 33        | 62 |
| 87  | 109 | ZIMBABWE        | MASHABA MTNS, DARK         | 20.0S         | 30.0E          | 18.7S        | 22.4E         | 25 | LO | 250 | U | N | 19910409 | 140050 | 244 | 292 | 32        | 62 |
| 87  | 114 | ZIMBABWE        | EASTERN HIGHLANDS, V. DARK |               |                | 20.0S        | 25.7E         | 60 | LO | 250 | U | N | 19910409 | 140145 | 244 | 291 | 28        | 62 |
| 87  | 115 | ZIMBABWE        | VERY DARK                  |               |                | 20.4S        | 26.8E         | 30 | LO | 250 | U | N | 19910409 | 140204 | 244 | 290 | 27        | 62 |
| 87  | 116 | ZIMBABWE        | VERY DARK, HIGHLANDS       |               |                | 21.3S        | 29.2E         | 20 | LO | 250 | U | N | 19910409 | 140244 | 244 | 289 | 25        | 62 |
| 87  | 117 | ZIMBABWE        | VERY DARK, HIGHLANDS       |               |                | 21.7S        | 30.4E         | 70 | LO | 250 | U | N | 19910409 | 140304 | 244 | 289 | 23        | 62 |
| 90  | 74  | ZIMBABWE        | LAKE KARIBA, DARK          | 17.5S         | 27.5E          | 12.4S        | 26.9E         | 60 | LO | 250 | U | N | 19910406 | 141835 | 242 | 283 | 26        | 16 |
| 90  | 75  | ZIMBABWE        | SHANGANI/GWAI R-BASIN, OK  | 19.5S         | 28.0E          | 12.6S        | 27.2E         | 50 | LO | 250 | U | N | 19910406 | 141840 | 242 | 283 | 26        | 16 |
| 90  | 76  | ZIMBABWE        | LAKE KARIBA, DARK          | 17.0S         | 28.5E          | 13.0S        | 28.1E         | 35 | LO | 250 | U | N | 19910406 | 141857 | 242 | 283 | 25        | 16 |

TABLE 4.4.- STS-37 HANDHELD PHOTOGRAPHY SORTED BY GEOGRAPHIC NAME (Concluded)

| RL  | FR | GEOGRAPHIC NAME | FEATURE                   | CENTER |       | NADIR |       | CC | TL | FL  | E | S | DATE     | GMT    | AL  | AZ  | SUM   |
|-----|----|-----------------|---------------------------|--------|-------|-------|-------|----|----|-----|---|---|----------|--------|-----|-----|-------|
|     |    |                 |                           | LAT    | LO    | LAT   | LO    |    |    |     |   |   |          |        |     |     | EL OR |
| 96  | 46 | ZIMBABWE        | MAKARIKARI P., GREAT DIKE | 20.0S  | 27.0E |       |       | 10 | LO | 100 | N | Y |          |        |     |     |       |
| 96  | 47 | ZIMBABWE        | MAKARIKARI P., GREAT DIKE | 20.0S  | 28.5E |       |       | 20 | HO | 100 | N | Y |          |        |     |     |       |
| 152 | 55 | ZIMBABWE        | LAKE KARIBA, NWETWE       | 18.5S  | 27.0E | 14.3S | 30.8E | 30 | LO | 250 | N | Y | 19910406 | 141945 | 242 | 283 | 22 16 |
| 152 | 56 | ZIMBABWE        | LAKE KARIBA               | 18.0S  | 27.0E | 14.5S | 31.2E | 30 | LO | 250 | N | Y | 19910406 | 141953 | 242 | 283 | 21 16 |
| 152 | 57 | ZIMBABWE        | MASHABA MOUNTAINS         | 19.0S  | 30.0E | 16.1S | 32.3E | 30 | LO | 250 | N | M | 19910406 | 142012 | 242 | 282 | 20 16 |
| 152 | 58 | ZIMBABWE        | RIO SAVE                  | 21.0S  | 32.0E | 16.9S | 34.0E | 10 | LO | 250 | N | Y | 19910406 | 142043 | 242 | 282 | 18 16 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                      |                                                           |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------|------------|
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| 16. Abstract<br>This document catalogs Space Shuttle handheld Earth observations photographs which were collected during the Space Transportation System 37 (STS-37) Mission of April 5 through 11, 1991. The catalog includes the following data for each of 4486 frames, 4283 of which are Earth looking: identification number, geographical name, feature description, latitude and longitude, percentage of cloud cover, tilt, lens focal length, exposure evaluation, stereopair availability, and orbit number. The catalog is a product of the Flight Science Support Office, Solar System Exploration Division, Space and Life Sciences Directorate, of the National Aeronautics and Space Administration, Lyndon B. Johnson Space Center. Catalogs are available from the Flight Science Support Office and the EROS Data Center. |                                                      |                                                           |            |
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