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Final Report

SERDP: Advanced Biotelemetry for Resource Management on Military Lands (CS-759)

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Submitted to:
Office of the Strategic Environmental Research and Development Program
901 North Stuart Street, Suite 303
Arlington, VA 22203

Submitted in Fulfillment of the
SERDP project #759

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19991202 045

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 074-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 1999		3. REPORT TYPE AND DATES COVERED Final Report
4. TITLE AND SUBTITLE SERDP: Advanced Biotelemetry for Resource Management on Military Lands (CS-759)			5. FUNDING NUMBERS N/A	
6. AUTHOR(S) William S. Seegar and Mark R. Fuller				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Center for Conservation Research & echnology, University of Maryland Baltimore County.			8. PERFORMING ORGANIZATION REPORT NUMBER N/A	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) SERDP 901 North Stuart St. Suite 303 Arlington, VA 22203			10. SPONSORING / MONITORING AGENCY REPORT NUMBER N/A	
11. SUPPLEMENTARY NOTES No copyright is asserted in the United States under Title 17, U.S. code. The U.S. Government has a royalty-free license to exercise all rights under the copyright claimed herein for Government purposes. All other rights are reserved by the copyright owner.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release: distribution is unlimited.			12b. DISTRIBUTION CODE A	
13. ABSTRACT (Maximum 200 Words) The process of natural resource management and planning begins with a thorough inventory and description of a natural system's flora and fauna. This information is critical for the development and implementation of effective integrated natural resource management plans. Such plans, in turn, allow land managers, such as the U.S. Department of Defense, to maintain biodiversity, conserve natural resources, and comply with applicable environmental laws and regulations in concert with mission requirements. Advanced biotelemetry capabilities that incorporate the latest innovations in microelectronics, GIS, remote sensing, and computer modeling offer great promise in helping to define and characterize human effects on species and ecological communities and to identify strategies to ensure their sustainability in the face of expanding human enterprise.				
14. SUBJECT TERMS SERDP, biotelemetry, biodiversity, natural resource management, wildlife			15. NUMBER OF PAGES 172	
			16. PRICE CODE N/A	
17. SECURITY CLASSIFICATION OF REPORT unclass	18. SECURITY CLASSIFICATION OF THIS PAGE unclass	19. SECURITY CLASSIFICATION OF ABSTRACT unclass	20. LIMITATION OF ABSTRACT UL	

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SERDP project #759, "Advanced Biotelemetry Technology for Resource Management on Military Lands," FINAL REPORT.

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**SERDP: Advanced Biotelemetry for
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The purpose of this project has been to develop, test, and demonstrate new biotelemetry technology and methods that will provide useful information about natural resources management and that can reduce the interference to military training that is caused by traditional field data gathering methods. The technologies described in this volume can simultaneously enhance military readiness and compliance with natural resources management policies.

The central feature of the project is the integration of wildlife radio-tracking via the Argos-Tiros satellite system with natural resources survey and mapping in geographic information systems. The studies conducted in conjunction with this project were demonstrations only, not rigorous scientific investigations. The resulting data should be treated as such. However, this SERDP project has proven the utility of remote, satellite-based data gathering technologies and methods for military natural resources conservation and management.

Throughout this report are references to Service Argos Location Classes (LC). These refer to the relative accuracy of the estimated locations (latitude and longitude) derived from the Argos system. Service Argos classifies its location estimates according to the following scheme:

Location Class (LC)

<u>Class</u>	<u>Estimated Accuracy in Latitude and Longitude</u>
3	<= 150 meters
2	<= 350 meters
1	<= 1000 meters
0	> 1000 meters
A and B	no estimate of location accuracy
Z	invalid location

SERDP: Advanced Biotelemetry for Resource Management on Military Lands (CS-759)

BIOTELEMETRY BACKGROUND: Conventional biotelemetry systems, developed in the 1950s and 1960s, use directional receiving antennas to locate radio transmitters. Such systems have enabled field biologists to relocate previously captured and radio-tagged animals to study their natural history. Conventional biotelemetry systems, however, are typically restricted to small geographic areas accessed on foot, from automobiles, or by aircraft. Moreover, these systems generally require several personnel in the field at the same time in order to triangulate the location of the radio-tagged subject animal.

SATELLITE BIOTELEMETRY BACKGROUND: In 1981, the U.S. Army Edgewood Research Development and Engineering Center (ERDEC) recognized the shortfalls of conventional radio-transmitter biotelemetry systems and initiated a program with the Johns Hopkins University Applied Physics Laboratory (JHUAPL) to investigate the potential of developing small platform transmitter terminals (PTTs) to be mounted on animals and tracked via satellites. The program was designed to provide a capability that could track migratory birds and other widely ranging wildlife species anywhere on Earth. A miniature, satellite-received transmitter that is light enough to be carried on the backs of birds was first developed in the mid-1980s. The transmitters, or PTTs, are located and tracked by the French-U.S., Argos satellite system, which is capable of tracking mobile organisms anywhere on the face of the Earth with an accuracy of ± 150 meters out to 3 km (depending on the angle of the satellite and the quality of the PTT transmission). Since the inception of the program, miniaturization has led to the commercialization and fielding of transmitters that can weigh less than 20 gm and can interface with an array of sensors. From the beginning, use of radio tagging has always been based on careful consideration of the effects of the transmitters on animal behavior and bird flight.

BEGINNING IN FY94, the Defense Department's Legacy Resource Management Program (Legacy) and Strategic Environmental Research and Development Program (SERDP) funded related projects (1) to demonstrate recently developed, satellite-based biotelemetry technologies on military bases (Legacy), and (2) to develop new capabilities to enhance existing systems (SERDP). These projects were planned and executed in parallel. The overall purpose of the joint Legacy/SERDP effort has been to develop, demonstrate, promote, and improve satellite tracking and remote monitoring systems for resource management and conservation on military lands. The four 1996 Legacy field demonstrations (described in the Final Legacy report), along with our Partners in Flight activities, have produced extremely comprehensive tracking and monitoring databases for the target organisms. We incorporate this tracking and monitoring information into geographic information systems (GIS) to map animal movements in relation to habitat types, geo-political boundaries, vegetation cover, geomorphology, water resources, military land use activities, and many other geographically discrete data sets. In this way, we are providing valuable (and often previously unattainable) resource management information to military land managers. This system can also support near real-time monitoring and analysis of animal movements and behavior in relation to military land use activities to enhance research of cause and effect relationships between military activities and wildlife ecology.

THROUGH SUPPORT FROM LEGACY, we demonstrated commercially available satellite platform transmitter terminals (PTTs) on the four military bases mentioned below. We also applied numerous PTTs to certain migratory bird species throughout North America.

- Dugway Proving Ground (DPG), Utah encompasses 1,300 square miles southwest of Salt Lake City. DPG houses the U.S. Army Research, Development, Test, and Evaluation (RDT&E) Command's Chemical, Biological, and Radiological Weapons School, as well as a U.S. Air Force Flight Test Center. DPG activities include the testing of chemical agents, pathogens, and toxins, now conducted in sealed containment chambers (rather than open air testing as in the past). Other activities at DPG include Army Reserve and National Guard component maneuver training. We successfully tracked and monitored via satellite Pronghorn (a big game species) and wild Horses. Military land managers must provide habitat for and minimize environmental disturbance on these species. Our systems provided information about the movements of these animals remotely, without impacting military activities. Otherwise, the same data would have to be gleaned from field studies on foot, from trucks, or from low-flying aircraft (which would require a high level of coordination with military activities). We also satellite tracked several Ferruginous and Swainson's Hawks in the vicinity of DPG to assess potential effects from military activities.
- Naval Air Station Fallon (NASF), Nevada is centrally located among highly productive wetland and lake habitats that include Walker Lake, Stillwater National Wildlife Refuge, Pyramid Lake, and the Lahontan Reservoir. NASF houses the naval fighter weapons school (TOPGUN), the carrier airborne early warning weapons school, and is the only naval facility providing advanced integrated carrier air wing strike training. NASF also hosts realistic electronic warfare flight training, air to ground and air to air weapons delivery, special weapons delivery, and enemy evasion tactics. Aircraft stationed at NASF include F/A-18, F-14, A-6, F-5, and helicopters. Military aircraft from the Navy, Air Force, Marine Corps, and Nevada Air National Guard train at NASF. We successfully tracked and monitored via satellite 7 White Pelicans in the vicinity of the NASF and its associated training ranges. These wetland habitats surrounding the air station and military operating areas harbor large populations of White Pelicans and other bird species that **pose a significant threat of bird-aircraft collisions**. Altitude information derived from miniature pressure transducers on the PTTs was gathered and used in a single dimension soaring model to predict pelican flight time, location, and altitude to help predict times of high flight in relation to military aircraft travel.
- The Idaho Army National Guard Orchard Training Area (OTA), Idaho is centrally located within the 758,000 acre Snake River Birds of Prey National Conservation Area (SRBOPNCA). The OTA houses an Air National Guard A-10 Air Wing and is currently the third largest National Guard training facility in the U.S. The OTA hosts regular armored vehicle training, live fire and laser training with M1-Abrams tanks, and combined tank and helicopter maneuvers with live fire. During the summer months, the OTA serves as the Annual Training Site for the Idaho, Montana, and Oregon Army National Guard units that constitute the 116th CAV BDE, as well as other units from

around the country. During the winter, most activity is concentrated in the northern portions of the OTA, where year-round schools are conducted by the Combat Vehicle Transition Training Team for National Guard Units from all over the country. The Idaho Army National Guard is directed by Congress to manage for the protection of one of the densest population of raptors in the U.S. in the SRBOPNCA. We successfully demonstrated simultaneous tracking of golden eagles and military vehicles as a method to study possible training effects on animal movements. Ferruginous Hawks (sensitive species designation) were also tracked via satellite in conjunction with the Deployable-Force-on-Force Instrumented Range System (DFIRST) to demonstrate the feasibility of integrating automated military tracking systems with natural resource management technology. We also tracked four Swainson's Hawks via satellite from the OTA as part of a larger, transcontinental migration study in conjunction with Partners in Flight.

- White Sands Missile Range (WSMR), New Mexico is the military's largest all-overland test range in the Western hemisphere. Within WSMR are the San Andres National Wildlife Refuge, White Sands National Monument (National Park Service), and Joranda Experimental Range (U.S. Department of Agriculture and U.S. Forest Service). WSMR houses the U.S. Army Research, Development, Test, and Evaluation (RDT&E) Command for weapons and space systems, and components. Between 1945 and 1989, a total of 38,029 missile firings were completed at WSMR, including the world's first atomic explosion at the Trinity site on July 16, 1945. We successfully tracked and monitored Oryx (an introduced African antelope) via satellite on the WSMR to help military land managers comply with National Park Service and New Mexico Game and Fish requirements for managing this exotic species. Management of this species has proven to be difficult for military land managers because of the Oryx's preference for remote, rugged terrain. In addition, Oryx habits on WSMR raise concerns of its potential effects on adjacent natural systems off-base. Continuing work on Oryx will employ the new, SERDP developed GPS PTTs to track these animals to an accuracy of ± 100 meters throughout the 2+ million acre WSMR installation.
- In conjunction with Partners in Flight, we successfully developed a methodology and study protocol for application of satellite tracking to Tundra Peregrine Falcons (*Falco peregrinus tundrius*, a formerly threatened neotropical migrant) and Swainson's Hawks (*Buteo swainsoni*, declining population) using the smallest available transmitters (20 gm) that interface with the Argos satellites. Peregrines frequent military bases across North America, while Swainson's Hawks inhabit military lands throughout the western U.S. and Canada. In fact, we pioneered the application of space-based technology for the study of Neotropical migratory birds.
 1. In conjunction with Partners in Flight, we have applied dozens of commercially available 27gm and 20gm platform transmitter terminals (PTTs) since the autumn of 1993 to migrating Tundra Peregrine Falcons along the coasts of Maryland and Virginia and the gulf coast of Texas. PTTs were also applied in Peregrine breeding areas of Greenland and Eastern Canada. In only a few years, these transmitters, tracked via the Argos System, have provided more data on Peregrine Falcon migratory patterns than the past 25 years of conventional field

studies and leg band returns. We are now learning exactly where these birds travel, where they stop along their trek, and what threats may exist to their survival along the way. This research continues a tradition of DoD contributions to the recovery of endangered species, and in the case of peregrines, a wide-ranging species that occurs on military lands and training areas across the continent. Results of this work have appeared in scientific publications and have been featured in radio and television news programs. This coverage and interest reveals the power of these advanced technology applications to collect valuable information on a globally distributed, transcontinental migrant. Our work with the Tundra Peregrine Falcon is continuing to assist in the identification of key migratory and Neotropical habitat to support a wide variety of avian species common to both North and South America. This information will enable conservationists to identify key migratory and wintering habitats and to monitor these areas for the conservation of avian biodiversity.

2. Also in conjunction with Partners in Flight, our DoD sponsored Legacy project contributed significantly to radio-tracking of Swainson's Hawks (SWHA) with satellite-based technology during 1995 and 1996. We monitored their distribution on and off military installations in the western U.S., where their numbers had been diminishing at an alarming rate for unknown reasons. The Swainson's Hawk is listed as a species of concern by five states and the Bureau of Land Management, and as a special emphasis species by the U.S. Forest Service. Nesting population declines had been reported over much of the hawks' range, including Dugway Proving Grounds. With no obvious reason for this decline, scientists postulated that problems along migration routes or on wintering areas were responsible. SWHAs were marked with PTTs near the Idaho Army National Guard Orchard Training Area, Dugway Proving Ground, near Navy land holdings in Oregon, and the Rocky Mountain Arsenal (now a Fish and Wildlife Service refuge) in Colorado, as well as several provinces in Canada. The locations of these hawks were monitored on their North American breeding grounds, Argentinean wintering grounds, and along migration routes. In January of 1996, scientists visited different areas indicated by the satellite derived location data. They counted over 4,000 dead SWHA, killed as an apparent side effect of pesticide applications to croplands, and they believed the actual mortality numbers may have exceeded 20,000. Since adults represented nearly 90% of the dead birds and the entire Canadian SWHA population is estimated between 20-40,000 pairs, this loss represented a serious threat to the survival of the species. It turned out that this catastrophic population decline resulted from the use of a toxic organophosphate pesticide, recently brought into use on the pampas of Argentina where these hawks winter in communal roosts. Through the use of remote tracking and monitoring technology, this environmental problem was identified and, within 18 months, remedied through collaborative government and private sector management and education. Keeping this raptor off the endangered species list probably saved millions of federal dollars by avoiding costly large-scale research and recovery programs and related habitat management activities in North America. This

application of wildlife tracking via satellite is a perfect demonstration of the unique advantage this technology can provide in the study of a wide-ranging species.

THROUGH SUPPORT FROM SERDP, we have developed a Global Positioning System (GPS) PTT, new meteorological sensors, as well as an acoustic sensor that is small enough to be integrated into a PTT to perform a variety of functions. As a result, a new, more capable generation of satellite tracked PTTs is now available for deployment. Advanced sensors in new PTTs include a digital audio capture system (an acoustic sensor with pattern recognition software) and sensors to provide temperature, absolute vapor pressure (humidity), and atmospheric pressure; other sensors are also possible. Additionally, accelerometers are now being added to our PTTs to gather information relating to an animal's changes in speed and/or direction. Such information can be used, in conjunction with our developmental acoustic sensor, to infer possible animal reactions to known or assumed external stimuli, such as human generated noise (including aircraft overflights, sonic booms, single event noise, rocket launches, artillery fire, ground vehicle noise, small arms fire). Such a sensor could also be used to ascertain wingbeat frequency from birds to infer such important factors as power consumption and body weight, which are necessary to predict and forecast bird flight dynamics. The use of accelerometers to evaluate avian flight dynamics may play an important role in the development of predictive forecast models for avifauna. We are currently refining our models to evaluate and predict avian flight in relation to military and commercial aircraft traffic.

The new GPS PTTs will provide location estimates to within ± 100 m, which represents a quantum leap forward in the application of radio-telemetry to wildlife science. GPS readings can be collected according to a pre-programmed schedule to dramatically increase the number of positions that are possible (via satellite) and to enhance our ability to derive important facts regarding species range and habitat use. The acoustic sensor is designed to recognize animal vocalizations, thus allowing more thorough remote study of animal behaviors, species interrelationships, and microhabitat components of an animal's range. The acoustic sensor can also be programmed to monitor and record anthropogenically generated sounds in conjunction with the organisms' response. This capability enhances the study of cause and effect relationships by relating animal responses to discrete military activities.

CONCLUSION: Advanced biotelemetry capabilities that incorporate the latest innovations in microelectronics, GIS, remote sensing, and computer modeling offer great promise in helping to define and characterize human effects on species and ecological communities and to identify strategies to ensure their sustainability in the face of expanding human enterprise. Where military natural resource management issues have a direct impact on readiness, these capabilities (existing and developmental) can provide solutions quickly, at low cost, and with minimal interruption to military land use activities.

As a result of this SERDP project, GPS PTTs for a wide variety of animal species (birds and terrestrial animals) are now commercially available to military and non-military resource managers worldwide.

Purpose/Need: The process of natural resource management and planning begins with a thorough inventory and description of a natural systems' flora and fauna. This information is critical for the development and implementation of effective integrated natural resource management plans. Such plans, in turn, allow land managers, such as the U.S. Department of Defense, to maintain biodiversity, conserve natural resources, and comply with applicable environmental laws and regulations in concert with mission requirements. A central component of effective planning and management is the acquisition of thorough scientific information of: (1) highly mobile species (such as migratory birds); (2) rare, elusive, sensitive, threatened, or endangered species (as well as candidate species); (3) species of concern or otherwise special management species (such as exotics or big game species); and (4) animals that frequent inaccessible habitats or extremely rugged terrain. This process can be difficult and expensive. Complicating matters on military lands, field data gathering efforts often interrupt or conflict with ongoing land-use activities, such as military, mission-related material test/evaluation, troop training, or ground maneuvers. Advanced information gathering technologies—such as wildlife radio-tracking via satellites—provide sophisticated, state-of-the-art, methods to acquire otherwise difficult, expensive, or unattainable data. And these methods create little or no interference with ongoing ground activities.

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Partners: U.S. Department of Interior, U.S. Geological Survey Biological Resources Division, Boise State University (BSU), the University of Maryland Baltimore County (UMBC) Center for Conservation Research & Technology (CCRT), Pennsylvania State University (PSU), Johns Hopkins University Applied Physics Laboratory (JHUAPL), U.S. Fish and Wildlife Service, National Park Service, Naval Surface Warfare Center – Dahlgren Division, Bristol University (UK), Partners in Flight.

Recommendations/Lessons Learned: The U.S. military has already reached the conclusion that in order to effectively manage its natural resources in pursuit of maximum training and operational flexibility, it must take a holistic, ecosystem management approach. It is hoped that such an approach will help to identify and remedy natural resource management issues before they affect mission readiness. The SERDP Program has supported the development of new, advanced satellite telemetry hardware and sensors, while the Legacy Program has supported the demonstration and implementation of existing technologies on pilot military bases. Through support from these programs, we are defining the cutting edge of remote tracking and monitoring capabilities. And most importantly, we are using these advanced systems and the resulting data to provide comprehensive analyses and new approaches to pressing wildlife management concerns, as well as to applied operational and safety issues such as aircraft bird strike avoidance.

These technology-based systems are now poised to foster the early integration of military mission planning activities with critical natural resource information. And we stand ready to

employ these tools to provide comprehensive research protocols, methods, hardware, and systems to enable planners and managers to meet military and environmental requirements quickly, cost effectively, with accurate information, and with minimal interruption to regular base activities.

The systems we have developed (and are continuing to refine) and their utility as tools for resource management and conservation continue to be defined and advanced, and the potential applications are practically limitless. Our recommendation to military planners and natural resource managers would be to consider using these technology tools – in conjunction with GIS, remote sensing, and computer modeling – as a means of quickly gathering critical ecological information regarding wildlife movements, natural history, and behavior in conjunction with potential military training and testing impacts, endangered species consultations, and proactive ecosystem management planning on military lands.

SERDP: Advanced Biotelemetry for Resource Management on Military Lands (CS-759)

INTRODUCTION

The Center for Conservation Research & Technology (CCRT) at the University of Maryland Baltimore County (UMBC) and Boise State University (BSU) has developed and demonstrated the use of remote tracking and positioning systems, and the use of telemetry via satellites integrated with geographic information systems (GIS), to resolve natural resource management and conservation issues on military lands. These issues involve Threatened and Endangered species, Neotropical migrants (Partners in Flight Program), and other species of wildlife directly affecting the missions and readiness of DoD installations. Also, CCRT has demonstrated the use of stored data and data repositories as sources of information and as methods by which data can be made readily available for future use.

CCRT has based this project on three (3) established technologies: geographic information systems (GIS), the Global Positioning System (GPS), and radio-telemetry via satellites. Telemetry via satellites operates through the Service Argos system. The system is a cooperative venture among the Centre National d'Etudes Spatiales (CNES, France), the National Aeronautics and Space Administration (NASA, USA), and the National Oceanic and Atmospheric Administration (NOAA, USA). The basic system consists of: (1) platform transmitter terminals (PTTs) mounted on the objects/animals to be tracked, (2) Argos onboard receivers and processors carried by NOAA satellites in low polar orbits, and (3) Service Argos data processing centers in Toulouse, France and Landover, Maryland. Operation begins when the PTT transmits a signal, including data from sensors aboard the PTT, to the satellite receiving and processing package. Service Argos downlinks processed data to the centers for additional computing of the PTT location, using principles of the Doppler shift. Computed locations and sensor data are then distributed to users.

Satellite telemetry has been employed to study seasonal movements of species of raptors, water birds, land and marine animals, and others, many on a worldwide basis. Using this technology, we have conducted a study of wintering golden eagles in relation to land use in the Snake River Birds of Prey National Conservation Area (SRBOPNCA). Here, resident birds are joined by migrants on the military Orchard Training Area (OTA). Satellite telemetry was used to document both the local use areas and migratory tracks of these eagles. Data were then analyzed and displayed using GIS software. We also have used telemetry via satellites and GIS to analyze and display the movements of peregrine falcons as they migrate from their arctic nesting grounds to the southern hemisphere and back. These two examples demonstrate how animals can be studied and data acquired regardless of international boundaries or the remoteness of the area.

GIS software contains powerful geographic data processing tools that can edit, manipulate, manage, analyze, and display cartographic and associated attribute information. GIS technology, originally developed by the DoD, is now used by various commercial, scientific, and defense industries to create and analyze topographical and spatial relationships to make informed business, research, disaster preparedness, and resource management decisions.

GPS is a space-based system incorporating a constellation of earth orbiting satellites. This DoD developed and administered system triangulates a position of a receiver using precise time and position information broadcast from satellites. GPS receivers are used for air, marine, and land

navigation and to accurately locate ground positions, including habitat which, in turn, is needed to interpret digital satellite images such as LANDSAT.

This SERDP project was conducted in parallel with a Legacy field demonstration of existing satellite telemetry technologies. The SERDP project was designed to provide enhanced and expanded capabilities for tracking and monitoring wildlife species on military lands for resource management applications. Four military installations were chosen for the Legacy demonstration representing Army, Navy, and Army National Guard. These were: Dugway Proving Ground, Utah; Naval Air Station Fallon, Nevada; the Orchard Training Area, Idaho; and White Sands Missile Range, New Mexico. The training and testing missions of these installations create a variety of resource management problems that can be addressed by technologies and methodologies of this demonstration. Our demonstration also included Neotropical migratory birds, the management of which has implications for military operations, and to which the DoD provides support through the multi-agency Partners in Flight Program.

SECTION I

Johns Hopkins University Technical Digest Article: "Fifteen Years of Satellite Tracking Development and Application to Wildlife Research and Conservation." Volume 17, Number 4, pp. 401-411, October, 1996.

Fifteen Years of Satellite Tracking Development and Application to Wildlife Research and Conservation

William S. Seegar, Protagoras N. Cutchis, Mark R. Fuller, Joseph J. Suter, Vipul Bhatnagar, and Joseph G. Wall

A small satellite-based tracking system that is light enough to be carried on birds was developed in the 1980s at the Applied Physics Laboratory. A new, more capable generation is now under development that will contain, in addition to the Argos tracking platform transmitter terminal, a global positioning system receiver and a complement of advanced sensors. The sensors may include a digital audio capture system and a black-and-white charge-coupled device camera. The history of the program and plans for future development are discussed.

INTRODUCTION

Fifteen years ago, the U.S. Army initiated a program at APL to investigate the development of small platform transmitter terminals (PTTs) to be tracked by the French-U.S. Argos-Tiros satellite system.¹ Since the inception of the program, miniaturization has led to the fielding of transmitters that weigh less than 28 g and can interface with an array of sensors. Results of field tests during the late 1980s and early 1990s, examples of applications, and continued development of the technology are reported here.

In 1981, the Bird-Borne Program was initiated at APL to develop a capability to locate (i.e., track) and monitor small, highly mobile animals on a local, regional, and global scale. The primary objective of the Bird-Borne Program and the Remote Environmental Sensing Technology Program was to develop a satellite transmitter for the remote tracking and monitoring of free-ranging animals. Avian species were the focus because of their relatively small size and high mobility. Additional focus has been on birds of prey, which are

top predators and scavengers that are widely dispersed and can move quickly over rugged, inaccessible terrain.

Conventional biotelemetry enables biologists to locate previously captured and radio-tagged animals. Biotelemetry also can be used to collect information from the environment surrounding the animal (temperature, humidity, and altitude) as well as behavioral and physiological parameters (motion, core temperature, and heart rate) of the animal.² Until biotelemetry became available, information on free-ranging animals was difficult to obtain. For many secretive animals it could only be inferred from meticulous indirect sampling methodologies. Biotelemetry has enabled scientists to accurately study behavior, home range, and habitat use of wildlife for basic research and the development of management plans for conservation.

Conventional biotelemetry systems often use directional receiving antennas to locate or triangulate transmitters. They are usually restricted to small geographic areas accessed on foot, by automobiles, or by aircraft.²

However, for studies of free-ranging animals that travel long distances over extended periods and frequent habitats that are inaccessible because of geographic or boundary restrictions such as military installations, space-based tracking and monitoring systems are advantageous. The study and conservation of migratory birds are topics to which the application of telemetry via satellites is especially useful.

Each year hundreds of thousands of birds representing many species cross dozens of geopolitical boundaries migrating from their North American breeding grounds to milder climates as far south as Central and South America. During migration, these birds stop to rest and feed in areas that provide resources to shelter them and fuel their flight. These areas are critical habitats for many species, and without continued management of the habitats, avifauna could be lost on a large scale. The problems inherent in the study of migrants represent major barriers to the effective management of these species, many of which are declining in numbers annually.³ Remote tracking and monitoring systems can support effective study of these animals and aid in identifying their range and critical habitat requirements for breeding, migration, and wintering.

As a signatory to Partners in Flight, a program to study and conserve neotropical migrants, the Department of Defense contributes with comprehensive effort in environmental technology and conservation. The DoD is the third-largest land holder in the United States. It uses the lands for research and development; material test, evaluation, and production; and comprehensive training programs to maintain military readiness for national security. It has established requirements for environmental research, technology development, and land management and supports a variety of programs such as Legacy and the Strategic Environmental Research and Development Program to achieve excellence in natural resources management. The conventional collection of field data by scientists on free-ranging animals found within military installations often conflicts with the military mission and requires the temporary suspension of military activities because of their inherent hazards and classified aspects. Furthermore, biological studies designed to evaluate the effects of military land use on natural resources pose unique and difficult problems because biological data must be collected during military activities. Advanced technologies that allow remote tracking and monitoring of wildlife can alleviate many of these conflicts yet provide comprehensive data.

The Bird-Borne Program's effort to develop a space-based tracking and monitoring capability started with a study to evaluate the critical engineering paths to build a satellite transmitter for use on free-ranging birds. Requirements for the development of the first

prototype satellite transmitter were (1) identify a space-based system for transmitter development, (2) develop a PTT weighing less than 200 g, (3) allow for 270 days of operation, and (4) accommodate environmental, behavioral, and physiological sensors on the PTT.⁴

The French-operated Argos system implemented in the 1970s proved to be the basis for the development of a bird-borne transmitter. The Argos system, dedicated to environmental monitoring, consists of receivers on the Tiros N series of National Oceanic and Atmospheric Administration satellites positioned in low (850-km) polar orbits. The Argos system and PTTs were being used to monitor and track atmospheric balloons and pelagic buoys to collect marine and meteorological data. The PTTs operated with primary batteries and weighed 1 kg or more. The location of PTTs is determined on the basis of Doppler shift, which is dependent on a highly stable frequency transmission at 401.6 MHz. Because the accuracy of the position is based on the stability of the signal frequency, all the available transmitters in the early 1980s had crystal oscillators that were maintained in constant-temperature ovens. The large power requirement for the operation of the heated crystal oscillator oven posed a serious technology barrier for the miniaturization of a bird-borne PTT.⁴

A bird-borne PTT had to be relatively small (<200 g) to avoid adversely affecting bird flight.^{5,6} The Argos system required PTTs to transmit a minimum of 1.0 W. To meet this power requirement for transmission for 270 days required 500 g of primary batteries. This approach exceeded by more than a factor of 2 the maximum mass of the prototype bird-borne package. Therefore, we initially met the power requirement by using a solar array with rechargeable nickel-cadmium batteries. This power pack allowed for a duration of nearly 1000 recharging cycles, or nearly 3 years. The constant-temperature oven for the crystal oscillator was eliminated with the development of a temperature-compensated crystal oscillator, which was one of many innovative electronics designs produced by the Bird-Borne Program.⁴ A 180-g prototype PTT was developed and field tested in 1983 on a mute swan captured on the Eastern Shore of Maryland. The mute swan carried the PTT aloft during the summer of 1983, and this test led to a series of additional field tests with other avian species.⁷

In the autumn of 1984, the APL bird-borne transmitter was placed on an endangered bald eagle captured on the Aberdeen peninsula in the northern Chesapeake Bay of Maryland. Bald eagles are common winter visitors on the Aberdeen Proving Ground (APG), and they are carefully managed by the U.S. Army. A winter roost for bald eagles, one of the largest in the lower 48 states, holding as many as 100 bald eagles, is located at

APG. The captured eagle was the focus of a study to examine the distribution of eagles on the military installation and examine their relation to military activities as well as to the surrounding land use in the northern Chesapeake Bay.⁸ The eagle was equipped with the PTT, released, and tracked for 9 months.⁷ The eagle initially moved north into Pennsylvania after visiting a critical roost and foraging area for many eagles along the Susquehanna River below the Conowingo Dam. During the course of the next 270 days, the eagle returned to its natal origin in South Carolina and then flew south through Atlanta, Georgia, to winter in St. Augustine, Florida. In the spring, the eagle began northward flights and then the transmitter lost power on the Georgia barrier islands. This eagle was found 5 years later (with the PPT intact), after it had been struck by a train. The first swan and eagle tracked with the prototype transmitters developed at APL provided valuable insight into the application of this technology to the study of large avian species. Subsequently, we tested and evaluated this technology on other bald eagles, swans, and giant petrels.^{7,9,10}

TECHNOLOGY APPLICATION

Some of the first applications of PTTs to natural resources management issues were with golden eagles. In Canada, golden eagles had been selected as a species for a Hydro-Quebec project to evaluate the effect of flooding caused by a large hydroelectric dam south of James Bay, Ontario. Eagles from the affected area were tagged with PPTs and tracked south to their wintering grounds in the eastern United States. The golden eagles, tracked via satellites, distributed themselves over the entire known eastern U.S. wintering range for the species, thereby establishing the James Bay area as important for the maintenance of the species in eastern North America.^{11,12}

In 1990, a comprehensive study was initiated on golden eagles for the Idaho Army National Guard in the Orchard Training Area south of Boise, Idaho. The Orchard Training Area is centrally located within the Snake River Birds of Prey National Conservation Area. In the Orchard Training Area, we examined the spatial relationships

of military training to golden eagle movements. Telemetry through the Argos-Tiros satellites was required because eagles of unknown origin joined the resident birds (tagged with conventional transmitters) during the winter. The new arrivals were tagged with PTTs. Initial results of ongoing work have shown that some eagles use the military training area extensively to winter; most adult birds remain on the military area, whereas younger golden eagles use it less extensively and range widely (Fig. 1). Also, unique information on the breeding areas of the adult eagles was obtained within the first year of the study. Eagles that wintered in the Orchard Training Area were thought to come from breeding areas northwest of Boise, Idaho. During the spring of 1993, all the adult eagles tracked via satellite migrated to breeding locations in central Alaska and western Canada (Fig. 1). This new information is important for the development of natural resource management plans for the Idaho Army National Guard training program. During periods of high military training activity in the late spring and summer, a large component of golden eagles that use the area

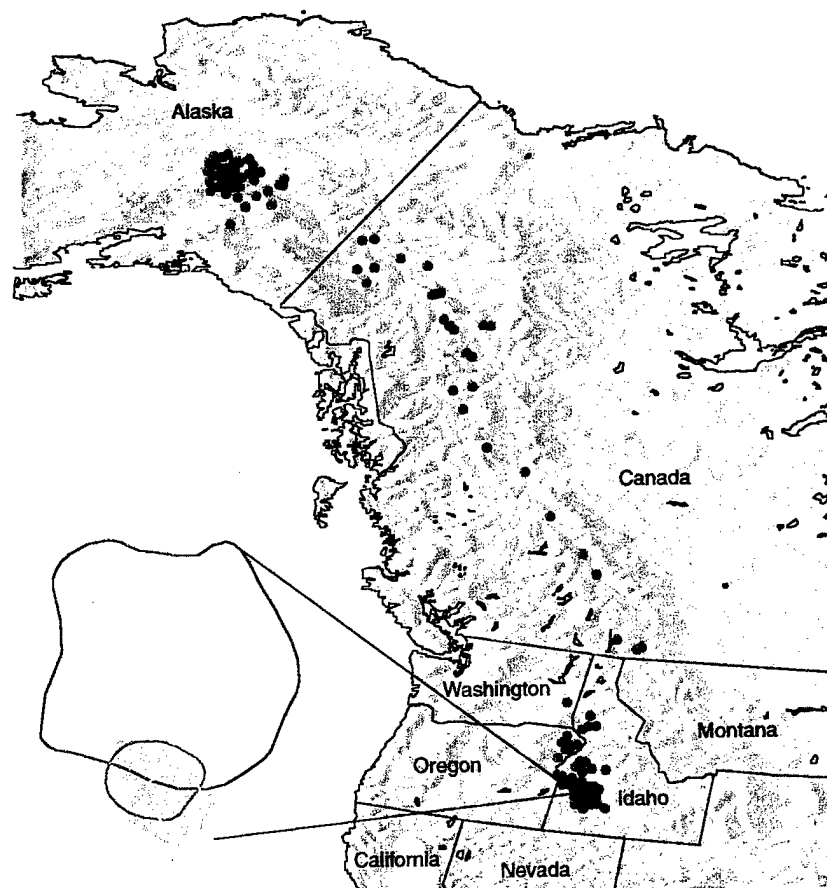


Figure 1. Inset shows the wintering home range of a subadult golden eagle (red circle) and two adult golden eagles (blue and yellow circles) overlaid on the boundary of the Idaho Army National Guard Orchard Training Area, located south of Boise, Idaho, in the Snake River Birds of Prey National Conservation Area. Large map shows the migration of wintering golden eagles to their breeding grounds in western Canada and Alaska.

annually in the winter is absent and thus not affected by training.

During the late 1980s and early 1990s, the application of tracking birds via satellite expanded because PTTs were miniaturized; thus, the number of species that could carry the PTT increased. Our use of radio tagging always has been based on careful consideration of the effects of the transmitters on birds' behavior and flight.¹³⁻¹⁵ Since the early 1990s, over 500 PTTs have been deployed on more than 20 avian species on a global scale.¹² In the autumn of 1993, the first PTTs (NANO 100 Model, Microwave Telemetry, Inc.) weighing 27 g were attached to tundra peregrine falcons (Fig. 2), an endangered species and neotropical migrant that breeds as far north as the Arctic and winters primarily in Central and South America. During the following 24 months, 50 PTTs were deployed on peregrines in five locations in North America and one location in the western Russian Arctic. Results of this effort have been applied to our goal of describing the range of this endangered species and identifying critical breeding, migratory, and wintering areas for the conservation of peregrines.

With the assistance of Michael Yates, Thomas Maechtle, James Dayton, Linda Schueck, and other colleagues, we radio-tagged and tracked peregrines during the autumn in Maryland and Virginia on Assateague Island and along the Texas Gulf Coast on Padre Island. Also, we tagged adults on Padre Island in the spring as they moved out of Latin America, north to their Arctic breeding grounds. Padre Island, Texas, is the only known staging area for the tundra peregrine in the Northern Hemisphere and provides a critical



Figure 2. Peregrine falcon with a platform transmitter terminal.

migratory habitat for the species during northern flights. Some PTTs were programmed to operate for 12 months, transmitting for 8 hours every 3 days during migration and then switching to a 6-day cycle of transmission during breeding and wintering periods when the birds were more sedentary. During the breeding season of 1994, David Bird, Robert Johnstone, and others helped us place PTTs on adult females in Ungava Bay and Rankin Inlet, Canada. In Kangerlussauq, Greenland, with the support of William Mattox and the Greenland Peregrine Falcon Survey, and on the Kola Peninsula, Russia, with Sergi Ganusavich, we also marked breeding female peregrines. During the past 24 months, we have collected over 6000 positions for these peregrines. These data have provided more information on the species distribution in the Northern and Southern hemispheres than 25 years of conventional field studies and banding returns. The PTT-tagged peregrines from this sample of 50 wintered from Delaware to Argentina and returned to breeding grounds across the northern Arctic from Alaska to Greenland (Fig. 3).

The individual migratory paths of peregrines have been interesting. For example, peregrine no. 5707 (a female) was captured in the spring on Padre Island, Texas, and provided unique information about a wandering nonbreeding adult (Fig. 4). This falcon flew from the Texas Gulf Coast to the Rankin Inlet study area where nonbreeding peregrines are commonly seen by biologists studying this species (personal communication, R. Johnstone, Nov 1995). She then left the western shore of Hudson Bay, traveled to southern Baffin Island, and went north to the Arctic Ocean. During fall migration, she traveled from northern Baffin

Island, south by way of the eastern coastal flyway, to a wintering area along the northern coast of Venezuela. This information was collected and mapped on a computer, at a minimal cost of field time and expense. Furthermore, it provided regular data from a bird flying through areas that simply could not be effectively covered by conventional wildlife tracking methods.

During the past 15 years, the electronics in the satellite transmitter have been continually miniaturized and have provided new capabilities through the integration of microprocessors and minicomputers (Fig. 5). The newest experimental bird-borne transmitter produced by Microwave Telemetry, Inc., weighs 20 g, which includes 3.5 g of electronics, an 8.0-g battery, and an

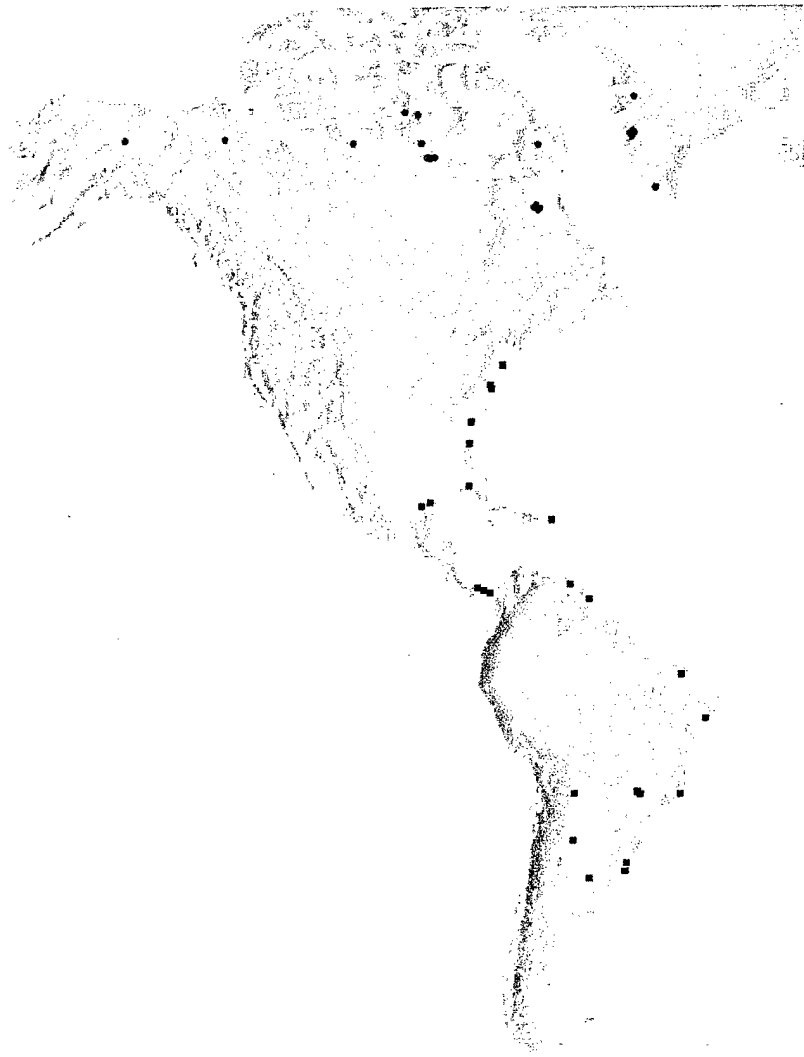


Figure 3. Arctic breeding locations (red circles) and wintering ground locations (blue squares) of tundra peregrine falcons as determined by satellite tracking.

8.5-g container. The transmitter can interface with a variety of sensors to collect information from the animal's environment as well as behavioral data. This technology is now being used to gather data and address questions and issues that were previously either impossible or too costly to consider with conventional methods. Many colleagues are now applying PTTs to the study of birds¹² as well as other wide-ranging animals.¹⁶ We are combining satellite-based tracking technology with other technology and with innovative approaches to the research and management of natural resources.¹⁷

In the autumn of 1995, under the auspices of the DoD-sponsored Legacy Program called Satellite Tracking and Monitoring Threatened, Endangered and Neotropical Species, four Swainson's hawks were radiomarked for demonstration on the Orchard Training Area. These hawks were instrumented to track their movements over the Orchard Training Area and to

demonstrate use of the Argos system with a geographic information system to remotely track and monitor sensitive species. A second phase of the demonstration revealed the migration path and wintering locations of the birds in South America. The Swainson's hawk is listed as a species of concern by five states and the Bureau of Land Management and as a special emphasis species by the U.S. Forest Service in some areas. Nesting population declines have been reported over much of the hawks' range, including Dugway Proving Grounds, although not in all areas. With no obvious reason for this decline, scientists postulated that problems along migration routes or in wintering areas were responsible. In 1994, two Swainson's hawks were equipped with PTTs as part of a pilot study to determine the winter destination of northern Californian Swainson's hawks. During a subsequent visit to a wintering site indicated by a satellite-tracked PTT, communal roosts were discovered in the Pampas area of Argentina, and over 700 recently killed hawks were documented adjacent to agricultural fields.¹⁸

An investigation began, and in 1995, biologists from federal, state, and local governments, as well as private institutions in the United

States and Canada, teamed to track the destinations of 12 Swainson's hawks from Saskatchewan, Idaho, Utah, California, and Colorado. In January 1996, scientists visited different areas indicated by the satellite-derived location data, including the area visited in 1994. They counted over 4000 dead hawks, apparently killed by pesticide applications, and believe the actual mortality numbers exceeded 20,000. With adults representing nearly 90% of the dead birds and the entire Canadian Swainson's hawk population estimated to be between 20,000 and 40,000 pairs, this mortality estimate indicates a serious threat to the survival of the species.

This application of satellite tracking is a perfect demonstration of the unique advantage this technology can provide in the study of a wide-ranging species. As the technology evolves, future sensors for animal tracking units will include a capability to monitor chemicals in the animals' environment. Many research



Figure 4. Movements of a nonbreeding tundra peregrine falcon captured on Padre Island, Texas. Migration from Padre Island to Baffin Island in the spring of 1994 is shown as a broken line. Migration from Baffin Island to Venezuela in the fall of 1994 is shown as a solid line.

questions remain, however, and important conservation issues need to be addressed in a timely, effective manner. Both issues would benefit from additional development of the technology.

CURRENT TECHNOLOGY DEVELOPMENT

In this section we discuss the development of a bird-borne transmitter that will incorporate a behavioral noise monitor to assist in the interpretation of acoustical information to link time and location to discrete animal behaviors. The feasibility of integrating a miniature camera with the new generation of bird-borne transmitters for the collection of pictorial data pertinent to the habitat surrounding the radio-

tagged animal is also discussed. Finally, we report on the integration of these sensors being developed at APL with a new generation of commercially available Global Positioning System (GPS)-equipped Argos PTTs for enhanced acquisition of accurate positioning data.

Digital Audio Capture and Control Circuit

Figure 6 is a block diagram of the entire electronics system of the digital audio capture and control circuit for monitoring behavioral noise. The design of the digital audio capture circuit centers on an 8-bit microcontroller. This device was chosen because it has several system components on a single chip, and small size and weight are critical in this system's design. The subsystems of the microcontroller are the internal universal asynchronous receiver transmitter (UART), internal timer, internal random-access memory (RAM), electrically erasable programmable read-only memory (EEPROM), and 8-bit analog-to-digital converter. The analog-to-digital converter is used to sample the amplified signal from

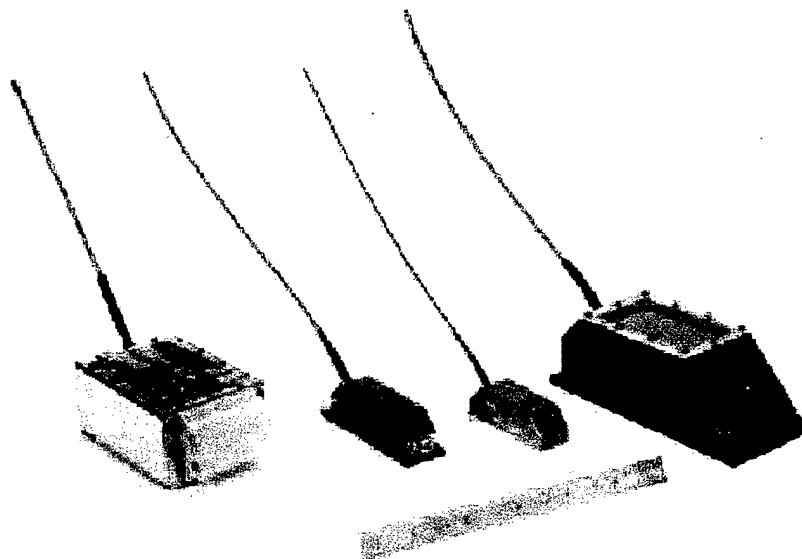


Figure 5. Argos platform transmitter terminals, left to right: Early solar-powered PPT (APL), 30- and 20-g Nano PPTs (Microwave Telemetry, Inc.), and prototype solar-powered GPS/PPT (Microwave Telemetry, Inc.).

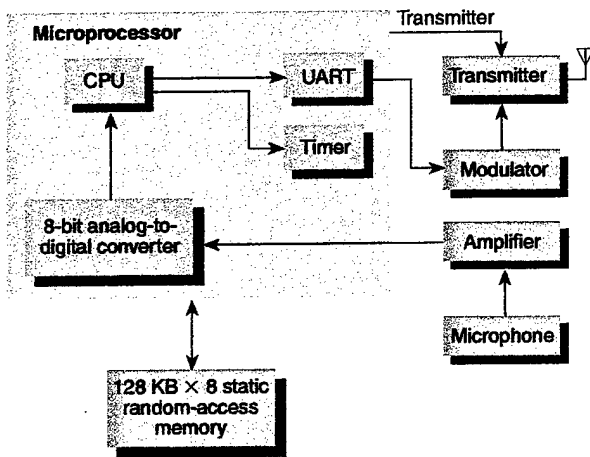


Figure 6. Block diagram of the audio capture and transmission system showing the central processing unit (CPU), universal asynchronous receiver transmitter (UART), and other system components.

the electret condenser microphone. The audio sample is then immediately stored in memory for future transmission.

The 8-bit microcontroller can directly address only 64 kilobytes (KB) of memory space. Therefore, page-mode addressing is implemented using a separate output bit to control the highest address line (A16) of the memory. If more than 128 KB of memory is required in future versions, enough spare gates and microprocessor output pins are present on the existing design to increase memory to 512 KB.

The initial memory configuration, which used two 32-KB memory chips, was replaced with a single 128-KB memory chip. The sampling rate, which can be easily changed in software, was set at 6000 samples per second to yield reasonable quality audio playback. Initial experiments were conducted with a sampling rate of 2700 samples per second and proved to yield marginal results for the intended system use. There is a direct trade-off between sampling rate and total record time. At 6000 samples per second and using 128 KB (actually 131,072 bytes) less 4096 bytes for EEPROM (and the image of EEPROM in upper memory, which is inaccessible in the present implementation), the total record time available is $126,976/6000 = 21.1$ s.

The microprocessor's on-chip UART is used to generate the serial data stream during transmission. The data rate is programmable and has been set to 9600 bits per second because of requirements of the prototype modulator. The data rate is not infinitely flexible; it is obtained from selectable divide ratios of the microprocessor's clock. The present data format is 8 data bits per word with 1 start bit, 1 stop bit, and no parity bit. Lastly, during transmission, a line called transmit is brought low to activate the transmitter. This line activates the

transmitter approximately 200 ms before data transmission starts to allow the transmitter to stabilize. This microcontroller portion of the system may also serve as the control for future features such as a GPS receiver. The microprocessor will then reformat and transmit the data either through the Argos satellite or to a ground-based receiver.

We anticipate that the entire digital portion of the audio capture system, including the microphone, could be built on a 5×5 cm circuit board weighing about 16 g. All components used in the design are available in surface-mount packages. The prototype breadboard and a mock-up of the circuit board for the actual bird-mounted unit are shown in Fig. 7. The breadboard includes components for audio playback testing not required in the actual device and not included in the mock-up.

Miniature Video Camera

The image sensor chosen for the miniature video camera application is a highly integrated complementary metal oxide semiconductor device. The single chip, VVL 1070 (made by VLSI Vision Limited, United Kingdom), is a functionally complete monochrome camera able to generate either analog or digital output. The sensor array has a pixel dimension of 160×160 . Each square pixel is $10.5 \mu\text{m}$ on a side. When the camera is configured to generate an analog signal, each frame is preceded by a synchronization pulse. When configured for digital output, the camera generates an 8-bit serial or parallel data stream. Each pixel's intensity is 8-bit quantized, giving an intensity dynamic range of 256 to 1.

The camera packaged chip measures 1.7×1.7 cm, is 0.267 cm high, and weighs less than 2 g. The camera requires a modest amount of external circuitry for analog signal generation. At present, the camera is mounted on a circular circuit board with a diameter of 3.18 cm (Fig. 8). The camera requires a regulated 5-V, 20-mA power supply.

The camera's exposure can be set to either automatic or manual mode. In manual mode, the exposure is set by incrementing (or decrementing) the contents of the exposure register. In automatic mode, the camera dynamically varies the exposure so that the average pixel's intensity lies halfway at its maximum. The facility to electronically control the exposure allows the use of a simple, inexpensive, fixed-aperture lens. The camera's frame rate (i.e., exposure time) is variable between 0.5 and 24 frames per second. If it is desirable to view dynamic scenes (scenes that may change over a period of 40 ms), an external shutter will have to be incorporated into the camera's operation.

For an application such as animal monitoring, where the camera will be operated remotely from its central

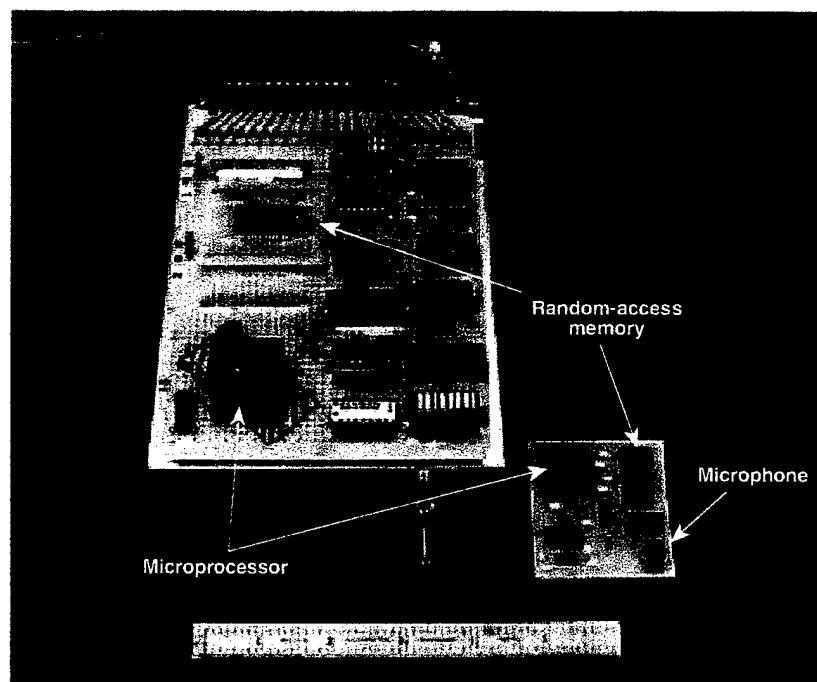


Figure 7. Photograph of the breadboard (left) and mock-up (right) of the digital audio capture system.

control, the digital mode is preferable because the image data can be stored indefinitely aboard the sensor package and transmitted at a pre-arranged time. Using

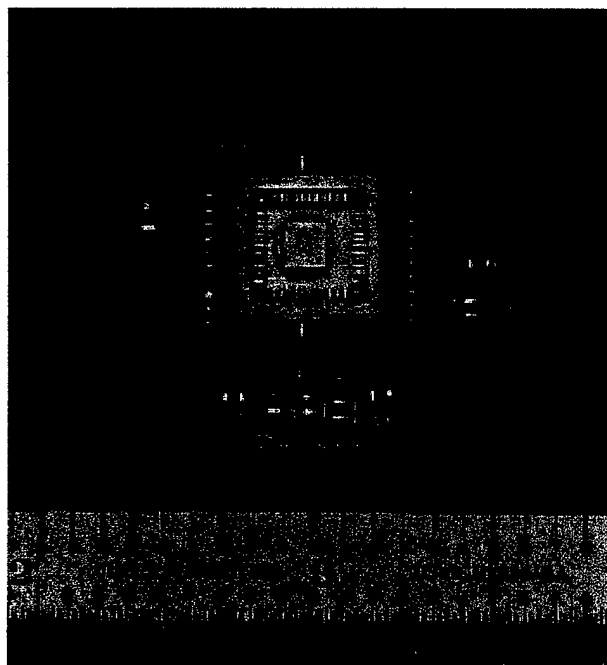


Figure 8. Miniature single-chip camera. (Note: The scale shown is in inches.)

the camera in analog mode would require real-time broadcast of the video signal, complicating the sensor power management (because the radio frequency transmitter is the biggest consumer of electrical power).

A GPS-Qualified Argos PTT

The Argos system can provide locations to within ± 150 m anywhere on the surface of the Earth, but locations obtained from tiny, low-power (100 mW) Argos beacons, mounted on the backs of birds, often give locations in the range of ± 2 km of the birds' true locations. To achieve the highest-grade Argos location, at least four messages must reach the satellite over a period exceeding 420 s. A single Argos message can relay up to 256 bits of information from sensors on the transmitter to the user via the satellite.

The availability of small commercial GPS receiver modules has now made it possible to combine such a receiver with an Argos transmitter and field a package small enough to be carried by an eagle-size bird. By scheduling the collection of GPS locations throughout the day and storing these positions for later transmission via Argos, as many as 20 GPS positions (± 20 m) can be transmitted to the user in a single Argos message.

The present Argos/GPS package under development by Microwave Telemetry, Inc., incorporates a commercially available GPS receiver, a microcontroller-based data logger, and a Microwave Telemetry PTT. The data logger controls the GPS receiver and the collection of GPS data, which is dependent on the availability of power from the solar-charged power source. The data logger then sequences data transfer to the PTT at times favorable to satellite availability. The prototype unit is now undergoing laboratory testing; it weighs less than 200 g.

The satellite transmitter, audio capture, and video circuitry could be further miniaturized by taking advantage of chip-on-board packaging, stacked-die techniques, and application-specific integrated circuit development. Development of these high-level circuit integration techniques is currently being pursued at a variety of companies and research laboratories, including APL.

DISCUSSION

The technology we have described is designed for use on free-ranging animals to provide data on their locations, behavior, and environment. A GPS receiver integrated with an Argos PTT will provide more accurate location data that can be collected at predesignated times. The Argos system is dependent upon collecting frequency data on the PTT signal transmission to calculate a single time-dependent location. With the use of a minicomputer integrated into the unit, GPS positions can be collected according to a programmed schedule to increase our ability to locate free-ranging animals and to derive important facts regarding range and habitat use. With enhanced accuracy and greater numbers of locations, home range estimations, programs, and subroutines in geographic information systems can be used more effectively to relate animal movements to jurisdiction boundaries, habitats, and land-use activity maps.

Sensor data, combined with time and location, can provide additional information relevant to natural resources. For example, the behavioral noise monitor is designed to recognize animal vocalizations, thus allowing evaluation of animal behaviors and specific activities. By locating exact animal behaviors and linking them to specific habitats within the animal's range, valuable information can be collected on relationships among animals and microhabitat components of their range. Time-coded information on location, heading, altitude, speed, ambient temperature, humidity, and other sensor data can be displayed and analyzed relative to other geographically linked features such as geomorphology, ecological community, meteorology, and land-use activities. Free-ranging animals tagged with animal track and monitor units act as sentinels in the population. These sentinels, moving either alone or in herds or flocks, can reflect the activities of many animals and enhance the biological database dramatically.

Biologists and military operations staff can integrate a real-time military training monitor system, such as the Deployable Force-on-Force Instrumented Range System (DFIRST), with natural resource information. The DFIRST system allows commanders to track military training activities and monitor units (armored vehicles, etc.) simultaneously in real time. This system can provide locations of equipment and troop movements on an installation. This database, when layered into a geographic information system with natural resource data, can be used to evaluate the effects of military land-use activities on natural resources. In such a system, models could be developed for each installation that would monitor vegetation, habitat, key sentinel animals, and military activities, and in near real time examine the cause-and-effect relationships that exist among these elements. This system approach will enable environmental planners and military managers to

develop a natural resource forecast function that brings a dynamic prediction and planning component into the process of installation management.

The military is beginning to integrate natural resource issues and mission planning to foster ecosystem management, protect biodiversity, and enhance conservation where such measures can be linked to readiness. Such an approach also will allow for maximum flexibility to achieve readiness. The technology-based systems being developed here will allow the early integration of military mission planning activities with natural resource information, thus dynamically supporting both environmental and military requirements.

The process of resource management on military installations begins with a thorough inventory and description of the natural system and the land-use activities. Programs such as the DoD Legacy efforts are directed at demonstrating data acquisition for installations and maintaining the information for local, regional, and national planning and management. An inventory provides information on the presence and range of flora and fauna on a local to regional scale and delimits habitat and ecosystem parameters. With the development and use of remote tracking and monitoring technology, we will be able to provide methods, hardware, and systems that will allow planners and managers to meet both military and environmental requirements quickly, with good information, and with minimal interruption to regular base activities.

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ACKNOWLEDGMENTS: We would like to thank Paul Howey for 15 years of unyielding dedication to the development and application of satellite telemetry for the conservation of avifauna; Blake Henke for careful review of the manuscript; and those who are involved in the satellite tracking program: Harold Black, Charles Blackburn, John Daniels, James Dayton, Nadev Levanon, Stanley Mantel, Thomas Sanderson, and Thomas Strickwerda. Support for this work was provided by the Strategic Environmental Research and Development Program, the Legacy Program, and the Edgewood Research, Development and Engineering Center.

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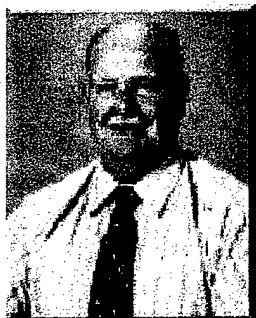
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SECTION II

Satellite Telemetry Collar Integration for Mammals
GPS PTT Test Plan and Analysis

**CBD COM SATELLITE TELEMETRY COLLAR
INTEGRATION FOR MAMMALS**

FINAL REPORT

CONTRACT NUMBER DAMM01-97-M-0093

VENDOR ID NUMBER 0002163

**JOSEPH G. WALL
TECHNICAL MANAGEMENT CONSULTANT**

JGW
7/98

SUMMARY

A test plan for the evaluation of both the Argos PTT's and the integrated GPS/Argos PTT's was submitted early in the year to initiate program testing and establish base requirements. An outline of the early test plan is provided in Appendix A.

The liaison with the Navy Surface Weapons Center has resulted in the fabrication and delivery of eight integrated GPS/Argos PTT's that have been mounted into collars of several diameters for evaluation on selected species. Initially the collars were mounted on five domestic sheep and one deer on Aberdeen Proving Grounds. A printout of the tracking data is provided in Appendix B. In addition, a collar was also placed on a mountain lion (captive). The integrated units performed exceedingly well on the sheep and the deer, but the habitat the mountain lion was housed in created difficulties for the GPS system and multipath caused the system to receive approximately 30 percent of the number of positions expected. The Argos portion of the system performed as expected.

The test plan developed for the commercial PTT's transmitters was to identify the parameters that effect position accuracy. The position accuracy was affected by a number of transmissions received by the satellite during the period of a pass. Effects of the antenna location on the animals and the general environment i.e., shielding due to trees and terrain.

Small satellite-based tracking systems light enough to monitor the positions of selected worldwide species have been in existence since the early 1980's. The Argos based system provided wildlife biologists with valuable tracking and monitoring information. In 1997 the U.S. Army CBDCOM became interested in improving the satellite based tracking capability by adding the position information available from the Global Position Satellite System. By incorporating the GPS received position information into the Argos PTT message data, accurate position information could be added to the measured Argos position, and improved tracking and monitoring of the animals would occur. In addition, the incorporation of a Digital Audio Capture circuit to the system would incorporate the monitoring of behavioral noise thus, assisting in the integration of acoustical information associated with animal behavior.

INTRODUCTION

The use of satellites for tracking wildlife was initiated by the U.S. Army CBDCOM and The Johns Hopkins University Applied Physics Laboratory in 1981¹. Since the early 1980 demonstrations, several articles have been written describing the operation at the Argos System. In the 1970's the U.S. Airforce developed an improved Satellite Navigation system for the U.S. Military called Global Positioning Satellite System. The Global Positioning Satellite System was designed to provide military aircraft with navigation position accuracy's of ten (10) meters. With the maturity of the system the civilian community has now obtained access to the system and small low power, light weight receivers have been developed. The accuracy of the system for use

by the civilian community is on the order of 100 meters. This position location information is significantly improved over the position accuracy available with the Argos system².

In 1997 the Naval Surface Weapons Center (NSWC) at Dahlgren, Virginia was contacted to assist in the development of an integrated Argos PTT/GPS receiver system. NSWC had experience with the Argos System for navigation positioning of buoys to improving navigation positioning with the Global Positioning Satellite System. NSWC had developed several breadboards of the integrated system. In 1997 Dr. Seegar (U.S. Army CBDCOM) and I approached NSWC for assistance in developing a low power, lightweight integrated Argos PTT and GPS receivers mounted in collars for the tracking of endangered species. The Johns Hopkins University Applied Physics Laboratory was also contacted in 1997 to develop an advanced sensor to assist in the interpretation of acoustical information to link time and location to discrete animal behavior. The digital audio capture unit was breadboarded in 1998 and is presently undergoing laboratory testing.

CONTRACT STATEMENT OF WORK

The Contract Statement of Work (Appendix B) required effort on the following tasks:

- a) Develop a test plan for the evaluation of purchased Argos PTT's
- b) Modify the test plan to evaluate the performance of the integrated Argos PTT's and the GPS receivers
- c) Provide technical liaison with the Naval Surface Weapons Center during the development of the Argos PTT's and GPS receiver integrated units for tracking wildlife. Assist in the evaluation of the test data prior to field deployment of the integrated units. Assist in the evaluation of the field test data after the units are deployed on selected wildlife and domestic animals
- d) Provide technical liaison to The Johns Hopkins University Applied Physics Laboratory during the development of the digital audio capture and control unit designed to identify and record specific sounds (behavioral noise) made by a specie (wolf initially). This intention for the device is to assist in identifying and recording the animal activity i.e., eating, stress, anger, etc.
- e) Evaluate the field test data as recovered by the prototype tracking devices
- f) Prepare a final report

SYSTEM TEST PLANS

A test plan was developed for the evaluation of commercial Argos PTT's and NSWC PTT's Argos/ GPS receivers. The purpose of the test plan was to determine factors that affected location accuracies associated with the Argos system and the Argos PTT's when placed on selected wildlife species. The system factors to be investigated were:

- a) Number of transmissions received by the Satellite during the period of a satellite pass transmission rate
- b) Location of antenna on the selected specie
- c) Radiated transmitter power

In addition, a test plan (Appendix A) for the integrated Argos PTT and GPS receiver. The system factors to be investigated were:

- a) Number of GPS positions obtained during an Argos satellite pass
- b) Antenna location of the GPS receiver antenna
- c) The tracking and monitoring performance of the integrated system

PROGRAM RESULTS

A series of tests were run on domestic sheep located near Aberdeen Proving Grounds. The purpose of these tests were to identify the baseline parameters that affect the Argos PTT positioning capability. Although most of the parameters have been identified by many other experimenters the purpose for these tests were to confirm a baseline prior to placing collars in the field. The parameters that affected the Argos location capability were:

- a) number of transmissions per satellite pass
- b) oscillator stability turn on time
- c) antenna location
- d) radiated power

Several factors affected the Argos units. Transmission rates of 60 seconds are infrequent enough to give accurate positions for short duration satellite passes. In addition, the radiated power of a quarter watt also affects the number of Doppler measurements that will be received by the satellite as well as the position of the antenna on the specie. Early PTT's transmitted at thirty second intervals and radiated a watt of power, this significantly improved the satellite's ability to measure the Doppler shift and determine accurate positions for the PTT's. The ninety second rate presently edicted by Argos (to increase the user base) significantly reduces the number of transmissions available during a satellite pass.

A printout of the data recovery format is included in Appendix C. Identified in the format are the transmitter ID, the satellite ID letter, the quality of fix (A, B, 0, 1, 2, and 3 with A being the poorest fix and 3 being in the 1 - 3 km range). Date of the fix, time, position lat, position longitude, the global positioning data date, time, GPS latitude, GPS longitude calculated GPS altitude of the receiver, and a position estimate quality index. Appendix D is a copy of the satellite coverage (Alert Table) for the Stewartstown test site.

When reviewing the data and comparing Argos positions vs GPS positions the following factors must be taken into account:

- a) Argos positions will not be as accurate as GPS positions
- b) GPS position may be the result of old data stored in memory prior to a Argos pass and thus may relate back in time. One must be aware of the GPS position measurement time vs the Argos position measurement time.

In comparing the performance of early transmitters for the tracking of wildlife the transmission rates were at a rate of one burst every 30 seconds, and the power levels were at one watt. By decreasing the data transmission rate to 90 seconds the available number of Doppler measurements on a good unobstructed pass with an elevation angle (45 degrees) you would only get about 7 Doppler measurement. This is not sufficient to give position fixed in the 1 to 3 km accuracy. Assuming a 60 second data rate transmission, at one half watt with an elevation angle of 45 degrees and clear line of site to the satellite. Approximately 12 to 15 Doppler intervals could be measured, and position fixes of 1 to 3 km could be achieved. Reducing the radiated power to a ¼ watt and decreasing the transmission time to 90 seconds, the number of measured Doppler counts decreased significantly to approximately 3 to 6 on a good pass. Another factor is the whip antenna location on the specie being tracked. The normal characteristic of a whip antenna is to have a doughnut shape with a pattern null or a hole directly overhead, where the signal would be blanked out. This will also cause the loss of Doppler measurements.

The operation of the Argos/GPS system with the transmission data rate established the system performance can be evaluated by looking at the following:

- 1) the time of closest approach of the satellite
- 2) the elevation angle at closest approach. Elevation angles less than 5 degrees and greater than 85 degrees, may result in the position locations that are not realistic and should be ignored. This does not mean Argos may not recover some Doppler measurements it just means the position locations can be very misleading.

The above discussion does not deal with interfering transmissions from other transmitters in the area, which may cause missed Doppler measurements.

In early April the eight Argos GPS collars were provided by NSWC for field trails. Five of the units were initially placed on domestic sheep. One unit was placed on a free ranging deer on the Aberdeen Proving Ground one unit was shipped to Colorado for placement on a captive mountain lion. The results of the test demonstrated the system performance to be as expected. The average number of Argos Doppler measurements on a good (above 45° elev.) was approximately six (6), which provided at least four (4) position locations from The Global Positioning System. During this process it became

apparent, as in the lion tracking, that the GPS receiver was affected by multipath problems due to the surrounding wire fence, as well as shadowing from the environment (when the lion was housed in a den); even though the Argos Doppler measurements were not effected by the fence or the environment. The collars were then removed from the domestic sheep, deer, and the mountain lion. Three systems were outfitted with new batteries and shipped to White Sands, New Mexico for the tracking of wild oryx. Plots of the positions obtained by these units are enclosed in Appendices D1 and D2. Appendix D1 is a plot of GPS positions only for oryx on the White Sands Missile Range. Appendix D2 is a plot of both GPS and Argos positions. Even though a limited number of Doppler positions for the Argos transmitter (90 second transmission rate) were measured they appeared to have good correlation with the GPS positions. The performance of the overall system has been enlightening and provides improved information on tracking and monitoring endangered wild life. A recommendation for future systems is to maintain a minimum of one third of a watt of radiated power and to use sixty seconds (60) as the transmission rate.

Acknowledgements:

The author wishes to thank the following for their support and assistance: Dr. W. Seegar (SCBCOMM), Mr. J. Dayton (EARTHSPAN), Mr. M. Bramer (EARTHSPAN), Dr. P. Cutchis (JHUAPL), Dr. J. Suter (JHUAPL), Mr. D. Evans (NSWC), Mr. D. LaSage (NSWC) and Mr. P. Schlereth (NSWC).

APPENDIX A

OUTLINE FOR TESTING ARGOS PTT'S PROPOSED DRAFT TEST PLAN – SATELLITE TELEMETRY COLLAR INTEGRATION FOR MAMMALS

1. To confirm the basic position accuracy of the Argos transmitters.
 - a. Identify operational satellites
 - b. Take a series of passes on a known point – establish a mark position
 - c. Orient the antenna so that all four quadrants are covered.
 - d. Identify North going , South going passes
 - e. Investigate the symmetry of the Doppler counts as received by Service Argos (this will provide a clue as to transmitter performance)
 - f. Record the satellites time of closest approach and elevation angle
2. A table should be created (see example shown in Appendix) with the following parameters.
 - a. Date
 - b. Time of pass
 - c. Satellite time of closest approach
 - d. Satellite elevation angle
 - e. Estimated time satellite in view
 - f. Number of Doppler counts received by Service Argos
 - g. Bench mark position – latitude, longitude
 - h. Argos position fix latitude, longitude
 - i. Number of GPS fixes, position of each fix
 - j. GPS antenna or orientation
 - k. Argos antenna orientation
 - l. Argos transmitter I.D. number
 - m. From message monitor estimate radiated power and from Argos obtain measured (received) signal levels at the satellite
3. A series of satellite passes should be taken for 8 days, 24 hours a day. System performance should be verified.
4. Now a series of passes (8 days, 24 hours a day) moving the antenna locations on the host platform. Starting with the antennas pointing vertical, then at angles of 60 degrees off the vertical.
5. Now a similar series of tests should be done in dense vegetation, under dense forest. These series of tests should allow us to evaluate the Argos transmitter power, oscillator stability, and antenna location.

APPENDIX A

6. Technical concerns:

- a. There may not be enough data transmissions with the present Argos format i.e., not enough time to create a good Doppler curve i.e., 60 second intervals, 90 second intervals
- b. What is the true radiated power?
- c. Use post processing to delete bad Doppler counts and improve position locations
- d. Is the host body interfering with the amount of radiated power?

APPENDIX B

STATEMENT OF WORK SATELLITE TELEMETRY COLLAR INTEGRATION FOR MAMMALS

Scope: The contractor shall work with both private sector and Government personnel to develop and adapt remote tracking monitoring hardware doe use on free ranging animals. The purpose of the effort is to develop a capability to track and monitor free ranging organisms to establish natural resource management plans for the military.

Applicable Documents: None

Objective: The Contractor shall, as an independent Contractor and not as an agent of the Government, complete the following:

- a. The Contractor shall manage the integration of Government furnished electronics (no more than 10 telemetry tracking collars) into collar attachments for medium to large sized mammals such as wolves and antelope.
- b. The Contractor shall be responsible for the development of a set of criterion to test and evaluate the transmission performance of the Platform Transmitter Terminals (PTT's) to the Argos System. The Contractor shall also develop a set of criterion, test the reception of Global Positioning System (GPS) signals under a variety of different field conditions to simulate the activities of free ranging organisms. The Contractor shall also interface with The Johns Hopkins University Applied Research Laboratory to develop the test criterion for the satellite tracked and monitored PTT.
- c. The Contractor shall also interface in the program development to field the prototype units at several military installations to be determined by the Government. The Contractor shall participate in field operations. Specifically, the Contractor shall interface with the Government in the appropriate application of the newly developed collars to the animals selected to be tracked and monitored on the designated military installations. The Contractor shall also interface in the review and analysis of field data derived from the new prototype tracking devices.

APPENDIX B

- d. The Contractor shall provide at the end of the performance period a final report in the Contractor's format to define the performance of the hardware under both test and field conditions. The Government will provide to the Contractor, based upon the tests, the type of data and analysis required in the report.

Period of Performance: The period of performance, to include the submission of a final report is 365 days from the date of contract award.

Government Furnished Equipment: The Government will provide to the Contractor no more than 10 tracking collars currently located at the Naval Surface Warfare Center in Dahlgren, VA.

Security: This Purchase Order is unclassified

5/18/16

APPENDIX C

Time to acquire GPS

GPS GPS GPS

Arg's Arg's Arg's Arg's

ID	PROG	SAT	LC	Arg Date	Arg Time	Arg Lat	Arg Lon	INT DATE	TIME	GPS DATE	GPS Lat	GPS Lon	ALT	QUAL
05707	00381	D	A	4/4/98	09:33:17	39.733	-76.599	4/4/98	09:33:17	4/3/98 7:27	39.7453	-76.5938	77	51m-75m 3N
05707	00381	H	2	4/4/98	14:41:09	39.475	-76.497	4/4/98	14:44:09	4/3/98 19:40	39.7477	-76.5958	61	26m-50m 3N
05707	00381	J	A	4/5/98	19:45:20	39.492	-76.511	4/5/98	19:46:50	4/4/98 1:47	39.7488	-76.5958	81	51m-75m 3N
05707	00381	J	B	4/5/98	18:04:50	39.488	-76.545	4/5/98	18:06:20	4/4/98 7:52	39.7480	-76.5953	56	26m-50m 3N
05707	00381	J	A	4/5/98	19:45:20	39.492	-76.511	4/5/98	19:42:20	4/4/98 14:09	39.4873	-76.5263	464	0m-26m 4N
05707	00381	J	A	4/5/98	19:45:20	39.492	-76.511	4/5/98	19:42:20	4/4/98 20:10	39.4865	-76.5270	97	26m-50m 3N
05707	00381	J	B	4/5/98	18:04:50	39.488	-76.545	4/5/98	18:06:20	4/5/98 2:17	39.4867	-76.5268	135	26m-50m 3N
05707	00381	D	A	4/6/98	21:48:40	39.487	-76.540	4/6/98	21:48:40	4/5/98 8:23	39.4892	-76.5280	167	51m-75m 3N
05707	00381	J	B	4/5/98	18:04:50	39.488	-76.545	4/5/98	18:03:20	4/5/98 14:33	39.4865	-4.1285	369	26m-50m 3N
05707	00381	D	A	4/6/98	21:48:40	39.487	-76.540	4/6/98	21:50:10	4/5/98 20:38	39.4863	-76.5270	62	51m-75m 3N
05707	00381	D	A	4/6/98	21:48:40	39.487	-76.540	4/6/98	21:48:40	4/6/98 8:53	39.4862	-76.5253	153	51m-75m 3N
05707	00381	D	A	4/6/98	21:48:40	39.487	-76.540	4/6/98	21:47:10	4/6/98 14:58	39.4863	-4.1284	137	51m-75m 3N
05707	00381	D	3	4/8/98	11:24:21	39.496	-76.578	4/8/98	11:27:21	4/6/98 21:03	39.4845	-76.5263	65	51m-75m 3N
05707	00381	H	B	4/9/98	13:37:26	39.485	-76.487	4/9/98	13:35:56	4/7/98 3:15	39.2645	-76.6640	149	51m-75m 3N
05707	00381	H	B	4/9/98	15:20:56	39.457	-76.505	4/9/98	15:19:26	4/7/98 9:21	39.4880	-4.1283	78	76m-100m 3N
05707	00381	J	B	4/9/98	17:20:45	39.493	-76.545	4/9/98	17:19:15	4/7/98 21:34	39.4867	-76.5268	132	51m-75m 4N
05707	00381	D	3	4/8/98	11:24:21	39.496	-76.578	4/8/98	11:25:51	4/8/98 3:39	39.4867	-76.5267	112	0m-26m 3N
05707	00381	J	B	4/9/98	17:20:45	39.493	-76.545	4/9/98	17:22:15	4/8/98 9:49	39.4873	-76.5270	101	26m-50m 3N
05707	00381	^J	B	4/9/98	17:20:45	39.493	-76.545	4/9/98	17:22:15	4/8/98 22:03	39.4870	-76.5278	144	26m-50m 3N
05707	00381	^H	B	4/9/98	15:20:56	39.457	-76.505	4/9/98	15:22:26	4/9/98 4:16	39.4870	-76.5272	630	76m-100m 4N
05707	00381	J	B	4/10/98	20:30:00	39.470	-76.502	4/10/98	20:30:45	4/9/98 10:16	39.4875	-76.5277	182	26m-50m 2N
05707	00381	J	B	4/10/98	20:30:00	39.470	-76.502	4/10/98	20:30:45	4/9/98 16:25	39.4870	-76.5268	107	0m-26m 4N
05707	00381	^H	B	4/12/98	02:21:07	39.526	-76.505	4/12/98	02:23:22	4/9/98 22:32	39.4872	-76.5273	90	26m-50m 3N
05707	00381	D	A	4/10/98	22:02:15	39.479	-76.554	4/10/98	22:00:45	4/10/98 4:46	39.4867	-76.5272	578	26m-50m 3N
05707	00381	D	A	4/10/98	22:02:15	39.479	-76.554	4/10/98	21:59:15	4/10/98 10:44	39.4858	-76.5258	91	51m-75m 3N
05707	00381	H	B	4/12/98	02:21:07	39.526	-76.505	4/12/98	02:18:52	4/11/98 5:13	39.4870	-76.5263	426	26m-50m 3N
05707	00381	^J	B	4/13/98	06:49:54	39.496	-76.541	4/13/98	06:49:09	4/11/98 11:13	39.4873	-76.5277	69	26m-50m 3N
05707	00381	J	B	4/13/98	06:49:54	39.496	-76.541	4/13/98	06:50:39	4/11/98 23:27	39.4867	-76.5263	215	26m-50m 3N
05707	00381	D	3	4/13/98	12:55:40	39.484	-76.523	4/13/98	12:55:40	4/12/98 5:42	39.4877	-76.5268	488	51m-75m 3N
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:21:32	4/12/98 11:45	39.4877	-76.5260	229	26m-50m 3N
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:23:02	4/12/98 17:56	39.4865	-4.1284	561	51m-75m 3N
05707	00381	J	3	4/14/98	18:05:47	39.485	-76.530	4/14/98	18:05:02	4/12/98 23:59	39.4870	-76.5253	359	51m-75m 3N
05707	00381	D	A	4/14/98	12:32:31	39.482	-76.512	4/14/98	12:34:01	4/13/98 6:05	39.4883	-76.5275	366	26m-50m 4N
05707	00381	D	A	4/14/98	12:32:31	39.482	-76.512	4/14/98	12:31:01	4/13/98 12:10	39.4868	-76.5273	67	26m-50m 3N

NOT RELIABLE
1-350400m
1-50400m

Sheet 1 of 3

A SAMPLE OF RECOVERED ARGOS INFORMATION
TRANSMITTER #5407

ID	PROG	SAT	LC	Arg Date	Arg Time	Arg Lat	Arg Lon	INT_DATE	INT_TIME	GPS_DATE	GPS_Lat	GPS_Lon	ALT	QUAL
05707	00381	AD	3	4/15/98	21:51:54	39.481	-76.547	4/15/98	21:51:09	4/14/98 0:24	39.4877	-76.5260	77	26m-50m 3N
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:23:02	4/14/98 6:30	39.4878	-76.5260	86	51m-75m 3N
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:21:32	4/14/98 12:36	39.4873	-76.5263	70	26m-50m 4N
05707	00381	H	0	4/16/98	01:30:07	39.515	-76.446	4/16/98	01:32:22	4/14/98 18:46	39.4873	-76.5262	94	51m-75m 3N
05707	00381	D	3	4/15/98	21:51:54	39.481	-76.547	4/15/98	21:52:39	4/15/98 0:54	39.4875	-76.5272	115	26m-50m 4N
05707	00381	D	3	4/15/98	21:51:54	39.481	-76.547	4/15/98	21:51:09	4/15/98 7:02	39.4873	-76.5265	264	51m-75m 3N
05707	00381	J	3	4/17/98	07:47:31	39.493	-76.559	4/17/98	07:46:46	4/15/98 19:12	39.4860	-76.5272	111	26m-50m 3N
05707	00381	J	B	4/17/98	09:27:55	39.485	-76.509	4/17/98	09:29:25	4/16/98 1:26	39.4867	-76.5262	358	51m-75m 3N
05707	00381	AJ	3	4/19/98	20:30:55	39.489	-76.516	4/19/98	20:27:55	4/16/98 7:32	39.4875	-76.5263	270	26m-50m 4N
05707	00381	J	3	4/19/98	20:30:55	39.489	-76.516	4/19/98	20:29:25	4/16/98 13:37	39.4865	-76.5260	218	26m-50m 4N
05707	00381	J	B	4/19/98	18:49:40	39.475	-76.565	4/19/98	18:50:25	4/16/98 19:41	39.4870	-76.5272	86	26m-50m 4N
05707	00381	H	B	4/18/98	15:06:05	39.464	-76.369	4/18/98	15:04:35	4/17/98 1:46	39.4875	-76.5263	63	51m-75m 4N
05707	00381	H	B	4/19/98	18:49:40	39.475	-76.565	4/19/98	18:48:55	4/17/98 7:57	39.4878	-76.5277	126	51m-75m 3N
05707	00381	H	B	4/19/98	18:49:40	39.475	-76.565	4/19/98	18:50:25	4/17/98 14:05	39.4872	-76.5288	157	51m-75m 3N
05707	00381	J	3	4/21/98	02:09:15	39.489	-76.509	4/21/98	02:12:15	4/17/98 20:10	39.4847	-76.5272	68	26m-50m 3N
05707	00381	J	3	4/22/98	08:34:20	39.475	-76.480	4/22/98	08:31:20	4/19/98 8:55	39.4875	-76.5265	332	51m-75m 3N
05707	00381	AD	1	4/20/98	21:41:30	39.483	-76.564	4/20/98	21:42:15	4/19/98 21:10	39.4912	-4.1284	232	51m-75m 3N
05707	00381	D	1	4/20/98	21:41:30	39.483	-76.564	4/20/98	21:37:45	4/19/98 21:10	39.4858	-4.1284	232	51m-75m 3N
05707	00381	J	3	4/22/98	08:34:20	39.475	-76.480	4/22/98	08:32:50	4/19/98 21:10	39.4858	-4.1284	232	51m-75m 3N
05707	00381	H	A	4/21/98	02:09:15	39.489	-76.509	4/21/98	02:09:15	4/20/98 15:32	39.4813	-76.5262	392	76m-100m 4N
05707	00381	D	3	4/23/98	12:36:19	39.482	-76.509	4/23/98	12:36:19	4/20/98 21:34	39.4863	-76.5275	173	0m-26m 4N
05707	00381	J	B	4/23/98	18:08:05	39.460	-76.436	4/23/98	18:07:20	4/21/98 3:49	39.4895	-4.1284	478	51m-75m 3N
05707	00381	J	B	4/23/98	18:08:05	39.460	-76.436	4/23/98	18:08:50	4/21/98 15:59	39.4862	-76.5263	243	26m-50m 3N
05707	00381	H	3	4/25/98	01:19:02	39.497	-76.475	4/25/98	01:19:02	4/21/98 22:02	39.4875	-76.5268	80	26m-50m 3N
05707	00381	J	1	4/24/98	19:36:31	39.492	-76.478	4/24/98	19:32:01	4/22/98 4:08	39.4872	-4.1285	94	26m-50m 4N
05707	00381	J	1	4/24/98	19:36:31	39.492	-76.478	4/24/98	19:38:01	4/22/98 22:32	39.4863	-76.5262	137	0m-26m 3N
05707	00381	H	A	4/26/98	01:04:16	39.518	-76.369	4/26/98	01:05:46	4/23/98 4:41	39.4863	-76.5278	294	26m-50m 3N
05707	00381	J	B	4/23/98	18:08:05	39.460	-76.436	4/23/98	18:08:50	4/23/98 10:51	39.4873	-76.5260	522	0m-26m 4N
05707	00381	J	B	4/24/98	17:56:46	39.463	-76.524	4/24/98	17:59:01	4/23/98 16:53	39.4835	-76.5268	74	51m-75m 3N
05707	00381	J	B	4/24/98	17:56:46	39.463	-76.524	4/24/98	17:54:31	4/23/98 23:01	39.4873	-4.1285	105	26m-50m 3N
05707	00381	H	3	4/25/98	01:19:02	39.497	-76.475	4/25/98	01:19:02	4/24/98 11:20	39.4863	-76.5262	557	26m-50m 2N
05707	00381	J	2	4/26/98	07:48:40	39.492	-76.561	4/26/98	07:46:25	4/25/98 23:55	39.4873	-76.5272	128	26m-50m 4N
05707	00381	J	B	4/28/98	18:52:36	39.480	-76.624	4/28/98	18:51:51	4/27/98 0:25	39.4873	-76.5263	167	26m-50m 4N
05707	00381	J	A	4/27/98	07:35:11	39.489	-76.551	4/27/98	07:37:26	4/27/98 6:34	39.4883	-76.5260	356	51m-75m 3N

5/18/16

APPENDIX C

Time to acquire GPS

GPS CPS GPS CPS

ARGO ARGO ARGO ARGO ARGO ARGO ARGO ARGO ARGO ARGO

ID	PROG	SAT	LC	Arg Date	Arg Time	Arg Lat	Arg Lon	NT DATE	TIME	GPS DATE	GPS Lat	GPS Lon	ALT	QUAL
05707	00381	D	A	4/4/98	09:33:17	39.733	-76.599	4/4/98	09:33:17	4/3/98 7:27	39.7453	-76.5938	77	51m-75m 3N
05707	00381	H	2	4/4/98	14:41:09	39.475	-76.497	4/4/98	14:44:09	4/3/98 19:40	39.7477	-76.5958	61	26m-50m 3N
05707	00381	J	A	4/5/98	19:45:20	39.492	-76.511	4/5/98	19:46:50	4/4/98 1:47	39.7488	-76.5958	81	51m-75m 3N
05707	00381	J	B	4/5/98	18:04:50	39.488	-76.545	4/5/98	18:06:20	4/4/98 7:52	39.7480	-76.5953	56	26m-50m 3N
05707	00381	J	A	4/5/98	19:45:20	39.492	-76.511	4/5/98	19:42:20	4/4/98 14:09	39.4873	-76.5263	464	0m-26m 4N
05707	00381	J	A	4/5/98	19:45:20	39.492	-76.511	4/5/98	19:42:20	4/4/98 20:10	39.4865	-76.5270	97	26m-50m 3N
05707	00381	J	B	4/5/98	18:04:50	39.488	-76.545	4/5/98	18:06:20	4/5/98 2:17	39.4867	-76.5268	135	26m-50m 3N
05707	00381	D	A	4/6/98	21:48:40	39.487	-76.540	4/6/98	21:48:40	4/5/98 8:23	39.4892	-76.5280	167	51m-75m 3N
05707	00381	J	B	4/5/98	18:04:50	39.488	-76.545	4/5/98	18:03:20	4/5/98 14:33	39.4865	-4.1285	369	26m-50m 3N
05707	00381	D	A	4/6/98	21:48:40	39.487	-76.540	4/6/98	21:50:10	4/5/98 20:38	39.4863	-76.5270	62	51m-75m 3N
05707	00381	D	A	4/6/98	21:48:40	39.487	-76.540	4/6/98	21:48:40	4/6/98 8:53	39.4862	-76.5253	153	51m-75m 3N
05707	00381	D	A	4/6/98	21:48:40	39.487	-76.540	4/6/98	21:47:10	4/6/98 14:58	39.4863	-4.1284	137	51m-75m 3N
05707	00381	D	3	4/8/98	11:24:21	39.496	-76.578	4/8/98	11:27:21	4/6/98 21:03	39.4845	-76.5263	65	51m-75m 3N
05707	00381	H	B	4/9/98	13:37:26	39.485	-76.487	4/9/98	13:35:56	4/7/98 3:15	39.2645	-76.6640	149	51m-75m 3N
05707	00381	H	B	4/9/98	15:20:56	39.457	-76.505	4/9/98	15:19:26	4/7/98 9:21	39.4880	-4.1283	78	76m-100m 3N
05707	00381	J	B	4/9/98	17:20:45	39.493	-76.545	4/9/98	17:19:15	4/7/98 21:34	39.4867	-76.5268	132	51m-75m 4N
05707	00381	D	3	4/8/98	11:24:21	39.496	-76.578	4/8/98	11:25:51	4/8/98 3:39	39.4867	-76.5267	112	0m-26m 3N
05707	00381	J	B	4/9/98	17:20:45	39.493	-76.545	4/9/98	17:22:15	4/8/98 9:49	39.4873	-76.5270	101	26m-50m 3N
05707	00381	A	B	4/9/98	17:20:45	39.493	-76.545	4/9/98	17:22:15	4/8/98 22:03	39.4870	-76.5278	144	26m-50m 3N
05707	00381	H	B	4/9/98	15:20:56	39.457	-76.505	4/9/98	15:22:26	4/9/98 4:16	39.4870	-76.5272	630	76m-100m 4N
05707	00381	J	B	4/10/98	20:30:00	39.470	-76.502	4/10/98	20:30:45	4/9/98 10:16	39.4875	-76.5277	182	26m-50m 2N
05707	00381	J	B	4/10/98	20:30:00	39.470	-76.502	4/10/98	20:30:45	4/9/98 16:25	39.4870	-76.5268	107	0m-26m 4N
05707	00381	H	B	4/12/98	02:21:07	39.526	-76.505	4/12/98	02:23:22	4/9/98 22:32	39.4872	-76.5273	90	26m-50m 3N
05707	00381	D	A	4/10/98	22:02:15	39.479	-76.554	4/10/98	22:00:45	4/10/98 4:46	39.4867	-76.5272	578	26m-50m 3N
05707	00381	D	A	4/10/98	22:02:15	39.479	-76.554	4/10/98	21:59:15	4/10/98 10:44	39.4858	-76.5258	91	51m-75m 3N
05707	00381	H	B	4/12/98	02:21:07	39.526	-76.505	4/12/98	02:18:52	4/11/98 5:13	39.4870	-76.5263	426	26m-50m 3N
05707	00381	A	B	4/13/98	06:49:54	39.496	-76.541	4/13/98	06:49:09	4/11/98 11:13	39.4873	-76.5277	69	26m-50m 3N
05707	00381	J	B	4/13/98	06:49:54	39.496	-76.541	4/13/98	06:50:39	4/11/98 23:27	39.4867	-76.5263	215	26m-50m 3N
05707	00381	D	3	4/13/98	12:55:40	39.484	-76.523	4/13/98	12:55:40	4/12/98 5:42	39.4877	-76.5268	488	51m-75m 3N
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:21:32	4/12/98 11:45	39.4877	-76.5260	229	26m-50m 3N
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:23:02	4/12/98 17:56	39.4865	-4.1284	561	51m-75m 3N
05707	00381	J	3	4/14/98	18:05:47	39.485	-76.530	4/14/98	18:05:02	4/12/98 23:59	39.4870	-76.5253	359	51m-75m 3N
05707	00381	D	A	4/14/98	12:32:31	39.482	-76.512	4/14/98	12:34:01	4/13/98 6:05	39.4883	-76.5275	366	26m-50m 4N
05707	00381	D	A	4/14/98	12:32:31	39.482	-76.512	4/14/98	12:31:01	4/13/98 12:10	39.4868	-76.5273	67	26m-50m 3N

NOT RELIABLE
2-3 km
1-3 km
1-5 km

Sheet 1 of 3

APPENDIX C

A SAMPLE OF RECOVERED ARGOS INFORMATION
TRANSMITTER #5407

ID	PROG	SAT	LC	Arg Date	Arg Time	Arg Lat	Arg Lon	INT_DATE	INT_TIME	GPS_DATE	GPS_Lat	GPS_Lon	ALT	QUAL
05707	00381	^D	3	4/15/98	21:51:54	39.481	-76.547	4/15/98	21:51:09	4/14/98 0:24	39.4877	-76.5260	77	26m-50m 3N
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:23:02	4/14/98 6:30	39.4878	-76.5260	86	51m-75m 3N
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:21:32	4/14/98 12:36	39.4873	-76.5263	70	26m-50m 4N
05707	00381	H	0	4/16/98	01:30:07	39.515	-76.446	4/16/98	01:32:22	4/14/98 18:46	39.4873	-76.5262	94	51m-75m 3N
05707	00381	D	3	4/15/98	21:51:54	39.481	-76.547	4/15/98	21:52:39	4/15/98 0:54	39.4875	-76.5272	115	26m-50m 4N
05707	00381	D	3	4/15/98	21:51:54	39.481	-76.547	4/15/98	21:51:09	4/15/98 7:02	39.4873	-76.5265	264	51m-75m 3N
05707	00381	J	3	4/17/98	07:47:31	39.493	-76.559	4/17/98	07:46:46	4/15/98 19:12	39.4860	-76.5272	111	26m-50m 3N
05707	00381	J	B	4/17/98	09:27:55	39.485	-76.509	4/17/98	09:29:25	4/16/98 1:26	39.4867	-76.5262	358	51m-75m 3N
05707	00381	^J	3	4/19/98	20:30:55	39.489	-76.516	4/19/98	20:27:55	4/16/98 7:32	39.4875	-76.5263	270	26m-50m 4N
05707	00381	J	3	4/19/98	20:30:55	39.489	-76.516	4/19/98	20:29:25	4/16/98 13:37	39.4865	-76.5260	218	26m-50m 4N
05707	00381	J	B	4/19/98	18:49:40	39.475	-76.565	4/19/98	18:50:25	4/16/98 19:41	39.4870	-76.5272	86	26m-50m 4N
05707	00381	H	B	4/18/98	15:06:05	39.464	-76.369	4/18/98	15:04:35	4/17/98 1:46	39.4875	-76.5263	63	51m-75m 4N
05707	00381	H	B	4/19/98	18:49:40	39.475	-76.565	4/19/98	18:48:55	4/17/98 7:57	39.4878	-76.5277	126	51m-75m 3N
05707	00381	J	B	4/19/98	18:49:40	39.475	-76.565	4/19/98	18:50:25	4/17/98 14:05	39.4872	-76.5288	157	51m-75m 3N
05707	00381	H	A	4/21/98	02:09:15	39.489	-76.509	4/21/98	02:12:15	4/17/98 20:10	39.4847	-76.5272	68	26m-50m 3N
05707	00381	J	3	4/22/98	08:34:20	39.475	-76.480	4/22/98	08:31:20	4/19/98 8:55	39.4875	-76.5265	332	51m-75m 3N
05707	00381	^D	1	4/20/98	21:41:30	39.483	-76.564	4/20/98	21:42:15	4/19/98 21:10	39.4912	-4.1284	232	51m-75m 3N
05707	00381	D	1	4/20/98	21:41:30	39.483	-76.564	4/20/98	21:37:45	4/19/98 21:10	39.4858	-4.1284	232	51m-75m 3N
05707	00381	J	3	4/22/98	08:34:20	39.475	-76.480	4/22/98	08:32:50	4/19/98 21:10	39.4858	-4.1284	232	51m-75m 3N
05707	00381	H	A	4/21/98	02:09:15	39.489	-76.509	4/21/98	02:09:15	4/20/98 15:32	39.4813	-76.5262	392	76m-100m 4N
05707	00381	D	3	4/23/98	12:36:19	39.482	-76.509	4/23/98	12:36:19	4/20/98 21:34	39.4863	-76.5275	173	0m-26m 4N
05707	00381	J	B	4/23/98	18:08:05	39.460	-76.436	4/23/98	18:07:20	4/21/98 3:49	39.4895	-4.1284	478	51m-75m 3N
05707	00381	J	B	4/23/98	18:08:05	39.460	-76.436	4/23/98	18:08:50	4/21/98 15:59	39.4862	-76.5263	243	26m-50m 3N
05707	00381	H	3	4/25/98	01:19:02	39.497	-76.475	4/25/98	01:19:02	4/21/98 22:02	39.4875	-76.5268	80	26m-50m 3N
05707	00381	J	1	4/24/98	19:36:31	39.492	-76.478	4/24/98	19:32:01	4/22/98 4:08	39.4872	-4.1285	94	26m-50m 4N
05707	00381	J	1	4/24/98	19:36:31	39.492	-76.478	4/24/98	19:38:01	4/22/98 22:32	39.4863	-76.5262	137	0m-26m 3N
05707	00381	H	A	4/26/98	01:04:16	39.518	-76.369	4/26/98	01:05:46	4/23/98 4:41	39.4863	-76.5278	294	26m-50m 3N
05707	00381	J	B	4/23/98	18:08:05	39.460	-76.436	4/23/98	18:08:50	4/23/98 10:51	39.4873	-76.5260	522	0m-26m 4N
05707	00381	J	B	4/24/98	17:56:46	39.463	-76.524	4/24/98	17:59:01	4/23/98 16:53	39.4835	-76.5268	74	51m-75m 3N
05707	00381	J	B	4/24/98	17:56:46	39.463	-76.524	4/24/98	17:54:31	4/23/98 23:01	39.4873	-4.1285	105	26m-50m 3N
05707	00381	H	3	4/25/98	01:19:02	39.497	-76.475	4/25/98	01:19:02	4/24/98 11:20	39.4863	-76.5262	557	26m-50m 2N
05707	00381	J	2	4/26/98	07:48:40	39.492	-76.561	4/26/98	07:46:25	4/25/98 23:55	39.4873	-76.5272	128	26m-50m 4N
05707	00381	J	B	4/28/98	18:52:36	39.480	-76.624	4/28/98	18:51:51	4/27/98 0:25	39.4873	-76.5263	167	26m-50m 4N
05707	00381	J	A	4/27/98	07:35:11	39.489	-76.551	4/27/98	07:37:26	4/27/98 6:34	39.4883	-76.5260	356	51m-75m 3N

(2)

ID	PROG	SAT	LC	Arg Date	Arg Time	Arg Lat	Arg Lon	INT_DATE	INT_TIME	GPS_DATE	GPS Lat	GPS Lon	ALT	COURSE	SPEED	QUAL
05707	00381	D	A	4/4/98	09:33:17	39.733	-76.599	4/4/98	09:33:17	4/3/98 7:27	39.7453	-76.5938	77	0	0	1m-75m 3f
05707	00381	H	2	4/4/98	14:41:09	39.475	-76.497	4/4/98	14:44:09	4/3/98 19:40	39.7477	-76.5958	61	0	0	1m-50m 3f
05707	00381	J	A	4/5/98	19:45:20	39.492	-76.511	4/5/98	19:46:50	4/4/98 1:47	39.7488	-76.5958	81	0	0	1m-75m 3f
05707	00381	J	B	4/5/98	18:04:50	39.488	-76.545	4/5/98	18:06:20	4/4/98 7:52	39.7480	-76.5953	56	0	0	1m-50m 3f
05707	00381	J	A	4/5/98	19:45:20	39.492	-76.511	4/5/98	19:42:20	4/4/98 14:09	39.4873	-76.5263	464	0	0	3m-26m 4N
05707	00381	J	A	4/5/98	19:45:20	39.492	-76.511	4/5/98	19:42:20	4/4/98 20:10	39.4865	-76.5270	97	0	0	1m-50m 3f
05707	00381	J	B	4/5/98	18:04:50	39.488	-76.545	4/5/98	18:06:20	4/5/98 2:17	39.4867	-76.5268	135	0	0	1m-50m 3f
05707	00381	D	A	4/6/98	21:48:40	39.487	-76.540	4/6/98	21:48:40	4/5/98 8:23	39.4892	-76.5280	167	0	0	1m-75m 3f
05707	00381	J	B	4/5/98	18:04:50	39.488	-76.545	4/5/98	18:03:20	4/5/98 14:33	39.4865	-4.1285	369	0	0	1m-50m 3f
05707	00381	D	A	4/6/98	21:48:40	39.487	-76.540	4/6/98	21:48:40	4/6/98 20:38	39.4863	-76.5270	62	0	0	1m-75m 3f
05707	00381	D	A	4/6/98	21:48:40	39.487	-76.540	4/6/98	21:47:10	4/6/98 14:58	39.4863	-4.1284	137	0	0	1m-75m 3f
05707	00381	D	3	4/6/98	11:24:21	39.496	-76.578	4/6/98	11:27:21	4/6/98 21:03	39.4845	-76.5263	65	0	0	1m-75m 3f
05707	00381	H	B	4/9/98	13:37:26	39.485	-76.487	4/9/98	13:35:56	4/7/98 3:15	39.2645	-76.6640	149	0	0	1m-75m 3f
05707	00381	H	B	4/9/98	15:20:56	39.457	-76.505	4/9/98	15:19:26	4/7/98 9:21	39.4890	-4.1283	78	0	0	3m-100m 3
05707	00381	J	B	4/9/98	17:20:45	39.493	-76.545	4/9/98	17:19:15	4/7/98 21:34	39.4867	-76.5268	132	0	0	1m-75m 4f
05707	00381	D	3	4/8/98	11:24:21	39.496	-76.578	4/8/98	11:25:51	4/8/98 3:39	39.4867	-76.5267	112	0	0	3m-26m 3N
05707	00381	J	B	4/9/98	17:20:45	39.493	-76.545	4/9/98	17:22:15	4/8/98 9:49	39.4873	-76.5270	101	0	0	1m-50m 3f
05707	00381	AJ	B	4/9/98	17:20:45	39.493	-76.545	4/9/98	17:22:15	4/8/98 22:03	39.4870	-76.5278	144	0	0	1m-50m 3f
05707	00381	AH	B	4/9/98	15:20:56	39.457	-76.505	4/9/98	15:22:26	4/9/98 4:16	39.4870	-76.5272	630	1	0	3m-100m 4
05707	00381	J	B	4/10/98	20:30:00	39.470	-76.502	4/10/98	20:30:45	4/9/98 10:16	39.4875	-76.5277	182	0	0	1m-50m 2f
05707	00381	J	B	4/10/98	20:30:00	39.470	-76.502	4/10/98	20:30:45	4/9/98 16:25	39.4870	-76.5268	107	0	0	1m-26m 4N
05707	00381	AH	B	4/12/98	02:21:07	39.526	-76.505	4/12/98	02:23:22	4/9/98 22:32	39.4872	-76.5273	90	0	0	1m-50m 3f
05707	00381	D	A	4/10/98	22:02:15	39.479	-76.554	4/10/98	22:00:45	4/10/98 4:46	39.4867	-76.5272	578	0	0	1m-50m 3f
05707	00381	D	A	4/10/98	22:02:15	39.479	-76.554	4/10/98	21:59:15	4/10/98 10:44	39.4858	-76.5258	91	0	0	1m-75m 3f
05707	00381	H	B	4/12/98	02:21:07	39.526	-76.505	4/12/98	02:18:52	4/11/98 5:13	39.4870	-76.5263	426	0	0	1m-50m 3f
05707	00381	AJ	B	4/13/98	06:49:54	39.496	-76.541	4/13/98	06:49:09	4/11/98 11:13	39.4873	-76.5277	69	0	0	1m-50m 3f
05707	00381	J	B	4/13/98	06:49:54	39.496	-76.541	4/13/98	06:50:39	4/11/98 23:27	39.4867	-76.5263	215	0	0	1m-50m 3f
05707	00381	D	3	4/13/98	12:55:40	39.484	-76.523	4/13/98	12:55:40	4/12/98 5:42	39.4877	-76.5268	488	0	0	1m-75m 3f
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:21:32	4/12/98 11:45	39.4877	-76.5260	229	0	0	1m-50m 3f
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:23:02	4/12/98 17:56	39.4865	-4.1284	561	0	0	1m-75m 3f
05707	00381	J	3	4/14/98	18:05:47	39.485	-76.530	4/14/98	18:05:02	4/12/98 23:59	39.4870	-76.5253	359	0	0	1m-75m 3f
05707	00381	D	A	4/14/98	12:32:31	39.482	-76.512	4/14/98	12:34:01	4/13/98 6:05	39.4883	-76.5275	366	0	0	1m-50m 4f
05707	00381	D	A	4/14/98	12:32:31	39.482	-76.512	4/14/98	12:31:01	4/13/98 12:10	39.4877	-76.5273	67	0	0	1m-50m 4f
05707	00381	AJ	3	4/15/98	21:51:54	39.481	-76.547	4/15/98	21:51:09	4/14/98 0:24	39.4877	-76.5260	77	0	0	1m-75m 3f
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:23:02	4/14/98 6:30	39.4878	-76.5263	86	0	0	1m-50m 4f
05707	00381	H	B	4/14/98	14:22:17	39.574	-75.367	4/14/98	14:21:32	4/14/98 12:36	39.4873	-76.5263	70	0	0	1m-50m 4f
05707	00381	H	O	4/16/98	01:30:07	39.515	-76.446	4/16/98	01:32:22	4/14/98 18:46	39.4873	-76.5262	94	0	0	1m-75m 3f
05707	00381	D	3	4/15/98	21:51:54	39.481	-76.547	4/15/98	21:52:39	4/15/98 0:54	39.4875	-76.5272	115	0	0	1m-50m 4f
05707	00381	D	3	4/15/98	21:51:54	39.481	-76.547	4/15/98	21:51:09	4/15/98 7:02	39.4873	-76.5265	264	0	0	1m-75m 3f
05707	00381	J	3	4/17/98	07:47:31	39.493	-76.559	4/17/98	07:46:46	4/15/98 19:12	39.4860	-76.5272	111	0	0	1m-75m 3f
05707	00381	J	B	4/17/98	09:27:55	39.485	-76.509	4/17/98	09:29:25	4/16/98 1:26	39.4867	-76.5262	368	0	0	1m-50m 4f
05707	00381	AJ	3	4/19/98	20:30:55	39.489	-76.516	4/19/98	20:27:55	4/16/98 7:32	39.4875	-76.5263	270	0	0	1m-50m 4f
05707	00381	J	3	4/19/98	20:30:55	39.489	-76.516	4/19/98	20:29:25	4/16/98 13:37	39.4865	-76.5260	218	0	0	1m-50m 4f
05707	00381	J	B	4/19/98	18:49:40	39.475	-76.565	4/19/98	18:50:25	4/16/98 19:41	39.4870	-76.5272	86	0	0	1m-50m 4f

ID	PROG	SAT	LC	Arg Date	Arg Time	Arg Lat	Arg Lon	INT_DATE	INT_TIME	GPS_DATE	GPS Lat	GPS Lon	ALT	QUAL
05707	00381	H	3	4/28/98	14:44:21	39.479	-76.501	4/28/98	14:47:21	4/27/98 12:40	39.4875	-4.1283	111	51m-75m 3N
05707	00381	J	A	4/28/98	20:32:33	39.490	-76.510	4/28/98	20:34:48	4/27/98 18:56	39.4875	-76.5253	638	26m-50m 3N
05707	00381	J	A	4/28/98	20:32:33	39.490	-76.510	4/28/98	20:34:48	4/28/98 0:56	39.4878	-76.5267	285	26m-50m 3N
05707	00381	H	B	4/28/98	18:52:36	39.480	-76.624	4/28/98	18:51:51	4/28/98 7:01	39.4848	-76.5255	248	51m-75m 3N
05707	00381	^J	B	4/28/98	18:52:36	39.480	-76.624	4/28/98	18:53:21	4/28/98 13:06	39.4870	-76.5267	182	51m-75m 3N
05707	00381	J	A	4/28/98	20:32:33	39.490	-76.510	4/28/98	20:30:18	4/28/98 19:16	39.4855	-4.1285	172	51m-75m 3N

Take The Argo fix time and Position let it represent a probable Position location of 3k or less. (assuming 0 velocity on Xmitter)

The Review the GPS time and Position as they pertain to the Doppler fix time. Now Using a series of GPS Positions (determined by the # of Doppler Counts) we

Can now produce an error boundary layer for the Xmitters probable positions.

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## APPENDIX D

THIS IS A SAMPLE PRINTOUT OF SATELLITE ALERT FOR STEWARTSTOWN

| SAT      | DIR | OFFST | STRT_DT  | STRT_TM  | STRT_AZ | ME_TM    | ME_AZ  | ME_EL | END_TM   | END_AZ | SITE          |
|----------|-----|-------|----------|----------|---------|----------|--------|-------|----------|--------|---------------|
| NOAA 11  | N   | E     | 12/22/97 | 23:54:40 | 141.54  | 00:02:10 | 68.05  | 37.51 | 00:09:40 | 354.96 | Stewartstown  |
| NOAA 11  | N   | W     | 12/23/97 | 01:35:30 | 194.25  | 01:42:50 | 264.53 | 27.87 | 01:50:10 | 334.21 | Stewartstown  |
| NOAA 14  | S   | E     | 12/23/97 | 06:59:20 | 26.60   | 07:06:30 | 94.74  | 26.50 | 07:13:40 | 163.81 | Stewartstown  |
| NOAA 14  | S   | W     | 12/23/97 | 08:39:50 | 5.24    | 08:47:20 | 291.32 | 39.19 | 08:54:50 | 217.17 | Stewartstown  |
| *NOAA 12 | S   | E     | 12/23/97 | 10:09:30 | 38.10   | 10:15:10 | 87.96  | 11.38 | 10:21:00 | 139.93 | Stewartstown  |
| NOAA 14  | S   | W     | 12/23/97 | 10:22:50 | 339.36  | 10:26:30 | 310.45 | 3.80  | 10:30:20 | 280.06 | Stewartstown  |
| *NOAA 12 | S   | W     | 12/23/97 | 11:48:20 | 11.51   | 11:55:50 | 291.11 | 80.74 | 12:03:20 | 198.03 | Stewartstown  |
| *NOAA 11 | S   | E     | 12/23/97 | 12:17:20 | 33.41   | 12:23:50 | 91.26  | 16.03 | 12:30:20 | 149.83 | Stewartstown  |
| *NOAA 12 | S   | W     | 12/23/97 | 13:29:30 | 349.40  | 13:35:00 | 301.93 | 10.40 | 13:40:30 | 254.34 | *Stewartstown |
| *NOAA 11 | S   | W     | 12/23/97 | 13:57:10 | 9.90    | 14:04:50 | 291.76 | 62.96 | 14:12:30 | 205.26 | *Stewartstown |
| *NOAA 14 | S   | E     | 12/23/97 | 15:39:20 | 347.48  | 15:44:20 | 306.15 | 8.21  | 15:49:30 | 262.95 | *Stewartstown |
| *NOAA 14 | S   | E     | 12/23/97 | 16:49:00 | 86.99   | 16:53:20 | 52.33  | 5.35  | 16:57:50 | 16.45  | *Stewartstown |
| *NOAA 14 | N   | E     | 12/23/97 | 18:25:10 | 147.17  | 18:32:50 | 67.64  | 46.44 | 18:40:20 | 353.21 | *Stewartstown |
| *NOAA 14 | N   | W     | 12/23/97 | 20:06:40 | 200.82  | 20:13:40 | 265.74 | 22.42 | 20:20:40 | 331.05 | *Stewartstown |
| *NOAA 12 | N   | E     | 12/23/97 | 21:30:30 | 123.48  | 21:37:00 | 63.72  | 19.14 | 21:43:30 | 3.52   | *Stewartstown |
| NOAA 11  | S   | E     | 12/23/97 | 22:08:30 | 65.74   | 22:10:50 | 47.76  | 1.45  | 22:13:20 | 28.46  | Stewartstown  |
| *NOAA 12 | N   | W     | 12/23/97 | 23:09:10 | 177.35  | 23:16:40 | 262.93 | 54.92 | 23:24:10 | 342.38 | Stewartstown  |
| NOAA 11  | N   | E     | 12/23/97 | 23:42:40 | 134.48  | 23:49:50 | 65.54  | 29.50 | 23:57:00 | 357.65 | Stewartstown  |
| *NOAA 12 | N   | W     | 12/24/97 | 00:53:40 | 243.33  | 00:57:30 | 274.51 | 3.98  | 01:01:40 | 308.51 | Stewartstown  |
| NOAA 11  | N   | W     | 12/24/97 | 01:22:50 | 187.52  | 01:30:20 | 263.58 | 36.03 | 01:37:50 | 337.21 | Stewartstown  |
| NOAA 11  | N   | W     | 12/24/97 | 03:11:40 | 274.06  | 03:12:20 | 279.13 | 0.11  | 03:12:50 | 282.94 | Stewartstown  |
| NOAA 14  | S   | E     | 12/24/97 | 06:48:30 | 29.68   | 06:55:20 | 92.37  | 21.08 | 07:02:20 | 157.52 | Stewartstown  |
| NOAA 14  | S   | W     | 12/24/97 | 08:28:50 | 7.24    | 08:36:20 | 291.01 | 48.92 | 08:44:00 | 211.41 | Stewartstown  |
| *NOAA 12 | S   | E     | 12/24/97 | 09:48:30 | 48.30   | 09:53:00 | 85.88  | 5.55  | 09:57:30 | 123.26 | Stewartstown  |
| NOAA 14  | S   | W     | 12/24/97 | 10:11:20 | 343.60  | 10:15:40 | 308.81 | 5.79  | 10:20:20 | 271.03 | Stewartstown  |
| *NOAA 12 | S   | E     | 12/24/97 | 11:26:20 | 16.16   | 11:33:50 | 97.94  | 64.08 | 11:41:20 | 186.38 | Stewartstown  |
| *NOAA 11 | S   | E     | 12/24/97 | 12:05:10 | 37.41   | 12:11:10 | 88.69  | 11.86 | 12:17:10 | 141.18 | Stewartstown  |
| *NOAA 12 | S   | W     | 12/24/97 | 13:07:00 | 355.23  | 13:13:20 | 298.19 | 16.64 | 13:19:40 | 240.63 | *Stewartstown |
| *NOAA 11 | S   | W     | 12/24/97 | 13:44:40 | 12.35   | 13:52:30 | 280.30 | 81.35 | 14:00:10 | 198.70 | *Stewartstown |
| *NOAA 11 | S   | W     | 12/24/97 | 15:26:30 | 351.19  | 15:32:10 | 303.17 | 11.12 | 15:37:50 | 254.64 | *Stewartstown |
| *NOAA 14 | S   | E     | 12/24/97 | 16:39:00 | 78.03   | 16:42:30 | 50.62  | 3.40  | 16:46:10 | 21.75  | *Stewartstown |
| *NOAA 14 | N   | E     | 12/24/97 | 18:14:20 | 141.42  | 18:21:50 | 67.60  | 37.31 | 18:29:20 | 355.15 | *Stewartstown |
| *NOAA 14 | N   | W     | 12/24/97 | 19:55:20 | 194.53  | 20:02:30 | 262.95 | 28.11 | 20:09:50 | 334.10 | *Stewartstown |
| *NOAA 12 | N   | E     | 12/24/97 | 21:09:30 | 110.51  | 21:15:20 | 59.63  | 12.23 | 21:21:10 | 8.58   | *Stewartstown |
| *NOAA 12 | N   | W     | 12/24/97 | 22:47:00 | 165.65  | 22:54:40 | 299.66 | 86.74 | 23:02:10 | 347.03 | Stewartstown  |
| NOAA 11  | N   | E     | 12/24/97 | 23:30:30 | 127.93  | 23:37:30 | 63.52  | 23.34 | 23:44:20 | 0.42   | Stewartstown  |
| NOAA 11  | N   | E     | 12/24/97 | 23:30:30 | 127.93  | 23:37:30 | 63.52  | 23.34 | 23:44:20 | 0.42   | Stewartstown  |
| *NOAA 12 | N   | W     | 12/25/97 | 00:29:50 | 224.75  | 00:35:10 | 270.62 | 9.41  | 00:40:50 | 319.72 | Stewartstown  |
| NOAA 11  | N   | W     | 12/25/97 | 01:10:10 | 180.71  | 01:17:50 | 262.67 | 46.86 | 01:25:20 | 339.78 | Stewartstown  |
| NOAA 11  | N   | W     | 12/25/97 | 02:56:10 | 249.93  | 02:59:20 | 274.67 | 2.64  | 03:02:50 | 302.25 | Stewartstown  |
| NOAA 14  | S   | E     | 12/25/97 | 06:37:40 | 32.83   | 06:44:20 | 92.60  | 16.62 | 06:50:50 | 150.63 | Stewartstown  |
| NOAA 14  | S   | W     | 12/25/97 | 08:17:40 | 9.50    | 08:25:20 | 291.40 | 61.49 | 08:33:00 | 205.79 | Stewartstown  |
| *NOAA 12 | S   | E     | 12/25/97 | 09:28:40 | 66.79   | 09:30:30 | 81.21  | 0.82  | 09:32:30 | 96.97  | Stewartstown  |
| NOAA 14  | S   | W     | 12/25/97 | 09:59:50 | 347.74  | 10:05:00 | 305.45 | 8.02  | 10:10:10 | 262.97 | Stewartstown  |
| *NOAA 12 | S   | E     | 12/25/97 | 11:04:30 | 21.21   | 11:11:50 | 97.86  | 39.55 | 11:19:10 | 174.61 | Stewartstown  |
| *NOAA 11 | S   | E     | 12/25/97 | 11:53:20 | 43.35   | 11:58:40 | 88.15  | 8.30  | 12:04:00 | 132.66 | Stewartstown  |
| *NOAA 12 | S   | W     | 12/25/97 | 12:44:50 | 359.64  | 12:51:40 | 293.36 | 25.43 | 12:58:30 | 228.10 | *Stewartstown |
| *NOAA 11 | S   | E     | 12/25/97 | 13:32:20 | 14.92   | 13:40:00 | 100.07 | 78.49 | 13:47:40 | 192.13 | *Stewartstown |
| *NOAA 11 | S   | W     | 12/25/97 | 15:13:40 | 354.78  | 15:19:50 | 301.84 | 14.50 | 15:26:10 | 246.26 | *Stewartstown |
| *NOAA 14 | S   | E     | 12/25/97 | 16:29:20 | 66.90   | 16:31:50 | 47.63  | 1.63  | 16:34:20 | 28.33  | *Stewartstown |
| *NOAA 14 | N   | E     | 12/25/97 | 18:03:40 | 135.31  | 18:10:50 | 67.18  | 30.20 | 18:18:10 | 357.39 | *Stewartstown |
| *NOAA 14 | N   | W     | 12/25/97 | 19:44:00 | 188.23  | 19:51:30 | 263.17 | 35.25 | 19:59:00 | 337.02 | *Stewartstown |
| *NOAA 12 | N   | E     | 12/25/97 | 20:49:00 | 95.25   | 20:53:40 | 56.19  | 7.06  | 20:58:30 | 15.46  | *Stewartstown |
| *NOAA 12 | N   | E     | 12/25/97 | 22:25:10 | 154.16  | 22:32:40 | 72.54  | 58.91 | 22:40:10 | 351.54 | Stewartstown  |
| NOAA 11  | N   | E     | 12/25/97 | 23:18:40 | 120.28  | 23:25:10 | 61.75  | 18.43 | 23:31:50 | 2.57   | Stewartstown  |
| *NOAA 12 | N   | W     | 12/26/97 | 00:06:40 | 209.77  | 00:13:00 | 267.89 | 16.41 | 00:19:30 | 327.63 | Stewartstown  |
| NOAA 11  | N   | W     | 12/26/97 | 00:57:30 | 173.95  | 01:05:20 | 261.90 | 61.33 | 01:13:00 | 342.64 | Stewartstown  |
| NOAA 11  | N   | W     | 12/26/97 | 02:42:20 | 237.59  | 02:46:50 | 274.10 | 5.45  | 02:51:30 | 311.73 | Stewartstown  |
| NOAA 14  | S   | E     | 12/26/97 | 06:27:00 | 36.86   | 06:33:10 | 90.63  | 12.84 | 06:39:20 | 143.80 | Stewartstown  |
| NOAA 14  | S   | W     | 12/26/97 | 08:06:40 | 11.65   | 08:14:20 | 295.26 | 77.01 | 08:22:10 | 199.97 | Stewartstown  |
| NOAA 14  | S   | W     | 12/26/97 | 09:48:30 | 350.82  | 09:54:10 | 303.51 | 10.53 | 09:59:50 | 255.76 | Stewartstown  |
| *NOAA 12 | S   | E     | 12/26/97 | 10:42:40 | 26.46   | 10:49:40 | 93.57  | 24.91 | 10:56:40 | 162.19 | Stewartstown  |

NOAA H

↓

NOAA 11

- Low Pass

- Low Pass D

↓

NOAA 12

NOAA J

↓

NOAA 14

→ GOOD

- Low

- Fair

Good

Low

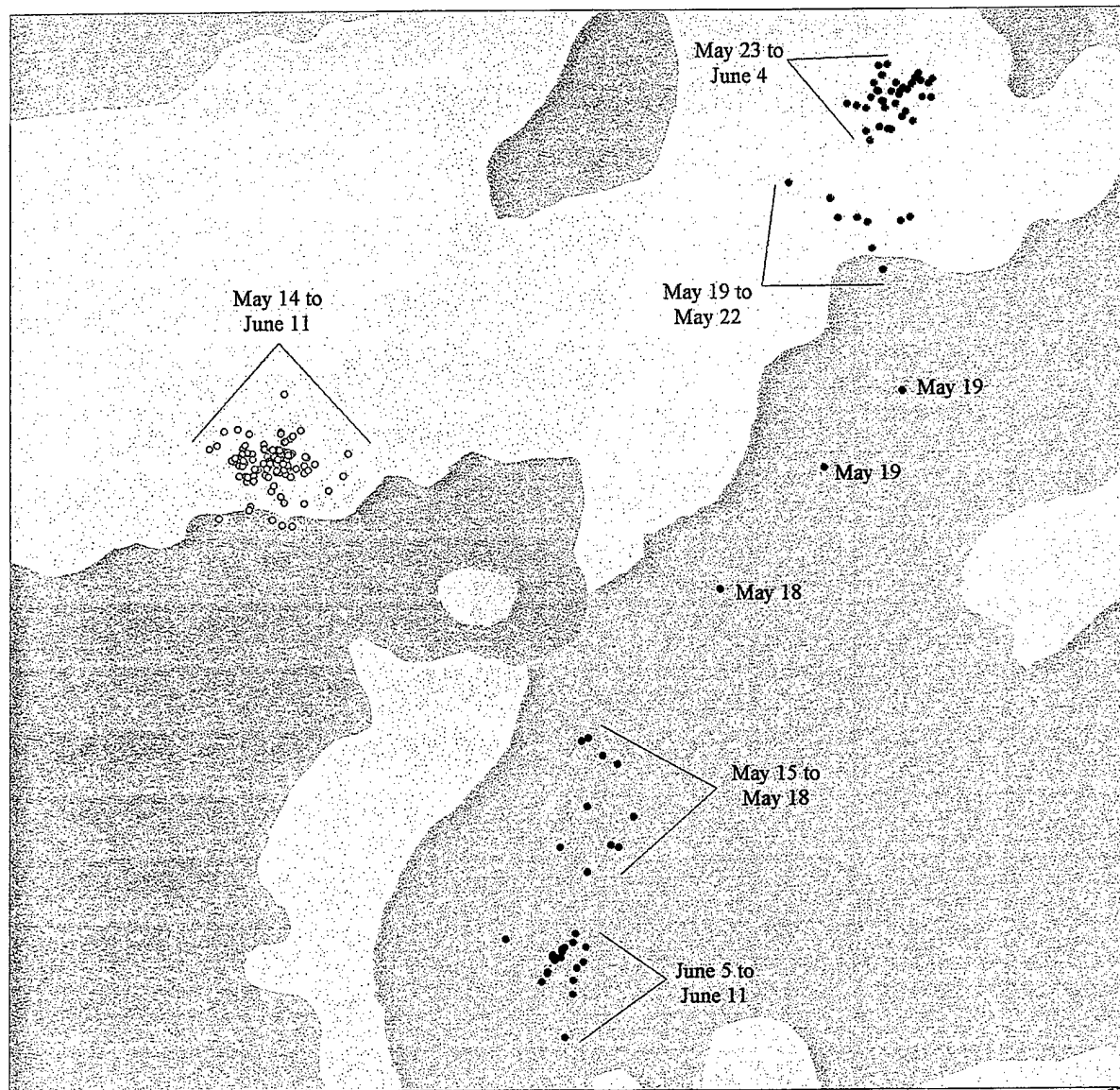
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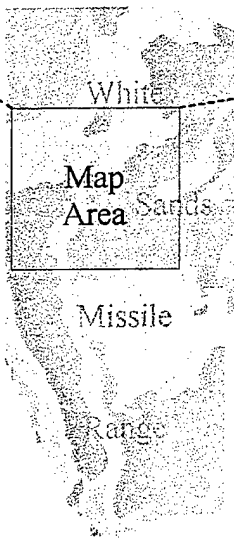
# Oryx GPS Locations

White Sands Missile Range, New Mexico

May 14 - June 11, 1998



0 3000 6000 9000 12000 Meters



## WSMR Vegetation

- Chihuahuan Desert Scrub
- Closed Basin Scrub
- Coniferous And Mixed Woodland
- Desert Grassland (Ecotone)
- Juniper Savanna (Ecotone)
- Lava Beds
- Montane Coniferous Forest
- Montane Scrub
- Plains-Mesa Sand Scrub
- Sand Dunes

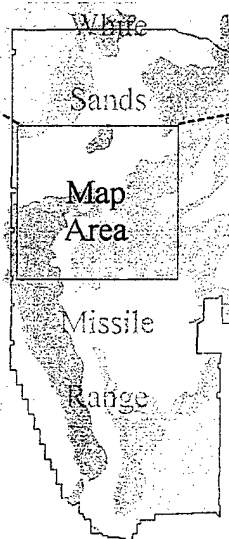
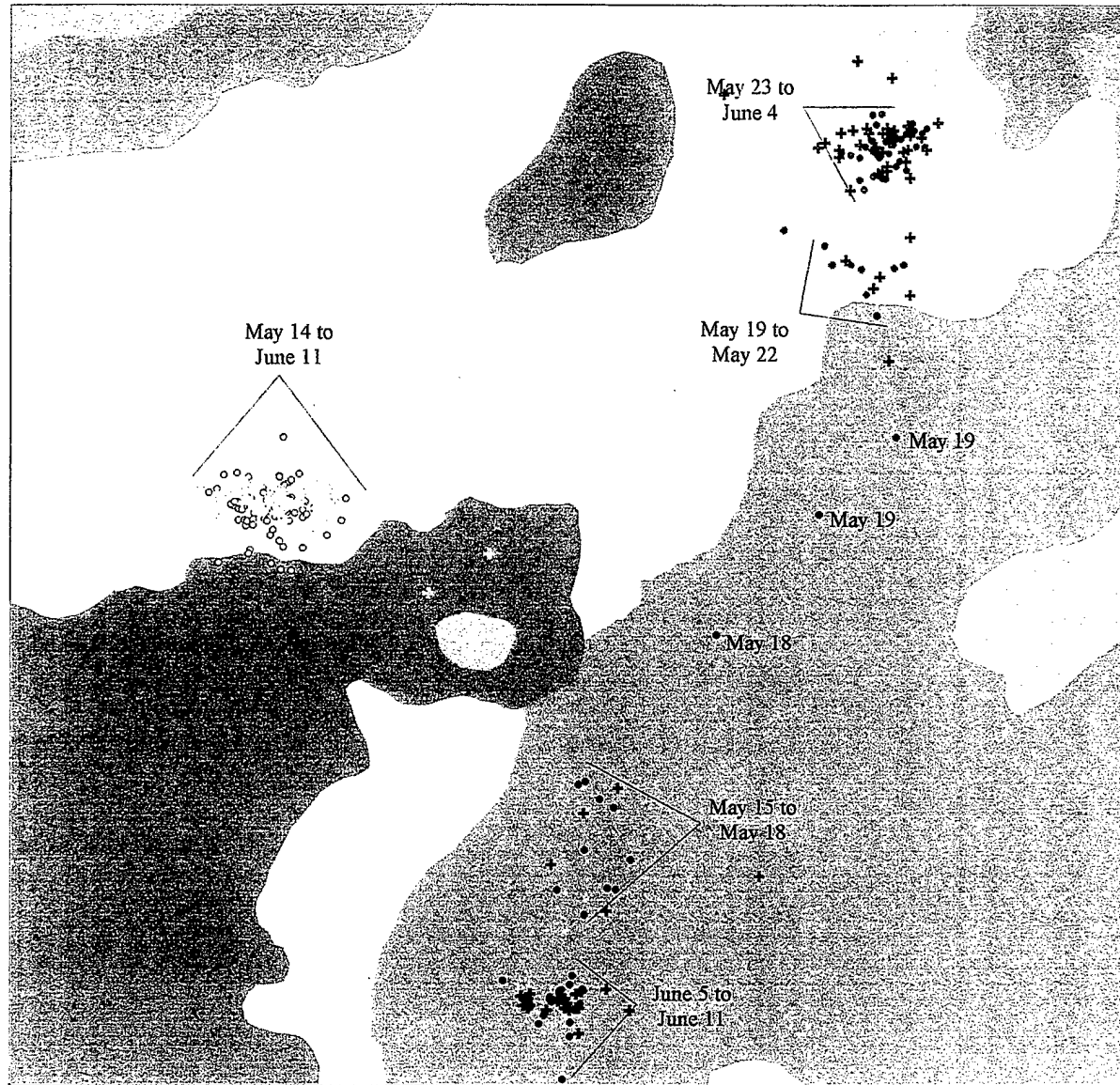
## PTT ID numbers

- 05707
- 05736
- 05738

# Oryx Location Estimates

## GPS (circles) and Doppler (crosses)

White Sands Missile Range -- May 14 - June 11, 1998



0 3000 6000 9000 12000 Meters

### WSMR Vegetation

- Chihuahuan Desert Scrub
- Closed Basin Scrub
- Coniferous And Mixed Woodland
- Desert Grassland (Ecotone)
- Juniper Savanna (Ecotone)
- Lava Beds
- Montane Coniferous Forest
- Montane Scrub
- Plains-Mesa Sand Scrub
- Sand Dunes

### PTT ID numbers

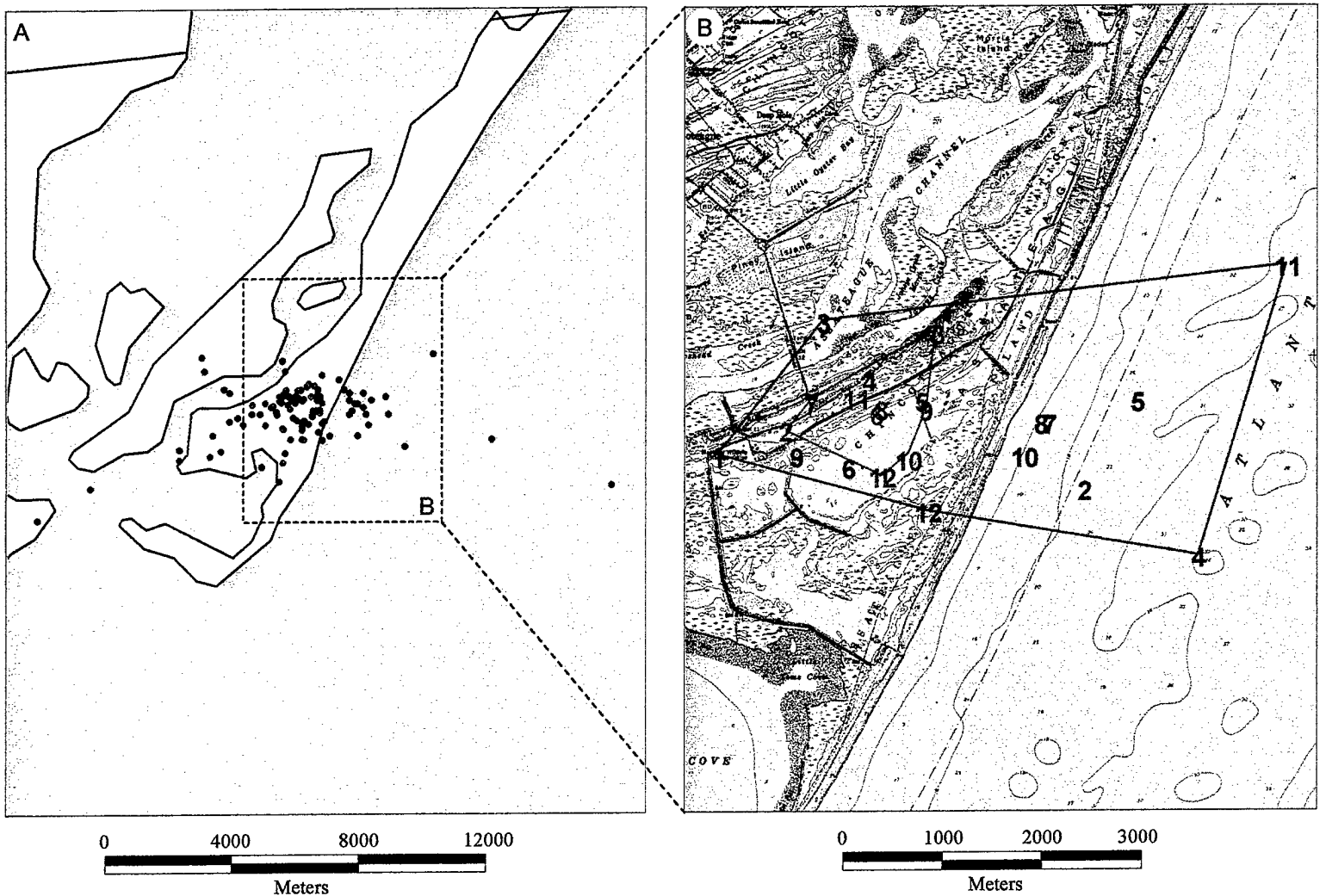
- 05707
- 05736
- 05738

## **SECTION III**

GPS PTT Testing Data, GIS Mapping

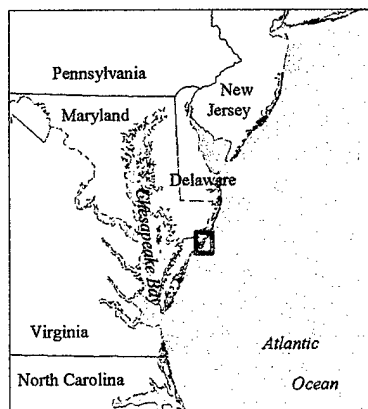
# GPS and Doppler Location Estimates

A Comparison Demonstration of GPS and Doppler Location Estimates  
of a wild pony on Assateague Island, VA



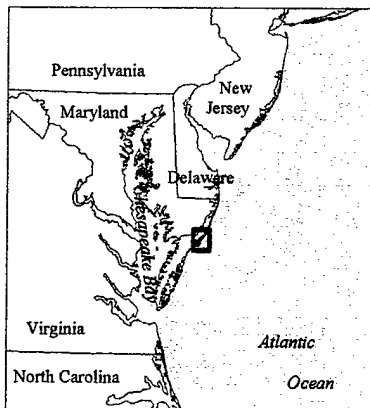
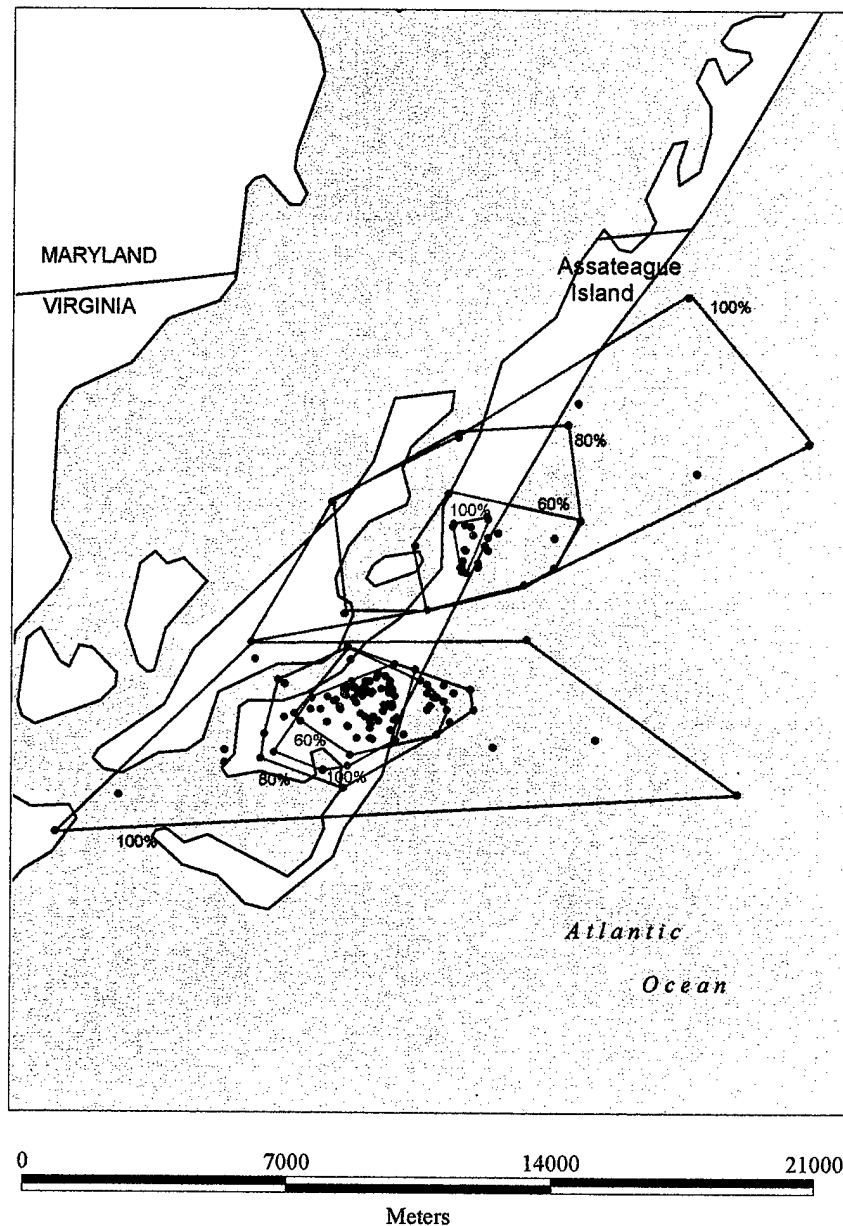
(A) Our experimental GPS PTT collar was placed on a wild pony on Assateague Island, VA for 12 days during the fall of 1997. Figure A presents a general overview comparison of all GPS and Argos doppler location estimates for the pony's time spent on the southern half of the island (the largest dataset from one area). The Argos locations are all of location class 1, 2, or 3. Twelve GPS locations and twelve Argos locations were chosen for point-by-point comparison in Figure B.

(B) This figure represents a magnification of the area enclosed with the dotted line in Figure A. The numbers, referring to correlating GPS (red) and Argos (blue) location estimates, are in chronological order. For example, a red "2," acquired by the GPS receiver, correlates with a blue "2," acquired by the Argos system (correlation =  $\pm 1$  hour). The polygons represent the areal extent of these twelve GPS and twelve Argos location estimates.



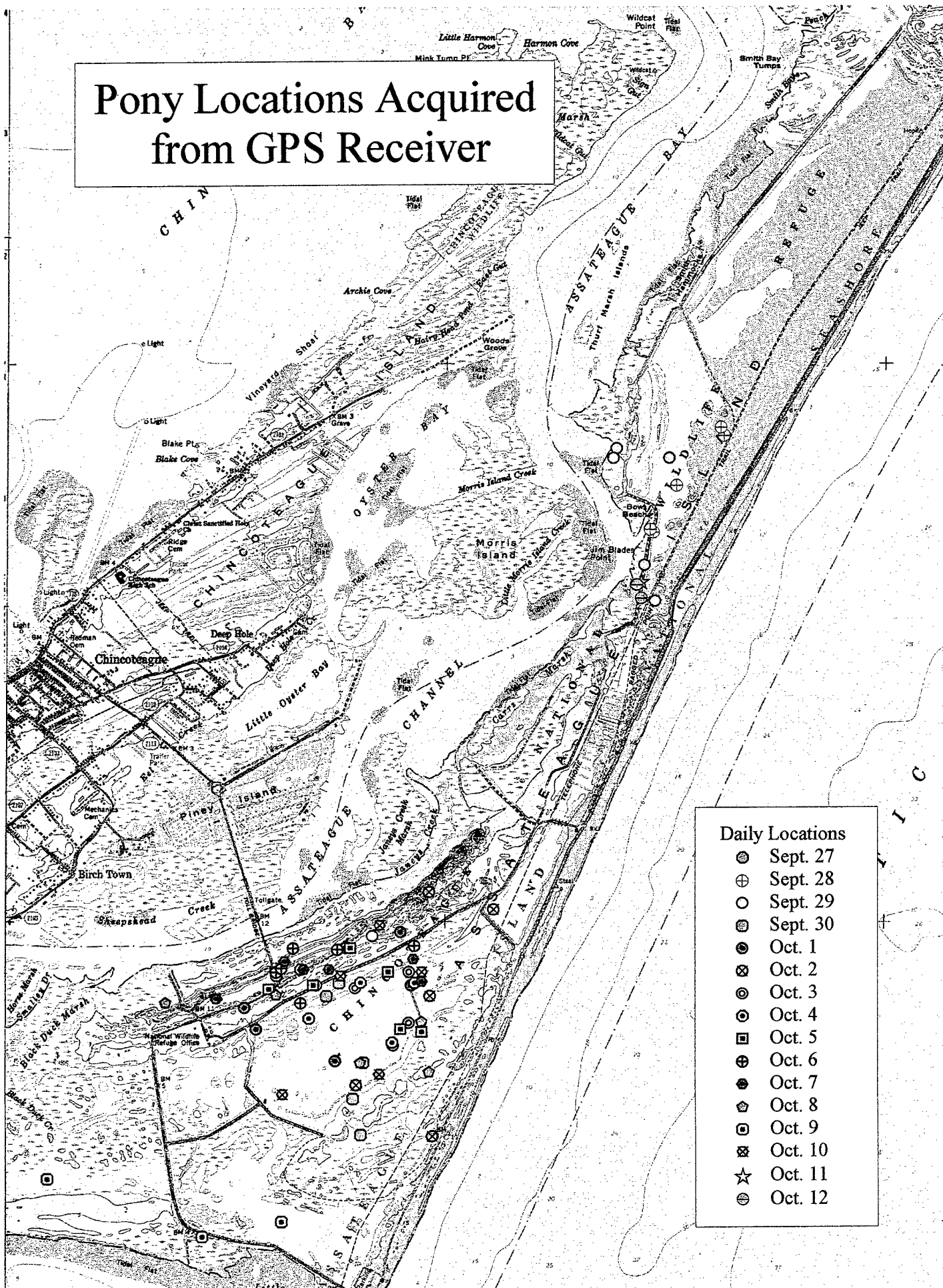
# GPS and Doppler Ranges

A Comparison Demonstration of Wild Pony ranges based on GPS and Argos locations  
Assateague Island, VA



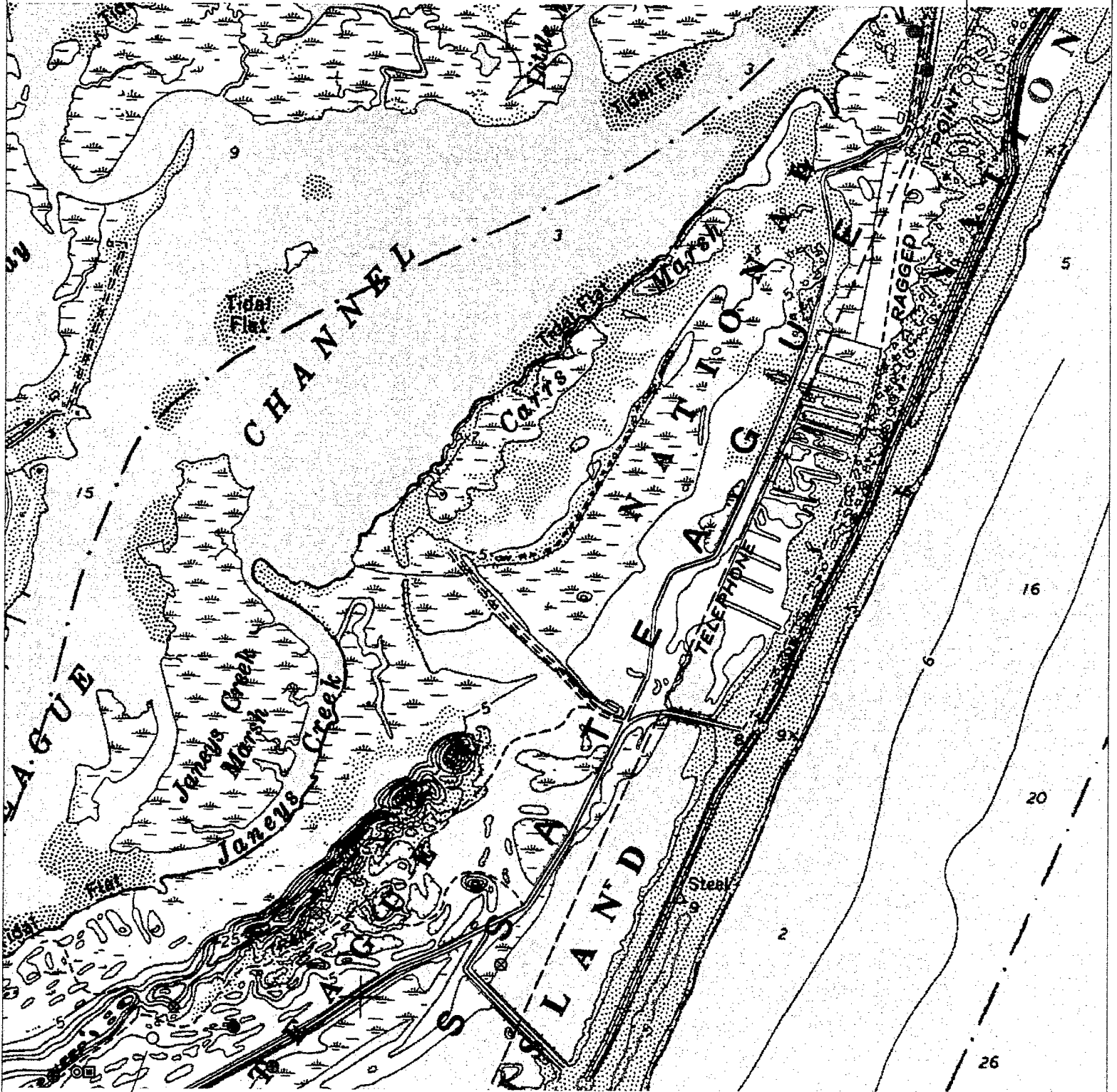
This figure describes a general overview of pony ranges derived from GPS and Argos location estimates. The polygons show the areal extent of each dataset and are divided into northern and southern sections, since the pony spent a significant amount of time in two separate regions of the island. The GPS polygons (red) include 100% of GPS locations, while each successively smaller Argos polygon (blue) contains 100%, 80% and 60% of data points, respectively (Argos location classes 1, 2, and 3 only). A preliminary visual evaluation suggests that the accuracy of 60% of Argos location estimates begins to converge with the accuracy of the GPS dataset. Further research and statistical analysis might prove this true, in which case the Argos locations are still less accurate, but may not be less useful, given a larger dataset to establish a core area of accurate points. Because the GPS receiver and Argos transmitter are mounted on the same platform, such a comparison can be performed and statistically evaluated. Post-processing algorithms to improve the accuracy of Argos location estimates may be possible using this kind of comparative data.

# Pony Locations Acquired from GPS Receiver



Last Location Inside Pony Area  
and  
First Location Outside

Sept. 29  
6:20 pm

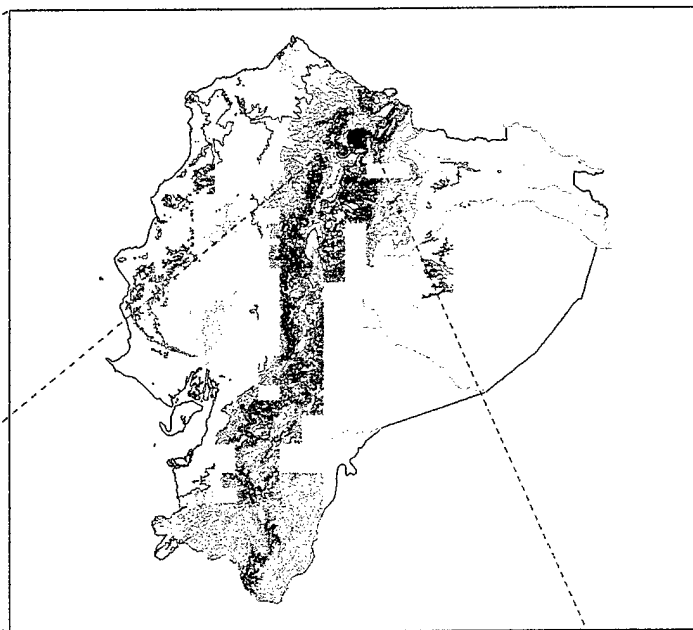
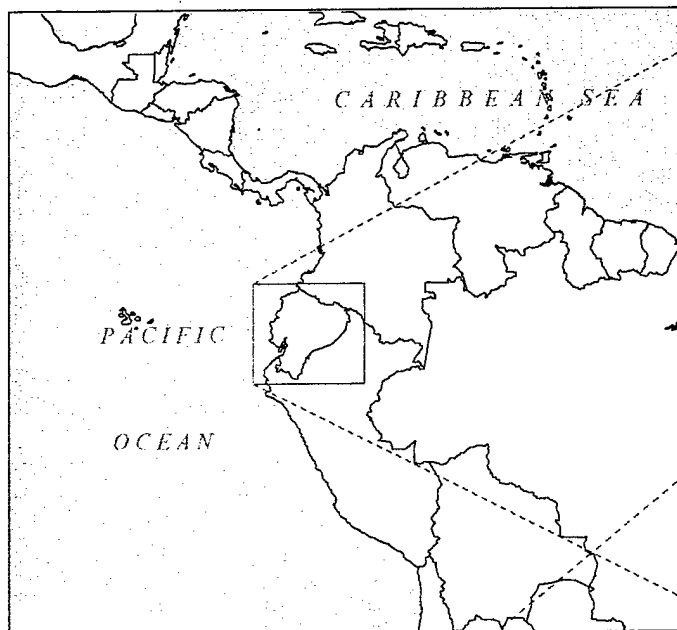


Sept. 29  
10:20 pm

2 1/4 miles in 4 hours  
GPS accuracy = within 70 meters

# Location Estimates for GPS PTT Collar # 5725

## Ecuador; May 31 - June 24, 1998

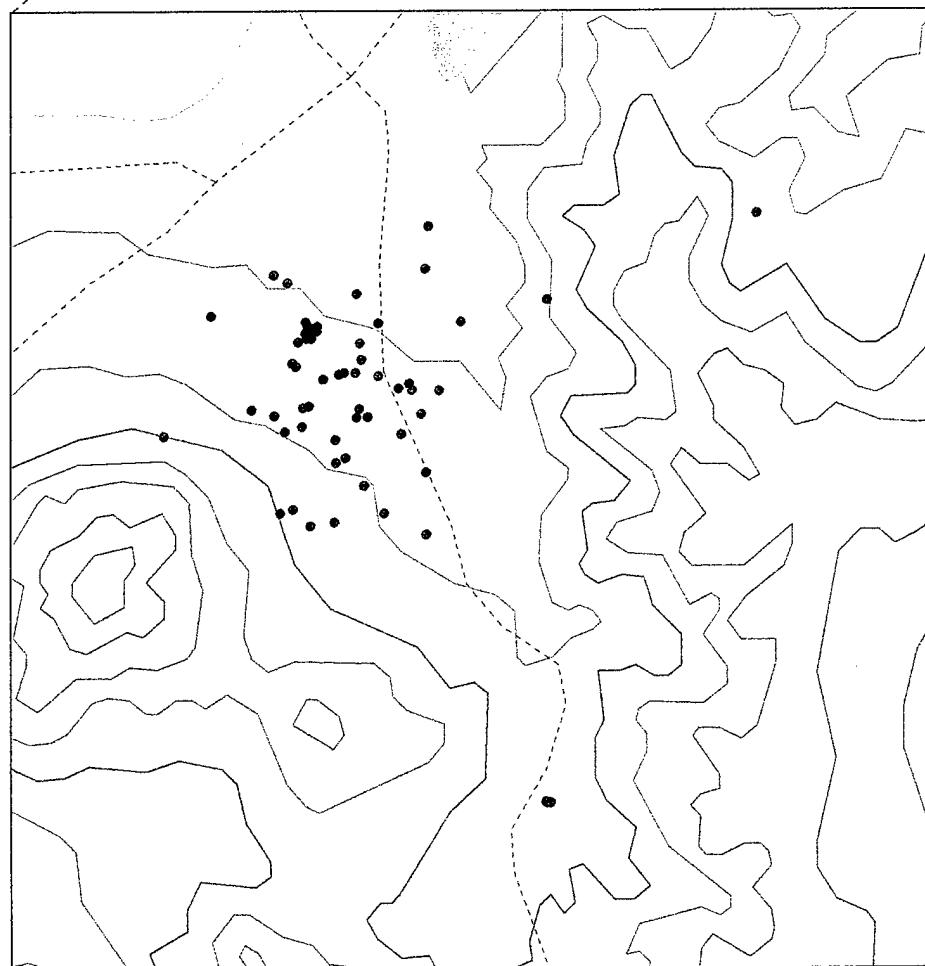


• GPS Location Estimates  
of PTT # 5725

Water Roads

Elevation  
Contours (ft)

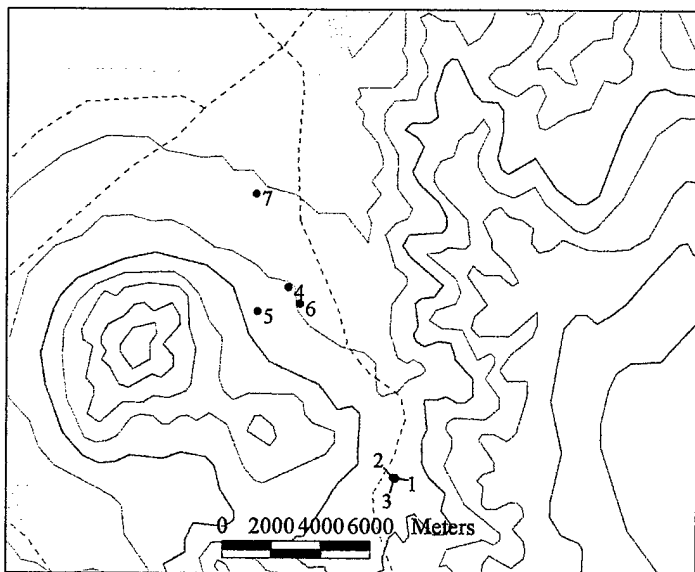
|      |       |
|------|-------|
| 1000 | 9000  |
| 2000 | 10000 |
| 3000 | 11000 |
| 4000 | 12000 |
| 5000 | 13000 |
| 6000 | 14000 |
| 7000 | 15000 |
| 8000 | 16000 |
|      | 17000 |
|      | 18000 |
|      | 19000 |



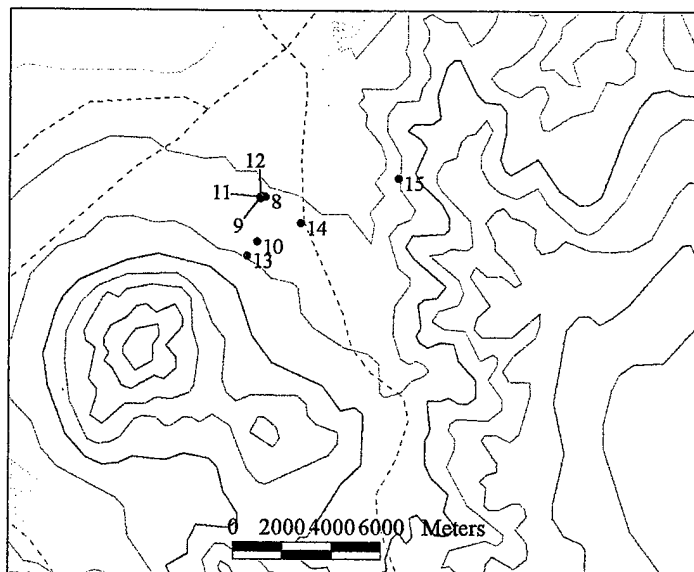
0 4 8 12  
Miles

# Two-day Subsets of GPS Collar Locations

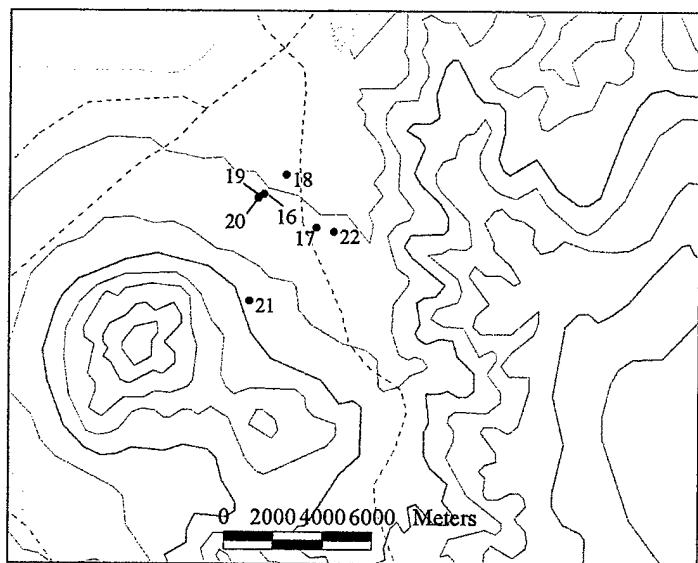
Page 1: May 31 - June 7



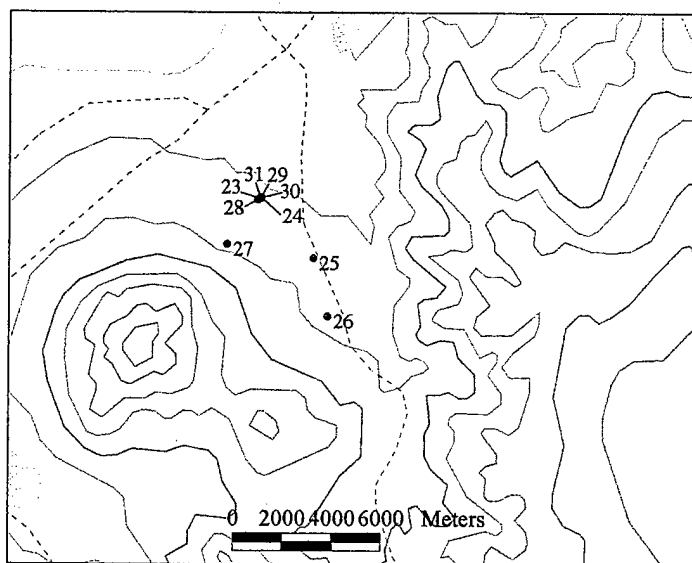
May 31 - June 1



June 2 - June 3



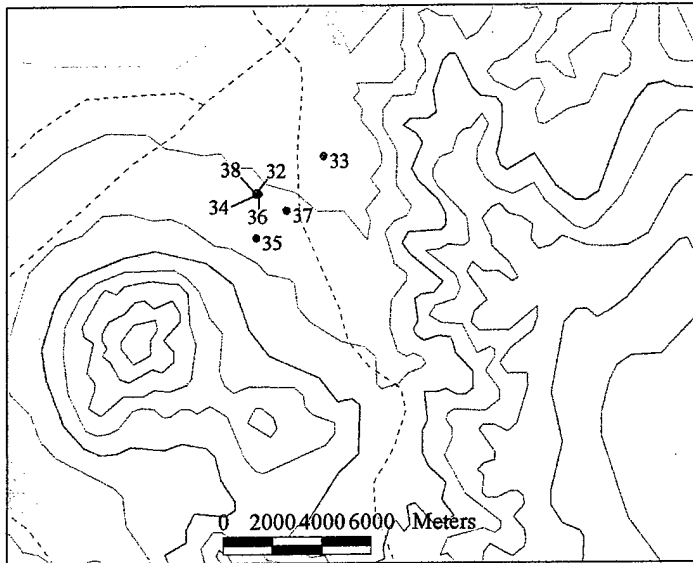
June 4 - June 5



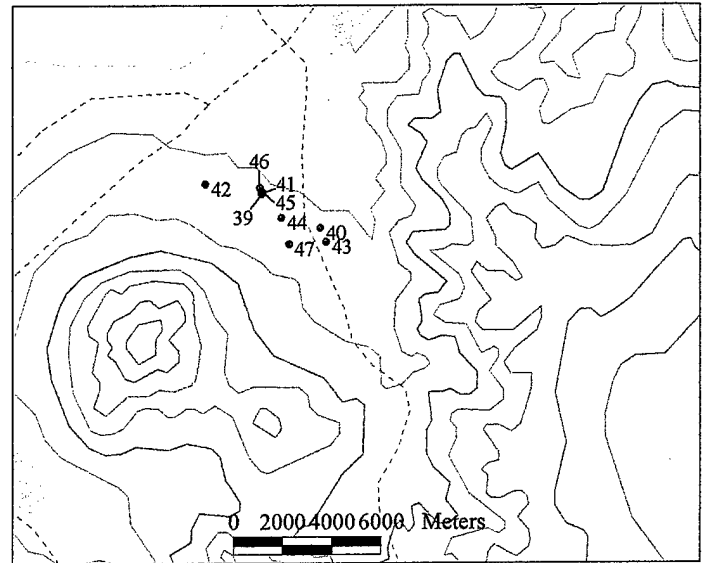
June 6 - June 7

# Two-day Subsets of GPS Collar Locations

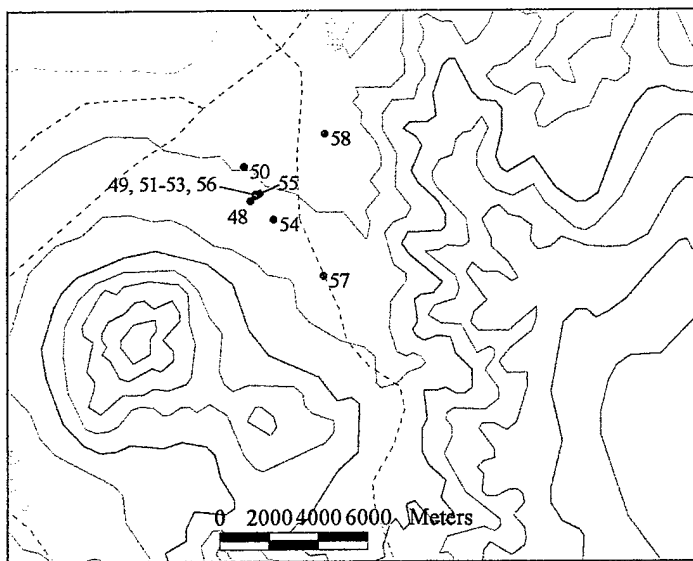
Page 2: June 8 - June 16



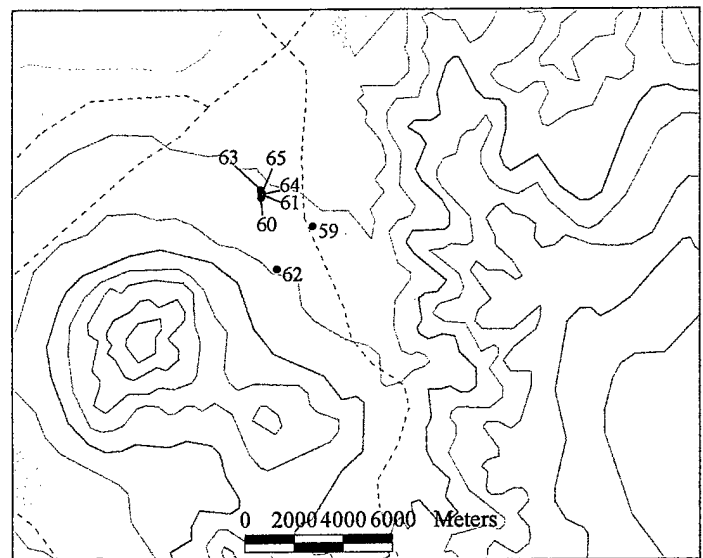
June 8 - June 9



June 11 - June 12



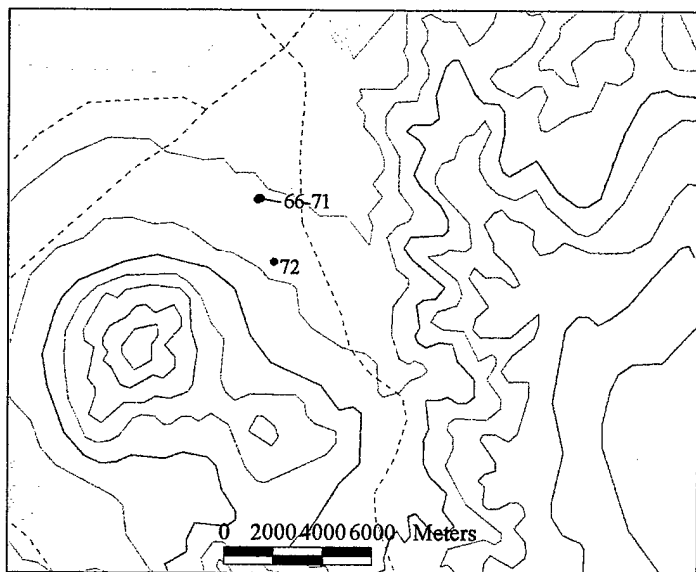
June 13 - June 14



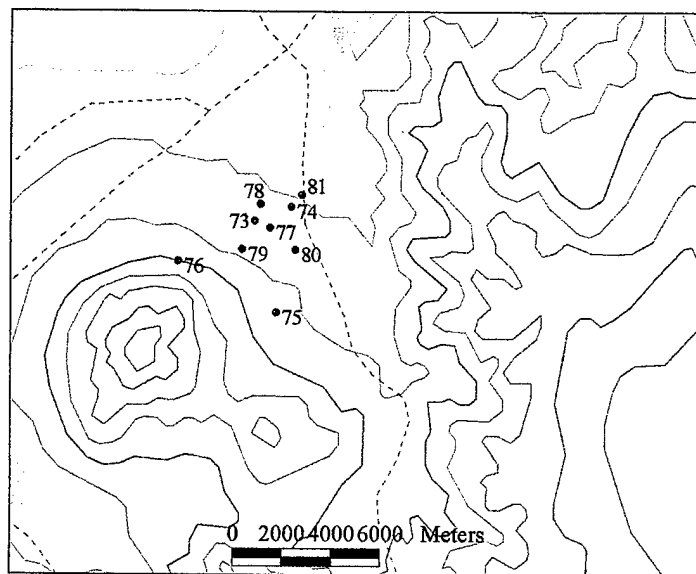
June 15 - June 16

# Two-day Subsets of GPS Collar Locations

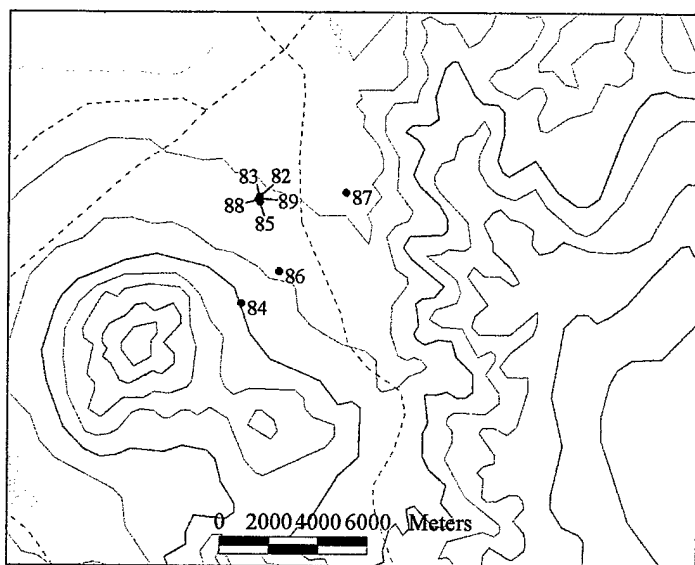
Page 3: June 17 - June 24



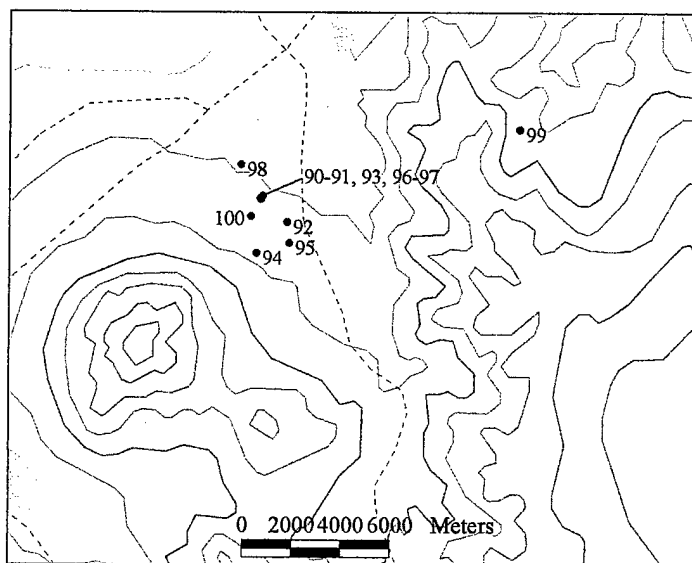
June 17 - June 18



June 19 - June 20

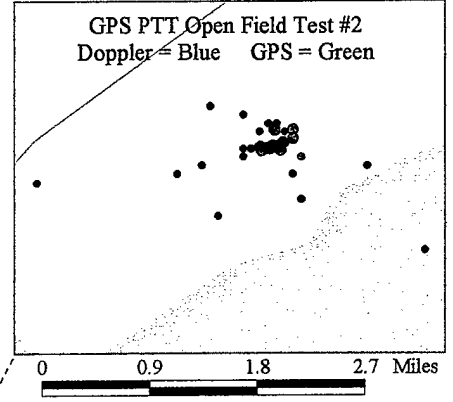
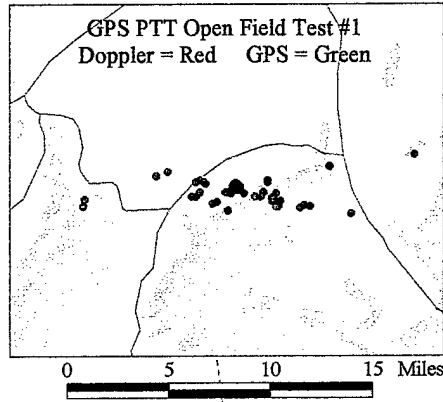
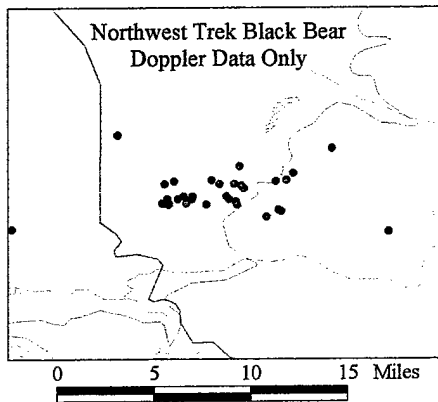


June 21 - June 22



June 23 - June 24

# GPS PTT Collar Tests, Washington



## PTT and Date Range

- 5709 - 9/4 to 9/21
- 5709 - 9/27 to 10/4
- 5739 - 9/27 to 10/3

## Roads

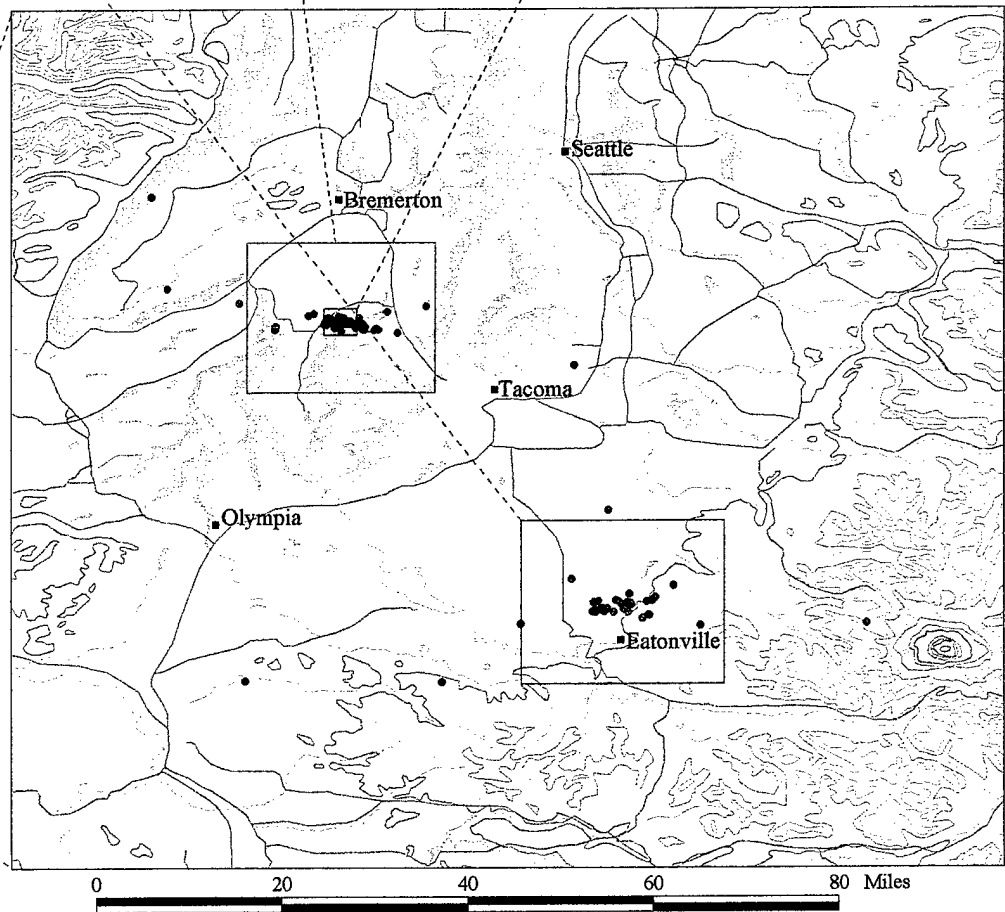
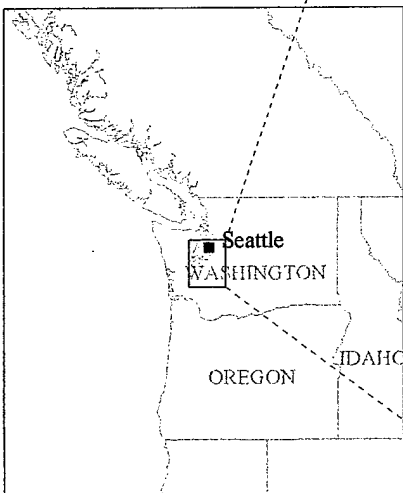


## Water



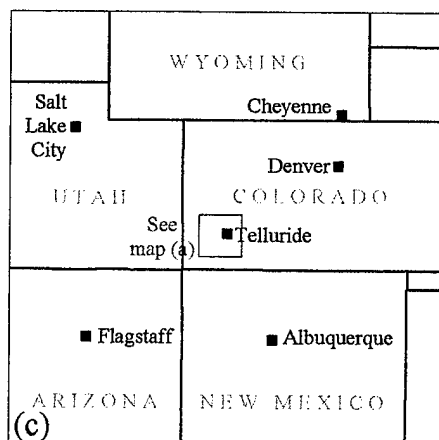
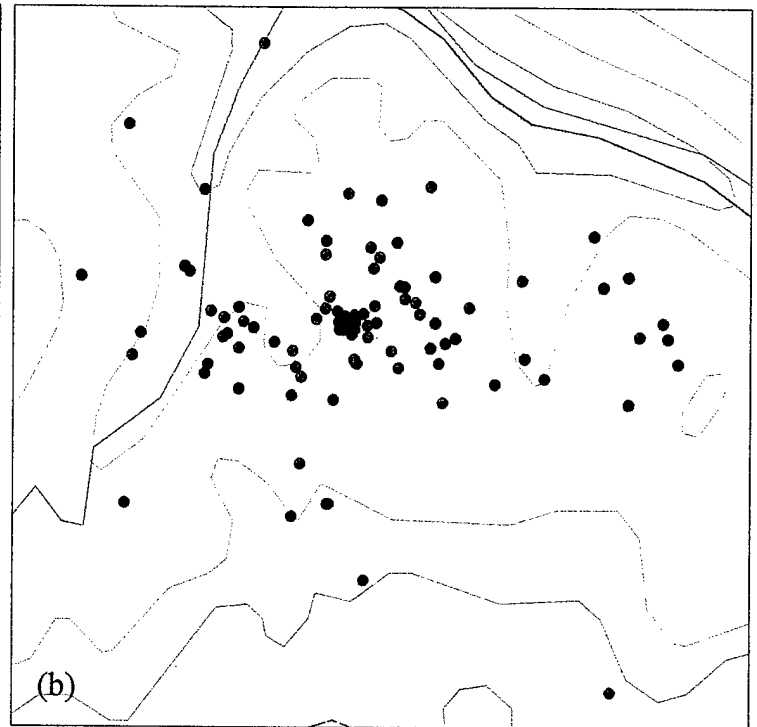
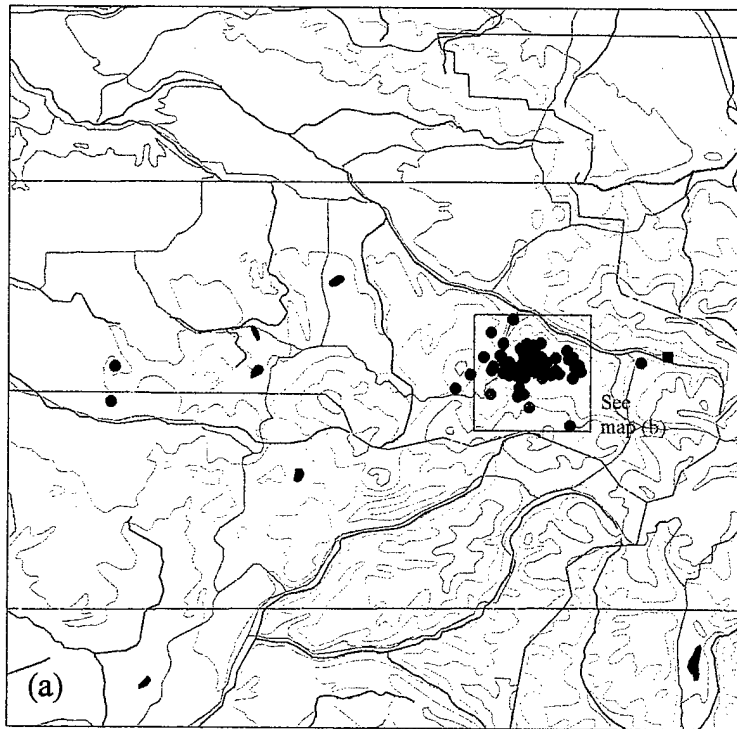
## Elevation (feet)

- |      |       |
|------|-------|
| 1000 | 8000  |
| 2000 | 9000  |
| 3000 | 10000 |
| 4000 | 11000 |
| 5000 | 12000 |
| 6000 | 13000 |
| 7000 | 14000 |



# Location Estimates of Captive Mountain Lion Instrumented with GPS PTT

April 6, 1998 to May 19, 1998



- GPS Location Estimates
- Doppler Location Estimates

■ Water    / Roads

Elevation (ft)

|      |       |
|------|-------|
| 6000 | 10000 |
| 7000 | 11000 |
| 8000 | 12000 |
| 9000 | 13000 |
|      | 14000 |



## **SECTION IV**

White Sands Missile Range, NM, GPS PTT testing and pilot demonstration on wild Oryx.

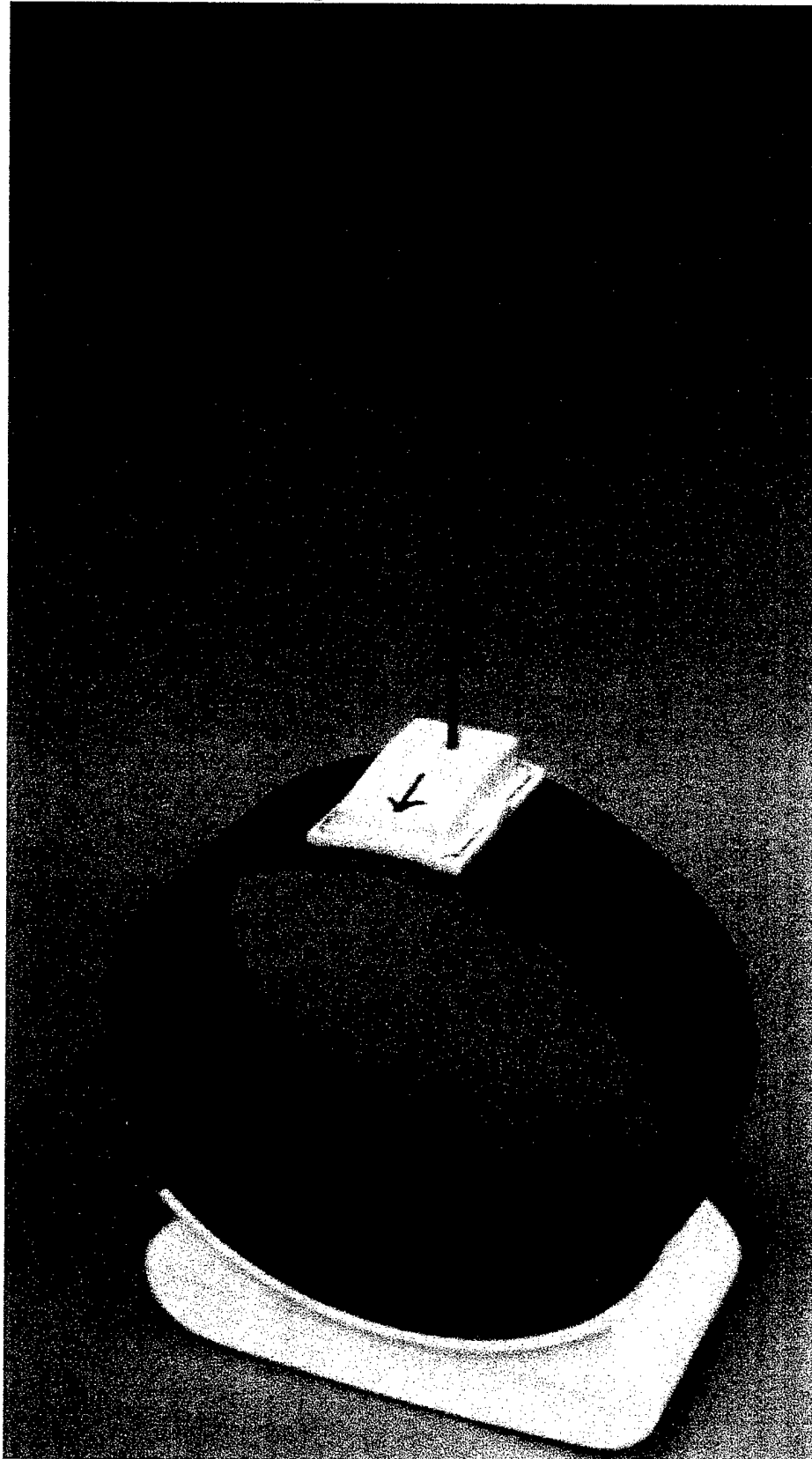
## CCRT Develops Advanced Satellite Biotelemetry Technologies to Improve Natural Resource Management on Military Lands

In partnership with the U.S. Army and the Defense Department's Strategic Environmental Research and Development Program (SERDP), the Center for Conservation Research & Technology (CCRT) at the University of Maryland Baltimore County has developed advanced, satellite-based tracking and monitoring technologies that provide a stand-off capability to gather natural history information on target animal species. These technologies are particularly effective with species that may be difficult to study using traditional methods, such as migratory or widely ranging species, threatened and endangered species, or candidate species. These technologies include: (a) a new Global Positioning System (GPS) Platform Transmitter Terminal (PTT), which transmits GPS locations (accurate to within 100 meters) from the target animal to researchers via the Argos satellite system; (b) meteorological sensors for inclusion in a satellite transmitter package to glean information about the environment surrounding the target animal; and (c) an acoustic sensor with pattern recognition software that will be small enough to be integrated into the PTT to perform a variety of functions. The enhancement in location accuracy provided by the addition of GPS receivers in Argos satellite transmitters represents a quantum leap forward in the application of radio telemetry to wildlife science.

These advanced data gathering technologies, i.e., wildlife tracking and monitoring via satellites, provide state-of-the-art methods to acquire otherwise difficult to collect, expensive, or unattainable data with little or no interference to ongoing military testing and training, and other land-use activities. Prototypes of the GPS PTTs have been successfully field-tested, yielding greatly improved accuracy over Argos Doppler location fixes. The CCRT research team demonstrated the new GPS PTTs on wild oryx at White Sands Missile Range, NM (see results in following pages). Prior to that, a good field demonstration comparison between the GPS and Doppler (Argos) location estimates was conducted for sheep on a rural Maryland farm, mountain lions in Telluride, CO, and wild ponies on Assateague Island, VA (see following pages). A final field demonstration is planned on wild burros at Yuma Proving Ground, AZ. These technologies have been transitioned to the Legacy Resource Management Program for further field demonstration.

The use of satellite-based tracking and monitoring technologies to acquire the natural history information necessary for effective management and conservation of widely-ranging animal species could save DoD roughly 10-30% over currently available best methods (i.e., conventional, ground-based radio telemetry) for acquiring the same types of information. These cost savings accrue to the military in a variety of ways: reduced direct costs for personnel, equipment, and field time; enhanced speed and accuracy of the data; and avoiding conflicts with ongoing base training and testing operations. **Where wildlife management issues have a direct impact on military readiness, these capabilities can provide data to devise solutions quickly, at low cost, and with minimum interruption to military land use activities.** For additional information, please contact Dr. William S. Seegar at (410) 436-2586 (e-mail: [wsseegar@aol.com](mailto:wsseegar@aol.com)) or Mr. Blake Henke at (410) 961-6692 (e-mail: [blakehenke@msn.com](mailto:blakehenke@msn.com)).

GPS PTT Collar, suitable for larger animals. The GPS receiver is encased on



top of the collar, while the Argos PTT and batteries are encased below.

## Field Demonstration and Testing

### GPS PTT Collar Test/Demonstration at White Sands Missile Range, NM, Summer 1998

From May to October of 1998, CCRT tested three prototype GPS PTT collars on free-ranging, African oryx (*oryx gazella*) throughout the 2.2 million acre White Sands Missile Range in New Mexico (WSMR). WSMR is the military's largest all overland test range and the Army's largest installation. Oryx were introduced to WSMR in 1969 as a big game animal. The Oryx are owned by New Mexico Game and Fish and are managed by WSMR. Oryx tracking and monitoring data obtained via satellite can be used to make informed decisions regarding management issues such as habitat and home range requirements, seasonal habitat use, interactions with other species, range carrying capacity, allowable hunting take, and the impacts of military testing.

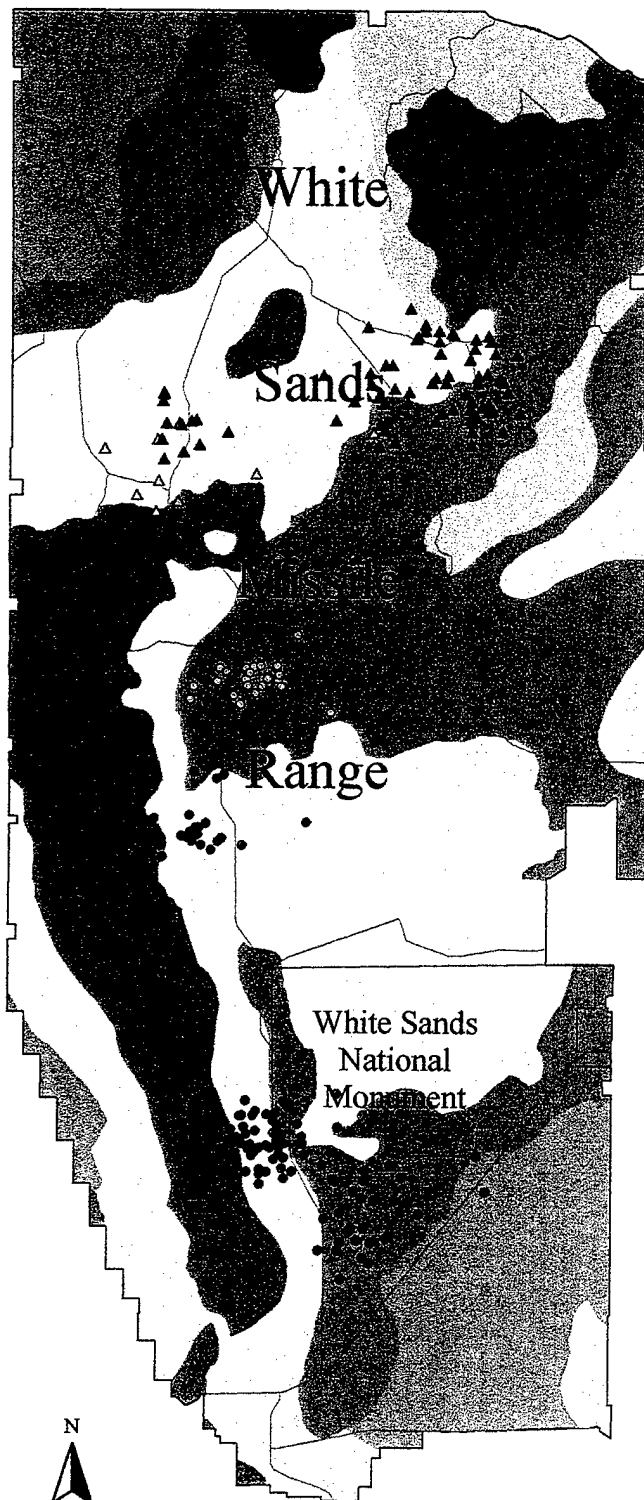
The GPS PTT collars incorporate a Global Positioning System (GPS) receiver with an Argos Platform Transmitter Terminal (PTT). The GPS receiver computes locations, accurate to 100 meters or less, using signals transmitted by the GPS constellation of 24 satellites. The GPS locations are then saved in a microprocessor and transmitted to polar orbiting NOAA/Argos satellites, which downlink the data to ground stations for access by users.

CCRT previously demonstrated the use of Argos satellite PTT collars (that lacked the GPS receivers), accurate to 1000 meters or more, for wildlife tracking at WSMR during 1996 and 1997. Using Doppler shift algorithms, the Argos system calculates the animal's locations, which are then available through the Argos data network. The 1996/97 technology demonstration at WSMR (supported by the DoD's Legacy Resource Management Program) highlighted the utility of tracking animals via space-based systems to enable the remote monitoring of target species *without* disturbance to installation training, testing, or other land use activities. Similarly, wildlife tracking and monitoring via satellite is not hindered by military mission schedules or area restrictions due to unexploded ordnance or sensitive operations.

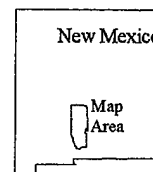
The 1998 WSMR demonstration (supported by the DoD's Strategic Environmental Research and Development Program (SERDP)) highlights the remarkable improvement in data accuracy and volume afforded by the addition of GPS receivers in PTT collars. Results from this 1998 real world test show that the GPS PTT collars outperform any previous design for use on a large, open country, free-ranging ungulate. The new SERDP supported collar design is a significant improvement upon previous Doppler-only wildlife collars. GPS locations are accurate to within 100 meters, while Doppler locations are usually accurate to within 1000+ meters. The new GPS PTT collar design also includes enhancements in power management and microprocessor integration. These advances will dramatically improve the volume and quality of animal movement data gathered via satellite. As the charts below show, during the WSMR testing we received an average of 1.92 GPS locations per day (out of a possible 4), and an average of 58.9% location class 1, 2, or 3 Doppler locations. This compares with 0 GPS locations and only 18.6% Doppler location class 1, 2, or 3, from the 1996/97 Legacy demonstration. Shorter than predicted battery life on two of the units was due to longer than predicted GPS acquisition times. Improvements in GPS

# Oryx Movements and Vegetation Cover

White Sands Missile Range - April 3, 1996 to January 31, 1997



- PTT # 5733
- PTT # 19190
- PTT # 19191
- ▲ PTT # 19192
- ▲ PTT # 19193
- △ PTT # 19194
- △ Roads
- Vegetation
- Chihuahuan Desert Scrub
- Closed Basin Scrub
- Coniferous And Mixed Woodland
- Desert Grassland (Ecotone)
- Juniper Savanna (Ecotone)
- Lava Beds
- Montane Coniferous Forest
- Montane Scrub
- Plains-Mesa Sand Scrub
- Sand Dunes



0 10 20 Miles



Oryx is an introduced big game species that must be managed by the White Sands Missile Range (WSMR) and kept off adjoining lands, including the White Sands National Monument. This task has proven difficult due to the nature of the WSMR testing mission, the remoteness of the area, and the often inaccessible habitat used by the species. Oryx seem to maintain discrete territories, as indicated by these data.

antenna design and new multi-channel GPS receivers have been incorporated and are being field-tested.

### GPS PTT COLLAR SPECIFICATIONS:

Weight: 750 grams (2 C cell) or less, depending on requirements  
850 grams (2 D cell) or less, depending on requirements

GPS duty cycle: 6 hr. acquisition interval (4 GPS hits/day)  
PTT duty cycle: 8 hrs on 22 hours off  
PTT transmission interval: 60 seconds

PTT transmission power: 1 D cell unit: 1watt  
1 D cell unit: .5 watt  
1 C cell unit: .5 watt

Expected Battery life: D cell 1 watt = 90 days  
D cell .5 watt = 180 days  
C cell .5 watt = 90 days

### GPS Performance Data

| PTT  | Battery Size | Start Date | End Date | Predicted Battery Life | Actual Battery Life | Possible GPS Loc | Actual GPS Loc | % Possible GPS Loc |
|------|--------------|------------|----------|------------------------|---------------------|------------------|----------------|--------------------|
| 5707 | D            | 5/15/98    | 9/26/98  | 180                    | 135                 | 540              | 262            | 46.60%             |
| 5736 | D            | 5/15/98    | 9/4/98   | 90                     | 113                 | 452              | 256            | 56.20%             |
| 5738 | C            | 5/15/98    | 8/20/98  | 90                     | 83                  | 308              | 132            | 42.20%             |

### GPS Location Quality Data

| PTT  | Total # of GPS Hits | GPS Location Quality (accuracy decreases from left to right) |    |    |    |    |    |    |
|------|---------------------|--------------------------------------------------------------|----|----|----|----|----|----|
|      |                     | 19                                                           | 17 | 15 | 13 | 29 | 27 | 25 |
| 5707 | 262                 | 2                                                            | 8  | 3  | 1  | 31 | 78 | 9  |
| 5736 | 256                 | 12                                                           | 4  | 0  | 0  | 31 | 85 | 11 |
| 5738 | 132                 | 19                                                           | 2  | 0  | 0  | 23 | 36 | 1  |

| GPS Location Quality (decreases from left to right) |    |    |    |    |    |    |    |    |
|-----------------------------------------------------|----|----|----|----|----|----|----|----|
| 23                                                  | 39 | 37 | 35 | 33 | 49 | 47 | 45 | 43 |
| 2                                                   | 8  | 74 | 20 | 3  | 0  | 5  | 5  | 0  |
| 2                                                   | 12 | 63 | 13 | 4  | 3  | 10 | 5  | 0  |
| 0                                                   | 4  | 30 | 3  | 0  | 3  | 10 | 1  | 0  |

\*NOTE: GPS location quality indicators listed in the table above (i.e., 19 – 43) are relative measures of the accuracy of the GPS location estimate. A “19,” for example, is estimated to be accurate to within 0 – 26 meters. A “27” is estimated to be accurate to within 26 – 50 meters. A “39” is estimated to be accurate to within 51 – 75 meters. Even the lowest quality GPS fixes (e.g., 45 and 43) are estimated and tested to be accurate to within 250 - 300 meters.

## Doppler PTT Location Performance Data

| PTT  | Total #<br>Doppler | Location<br>Class |           |           |       |           |           |   |
|------|--------------------|-------------------|-----------|-----------|-------|-----------|-----------|---|
|      | Locations          | 3                 | 2         | 1         | 0     | A         | B         | Z |
| 5707 | 750                | 147 19.6%         | 155 20.6% | 116 15.5% | 45 6% | 139 18.5% | 147 19.6% | 1 |
| 5736 | 492                | 110 22.3%         | 112 22.7% | 96 19.5%  | 30 6% | 73 14.8%  | 70 14.2%  | 1 |
| 5738 | 273                | 72 26.4%          | 51 18.7%  | 31 11.4%  | 14 5% | 54 19.8%  | 51 18.7%  | 0 |

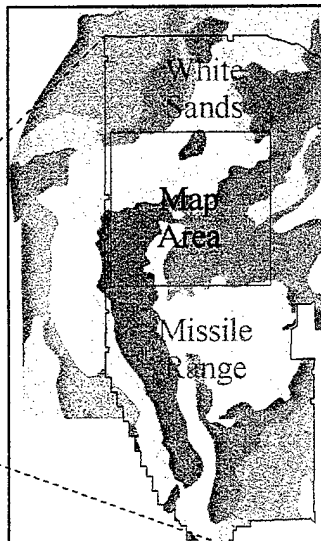
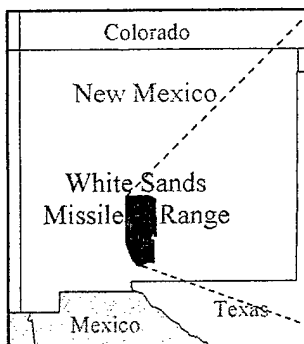
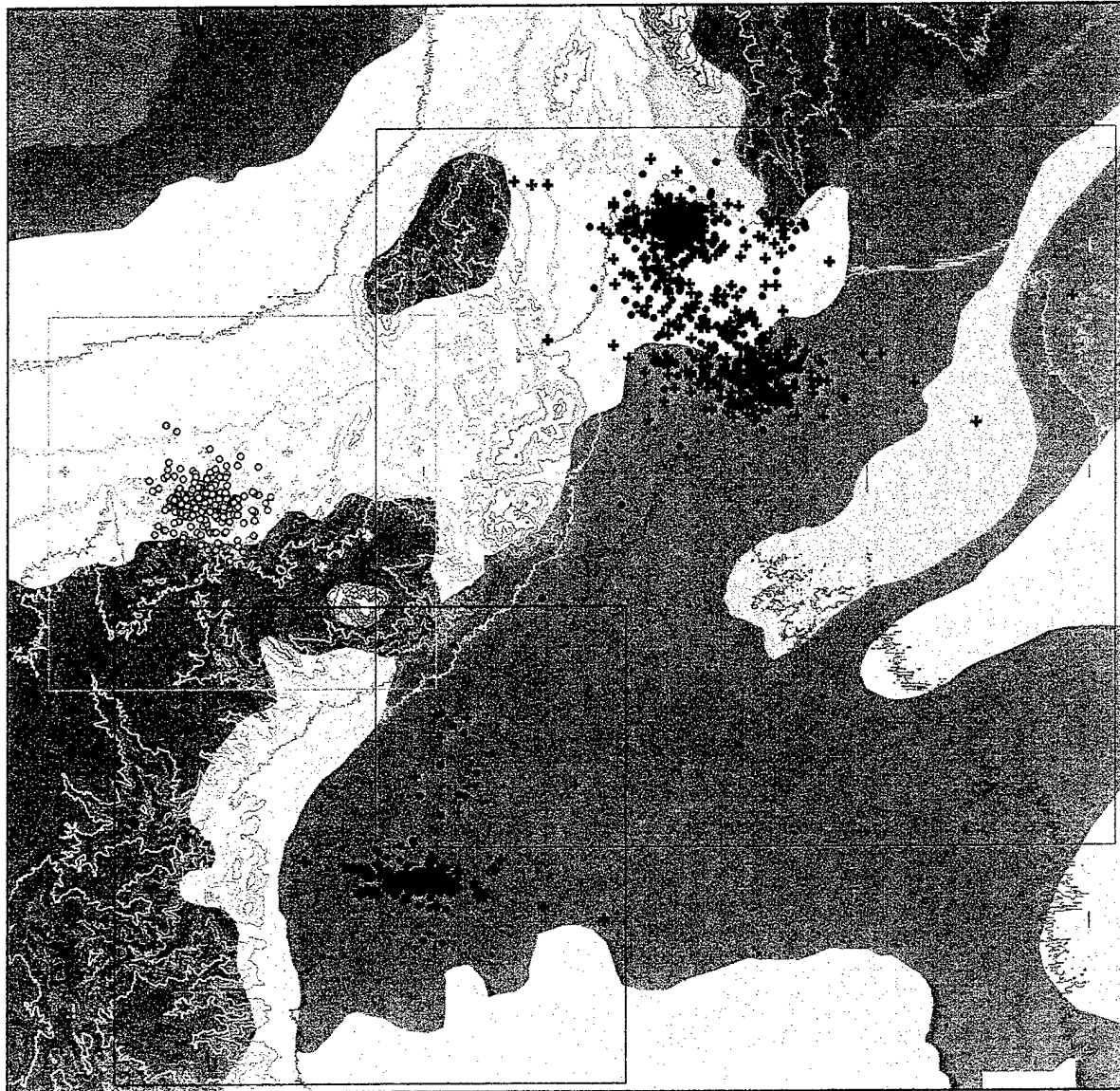
### Argos Location Class (LC)

| Class   | Estimated Accuracy in Latitude and Longitude |
|---------|----------------------------------------------|
| 3       | <= 150 meters                                |
| 2       | <= 350 meters                                |
| 1       | <= 1000 meters                               |
| 0       | > 1000 meters                                |
| A and B | no estimate of location accuracy             |
| Z       | invalid location                             |

# Oryx Location Estimates

## GPS and Doppler

White Sands Missile Range, New Mexico - 15 May 1998 to 27 September 1998



Three Oryx within the White Sands Missile Range (New Mexico) were instrumented with GPS/PTT collars. These collars were equipped with both standard Argos doppler transmitters and GPS receivers.

| Oryx Location Estimates | Elevation Contours (m) |           |
|-------------------------|------------------------|-----------|
| • 5707 (GPS)            | 1176-1275              | 1876-1975 |
| ◦ 5736 (GPS)            | 1276-1375              | 1976-2075 |
| • 5738 (GPS)            | 1376-1475              | 2076-2175 |
| + 5707 (Doppler)        | 1476-1575              | 2176-2275 |
| + 5736 (Doppler)        | 1576-1675              | 2276-2375 |
| + 5738 (Doppler)        | 1676-1775              | 2376-2475 |
|                         | 1776-1875              | 2476-2575 |
|                         |                        | 2576-2675 |

### Vegetation

|                            |                           |
|----------------------------|---------------------------|
| Chihuahuan Desert Scrub    | Lava Beds                 |
| Closed Basin Scrub         | Montane Coniferous Forest |
| Coniferous/Mixed Woodland  | Montane Scrub             |
| Desert Grassland (Ecotone) | Plains-Mesa Sand Scrub    |
| Juniper Savanna (Ecotone)  | Sand Dunes                |

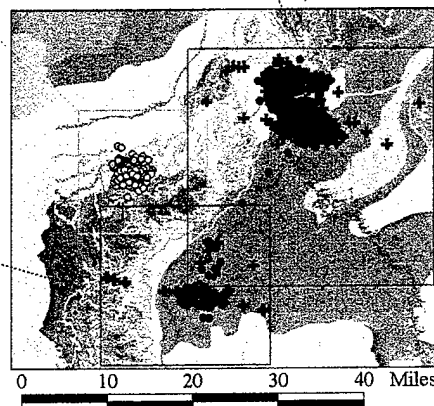
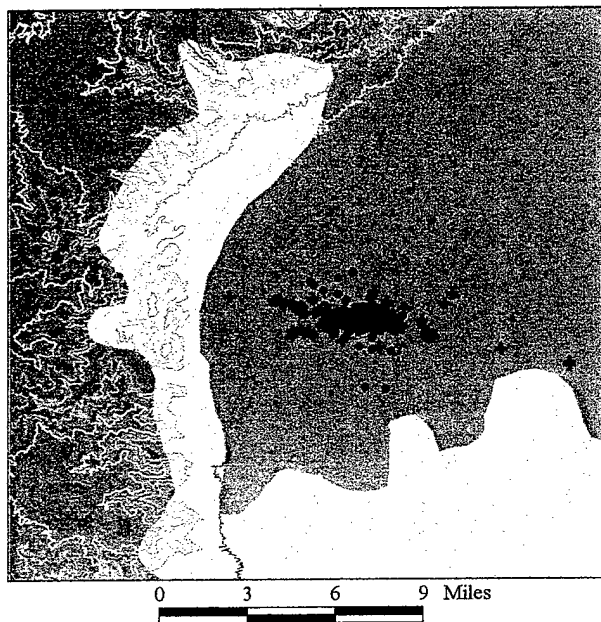
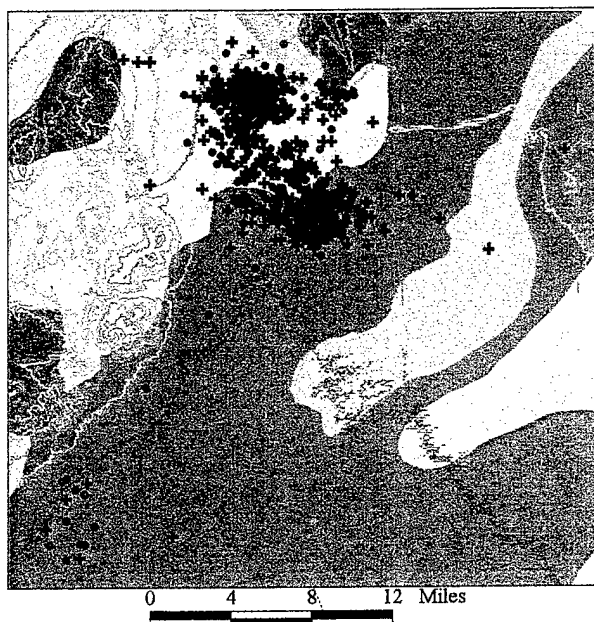
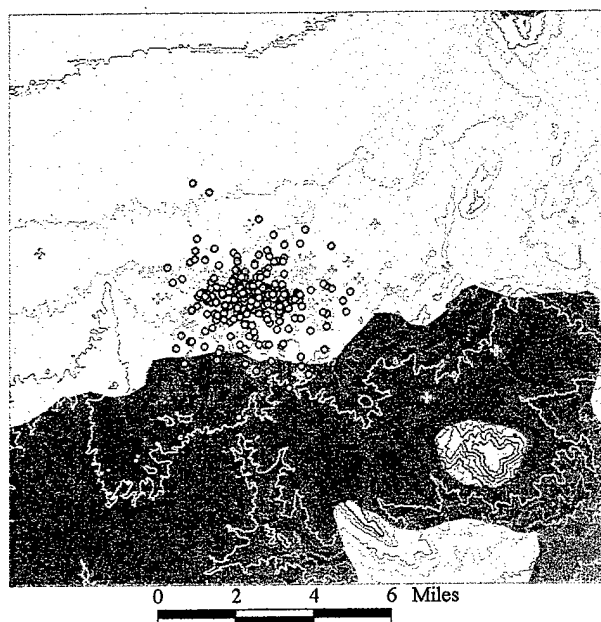


Oryx GPS PTT data plotted on a ten-year old Landsat image of WSMR, NM.

# Oryx Location Estimates

## GPS and Doppler - Individual Collars

White Sands Missile Range, New Mexico - 15 May 1998 to 27 September 1998



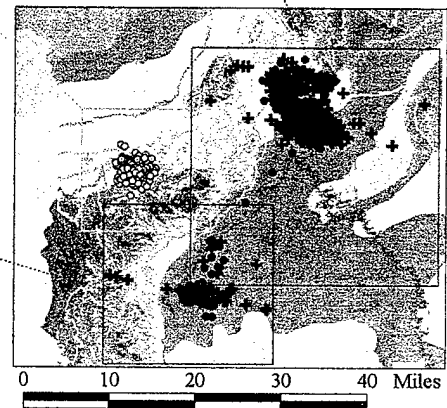
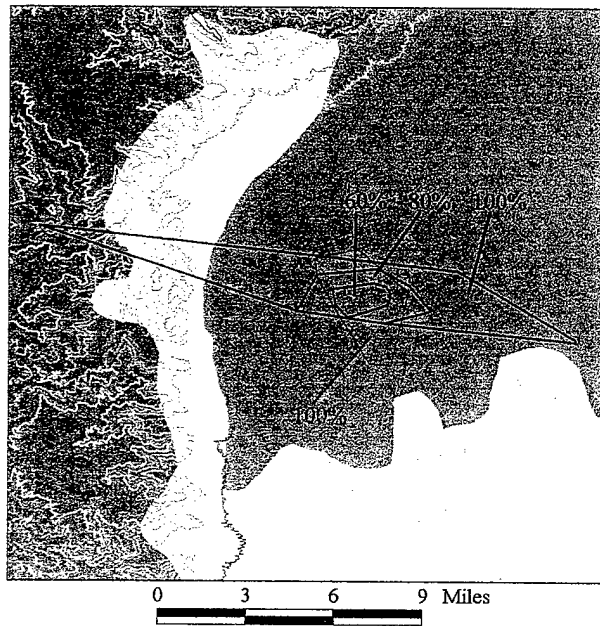
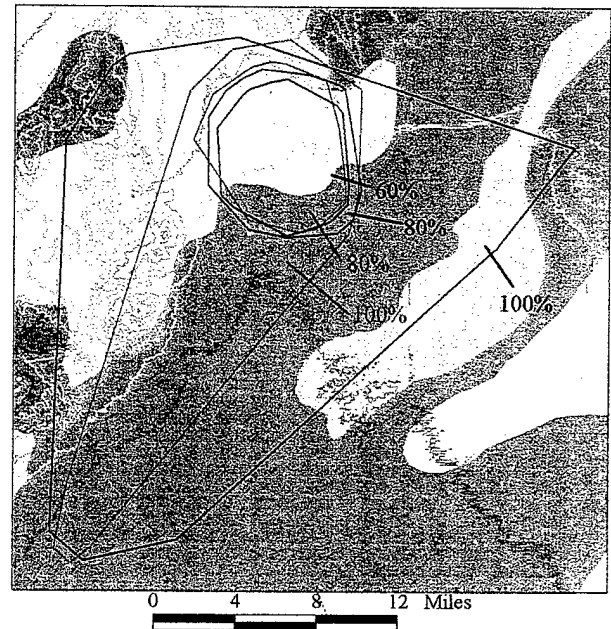
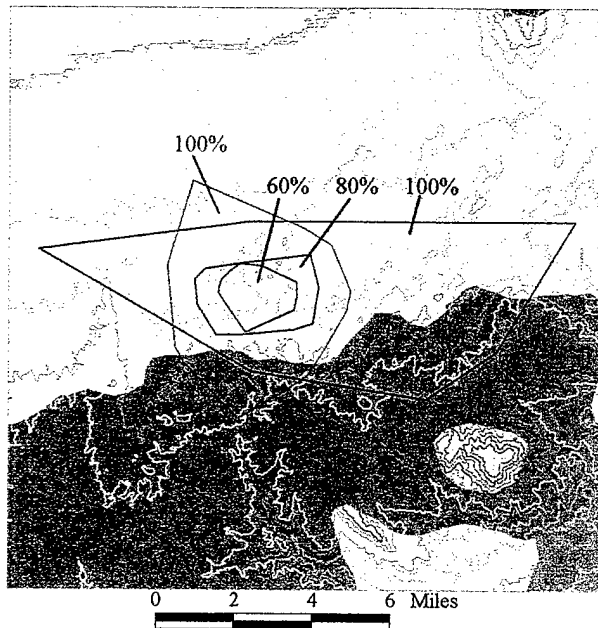
These figures show the GPS and Doppler location estimates of all three Oryx tracked at White Sands Missile Range, New Mexico. All three datasets are visible on the smaller map (lower right), while the three larger maps contain closer views of the individual datasets.

| Oryx Location Estimates    | Elevation Contours (m)    |           |
|----------------------------|---------------------------|-----------|
| • 5707 (GPS)               | 1176-1275                 | 1876-1975 |
| • 5736 (GPS)               | 1276-1375                 | 1976-2075 |
| • 5738 (GPS)               | 1376-1475                 | 2076-2175 |
| + 5707 (Doppler)           | 1476-1575                 | 2176-2275 |
| + 5736 (Doppler)           | 1576-1675                 | 2276-2375 |
| + 5738 (Doppler)           | 1676-1775                 | 2376-2475 |
|                            | 1776-1875                 | 2476-2575 |
|                            |                           | 2576-2675 |
| <b>Vegetation</b>          |                           |           |
| Chihuahuan Desert Scrub    | Lava Beds                 |           |
| Closed Basin Scrub         | Montane Coniferous Forest |           |
| Coniferous/Mixed Woodland  | Montane Scrub             |           |
| Desert Grassland (Ecotone) | Plains-Mesa Sand Scrub    |           |
| Juniper Savanna (Ecotone)  | Sand Dunes                |           |

# Oryx Home Ranges

## GPS and Doppler - Individual Collars

White Sands Missile Range, New Mexico - 15 May 1998 to 27 September 1998



These figures show Oryx home range polygons during the data gathering period. The black polygons were calculated using Doppler location estimates; the red polygons were calculated using GPS location estimates. The size and shape of the Doppler range polygons were calculated using different percentages of the innermost data points (60%, 80%, 100%), to allow for erroneous outlier removal. Only one range polygon for GPS (100% of location estimates) is typically used since GPS datasets are assumed to have no severe outliers. However, for PTT 5707, both the 100% and 80% polygon for GPS locations are shown, since the 100% polygon contains locations recorded while the animal was moving to a new location.

| Oryx Location Estimates    | Elevation Contours (m)    |           |
|----------------------------|---------------------------|-----------|
| • 5707 (GPS)               | 1176-1275                 | 1876-1975 |
| ○ 5736 (GPS)               | 1276-1375                 | 1976-2075 |
| • 5738 (GPS)               | 1376-1475                 | 2076-2175 |
| + 5707 (Doppler)           | 1476-1575                 | 2176-2275 |
| + 5736 (Doppler)           | 1576-1675                 | 2276-2375 |
| + 5738 (Doppler)           | 1676-1775                 | 2376-2475 |
|                            | 1776-1875                 | 2476-2575 |
|                            |                           | 2576-2675 |
| Vegetation                 |                           |           |
| Chihuahuan Desert Scrub    | Lava Beds                 |           |
| Closed Basin Scrub         | Montane Coniferous Forest |           |
| Coniferous/Mixed Woodland  | Montane Scrub             |           |
| Desert Grassland (Ecotone) | Plains-Mesa Sand Scrub    |           |
| Juniper Savanna (Ecotone)  | Sand Dunes                |           |

## **SERDP supported papers and reports**

**Publications/Products and Media Coverage resulting from the Center for Conservation Research & Technology's (CCRT) SERDP and Legacy projects (FY94-97). These were supported wholly or in part by SERDP and/or Legacy.**

**NOTE: The items listed below are grouped together since the Legacy and SERDP projects were planned and executed in parallel. Additional publications not listed here are being produced at this time.**

**Conference Presentations (oral presentations and posters) and Technical Reviews:**

Fuller, M. R. and K. Bates. "Some Effects of Radio Marking on Birds." Forum on Wildlife Telemetry, 21-23 September 1997, Snowmass, CO.

"An ArcView Graphic User Interface for the Display and Analysis of Satellite Telemetry Data." C. Klaus and L. Schueck, Raptor Research Center, Boise State University, Boise, ID, 83725. W. S. Seegar, U.S. Dept. of Defense, Edgewood Research Development and Engineering Center, Aberdeen Proving Ground, MD, 21010. M. Fuller, Snake River Field Station, U. S. Geological Survey, Boise, ID, 83706. Presented at: Dedicated Poster Session: Integrating GIS, Remote Sensing, and Radio-telemetry Technologies in Wildlife Research and Management. The Wildlife Society 4th Annual Conference, 21-27 September 1998, Snowmass, CO.

"Optimal Travel Routes of a Soaring Buteo and a Flapping Falco." Mark Fuller, Snake River Field Station, U.S. Geological Survey and Raptor Research Center, Boise State University, Boise, ID, 83706, USA. William S. Seegar, Department of Army, Edgewood, MD, 21010, USA. Linda Schueck Raptor Research Center, Boise State University, Boise, ID, 83725, USA. Presented at: Optimal Migration, 5-9 November 1997, Lund, Sweden.

"Movements of American White Pelicans from Nevada through the Western United States." Mark Fuller, Mike Yates, Linda Schueck, and Kirk Bates, U.S. Geological Survey and Raptor Research Center, Boise State University, Boise, ID. William S. Seegar, Department of Army, Edgewood, MD. William Henry, Stillwater NWR, Stillwater, NV. Harlan Shannon and George Young, Dept. of Meteorology, Penn State University, University Park, PA. presented at: The Wetland Connectivity and Waterbird Conservation in the Western Great Basin, 18-19 February, 1998, Bend, OR, USA.

"Movements of Ferruginous Hawks Through Western North America." Linda Schueck, Tom Maechtle, Mark Fuller, and Kirk Bates, U.S. Geological Survey and Raptor Research Center, Boise State University, Boise, ID. William S.

Seegar, Department of Army, Edgewood, MD. Joanna Ward, Utah State Univ. Dept. of Fisheries and Wildlife, Logan, UT. Presented at : The 40th Annual Meeting of the Idaho Academy of Science, 2-4 April 1998, Boise, ID, USA.

"Advanced Biotelemetry for Resource Management." SERDP Symposium poster presentations, William S. Seegar, 1995, 1996, 1997.

"Advanced Satellite Biotelemetry Capability Poised to Improve Resource Management on Military and Non-Military Lands to Contribute Toward Sustainable Development." W.S. Seegar, M.R. Fuller, M.B. Henke, De Lange/Woodlands Conference on Sustainable Development: Managing the Transition, Houston, TX, March 1997.

"Advanced Biotelemetry Technology Will Enhance Resource Management and Military Readiness on Military Lands." W.S. Seegar, M.R. Fuller, M.B. Henke, American Defense Preparedness Association Environmental Symposium, New Orleans, LA, April 1997.

"New and Advanced Satellite Tracking System Will Contribute to Natural Resources Conservation and Management." W.S. Seegar, M.R. Fuller, M.B. Henke, National Association of Environmental Professionals Conference, Orlando, FL, May 1997.

"Military Conservation Technologies of Potential Interest to the Tropical Test Center in Panama." W.S. Seegar, M.R. Fuller, M.B. Henke, Military Technologies Workshop, Panama City, Panama, July 1997.

"Advanced Satellite Tracking System will Contribute to Natural Resources Conservation and Management." W.S. Seegar, M.R. Fuller, M.B. Henke, Forum on Wildlife Telemetry, 21-23 September 1997, Snowmass, CO.

"Development and Application of Satellite-based Tracking System for Neotropical Migratory Birds and Its Results in Conservation Science." W.S. Seegar, M.R. Fuller, M.B. Henke, DoD Partners In Flight Working Group Meeting, March 1998

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- 1) Henny, C.J., W.S. Seegar and T.L. Maechtle. 1996. "DDE Decreases in Plasma of Spring Migrant Peregrine Falcons, 1978-94." *Journal of Wildlife Management* 0:342-349
- 2) Maechtle, T.L. 1998. "The Aba: a Device for Restraining Raptors and Other Large Birds." *Journal of Field Ornithology* 69:66-70.
- 3) Taft, S.J., R.N. Rosenfield, W.S. Seegar and T.L. Maechtle. 1998. "Paucity of hematozoa in Peregrine Falcons (*Falco peregrinus*) in West Greenland and Coastal Texas." *Journal of the Helminthological Society of Washington* 65:111-113.
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Media/Press publicity:

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## **APPENDIX**

Raw PTT data

| ID    | PROG  | S | LC | D_DATE  | D_TIME   | D_LAT  | D_LON    | L_DATE  | L_TIME   | GPS_DATE | GPS_TIME | LATITUDE | LONGITUDE | ALT | CRSE | SPD | STATE            |
|-------|-------|---|----|---------|----------|--------|----------|---------|----------|----------|----------|----------|-----------|-----|------|-----|------------------|
| 05707 | 00381 | H | B  | 5/16/98 | 17:43:42 | 33.250 | -106.412 | 5/16/98 | 17:42:12 | 5/15/98  | 01:26:20 | 33.1908  | -106.4795 | 78  | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | H | B  | 5/16/98 | 17:43:42 | 33.250 | -106.412 | 5/16/98 | 17:45:12 | 5/15/98  | 07:39:08 | 33.1900  | -106.4760 | 481 | 0    | 0   | 17 (0m-26m 3N)   |
| 05707 | 00381 | H | A  | 5/18/98 | 01:35:09 | 33.212 | -106.484 | 5/18/98 | 01:38:54 | 5/16/98  | 02:02:54 | 33.1792  | -106.4897 | 509 | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | H | 0  | 5/18/98 | 03:14:12 | 33.261 | -106.325 | 5/18/98 | 03:11:57 | 5/17/98  | 02:25:13 | 33.2353  | -106.4923 | 85  | 0    | 0   | 45 (76m-100m 2N) |
| 05707 | 00381 | H | 0  | 5/18/98 | 03:14:12 | 33.261 | -106.325 | 5/18/98 | 03:16:27 | 5/16/98  | 08:01:37 | 33.1898  | -106.5015 | 75  | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | H | 0  | 5/18/98 | 03:14:12 | 33.261 | -106.325 | 5/18/98 | 03:19:27 | 5/16/98  | 20:20:41 | 33.2073  | -106.4897 | 249 | 0    | 0   | 29 (26m-50m 4N)  |
| 05707 | 00381 | H | 0  | 5/18/98 | 03:14:12 | 33.261 | -106.325 | 5/18/98 | 03:19:27 | 5/17/98  | 14:38:49 | 33.2292  | -106.4830 | 184 | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 1  | 5/19/98 | 08:38:04 | 33.416 | -106.358 | 5/19/98 | 08:39:34 | 5/17/98  | 08:31:37 | 33.2030  | -106.4695 | 111 | 0    | 0   | 39 (51m-75m 4N)  |
| 05707 | 00381 | J | 0  | 5/19/98 | 10:16:18 | 33.437 | -106.352 | 5/19/98 | 10:17:03 | 5/18/98  | 02:55:22 | 33.2255  | -106.4767 | 205 | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | J | 0  | 5/19/98 | 10:16:18 | 33.437 | -106.352 | 5/19/98 | 10:18:33 | 5/17/98  | 20:44:49 | 33.2367  | -106.4892 | 180 | 0    | 0   | 29 (26m-50m 4N)  |
| 05707 | 00381 | D | A  | 5/20/98 | 14:23:07 | 33.448 | -106.360 | 5/20/98 | 14:20:52 | 5/18/98  | 09:00:52 | 33.3002  | -106.4328 | 100 | 0    | 0   | 35 (51m-75m 2N)  |
| 05707 | 00381 | J | 0  | 5/21/98 | 21:21:18 | 33.448 | -106.444 | 5/21/98 | 21:20:33 | 5/18/98  | 15:08:37 | 33.3517  | -106.3882 | 208 | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 0  | 5/21/98 | 21:21:18 | 33.448 | -106.444 | 5/21/98 | 21:22:03 | 5/19/98  | 03:25:52 | 33.3840  | -106.3550 | 521 | 0    | 0   | 35 (51m-75m 2N)  |
| 05707 | 00381 | D | A  | 5/21/98 | 23:40:05 | 33.459 | -106.372 | 5/21/98 | 23:42:20 | 5/19/98  | 09:29:00 | 33.4353  | -106.3633 | 106 | 0    | 0   | 29 (26m-50m 4N)  |
| 05707 | 00381 | D | 2  | 5/23/98 | 00:58:03 | 33.469 | -106.349 | 5/23/98 | 00:55:48 | 5/19/98  | 15:36:06 | 33.4553  | -106.3700 | 94  | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | D | 2  | 5/23/98 | 00:58:03 | 33.469 | -106.349 | 5/23/98 | 00:57:17 | 5/19/98  | 21:45:47 | 33.4572  | -106.3745 | 318 | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | H | 3  | 5/23/98 | 03:51:17 | 33.497 | -106.361 | 5/23/98 | 03:49:47 | 5/20/98  | 09:58:19 | 33.4443  | -106.3680 | 345 | 0    | 0   | 35 (51m-75m 2N)  |
| 05707 | 00381 | H | 3  | 5/23/98 | 03:51:17 | 33.497 | -106.361 | 5/23/98 | 03:51:17 | 5/20/98  | 03:51:24 | 33.4573  | -106.3518 | 291 | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | J | 3  | 5/24/98 | 09:24:35 | 33.515 | -106.359 | 5/24/98 | 09:21:35 | 5/20/98  | 16:15:31 | 33.4572  | -106.3827 | 774 | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | D | 1  | 5/24/98 | 12:56:23 | 33.512 | -106.349 | 5/24/98 | 12:53:23 | 5/22/98  | 04:46:13 | 33.4720  | -106.4035 | 72  | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | D | 1  | 5/24/98 | 12:56:23 | 33.512 | -106.349 | 5/24/98 | 12:54:53 | 5/21/98  | 22:40:46 | 33.4558  | -106.3558 | 183 | 0    | 0   | 23 (26m-50m 1N)  |
| 05707 | 00381 | D | 1  | 5/24/98 | 12:56:23 | 33.512 | -106.349 | 5/24/98 | 12:57:53 | 5/22/98  | 10:53:20 | 33.4653  | -106.3860 | 139 | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | H | 0  | 5/25/98 | 15:53:49 | 33.505 | -106.347 | 5/25/98 | 15:59:49 | 5/23/98  | 11:22:21 | 33.4932  | -106.3708 | 124 | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | H | 2  | 5/25/98 | 17:32:48 | 33.512 | -106.349 | 5/25/98 | 17:29:48 | 5/23/98  | 23:35:06 | 33.5132  | -106.3578 | 170 | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | H | 2  | 5/25/98 | 17:32:48 | 33.512 | -106.349 | 5/25/98 | 17:32:48 | 5/23/98  | 05:14:15 | 33.4940  | -106.3613 | 73  | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 3  | 5/26/98 | 20:25:51 | 33.513 | -106.357 | 5/26/98 | 20:28:06 | 5/24/98  | 11:51:50 | 33.5140  | -106.3472 | 204 | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 3  | 5/26/98 | 20:25:51 | 33.513 | -106.357 | 5/26/98 | 20:29:36 | 5/24/98  | 05:40:45 | 33.5098  | -106.3655 | 143 | 0    | 0   | 35 (51m-75m 2N)  |
| 05707 | 00381 | D | 2  | 5/26/98 | 23:30:21 | 33.513 | -106.361 | 5/26/98 | 23:31:06 | 5/24/98  | 17:57:57 | 33.5072  | -106.3465 | 135 | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | H |    |         |          |        |          | 5/27/98 | 01:25:38 | 5/25/98  | 06:15:12 | 33.5128  | -106.3438 | 455 | 0    | 0   | 29 (26m-50m 4N)  |
| 05707 | 00381 | H | 2  | 5/28/98 | 04:31:10 | 33.514 | -106.356 | 5/28/98 | 04:34:10 | 5/26/98  | 00:34:50 | 33.5110  | -106.3550 | 228 | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | H | 2  | 5/28/98 | 04:31:10 | 33.514 | -106.356 | 5/28/98 | 04:35:40 | 5/25/98  | 12:17:46 | 33.4973  | -106.3507 | 242 | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | J | 1  | 5/28/98 | 08:40:17 | 33.543 | -106.372 | 5/28/98 | 08:40:17 | 5/26/98  | 06:39:43 | 33.5152  | -106.3498 | 161 | 0    | 0   | 19 (0m-26m 4N)   |
| 05707 | 00381 | J | 1  | 5/28/98 | 08:40:17 | 33.543 | -106.372 | 5/28/98 | 08:41:47 | 5/26/98  | 12:44:42 | 33.5170  | -106.3482 | 101 | 0    | 0   | 19 (0m-26m 4N)   |
| 05707 | 00381 | J | 1  | 5/28/98 | 08:40:17 | 33.543 | -106.372 | 5/28/98 | 08:43:17 | 5/27/98  | 01:01:12 | 33.5210  | -106.3615 | 120 | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 1  | 5/29/98 | 10:07:45 | 33.529 | -106.440 | 5/29/98 | 10:06:15 | 5/29/98  | 02:00:07 | 33.5165  | -106.3638 | 376 | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 1  | 5/29/98 | 10:07:45 | 33.529 | -106.440 | 5/29/98 | 10:10:45 | 5/28/98  | 01:26:37 | 33.5157  | -106.3492 | 128 | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | J | 1  | 5/29/98 | 10:07:45 | 33.529 | -106.440 | 5/29/98 | 10:10:45 | 5/28/98  | 19:49:47 | 33.5082  | -106.3565 | 119 | 0    | 0   | 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 1  | 5/29/98 | 10:07:45 | 33.529 | -106.440 | 5/29/98 | 10:13:45 | 5/28/98  | 07:35:44 | 33.4892  | -106.3690 | 69  | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | J | 1  | 5/29/98 | 10:07:45 | 33.529 | -106.440 | 5/29/98 | 10:13:45 | 5/28/98  | 13:43:32 | 33.5148  | -106.3420 | 102 | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | H | 2  | 6/1/98  | 03:42:20 | 33.505 | -106.352 | 6/1/98  | 03:37:05 | 5/29/98  | 20:30:41 | 33.5058  | -106.3640 | 814 | 0    | 0   | 37 (51m-75m 3N)  |
| 05707 | 00381 | H | 2  | 6/1/98  | 03:42:20 | 33.505 | -106.352 | 6/1/98  | 03:38:35 | 5/30/98  | 02:25:18 | 33.5045  | -106.3582 | 128 | 0    | 0   | 37 (51m-75m 3N)  |

|       |       |     |                  |        |          |                  |                  |         |           |     |   |                     |
|-------|-------|-----|------------------|--------|----------|------------------|------------------|---------|-----------|-----|---|---------------------|
| 05707 | 00381 | H 2 | 6/1/98 03:42:20  | 33.505 | -106.352 | 6/1/98 03:44:35  | 5/30/98 08:31:23 | 33.5047 | -106.3788 | 135 | 0 | 0 17 (0m-26m 3N)    |
| 05707 | 00381 | J 3 | 6/2/98 11:06:56  | 33.499 | -106.359 | 6/2/98 11:05:26  | 5/30/98 20:52:06 | 33.5055 | -106.3635 | 414 | 0 | 0 33 (51m-75m 1N)   |
| 05707 | 00381 | J 3 | 6/2/98 11:06:56  | 33.499 | -106.359 | 6/2/98 11:06:56  | 5/31/98 02:54:53 | 33.4938 | -106.3598 | 143 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | J 3 | 6/2/98 11:06:56  | 33.499 | -106.359 | 6/2/98 11:08:26  | 5/31/98 08:59:44 | 33.5038 | -106.3747 | 76  | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | D A | 6/3/98 14:16:59  | 33.508 | -106.354 | 6/3/98 14:18:29  | 6/1/98 21:42:41  | 33.5100 | -106.3660 | 174 | 0 | 0 25 (26m-50m 2N)   |
| 05707 | 00381 | H 3 | 6/3/98 15:42:29  | 33.513 | -106.367 | 6/3/98 15:46:59  | 6/1/98 09:30:42  | 33.5028 | -106.3625 | 174 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | H 3 | 6/3/98 15:42:29  | 33.513 | -106.367 | 6/3/98 15:48:29  | 5/31/98 21:16:45 | 33.5205 | -106.3653 | 374 | 0 | 0 57 (101m-200m 3N) |
| 05707 | 00381 | H B | 6/3/98 17:24:35  | 33.527 | -106.371 | 6/3/98 17:22:20  | 6/2/98 16:04:38  | 33.5012 | -106.3537 | 86  | 0 | 0 15 (0m-26m 2N)    |
| 05707 | 00381 | J 3 | 6/4/98 20:27:09  | 33.511 | -106.357 | 6/4/98 20:29:24  | 6/2/98 22:14:03  | 33.4948 | -106.3650 | 293 | 0 | 0 33 (51m-75m 1N)   |
| 05707 | 00381 | J 3 | 6/4/98 20:27:09  | 33.511 | -106.357 | 6/4/98 20:29:24  | 6/4/98 16:59:08  | 33.5127 | -106.3510 | 146 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | J A | 6/4/98 22:06:54  | 33.515 | -106.345 | 6/4/98 22:05:24  | 6/3/98 04:18:19  | 33.5072 | -106.3685 | 188 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | J A | 6/4/98 22:06:54  | 33.515 | -106.345 | 6/4/98 22:06:54  | 6/3/98 10:22:37  | 33.5070 | -106.3427 | 80  | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | D 3 | 6/4/98 23:32:40  | 33.509 | -106.358 | 6/4/98 23:33:25  | 6/3/98 16:34:18  | 33.5097 | -106.3560 | 175 | 0 | 0 45 (76m-100m 2N)  |
| 05707 | 00381 | D 3 | 6/4/98 23:32:40  | 33.509 | -106.358 | 6/4/98 23:33:25  | 6/4/98 10:51:42  | 33.5105 | -106.3530 | 65  | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | D 3 | 6/4/98 23:32:40  | 33.509 | -106.358 | 6/4/98 23:34:55  | 6/3/98 22:43:17  | 33.5095 | -106.3598 | 282 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | D 3 | 6/4/98 23:32:40  | 33.509 | -106.358 | 6/4/98 23:36:25  | 6/4/98 04:46:37  | 33.5028 | -106.3708 | 121 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | J 2 | 6/12/98 10:57:52 | 33.494 | -106.349 | 6/12/98 10:59:22 | 6/7/98 12:18:50  | 33.5142 | -106.3565 | 81  | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | D 3 | 6/12/98 14:18:07 | 33.505 | -106.363 | 6/12/98 14:17:22 | 6/7/98 06:10:53  | 33.5135 | -106.3603 | 209 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H 3 | 6/12/98 15:31:31 | 33.506 | -106.365 | 6/12/98 15:27:46 | 6/7/98 18:33:19  | 33.5083 | -106.3475 | 515 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H 2 | 6/13/98 15:17:52 | 33.509 | -106.386 | 6/13/98 15:17:52 | 6/11/98 01:58:37 | 33.4952 | -106.3677 | 301 | 0 | 0 39 (51m-75m 4N)   |
| 05707 | 00381 | J 3 | 6/13/98 20:26:06 | 33.507 | -106.389 | 6/13/98 20:23:51 | 6/11/98 08:05:31 | 33.4810 | -106.3687 | 114 | 0 | 0 35 (51m-75m 2N)   |
| 05707 | 00381 | J 2 | 6/13/98 22:07:24 | 33.514 | -106.374 | 6/13/98 22:07:24 | 6/12/98 02:24:44 | 33.4662 | -106.3727 | 108 | 0 | 0 39 (51m-75m 4N)   |
| 05707 | 00381 | J 2 | 6/13/98 22:07:24 | 33.514 | -106.374 | 6/13/98 22:08:54 | 6/11/98 14:16:08 | 33.4828 | -106.3708 | 314 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | H   |                  |        |          | 6/15/98 04:11:55 | 6/12/98 14:44:13 | 33.5052 | -106.3580 | 310 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | J 0 | 6/16/98 10:12:10 | 33.513 | -106.321 | 6/16/98 10:13:40 | 6/13/98 02:53:33 | 33.5053 | -106.3718 | 73  | 0 | 0 25 (26m-50m 2N)   |
| 05707 | 00381 | J 0 | 6/16/98 10:12:10 | 33.513 | -106.321 | 6/16/98 10:15:10 | 6/13/98 15:07:19 | 33.5105 | -106.3587 | 178 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | J 0 | 6/16/98 10:12:10 | 33.513 | -106.321 | 6/16/98 10:16:40 | 6/13/98 21:17:24 | 33.4982 | -106.3850 | 177 | 0 | 0 35 (51m-75m 2N)   |
| 05707 | 00381 | J 0 | 6/16/98 10:12:10 | 33.513 | -106.321 | 6/16/98 10:18:10 | 6/14/98 03:25:13 | 33.5018 | -106.3688 | 211 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | D 3 | 6/17/98 14:08:24 | 33.513 | -106.350 | 6/17/98 14:11:25 | 6/14/98 09:30:19 | 33.5018 | -106.3812 | 157 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | H 1 | 6/17/98 16:08:24 | 33.496 | -106.302 | 6/17/98 16:03:54 | 6/16/98 16:39:21 | 33.5108 | -106.3523 | 431 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H 1 | 6/17/98 16:08:24 | 33.496 | -106.302 | 6/17/98 16:05:24 | 6/17/98 04:46:01 | 33.5157 | -106.3410 | 113 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | H 1 | 6/17/98 16:08:24 | 33.496 | -106.302 | 6/17/98 16:12:54 | 6/16/98 04:16:37 | 33.5105 | -106.3448 | 110 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H 1 | 6/17/98 16:08:24 | 33.496 | -106.302 | 6/17/98 16:12:54 | 6/16/98 10:26:13 | 33.5183 | -106.3467 | 80  | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H B | 6/17/98 17:46:42 | 33.604 | -106.198 | 6/17/98 17:45:57 | 6/14/98 15:36:23 | 33.5062 | -106.3545 | 162 | 0 | 0 25 (26m-50m 2N)   |
| 05707 | 00381 | H B | 6/17/98 17:46:42 | 33.604 | -106.198 | 6/17/98 17:45:57 | 6/17/98 17:03:40 | 33.4975 | -106.3597 | 201 | 0 | 0 35 (51m-75m 2N)   |
| 05707 | 00381 | H B | 6/17/98 17:46:42 | 33.604 | -106.198 | 6/17/98 17:47:27 | 6/15/98 09:59:08 | 33.5240 | -106.3850 | 144 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | H B | 6/17/98 17:46:42 | 33.604 | -106.198 | 6/17/98 17:47:27 | 6/17/98 10:51:32 | 33.5223 | -106.3383 | 80  | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H B | 6/18/98 19:31:25 | 33.490 | -106.356 | 6/18/98 19:32:55 | 6/18/98 11:43:52 | 33.5347 | -106.3762 | 929 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | J B | 6/18/98 19:31:25 | 33.490 | -106.356 | 6/18/98 19:32:55 | 6/18/98 17:40:19 | 33.5095 | -106.3412 | 117 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | H 3 | 6/20/98 15:31:06 | 33.523 | -106.369 | 6/20/98 15:35:36 | 6/19/98 18:19:36 | 33.5092 | -106.3565 | 108 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | H 3 | 6/20/98 15:31:06 | 33.523 | -106.369 | 6/20/98 15:35:36 | 6/20/98 00:36:35 | 33.5107 | -106.3620 | 763 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H 2 | 6/20/98 17:11:36 | 33.519 | -106.354 | 6/20/98 17:14:36 | 6/19/98 12:13:54 | 33.5247 | -106.3377 | 201 | 0 | 0 47 (76m-100m 3N)  |

|       |       |     |                  |        |          |                  |                  |         |           |     |   |                     |
|-------|-------|-----|------------------|--------|----------|------------------|------------------|---------|-----------|-----|---|---------------------|
| 05707 | 00381 | H 2 | 6/20/98 17:11:36 | 33.519 | -106.354 | 6/20/98 17:14:36 | 6/20/98 06:31:01 | 33.5170 | -106.3432 | 73  | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | H 2 | 6/20/98 17:11:36 | 33.519 | -106.354 | 6/20/98 17:16:06 | 6/19/98 06:06:44 | 33.5130 | -106.3472 | 375 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | H 2 | 6/20/98 17:11:36 | 33.519 | -106.354 | 6/20/98 17:16:06 | 6/20/98 12:38:07 | 33.5143 | -106.3527 | 133 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | J B | 6/21/98 20:37:52 | 33.536 | -106.354 | 6/21/98 20:40:52 | 6/21/98 13:22:49 | 33.5228 | -106.3613 | 523 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | J B | 6/21/98 20:37:52 | 33.536 | -106.354 | 6/21/98 20:40:52 | 6/21/98 19:34:30 | 33.5168 | -106.3585 | 622 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | H 2 | 6/23/98 14:51:42 | 33.509 | -106.349 | 6/23/98 14:50:12 | 6/23/98 02:13:06 | 33.5133 | -106.3583 | 219 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | J 3 | 6/23/98 21:57:49 | 33.509 | -106.335 | 6/23/98 21:55:34 | 6/23/98 14:23:07 | 33.5035 | -106.3198 | 95  | 0 | 0 45 (76m-100m 2N)  |
| 05707 | 00381 | J 3 | 6/23/98 21:57:49 | 33.509 | -106.335 | 6/23/98 21:57:04 | 6/22/98 14:00:42 | 33.5128 | -106.3582 | 268 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | J 3 | 6/23/98 21:57:49 | 33.509 | -106.335 | 6/23/98 21:57:04 | 6/23/98 08:16:43 | 33.5177 | -106.3365 | 75  | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | J 3 | 6/23/98 21:57:49 | 33.509 | -106.335 | 6/23/98 22:01:34 | 6/22/98 07:50:50 | 33.5177 | -106.3607 | 281 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H B | 6/24/98 16:20:37 | 33.545 | -106.194 | 6/24/98 16:22:07 | 6/24/98 09:02:02 | 33.5078 | -106.3283 | 501 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H 1 | 6/25/98 16:08:39 | 33.491 | -106.298 | 6/25/98 16:13:54 | 6/25/98 09:36:44 | 33.5082 | -106.3360 | 293 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H 1 | 6/25/98 16:08:39 | 33.491 | -106.298 | 6/25/98 16:13:54 | 6/25/98 15:43:52 | 33.5132 | -106.3555 | 115 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H 2 | 6/27/98 17:24:09 | 33.509 | -106.354 | 6/27/98 17:26:24 | 6/27/98 17:00:51 | 33.5045 | -106.3515 | 472 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | J A | 6/28/98 11:20:52 | 33.508 | -106.345 | 6/28/98 11:24:37 | 6/28/98 05:22:38 | 33.5072 | -106.3475 | 457 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | K 1 | 6/30/98 15:00:00 | 33.486 | -106.271 | 6/30/98 15:01:30 | 6/29/98 18:23:12 | 33.5112 | -106.3568 | 763 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | K 1 | 7/5/98 02:31:27  | 33.511 | -106.347 | 7/5/98 02:29:12  | 7/3/98 01:59:44  | 33.4965 | -106.3562 | 176 | 0 | 0 35 (51m-75m 2N)   |
| 05707 | 00381 | K 1 | 7/5/98 02:31:27  | 33.511 | -106.347 | 7/5/98 02:36:42  | 7/2/98 07:38:13  | 33.5030 | -106.3755 | 285 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H   |                  |        |          | 7/5/98 03:16:43  | 7/2/98 13:47:46  | 33.5032 | -106.3573 | 253 | 0 | 0 35 (51m-75m 2N)   |
| 05707 | 00381 | H   |                  |        |          | 7/5/98 03:21:13  | 7/3/98 14:12:51  | 33.5088 | -106.3550 | 240 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | H   |                  |        |          | 7/5/98 03:21:13  | 7/4/98 02:29:19  | 33.5110 | -106.3642 | 190 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | H   |                  |        |          | 7/5/98 03:24:13  | 7/3/98 08:04:13  | 33.5063 | -106.3550 | 87  | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | J 1 | 7/6/98 09:52:21  | 33.513 | -106.371 | 7/6/98 09:46:21  | 7/4/98 14:43:36  | 33.5127 | -106.3630 | 327 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | J 1 | 7/6/98 09:52:21  | 33.513 | -106.371 | 7/6/98 09:55:21  | 7/4/98 08:33:14  | 33.5057 | -106.3597 | 63  | 0 | 0 17 (0m-26m 3N)    |
| 05707 | 00381 | H 2 | 7/7/98 15:18:45  | 33.508 | -106.356 | 7/7/98 15:14:15  | 7/5/98 09:03:01  | 33.5053 | -106.3447 | 87  | 0 | 0 17 (0m-26m 3N)    |
| 05707 | 00381 | H 2 | 7/7/98 15:18:45  | 33.508 | -106.356 | 7/7/98 15:23:15  | 7/5/98 02:55:38  | 33.5040 | -106.3470 | 79  | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | H 2 | 7/7/98 17:00:19  | 33.499 | -106.345 | 7/7/98 16:57:19  | 7/6/98 03:23:13  | 33.5045 | -106.3508 | 214 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | H 2 | 7/7/98 17:00:19  | 33.499 | -106.345 | 7/7/98 16:57:19  | 7/6/98 21:52:56  | 33.5262 | -106.3483 | 601 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | H 2 | 7/7/98 17:00:19  | 33.499 | -106.345 | 7/7/98 17:00:19  | 7/5/98 15:08:44  | 33.5020 | -106.3492 | 68  | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | H 2 | 7/7/98 17:00:19  | 33.499 | -106.345 | 7/7/98 17:00:19  | 7/7/98 09:57:43  | 33.5160 | -106.3457 | 162 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | H 2 | 7/7/98 17:00:19  | 33.499 | -106.345 | 7/7/98 17:04:49  | 7/5/98 21:17:12  | 33.4995 | -106.3582 | 220 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | K   |                  |        |          | 7/8/98 17:03:18  | 7/8/98 10:40:14  | 33.4955 | -106.3367 | 424 | 0 | 0 39 (51m-75m 4N)   |
| 05707 | 00381 | H   |                  |        |          | 7/10/98 16:27:37 | 7/10/98 11:37:45 | 33.4960 | -106.3545 | 138 | 0 | 0 25 (26m-50m 2N)   |
| 05707 | 00381 | H   |                  |        |          | 7/10/98 18:02:39 | 7/10/98 05:36:00 | 33.4985 | -106.3483 | 402 | 0 | 0 29 (26m-50m 4N)   |
| 05707 | 00381 | H   |                  |        |          | 7/10/98 18:02:39 | 7/10/98 17:47:15 | 33.4915 | -106.3472 | 104 | 0 | 0 35 (51m-75m 2N)   |
| 05707 | 00381 | H 2 | 7/11/98 17:49:49 | 33.489 | -106.321 | 7/11/98 17:51:19 | 7/11/98 12:24:03 | 33.5413 | -106.3350 | 370 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | H 2 | 7/11/98 17:49:49 | 33.489 | -106.321 | 7/11/98 17:52:49 | 7/11/98 12:19:47 | 33.4987 | -106.3350 | 370 | 0 | 0 37 (51m-75m 3N)   |
| 05707 | 00381 | J B | 7/14/98 21:27:29 | 33.409 | -106.785 | 7/14/98 21:22:59 | 7/14/98 01:48:44 | 33.5047 | -106.2845 | 98  | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | J B | 7/14/98 21:27:29 | 33.409 | -106.785 | 7/14/98 21:22:59 | 7/14/98 07:55:09 | 33.5070 | -106.2923 | 122 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | J B | 7/14/98 21:27:29 | 33.409 | -106.785 | 7/14/98 21:28:59 | 7/13/98 13:36:02 | 33.4938 | -106.2922 | 131 | 0 | 0 27 (26m-50m 3N)   |
| 05707 | 00381 | J B | 7/14/98 21:27:29 | 33.409 | -106.785 | 7/14/98 21:28:59 | 7/14/98 14:09:56 | 33.5073 | -106.2850 | 645 | 0 | 0 55 (101m-200m 2N) |
| 05707 | 00381 | K 2 | 7/15/98 16:12:25 | 33.507 | -106.296 | 7/15/98 16:15:25 | 7/15/98 08:38:02 | 33.5030 | -106.2897 | 406 | 0 | 0 27 (26m-50m 3N)   |

|       |       |   |   |         |          |        |          |         |          |         |          |         |           |     |   |   |                  |
|-------|-------|---|---|---------|----------|--------|----------|---------|----------|---------|----------|---------|-----------|-----|---|---|------------------|
| 05707 | 00381 | K | 2 | 7/15/98 | 16:12:25 | 33.507 | -106.296 | 7/15/98 | 16:15:25 | 7/15/98 | 14:52:53 | 33.5133 | -106.3095 | 691 | 0 | 0 | 25 (26m-50m 2N)  |
| 05707 | 00381 | H | 2 | 7/16/98 | 16:48:40 | 33.473 | -106.301 | 7/16/98 | 16:53:55 | 7/16/98 | 09:14:22 | 33.5140 | -106.2985 | 302 | 0 | 0 | 37 (51m-75m 3N)  |
| 05707 | 00381 | H | A | 7/17/98 | 16:37:26 | 33.490 | -106.343 | 7/17/98 | 16:39:41 | 7/17/98 | 09:53:38 | 33.5010 | -106.3358 | 368 | 0 | 0 | 27 (26m-50m 3N)  |
| 05707 | 00381 | H | A | 7/17/98 | 16:37:26 | 33.490 | -106.343 | 7/17/98 | 16:39:41 | 7/17/98 | 15:58:44 | 33.4863 | -106.3537 | 68  | 0 | 0 | 27 (26m-50m 3N)  |
| 05707 | 00381 | D | B | 7/17/98 | 22:46:42 | 33.514 | -106.395 | 7/17/98 | 22:48:12 | 7/17/98 | 22:16:10 | 33.5042 | -106.3545 | 150 | 2 | 0 | 35 (51m-75m 2N)  |
| 05707 | 00381 | J | 3 | 7/19/98 | 09:10:37 | 33.477 | -106.356 | 7/19/98 | 09:12:52 | 7/18/98 | 04:25:49 | 33.5082 | -106.3580 | 121 | 0 | 0 | 37 (51m-75m 3N)  |
| 05707 | 00381 | J | 3 | 7/19/98 | 09:10:37 | 33.477 | -106.356 | 7/19/98 | 09:14:22 | 7/17/98 | 22:16:10 | 33.5045 | -106.3545 | 150 | 0 | 0 | 35 (51m-75m 2N)  |
| 05707 | 00381 | H | 2 | 7/20/98 | 15:58:24 | 33.475 | -106.357 | 7/20/98 | 15:56:09 | 7/18/98 | 10:34:51 | 33.4873 | -106.3393 | 227 | 0 | 0 | 27 (26m-50m 3N)  |
| 05707 | 00381 | H | 2 | 7/20/98 | 15:58:24 | 33.475 | -106.357 | 7/20/98 | 15:56:09 | 7/20/98 | 11:33:37 | 33.4515 | -106.3288 | 552 | 0 | 0 | 27 (26m-50m 3N)  |
| 05707 | 00381 | K |   |         |          |        |          | 7/20/98 | 15:57:39 | 7/18/98 | 16:38:50 | 33.5010 | -106.3578 | 105 | 0 | 0 | 29 (26m-50m 4N)  |
| 05707 | 00381 | K |   |         |          |        |          | 7/20/98 | 15:57:39 | 7/20/98 | 05:32:23 | 33.4712 | -106.3340 | 842 | 0 | 0 | 37 (51m-75m 3N)  |
| 05707 | 00381 | H | 2 | 7/20/98 | 15:58:24 | 33.475 | -106.357 | 7/20/98 | 16:02:09 | 7/19/98 | 11:00:44 | 33.4820 | -106.3675 | 98  | 0 | 0 | 37 (51m-75m 3N)  |
| 05707 | 00381 | H | 2 | 7/20/98 | 15:58:24 | 33.475 | -106.357 | 7/20/98 | 16:02:09 | 7/19/98 | 17:07:43 | 33.4312 | -106.3700 | 83  | 0 | 0 | 47 (76m-100m 3N) |
| 05707 | 00381 | H | 2 | 7/20/98 | 15:58:24 | 33.475 | -106.357 | 7/20/98 | 16:03:39 | 7/19/98 | 05:02:20 | 33.4937 | -106.3805 | 791 | 0 | 0 | 47 (76m-100m 3N) |
| 05707 | 00381 | H | 2 | 7/20/98 | 15:58:24 | 33.475 | -106.357 | 7/20/98 | 16:03:39 | 7/19/98 | 23:24:10 | 33.4702 | -106.3555 | 707 | 0 | 0 | 37 (51m-75m 3N)  |
| 05707 | 00381 | K | B | 7/21/98 | 13:55:48 | 33.427 | -106.547 | 7/21/98 | 13:56:33 | 7/21/98 | 06:02:43 | 33.4673 | -106.3088 | 373 | 0 | 0 | 29 (26m-50m 4N)  |
| 05707 | 00381 | K | B | 7/21/98 | 13:55:48 | 33.427 | -106.547 | 7/21/98 | 13:56:33 | 7/21/98 | 12:08:30 | 33.4705 | -106.3198 | 115 | 0 | 0 | 27 (26m-50m 3N)  |
| 05707 | 00381 | D | 2 | 7/22/98 | 14:35:54 | 33.499 | -106.363 | 7/22/98 | 14:35:54 | 7/22/98 | 06:42:44 | 33.4793 | -106.3645 | 482 | 0 | 0 | 39 (51m-75m 4N)  |
| 05707 | 00381 | D | 2 | 7/22/98 | 14:35:54 | 33.499 | -106.363 | 7/22/98 | 14:38:54 | 7/22/98 | 12:52:21 | 33.4915 | -106.3623 | 456 | 0 | 0 | 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 1 | 7/24/98 | 21:16:31 | 33.502 | -106.395 | 7/24/98 | 21:14:16 | 7/23/98 | 13:26:43 | 33.4878 | -106.3612 | 231 | 0 | 0 | 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 1 | 7/24/98 | 21:16:31 | 33.502 | -106.395 | 7/24/98 | 21:14:16 | 7/24/98 | 13:49:16 | 33.5083 | -106.3738 | 66  | 0 | 0 | 25 (26m-50m 2N)  |
| 05707 | 00381 | J | 1 | 7/24/98 | 21:16:31 | 33.502 | -106.395 | 7/24/98 | 21:15:46 | 7/23/98 | 19:34:08 | 33.4927 | -106.3562 | 244 | 0 | 0 | 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 1 | 7/24/98 | 21:16:31 | 33.502 | -106.395 | 7/24/98 | 21:15:46 | 7/24/98 | 07:43:44 | 33.5047 | -106.3710 | 98  | 0 | 0 | 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 1 | 7/24/98 | 21:16:31 | 33.502 | -106.395 | 7/24/98 | 21:17:16 | 7/24/98 | 01:41:19 | 33.4955 | -106.3562 | 313 | 0 | 0 | 35 (51m-75m 2N)  |
| 05707 | 00381 | J | 1 | 7/24/98 | 21:16:31 | 33.502 | -106.395 | 7/24/98 | 21:21:46 | 7/23/98 | 07:20:43 | 33.5065 | -106.3555 | 475 | 0 | 0 | 39 (51m-75m 4N)  |
| 05707 | 00381 | J | 1 | 7/24/98 | 21:16:31 | 33.502 | -106.395 | 7/24/98 | 21:21:46 | 7/24/98 | 20:00:42 | 33.5067 | -106.3635 | 148 | 0 | 0 | 19 (0m-26m 4N)   |
| 05707 | 00381 | K | 3 | 7/25/98 | 15:54:01 | 33.502 | -106.386 | 7/25/98 | 15:57:46 | 7/25/98 | 08:26:43 | 33.5148 | -106.3852 | 381 | 0 | 0 | 19 (0m-26m 4N)   |
| 05707 | 00381 | K | 3 | 7/25/98 | 15:54:01 | 33.502 | -106.386 | 7/25/98 | 15:57:46 | 7/25/98 | 14:32:13 | 33.5035 | -106.3898 | 105 | 0 | 0 | 19 (0m-26m 4N)   |
| 05707 | 00381 | J | 2 | 7/26/98 | 09:31:42 | 33.479 | -106.384 | 7/26/98 | 09:29:27 | 7/26/98 | 03:04:13 | 33.4777 | -106.3737 | 167 | 0 | 0 | 19 (0m-26m 4N)   |
| 05707 | 00381 | J | 2 | 7/26/98 | 09:31:42 | 33.479 | -106.384 | 7/26/98 | 09:35:27 | 7/26/98 | 09:12:43 | 33.4783 | -106.3738 | 68  | 0 | 0 | 19 (0m-26m 4N)   |
| 05707 | 00381 | H | A | 7/28/98 | 17:38:49 | 33.421 | -106.314 | 7/28/98 | 17:37:19 | 7/27/98 | 03:45:20 | 33.4628 | -106.3800 | 341 | 0 | 0 | 37 (51m-75m 3N)  |
| 05707 | 00381 | H | A | 7/28/98 | 17:38:49 | 33.421 | -106.314 | 7/28/98 | 17:37:19 | 7/28/98 | 10:16:14 | 33.4325 | -106.3473 | 70  | 0 | 0 | 37 (51m-75m 3N)  |
| 05707 | 00381 | H | A | 7/28/98 | 17:38:49 | 33.421 | -106.314 | 7/28/98 | 17:38:49 | 7/27/98 | 09:51:08 | 33.4522 | -106.3585 | 84  | 0 | 0 | 19 (0m-26m 4N)   |
| 05707 | 00381 | H | A | 7/28/98 | 17:38:49 | 33.421 | -106.314 | 7/28/98 | 17:38:49 | 7/28/98 | 04:10:43 | 33.4285 | -106.3383 | 104 | 0 | 0 | 29 (26m-50m 4N)  |
| 05707 | 00381 | H | A | 7/28/98 | 17:38:49 | 33.421 | -106.314 | 7/28/98 | 17:40:19 | 7/27/98 | 22:15:37 | 33.4230 | -106.3563 | 753 | 0 | 0 | 29 (26m-50m 4N)  |
| 05707 | 00381 | D | 1 | 7/30/98 | 13:18:57 | 33.440 | -106.393 | 7/30/98 | 13:21:12 | 7/5/98  | 14:25:20 | 33.4363 | -106.3498 | 236 | 0 | 0 | 35 (51m-75m 2N)  |
| 05707 | 00381 | H | 3 | 7/30/98 | 15:33:57 | 33.431 | -106.367 | 7/30/98 | 15:31:42 | 7/30/98 | 11:23:44 | 33.4297 | -106.3575 | 73  | 0 | 0 | 17 (0m-26m 3N)   |
| 05707 | 00381 | K | 2 | 7/30/98 | 15:43:42 | 33.426 | -106.352 | 7/30/98 | 15:42:12 | 7/29/98 | 17:13:38 | 33.4293 | -106.3642 | 549 | 0 | 0 | 15 (0m-26m 2N)   |
| 05707 | 00381 | K | 2 | 7/30/98 | 15:43:42 | 33.426 | -106.352 | 7/30/98 | 15:42:12 | 7/29/98 | 23:14:24 | 33.4363 | -106.3498 | 236 | 0 | 0 | 35 (51m-75m 2N)  |
| 05707 | 00381 | H | 0 | 7/30/98 | 17:13:42 | 33.430 | -106.360 | 7/30/98 | 17:09:12 | 7/29/98 | 04:50:50 | 33.4300 | -106.3620 | 224 | 0 | 0 | 29 (26m-50m 4N)  |
| 05707 | 00381 | H | 0 | 7/30/98 | 17:13:42 | 33.430 | -106.360 | 7/30/98 | 17:18:12 | 7/29/98 | 10:58:14 | 33.4158 | -106.3638 | 62  | 0 | 0 | 37 (51m-75m 3N)  |
| 05707 | 00381 | H | 0 | 7/30/98 | 17:13:42 | 33.430 | -106.360 | 7/30/98 | 17:18:12 | 7/30/98 | 05:18:43 | 33.4295 | -106.3617 | 134 | 0 | 0 | 19 (0m-26m 4N)   |



|       |       |     |                  |        |          |                  |                  |         |           |      |   |                   |
|-------|-------|-----|------------------|--------|----------|------------------|------------------|---------|-----------|------|---|-------------------|
| 05707 | 00381 | K 1 | 8/28/98 13:25:40 | 33.419 | -106.336 | 8/28/98 13:27:55 | 8/28/98 05:50:45 | 33.4285 | -106.3428 | 178  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | K 1 | 8/28/98 13:25:40 | 33.419 | -106.336 | 8/28/98 13:27:55 | 8/28/98 12:02:22 | 33.4252 | -106.3322 | 267  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | D 2 | 8/29/98 13:57:32 | 33.428 | -106.310 | 8/29/98 14:01:17 | 8/29/98 12:43:13 | 33.4307 | -106.3177 | 140  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | D A | 8/30/98 15:15:17 | 33.444 | -106.255 | 8/30/98 15:16:47 | 8/30/98 07:23:08 | 33.4208 | -106.3097 | 316  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | D A | 8/30/98 15:15:17 | 33.444 | -106.255 | 8/30/98 15:16:47 | 8/30/98 13:30:15 | 33.4353 | -106.3000 | 138  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | J 2 | 8/31/98 20:56:27 | 33.432 | -106.314 | 8/31/98 21:00:57 | 8/31/98 20:23:12 | 33.4380 | -106.2950 | 372  | 0 | 0 29 (26m-50m 4N) |
| 05707 | 00381 | J A | 9/1/98 09:25:42  | 33.429 | -106.326 | 9/1/98 09:27:57  | 9/1/98 09:00:49  | 33.4427 | -106.3090 | 237  | 0 | 0 37 (51m-75m 3N) |
| 05707 | 00381 | J 3 | 9/2/98 10:54:22  | 33.412 | -106.295 | 9/2/98 10:57:22  | 9/2/98 03:40:11  | 33.4197 | -106.2903 | 383  | 0 | 0 37 (51m-75m 3N) |
| 05707 | 00381 | D A | 9/2/98 12:48:04  | 33.414 | -106.329 | 9/2/98 12:46:34  | 9/2/98 22:16:30  | 33.3992 | -106.3113 | 631  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | D 3 | 9/3/98 12:08:32  | 33.413 | -106.308 | 9/3/98 12:12:17  | 9/3/98 04:56:37  | 33.4085 | -106.2982 | 1010 | 0 | 0 17 (0m-26m 3N)  |
| 05707 | 00381 | D 3 | 9/3/98 12:08:32  | 33.413 | -106.308 | 9/3/98 12:12:17  | 9/3/98 10:51:14  | 33.4158 | -106.3142 | 90   | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | J B | 9/5/98 20:01:22  | 33.395 | -106.311 | 9/5/98 20:02:52  | 9/5/98 12:42:22  | 33.4190 | -106.3115 | 460  | 0 | 0 15 (0m-26m 2N)  |
| 05707 | 00381 | J A | 9/6/98 08:28:01  | 33.435 | -106.299 | 9/6/98 08:27:16  | 9/6/98 01:04:24  | 33.4032 | -106.3052 | 212  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | J A | 9/6/98 08:28:01  | 33.435 | -106.299 | 9/6/98 08:27:16  | 9/6/98 07:12:13  | 33.4252 | -106.2972 | 75   | 0 | 0 19 (0m-26m 4N)  |
| 05707 | 00381 | J B | 9/6/98 21:27:46  | 33.347 | -106.755 | 9/6/98 21:29:16  | 9/6/98 13:32:47  | 33.4288 | -106.2920 | 342  | 0 | 0 25 (26m-50m 2N) |
| 05707 | 00381 | J 3 | 9/7/98 09:56:28  | 33.427 | -106.311 | 9/7/98 09:56:28  | 9/7/98 02:36:44  | 33.4262 | -106.2885 | 475  | 0 | 0 37 (51m-75m 3N) |
| 05707 | 00381 | J 1 | 9/7/98 21:17:18  | 33.404 | -106.337 | 9/7/98 21:21:03  | 9/7/98 21:02:35  | 33.4102 | -106.3092 | 98   | 0 | 0 33 (51m-75m 1N) |
| 05707 | 00381 | D   |                  |        |          | 9/8/98 11:54:46  | 9/8/98 04:02:14  | 33.4293 | -106.3122 | 576  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | D   |                  |        |          | 9/8/98 11:54:46  | 9/8/98 10:03:43  | 33.4180 | -106.3002 | 62   | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | D 3 | 9/9/98 13:15:55  | 33.425 | -106.331 | 9/9/98 13:21:55  | 9/9/98 05:57:14  | 33.4190 | -106.3113 | 389  | 0 | 0 37 (51m-75m 3N) |
| 05707 | 00381 | D 3 | 9/9/98 13:15:55  | 33.425 | -106.331 | 9/9/98 13:21:55  | 9/9/98 12:03:52  | 33.4203 | -106.3157 | 181  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | K 1 | 9/10/98 13:39:05 | 33.430 | -106.311 | 9/10/98 13:43:35 | 9/10/98 06:18:22 | 33.4240 | -106.3098 | 1063 | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | K A | 9/11/98 13:16:34 | 33.401 | -106.326 | 9/11/98 13:21:34 | 9/11/98 11:45:32 | 33.4210 | -106.3427 | 371  | 0 | 0 37 (51m-75m 3N) |
| 05707 | 00381 | H A | 9/12/98 14:48:15 | 33.406 | -106.308 | 9/12/98 14:52:00 | 9/12/98 07:31:24 | 33.3927 | -106.3082 | 433  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | H A | 9/12/98 14:48:15 | 33.406 | -106.308 | 9/12/98 14:52:00 | 9/12/98 13:38:25 | 33.4060 | -106.3148 | 250  | 0 | 0 23 (26m-50m 1N) |
| 05707 | 00381 | H 1 | 9/13/98 14:33:34 | 33.429 | -106.299 | 9/13/98 14:35:49 | 9/13/98 06:44:44 | 33.4103 | -106.3157 | 337  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | H 1 | 9/13/98 14:33:34 | 33.429 | -106.299 | 9/13/98 14:35:49 | 9/13/98 12:56:37 | 33.4158 | -106.3053 | 445  | 0 | 0 37 (51m-75m 3N) |
| 05707 | 00381 | H 2 | 9/16/98 17:19:21 | 33.438 | -106.318 | 9/16/98 17:21:36 | 9/16/98 12:43:40 | 33.4100 | -106.3087 | 584  | 0 | 0 37 (51m-75m 3N) |
| 05707 | 00381 | H 3 | 9/17/98 17:04:13 | 33.448 | -106.325 | 9/17/98 17:07:13 | 9/17/98 13:18:58 | 33.4413 | -106.3432 | 778  | 0 | 0 37 (51m-75m 3N) |
| 05707 | 00381 | J   |                  |        |          | 9/17/98 21:06:25 | 9/17/98 19:18:21 | 33.4428 | -106.3278 | 140  | 0 | 0 29 (26m-50m 4N) |
| 05707 | 00381 | H 3 | 9/19/98 04:13:25 | 33.465 | -106.336 | 9/19/98 04:17:10 | 9/19/98 00:15:38 | 33.4600 | -106.3405 | 247  | 0 | 0 25 (26m-50m 2N) |
| 05707 | 00381 | H A | 9/19/98 16:41:20 | 33.448 | -106.315 | 9/19/98 16:45:50 | 9/19/98 12:45:40 | 33.4625 | -106.3297 | 478  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | K 3 | 9/21/98 14:39:41 | 33.436 | -106.314 | 9/21/98 14:35:56 | 9/21/98 01:36:19 | 33.4267 | -106.2933 | 202  | 0 | 0 37 (51m-75m 3N) |
| 05707 | 00381 | H   |                  |        |          | 9/21/98 14:37:26 | 9/20/98 19:31:11 | 33.4452 | -106.3083 | 252  | 0 | 0 39 (51m-75m 4N) |
| 05707 | 00381 | K 3 | 9/21/98 14:39:41 | 33.436 | -106.314 | 9/21/98 14:38:56 | 9/20/98 01:09:51 | 33.4330 | -106.3153 | 362  | 0 | 0 35 (51m-75m 2N) |
| 05707 | 00381 | K 3 | 9/21/98 14:39:41 | 33.436 | -106.314 | 9/21/98 14:38:56 | 9/21/98 13:56:27 | 33.4340 | -106.3088 | 439  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | K 3 | 9/21/98 14:39:41 | 33.436 | -106.314 | 9/21/98 14:40:26 | 9/21/98 07:43:36 | 33.4328 | -106.2863 | 274  | 0 | 0 37 (51m-75m 3N) |
| 05707 | 00381 | D A | 9/23/98 22:47:46 | 33.410 | -106.270 | 9/23/98 22:47:46 | 9/21/98 13:56:27 | 33.4340 | -106.3088 | 439  | 0 | 0 27 (26m-50m 3N) |
| 05707 | 00381 | H 0 | 9/24/98 03:12:34 | 33.437 | -106.366 | 9/24/98 03:07:19 | 9/21/98 07:43:36 | 33.4328 | -106.2863 | 274  | 0 | 0 37 (51m-75m 3N) |
| 05707 | 00381 | H 0 | 9/24/98 03:12:34 | 33.437 | -106.366 | 9/24/98 03:11:49 | 9/20/98 01:09:51 | 33.4330 | -106.3153 | 362  | 0 | 0 35 (51m-75m 2N) |
| 05707 | 00381 | H 0 | 9/24/98 03:12:34 | 33.437 | -106.366 | 9/24/98 03:17:49 | 9/20/98 19:31:11 | 33.4452 | -106.3083 | 252  | 0 | 0 39 (51m-75m 4N) |
| 05707 | 00381 | H A | 9/25/98 04:41:16 | 33.429 | -106.340 | 9/25/98 04:39:46 | 9/21/98 01:36:19 | 33.4267 | -106.2933 | 202  | 0 | 0 37 (51m-75m 3N) |

|       |       |   |   |                  |        |          |                  |                  |         |           |     |   |                    |
|-------|-------|---|---|------------------|--------|----------|------------------|------------------|---------|-----------|-----|---|--------------------|
| 05707 | 00381 | H | A | 9/25/98 04:41:16 | 33.429 | -106.340 | 9/25/98 04:44:16 | 9/22/98 02:04:43 | 33.4425 | -106.3058 | 145 | 0 | 0 17 (0m-26m 3N)   |
| 05707 | 00381 | J | 2 | 9/25/98 09:58:25 | 33.450 | -106.344 | 9/25/98 09:59:10 | 9/21/98 13:56:27 | 33.4340 | -106.3088 | 439 | 0 | 0 27 (26m-50m 3N)  |
| 05707 | 00381 | J | 2 | 9/25/98 09:58:25 | 33.450 | -106.344 | 9/25/98 10:02:10 | 9/24/98 09:09:13 | 33.4810 | -106.3007 | 135 | 0 | 0 45 (76m-100m 2N) |
| 05707 | 00381 | J | A | 9/26/98 11:30:11 | 33.447 | -106.321 | 9/26/98 11:27:11 | 9/24/98 15:14:44 | 33.4468 | -106.3280 | 107 | 0 | 0 27 (26m-50m 3N)  |
| 05707 | 00381 | H | A | 9/26/98 15:15:11 | 33.419 | -106.326 | 9/26/98 15:16:41 | 9/24/98 21:20:32 | 33.4078 | -106.3192 | 95  | 0 | 0 45 (76m-100m 2N) |
| 05707 | 00381 | H | A | 9/26/98 15:15:11 | 33.419 | -106.326 | 9/26/98 15:18:11 | 9/26/98 10:03:06 | 33.4488 | -106.3322 | 157 | 0 | 0 27 (26m-50m 3N)  |
| 05707 | 00381 | K | B | 9/26/98 16:05:26 | 33.434 | -106.163 | 9/26/98 16:04:41 | 9/25/98 15:45:14 | 33.4513 | -106.3217 | 171 | 0 | 0 27 (26m-50m 3N)  |
| 05707 | 00381 | H | 2 | 9/26/98 16:54:25 | 33.431 | -106.298 | 9/26/98 16:49:55 | 9/25/98 03:26:13 | 33.4373 | -106.3353 | 71  | 0 | 0 37 (51m-75m 3N)  |
| 05707 | 00381 | H | 2 | 9/26/98 16:54:25 | 33.431 | -106.298 | 9/26/98 16:49:55 | 9/25/98 21:53:49 | 33.4495 | -106.3307 | 327 | 0 | 0 27 (26m-50m 3N)  |
| 05707 | 00381 | H | 2 | 9/26/98 16:54:25 | 33.431 | -106.298 | 9/26/98 16:51:25 | 9/25/98 09:36:37 | 33.4547 | -106.3430 | 88  | 0 | 0 27 (26m-50m 3N)  |
| 05707 | 00381 | H | 2 | 9/26/98 16:54:25 | 33.431 | -106.298 | 9/26/98 16:58:55 | 9/26/98 03:55:38 | 33.4510 | -106.3345 | 75  | 0 | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | H | 0 | 5/16/98 16:04:18 | 33.355 | -106.680 | 5/16/98 16:01:18 | 5/15/98 14:55:43 | 33.3527 | -106.6175 | 101 | 0 | 0 29 (26m-50m 4N)  |
| 05736 | 00381 | H | 0 | 5/16/98 16:04:18 | 33.355 | -106.680 | 5/16/98 16:01:18 | 5/15/98 21:02:18 | 33.3427 | -106.6002 | 138 | 0 | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | H | 0 | 5/16/98 16:04:18 | 33.355 | -106.680 | 5/16/98 16:04:18 | 5/15/98 08:48:30 | 33.3378 | -106.6192 | 105 | 0 | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | H | 0 | 5/16/98 16:04:18 | 33.355 | -106.680 | 5/16/98 16:05:48 | 5/15/98 02:38:12 | 33.3650 | -106.6168 | 90  | 0 | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | D | 1 | 5/17/98 23:28:08 | 33.356 | -106.637 | 5/17/98 23:23:38 | 5/16/98 03:07:12 | 33.3535 | -106.6108 | 70  | 0 | 0 35 (51m-75m 2N)  |
| 05736 | 00381 | D | 1 | 5/17/98 23:28:08 | 33.356 | -106.637 | 5/17/98 23:26:38 | 5/16/98 15:24:52 | 33.3677 | -106.6208 | 160 | 0 | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | D | 1 | 5/17/98 23:28:08 | 33.356 | -106.637 | 5/17/98 23:32:38 | 5/16/98 09:13:12 | 33.3487 | -106.6165 | 67  | 0 | 0 19 (0m-26m 4N)   |
| 05736 | 00381 | H | 1 | 5/19/98 03:02:09 | 33.365 | -106.604 | 5/19/98 03:06:39 | 5/17/98 15:48:42 | 33.3553 | -106.6407 | 74  | 0 | 0 25 (26m-50m 2N)  |
| 05736 | 00381 | H | 1 | 5/19/98 03:02:09 | 33.365 | -106.604 | 5/19/98 03:06:39 | 5/17/98 21:59:35 | 33.3610 | -106.6370 | 121 | 0 | 0 29 (26m-50m 4N)  |
| 05736 | 00381 | H | B | 5/19/98 04:45:26 | 33.337 | -106.712 | 5/19/98 04:44:41 | 5/17/98 09:42:37 | 33.3523 | -106.6142 | 72  | 0 | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H | B | 5/19/98 04:45:26 | 33.337 | -106.712 | 5/19/98 04:46:11 | 5/17/98 03:36:44 | 33.3523 | -106.6177 | 76  | 0 | 0 29 (26m-50m 4N)  |
| 05736 | 00381 | J | 0 | 5/20/98 10:07:26 | 33.337 | -106.535 | 5/20/98 10:05:56 | 5/18/98 04:06:31 | 33.3682 | -106.6448 | 99  | 0 | 0 39 (51m-75m 4N)  |
| 05736 | 00381 | J | 0 | 5/20/98 10:07:26 | 33.337 | -106.535 | 5/20/98 10:11:56 | 5/18/98 10:12:01 | 33.3540 | -106.6385 | 72  | 0 | 0 29 (26m-50m 4N)  |
| 05736 | 00381 | J | A | 5/20/98 11:47:27 | 33.373 | -106.620 | 5/20/98 11:47:27 | 5/19/98 04:35:30 | 33.3548 | -106.6362 | 155 | 0 | 0 39 (51m-75m 4N)  |
| 05736 | 00381 | J | A | 5/20/98 11:47:27 | 33.373 | -106.620 | 5/20/98 11:48:57 | 5/18/98 22:27:35 | 33.3558 | -106.6418 | 284 | 0 | 0 17 (0m-26m 3N)   |
| 05736 | 00381 | D | 3 | 5/21/98 14:01:03 | 33.358 | -106.623 | 5/21/98 14:08:33 | 5/20/98 11:09:30 | 33.3480 | -106.6340 | 71  | 0 | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | D | 3 | 5/21/98 14:01:03 | 33.358 | -106.623 | 5/21/98 14:08:33 | 5/20/98 17:17:19 | 33.3312 | -106.6470 | 105 | 0 | 0 45 (76m-100m 2N) |
| 05736 | 00381 | H | 2 | 5/21/98 16:40:48 | 33.356 | -106.626 | 5/21/98 16:40:03 | 5/19/98 10:42:13 | 33.3592 | -106.6213 | 123 | 0 | 0 35 (51m-75m 2N)  |
| 05736 | 00381 | H | 2 | 5/21/98 16:40:48 | 33.356 | -106.626 | 5/21/98 16:41:33 | 5/19/98 22:54:41 | 33.3585 | -106.6330 | 153 | 0 | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | D | A | 5/22/98 23:17:31 | 33.340 | -106.618 | 5/22/98 23:15:16 | 5/20/98 23:22:41 | 33.3468 | -106.6352 | 68  | 0 | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | D | A | 5/22/98 23:17:31 | 33.340 | -106.618 | 5/22/98 23:16:46 | 5/21/98 05:29:06 | 33.3492 | -106.6385 | 93  | 0 | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | D | 3 | 5/23/98 00:56:46 | 33.350 | -106.647 | 5/23/98 00:53:46 | 5/21/98 11:35:31 | 33.3542 | -106.6063 | 111 | 0 | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H |   | 5/24/98 00:39:10 | 33.072 | -107.171 | 5/24/98 00:37:39 | 5/21/98 17:45:42 | 33.3545 | -106.6192 | 119 | 0 | 0 29 (26m-50m 4N)  |
| 05736 | 00381 | D | B | 5/24/98 02:16:11 | 33.362 | -106.638 | 5/24/98 02:19:11 | 5/21/98 23:51:59 | 33.3565 | -106.6207 | 61  | 0 | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | D | 1 | 5/24/98 03:39:25 | 33.356 | -106.636 | 5/24/98 03:38:40 | 5/22/98 12:05:00 | 33.3603 | -106.6222 | 121 | 0 | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H | 3 | 5/24/98 03:39:25 | 33.356 | -106.636 | 5/24/98 03:38:40 | 5/23/98 00:20:42 | 33.3595 | -106.6195 | 94  | 0 | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H | 3 | 5/24/98 03:39:25 | 33.356 | -106.636 | 5/24/98 03:38:40 | 5/23/98 06:27:42 | 33.3533 | -106.6218 | 78  | 0 | 0 19 (0m-26m 4N)   |
| 05736 | 00381 | H | 3 | 5/24/98 03:39:25 | 33.356 | -106.636 | 5/24/98 03:41:40 | 5/22/98 18:10:43 | 33.3587 | -106.6158 | 99  | 0 | 0 29 (26m-50m 4N)  |
| 05736 | 00381 | J | A | 5/25/98 10:53:15 | 33.362 | -106.629 | 5/25/98 10:51:45 | 5/23/98 12:34:38 | 33.3558 | -106.6185 | 134 | 0 | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | D | 1 | 5/25/98 12:34:30 | 33.356 | -106.623 | 5/25/98 12:38:15 | 5/23/98 18:40:11 | 33.3543 | -106.6197 | 109 | 0 | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | D | 3 | 5/25/98 14:14:02 | 33.355 | -106.632 | 5/25/98 14:16:17 | 5/24/98 00:46:00 | 33.3503 | -106.6108 | 92  | 0 | 0 37 (51m-75m 3N)  |

|       |       |   |   |         |          |        |          |         |          |         |          |         |           |     |   |   |    |           |     |
|-------|-------|---|---|---------|----------|--------|----------|---------|----------|---------|----------|---------|-----------|-----|---|---|----|-----------|-----|
| 05736 | 00381 | D | 3 | 5/25/98 | 14:14:02 | 33.355 | -106.632 | 5/25/98 | 14:17:47 | 5/24/98 | 06:55:42 | 33.3575 | -106.6265 | 70  | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05736 | 00381 | D | B | 5/26/98 | 13:51:29 | 33.339 | -106.653 | 5/26/98 | 13:48:29 | 5/24/98 | 13:04:00 | 33.3635 | -106.6192 | 132 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05736 | 00381 | H | 2 | 5/26/98 | 15:39:00 | 33.349 | -106.602 | 5/26/98 | 15:42:00 | 5/24/98 | 19:09:06 | 33.3405 | -106.6208 | 78  | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05736 | 00381 | H | A | 5/26/98 | 17:19:30 | 33.355 | -106.610 | 5/26/98 | 17:19:30 | 5/25/98 | 07:21:43 | 33.3560 | -106.6243 | 110 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05736 | 00381 | H | A | 5/26/98 | 17:19:30 | 33.355 | -106.610 | 5/26/98 | 17:20:59 | 5/25/98 | 13:32:31 | 33.3580 | -106.6165 | 150 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | H | A | 5/26/98 | 17:19:30 | 33.355 | -106.610 | 5/26/98 | 17:20:59 | 5/25/98 | 19:38:59 | 33.3452 | -106.6237 | 107 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | J | B | 5/26/98 | 20:26:00 | 33.387 | -106.686 | 5/26/98 | 20:28:15 | 5/25/98 | 01:16:32 | 33.3497 | -106.6273 | 161 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05736 | 00381 | D | 1 | 5/28/98 | 02:28:54 | 33.353 | -106.628 | 5/28/98 | 02:30:24 | 5/26/98 | 01:45:22 | 33.3278 | -106.6158 | 127 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05736 | 00381 | H | 3 | 5/28/98 | 04:30:48 | 33.352 | -106.623 | 5/28/98 | 04:27:03 | 5/26/98 | 07:50:31 | 33.3583 | -106.5920 | 79  | 0 | 0 | 47 | (76m-100m | 3N) |
| 05736 | 00381 | H | 3 | 5/28/98 | 04:30:48 | 33.352 | -106.623 | 5/28/98 | 04:28:33 | 5/26/98 | 13:56:37 | 33.3532 | -106.6262 | 80  | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | H | 3 | 5/28/98 | 04:30:48 | 33.352 | -106.623 | 5/28/98 | 04:33:03 | 5/27/98 | 02:16:46 | 33.3608 | -106.6512 | 245 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | H | 3 | 5/28/98 | 04:30:48 | 33.352 | -106.623 | 5/28/98 | 04:33:03 | 5/27/98 | 08:19:43 | 33.3603 | -106.6243 | 64  | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | H | 3 | 5/28/98 | 04:30:48 | 33.352 | -106.623 | 5/28/98 | 04:34:33 | 5/26/98 | 20:07:12 | 33.3500 | -106.6188 | 110 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05736 | 00381 | J | B | 5/29/98 | 08:28:16 | 33.416 | -106.644 | 5/29/98 | 08:31:16 | 5/27/98 | 14:25:42 | 33.3508 | -106.6228 | 66  | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05736 | 00381 | J | 1 | 5/29/98 | 10:09:47 | 33.335 | -106.531 | 5/29/98 | 10:11:17 | 5/27/98 | 20:33:17 | 33.3490 | -106.5940 | 157 | 0 | 0 | 35 | (51m-75m  | 2N) |
| 05736 | 00381 | J | 1 | 5/29/98 | 10:09:47 | 33.335 | -106.531 | 5/29/98 | 10:15:47 | 5/28/98 | 08:49:42 | 33.3507 | -106.6213 | 102 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | J | 1 | 5/30/98 | 11:39:15 | 33.357 | -106.633 | 5/30/98 | 11:37:45 | 5/29/98 | 09:17:13 | 33.3515 | -106.6090 | 62  | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05736 | 00381 | J | 1 | 5/30/98 | 11:39:15 | 33.357 | -106.633 | 5/30/98 | 11:37:45 | 5/29/98 | 15:25:02 | 33.3585 | -106.6208 | 95  | 0 | 0 | 25 | (26m-50m  | 2N) |
| 05736 | 00381 | J | 1 | 5/30/98 | 11:39:15 | 33.357 | -106.633 | 5/30/98 | 11:39:15 | 5/29/98 | 03:07:13 | 33.3660 | -106.6157 | 65  | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | J | 1 | 5/30/98 | 11:39:15 | 33.357 | -106.633 | 5/30/98 | 11:39:15 | 5/28/98 | 14:56:13 | 33.3543 | -106.6228 | 132 | 0 | 0 | 39 | (51m-75m  | 4N) |
| 05736 | 00381 | D |   |         |          |        |          |         |          |         |          |         |           |     |   |   |    |           |     |
| 05736 | 00381 | D |   |         |          |        |          |         |          |         |          |         |           |     |   |   |    |           |     |
| 05736 | 00381 | D |   |         |          |        |          |         |          |         |          |         |           |     |   |   |    |           |     |
| 05736 | 00381 | J | 3 | 5/31/98 | 21:10:03 | 33.363 | -106.622 | 5/31/98 | 21:08:33 | 5/30/98 | 15:53:19 | 33.3638 | -106.6188 | 105 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05736 | 00381 | J | 2 | 5/31/98 | 22:51:30 | 33.360 | -106.637 | 5/31/98 | 22:49:15 | 5/30/98 | 03:41:52 | 33.3685 | -106.6122 | 385 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | J | 2 | 5/31/98 | 22:51:30 | 33.360 | -106.637 | 5/31/98 | 22:50:45 | 5/30/98 | 09:46:42 | 33.3838 | -106.6192 | 311 | 0 | 0 | 39 | (51m-75m  | 4N) |
| 05736 | 00381 | J | 2 | 5/31/98 | 22:51:30 | 33.360 | -106.637 | 5/31/98 | 22:55:15 | 5/30/98 | 22:01:11 | 33.3627 | -106.6280 | 143 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | H | A | 6/2/98  | 03:28:50 | 33.354 | -106.632 | 6/2/98  | 03:23:35 | 5/31/98 | 16:19:00 | 33.3365 | -106.6335 | 127 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05736 | 00381 | H | A | 6/2/98  | 03:28:50 | 33.354 | -106.632 | 6/2/98  | 03:29:35 | 5/31/98 | 10:11:42 | 33.3570 | -106.6097 | 53  | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05736 | 00381 | H | A | 6/2/98  | 03:28:50 | 33.354 | -106.632 | 6/2/98  | 03:31:05 | 5/31/98 | 04:06:42 | 33.3520 | -106.6303 | 112 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05736 | 00381 | H |   |         |          |        |          |         |          |         |          |         |           |     |   |   |    |           |     |
| 05736 | 00381 | H |   |         |          |        |          |         |          |         |          |         |           |     |   |   |    |           |     |
| 05736 | 00381 | J | 3 | 6/3/98  | 10:55:20 | 33.361 | -106.633 | 6/3/98  | 10:57:35 | 6/1/98  | 04:35:42 | 33.3492 | -106.6358 | 88  | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | D | 2 | 6/3/98  | 12:36:06 | 33.357 | -106.619 | 6/3/98  | 12:31:36 | 6/1/98  | 10:42:12 | 33.3487 | -106.6348 | 118 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | D | 2 | 6/3/98  | 12:36:06 | 33.357 | -106.619 | 6/3/98  | 12:37:36 | 6/1/98  | 16:48:06 | 33.3523 | -106.6268 | 111 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05736 | 00381 | D | 2 | 6/3/98  | 12:36:06 | 33.357 | -106.619 | 6/3/98  | 12:39:06 | 6/2/98  | 11:10:43 | 33.3513 | -106.6225 | 67  | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05736 | 00381 | D | 2 | 6/3/98  | 12:36:06 | 33.357 | -106.619 | 6/3/98  | 12:39:06 | 6/2/98  | 05:03:42 | 33.3495 | -106.6323 | 80  | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05736 | 00381 | D | 2 | 6/3/98  | 12:36:06 | 33.357 | -106.619 | 6/3/98  | 12:40:36 | 6/1/98  | 22:57:41 | 33.3562 | -106.6327 | 324 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | D |   |         |          |        |          |         |          |         |          |         |           |     |   |   |    |           |     |
| 05736 | 00381 | D |   |         |          |        |          |         |          |         |          |         |           |     |   |   |    |           |     |
| 05736 | 00381 | H | 3 | 6/4/98  | 17:08:29 | 33.361 | -106.643 | 6/4/98  | 17:07:44 | 6/3/98  | 17:47:21 | 33.3593 | -106.6177 | 147 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05736 | 00381 | H | 3 | 6/4/98  | 17:08:29 | 33.361 | -106.643 | 6/4/98  | 17:09:14 | 6/2/98  | 23:23:11 | 33.3573 | -106.6235 | 97  | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | H | 3 | 6/4/98  | 17:08:29 | 33.361 | -106.643 | 6/4/98  | 17:12:14 | 6/2/98  | 17:18:20 | 33.3690 | -106.6392 | 164 | 0 | 0 | 45 | (76m-100m | 2N) |
| 05736 | 00381 | J | 2 | 6/5/98  | 21:54:34 | 33.359 | -106.648 | 6/5/98  | 21:50:04 | 6/3/98  | 05:42:32 | 33.3535 | -106.6370 | 891 | 0 | 0 | 19 | (0m-26m   | 4N) |
| 05736 | 00381 | D | A | 6/6/98  | 02:29:50 | 33.396 | -106.636 | 6/6/98  | 02:26:50 | 6/3/98  | 23:53:59 | 33.3672 | -106.6208 | 188 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05736 | 00381 | H | 3 | 6/6/98  | 02:39:35 | 33.365 | -106.635 | 6/6/98  | 02:35:50 | 6/4/98  | 12:04:42 | 33.3672 | -106.6342 | 106 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | H | 3 | 6/6/98  | 02:39:35 | 33.365 | -106.635 | 6/6/98  | 02:35:50 | 6/4/98  | 05:59:06 | 33.3623 | -106.6360 | 135 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05736 | 00381 | H | 3 | 6/6/98  | 02:39:35 | 33.365 | -106.635 | 6/6/98  | 02:41:50 | 6/5/98  | 00:25:06 | 33.3590 | -106.6350 | 288 | 0 | 0 | 39 | (51m-75m  | 4N) |

|       |       |   |   |         |          |        |          |         |          |         |          |         |           |     |   |   |    |          |     |
|-------|-------|---|---|---------|----------|--------|----------|---------|----------|---------|----------|---------|-----------|-----|---|---|----|----------|-----|
| 05736 | 00381 | H | 3 | 6/5/98  | 02:39:35 | 33.365 | -106.635 | 6/6/98  | 02:43:20 | 6/4/98  | 18:14:11 | 33.3470 | -106.6323 | 71  | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | H | 3 | 6/7/98  | 04:05:42 | 33.358 | -106.635 | 6/7/98  | 04:03:27 | 6/5/98  | 06:28:06 | 33.3585 | -106.6372 | 111 | 0 | 0 | 39 | (51m-75m | 4N) |
| 05736 | 00381 | H | 3 | 6/7/98  | 04:05:42 | 33.358 | -106.635 | 6/7/98  | 04:09:27 | 6/6/98  | 00:50:48 | 33.3622 | -106.6478 | 143 | 0 | 0 | 27 | (26m-50m | 3N) |
| 05736 | 00381 | H | 3 | 6/7/98  | 04:05:42 | 33.358 | -106.635 | 6/7/98  | 04:09:27 | 6/6/98  | 06:58:42 | 33.3568 | -106.6388 | 182 | 0 | 0 | 27 | (26m-50m | 3N) |
| 05736 | 00381 | J | B | 6/7/98  | 08:29:12 | 33.386 | -106.632 | 6/7/98  | 08:28:27 | 6/5/98  | 12:34:02 | 33.3350 | -106.6342 | 105 | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | D | 1 | 6/8/98  | 12:25:55 | 33.356 | -106.632 | 6/8/98  | 12:25:55 | 6/6/98  | 13:03:06 | 33.3562 | -106.6383 | 85  | 0 | 0 | 29 | (26m-50m | 4N) |
| 05736 | 00381 | D | 0 | 6/8/98  | 14:06:01 | 33.352 | -106.635 | 6/8/98  | 14:11:16 | 6/6/98  | 19:10:18 | 33.3558 | -106.6368 | 157 | 0 | 0 | 27 | (26m-50m | 3N) |
| 05736 | 00381 | H | 2 | 6/8/98  | 14:38:16 | 33.343 | -106.606 | 6/8/98  | 14:36:46 | 6/7/98  | 13:34:48 | 33.3602 | -106.6212 | 222 | 0 | 0 | 25 | (26m-50m | 2N) |
| 05736 | 00381 | H | 2 | 6/8/98  | 14:38:16 | 33.343 | -106.606 | 6/8/98  | 14:39:46 | 6/7/98  | 07:25:01 | 33.3487 | -106.6262 | 70  | 0 | 0 | 27 | (26m-50m | 3N) |
| 05736 | 00381 | H | 2 | 6/8/98  | 14:38:16 | 33.343 | -106.606 | 6/8/98  | 14:41:15 | 6/7/98  | 01:15:12 | 33.3570 | -106.6402 | 85  | 0 | 0 | 29 | (26m-50m | 4N) |
| 05736 | 00381 | H | 0 | 6/9/98  | 17:46:30 | 33.348 | -106.636 | 6/9/98  | 17:45:45 | 6/7/98  | 19:41:06 | 33.3555 | -106.6257 | 240 | 0 | 0 | 27 | (26m-50m | 3N) |
| 05736 | 00381 | J | 1 | 6/9/98  | 21:12:44 | 33.362 | -106.599 | 6/9/98  | 21:08:14 | 6/8/98  | 01:45:22 | 33.3523 | -106.6318 | 134 | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | J | 1 | 6/9/98  | 21:12:44 | 33.362 | -106.599 | 6/9/98  | 21:12:44 | 6/8/98  | 20:08:17 | 33.3537 | -106.6177 | 109 | 0 | 0 | 27 | (26m-50m | 3N) |
| 05736 | 00381 | J | 1 | 6/9/98  | 21:12:44 | 33.362 | -106.599 | 6/9/98  | 21:15:44 | 6/8/98  | 14:00:43 | 33.3375 | -106.6107 | 88  | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | D | 2 | 6/11/98 | 02:19:39 | 33.355 | -106.632 | 6/11/98 | 02:16:39 | 6/9/98  | 02:15:23 | 33.3580 | -106.6175 | 171 | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | D | 2 | 6/11/98 | 02:19:39 | 33.355 | -106.632 | 6/11/98 | 02:22:39 | 6/9/98  | 20:36:41 | 33.3543 | -106.6198 | 121 | 0 | 0 | 25 | (26m-50m | 2N) |
| 05736 | 00381 | H | A | 6/11/98 | 04:58:28 | 33.352 | -106.628 | 6/11/98 | 04:59:13 | 6/9/98  | 14:26:12 | 33.3282 | -106.6202 | 99  | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | H | A | 6/11/98 | 04:58:28 | 33.352 | -106.628 | 6/11/98 | 05:00:43 | 6/9/98  | 08:20:36 | 33.3545 | -106.6255 | 128 | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | J | 3 | 6/12/98 | 09:15:49 | 33.360 | -106.623 | 6/12/98 | 09:19:34 | 6/10/98 | 02:44:38 | 33.3563 | -106.6220 | 160 | 0 | 0 | 39 | (51m-75m | 4N) |
| 05736 | 00381 | J | 3 | 6/12/98 | 10:54:34 | 33.361 | -106.638 | 6/12/98 | 10:51:34 | 6/10/98 | 15:01:49 | 33.3573 | -106.6103 | 476 | 0 | 0 | 27 | (26m-50m | 3N) |
| 05736 | 00381 | J | 3 | 6/12/98 | 10:54:34 | 33.361 | -106.638 | 6/12/98 | 10:56:04 | 6/11/98 | 03:15:19 | 33.3545 | -106.6282 | 314 | 0 | 0 | 27 | (26m-50m | 3N) |
| 05736 | 00381 | J | 3 | 6/12/98 | 10:54:34 | 33.361 | -106.638 | 6/12/98 | 10:57:34 | 6/10/98 | 21:01:11 | 33.3307 | -106.6243 | 73  | 0 | 0 | 39 | (51m-75m | 4N) |
| 05736 | 00381 | D | B | 6/13/98 | 15:36:30 | 33.352 | -106.607 | 6/13/98 | 15:35:45 | 6/10/98 | 08:50:07 | 33.3605 | -106.6278 | 133 | 0 | 0 | 35 | (51m-75m | 2N) |
| 05736 | 00381 | D | B | 6/13/98 | 15:36:30 | 33.352 | -106.607 | 6/13/98 | 15:35:45 | 6/11/98 | 15:26:22 | 33.3440 | -106.6365 | 186 | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | H | 3 | 6/13/98 | 16:57:31 | 33.357 | -106.620 | 6/13/98 | 16:52:16 | 6/11/98 | 09:19:00 | 33.3535 | -106.6245 | 103 | 0 | 0 | 39 | (51m-75m | 4N) |
| 05736 | 00381 | J | 3 | 6/14/98 | 21:56:18 | 33.354 | -106.629 | 6/14/98 | 21:52:33 | 6/12/98 | 03:43:31 | 33.3588 | -106.6302 | 494 | 0 | 0 | 39 | (51m-75m | 4N) |
| 05736 | 00381 | J | 3 | 6/14/98 | 21:56:18 | 33.354 | -106.629 | 6/14/98 | 22:00:03 | 6/12/98 | 22:00:46 | 33.3567 | -106.6410 | 131 | 0 | 0 | 25 | (26m-50m | 2N) |
| 05736 | 00381 | J | 3 | 6/14/98 | 21:56:18 | 33.354 | -106.629 | 6/14/98 | 22:00:03 | 6/13/98 | 10:11:42 | 33.3488 | -106.6117 | 61  | 0 | 0 | 29 | (26m-50m | 4N) |
| 05736 | 00381 | D | A | 6/15/98 | 00:49:09 | 33.360 | -106.618 | 6/15/98 | 00:50:39 | 6/13/98 | 04:06:13 | 33.3410 | -106.6228 | 97  | 0 | 0 | 29 | (26m-50m | 4N) |
| 05736 | 00381 | H | 3 | 6/16/98 | 03:54:29 | 33.356 | -106.622 | 6/16/98 | 03:49:59 | 6/13/98 | 16:22:13 | 33.3515 | -106.6127 | 85  | 0 | 0 | 27 | (26m-50m | 3N) |
| 05736 | 00381 | H | 3 | 6/16/98 | 03:54:29 | 33.356 | -106.622 | 6/16/98 | 03:54:29 | 6/13/98 | 22:29:41 | 33.3557 | -106.6238 | 101 | 0 | 0 | 27 | (26m-50m | 3N) |
| 05736 | 00381 | H | 3 | 6/16/98 | 03:54:29 | 33.356 | -106.622 | 6/16/98 | 03:54:29 | 6/14/98 | 16:48:00 | 33.3218 | -106.6080 | 113 | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | J | 0 | 6/17/98 | 11:42:18 | 33.353 | -106.630 | 6/17/98 | 11:44:33 | 6/14/98 | 04:38:20 | 33.3480 | -106.6263 | 257 | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | D | 2 | 6/17/98 | 12:27:20 | 33.351 | -106.618 | 6/17/98 | 12:25:05 | 6/14/98 | 22:58:05 | 33.3378 | -106.6168 | 115 | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | D | 2 | 6/17/98 | 12:27:20 | 33.351 | -106.618 | 6/17/98 | 12:25:05 | 6/16/98 | 05:33:12 | 33.3552 | -106.6137 | 98  | 0 | 0 | 19 | (0m-26m  | 4N) |
| 05736 | 00381 | D | 2 | 6/17/98 | 12:27:20 | 33.351 | -106.618 | 6/17/98 | 12:26:35 | 6/15/98 | 17:17:13 | 33.3583 | -106.6103 | 105 | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | D | 2 | 6/17/98 | 12:27:20 | 33.351 | -106.618 | 6/17/98 | 12:28:05 | 6/15/98 | 11:10:31 | 33.3575 | -106.6265 | 63  | 0 | 0 | 29 | (26m-50m | 4N) |
| 05736 | 00381 | D | 2 | 6/17/98 | 12:27:20 | 33.351 | -106.618 | 6/17/98 | 12:29:35 | 6/15/98 | 05:04:44 | 33.3572 | -106.6273 | 76  | 0 | 0 | 19 | (0m-26m  | 4N) |
| 05736 | 00381 | H | 2 | 6/18/98 | 15:53:33 | 33.350 | -106.606 | 6/18/98 | 15:53:33 | 6/16/98 | 11:40:00 | 33.3637 | -106.6097 | 70  | 0 | 0 | 27 | (26m-50m | 3N) |
| 05736 | 00381 | H | 2 | 6/18/98 | 17:36:18 | 33.359 | -106.631 | 6/18/98 | 17:32:33 | 6/17/98 | 12:08:32 | 33.3732 | -106.6358 | 93  | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | H | 2 | 6/18/98 | 17:36:18 | 33.359 | -106.631 | 6/18/98 | 17:32:33 | 6/17/98 | 18:15:35 | 33.3522 | -106.6422 | 83  | 0 | 0 | 37 | (51m-75m | 3N) |
| 05736 | 00381 | H | 2 | 6/18/98 | 17:36:18 | 33.359 | -106.631 | 6/18/98 | 17:35:33 | 6/17/98 | 05:58:00 | 33.3373 | -106.6395 | 68  | 0 | 0 | 37 | (51m-75m | 3N) |

|       |       |   |   |         |          |        |          |         |          |         |          |         |           |     |   |   |                  |
|-------|-------|---|---|---------|----------|--------|----------|---------|----------|---------|----------|---------|-----------|-----|---|---|------------------|
| 05736 | 00381 | H | 2 | 6/18/98 | 17:36:18 | 33.359 | -106.631 | 6/18/98 | 17:40:03 | 6/16/98 | 23:53:47 | 33.3663 | -106.6533 | 180 | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | D | 1 | 6/20/98 | 00:42:19 | 33.358 | -106.571 | 6/20/98 | 00:40:04 | 6/18/98 | 00:22:12 | 33.3767 | -106.6423 | 117 | 0 | 0 | 47 (76m-100m 3N) |
| 05736 | 00381 | D | 1 | 6/20/98 | 02:21:35 | 33.342 | -106.624 | 6/20/98 | 02:23:05 | 6/18/98 | 06:28:42 | 33.3550 | -106.6383 | 149 | 0 | 0 | 29 (26m-50m 4N)  |
| 05736 | 00381 | H | 1 | 6/20/98 | 03:05:50 | 33.357 | -106.567 | 6/20/98 | 03:08:05 | 6/18/98 | 18:44:29 | 33.3587 | -106.6308 | 127 | 0 | 0 | 29 (26m-50m 4N)  |
| 05736 | 00381 | H | 1 | 6/21/98 | 04:33:36 | 33.354 | -106.619 | 6/21/98 | 04:35:51 | 6/19/98 | 00:52:12 | 33.3633 | -106.6247 | 151 | 0 | 0 | 47 (76m-100m 3N) |
| 05736 | 00381 | J | 2 | 6/21/98 | 09:15:15 | 33.352 | -106.607 | 6/21/98 | 09:12:15 | 6/20/98 | 01:20:02 | 33.3457 | -106.6153 | 132 | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | J | 2 | 6/21/98 | 09:15:15 | 33.352 | -106.607 | 6/21/98 | 09:15:15 | 6/19/98 | 19:14:30 | 33.3410 | -106.6298 | 407 | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | J | 2 | 6/21/98 | 09:15:15 | 33.352 | -106.607 | 6/21/98 | 09:16:45 | 6/19/98 | 13:05:06 | 33.3433 | -106.6125 | 207 | 0 | 0 | 19 (0m-26m 4N)   |
| 05736 | 00381 | J | 2 | 6/21/98 | 09:15:15 | 33.352 | -106.607 | 6/21/98 | 09:18:15 | 6/19/98 | 06:57:00 | 33.3425 | -106.6210 | 81  | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | D | 2 | 6/22/98 | 13:56:17 | 33.355 | -106.627 | 6/22/98 | 13:56:17 | 6/20/98 | 13:34:06 | 33.3590 | -106.6228 | 184 | 0 | 0 | 27 (26m-50m 3N)  |
| 05736 | 00381 | H | B | 6/22/98 | 15:02:33 | 33.343 | -106.465 | 6/22/98 | 15:01:48 | 6/20/98 | 19:42:51 | 33.3798 | -106.6020 | 350 | 0 | 0 | 45 (76m-100m 2N) |
| 05736 | 00381 | H | B | 6/22/98 | 15:02:33 | 33.343 | -106.465 | 6/22/98 | 15:01:48 | 6/22/98 | 14:30:06 | 33.3497 | -106.5955 | 90  | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | H | B | 6/22/98 | 15:02:33 | 33.343 | -106.465 | 6/22/98 | 15:03:18 | 6/21/98 | 01:47:37 | 33.3525 | -106.6168 | 268 | 0 | 0 | 49 (76m-100m 4N) |
| 05736 | 00381 | H | B | 6/22/98 | 15:02:33 | 33.343 | -106.465 | 6/22/98 | 15:03:18 | 6/22/98 | 08:20:14 | 33.3595 | -106.6263 | 103 | 0 | 0 | 17 (0m-26m 3N)   |
| 05736 | 00381 | D | A | 6/22/98 | 15:36:18 | 33.359 | -106.616 | 6/22/98 | 15:36:18 | 6/21/98 | 07:54:13 | 33.3540 | -106.6042 | 62  | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | D | A | 6/22/98 | 15:36:18 | 33.359 | -106.616 | 6/22/98 | 15:36:18 | 6/22/98 | 02:14:37 | 33.3578 | -106.6227 | 130 | 0 | 0 | 35 (51m-75m 2N)  |
| 05736 | 00381 | D | A | 6/22/98 | 15:36:18 | 33.359 | -106.616 | 6/22/98 | 15:37:48 | 6/21/98 | 14:02:13 | 33.3537 | -106.6200 | 107 | 0 | 0 | 29 (26m-50m 4N)  |
| 05736 | 00381 | D | A | 6/22/98 | 15:36:18 | 33.359 | -106.616 | 6/22/98 | 15:37:48 | 6/21/98 | 20:08:06 | 33.3697 | -106.6097 | 99  | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | H | 2 | 6/23/98 | 16:33:33 | 33.357 | -106.630 | 6/23/98 | 16:38:48 | 6/23/98 | 09:02:38 | 33.3570 | -106.5852 | 356 | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | H | 2 | 6/23/98 | 16:33:33 | 33.357 | -106.630 | 6/23/98 | 16:38:48 | 6/23/98 | 15:13:14 | 33.3562 | -106.6118 | 387 | 0 | 0 | 27 (26m-50m 3N)  |
| 05736 | 00381 | H | 1 | 6/24/98 | 16:21:47 | 33.359 | -106.632 | 6/24/98 | 16:24:47 | 6/24/98 | 15:47:02 | 33.3518 | -106.6288 | 127 | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | H | 1 | 6/24/98 | 16:21:47 | 33.359 | -106.632 | 6/24/98 | 16:24:47 | 6/24/98 | 09:39:13 | 33.3530 | -106.6193 | 265 | 0 | 0 | 19 (0m-26m 4N)   |
| 05736 | 00381 | H | A | 6/25/98 | 17:50:34 | 33.343 | -106.620 | 6/25/98 | 17:52:49 | 6/25/98 | 16:24:13 | 33.3380 | -106.6102 | 68  | 0 | 0 | 35 (51m-75m 2N)  |
| 05736 | 00381 | K | 2 | 6/26/98 | 16:29:16 | 33.351 | -106.623 | 6/26/98 | 16:32:16 | 6/26/98 | 10:59:14 | 33.3572 | -106.6155 | 484 | 0 | 0 | 17 (0m-26m 3N)   |
| 05736 | 00381 | K | 3 | 6/29/98 | 01:22:28 | 33.356 | -106.612 | 6/29/98 | 01:18:43 | 6/27/98 | 17:42:19 | 33.3507 | -106.6192 | 177 | 0 | 0 | 27 (26m-50m 3N)  |
| 05736 | 00381 | K | 3 | 6/29/98 | 01:22:28 | 33.356 | -106.612 | 6/29/98 | 01:20:13 | 6/27/98 | 11:35:14 | 33.3540 | -106.6208 | 355 | 0 | 0 | 19 (0m-26m 4N)   |
| 05736 | 00381 | K | 3 | 6/29/98 | 01:22:28 | 33.356 | -106.612 | 6/29/98 | 01:26:13 | 6/27/98 | 23:47:41 | 33.3550 | -106.6248 | 64  | 0 | 0 | 27 (26m-50m 3N)  |
| 05736 | 00381 | H | 2 | 6/30/98 | 04:21:59 | 33.356 | -106.621 | 6/30/98 | 04:18:14 | 6/29/98 | 00:17:11 | 33.3585 | -106.6212 | 142 | 0 | 0 | 27 (26m-50m 3N)  |
| 05736 | 00381 | H | 2 | 6/30/98 | 04:21:59 | 33.356 | -106.621 | 6/30/98 | 04:18:14 | 6/29/98 | 06:23:13 | 33.3573 | -106.6302 | 71  | 0 | 0 | 29 (26m-50m 4N)  |
| 05736 | 00381 | H | 2 | 6/30/98 | 04:21:59 | 33.356 | -106.621 | 6/30/98 | 04:22:44 | 6/28/98 | 05:54:13 | 33.3702 | -106.6153 | 96  | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | H | 2 | 6/30/98 | 04:21:59 | 33.356 | -106.621 | 6/30/98 | 04:24:14 | 6/28/98 | 12:01:31 | 33.3682 | -106.6102 | 175 | 0 | 0 | 29 (26m-50m 4N)  |
| 05736 | 00381 | D | 3 | 7/1/98  | 12:19:26 | 33.363 | -106.625 | 7/1/98  | 12:23:11 | 6/29/98 | 18:35:42 | 33.3530 | -106.6167 | 100 | 0 | 0 | 27 (26m-50m 3N)  |
| 05736 | 00381 | D | 3 | 7/1/98  | 12:19:26 | 33.363 | -106.625 | 7/1/98  | 12:23:11 | 7/1/98  | 01:11:43 | 33.3692 | -106.6430 | 134 | 0 | 0 | 47 (76m-100m 3N) |
| 05736 | 00381 | D | 3 | 7/1/98  | 12:19:26 | 33.363 | -106.625 | 7/1/98  | 12:24:41 | 6/30/98 | 19:11:42 | 33.3972 | -106.6438 | 495 | 0 | 0 | 49 (76m-100m 4N) |
| 05736 | 00381 | J |   |         |          |        |          | 7/1/98  | 12:27:41 | 6/30/98 | 06:51:43 | 33.3513 | -106.6272 | 91  | 0 | 0 | 27 (26m-50m 3N)  |
| 05736 | 00381 | J |   |         |          |        |          | 7/1/98  | 12:27:41 | 6/30/98 | 12:59:19 | 33.3550 | -106.6212 | 112 | 0 | 0 | 19 (0m-26m 4N)   |
| 05736 | 00381 | H | B | 7/1/98  | 14:54:49 | 33.255 | -106.701 | 7/1/98  | 14:51:04 | 6/29/98 | 12:31:13 | 33.3725 | -106.6428 | 190 | 0 | 0 | 45 (76m-100m 2N) |
| 05736 | 00381 | H | B | 7/1/98  | 14:54:49 | 33.255 | -106.701 | 7/1/98  | 14:51:04 | 7/1/98  | 07:17:01 | 33.3647 | -106.6273 | 89  | 0 | 0 | 27 (26m-50m 3N)  |
| 05736 | 00381 | H | 1 | 7/3/98  | 16:09:04 | 33.372 | -106.701 | 7/3/98  | 16:10:34 | 7/2/98  | 14:06:43 | 33.3505 | -106.6442 | 102 | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | H | 1 | 7/3/98  | 16:09:04 | 33.372 | -106.701 | 7/3/98  | 16:12:04 | 7/2/98  | 07:59:01 | 33.3717 | -106.6287 | 76  | 0 | 0 | 27 (26m-50m 3N)  |
| 05736 | 00381 | H | 1 | 7/3/98  | 16:09:04 | 33.372 | -106.701 | 7/3/98  | 16:13:34 | 7/2/98  | 01:53:40 | 33.3562 | -106.6263 | 359 | 0 | 0 | 37 (51m-75m 3N)  |
| 05736 | 00381 | J | 0 | 7/4/98  | 19:56:12 | 33.383 | -106.631 | 7/4/98  | 19:54:42 | 7/2/98  | 20:12:12 | 33.3572 | -106.6157 | 72  | 0 | 0 | 27 (26m-50m 3N)  |

|       |       |   |   |                  |        |          |                  |                  |         |           |     |   |   |   |                   |
|-------|-------|---|---|------------------|--------|----------|------------------|------------------|---------|-----------|-----|---|---|---|-------------------|
| 05736 | 00381 | J | 1 | 7/4/98 21:34:42  | 33.351 | -106.645 | 7/4/98 21:31:42  | 7/3/98 02:19:43  | 33.3540 | -106.6133 | 163 | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | J | 1 | 7/4/98 21:34:42  | 33.351 | -106.645 | 7/4/98 21:33:12  | 7/3/98 08:24:13  | 33.3593 | -106.5943 | 67  | 0 | 0 | 0 | 27 (51m-75m 3N)   |
| 05736 | 00381 | J |   |                  |        |          | 7/5/98 21:27:04  | 7/3/98 20:41:42  | 33.3535 | -106.6192 | 77  | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | H | 1 | 7/6/98 03:07:20  | 33.359 | -106.593 | 7/6/98 03:12:35  | 7/4/98 02:47:31  | 33.3510 | -106.6082 | 64  | 0 | 0 | 0 | 35 (51m-75m 2N)   |
| 05736 | 00381 | H | 1 | 7/6/98 04:47:04  | 33.350 | -106.628 | 7/6/98 04:44:04  | 7/5/98 03:17:13  | 33.3600 | -106.6132 | 82  | 0 | 0 | 0 | 25 (26m-50m 2N)   |
| 05736 | 00381 | H | 1 | 7/6/98 04:47:04  | 33.350 | -106.628 | 7/6/98 04:45:34  | 7/4/98 21:10:36  | 33.3543 | -106.6062 | 122 | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | H | 1 | 7/6/98 04:47:04  | 33.350 | -106.628 | 7/6/98 04:48:34  | 7/4/98 08:53:37  | 33.3548 | -106.6210 | 71  | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | J | 3 | 7/7/98 09:39:28  | 33.357 | -106.614 | 7/7/98 09:39:28  | 7/5/98 21:36:18  | 33.3597 | -106.6300 | 145 | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | J | 2 | 7/7/98 11:20:18  | 33.360 | -106.629 | 7/7/98 11:19:33  | 7/6/98 09:52:12  | 33.3492 | -106.6238 | 58  | 0 | 0 | 0 | 29 (26m-50m 4N)   |
| 05736 | 00381 | D | B | 7/7/98 11:46:33  | 33.370 | -106.617 | 7/7/98 11:45:03  | 7/5/98 15:30:16  | 33.3545 | -106.6133 | 145 | 0 | 0 | 0 | 25 (26m-50m 2N)   |
| 05736 | 00381 | D | B | 7/7/98 11:46:33  | 33.370 | -106.617 | 7/7/98 11:48:03  | 7/6/98 03:45:32  | 33.3113 | -106.6267 | 93  | 0 | 0 | 0 | 47 (76m-100m 3N)  |
| 05736 | 00381 | K | 2 | 7/8/98 15:24:09  | 33.352 | -106.623 | 7/8/98 15:21:09  | 7/6/98 22:08:32  | 33.3743 | -106.6098 | 318 | 0 | 0 | 0 | 57 (101m-200m 3N) |
| 05736 | 00381 | K | 2 | 7/8/98 15:24:09  | 33.352 | -106.623 | 7/8/98 15:25:39  | 7/7/98 10:21:00  | 33.3640 | -106.6163 | 97  | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | K | 2 | 7/8/98 15:24:09  | 33.352 | -106.623 | 7/8/98 15:25:39  | 7/7/98 16:29:42  | 33.3535 | -106.6352 | 183 | 0 | 0 | 0 | 37 (51m-75m 3N)   |
| 05736 | 00381 | K | 2 | 7/8/98 15:24:09  | 33.352 | -106.623 | 7/8/98 15:27:09  | 7/7/98 04:10:37  | 33.3538 | -106.5880 | 79  | 0 | 0 | 0 | 37 (51m-75m 3N)   |
| 05736 | 00381 | H | B | 7/8/98 16:42:54  | 33.558 | -106.812 | 7/8/98 16:43:39  | 7/6/98 16:00:45  | 33.3378 | -106.6155 | 212 | 0 | 0 | 0 | 47 (76m-100m 3N)  |
| 05736 | 00381 | J | 3 | 7/9/98 22:22:35  | 33.351 | -106.602 | 7/9/98 22:26:20  | 7/7/98 22:34:11  | 33.3737 | -106.5922 | 94  | 0 | 0 | 0 | 37 (51m-75m 3N)   |
| 05736 | 00381 | D | 3 | 7/10/98 00:01:31 | 33.354 | -106.600 | 7/9/98 23:59:16  | 7/8/98 23:03:12  | 33.3497 | -106.5867 | 67  | 0 | 0 | 0 | 37 (51m-75m 3N)   |
| 05736 | 00381 | D | 3 | 7/10/98 00:01:31 | 33.354 | -106.600 | 7/10/98 00:02:16 | 7/8/98 10:46:37  | 33.3558 | -106.6098 | 114 | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | D | 3 | 7/10/98 00:01:31 | 33.354 | -106.600 | 7/10/98 00:06:46 | 7/8/98 16:56:37  | 33.3333 | -106.6037 | 109 | 0 | 0 | 0 | 37 (51m-75m 3N)   |
| 05736 | 00381 | K | B | 7/10/98 00:44:16 | 33.361 | -106.639 | 7/10/98 00:45:46 | 7/8/98 04:39:43  | 33.3548 | -106.6162 | 65  | 0 | 0 | 0 | 29 (26m-50m 4N)   |
| 05736 | 00381 | K | 3 | 7/11/98 02:01:16 | 33.362 | -106.595 | 7/11/98 01:58:16 | 7/9/98 23:32:12  | 33.3527 | -106.6142 | 118 | 0 | 0 | 0 | 23 (26m-50m 1N)   |
| 05736 | 00381 | H | A | 7/11/98 02:04:16 | 33.361 | -106.597 | 7/11/98 02:02:46 | 7/9/98 11:15:36  | 33.3500 | -106.6115 | 94  | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | H | 1 | 7/11/98 03:42:30 | 33.352 | -106.618 | 7/11/98 03:38:45 | 7/9/98 05:11:07  | 33.3475 | -106.6088 | 183 | 0 | 0 | 0 | 29 (26m-50m 4N)   |
| 05736 | 00381 | K | 1 | 7/11/98 03:41:00 | 33.357 | -106.614 | 7/11/98 03:43:15 | 7/10/98 05:38:43 | 33.3548 | -106.6138 | 74  | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | H | 1 | 7/11/98 03:42:30 | 33.352 | -106.618 | 7/11/98 03:46:15 | 7/9/98 17:21:48  | 33.3530 | -106.6093 | 101 | 0 | 0 | 0 | 35 (51m-75m 2N)   |
| 05736 | 00381 | J |   |                  |        |          | 7/12/98 12:03:13 | 7/10/98 11:45:13 | 33.3358 | -106.5948 | 103 | 0 | 0 | 0 | 37 (51m-75m 3N)   |
| 05736 | 00381 | D | 2 | 7/12/98 13:16:16 | 33.352 | -106.609 | 7/12/98 13:19:16 | 7/10/98 23:58:12 | 33.3575 | -106.6208 | 158 | 0 | 0 | 0 | 39 (51m-75m 4N)   |
| 05736 | 00381 | K | 3 | 7/12/98 13:58:16 | 33.354 | -106.614 | 7/12/98 13:59:46 | 7/10/98 17:59:50 | 33.3567 | -106.6050 | 621 | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | H | 2 | 7/13/98 15:46:00 | 33.360 | -106.623 | 7/13/98 15:46:45 | 7/11/98 18:24:17 | 33.3938 | -106.6378 | 323 | 0 | 0 | 0 | 49 (76m-100m 4N)  |
| 05736 | 00381 | H | 2 | 7/13/98 17:26:30 | 33.365 | -106.639 | 7/13/98 17:24:15 | 7/11/98 06:06:43 | 33.3435 | -106.6082 | 65  | 0 | 0 | 0 | 37 (51m-75m 3N)   |
| 05736 | 00381 | J | B | 7/13/98 19:58:16 | 33.428 | -106.774 | 7/13/98 19:56:46 | 7/12/98 00:29:22 | 33.3703 | -106.6273 | 267 | 0 | 0 | 0 | 35 (51m-75m 2N)   |
| 05736 | 00381 | J | B | 7/13/98 19:58:16 | 33.428 | -106.774 | 7/13/98 19:59:46 | 7/11/98 12:16:15 | 33.3603 | -106.6192 | 202 | 0 | 0 | 0 | 25 (26m-50m 2N)   |
| 05736 | 00381 | D | 3 | 7/15/98 01:29:38 | 33.357 | -106.625 | 7/15/98 01:34:08 | 7/12/98 06:37:20 | 33.3782 | -106.6137 | 382 | 0 | 0 | 0 | 47 (76m-100m 3N)  |
| 05736 | 00381 | H | 1 | 7/15/98 02:53:57 | 33.362 | -106.582 | 7/15/98 02:48:42 | 7/12/98 12:45:48 | 33.3747 | -106.6038 | 289 | 0 | 0 | 0 | 47 (76m-100m 3N)  |
| 05736 | 00381 | H | B | 7/17/98 14:52:59 | 33.356 | -106.643 | 7/17/98 14:52:14 | 7/12/98 18:52:44 | 33.3625 | -106.6200 | 269 | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | K | B | 7/17/98 15:27:51 | 33.340 | -106.662 | 7/17/98 15:24:51 | 7/14/98 07:32:20 | 33.3527 | -106.6200 | 162 | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | H | 1 | 7/17/98 16:36:06 | 33.355 | -106.626 | 7/17/98 16:32:21 | 7/13/98 19:17:42 | 33.3367 | -106.6502 | 82  | 0 | 0 | 0 | 47 (76m-100m 3N)  |
| 05736 | 00381 | H | 1 | 7/17/98 16:36:06 | 33.355 | -106.626 | 7/17/98 16:33:51 | 7/13/98 00:55:13 | 33.3597 | -106.6228 | 58  | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | H | 1 | 7/17/98 16:36:06 | 33.355 | -106.626 | 7/17/98 16:41:21 | 7/14/98 01:25:50 | 33.3587 | -106.6262 | 132 | 0 | 0 | 0 | 27 (26m-50m 3N)   |
| 05736 | 00381 | J | 1 | 7/18/98 22:23:26 | 33.352 | -106.620 | 7/18/98 22:21:11 | 7/14/98 13:37:40 | 33.3685 | -106.6272 | 123 | 0 | 0 | 0 | 37 (51m-75m 3N)   |
| 05736 | 00381 | J | 1 | 7/18/98 22:23:26 | 33.352 | -106.620 | 7/18/98 22:22:41 | 7/15/98 01:56:07 | 33.3562 | -106.6117 | 262 | 0 | 0 | 0 | 27 (26m-50m 3N)   |

|       |       |     |                  |        |          |                  |                  |         |           |     |    |                    |
|-------|-------|-----|------------------|--------|----------|------------------|------------------|---------|-----------|-----|----|--------------------|
| 05736 | 00381 | H 2 | 7/20/98 03:32:30 | 33.354 | -106.629 | 7/20/98 03:37:00 | 7/17/98 15:09:31 | 33.3625 | -106.6187 | 429 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | K A | 7/20/98 03:40:45 | 33.357 | -106.608 | 7/20/98 03:38:30 | 7/15/98 14:11:56 | 33.3538 | -106.6072 | 421 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | K A | 7/20/98 03:40:45 | 33.357 | -106.608 | 7/20/98 03:41:30 | 7/17/98 21:12:24 | 33.3378 | -106.6263 | 172 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | K A | 7/20/98 03:40:45 | 33.357 | -106.608 | 7/20/98 03:43:00 | 7/18/98 03:18:19 | 33.3557 | -106.6195 | 168 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | J A | 7/21/98 08:43:22 | 33.357 | -106.609 | 7/21/98 08:41:52 | 7/18/98 09:26:58 | 33.3567 | -106.6137 | 326 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | J 1 | 7/21/98 10:26:07 | 33.364 | -106.644 | 7/21/98 10:28:22 | 7/18/98 15:29:37 | 33.3542 | -106.6070 | 122 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | J 1 | 7/21/98 10:26:07 | 33.364 | -106.644 | 7/21/98 10:29:52 | 7/19/98 03:46:49 | 33.3448 | -106.6217 | 114 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | J B | 7/21/98 12:08:31 | 33.388 | -106.622 | 7/21/98 12:10:46 | 7/19/98 09:55:27 | 33.3560 | -106.6092 | 272 | 0  | 0 35 (51m-75m 2N)  |
| 05736 | 00381 | H 2 | 7/22/98 17:13:07 | 33.356 | -106.614 | 7/22/98 17:09:22 | 7/20/98 22:37:14 | 33.3708 | -106.6192 | 301 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | H 2 | 7/22/98 17:13:07 | 33.356 | -106.614 | 7/22/98 17:13:52 | 7/20/98 16:31:09 | 33.3453 | -106.6245 | 295 | 0  | 0 33 (51m-75m 1N)  |
| 05736 | 00381 | J 0 | 7/23/98 23:09:54 | 33.347 | -106.622 | 7/23/98 23:09:54 | 7/21/98 04:40:20 | 33.3600 | -106.5953 | 121 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | D 2 | 7/23/98 23:51:54 | 33.358 | -106.612 | 7/24/98 00:36:43 | 7/22/98 05:11:02 | 33.3572 | -106.6195 | 203 | 0  | 0 19 (0m-26m 4N)   |
| 05736 | 00381 | D 1 | 7/24/98 01:31:28 | 33.352 | -106.631 | 7/24/98 01:32:13 | 7/21/98 23:03:00 | 33.3613 | -106.6290 | 80  | 0  | 0 25 (26m-50m 2N)  |
| 05736 | 00381 | D 1 | 7/24/98 01:31:28 | 33.352 | -106.631 | 7/24/98 01:36:43 | 7/21/98 10:49:43 | 33.3683 | -106.6135 | 80  | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | K 2 | 7/25/98 03:30:36 | 33.353 | -106.614 | 7/25/98 03:32:51 | 7/23/98 11:44:31 | 33.3550 | -106.6105 | 99  | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H   |                  |        |          | 7/25/98 04:10:21 | 7/22/98 11:15:18 | 33.3647 | -106.6243 | 95  | 0  | 0 25 (26m-50m 2N)  |
| 05736 | 00381 | H   |                  |        |          | 7/25/98 04:11:51 | 7/22/98 23:33:20 | 33.3725 | -106.6160 | 146 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | H   |                  |        |          | 7/25/98 04:13:21 | 7/23/98 05:41:07 | 33.3522 | -106.6173 | 254 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | D 0 | 7/26/98 13:09:19 | 33.387 | -106.622 | 7/26/98 13:06:22 | 7/24/98 06:10:07 | 33.3567 | -106.6248 | 242 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H 1 | 7/26/98 14:44:31 | 33.363 | -106.613 | 7/26/98 14:43:46 | 7/24/98 18:31:10 | 33.3562 | -106.6089 | 788 | 32 | 0 33 (51m-75m 1N)  |
| 05736 | 00381 | D 3 | 7/26/98 14:49:01 | 33.352 | -106.621 | 7/26/98 14:45:16 | 7/24/98 12:13:43 | 33.3552 | -106.6192 | 99  | 0  | 0 19 (0m-26m 4N)   |
| 05736 | 00381 | D 3 | 7/26/98 14:49:01 | 33.352 | -106.621 | 7/26/98 14:46:46 | 7/24/98 18:31:10 | 33.3562 | -106.6045 | 788 | 0  | 0 33 (51m-75m 1N)  |
| 05736 | 00381 | D 3 | 7/26/98 14:49:01 | 33.352 | -106.621 | 7/26/98 14:48:16 | 7/25/98 00:29:45 | 33.3413 | -106.6482 | 336 | 0  | 0 35 (51m-75m 2N)  |
| 05736 | 00381 | D 3 | 7/26/98 14:49:01 | 33.352 | -106.621 | 7/26/98 14:51:16 | 7/25/98 06:36:14 | 33.3560 | -106.6157 | 124 | 0  | 0 19 (0m-26m 4N)   |
| 05736 | 00381 | D 2 | 8/1/98 23:54:03  | 33.351 | -106.610 | 8/1/98 23:52:33  | 7/26/98 00:55:08 | 33.3528 | -106.6160 | 105 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | D 2 | 8/1/98 23:54:03  | 33.351 | -106.610 | 8/1/98 23:54:03  | 7/26/98 07:09:20 | 33.3297 | -106.6035 | 591 | 0  | 0 35 (51m-75m 2N)  |
| 05736 | 00381 | H 3 | 8/3/98 03:59:01  | 33.351 | -106.623 | 8/3/98 03:56:01  | 7/27/98 07:31:47 | 33.3595 | -106.6213 | 184 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H 3 | 8/3/98 03:59:01  | 33.351 | -106.623 | 8/3/98 04:00:31  | 7/26/98 13:10:44 | 33.3625 | -106.6245 | 75  | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H 3 | 8/3/98 03:59:01  | 33.351 | -106.623 | 8/3/98 04:02:01  | 7/26/98 19:19:48 | 33.3560 | -106.6038 | 187 | 0  | 0 25 (26m-50m 2N)  |
| 05736 | 00381 | H 3 | 8/3/98 03:59:01  | 33.351 | -106.623 | 8/3/98 04:03:31  | 7/27/98 01:36:19 | 33.3473 | -106.6037 | 816 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | J A | 8/4/98 09:33:51  | 33.359 | -106.610 | 8/4/98 09:30:51  | 7/27/98 13:36:13 | 33.3627 | -106.6257 | 85  | 0  | 0 33 (51m-75m 1N)  |
| 05736 | 00381 | J A | 8/4/98 09:33:51  | 33.359 | -106.610 | 8/4/98 09:30:51  | 8/4/98 05:08:00  | 33.3653 | -106.6278 | 81  | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | J 3 | 8/4/98 11:12:06  | 33.359 | -106.615 | 8/4/98 11:12:51  | 8/2/98 10:22:19  | 33.3577 | -106.6000 | 186 | 0  | 0 17 (0m-26m 3N)   |
| 05736 | 00381 | J 3 | 8/4/98 11:12:06  | 33.359 | -106.615 | 8/4/98 11:14:21  | 7/28/98 08:00:43 | 33.3322 | -106.6348 | 158 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | J 3 | 8/4/98 11:12:06  | 33.359 | -106.615 | 8/4/98 11:14:21  | 8/3/98 23:06:47  | 33.3598 | -106.6105 | 377 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | D B | 8/4/98 13:09:02  | 33.374 | -106.638 | 8/4/98 13:07:32  | 8/3/98 04:44:43  | 33.3520 | -106.6223 | 202 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | D B | 8/4/98 13:09:02  | 33.374 | -106.638 | 8/4/98 13:07:32  | 8/3/98 10:50:12  | 33.3587 | -106.6178 | 97  | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H   |                  |        |          | 8/11/98 16:31:32 | 8/5/98 11:54:12  | 33.3268 | -106.6007 | 207 | 0  | 0 39 (51m-75m 4N)  |
| 05736 | 00381 | K 1 | 8/19/98 13:23:32 | 33.357 | -106.605 | 8/19/98 13:26:32 | 8/18/98 05:46:12 | 33.3463 | -106.6298 | 80  | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | K 3 | 8/28/98 01:05:59 | 33.357 | -106.631 | 8/28/98 01:08:14 | 8/25/98 09:19:37 | 33.3392 | -106.6450 | 607 | 0  | 4 37 (51m-75m 3N)  |
| 05736 | 00381 | H 3 | 8/28/98 03:49:29 | 33.346 | -106.646 | 8/28/98 03:45:44 | 8/20/98 19:09:19 | 33.3443 | -106.5940 | 240 | 0  | 0 45 (76m-100m 2N) |
| 05736 | 00381 | H 3 | 8/28/98 03:49:29 | 33.346 | -106.646 | 8/28/98 03:47:14 | 8/20/98 07:04:13 | 33.3317 | -106.6148 | 958 | 0  | 0 27 (26m-50m 3N)  |

|       |       |     |                  |        |          |                  |                  |         |           |     |    |                    |
|-------|-------|-----|------------------|--------|----------|------------------|------------------|---------|-----------|-----|----|--------------------|
| 05736 | 00381 | H 3 | 8/28/98 03:49:29 | 33.346 | -106.646 | 8/28/98 03:53:14 | 8/24/98 14:59:12 | 33.3568 | -106.6253 | 468 | 0  | 0 29 (26m-50m 4N)  |
| 05736 | 00381 | H 3 | 8/28/98 03:49:29 | 33.346 | -106.646 | 8/28/98 03:54:44 | 8/21/98 07:19:51 | 33.3517 | -106.6033 | 151 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | J 1 | 8/29/98 09:53:25 | 33.353 | -106.599 | 8/29/98 09:51:10 | 8/24/98 20:59:05 | 33.3362 | -106.6243 | 98  | 0  | 0 47 (76m-100m 3N) |
| 05736 | 00381 | J A | 8/30/98 11:26:11 | 33.352 | -106.620 | 8/30/98 11:25:26 | 8/25/98 03:05:12 | 33.3558 | -106.6393 | 107 | 0  | 0 29 (26m-50m 4N)  |
| 05736 | 00381 | D 1 | 8/30/98 13:37:48 | 33.365 | -106.662 | 8/30/98 13:34:03 | 8/25/98 09:19:37 | 33.3392 | -106.6443 | 607 | 0  | 0 37 (51m-75m 3N)  |
| 05736 | 00381 | D 1 | 8/30/98 13:37:48 | 33.365 | -106.662 | 8/30/98 13:34:03 | 8/30/98 11:38:21 | 33.3543 | -106.6058 | 460 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | K 2 | 8/30/98 16:01:48 | 33.359 | -106.625 | 8/30/98 15:59:33 | 8/27/98 22:21:41 | 33.3567 | -106.6328 | 106 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H 1 | 8/30/98 17:30:18 | 33.346 | -106.625 | 8/30/98 17:29:33 | 8/28/98 10:52:13 | 33.3473 | -106.6287 | 897 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H 1 | 8/30/98 17:30:18 | 33.346 | -106.625 | 8/30/98 17:32:33 | 8/28/98 04:38:14 | 33.3430 | -106.6393 | 489 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H 1 | 8/30/98 17:30:18 | 33.346 | -106.625 | 8/30/98 17:32:33 | 8/29/98 04:57:07 | 33.3540 | -106.6220 | 107 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H 1 | 8/30/98 17:30:18 | 33.346 | -106.625 | 8/30/98 17:34:03 | 8/29/98 11:07:20 | 33.3517 | -106.6113 | 114 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | H 1 | 8/30/98 17:30:18 | 33.346 | -106.625 | 8/30/98 17:34:03 | 8/28/98 22:52:11 | 33.3470 | -106.6160 | 178 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | J   | 9/1/98 20:45:54  | 33.428 | -106.613 | 9/1/98 20:46:39  | 9/1/98 12:47:45  | 33.3563 | -106.6142 | 371 | 0  | 0 35 (51m-75m 2N)  |
| 05736 | 00381 | J B | 9/3/98 20:24:39  | 33.353 | -106.604 | 9/3/98 20:28:24  | 9/3/98 01:37:30  | 33.3462 | -106.6115 | 347 | 0  | 0 23 (26m-50m 1N)  |
| 05736 | 00381 | J 2 | 9/3/98 20:24:39  | 33.353 | -106.604 | 9/3/98 20:28:24  | 9/3/98 07:40:25  | 33.3492 | -106.6192 | 161 | 0  | 0 27 (26m-50m 3N)  |
| 05736 | 00381 | J 2 | 9/3/98 20:24:39  | 33.353 | -106.604 | 9/3/98 20:28:24  | 6/5/98 17:00:07  | 33.1408 | -106.4913 | 108 | 0  | 0 19 (0m-26m 4N)   |
| 05738 | 00381 | D B | 6/6/98 13:12:06  | 33.147 | -106.510 | 6/6/98 13:12:51  | 6/5/98 23:12:18  | 33.1530 | -106.4948 | 481 | 0  | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | D B | 6/6/98 13:12:06  | 33.147 | -106.510 | 6/6/98 13:12:51  | 6/6/98 23:35:06  | 33.1490 | -106.4958 | 92  | 0  | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | D 3 | 6/7/98 14:27:49  | 33.139 | -106.496 | 6/7/98 14:29:19  | 6/6/98 23:52:10  | 33.1490 | -106.4958 | 88  | 32 | 32 27 (26m-50m 3N) |
| 05738 | 00381 | H B | 6/7/98 14:51:49  | 33.123 | -106.514 | 6/7/98 14:50:19  | 6/6/98 11:33:49  | 33.1507 | -106.5247 | 802 | 0  | 0 47 (76m-100m 3N) |
| 05738 | 00381 | H 3 | 6/7/98 16:32:19  | 33.139 | -106.492 | 6/7/98 16:30:49  | 6/6/98 05:12:06  | 33.1268 | -106.4958 | 104 | 0  | 0 49 (76m-100m 4N) |
| 05738 | 00381 | H 3 | 6/7/98 16:32:19  | 33.139 | -106.492 | 6/7/98 16:32:19  | 6/6/98 17:34:36  | 33.1415 | -106.5038 | 420 | 0  | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | H 3 | 6/7/98 16:32:19  | 33.139 | -106.492 | 6/7/98 16:35:19  | 6/7/98 11:47:01  | 33.1358 | -106.5070 | 82  | 0  | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | D 2 | 6/8/98 23:44:00  | 33.140 | -106.513 | 6/8/98 23:44:45  | 6/8/98 06:10:08  | 33.1463 | -106.5005 | 69  | 0  | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | D 2 | 6/9/98 01:22:46  | 33.146 | -106.491 | 6/9/98 01:22:46  | 6/8/98 12:16:53  | 33.1425 | -106.5032 | 113 | 0  | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | D 2 | 6/9/98 01:22:46  | 33.146 | -106.491 | 6/9/98 02:01:46  | 6/8/98 00:06:07  | 33.1083 | -106.4992 | 186 | 0  | 0 47 (76m-100m 3N) |
| 05738 | 00381 | H 2 | 6/9/98 02:01:46  | 33.139 | -106.514 | 6/9/98 02:03:16  | 6/7/98 17:57:13  | 33.1470 | -106.4995 | 89  | 0  | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | H 2 | 6/9/98 02:01:46  | 33.139 | -106.514 | 6/9/98 02:03:16  | 6/9/98 00:32:51  | 33.1453 | -106.5005 | 101 | 0  | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | H 2 | 6/10/98 03:27:22 | 33.147 | -106.480 | 6/10/98 03:29:37 | 6/9/98 06:39:31  | 33.1322 | -106.5092 | 68  | 0  | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | H 2 | 6/10/98 03:27:22 | 33.147 | -106.480 | 6/10/98 03:31:07 | 6/9/98 12:47:00  | 33.1437 | -106.5045 | 158 | 0  | 0 19 (0m-26m 4N)   |
| 05738 | 00381 | H 2 | 6/10/98 03:27:22 | 33.147 | -106.480 | 6/10/98 03:31:07 | 6/9/98 18:51:29  | 33.1365 | -106.5067 | 69  | 0  | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | J 3 | 6/11/98 11:08:11 | 33.141 | -106.497 | 6/11/98 11:11:11 | 6/10/98 19:22:31 | 33.1427 | -106.5010 | 176 | 0  | 0 29 (26m-50m 4N)  |
| 05738 | 00381 | D 2 | 6/11/98 14:41:16 | 33.142 | -106.501 | 6/11/98 14:39:46 | 6/11/98 01:26:43 | 33.1383 | -106.4942 | 66  | 0  | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | D 2 | 6/11/98 14:41:16 | 33.142 | -106.501 | 6/11/98 14:39:46 | 6/10/98 00:58:01 | 33.1428 | -106.5047 | 93  | 0  | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | D 2 | 6/11/98 14:41:16 | 33.142 | -106.501 | 6/11/98 14:42:46 | 6/10/98 13:14:42 | 33.1425 | -106.5042 | 66  | 0  | 0 29 (26m-50m 4N)  |
| 05738 | 00381 | H   | 6/12/98 14:19:18 | 33.141 | -106.498 | 6/12/98 15:36:46 | 6/11/98 07:33:39 | 33.1472 | -106.4902 | 118 | 0  | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | D 2 | 6/12/98 14:19:18 | 33.141 | -106.498 | 6/12/98 14:23:48 | 6/11/98 13:42:43 | 33.1328 | -106.4957 | 57  | 0  | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | J 3 | 6/12/98 20:37:33 | 33.141 | -106.513 | 6/12/98 20:33:48 | 6/12/98 01:58:12 | 33.1425 | -106.5037 | 189 | 0  | 0 39 (51m-75m 4N)  |
| 05738 | 00381 | J 3 | 6/12/98 20:37:33 | 33.141 | -106.513 | 6/12/98 20:38:18 | 6/12/98 08:02:13 | 33.1420 | -106.5055 | 71  | 0  | 0 19 (0m-26m 4N)   |
| 05738 | 00381 | J 3 | 6/12/98 20:37:33 | 33.141 | -106.513 | 6/12/98 20:38:18 | 6/11/98 19:51:41 | 33.1425 | -106.5073 | 160 | 0  | 0 19 (0m-26m 4N)   |
| 05738 | 00381 | J 3 | 6/12/98 20:37:33 | 33.141 | -106.513 | 6/12/98 20:39:48 | 6/20/32 03:19:47 | 33.1328 | -106.4957 | 121 | 0  | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | J 3 | 6/12/98 20:37:33 | 33.141 | -106.513 | 6/12/98 20:41:18 | 6/12/98 14:08:30 | 33.1422 | -106.5038 | 84  | 0  | 0 29 (26m-50m 4N)  |
| 05738 | 00381 | H 3 | 6/14/98 02:39:19 | 33.140 | -106.516 | 6/14/98 02:37:04 |                  |         |           |     |    |                    |

|       |       |     |                  |        |          |                  |                  |         |           |     |   |                    |
|-------|-------|-----|------------------|--------|----------|------------------|------------------|---------|-----------|-----|---|--------------------|
| 05738 | 00381 | H 3 | 6/14/98 02:39:19 | 33.140 | -106.516 | 6/14/98 02:40:04 | 6/13/98 02:26:12 | 33.1420 | -106.5037 | 103 | 0 | 0 47 (76m-100m 3N) |
| 05738 | 00381 | H 2 | 6/14/98 04:20:01 | 33.143 | -106.498 | 6/14/98 04:20:46 | 6/13/98 14:37:38 | 33.1443 | -106.5045 | 70  | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | H 2 | 6/14/98 04:20:01 | 33.143 | -106.498 | 6/14/98 04:23:46 | 6/12/98 20:18:41 | 33.1473 | -106.5017 | 91  | 0 | 0 29 (26m-50m 4N)  |
| 05738 | 00381 | H 3 | 6/15/98 04:06:54 | 33.143 | -106.498 | 6/15/98 04:12:09 | 6/13/98 20:44:29 | 33.1557 | -106.5197 | 118 | 0 | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | J 1 | 6/15/98 10:21:24 | 33.134 | -106.469 | 6/15/98 10:23:39 | 6/14/98 09:01:47 | 33.1443 | -106.4933 | 112 | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | J 1 | 6/15/98 10:21:24 | 33.134 | -106.469 | 6/15/98 10:23:39 | 6/15/98 03:19:13 | 33.1445 | -106.4938 | 75  | 0 | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | J 1 | 6/15/98 10:21:24 | 33.134 | -106.469 | 6/15/98 10:26:39 | 6/14/98 15:07:00 | 33.1425 | -106.5037 | 68  | 0 | 0 19 (0m-26m 4N)   |
| 05738 | 00381 | J 1 | 6/15/98 10:21:24 | 33.134 | -106.469 | 6/15/98 10:26:39 | 6/14/98 21:13:41 | 33.1420 | -106.5038 | 110 | 0 | 0 19 (0m-26m 4N)   |
| 05738 | 00381 | J 1 | 6/15/98 10:21:24 | 33.134 | -106.469 | 6/15/98 10:29:39 | 6/14/98 02:53:43 | 33.1427 | -106.5045 | 64  | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | J 1 | 6/15/98 10:21:24 | 33.134 | -106.469 | 6/15/98 10:29:39 | 6/15/98 09:29:14 | 33.1373 | -106.5080 | 70  | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | J 1 | 6/15/98 10:21:24 | 33.134 | -106.469 | 6/15/98 10:29:39 | 6/16/98 10:07:31 | 33.1428 | -106.5063 | 79  | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | J   | 6/16/98 11:54:03 |        |          |                  | 6/17/98 04:42:44 | 33.1408 | -106.4987 | 508 | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | D   | 6/17/98 12:25:47 |        |          |                  | 6/17/98 10:45:14 | 33.1283 | -106.5020 | 55  | 0 | 0 47 (76m-100m 3N) |
| 05738 | 00381 | D   | 6/17/98 12:25:47 |        |          |                  | 6/19/98 11:56:14 | 33.1435 | -106.5000 | 54  | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | D 1 | 6/19/98 13:24:01 | 33.149 | -106.535 | 6/19/98 13:27:46 | 6/19/98 05:53:43 | 33.1420 | -106.5037 | 507 | 0 | 0 29 (26m-50m 4N)  |
| 05738 | 00381 | D 1 | 6/19/98 13:24:01 | 33.149 | -106.535 | 6/19/98 13:29:16 | 6/20/98 06:29:07 | 33.1415 | -106.5038 | 342 | 0 | 0 29 (26m-50m 4N)  |
| 05738 | 00381 | D B | 6/20/98 13:06:00 | 33.235 | -106.662 | 6/20/98 13:06:45 | 6/20/98 12:35:13 | 33.1422 | -106.5042 | 102 | 0 | 0 29 (26m-50m 4N)  |
| 05738 | 00381 | D B | 6/20/98 13:06:00 | 33.235 | -106.662 | 6/20/98 13:06:45 | 6/21/98 07:16:08 | 33.1427 | -106.5063 | 339 | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | H   |                  |        |          |                  | 6/21/98 13:22:30 | 33.1427 | -106.5037 | 116 | 0 | 0 29 (26m-50m 4N)  |
| 05738 | 00381 | H   |                  |        |          |                  | 6/22/98 15:07:16 | 33.1430 | -106.4958 | 330 | 0 | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | H   |                  |        |          |                  | 6/23/98 16:33:16 | 33.1425 | -106.5045 | 60  | 0 | 0 29 (26m-50m 4N)  |
| 05738 | 00381 | H 2 | 6/23/98 16:34:01 | 33.142 | -106.502 | 6/23/98 16:33:16 | 6/24/98 03:27:13 | 33.1422 | -106.5037 | 91  | 0 | 0 19 (0m-26m 4N)   |
| 05738 | 00381 | J 1 | 6/24/98 10:22:41 | 33.133 | -106.469 | 6/24/98 10:27:11 | 6/26/98 05:20:37 | 33.1420 | -106.5037 | 497 | 0 | 0 19 (0m-26m 4N)   |
| 05738 | 00381 | D B | 6/26/98 12:32:55 | 33.159 | -106.632 | 6/26/98 12:32:10 | 6/27/98 06:13:38 | 33.1620 | -106.5123 | 322 | 0 | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | D 3 | 6/27/98 13:47:31 | 33.140 | -106.490 | 6/27/98 13:51:16 | 6/27/98 12:19:44 | 33.1422 | -106.5040 | 82  | 0 | 0 19 (0m-26m 4N)   |
| 05738 | 00381 | D 3 | 6/27/98 13:47:31 | 33.140 | -106.490 | 6/27/98 13:51:16 | 6/28/98 07:18:14 | 33.1408 | -106.4948 | 307 | 0 | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | D 1 | 6/28/98 15:05:31 | 33.145 | -106.504 | 6/28/98 15:07:46 | 6/29/98 08:15:09 | 33.1347 | -106.5077 | 363 | 0 | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | K A | 6/29/98 15:26:41 | 33.139 | -106.488 | 6/29/98 15:28:11 | 6/29/98 14:20:32 | 33.1463 | -106.5100 | 82  | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | K A | 6/29/98 15:26:41 | 33.139 | -106.488 | 6/29/98 15:28:11 | 6/30/98 09:11:13 | 33.1422 | -106.5035 | 371 | 0 | 0 29 (26m-50m 4N)  |
| 05738 | 00381 | H 3 | 6/30/98 16:48:31 | 33.140 | -106.498 | 6/30/98 16:52:16 | 6/30/98 15:16:13 | 33.1595 | -106.5255 | 67  | 0 | 0 47 (76m-100m 3N) |
| 05738 | 00381 | H 3 | 6/30/98 16:48:31 | 33.140 | -106.498 | 6/30/98 16:52:16 | 7/1/98 10:08:50  | 33.1373 | -106.4963 | 471 | 0 | 0 47 (76m-100m 3N) |
| 05738 | 00381 | H 0 | 7/1/98 16:33:28  | 33.132 | -106.497 | 7/1/98 16:35:43  | 7/1/98 16:13:12  | 33.1420 | -106.5032 | 128 | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | H 0 | 7/1/98 16:33:28  | 33.132 | -106.497 | 7/1/98 16:35:43  | 7/2/98 04:59:43  | 33.1418 | -106.5033 | 528 | 0 | 0 19 (0m-26m 4N)   |
| 05738 | 00381 | J 2 | 7/2/98 10:36:45  | 33.139 | -106.481 | 7/2/98 10:42:00  | 7/3/98 05:44:01  | 33.1418 | -106.5037 | 365 | 0 | 0 29 (26m-50m 4N)  |
| 05738 | 00381 | D 2 | 7/3/98 13:15:49  | 33.145 | -106.524 | 7/3/98 13:18:04  | 7/3/98 11:49:13  | 33.1417 | -106.5038 | 72  | 0 | 0 19 (0m-26m 4N)   |
| 05738 | 00381 | D 2 | 7/3/98 13:15:49  | 33.145 | -106.524 | 7/3/98 13:18:04  | 7/4/98 06:39:14  | 33.1397 | -106.4938 | 321 | 0 | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | D 3 | 7/4/98 14:33:33  | 33.141 | -106.498 | 7/4/98 14:45:07  | 7/4/98 12:46:16  | 33.1648 | -106.5052 | 139 | 0 | 0 47 (76m-100m 3N) |
| 05738 | 00381 | D 3 | 7/4/98 14:33:33  | 33.141 | -106.498 | 7/4/98 14:45:07  | 7/5/98 07:17:38  | 33.1437 | -106.4962 | 335 | 0 | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | K 2 | 7/5/98 14:51:21  | 33.151 | -106.544 | 7/5/98 14:55:06  | 7/5/98 13:23:32  | 33.1435 | -106.5057 | 84  | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | K 2 | 7/5/98 14:51:21  | 33.151 | -106.544 | 7/5/98 14:55:06  | 7/6/98 08:14:14  | 33.1422 | -106.4940 | 373 | 0 | 0 37 (51m-75m 3N)  |
| 05738 | 00381 | K   |                  |        |          |                  | 7/6/98 16:09:17  | 33.1355 | -106.5020 | 86  | 0 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | K   |                  |        |          |                  | 7/6/98 16:09:17  | 33.1455 | -106.5028 | 340 | 1 | 0 27 (26m-50m 3N)  |
| 05738 | 00381 | K   |                  |        |          |                  | 7/7/98 09:41:37  |         |           |     |   |                    |
| 05738 | 00381 | J B | 7/7/98 09:41:37  | 33.093 | -106.576 | 7/7/98 09:38:37  |                  |         |           |     |   |                    |

|       |       |   |   |                  |        |          |                  |                  |         |           |     |   |   |   |    |           |     |
|-------|-------|---|---|------------------|--------|----------|------------------|------------------|---------|-----------|-----|---|---|---|----|-----------|-----|
| 05738 | 00381 | H | B | 7/7/98 16:58:22  | 33.144 | -106.315 | 7/7/98 16:57:37  | 7/7/98 09:00:44  | 33.1455 | -106.5028 | 340 | 0 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | H | B | 7/7/98 16:58:22  | 33.144 | -106.315 | 7/7/98 16:59:07  | 7/7/98 15:06:14  | 33.1365 | -106.4998 | 63  | 0 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | J | 3 | 7/8/98 11:09:26  | 33.139 | -106.496 | 7/8/98 11:10:11  | 7/8/98 09:38:39  | 33.1453 | -106.5012 | 75  | 0 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | J | 3 | 7/8/98 11:09:26  | 33.139 | -106.496 | 7/8/98 11:14:41  | 7/8/98 03:28:43  | 33.1438 | -106.5067 | 89  | 0 | 0 | 0 | 17 | (0m-26m   | 3N) |
| 05738 | 00381 | J | A | 7/9/98 10:59:19  | 33.139 | -106.494 | 7/9/98 11:03:04  | 7/9/98 04:26:44  | 33.1420 | -106.5043 | 209 | 0 | 0 | 0 | 19 | (0m-26m   | 4N) |
| 05738 | 00381 | J | A | 7/9/98 10:59:19  | 33.139 | -106.494 | 7/9/98 11:03:04  | 7/9/98 10:34:31  | 33.1418 | -106.5042 | 69  | 0 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | J | 2 | 7/10/98 10:48:15 | 33.140 | -106.493 | 7/10/98 10:50:30 | 7/10/98 05:08:08 | 33.1445 | -106.4905 | 401 | 0 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | D | A | 7/10/98 12:18:47 | 33.138 | -106.502 | 7/10/98 12:20:17 | 7/10/98 11:12:45 | 33.1418 | -106.5035 | 74  | 0 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | D | A | 7/11/98 13:38:46 | 33.137 | -106.487 | 7/11/98 13:41:46 | 7/11/98 05:55:43 | 33.1425 | -106.5040 | 433 | 0 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | D | A | 7/11/98 13:38:46 | 33.137 | -106.487 | 7/11/98 13:41:46 | 7/11/98 11:59:43 | 33.1072 | -106.4888 | 69  | 0 | 0 | 0 | 49 | (76m-100m | 4N) |
| 05738 | 00381 | K | 2 | 7/12/98 13:58:01 | 33.144 | -106.511 | 7/12/98 14:01:46 | 7/12/98 06:52:44 | 33.1392 | -106.5033 | 498 | 0 | 0 | 0 | 19 | (0m-26m   | 4N) |
| 05738 | 00381 | K | 2 | 7/12/98 13:58:01 | 33.144 | -106.511 | 7/12/98 14:01:46 | 7/12/98 12:55:42 | 33.1423 | -106.5028 | 74  | 0 | 0 | 0 | 19 | (0m-26m   | 4N) |
| 05738 | 00381 | H | 3 | 7/13/98 15:45:33 | 33.144 | -106.520 | 7/13/98 15:50:03 | 7/13/98 07:56:15 | 33.1423 | -106.5045 | 420 | 0 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | H | 3 | 7/13/98 15:45:33 | 33.144 | -106.520 | 7/13/98 15:50:03 | 7/13/98 14:00:31 | 33.1428 | -106.5042 | 71  | 0 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | H | 2 | 7/14/98 15:31:46 | 33.144 | -106.508 | 7/14/98 15:34:46 | 7/14/98 08:51:49 | 33.1432 | -106.5010 | 398 | 0 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | K |   |                  |        |          | 7/14/98 16:31:46 | 7/14/98 14:57:13 | 33.1420 | -106.5038 | 116 | 0 | 0 | 0 | 39 | (51m-75m  | 4N) |
| 05738 | 00381 | H | B | 7/15/98 17:00:49 | 33.242 | -106.456 | 7/15/98 17:01:34 | 7/15/98 09:55:44 | 33.1422 | -106.4995 | 343 | 0 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | H | B | 7/15/98 17:00:49 | 33.242 | -106.456 | 7/15/98 17:01:34 | 7/15/98 16:01:14 | 33.1602 | -106.5262 | 68  | 0 | 0 | 0 | 39 | (51m-75m  | 4N) |
| 05738 | 00381 | J | A | 7/16/98 11:23:31 | 33.142 | -106.497 | 7/16/98 11:25:46 | 7/16/98 04:37:50 | 33.1393 | -106.5032 | 404 | 0 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | J | A | 7/16/98 11:23:31 | 33.142 | -106.497 | 7/16/98 11:25:46 | 7/16/98 10:42:13 | 33.1422 | -106.5028 | 64  | 0 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | D | B | 7/17/98 13:04:27 | 33.143 | -106.606 | 7/17/98 13:05:12 | 7/17/98 05:42:19 | 33.1400 | -106.4948 | 384 | 0 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | D | B | 7/17/98 13:04:27 | 33.143 | -106.606 | 7/17/98 13:05:12 | 7/17/98 11:53:09 | 33.1642 | -106.5053 | 431 | 0 | 0 | 0 | 47 | (76m-100m | 3N) |
| 05738 | 00381 | D | A | 7/18/98 14:22:37 | 33.145 | -106.499 | 7/18/98 14:23:21 | 7/18/98 06:38:54 | 33.1437 | -106.4942 | 426 | 0 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | D | A | 7/18/98 14:22:37 | 33.145 | -106.499 | 7/18/98 14:23:21 | 7/18/98 12:44:19 | 33.1457 | -106.5003 | 148 | 0 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | K | 1 | 7/19/98 14:44:08 | 33.144 | -106.514 | 7/19/98 14:47:53 | 7/19/98 07:24:44 | 33.1472 | -106.4888 | 354 | 0 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | K | 1 | 7/19/98 14:44:08 | 33.144 | -106.514 | 7/19/98 14:47:53 | 7/19/98 13:31:08 | 33.1338 | -106.5150 | 133 | 0 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | H | 3 | 7/20/98 15:57:59 | 33.149 | -106.539 | 7/20/98 16:01:44 | 7/20/98 14:35:44 | 33.1427 | -106.4957 | 118 | 0 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | H | A | 7/21/98 15:45:20 | 33.144 | -106.524 | 7/21/98 15:47:35 | 7/21/98 09:26:11 | 33.1440 | -106.5005 | 394 | 0 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | H | A | 7/21/98 15:45:20 | 33.144 | -106.524 | 7/21/98 15:47:35 | 7/21/98 15:31:02 | 33.1585 | -106.5243 | 81  | 0 | 0 | 0 | 47 | (76m-100m | 3N) |
| 05738 | 00381 | J | 0 | 7/22/98 10:15:17 | 33.193 | -106.789 | 7/22/98 10:19:01 | 7/22/98 04:08:38 | 33.1367 | -106.5057 | 478 | 0 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | J | 2 | 7/23/98 10:03:02 | 33.145 | -106.531 | 7/23/98 10:09:02 | 7/23/98 05:13:10 | 33.1410 | -106.5108 | 462 | 0 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | H |   |                  |        |          | 7/24/98 04:21:44 | 7/23/98 23:39:40 | 33.1425 | -106.5038 | 125 | 0 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | H |   |                  |        |          | 7/25/98 16:36:20 | 7/25/98 13:04:44 | 33.1408 | -106.5042 | 294 | 0 | 0 | 0 | 17 | (0m-26m   | 3N) |
| 05738 | 00381 | J |   |                  |        |          | 7/27/98 09:17:20 | 7/27/98 02:14:19 | 33.1428 | -106.5005 | 320 | 0 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | J | 3 | 7/27/98 22:24:45 | 33.143 | -106.497 | 7/27/98 22:27:45 | 7/27/98 14:41:43 | 33.1418 | -106.5023 | 393 | 0 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | J | 3 | 7/27/98 22:24:45 | 33.143 | -106.497 | 7/27/98 22:27:45 | 7/27/98 20:47:02 | 33.1520 | -106.4967 | 107 | 0 | 0 | 0 | 45 | (76m-100m | 2N) |
| 05738 | 00381 | J | 2 | 7/28/98 10:48:08 | 33.138 | -106.492 | 7/28/98 10:51:53 | 7/28/98 09:09:51 | 33.1475 | -106.5038 | 147 | 0 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | J | 1 | 7/30/98 10:26:39 | 33.133 | -106.467 | 7/30/98 10:31:09 | 7/30/98 04:33:43 | 33.1423 | -106.5038 | 458 | 0 | 0 | 0 | 19 | (0m-26m   | 4N) |
| 05738 | 00381 | J | 1 | 7/31/98 10:16:03 | 33.173 | -106.651 | 7/31/98 10:21:18 | 7/31/98 05:12:14 | 33.1445 | -106.5102 | 481 | 0 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | D | 3 | 8/1/98 14:15:38  | 33.143 | -106.499 | 8/1/98 14:17:53  | 8/1/98 06:22:43  | 33.1420 | -106.5052 | 298 | 0 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | H |   |                  |        |          | 8/2/98 14:56:56  | 8/2/98 13:31:23  | 33.1260 | -106.4862 | 456 | 0 | 0 | 0 | 47 | (76m-100m | 3N) |
| 05738 | 00381 | J | B | 8/3/98 09:40:30  | 33.159 | -106.237 | 8/3/98 09:41:15  | 8/3/98 01:47:13  | 33.1418 | -106.5038 | 85  | 0 | 0 | 0 | 19 | (0m-26m   | 4N) |

|       |       |   |   |         |          |        |          |         |          |         |          |         |           |     |   |   |    |           |     |
|-------|-------|---|---|---------|----------|--------|----------|---------|----------|---------|----------|---------|-----------|-----|---|---|----|-----------|-----|
| 05738 | 00381 | J | B | 8/3/98  | 09:40:30 | 33.159 | -106.237 | 8/3/98  | 09:41:15 | 8/3/98  | 07:57:42 | 33.1465 | -106.5022 | 106 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | J | 2 | 8/4/98  | 22:34:25 | 33.150 | -106.488 | 8/4/98  | 22:36:40 | 8/4/98  | 21:30:35 | 33.1382 | -106.4967 | 248 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | J | B | 8/5/98  | 22:25:55 | 33.104 | -106.489 | 8/5/98  | 22:24:25 | 8/5/98  | 22:24:11 | 33.1420 | -106.5037 | 108 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | D | A | 8/6/98  | 23:44:34 | 33.137 | -106.509 | 8/6/98  | 23:47:34 | 8/6/98  | 17:16:43 | 33.1410 | -106.5040 | 510 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | D | 2 | 8/7/98  | 13:43:20 | 33.140 | -106.489 | 8/7/98  | 13:46:20 | 8/7/98  | 11:57:50 | 33.1512 | -106.5083 | 271 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | J | 0 | 8/10/98 | 21:29:33 | 33.108 | -106.663 | 8/10/98 | 21:33:18 | 8/10/98 | 20:54:11 | 33.1418 | -106.5037 | 240 | 0 | 0 | 19 | (0m-26m   | 4N) |
| 05738 | 00381 | D | B | 8/11/98 | 23:36:40 | 33.111 | -106.597 | 8/11/98 | 23:37:25 | 8/11/98 | 16:30:48 | 33.1467 | -106.4973 | 846 | 0 | 0 | 27 | (26m-50m  | 3N) |
| 05738 | 00381 | D | B | 8/11/98 | 23:36:40 | 33.111 | -106.597 | 8/11/98 | 23:37:25 | 8/11/98 | 22:28:21 | 33.1540 | -106.5125 | 101 | 0 | 0 | 35 | (51m-75m  | 2N) |
| 05738 | 00381 | J | 2 | 8/12/98 | 11:23:41 | 33.139 | -106.497 | 8/12/98 | 11:26:41 | 8/12/98 | 10:50:38 | 33.1425 | -106.4960 | 110 | 0 | 0 | 25 | (26m-50m  | 2N) |
| 05738 | 00381 | K | 3 | 8/13/98 | 01:35:29 | 33.139 | -106.515 | 8/13/98 | 01:36:59 | 8/12/98 | 17:56:10 | 33.1375 | -106.4913 | 409 | 0 | 0 | 35 | (51m-75m  | 2N) |
| 05738 | 00381 | K | 3 | 8/13/98 | 01:35:29 | 33.139 | -106.515 | 8/13/98 | 01:38:29 | 8/13/98 | 00:02:13 | 33.1417 | -106.5143 | 168 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | K | B | 8/14/98 | 02:48:47 | 32.903 | -106.999 | 8/14/98 | 02:49:32 | 8/13/98 | 18:58:42 | 33.1385 | -106.5020 | 808 | 0 | 0 | 49 | (76m-100m | 4N) |
| 05738 | 00381 | K | B | 8/14/98 | 02:48:47 | 32.903 | -106.999 | 8/14/98 | 02:49:32 | 8/14/98 | 00:57:00 | 33.1420 | -106.5038 | 106 | 0 | 0 | 29 | (26m-50m  | 4N) |
| 05738 | 00381 | K | 3 | 8/14/98 | 15:10:46 | 33.136 | -106.484 | 8/14/98 | 15:13:46 | 8/14/98 | 07:16:13 | 33.1418 | -106.5037 | 292 | 0 | 0 | 19 | (0m-26m   | 4N) |
| 05738 | 00381 | K | 3 | 8/14/98 | 15:10:46 | 33.136 | -106.484 | 8/14/98 | 15:13:46 | 8/14/98 | 13:22:43 | 33.1418 | -106.4837 | 77  | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | D | B | 8/15/98 | 00:06:26 | 33.016 | -106.650 | 8/15/98 | 00:07:11 | 8/14/98 | 19:50:36 | 33.1485 | -106.5192 | 252 | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | J | A | 8/15/98 | 10:53:32 | 33.142 | -106.495 | 8/15/98 | 10:55:47 | 8/15/98 | 03:33:45 | 33.1432 | -106.5058 | 502 | 0 | 0 | 19 | (0m-26m   | 4N) |
| 05738 | 00381 | J | A | 8/15/98 | 10:53:32 | 33.142 | -106.495 | 8/15/98 | 10:55:47 | 8/15/98 | 09:37:37 | 33.1505 | -106.5087 | 131 | 0 | 0 | 35 | (51m-75m  | 2N) |
| 05738 | 00381 | K | A | 8/16/98 | 14:27:18 | 33.150 | -106.527 | 8/16/98 | 14:27:18 | 8/16/98 | 12:37:31 | 33.1417 | -106.5042 | 100 | 0 | 0 | 39 | (51m-75m  | 4N) |
| 05738 | 00381 | H | B | 8/17/98 | 04:24:21 | 33.253 | -106.654 | 8/17/98 | 04:25:06 | 8/17/98 | 01:26:14 | 33.1478 | -106.4997 | 98  | 0 | 0 | 37 | (51m-75m  | 3N) |
| 05738 | 00381 | J |   |         |          |        |          | 8/20/98 | 09:57:39 | 8/20/98 | 05:10:44 | 33.1435 | -106.4802 | 400 | 0 | 0 | 37 | (51m-75m  | 3N) |

| ID   | DATE    | TIME     | LC | LATITUDE | LONGITUDE | LAT2   | LON2     | ALTITUDE | TEMP | VOLT | SEAS | ACT |
|------|---------|----------|----|----------|-----------|--------|----------|----------|------|------|------|-----|
| 5707 | 5/15/98 | 09:21:55 | B  | 33.140   | -106.409  | 28.215 | -83.521  | 2000 B7  | 37   | 37   | EF   | C8  |
| 5707 | 5/15/98 | 11:03:55 | 2  | 33.181   | -106.480  | 38.474 | -131.327 | 2000 B7  | 37   | 37   | EF   | C8  |
| 5707 | 5/15/98 | 12:56:20 | 0  | 33.108   | -106.978  | 29.027 | -86.931  | 2000 B7  | 37   | 37   | EF   | C8  |
| 5707 | 5/15/98 | 14:34:26 | 3  | 33.201   | -106.504  | 38.952 | -134.991 | 2000 B7  | 37   | 37   | EF   | C8  |
| 5707 | 5/15/98 | 14:35:56 | B  | 33.207   | -106.510  | 24.761 | -67.093  | 2000 B7  | 37   | 37   | EF   | C8  |
| 5707 | 5/16/98 | 14:13:42 | 1  | 33.196   | -106.414  | 36.773 | -124.620 | 2000 1A  | 37   | 37   | EF   | C7  |
| 5707 | 5/16/98 | 17:43:42 | B  | 33.250   | -106.412  | 43.595 | -157.089 | 2000 B7  | 37   | 37   | EF   | C8  |
| 5707 | 5/16/98 | 20:30:30 | B  | 33.214   | -106.793  | 37.887 | -83.423  | 2000 A2  | 37   | 37   | C9   | A7  |
| 5707 | 5/17/98 | 22:03:38 | 3  | 33.234   | -106.475  | 28.994 | -126.189 | 2000 7E  | 29   | 29   | EF   | C7  |
| 5707 | 5/17/98 | 23:28:23 | 1  | 33.223   | -106.490  | 40.949 | -67.772  | 2000 A2  | 37   | 37   | EF   | C7  |
| 5707 | 5/18/98 | 01:05:53 | A  | 33.230   | -106.469  | 31.394 | -115.601 | 2000 AC  | 29   | 29   | EF   | C7  |
| 5707 | 5/18/98 | 01:35:08 | A  | 33.212   | -106.484  | 43.169 | -60.244  | 2000 9E  | 27   | 27   | EF   | C7  |
| 5707 | 5/18/98 | 03:14:11 | 0  | 33.261   | -106.325  | 32.814 | -108.379 | 2000 9E  | 27   | 27   | EF   | C7  |
| 5707 | 5/19/98 | 08:38:04 | 1  | 33.416   | -106.358  | 23.676 | -62.188  | 2000 56  | 39   | 39   | EF   | C8  |
| 5707 | 5/19/98 | 10:16:18 | 0  | 33.437   | -106.352  | 34.134 | -108.697 | 2000 16  | 35   | 35   | EF   | C9  |
| 5707 | 5/20/98 | 10:07:22 | 0  | 33.476   | -106.525  | 33.086 | -104.710 | 2000 21  | 35   | 35   | EF   | CA  |
| 5707 | 5/20/98 | 11:48:37 | 1  | 33.444   | -106.349  | 43.080 | -152.982 | 2000 56  | 27   | 27   | EF   | CA  |
| 5707 | 5/20/98 | 12:44:52 | 3  | 33.447   | -106.365  | 28.605 | -82.614  | 2000 16  | 35   | 35   | EF   | C9  |
| 5707 | 5/20/98 | 14:23:07 | A  | 33.448   | -106.360  | 38.426 | -130.572 | 2000 F6  | 37   | 37   | EF   | CB  |
| 5707 | 5/20/98 | 16:54:33 | 3  | 33.452   | -106.362  | 39.111 | -132.829 | 2000 21  | 27   | 27   | EF   | CA  |
| 5707 | 5/21/98 | 16:46:47 | 0  | 33.451   | -106.397  | 37.728 | -127.070 | 2000 59  | 24   | 24   | 92   | 49  |
| 5707 | 5/21/98 | 19:41:32 | A  | 33.461   | -106.365  | 43.875 | -56.747  | 2000 56  | 27   | 27   | EF   | CA  |
| 5707 | 5/21/98 | 21:21:17 | 0  | 33.448   | -106.444  | 33.685 | -105.287 | 2000 21  | 35   | 35   | EF   | CA  |
| 5707 | 5/21/98 | 22:59:34 | B  | 33.446   | -106.349  | 23.567 | -152.937 | 2000 56  | 27   | 27   | EF   | CA  |
| 5707 | 5/21/98 | 23:40:04 | A  | 33.459   | -106.372  | 39.901 | -73.837  | 2000 57  | 27   | 27   | EF   | CA  |
| 5707 | 5/22/98 | 23:19:02 | B  | 33.466   | -106.504  | 41.909 | -63.172  | 2000 82  | 23   | 23   | EF   | CB  |
| 5707 | 5/23/98 | 00:58:02 | 2  | 33.469   | -106.349  | 32.478 | -111.203 | 2000 21  | 35   | 35   | EF   | CA  |
| 5707 | 5/23/98 | 02:14:32 | 1  | 33.459   | -106.377  | 39.546 | -78.191  | 2000 21  | 35   | 35   | EF   | CA  |
| 5707 | 5/23/98 | 03:51:17 | 3  | 33.497   | -106.361  | 29.272 | -126.297 | 2000 82  | 23   | 23   | EF   | CB  |
| 5707 | 5/24/98 | 09:24:34 | 3  | 33.515   | -106.359  | 28.590 | -83.525  | 2000 1A  | 27   | 27   | EF   | CA  |
| 5707 | 5/24/98 | 12:56:22 | 1  | 33.512   | -106.349  | 29.819 | -88.443  | 2000 1A  | 27   | 27   | EF   | CA  |
| 5707 | 5/25/98 | 12:32:03 | 2  | 33.510   | -106.358  | 27.484 | -78.111  | 2000 7C  | 27   | 27   | EF   | CB  |
| 5707 | 5/25/98 | 14:14:03 | B  | 33.508   | -106.348  | 37.362 | -125.809 | 2000 BF  | 29   | 29   | EF   | CB  |
| 5707 | 5/25/98 | 15:53:48 | 0  | 33.505   | -106.347  | 32.768 | -102.866 | 2000 37  | 37   | 37   | EF   | CB  |
| 5707 | 5/25/98 | 17:32:48 | 2  | 33.512   | -106.349  | 42.835 | -150.872 | 2000 C0  | 37   | 37   | EF   | CA  |
| 5707 | 5/26/98 | 20:25:51 | 3  | 33.513   | -106.357  | 39.443 | -78.557  | 2000 7C  | 27   | 27   | EF   | CB  |
| 5707 | 5/26/98 | 22:04:06 | A  | 33.514   | -106.345  | 29.028 | -126.645 | 2000 88  | 27   | 27   | EF   | CB  |
| 5707 | 5/26/98 | 23:30:21 | 2  | 33.513   | -106.361  | 40.961 | -69.310  | 2000 88  | 27   | 27   | EF   | CB  |
| 5707 | 5/27/98 | 01:10:38 | A  | 33.520   | -106.324  | 31.276 | -117.364 | 2000 11  | 19   | 19   | EF   | CB  |
| 5707 | 5/27/98 | 01:24:53 | B  | 33.503   | -106.379  | 44.165 | -54.577  | 2000 A8  | 27   | 27   | EF   | C9  |
| 5707 | 5/28/98 | 02:49:54 | 1  | 33.506   | -106.380  | 35.647 | -96.458  | 2000 11  | 19   | 19   | EF   | CB  |
| 5707 | 5/28/98 | 04:31:09 | 2  | 33.514   | -106.356  | 25.205 | -144.298 | 2000 88  | 27   | 27   | EF   | CB  |
| 5707 | 5/28/98 | 08:40:16 | 1  | 33.543   | -106.372  | 24.015 | -62.249  | 2000 8D  | 19   | 19   | EF   | CB  |
| 5707 | 5/29/98 | 08:27:59 | 2  | 33.513   | -106.359  | 22.634 | -57.008  | 2000 A5  | 27   | 27   | EF   | CB  |
| 5707 | 5/29/98 | 10:09:14 | 0  | 33.525   | -106.428  | 33.200 | -104.911 | 2000 3D  | 37   | 37   | EF   | CB  |
| 5707 | 5/29/98 | 14:27:13 | B  | 33.643   | -106.424  | 38.635 | -131.516 | 2000 0   | 27   | 27   | EF   | CB  |
| 5707 | 5/29/98 | 15:03:13 | 3  | 33.508   | -106.371  | 27.545 | -78.880  | 2000 3D  | 37   | 37   | EF   | CB  |
| 5707 | 5/30/98 | 14:50:11 | A  | 33.503   | -106.362  | 26.173 | -72.727  | 2000 2E  | 37   | 37   | EF   | CB  |
| 5707 | 5/30/98 | 14:50:11 | A  | 33.503   | -106.362  | 26.173 | -72.727  | 2000 2E  | 37   | 37   | EF   | CB  |
| 5707 | 5/30/98 | 16:32:11 | 3  | 33.501   | -106.351  | 36.528 | -120.756 | 2000 A5  | 27   | 27   | EF   | CB  |
| 5707 | 5/30/98 | 16:32:11 | 3  | 33.501   | -106.351  | 36.528 | -120.756 | 2000 A5  | 27   | 27   | EF   | CB  |
| 5707 | 5/30/98 | 19:41:11 | 2  | 33.507   | -106.364  | 43.669 | -57.099  | 2000 73  | 27   | 27   | EF   | CA  |
| 5707 | 5/30/98 | 19:41:11 | 2  | 33.507   | -106.364  | 43.669 | -57.099  | 2000 73  | 27   | 27   | EF   | CA  |
| 5707 | 5/30/98 | 21:19:10 | A  | 33.465   | -106.518  | 33.762 | -105.073 | 2000 FD  | 29   | 29   | EF   | CA  |
| 5707 | 5/30/98 | 21:19:10 | A  | 33.465   | -106.518  | 33.762 | -105.073 | 2000 FD  | 29   | 29   | EF   | CA  |
| 5707 | 5/31/98 | 21:07:29 | B  | 33.489   | -106.493  | 34.829 | -99.893  | 2000 A1  | 37   | 37   | EF   | CA  |
| 5707 | 5/31/98 | 23:19:50 | 2  | 33.505   | -106.361  | 41.738 | -64.539  | 2000 5D  | 17   | 17   | EF   | CA  |
| 5707 | 6/1/98  | 00:58:49 | 2  | 33.506   | -106.342  | 32.329 | -112.846 | 2000 B7  | 57   | 57   | EF   | CA  |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5707 | 6/1/98  | 02:01:49 | A | 33.498 | -106.369 | 40.811 | -72.292  | 2000 1  | 35 | EF | CA |
| 5707 | 6/1/98  | 03:42:19 | 2 | 33.505 | -106.352 | 30.495 | -120.076 | 2000 20 | 37 | EF | CA |
| 5707 | 6/2/98  | 09:24:52 | 3 | 33.503 | -106.380 | 28.579 | -83.715  | 2000 34 | 27 | EF | CB |
| 5707 | 6/2/98  | 11:06:55 | 3 | 33.499 | -106.359 | 38.764 | -131.603 | 2000 1  | 35 | EF | CA |
| 5707 | 6/3/98  | 10:52:58 | 2 | 33.497 | -106.359 | 37.855 | -126.444 | 2000 F5 | 37 | EF | CA |
| 5707 | 6/3/98  | 14:16:58 | A | 33.508 | -106.354 | 37.465 | -126.841 | 2000 41 | 25 | EF | CA |
| 5707 | 6/3/98  | 15:42:28 | 3 | 33.513 | -106.367 | 31.432 | -96.734  | 2000 F5 | 37 | EF | CA |
| 5707 | 6/3/98  | 17:24:35 | B | 33.527 | -106.371 | 41.429 | -144.653 | 2000 4B | 33 | EF | CA |
| 5707 | 6/4/98  | 17:06:54 | 2 | 33.506 | -106.350 | 40.533 | -138.880 | 2000 40 | 29 | EF | CB |
| 5707 | 6/4/98  | 20:27:09 | 3 | 33.511 | -106.357 | 39.429 | -78.662  | 2000 4B | 33 | EF | CA |
| 5707 | 6/4/98  | 22:06:54 | A | 33.515 | -106.345 | 29.154 | -126.513 | 2000 C4 | 37 | EF | CA |
| 5707 | 6/4/98  | 23:32:40 | 3 | 33.509 | -106.358 | 40.843 | -70.488  | 2000 ED | 27 | EF | CA |
| 5707 | 6/6/98  | 00:48:37 | A | 33.536 | -106.221 | 33.148 | -108.034 | 2000 59 | 29 | EF | CB |
| 5707 | 6/6/98  | 02:38:07 | A | 33.519 | -106.367 | 36.897 | -90.166  | 2000 96 | 47 | AE | CA |
| 5707 | 6/6/98  | 04:20:06 | 3 | 33.517 | -106.337 | 26.497 | -138.244 | 2000 59 | 29 | EF | CB |
| 5707 | 6/7/98  | 08:29:07 | 2 | 33.505 | -106.364 | 22.654 | -57.163  | 2000 47 | 27 | EF | CB |
| 5707 | 6/7/98  | 08:29:07 | 2 | 33.505 | -106.364 | 22.654 | -57.163  | 2000 47 | 27 | EF | CB |
| 5707 | 6/7/98  | 10:11:07 | 1 | 33.529 | -106.430 | 33.221 | -104.987 | 2000 B8 | 37 | EF | CB |
| 5707 | 6/7/98  | 10:11:07 | 1 | 33.529 | -106.430 | 33.221 | -104.987 | 2000 B8 | 37 | EF | CB |
| 5707 | 6/7/98  | 11:50:52 | 2 | 33.516 | -106.350 | 43.198 | -153.076 | 2000 B3 | 25 | EF | CB |
| 5707 | 6/7/98  | 11:50:52 | 2 | 33.516 | -106.350 | 43.198 | -153.076 | 2000 B3 | 25 | EF | CB |
| 5707 | 6/7/98  | 12:50:23 | A | 33.513 | -106.348 | 29.248 | -85.119  | 2000 BA | 27 | EF | CB |
| 5707 | 6/7/98  | 12:50:23 | A | 33.513 | -106.348 | 29.248 | -85.119  | 2000 BA | 27 | EF | CB |
| 5707 | 6/8/98  | 14:04:32 | 3 | 33.511 | -106.344 | 36.789 | -122.328 | 2000 B8 | 37 | EF | CB |
| 5707 | 6/8/98  | 16:19:32 | A | 33.509 | -106.346 | 35.422 | -114.258 | 2000 BA | 27 | EF | CB |
| 5707 | 6/8/98  | 17:59:17 | B | 33.578 | -106.310 | 44.980 | -162.927 | 2000 B8 | 37 | EF | CB |
| 5707 | 6/8/98  | 19:43:34 | B | 33.476 | -106.284 | 43.444 | -57.403  | 2000 B3 | 25 | EF | CB |
| 5707 | 6/9/98  | 21:11:24 | 2 | 33.513 | -106.379 | 34.873 | -99.989  | 2000 D5 | 27 | EF | CB |
| 5707 | 6/9/98  | 22:49:39 | B | 33.515 | -106.354 | 24.685 | -147.901 | 2000 BA | 27 | EF | CB |
| 5707 | 6/9/98  | 23:21:54 | B | 33.504 | -106.370 | 41.458 | -65.561  | 2000 96 | 47 | EF | CA |
| 5707 | 6/10/98 | 01:03:09 | 1 | 33.515 | -106.368 | 32.042 | -113.474 | 2000 B3 | 25 | EF | CB |
| 5707 | 6/10/98 | 01:49:42 | 1 | 33.508 | -106.371 | 42.032 | -66.149  | 2000 96 | 47 | EF | CA |
| 5707 | 6/11/98 | 03:18:54 | 0 | 33.509 | -106.289 | 33.121 | -108.068 | 2000 D5 | 27 | EF | CB |
| 5707 | 6/11/98 | 04:57:09 | 1 | 33.496 | -106.363 | 22.676 | -155.957 | 2000 AE | 27 | EF | CB |
| 5707 | 6/11/98 | 09:26:40 | 3 | 33.489 | -106.375 | 28.602 | -83.722  | 2000 D5 | 27 | EF | CB |
| 5707 | 6/12/98 | 09:14:21 | A | 33.504 | -106.362 | 27.430 | -78.646  | 2000 BA | 26 | ED | CB |
| 5707 | 6/12/98 | 10:57:51 | 2 | 33.494 | -106.349 | 37.683 | -126.442 | 2000 AE | 27 | EF | CB |
| 5707 | 6/12/98 | 12:36:51 | 0 | 33.512 | -106.349 | 28.010 | -80.319  | 2000 AE | 27 | EF | CB |
| 5707 | 6/12/98 | 14:18:06 | 3 | 33.505 | -106.363 | 37.899 | -127.823 | 2000 2C | 37 | EF | CA |
| 5707 | 6/12/98 | 15:31:30 | 3 | 33.506 | -106.365 | 30.154 | -90.708  | 2000 F2 | 37 | EF | CA |
| 5707 | 6/13/98 | 15:17:51 | 2 | 33.509 | -106.386 | 28.739 | -84.539  | 2000 18 | 37 | EF | CA |
| 5707 | 6/13/98 | 16:56:06 | 3 | 33.508 | -106.371 | 39.155 | -132.553 | 2000 2C | 37 | EF | CA |
| 5707 | 6/13/98 | 20:26:06 | 3 | 33.507 | -106.389 | 39.268 | -78.759  | 2000 2C | 37 | EF | CA |
| 5707 | 6/13/98 | 22:07:24 | 2 | 33.514 | -106.374 | 29.298 | -127.183 | 2000 2C | 37 | EF | CA |
| 5707 | 6/14/98 | 21:57:10 | 1 | 33.536 | -106.357 | 30.295 | -121.321 | 2000 E2 | 25 | EF | CB |
| 5707 | 6/14/98 | 23:10:40 | A | 33.511 | -106.359 | 42.340 | -60.893  | 2000 2C | 37 | EF | CA |
| 5707 | 6/15/98 | 02:27:10 | 2 | 33.500 | -106.377 | 38.242 | -84.148  | 2000 E2 | 25 | EF | CB |
| 5707 | 6/16/98 | 08:29:24 | A | 33.524 | -106.350 | 22.679 | -57.352  | 2000 CA | 37 | EF | CA |
| 5707 | 6/16/98 | 10:12:09 | 0 | 33.513 | -106.321 | 33.252 | -105.088 | 2000 68 | 35 | EF | CA |
| 5707 | 6/17/98 | 11:41:24 | 3 | 33.511 | -106.332 | 42.113 | -147.780 | 2000 D9 | 29 | EF | CB |
| 5707 | 6/17/98 | 12:25:39 | B | 33.506 | -106.331 | 27.124 | -75.239  | 2000 3F | 27 | EF | CB |
| 5707 | 6/17/98 | 14:08:24 | 3 | 33.513 | -106.350 | 36.897 | -123.408 | 2000 E6 | 27 | EF | CB |
| 5707 | 6/17/98 | 14:26:24 | 1 | 33.509 | -106.370 | 23.380 | -60.741  | 2000 D5 | 27 | EF | CB |
| 5707 | 6/17/98 | 16:08:24 | 1 | 33.496 | -106.302 | 33.983 | -108.488 | 2000 D5 | 27 | EF | CB |
| 5707 | 6/17/98 | 17:46:42 | B | 33.604 | -106.198 | 43.900 | -156.631 | 2000 E2 | 25 | EF | CB |
| 5707 | 6/18/98 | 11:26:09 | B | 33.500 | -106.319 | 41.354 | -141.493 | 2000 0  | 0  | 0  | 0  |
| 5707 | 6/18/98 | 12:04:54 | A | 33.500 | -106.361 | 24.868 | -65.236  | 2000 8F | 37 | EF | CA |
| 5707 | 6/18/98 | 13:44:39 | 3 | 33.514 | -106.351 | 34.873 | -112.995 | 2000 8F | 37 | EF | CA |
| 5707 | 6/18/98 | 15:25:09 | B | 33.556 | -106.346 | 44.056 | -161.118 | 2000 8F | 37 | EF | CA |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5707 | 6/18/98 | 15:54:24 | 2 | 33.519 | -106.393 | 32.689 | -102.543 | 2000 8F | 37 | EF | CA |
| 5707 | 6/18/98 | 17:35:39 | 1 | 33.516 | -106.356 | 42.699 | -150.574 | 2000 8F | 37 | EF | CA |
| 5707 | 6/18/98 | 19:31:25 | B | 33.490 | -106.356 | 44.451 | -51.746  | 2000 E6 | 29 | EF | CB |
| 5707 | 6/19/98 | 09:39:45 | 2 | 33.519 | -106.368 | 29.890 | -89.271  | 2000 F7 | 29 | EF | CB |
| 5707 | 6/19/98 | 11:17:15 | 1 | 33.501 | -106.345 | 40.129 | -137.293 | 2000 F7 | 29 | EF | CB |
| 5707 | 6/19/98 | 13:21:03 | 1 | 33.529 | -106.439 | 32.742 | -102.620 | 2000 7B | 47 | EF | CB |
| 5707 | 6/20/98 | 12:59:35 | 1 | 33.523 | -106.368 | 30.530 | -92.163  | 2000 E3 | 29 | EF | CB |
| 5707 | 6/20/98 | 14:40:50 | 2 | 33.521 | -106.355 | 40.233 | -139.732 | 2000 AE | 27 | EF | CA |
| 5707 | 6/20/98 | 15:31:05 | 3 | 33.523 | -106.369 | 30.110 | -90.460  | 2000 A6 | 29 | EF | CB |
| 5707 | 6/20/98 | 17:11:35 | 2 | 33.519 | -106.354 | 40.290 | -138.284 | 2000 E3 | 29 | EF | CB |
| 5707 | 6/21/98 | 14:18:42 | 3 | 33.516 | -106.353 | 38.192 | -129.295 | 2000 2A | 37 | EF | CA |
| 5707 | 6/21/98 | 15:17:57 | 3 | 33.519 | -106.363 | 28.714 | -84.471  | 2000 2A | 37 | EF | CA |
| 5707 | 6/21/98 | 16:58:27 | 3 | 33.515 | -106.354 | 39.030 | -132.313 | 2000 2A | 37 | EF | CA |
| 5707 | 6/21/98 | 20:37:51 | B | 33.536 | -106.354 | 38.180 | -84.230  | 2000 2A | 37 | EF | C8 |
| 5707 | 6/22/98 | 09:04:41 | 3 | 33.516 | -106.358 | 26.228 | -73.256  | 2000 B9 | 27 | EF | CA |
| 5707 | 6/22/98 | 10:44:26 | 1 | 33.510 | -106.347 | 36.717 | -121.258 | 2000 B9 | 27 | EF | CA |
| 5707 | 6/22/98 | 12:18:56 | A | 33.529 | -106.349 | 26.320 | -70.978  | 2000 B9 | 27 | EF | CA |
| 5707 | 6/22/98 | 15:37:28 | B | 33.563 | -106.345 | 45.105 | -167.109 | 2000 B9 | 27 | EF | CA |
| 5707 | 6/23/98 | 14:51:41 | 2 | 33.509 | -106.349 | 26.035 | -72.684  | 2000 58 | 45 | EF | CB |
| 5707 | 6/23/98 | 16:32:11 | B | 33.507 | -106.255 | 36.505 | -120.398 | 2000 AC | 29 | EF | CB |
| 5707 | 6/23/98 | 21:57:49 | 3 | 33.509 | -106.335 | 30.233 | -121.494 | 2000 AC | 27 | EF | CA |
| 5707 | 6/24/98 | 10:24:34 | 1 | 33.500 | -106.311 | 34.418 | -110.606 | 2000 50 | 27 | EF | CB |
| 5707 | 6/24/98 | 12:02:49 | B | 33.478 | -106.386 | 44.076 | -158.719 | 2000 50 | 27 | EF | CB |
| 5707 | 6/24/98 | 13:11:04 | 2 | 33.513 | -106.368 | 31.770 | -98.020  | 2000 50 | 27 | EF | CB |
| 5707 | 6/24/98 | 14:40:19 | 2 | 33.506 | -106.348 | 24.814 | -66.615  | 2000 50 | 27 | EF | CB |
| 5707 | 6/24/98 | 14:53:04 | A | 33.502 | -106.344 | 41.352 | -145.632 | 2000 50 | 27 | EF | CB |
| 5707 | 6/24/98 | 16:20:36 | B | 33.545 | -106.194 | 35.314 | -114.589 | 2000 50 | 27 | EF | CB |
| 5707 | 6/25/98 | 10:12:52 | 1 | 33.531 | -106.449 | 33.270 | -105.227 | 2000 DE | 27 | EF | CB |
| 5707 | 6/25/98 | 11:54:07 | A | 33.507 | -106.335 | 43.037 | -153.540 | 2000 DE | 27 | EF | CB |
| 5707 | 6/25/98 | 12:51:07 | A | 33.506 | -106.335 | 29.633 | -87.135  | 2000 DE | 27 | EF | CB |
| 5707 | 6/25/98 | 13:32:22 | 0 | 33.511 | -106.346 | 24.792 | -64.557  | 2000 DE | 27 | EF | CB |
| 5707 | 6/25/98 | 14:29:22 | B | 33.505 | -106.351 | 23.756 | -60.647  | 2000 DE | 27 | EF | CB |
| 5707 | 6/25/98 | 14:31:37 | 3 | 33.503 | -106.349 | 39.260 | -135.096 | 2000 DE | 27 | EF | CB |
| 5707 | 6/25/98 | 15:14:22 | 2 | 33.498 | -106.336 | 34.734 | -112.413 | 2000 DA | 27 | EF | CB |
| 5707 | 6/25/98 | 16:08:39 | 1 | 33.491 | -106.298 | 33.967 | -108.509 | 2000 DE | 27 | EF | CB |
| 5707 | 6/26/98 | 11:40:55 | B | 33.454 | -106.458 | 41.964 | -147.909 | 2000 0  | 0  | 0  | 0  |
| 5707 | 6/26/98 | 12:31:21 | 1 | 33.517 | -106.355 | 27.556 | -76.780  | 2000 0  | 7  | FF | A0 |
| 5707 | 6/26/98 | 14:12:13 | B | 33.495 | -106.304 | 37.134 | -124.547 | 2000 0  | 0  | 0  | 0  |
| 5707 | 6/26/98 | 14:50:02 | 2 | 33.517 | -106.382 | 32.583 | -101.747 | 2000 0  | 0  | 0  | 0  |
| 5707 | 6/26/98 | 15:56:03 | 2 | 33.517 | -106.393 | 32.568 | -102.278 | 2000 0  | 0  | 0  | 0  |
| 5707 | 6/26/98 | 17:39:58 | B | 33.525 | -106.374 | 42.486 | -150.325 | 2000 0  | 0  | 0  | 0  |
| 5707 | 6/27/98 | 11:27:31 | B | 33.582 | -106.527 | 41.269 | -141.546 | 2000 7  | 37 | EF | CB |
| 5707 | 6/27/98 | 12:08:01 | A | 33.496 | -106.365 | 25.285 | -66.277  | 2000 7  | 37 | EF | CB |
| 5707 | 6/27/98 | 13:48:31 | 2 | 33.510 | -106.348 | 35.060 | -114.009 | 2000 7  | 37 | EF | CB |
| 5707 | 6/27/98 | 14:26:01 | 3 | 33.512 | -106.365 | 30.305 | -91.387  | 2000 7  | 37 | EF | CB |
| 5707 | 6/27/98 | 15:41:01 | 2 | 33.513 | -106.371 | 31.394 | -96.676  | 2000 7  | 37 | EF | CB |
| 5707 | 6/27/98 | 16:08:01 | 3 | 33.509 | -106.355 | 40.079 | -139.074 | 2000 7  | 37 | EF | CB |
| 5707 | 6/27/98 | 17:24:08 | 2 | 33.509 | -106.354 | 41.443 | -144.402 | 2000 7  | 37 | EF | CB |
| 5707 | 6/28/98 | 09:38:52 | 3 | 33.511 | -106.356 | 29.805 | -89.311  | 2000 7F | 27 | EF | CB |
| 5707 | 6/28/98 | 11:20:52 | A | 33.508 | -106.345 | 40.034 | -137.134 | 2000 7F | 27 | EF | CB |
| 5707 | 6/29/98 | 09:27:01 | B | 33.669 | -106.444 | 28.946 | -83.414  | 2000 0F | 37 | EF | CB |
| 5707 | 6/29/98 | 11:07:31 | 3 | 33.512 | -106.346 | 39.011 | -131.965 | 2000 0F | 37 | EF | CB |
| 5707 | 6/29/98 | 13:03:18 | 1 | 33.511 | -106.358 | 30.788 | -93.131  | 2000 E5 | 27 | EF | CB |
| 5707 | 6/29/98 | 13:43:48 | 3 | 33.513 | -106.362 | 25.832 | -70.232  | 2000 E5 | 27 | EF | CB |
| 5707 | 6/30/98 | 12:42:44 | B | 33.499 | -106.418 | 28.641 | -82.595  | 2000 0F | 37 | EF | CB |
| 5707 | 6/30/98 | 13:20:59 | B | 33.499 | -106.357 | 23.947 | -59.580  | 2000 E5 | 27 | EF | CB |
| 5707 | 6/30/98 | 14:23:14 | 2 | 33.505 | -106.354 | 38.253 | -130.612 | 2000 0A | 29 | EF | CA |
| 5707 | 6/30/98 | 14:59:59 | 1 | 33.486 | -106.271 | 33.784 | -107.693 | 2000 1B | 37 | EF | CB |
| 5707 | 6/30/98 | 15:05:59 | A | 33.505 | -106.364 | 27.516 | -78.167  | 2000 0A | 29 | EF | CA |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5707 | 6/30/98 | 16:46:29 | A | 33.502 | -106.353 | 37.765 | -126.383 | 2000 3  | 35 | EF | CB |
| 5707 | 7/1/98  | 14:00:24 | 3 | 33.503 | -106.355 | 36.228 | -119.963 | 2000 0  | 0  | 0  | 0  |
| 5707 | 7/1/98  | 14:38:58 | 3 | 33.510 | -106.381 | 31.470 | -97.033  | 2000 0  | 0  | 0  | 0  |
| 5707 | 7/1/98  | 14:50:06 | A | 33.507 | -106.375 | 25.646 | -71.754  | 2000 0  | 0  | 0  | 0  |
| 5707 | 7/1/98  | 16:19:06 | 2 | 33.506 | -106.361 | 41.327 | -144.888 | 2000 0  | 0  | 0  | 0  |
| 5707 | 7/1/98  | 16:34:40 | 3 | 33.505 | -106.357 | 36.437 | -120.283 | 2000 0  | 0  | 0  | 0  |
| 5707 | 7/1/98  | 20:27:38 | 2 | 33.506 | -106.370 | 39.230 | -78.971  | 2000 0  | 0  | 0  | 0  |
| 5707 | 7/2/98  | 10:35:31 | 2 | 33.506 | -106.373 | 35.549 | -115.951 | 2000 35 | 27 | EF | CA |
| 5707 | 7/2/98  | 11:57:16 | 2 | 33.505 | -106.386 | 24.141 | -61.518  | 2000 35 | 27 | EF | CA |
| 5707 | 7/2/98  | 12:13:46 | B | 33.489 | -106.340 | 45.191 | -163.980 | 2000 35 | 27 | EF | CA |
| 5707 | 7/2/98  | 13:37:46 | 0 | 33.518 | -106.385 | 34.142 | -109.180 | 2000 35 | 27 | EF | CA |
| 5707 | 7/2/98  | 14:17:48 | 1 | 33.494 | -106.354 | 29.450 | -86.279  | 2000 85 | 35 | EF | CB |
| 5707 | 7/2/98  | 14:41:03 | A | 33.494 | -106.355 | 24.661 | -66.405  | 2000 85 | 35 | EF | CB |
| 5707 | 7/2/98  | 15:15:33 | B | 33.582 | -106.218 | 43.505 | -157.405 | 2000 35 | 27 | EF | CA |
| 5707 | 7/3/98  | 14:56:24 | A | 33.497 | -106.352 | 41.442 | -146.838 | 2000 B3 | 29 | EF | CB |
| 5707 | 7/3/98  | 15:36:09 | B | 33.510 | -106.350 | 37.083 | -123.979 | 2000 85 | 35 | EF | CB |
| 5707 | 7/3/98  | 16:09:54 | 0 | 33.501 | -106.304 | 33.904 | -108.206 | 2000 85 | 35 | EF | CB |
| 5707 | 7/3/98  | 20:06:08 | 2 | 33.510 | -106.359 | 41.349 | -68.291  | 2000 B3 | 29 | EF | CB |
| 5707 | 7/3/98  | 21:48:56 | A | 33.513 | -106.345 | 31.398 | -116.066 | 2000 86 | 35 | EF | CB |
| 5707 | 7/4/98  | 21:34:26 | 1 | 33.518 | -106.328 | 32.536 | -110.980 | 2000 EF | 29 | EF | CB |
| 5707 | 7/5/98  | 00:12:41 | 3 | 33.510 | -106.363 | 36.838 | -90.146  | 2000 EF | 29 | EF | CB |
| 5707 | 7/5/98  | 00:52:26 | 3 | 33.508 | -106.361 | 41.348 | -67.922  | 2000 86 | 35 | EF | CB |
| 5707 | 7/5/98  | 01:38:56 | A | 33.517 | -106.356 | 43.175 | -59.649  | 2000 EF | 29 | EF | CB |
| 5707 | 7/5/98  | 01:50:56 | 1 | 33.512 | -106.354 | 26.920 | -138.072 | 2000 85 | 35 | EF | CB |
| 5707 | 7/5/98  | 02:31:26 | 1 | 33.511 | -106.347 | 31.662 | -116.008 | 2000 25 | 37 | EF | CA |
| 5707 | 7/6/98  | 03:49:34 | 1 | 33.508 | -106.349 | 23.690 | -152.871 | 2000 7F | 17 | EF | CB |
| 5707 | 7/6/98  | 04:45:04 | B | 33.507 | -106.351 | 24.299 | -149.462 | 2000 92 | 27 | EF | CA |
| 5707 | 7/6/98  | 09:52:21 | 1 | 33.513 | -106.371 | 31.019 | -94.668  | 2000 7F | 17 | EF | CB |
| 5707 | 7/7/98  | 11:21:00 | B | 33.504 | -106.353 | 39.944 | -137.511 | 2000 7F | 17 | EF | CB |
| 5707 | 7/7/98  | 11:46:30 | B | 33.494 | -106.360 | 23.447 | -56.778  | 2000 73 | 27 | EF | CB |
| 5707 | 7/7/98  | 13:28:30 | 0 | 33.504 | -106.334 | 33.168 | -104.682 | 2000 E0 | 29 | EF | CA |
| 5707 | 7/7/98  | 15:07:30 | A | 33.501 | -106.346 | 42.614 | -152.596 | 2000 F9 | 29 | EF | CB |
| 5707 | 7/7/98  | 15:18:45 | 2 | 33.508 | -106.356 | 28.679 | -84.269  | 2000 E0 | 37 | EF | CB |
| 5707 | 7/7/98  | 17:00:19 | 2 | 33.499 | -106.345 | 38.948 | -132.063 | 2000 BD | 37 | EF | CB |
| 5707 | 7/8/98  | 11:08:46 | 3 | 33.492 | -106.332 | 38.978 | -132.091 | 2000 20 | 39 | EF | CB |
| 5707 | 7/8/98  | 13:03:31 | 1 | 33.499 | -106.351 | 31.002 | -94.314  | 2000 20 | 39 | EF | CB |
| 5707 | 7/8/98  | 13:44:46 | 2 | 33.499 | -106.350 | 26.040 | -71.486  | 2000 20 | 39 | EF | CB |
| 5707 | 7/8/98  | 14:44:01 | 1 | 33.493 | -106.332 | 40.748 | -142.220 | 2000 20 | 39 | EF | CB |
| 5707 | 7/8/98  | 15:06:31 | 2 | 33.493 | -106.359 | 27.335 | -78.304  | 2000 20 | 39 | EF | CB |
| 5707 | 7/8/98  | 16:45:47 | B | 33.473 | -106.390 | 37.253 | -125.613 | 2000 20 | 39 | EF | CB |
| 5707 | 7/9/98  | 09:16:24 | 2 | 33.498 | -106.342 | 27.427 | -78.930  | 2000 0  | 0  | 8  | E3 |
| 5707 | 7/9/98  | 11:00:14 | 3 | 33.494 | -106.331 | 37.795 | -126.693 | 2000 0  | 0  | 0  | 0  |
| 5707 | 7/9/98  | 12:43:25 | 2 | 33.499 | -106.344 | 28.860 | -83.783  | 2000 20 | 0  | 0  | 0  |
| 5707 | 7/10/98 | 12:20:52 | 2 | 33.501 | -106.358 | 26.580 | -73.137  | 2000 5F | 25 | EF | CB |
| 5707 | 7/10/98 | 13:59:07 | 3 | 33.497 | -106.337 | 36.558 | -121.198 | 2000 7E | 29 | EF | CB |
| 5707 | 7/10/98 | 14:38:52 | B | 33.493 | -106.496 | 31.247 | -97.476  | 2000 7E | 29 | EF | CB |
| 5707 | 7/10/98 | 16:20:07 | A | 33.493 | -106.335 | 41.697 | -146.183 | 2000 7E | 29 | EF | CB |
| 5707 | 7/11/98 | 13:37:49 | A | 33.488 | -106.299 | 34.432 | -110.755 | 2000 9E | 37 | EF | CB |
| 5707 | 7/11/98 | 15:58:49 | B | 33.503 | -106.293 | 39.229 | -135.235 | 2000 9E | 37 | EF | CB |
| 5707 | 7/11/98 | 16:09:19 | B | 33.461 | -106.077 | 33.962 | -108.446 | 2000 9E | 37 | EF | CB |
| 5707 | 7/11/98 | 17:49:49 | 2 | 33.489 | -106.321 | 43.863 | -156.240 | 2000 9E | 37 | EF | CB |
| 5707 | 7/12/98 | 08:42:38 | 1 | 33.502 | -106.344 | 23.841 | -63.156  | 2000 D4 | 27 | EF | CB |
| 5707 | 7/12/98 | 10:26:08 | 2 | 33.488 | -106.307 | 34.445 | -110.794 | 2000 D4 | 27 | EF | CB |
| 5707 | 7/12/98 | 12:04:23 | B | 33.492 | -106.350 | 44.128 | -158.770 | 2000 D4 | 27 | EF | CB |
| 5707 | 7/12/98 | 13:15:50 | 3 | 33.501 | -106.367 | 32.186 | -100.089 | 2000 8  | 27 | EF | CB |
| 5707 | 7/12/98 | 13:57:50 | 1 | 33.503 | -106.342 | 27.310 | -77.161  | 2000 8  | 27 | EF | CB |
| 5707 | 7/12/98 | 14:17:20 | 1 | 33.514 | -106.337 | 22.186 | -54.327  | 2000 D4 | 27 | EF | CB |
| 5707 | 7/13/98 | 10:15:02 | 1 | 33.523 | -106.461 | 33.289 | -105.368 | 2000 BD | 37 | EF | CC |
| 5707 | 7/13/98 | 11:54:47 | A | 33.481 | -106.325 | 43.364 | -153.532 | 2000 BD | 37 | EF | CC |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5707 | 7/13/98 | 12:54:47 | 1 | 33.495 | -106.318 | 30.054 | -89.587  | 2000 BD | 37 | EF | CC |
| 5707 | 7/13/98 | 13:38:19 | B | 33.500 | -106.314 | 25.344 | -66.747  | 2000 62 | 27 | EF | CC |
| 5707 | 7/13/98 | 14:36:49 | 3 | 33.503 | -106.298 | 39.619 | -137.499 | 2000 BD | 37 | EF | CC |
| 5707 | 7/13/98 | 15:16:34 | B | 33.518 | -106.284 | 35.204 | -114.542 | 2000 BD | 37 | EF | CC |
| 5707 | 7/14/98 | 14:13:44 | 0 | 33.497 | -106.288 | 37.638 | -126.873 | 2000 FD | 24 | A4 | A4 |
| 5707 | 7/14/98 | 14:54:14 | A | 33.515 | -106.359 | 32.936 | -103.791 | 2000 EA | 55 | EF | CC |
| 5707 | 7/14/98 | 15:31:44 | 3 | 33.510 | -106.300 | 29.998 | -90.256  | 2000 BD | 37 | EF | CC |
| 5707 | 7/14/98 | 17:14:29 | 2 | 33.507 | -106.286 | 40.096 | -138.208 | 2000 EA | 55 | EF | CC |
| 5707 | 7/14/98 | 21:27:28 | B | 33.409 | -106.785 | 33.718 | -105.326 | 2000 62 | 27 | EF | CC |
| 5707 | 7/15/98 | 09:50:20 | 3 | 33.507 | -106.305 | 31.035 | -95.016  | 2000 57 | 27 | EF | CC |
| 5707 | 7/15/98 | 11:33:05 | 2 | 33.499 | -106.296 | 41.139 | -142.783 | 2000 57 | 27 | EF | CC |
| 5707 | 7/15/98 | 12:12:05 | 2 | 33.506 | -106.305 | 25.759 | -68.552  | 2000 57 | 27 | EF | CC |
| 5707 | 7/15/98 | 13:51:50 | 1 | 33.504 | -106.296 | 35.498 | -116.330 | 2000 57 | 27 | EF | CC |
| 5707 | 7/15/98 | 14:33:05 | 3 | 33.513 | -106.309 | 30.762 | -93.394  | 2000 57 | 27 | EF | CC |
| 5707 | 7/15/98 | 15:22:10 | 3 | 33.510 | -106.306 | 28.824 | -84.239  | 2000 57 | 27 | EF | CC |
| 5707 | 7/15/98 | 16:12:25 | 2 | 33.507 | -106.296 | 40.533 | -141.250 | 2000 57 | 27 | EF | CC |
| 5707 | 7/16/98 | 09:42:54 | A | 33.509 | -106.311 | 30.007 | -89.590  | 2000 64 | 37 | EF | CC |
| 5707 | 7/16/98 | 11:20:24 | A | 33.506 | -106.295 | 40.211 | -137.688 | 2000 64 | 37 | EF | CC |
| 5707 | 7/16/98 | 11:50:23 | A | 33.481 | -106.343 | 23.633 | -58.086  | 2000 64 | 37 | EF | CC |
| 5707 | 7/16/98 | 14:10:38 | 2 | 33.499 | -106.308 | 28.583 | -82.836  | 2000 64 | 37 | EF | CC |
| 5707 | 7/16/98 | 15:09:08 | B | 33.478 | -106.328 | 27.448 | -78.249  | 2000 64 | 37 | EF | CC |
| 5707 | 7/16/98 | 15:50:54 | 3 | 33.473 | -106.307 | 38.420 | -130.613 | 2000 64 | 37 | EF | CC |
| 5707 | 7/16/98 | 16:48:39 | 2 | 33.473 | -106.301 | 37.639 | -125.933 | 2000 64 | 37 | EF | CC |
| 5707 | 7/17/98 | 11:11:40 | 2 | 33.495 | -106.330 | 38.888 | -132.027 | 2000 8B | 27 | EF | CB |
| 5707 | 7/17/98 | 13:08:40 | 2 | 33.491 | -106.342 | 31.348 | -95.322  | 2000 8B | 27 | EF | CB |
| 5707 | 7/17/98 | 13:47:40 | 2 | 33.490 | -106.335 | 26.275 | -72.404  | 2000 8B | 27 | EF | CB |
| 5707 | 7/17/98 | 14:46:55 | 3 | 33.488 | -106.351 | 40.821 | -143.203 | 2000 8B | 27 | EF | CB |
| 5707 | 7/17/98 | 14:55:10 | A | 33.492 | -106.347 | 26.185 | -72.138  | 2000 8B | 27 | EF | CB |
| 5707 | 7/17/98 | 16:37:26 | A | 33.490 | -106.343 | 36.373 | -120.178 | 2000 6C | 27 | EF | CB |
| 5707 | 7/17/98 | 22:34:41 | A | 33.493 | -106.348 | 26.337 | -137.572 | 2000 19 | 35 | EF | CB |
| 5707 | 7/17/98 | 22:46:41 | B | 33.541 | -106.445 | 44.551 | -49.185  | 2000 19 | 37 | EF | CB |
| 5707 | 7/18/98 | 00:23:26 | 3 | 33.489 | -106.363 | 35.283 | -97.150  | 2000 19 | 35 | EF | CB |
| 5707 | 7/18/98 | 02:04:41 | 3 | 33.494 | -106.343 | 25.382 | -145.056 | 2000 19 | 35 | EF | CB |
| 5707 | 7/18/98 | 02:18:56 | 2 | 33.489 | -106.349 | 39.718 | -77.393  | 2000 19 | 35 | EF | CB |
| 5707 | 7/18/98 | 02:42:56 | 2 | 33.489 | -106.342 | 30.220 | -122.339 | 2000 19 | 35 | EF | CB |
| 5707 | 7/18/98 | 03:56:26 | 3 | 33.492 | -106.342 | 29.390 | -125.549 | 2000 19 | 35 | EF | CB |
| 5707 | 7/19/98 | 09:10:37 | 3 | 33.477 | -106.356 | 26.509 | -73.587  | 2000 14 | 37 | EF | CA |
| 5707 | 7/19/98 | 10:50:22 | 2 | 33.474 | -106.350 | 36.652 | -121.423 | 2000 55 | 27 | EF | CB |
| 5707 | 7/19/98 | 12:19:31 | B | 33.476 | -106.138 | 26.446 | -73.925  | 2000 55 | 27 | EF | CB |
| 5707 | 7/20/98 | 12:00:39 | 2 | 33.450 | -106.340 | 24.603 | -63.888  | 2000 C0 | 37 | EF | CB |
| 5707 | 7/20/98 | 13:38:54 | 3 | 33.459 | -106.297 | 0.131  | 0.632    | 2000 55 | 27 | EF | CB |
| 5707 | 7/20/98 | 14:21:39 | 2 | 33.467 | -106.323 | 0.272  | -0.884   | 2000 95 | 47 | EF | CA |
| 5707 | 7/20/98 | 15:20:09 | B | 33.513 | -106.292 | 43.733 | -159.717 | 2000 97 | 29 | EF | CA |
| 5707 | 7/20/98 | 15:58:24 | 2 | 33.475 | -106.357 | 32.548 | -102.004 | 2000 77 | 37 | EF | CA |
| 5707 | 7/21/98 | 08:47:00 | 2 | 33.473 | -106.326 | 24.112 | -62.897  | 2000 E5 | 29 | E7 | EC |
| 5707 | 7/21/98 | 10:24:30 | 0 | 33.456 | -106.285 | 34.466 | -110.961 | 2000 E5 | 29 | EF | CC |
| 5707 | 7/21/98 | 11:38:45 | B | 33.437 | -106.339 | 22.749 | -53.293  | 2000 E5 | 29 | EF | CC |
| 5707 | 7/21/98 | 12:05:00 | B | 33.441 | -106.390 | 44.122 | -158.773 | 2000 E5 | 29 | EF | CC |
| 5707 | 7/21/98 | 13:17:32 | A | 33.477 | -106.351 | 32.413 | -101.349 | 2000 2C | 27 | EF | CB |
| 5707 | 7/21/98 | 13:55:47 | B | 33.427 | -106.547 | 26.232 | -77.071  | 2000 2C | 27 | EF | CB |
| 5707 | 7/22/98 | 10:14:16 | 0 | 33.508 | -106.491 | 33.245 | -105.325 | 2000 9A | 39 | EF | 8A |
| 5707 | 7/22/98 | 11:56:16 | A | 33.472 | -106.347 | 43.156 | -153.736 | 2000 9A | 39 | EF | CA |
| 5707 | 7/22/98 | 12:56:53 | 0 | 33.493 | -106.406 | 30.251 | -90.640  | 2000 9A | 39 | EF | CA |
| 5707 | 7/22/98 | 13:38:53 | 3 | 33.497 | -106.371 | 25.302 | -67.534  | 2000 48 | 27 | EF | CA |
| 5707 | 7/22/98 | 14:35:53 | 2 | 33.499 | -106.363 | 40.026 | -138.510 | 2000 48 | 27 | EF | CA |
| 5707 | 7/23/98 | 10:04:23 | 2 | 33.509 | -106.384 | 32.116 | -100.121 | 2000 DB | 39 | EF | CA |
| 5707 | 7/23/98 | 11:43:23 | A | 33.499 | -106.369 | 42.390 | -148.388 | 2000 DB | 39 | EF | CA |
| 5707 | 7/23/98 | 12:34:23 | 1 | 33.505 | -106.369 | 28.066 | -80.163  | 2000 DB | 39 | EF | CA |
| 5707 | 7/23/98 | 13:16:23 | A | 33.495 | -106.365 | 23.003 | -57.164  | 2000 DB | 39 | EF | CA |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5707 | 7/23/98 | 14:14:56 | 2 | 33.495 | -106.350 | 37.845 | -127.960 | 2000 C9 | 27 | EF | CA |
| 5707 | 7/23/98 | 14:57:41 | 0 | 33.505 | -106.417 | 33.182 | -104.835 | 2000 C9 | 27 | EF | CA |
| 5707 | 7/24/98 | 13:52:49 | B | 33.547 | -106.352 | 35.313 | -117.111 | 2000 BD | 27 | EF | CA |
| 5707 | 7/24/98 | 14:38:04 | A | 33.508 | -106.380 | 31.088 | -94.466  | 2000 C9 | 35 | EF | CB |
| 5707 | 7/24/98 | 16:50:48 | 3 | 33.503 | -106.358 | 37.581 | -125.995 | 2000 C9 | 27 | EF | CA |
| 5707 | 7/24/98 | 19:35:48 | B | 33.508 | -106.365 | 44.372 | -52.216  | 2000 C9 | 27 | EF | CA |
| 5707 | 7/24/98 | 21:16:30 | 1 | 33.502 | -106.395 | 34.621 | -100.742 | 2000 C9 | 27 | EF | CA |
| 5707 | 7/25/98 | 09:40:15 | 1 | 33.505 | -106.399 | 29.828 | -89.656  | 2000 F1 | 19 | EF | CA |
| 5707 | 7/25/98 | 11:23:00 | 3 | 33.509 | -106.382 | 40.014 | -137.435 | 2000 F1 | 19 | EF | CA |
| 5707 | 7/25/98 | 13:32:00 | 0 | 33.472 | -106.244 | -0.410 | 1.537    | 2000 F1 | 19 | EF | CA |
| 5707 | 7/25/98 | 14:09:29 | B | 33.510 | -106.447 | 28.355 | -83.361  | 2000 F1 | 19 | EF | CA |
| 5707 | 7/25/98 | 15:09:45 | B | 33.536 | -106.338 | 42.930 | -154.981 | 2000 F1 | 19 | EF | CA |
| 5707 | 7/25/98 | 15:54:00 | 3 | 33.502 | -106.386 | 38.546 | -131.680 | 2000 A9 | 19 | EF | CA |
| 5707 | 7/26/98 | 03:55:26 | A | 33.476 | -106.376 | 29.513 | -125.084 | 2000 E8 | 19 | EF | CA |
| 5707 | 7/26/98 | 09:31:42 | 2 | 33.479 | -106.384 | 28.482 | -84.077  | 2000 C5 | 19 | EF | CA |
| 5707 | 7/27/98 | 09:19:27 | 1 | 33.462 | -106.374 | 27.457 | -78.927  | 2000 68 | 37 | EF | CA |
| 5707 | 7/27/98 | 11:01:43 | 3 | 33.451 | -106.358 | 37.746 | -126.815 | 2000 66 | 19 | EF | CA |
| 5707 | 7/28/98 | 10:47:29 | 3 | 33.427 | -106.330 | 36.743 | -121.642 | 2000 69 | 29 | EF | CB |
| 5707 | 7/28/98 | 12:25:44 | 2 | 33.416 | -106.340 | 27.090 | -75.451  | 2000 68 | 37 | EF | CA |
| 5707 | 7/28/98 | 14:03:59 | 2 | 33.414 | -106.326 | 36.891 | -123.431 | 2000 68 | 37 | EF | CA |
| 5707 | 7/28/98 | 14:46:44 | B | 33.434 | -106.361 | 32.190 | -100.298 | 2000 9E | 29 | EF | CB |
| 5707 | 7/28/98 | 15:59:29 | 1 | 33.425 | -106.349 | 32.487 | -101.934 | 2000 66 | 19 | EF | CA |
| 5707 | 7/28/98 | 16:23:29 | B | 33.428 | -106.307 | 41.879 | -147.504 | 2000 8E | 37 | EF | CB |
| 5707 | 7/28/98 | 17:38:49 | A | 33.421 | -106.314 | 42.562 | -150.033 | 2000 9E | 29 | EF | CB |
| 5707 | 7/29/98 | 05:00:53 | B | 33.447 | -106.379 | 23.086 | -155.013 | 2000 31 | 29 | EF | CA |
| 5707 | 7/29/98 | 08:57:52 | 3 | 33.431 | -106.369 | 25.091 | -68.269  | 2000 31 | 29 | EF | CA |
| 5707 | 7/29/98 | 10:38:22 | 3 | 33.425 | -106.341 | 35.509 | -116.184 | 2000 31 | 29 | EF | CA |
| 5707 | 7/29/98 | 12:01:16 | 2 | 33.435 | -106.370 | 24.674 | -65.086  | 2000 31 | 29 | EF | CA |
| 5707 | 7/30/98 | 13:18:56 | 1 | 33.440 | -106.393 | 32.606 | -102.360 | 2000 66 | 15 | ED | CA |
| 5707 | 7/30/98 | 14:03:11 | B | 33.442 | -106.368 | 27.845 | -79.268  | 2000 D2 | 17 | EF | CA |
| 5707 | 7/30/98 | 14:58:41 | A | 33.414 | -106.375 | 42.410 | -150.360 | 2000 66 | 15 | EF | CA |
| 5707 | 7/30/98 | 15:33:56 | 3 | 33.431 | -106.367 | 29.785 | -89.865  | 2000 AF | 19 | EF | CA |
| 5707 | 7/30/98 | 15:43:41 | 2 | 33.426 | -106.352 | 37.636 | -126.819 | 2000 66 | 15 | EF | CA |
| 5707 | 7/30/98 | 17:13:41 | 0 | 33.430 | -106.360 | 40.147 | -137.601 | 2000 7A | 35 | EE | CB |
| 5707 | 7/31/98 | 12:59:59 | 3 | 33.433 | -106.384 | 30.411 | -91.668  | 2000 49 | 29 | EF | CA |
| 5707 | 7/31/98 | 13:40:29 | B | 33.456 | -106.366 | 25.718 | -68.558  | 2000 49 | 29 | EF | CA |
| 5707 | 7/31/98 | 14:38:59 | A | 33.432 | -106.360 | 40.082 | -139.602 | 2000 49 | 29 | EF | CA |
| 5707 | 7/31/98 | 15:20:59 | A | 33.460 | -106.379 | 28.582 | -83.834  | 2000 49 | 28 | EF | C9 |
| 5707 | 7/31/98 | 15:20:59 | 2 | 33.451 | -106.355 | 35.500 | -116.369 | 2000 49 | 29 | EF | CA |
| 5707 | 7/31/98 | 17:01:29 | B | 33.644 | -106.232 | 38.678 | -131.457 | 2000 49 | 29 | EF | CA |
| 5707 | 8/1/98  | 10:04:16 | 3 | 33.488 | -106.393 | 32.165 | -100.282 | 2000 FA | 36 | E5 | CA |
| 5707 | 8/1/98  | 11:44:46 | 1 | 33.476 | -106.364 | 42.307 | -148.287 | 2000 FA | 37 | EF | CA |
| 5707 | 8/1/98  | 12:35:46 | 1 | 33.488 | -106.376 | 28.273 | -81.108  | 2000 FA | 37 | EF | CA |
| 5707 | 8/1/98  | 13:19:51 | 2 | 33.483 | -106.360 | 23.428 | -58.159  | 2000 EA | 27 | EF | CA |
| 5707 | 8/1/98  | 14:13:06 | B | 33.447 | -106.270 | 38.318 | -128.370 | 2000 FA | 37 | EF | CA |
| 5707 | 8/2/98  | 01:31:57 | 3 | 33.505 | -106.358 | 28.533 | -130.914 | 2000 F7 | 35 | EF | CA |
| 5707 | 8/2/98  | 02:14:42 | 1 | 33.517 | -106.322 | 33.128 | -108.207 | 2000 F7 | 35 | EF | CA |
| 5707 | 8/2/98  | 02:30:27 | 3 | 33.506 | -106.381 | 0.017  | -0.559   | 2000 F7 | 35 | EF | CA |
| 5707 | 8/2/98  | 04:10:57 | 3 | 33.503 | -106.369 | 28.104 | -131.215 | 2000 F7 | 35 | EF | CA |
| 5707 | 8/3/98  | 09:42:05 | 3 | 33.477 | -106.361 | 29.827 | -89.645  | 2000 F7 | 35 | EF | CA |
| 5707 | 8/3/98  | 11:21:05 | B | 33.481 | -106.361 | 40.078 | -137.030 | 2000 82 | 37 | EF | CA |
| 5707 | 8/3/98  | 11:51:50 | 2 | 33.475 | -106.355 | 23.825 | -60.262  | 2000 82 | 37 | EF | CA |
| 5707 | 8/3/98  | 13:30:05 | 0 | 33.459 | -106.284 | 33.879 | -108.286 | 2000 48 | 37 | EF | C9 |
| 5707 | 8/3/98  | 14:14:51 | 1 | 33.471 | -106.362 | 28.949 | -84.905  | 2000 82 | 37 | EF | CA |
| 5707 | 8/3/98  | 14:42:36 | A | 33.499 | -106.371 | 24.492 | -66.069  | 2000 48 | 37 | EF | C9 |
| 5707 | 8/3/98  | 15:51:36 | 0 | 33.473 | -106.345 | 39.035 | -133.055 | 2000 82 | 37 | EF | CA |
| 5707 | 8/4/98  | 09:31:54 | 3 | 33.483 | -106.375 | 28.649 | -84.185  | 2000 20 | 40 | 0  | 0  |
| 5707 | 8/4/98  | 11:10:33 | 2 | 33.477 | -106.361 | 39.063 | -132.288 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/4/98  | 13:10:42 | 1 | 33.487 | -106.368 | 31.692 | -97.570  | 2000 0  | 0  | 0  | 0  |

|      |                  |   |        |          |        |          |         |    |    |    |
|------|------------------|---|--------|----------|--------|----------|---------|----|----|----|
| 5707 | 8/4/98 13:53:43  | 1 | 33.484 | -106.354 | 26.848 | -74.412  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/4/98 14:31:32  | B | 33.524 | -106.362 | 23.615 | -59.818  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/5/98 02:54:28  | B | 33.454 | -106.221 | 28.649 | -125.308 | 2000 0  | 0  | 40 | A0 |
| 5707 | 8/5/98 03:36:27  | 2 | 33.501 | -106.353 | 32.056 | -112.948 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/5/98 09:21:24  | A | 33.500 | -106.385 | 27.605 | -78.812  | 2000 0  | 0  | 0  | 63 |
| 5707 | 8/5/98 10:57:49  | B | 33.516 | -106.381 | 38.226 | -125.750 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/6/98 05:03:26  | B | 33.433 | -106.386 | 23.047 | -155.156 | 2000 83 | 37 | EF | CA |
| 5707 | 8/6/98 09:12:25  | B | 33.518 | -106.328 | 26.564 | -73.647  | 2000 83 | 37 | EF | 8A |
| 5707 | 8/6/98 10:51:15  | A | 33.508 | -106.365 | 36.694 | -121.645 | 2000 83 | 37 | EF | CA |
| 5707 | 8/7/98 04:48:35  | 1 | 33.502 | -106.362 | 24.347 | -148.927 | 2000 8A | 19 | EF | CA |
| 5707 | 8/7/98 08:59:04  | 2 | 33.505 | -106.371 | 25.280 | -68.297  | 2000 8A | 19 | EF | CA |
| 5707 | 8/7/98 10:39:04  | 3 | 33.500 | -106.356 | 35.607 | -116.235 | 2000 79 | 27 | EF | CA |
| 5707 | 8/7/98 12:04:34  | 0 | 33.506 | -106.388 | 25.137 | -65.920  | 2000 79 | 27 | EF | CA |
| 5707 | 8/8/98 10:28:54  | 2 | 33.468 | -106.335 | 34.444 | -110.875 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/9/98 10:16:31  | 0 | 33.502 | -106.501 | 33.291 | -105.518 | 2000 99 | 37 | EF | CA |
| 5707 | 8/9/98 11:58:18  | A | 33.466 | -106.351 | 43.173 | -153.752 | 2000 B2 | 27 | EF | CA |
| 5707 | 8/9/98 13:00:33  | 2 | 33.469 | -106.362 | 30.747 | -92.786  | 2000 99 | 37 | EF | CA |
| 5707 | 8/10/98 10:06:54 | 3 | 33.478 | -106.382 | 32.158 | -100.234 | 2000 F9 | 17 | EF | CA |
| 5707 | 8/10/98 11:46:39 | 2 | 33.474 | -106.354 | 42.195 | -148.274 | 2000 F9 | 17 | EF | CA |
| 5707 | 8/10/98 12:37:26 | A | 33.463 | -106.374 | 28.107 | -82.274  | 2000 F9 | 17 | EF | CA |
| 5707 | 8/10/98 13:18:41 | A | 33.493 | -106.346 | 23.245 | -59.533  | 2000 F9 | 17 | EF | CA |
| 5707 | 8/11/98 13:57:35 | 2 | 33.484 | -106.367 | 36.171 | -119.597 | 2000 70 | 35 | EF | CA |
| 5707 | 8/11/98 14:38:50 | 0 | 33.482 | -106.393 | 31.378 | -96.314  | 2000 70 | 35 | EF | CA |
| 5707 | 8/11/98 14:44:50 | 1 | 33.480 | -106.387 | 24.604 | -65.684  | 2000 F9 | 17 | EF | CA |
| 5707 | 8/11/98 16:17:50 | 2 | 33.472 | -106.369 | 41.214 | -144.240 | 2000 29 | 27 | EF | CB |
| 5707 | 8/11/98 16:24:35 | 1 | 33.460 | -106.350 | 35.017 | -113.597 | 2000 29 | 27 | EF | CB |
| 5707 | 8/11/98 18:04:20 | B | 33.469 | -106.359 | 44.654 | -161.697 | 2000 70 | 35 | EF | CA |
| 5707 | 8/11/98 19:38:59 | B | 33.464 | -106.370 | 44.391 | -52.341  | 2000 72 | 29 | EF | CA |
| 5707 | 8/12/98 01:12:48 | 1 | 33.480 | -106.364 | 30.398 | -121.462 | 2000 CF | 37 | EF | CA |
| 5707 | 8/12/98 01:55:33 | 1 | 33.474 | -106.392 | 35.059 | -98.619  | 2000 CF | 37 | EF | CA |
| 5707 | 8/12/98 02:07:33 | 2 | 33.472 | -106.379 | 40.953 | -71.059  | 2000 CF | 37 | EF | CA |
| 5707 | 8/12/98 03:37:33 | B | 33.433 | -106.390 | 25.166 | -146.581 | 2000 CF | 37 | EF | CA |
| 5707 | 8/12/98 03:46:33 | A | 33.481 | -106.366 | 30.841 | -118.861 | 2000 CF | 37 | EF | CA |
| 5707 | 8/12/98 14:17:27 | 2 | 33.461 | -106.347 | 29.214 | -85.985  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/12/98 14:31:32 | 1 | 33.464 | -106.346 | 23.213 | -59.785  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/12/98 15:54:36 | B | 33.444 | -106.267 | 39.075 | -133.454 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/12/98 16:09:26 | Z | 33.440 | -106.271 | 33.634 | -107.051 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/12/98 19:26:43 | B | 33.403 | -106.309 | 45.305 | -46.710  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/12/98 21:06:11 | A | 33.434 | -106.332 | 35.529 | -95.400  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/13/98 01:56:20 | B | 33.437 | -106.440 | 42.030 | -65.071  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/13/98 02:31:58 | B | 33.492 | -106.268 | 22.876 | -159.026 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/13/98 03:13:30 | 3 | 33.413 | -106.280 | 27.169 | -136.059 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/13/98 03:36:30 | 3 | 33.410 | -106.262 | 31.965 | -112.865 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/13/98 09:32:02 | 2 | 33.412 | -106.302 | 28.640 | -84.488  | 2000 4C | 37 | EF | CC |
| 5707 | 8/13/98 14:51:32 | 1 | 33.410 | -106.294 | 41.481 | -146.461 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/13/98 15:35:18 | A | 33.410 | -106.282 | 36.903 | -123.315 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/13/98 15:59:46 | A | 33.415 | -106.331 | 32.424 | -101.310 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/13/98 17:41:22 | 2 | 33.410 | -106.299 | 42.351 | -149.615 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/13/98 20:55:46 | 3 | 33.406 | -106.314 | 36.922 | -89.938  | 2000 0  | 0  | 2  | 2  |
| 5707 | 8/14/98 02:53:07 | 0 | 33.440 | -106.284 | 29.411 | -125.499 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/14/98 03:24:17 | 1 | 33.467 | -106.134 | 33.275 | -107.011 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/14/98 05:03:40 | 1 | 33.429 | -106.310 | 22.727 | -154.769 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/14/98 09:23:08 | B | 33.396 | -106.385 | 27.565 | -79.063  | 2000 7C | 13 | EF | CB |
| 5707 | 8/15/98 03:11:58 | B | 33.415 | -106.455 | 34.548 | -101.176 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/15/98 04:10:58 | B | 33.462 | -106.327 | 21.912 | -162.818 | 2000 B6 | 19 | EF | CB |
| 5707 | 8/15/98 04:47:43 | A | 33.452 | -106.329 | 24.397 | -148.706 | 2000 B6 | 19 | EF | CB |
| 5707 | 8/15/98 10:49:44 | 2 | 33.444 | -106.308 | 36.728 | -121.599 | 2000 DD | 19 | EF | CB |
| 5707 | 8/16/98 03:49:28 | 2 | 33.457 | -106.322 | 23.679 | -152.166 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/16/98 04:35:53 | B | 33.455 | -106.328 | 25.661 | -142.733 | 2000 0  | 0  | 0  | 0  |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5707 | 8/16/98 | 08:59:55 | 1 | 33.468 | -106.330 | 25.238 | -68.298  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/16/98 | 10:40:33 | 3 | 33.458 | -106.315 | 35.576 | -116.285 | 2000 1E | 27 | EF | CB |
| 5707 | 8/17/98 | 04:25:04 | A | 33.428 | -106.317 | 26.870 | -136.721 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/17/98 | 08:49:55 | A | 33.429 | -106.326 | 24.161 | -63.028  | 2000 BC | 47 | EF | CB |
| 5707 | 8/17/98 | 10:31:10 | B | 33.344 | -106.077 | 34.441 | -111.200 | 2000 BC | 47 | EF | CB |
| 5707 | 8/17/98 | 12:07:55 | A | 33.429 | -106.296 | 44.532 | -159.380 | 2000 B4 | 37 | EF | CC |
| 5707 | 8/18/98 | 10:18:25 | 1 | 33.471 | -106.494 | 33.255 | -105.486 | 2000 10 | 27 | EF | CB |
| 5707 | 8/18/98 | 11:59:19 | A | 33.421 | -106.316 | 43.125 | -153.832 | 2000 50 | 37 | EF | CB |
| 5707 | 8/18/98 | 13:00:49 | B | 33.360 | -106.296 | 31.001 | -93.664  | 2000 10 | 27 | EF | CB |
| 5707 | 8/19/98 | 10:07:25 | 1 | 33.446 | -106.362 | 32.112 | -100.233 | 2000 0B | 19 | EF | CB |
| 5707 | 8/19/98 | 10:07:25 | 1 | 33.446 | -106.362 | 32.112 | -100.233 | 2000 0B | 19 | EF | CB |
| 5707 | 8/19/98 | 11:46:25 | A | 33.436 | -106.313 | 42.395 | -148.285 | 2000 0B | 19 | EF | 4B |
| 5707 | 8/19/98 | 11:46:25 | A | 33.436 | -106.313 | 42.395 | -148.285 | 2000 0B | 19 | EF | 4B |
| 5707 | 8/19/98 | 12:38:39 | B | 33.424 | -106.325 | 28.779 | -83.311  | 2000 24 | 47 | EF | CB |
| 5707 | 8/19/98 | 12:38:39 | B | 33.424 | -106.325 | 28.779 | -83.311  | 2000 24 | 47 | EF | CB |
| 5707 | 8/19/98 | 13:21:24 | A | 33.460 | -106.350 | 23.553 | -60.413  | 2000 24 | 47 | EF | CB |
| 5707 | 8/19/98 | 13:21:24 | A | 33.460 | -106.350 | 23.553 | -60.413  | 2000 24 | 47 | EF | CB |
| 5707 | 8/20/98 | 01:36:34 | 3 | 33.446 | -106.331 | 27.945 | -133.080 | 2000 A8 | 25 | EF | CB |
| 5707 | 8/20/98 | 01:36:34 | 3 | 33.446 | -106.331 | 27.945 | -133.080 | 2000 A8 | 25 | EF | CB |
| 5707 | 8/20/98 | 02:10:19 | A | 33.442 | -106.363 | 41.166 | -70.455  | 2000 A8 | 25 | EF | CB |
| 5707 | 8/20/98 | 02:10:19 | A | 33.442 | -106.363 | 41.166 | -70.455  | 2000 A8 | 25 | EF | CB |
| 5707 | 8/20/98 | 02:22:19 | 2 | 33.451 | -106.312 | 32.637 | -110.192 | 2000 A8 | 25 | EF | CB |
| 5707 | 8/20/98 | 02:22:19 | 2 | 33.451 | -106.312 | 32.637 | -110.192 | 2000 A8 | 25 | EF | CB |
| 5707 | 8/20/98 | 03:50:04 | 3 | 33.447 | -106.324 | 30.732 | -118.701 | 2000 A8 | 25 | EF | CB |
| 5707 | 8/20/98 | 03:50:04 | 3 | 33.447 | -106.324 | 30.732 | -118.701 | 2000 A8 | 25 | EF | CB |
| 5707 | 8/20/98 | 13:56:35 | 2 | 33.446 | -106.330 | 36.413 | -120.746 | 2000 9A | 37 | EF | CB |
| 5707 | 8/20/98 | 13:56:35 | 2 | 33.446 | -106.330 | 36.413 | -120.746 | 2000 9A | 37 | EF | CB |
| 5707 | 8/20/98 | 14:33:20 | A | 33.445 | -106.344 | 23.486 | -59.570  | 2000 9A | 17 | 7B | CB |
| 5707 | 8/20/98 | 14:33:20 | A | 33.445 | -106.344 | 23.486 | -59.570  | 2000 9A | 17 | 7B | CB |
| 5707 | 8/20/98 | 14:41:35 | 2 | 33.449 | -106.356 | 31.608 | -97.284  | 2000 9A | 37 | EF | CB |
| 5707 | 8/20/98 | 14:41:35 | 2 | 33.449 | -106.356 | 31.608 | -97.284  | 2000 9A | 37 | EF | CB |
| 5707 | 8/20/98 | 16:11:35 | 1 | 33.419 | -106.223 | 33.741 | -107.708 | 2000 9A | 37 | EF | CB |
| 5707 | 8/20/98 | 16:11:35 | 1 | 33.419 | -106.223 | 33.741 | -107.708 | 2000 9A | 37 | EF | CB |
| 5707 | 8/20/98 | 17:52:50 | A | 33.424 | -106.323 | 43.831 | -155.510 | 2000 9A | 37 | EF | CB |
| 5707 | 8/20/98 | 17:52:50 | A | 33.424 | -106.323 | 43.831 | -155.510 | 2000 9A | 37 | EF | CB |
| 5707 | 8/21/98 | 01:17:19 | B | 33.385 | -106.383 | 29.985 | -122.697 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/21/98 | 02:00:20 | A | 33.416 | -106.336 | 34.698 | -99.903  | 2000 0  | 0  | 0  | 40 |
| 5707 | 8/21/98 | 03:33:02 | 1 | 33.427 | -106.312 | 32.056 | -112.767 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/21/98 | 03:37:29 | 1 | 33.424 | -106.328 | 24.919 | -147.393 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/21/98 | 13:38:30 | B | 33.458 | -106.266 | 34.209 | -110.195 | 2000 5  | 19 | EF | CB |
| 5707 | 8/21/98 | 14:19:45 | 3 | 33.423 | -106.341 | 29.352 | -86.918  | 2000 5  | 19 | EF | CB |
| 5707 | 8/21/98 | 15:16:00 | B | 33.433 | -106.330 | 43.450 | -158.464 | 2000 5  | 19 | EF | CB |
| 5707 | 8/21/98 | 16:00:15 | 2 | 33.424 | -106.362 | 32.345 | -101.443 | 2000 5  | 19 | EF | CB |
| 5707 | 8/21/98 | 16:00:15 | A | 33.417 | -106.332 | 39.083 | -134.801 | 2000 5  | 19 | EF | CB |
| 5707 | 8/21/98 | 17:40:45 | A | 33.412 | -106.336 | 42.435 | -149.506 | 2000 5  | 19 | EF | CB |
| 5707 | 8/21/98 | 19:29:30 | B | 33.396 | -106.293 | 45.348 | -47.126  | 2000 5  | 19 | EF | CB |
| 5707 | 8/21/98 | 21:08:29 | 3 | 33.414 | -106.349 | 35.806 | -95.182  | 2000 5  | 19 | EF | CB |
| 5707 | 8/22/98 | 09:33:17 | 3 | 33.421 | -106.340 | 28.621 | -84.312  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/22/98 | 11:17:07 | 2 | 33.420 | -106.323 | 38.778 | -132.484 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/22/98 | 13:12:49 | 1 | 33.423 | -106.332 | 32.077 | -99.802  | 2000 0  | 0  | 2  | 0  |
| 5707 | 8/22/98 | 13:57:19 | 2 | 33.422 | -106.327 | 27.164 | -76.488  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/22/98 | 14:55:15 | A | 33.423 | -106.321 | 41.422 | -147.916 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/22/98 | 15:39:00 | 3 | 33.419 | -106.320 | 37.037 | -124.301 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/22/98 | 15:47:10 | 2 | 33.420 | -106.335 | 31.033 | -95.538  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/23/98 | 02:54:37 | 1 | 33.429 | -106.295 | 29.091 | -126.585 | 2000 FB | 37 | EF | CC |
| 5707 | 8/23/98 | 03:12:37 | 2 | 33.424 | -106.341 | 34.659 | -100.663 | 2000 FB | 37 | EF | CC |
| 5707 | 8/23/98 | 04:52:22 | A | 33.409 | -106.317 | 24.056 | -148.440 | 2000 FB | 37 | EF | CC |
| 5707 | 8/23/98 | 09:21:31 | 1 | 33.425 | -106.325 | 27.419 | -79.083  | 2000 9F | 37 | EF | CB |
| 5707 | 8/24/98 | 04:37:35 | A | 33.422 | -106.288 | 25.544 | -142.697 | 2000 0  | 0  | 0  | 0  |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5707 | 8/24/98 | 09:11:32 | B | 33.424 | -106.267 | 26.533 | -73.610  | 2000 0A | 39 | EF | CC |
| 5707 | 8/24/98 | 10:50:46 | 3 | 33.417 | -106.280 | 36.725 | -121.657 | 2000 0A | 39 | EF | CC |
| 5707 | 8/25/98 | 03:49:41 | B | 33.447 | -106.172 | 23.775 | -153.240 | 2000 FC | 37 | EF | CC |
| 5707 | 8/25/98 | 04:25:41 | 2 | 33.431 | -106.288 | 26.883 | -136.595 | 2000 FC | 37 | EF | CC |
| 5707 | 8/25/98 | 09:00:10 | 2 | 33.429 | -106.300 | 25.136 | -68.363  | 2000 FC | 37 | EF | CC |
| 5707 | 8/25/98 | 10:41:14 | 3 | 33.425 | -106.281 | 35.483 | -116.215 | 2000 27 | 27 | EF | CC |
| 5707 | 8/26/98 | 04:14:31 | A | 33.429 | -106.295 | 28.117 | -130.634 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/26/98 | 08:50:50 | B | 33.445 | -106.284 | 24.272 | -63.132  | 2000 1  | 0  | 0  | 0  |
| 5707 | 8/26/98 | 10:28:44 | 3 | 33.420 | -106.276 | 34.453 | -111.066 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/26/98 | 12:08:56 | A | 33.411 | -106.301 | 44.601 | -159.280 | 2000 48 | 0  | 0  | 0  |
| 5707 | 8/27/98 | 10:19:46 | 0 | 33.484 | -106.580 | 33.224 | -105.374 | 2000 C0 | 37 | EF | CB |
| 5707 | 8/27/98 | 11:59:19 | 1 | 33.415 | -106.309 | 43.217 | -153.651 | 2000 C0 | 37 | EF | CB |
| 5707 | 8/27/98 | 13:02:19 | 2 | 33.432 | -106.321 | 30.900 | -94.928  | 2000 17 | 37 | EF | CB |
| 5707 | 8/28/98 | 10:04:19 | B | 33.421 | -106.653 | 31.467 | -99.281  | 2000 48 | 27 | EF | CB |
| 5707 | 8/28/98 | 11:50:03 | B | 33.461 | -106.350 | 42.050 | -148.418 | 2000 48 | 27 | EF | CB |
| 5707 | 8/28/98 | 13:25:39 | 1 | 33.419 | -106.336 | 23.955 | -61.207  | 2000 48 | 27 | EF | CB |
| 5707 | 8/28/98 | 19:50:04 | A | 33.429 | -106.332 | 43.396 | -57.730  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/28/98 | 21:30:56 | 0 | 33.372 | -106.585 | 33.598 | -105.532 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/28/98 | 23:14:02 | B | 33.403 | -106.372 | 23.037 | -154.207 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/28/98 | 23:58:31 | 2 | 33.425 | -106.324 | 37.473 | -86.448  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/29/98 | 00:01:29 | 1 | 33.425 | -106.323 | 37.596 | -86.018  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/29/98 | 00:43:51 | A | 33.429 | -106.322 | 42.065 | -63.364  | 2000 0  | 10 | 0  | 0  |
| 5707 | 8/29/98 | 01:40:57 | 2 | 33.422 | -106.313 | 27.601 | -133.861 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/29/98 | 01:55:47 | B | 33.411 | -106.349 | 42.010 | -64.447  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/29/98 | 09:58:05 | 1 | 33.426 | -106.322 | 30.987 | -94.966  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/29/98 | 11:35:58 | B | 33.431 | -106.300 | 40.980 | -142.881 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/29/98 | 12:20:28 | 1 | 33.429 | -106.330 | 26.724 | -73.884  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/29/98 | 13:02:01 | 0 | 33.422 | -106.299 | 21.507 | -50.825  | 2000 1B | 27 | EF | CB |
| 5707 | 8/29/98 | 13:57:31 | 2 | 33.428 | -106.310 | 36.632 | -121.895 | 2000 1B | 27 | EF | CB |
| 5707 | 8/30/98 | 11:26:10 | 2 | 33.429 | -106.306 | 40.006 | -137.536 | 2000 21 | 27 | EF | CC |
| 5707 | 8/30/98 | 11:56:10 | B | 33.443 | -106.305 | 24.709 | -63.314  | 2000 21 | 27 | EF | CC |
| 5707 | 8/30/98 | 13:37:47 | 0 | 33.416 | -106.241 | 34.476 | -111.410 | 2000 EC | 26 | EF | CC |
| 5707 | 8/30/98 | 14:22:02 | 3 | 33.436 | -106.313 | 29.594 | -87.914  | 2000 21 | 27 | EF | CC |
| 5707 | 8/30/98 | 15:15:17 | A | 33.444 | -106.255 | 44.082 | -159.582 | 2000 21 | 27 | EF | CC |
| 5707 | 8/31/98 | 03:09:07 | 1 | 33.438 | -106.321 | 34.673 | -100.421 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/31/98 | 03:19:30 | 3 | 33.443 | -106.293 | 26.737 | -137.907 | 2000 0  | 2  | D2 | 4D |
| 5707 | 8/31/98 | 09:34:07 | 3 | 33.441 | -106.310 | 28.643 | -84.361  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/31/98 | 14:53:14 | 1 | 33.438 | -106.308 | 42.055 | -148.875 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/31/98 | 15:35:31 | 3 | 33.443 | -106.310 | 29.598 | -89.148  | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/31/98 | 15:41:27 | 3 | 33.440 | -106.290 | 0.045  | 0.545    | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/31/98 | 17:16:23 | 3 | 33.440 | -106.293 | 39.968 | -137.026 | 2000 0  | 0  | 0  | 0  |
| 5707 | 8/31/98 | 20:56:27 | 2 | 33.432 | -106.314 | 36.911 | -89.924  | 2000 A3 | 29 | EF | CC |
| 5707 | 9/1/98  | 03:00:53 | B | 33.482 | -106.582 | 28.319 | -127.982 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/1/98  | 03:01:38 | A | 33.434 | -106.312 | 36.031 | -94.248  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/1/98  | 04:40:16 | 2 | 33.438 | -106.296 | 25.454 | -142.383 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/1/98  | 09:25:42 | A | 33.429 | -106.326 | 27.680 | -79.101  | 2000 15 | 37 | EF | CC |
| 5707 | 9/1/98  | 15:17:57 | B | 33.583 | -106.342 | 34.599 | -114.269 | 2000 2  | 15 | 18 | A0 |
| 5707 | 9/1/98  | 15:22:15 | B | 33.433 | -106.318 | 28.372 | -83.079  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/1/98  | 17:01:38 | 2 | 33.417 | -106.297 | 38.845 | -131.439 | 2000 0  | 0  | 0  | 8  |
| 5707 | 9/1/98  | 20:47:51 | 2 | 33.406 | -106.321 | 38.089 | -84.465  | 2000 10 | 0  | 0  | 0  |
| 5707 | 9/1/98  | 22:28:48 | 2 | 33.407 | -106.301 | 27.635 | -132.251 | 2000 0  | 0  | 0  | 33 |
| 5707 | 9/2/98  | 04:27:28 | A | 33.413 | -106.304 | 26.825 | -136.356 | 2000 75 | 37 | EF | CC |
| 5707 | 9/2/98  | 10:54:22 | 3 | 33.412 | -106.295 | 36.623 | -121.693 | 2000 75 | 37 | EF | CC |
| 5707 | 9/2/98  | 20:34:48 | 2 | 33.407 | -106.327 | 39.087 | -79.182  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/2/98  | 22:19:34 | A | 33.453 | -106.288 | 29.002 | -126.713 | 2000 BC | 27 | EF | CC |
| 5707 | 9/2/98  | 23:48:04 | A | 33.414 | -106.329 | 38.265 | -81.468  | 2000 BC | 27 | EF | CC |
| 5707 | 9/3/98  | 08:59:18 | B | 33.344 | -106.211 | 25.129 | -68.198  | 2000 6D | 17 | EF | CC |
| 5707 | 9/3/98  | 10:40:32 | 2 | 33.407 | -106.294 | 35.579 | -116.373 | 2000 6D | 17 | EF | CC |
| 5707 | 9/3/98  | 12:08:31 | 3 | 33.413 | -106.308 | 25.662 | -69.269  | 2000 88 | 27 | EF | CC |

|      |                 |   |        |          |        |          |         |    |    |    |
|------|-----------------|---|--------|----------|--------|----------|---------|----|----|----|
| 5707 | 9/3/98 23:27:07 | 3 | 33.421 | -106.307 | 40.509 | -71.075  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/4/98 01:02:47 | B | 33.415 | -106.334 | 30.966 | -119.095 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/4/98 01:53:58 | 1 | 33.423 | -106.324 | 35.653 | -95.582  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/4/98 02:22:53 | 3 | 33.425 | -106.315 | 39.805 | -76.583  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/4/98 03:31:51 | 2 | 33.423 | -106.300 | 25.460 | -143.602 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/4/98 04:03:00 | 3 | 33.432 | -106.301 | 29.452 | -124.386 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/4/98 12:11:26 | 1 | 33.433 | -106.306 | 44.208 | -159.198 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/4/98 14:10:50 | 3 | 33.422 | -106.317 | 28.452 | -83.123  | 2000 0  | 0  | 0  | 4  |
| 5707 | 9/4/98 14:45:41 | B | 33.437 | -106.316 | 24.622 | -65.127  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/4/98 15:05:43 | 2 | 33.422 | -106.304 | 43.052 | -154.580 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/4/98 15:51:42 | 3 | 33.420 | -106.308 | 38.503 | -130.803 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/4/98 16:26:33 | A | 33.417 | -106.278 | 34.784 | -112.944 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/4/98 18:06:46 | 2 | 33.416 | -106.308 | 44.785 | -161.228 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/5/98 00:45:15 | 1 | 33.435 | -106.242 | 32.980 | -108.526 | 2000 0  | 0  | 0  | 2  |
| 5707 | 9/5/98 01:29:45 | 3 | 33.419 | -106.317 | 37.731 | -85.434  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/5/98 02:11:17 | 2 | 33.423 | -106.321 | 41.194 | -70.284  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/5/98 02:25:22 | 1 | 33.435 | -106.301 | 22.984 | -156.150 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/5/98 03:09:52 | 3 | 33.425 | -106.306 | 27.706 | -133.173 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/5/98 03:49:10 | 3 | 33.428 | -106.290 | 30.716 | -118.682 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/5/98 13:04:34 | 2 | 33.409 | -106.364 | 0.730  | 1.563    | 2000 46 | 15 | EF | CC |
| 5707 | 9/5/98 13:47:19 | 1 | 33.431 | -106.314 | 26.194 | -72.940  | 2000 46 | 15 | EF | CC |
| 5707 | 9/5/98 14:42:49 | A | 33.419 | -106.299 | 41.136 | -144.214 | 2000 46 | 15 | EF | CC |
| 5707 | 9/5/98 15:29:19 | 3 | 33.416 | -106.290 | 0.074  | 0.732    | 2000 46 | 15 | EF | CC |
| 5707 | 9/5/98 16:17:19 | 1 | 33.397 | -106.188 | 33.636 | -107.327 | 2000 46 | 15 | EF | CC |
| 5707 | 9/5/98 17:54:49 | 2 | 33.401 | -106.289 | 43.519 | -155.130 | 2000 46 | 15 | EF | C8 |
| 5707 | 9/5/98 20:01:21 | B | 33.395 | -106.311 | 42.243 | -62.943  | 2000 46 | 15 | EF | CC |
| 5707 | 9/6/98 01:08:11 | B | 33.382 | -106.334 | 39.481 | -75.114  | 2000 FE | 27 | EF | CC |
| 5707 | 9/6/98 01:54:41 | 1 | 33.418 | -106.308 | 41.974 | -64.237  | 2000 FE | 27 | EF | CC |
| 5707 | 9/6/98 02:02:11 | 2 | 33.417 | -106.291 | 25.317 | -145.662 | 2000 FE | 27 | EF | CC |
| 5707 | 9/6/98 02:46:26 | 3 | 33.428 | -106.290 | 30.003 | -122.647 | 2000 FE | 27 | EF | CC |
| 5707 | 9/6/98 03:36:41 | 2 | 33.431 | -106.276 | 32.110 | -112.407 | 2000 FE | 27 | EF | CC |
| 5707 | 9/6/98 08:28:01 | A | 33.435 | -106.299 | 21.662 | -52.357  | 2000 FE | 27 | EF | CC |
| 5707 | 9/6/98 14:21:55 | 3 | 33.427 | -106.287 | 39.023 | -133.334 | 2000 64 | 65 | EF | CC |
| 5707 | 9/6/98 15:06:55 | 2 | 33.411 | -106.263 | -0.492 | 0.756    | 2000 64 | 25 | EF | CC |
| 5707 | 9/6/98 16:03:55 | A | 33.414 | -106.329 | 32.324 | -101.084 | 2000 64 | 25 | EF | CC |
| 5707 | 9/6/98 16:44:25 | 1 | 33.420 | -106.272 | 44.077 | -158.208 | 2000 64 | 25 | EF | CC |
| 5707 | 9/6/98 19:53:15 | 1 | 33.435 | -106.304 | 43.752 | -57.569  | 2000 64 | 25 | EF | CC |
| 5707 | 9/6/98 21:27:45 | B | 33.347 | -106.755 | 33.570 | -105.614 | 2000 3  | 37 | EF | CC |
| 5707 | 9/7/98 02:26:35 | B | 33.450 | -106.125 | 32.119 | -112.380 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/7/98 05:05:26 | A | 33.459 | -106.269 | 22.911 | -154.221 | 2000 74 | 37 | EF | CC |
| 5707 | 9/7/98 09:56:28 | 3 | 33.427 | -106.311 | 30.946 | -95.040  | 2000 70 | 27 | EF | CC |
| 5707 | 9/7/98 15:52:00 | 1 | 33.428 | -106.311 | 31.072 | -95.157  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/7/98 16:25:23 | 1 | 33.415 | -106.297 | 41.650 | -147.227 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/7/98 17:28:25 | A | 33.407 | -106.298 | 41.205 | -142.966 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/7/98 21:17:17 | 1 | 33.404 | -106.337 | 34.658 | -100.316 | 2000 8A | 33 | EF | CC |
| 5707 | 9/8/98 03:11:08 | B | 33.421 | -106.328 | 34.709 | -100.262 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/8/98 03:42:15 | 2 | 33.432 | -106.304 | 24.456 | -149.385 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/8/98 04:51:01 | 2 | 33.432 | -106.298 | 24.366 | -148.274 | 2000 54 | 27 | EF | CC |
| 5707 | 9/8/98 09:47:16 | 3 | 33.427 | -106.315 | 29.813 | -89.555  | 2000 54 | 27 | EF | CC |
| 5707 | 9/8/98 17:17:00 | A | 33.422 | -106.307 | 40.091 | -136.805 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/8/98 21:07:40 | 2 | 33.411 | -106.332 | 35.763 | -95.188  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/8/98 22:46:18 | A | 33.416 | -106.285 | 25.587 | -143.058 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/8/98 23:16:48 | 1 | 33.414 | -106.321 | 41.381 | -66.200  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/9/98 09:37:46 | 3 | 33.419 | -106.322 | 28.782 | -84.374  | 2000 10 | 37 | EF | CC |
| 5707 | 9/9/98 11:14:31 | 3 | 33.415 | -106.306 | 38.964 | -132.184 | 2000 10 | 37 | EF | CC |
| 5707 | 9/9/98 13:15:54 | 3 | 33.425 | -106.331 | 32.494 | -101.882 | 2000 10 | 37 | EF | CC |
| 5707 | 9/9/98 20:59:45 | 2 | 33.408 | -106.322 | 36.965 | -89.819  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/9/98 22:37:39 | 2 | 33.410 | -106.306 | 26.636 | -137.814 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/9/98 22:54:42 | B | 33.413 | -106.328 | 43.189 | -55.500  | 2000 0  | 0  | 0  | 0  |

|      |                  |   |        |          |        |          |         |    |    |    |
|------|------------------|---|--------|----------|--------|----------|---------|----|----|----|
| 5707 | 9/10/98 00:34:50 | 2 | 33.399 | -106.373 | 33.992 | -103.501 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/10/98 01:19:12 | A | 33.410 | -106.320 | 38.667 | -80.476  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/10/98 02:47:20 | 3 | 33.407 | -106.326 | 37.333 | -88.495  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/10/98 02:56:13 | 3 | 33.413 | -106.306 | 28.917 | -128.251 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/10/98 04:28:04 | B | 33.412 | -106.304 | 26.989 | -136.221 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/10/98 09:24:24 | 2 | 33.425 | -106.325 | 27.329 | -78.835  | 2000 AF | 27 | EF | CC |
| 5707 | 9/10/98 11:01:09 | B | 33.256 | -106.070 | 38.084 | -126.163 | 2000 AF | 27 | EF | CC |
| 5707 | 9/10/98 13:39:04 | 1 | 33.430 | -106.311 | 25.172 | -67.880  | 2000 AF | 27 | EF | CC |
| 5707 | 9/10/98 20:48:10 | 3 | 33.418 | -106.333 | 38.059 | -84.582  | 2000 0  | 20 | 0  | 0  |
| 5707 | 9/10/98 22:26:40 | 0 | 33.414 | -106.338 | 27.781 | -132.451 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 00:14:48 | 2 | 33.408 | -106.326 | 36.200 | -92.832  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 00:57:01 | A | 33.415 | -106.322 | 41.118 | -70.464  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 01:51:50 | A | 33.409 | -106.303 | 26.287 | -140.888 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 02:33:18 | 3 | 33.406 | -106.320 | 38.419 | -82.335  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 02:37:00 | 3 | 33.410 | -106.294 | 30.845 | -117.949 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 04:13:17 | A | 33.410 | -106.305 | 28.288 | -130.186 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 09:13:15 | 3 | 33.412 | -106.313 | 26.311 | -73.606  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 10:54:07 | 2 | 33.402 | -106.317 | 36.642 | -121.336 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 12:32:04 | 3 | 33.403 | -106.328 | 28.043 | -80.650  | 2000 5D | 37 | EF | CB |
| 5707 | 9/11/98 13:18:34 | A | 33.401 | -106.326 | 23.117 | -57.376  | 2000 5D | 37 | EF | CB |
| 5707 | 9/11/98 18:19:49 | B | 33.526 | -106.223 | 45.736 | -167.318 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 20:36:06 | 3 | 33.400 | -106.325 | 39.198 | -79.333  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 22:16:05 | B | 33.402 | -106.304 | 28.985 | -127.001 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/11/98 23:53:07 | A | 33.402 | -106.326 | 38.377 | -82.360  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/12/98 00:33:06 | B | 33.404 | -106.321 | 42.641 | -59.325  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/12/98 01:29:24 | 3 | 33.398 | -106.313 | 28.428 | -130.478 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/12/98 02:13:50 | 0 | 33.433 | -106.158 | 1.131  | 5.029    | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/12/98 02:21:59 | B | 33.402 | -106.331 | 39.658 | -76.193  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/12/98 03:53:04 | B | 33.409 | -106.331 | 23.423 | -154.947 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/12/98 04:01:13 | 3 | 33.401 | -106.313 | 29.430 | -124.338 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/12/98 08:59:56 | 0 | 33.407 | -106.330 | 24.963 | -68.489  | 2000 66 | 27 | EF | CC |
| 5707 | 9/12/98 10:42:40 | 0 | 33.393 | -106.256 | 35.493 | -116.214 | 2000 60 | 27 | EF | CC |
| 5707 | 9/12/98 12:08:55 | 2 | 33.407 | -106.324 | 25.769 | -70.464  | 2000 60 | 27 | EF | CC |
| 5707 | 9/12/98 13:48:14 | 3 | 33.404 | -106.309 | 35.896 | -118.246 | 2000 66 | 23 | EF | CB |
| 5707 | 9/12/98 14:35:29 | 1 | 33.409 | -106.319 | 30.964 | -94.596  | 2000 66 | 23 | EF | CB |
| 5707 | 9/12/98 14:48:14 | A | 33.406 | -106.308 | 24.471 | -64.948  | 2000 66 | 23 | EF | CB |
| 5707 | 9/12/98 20:28:48 | A | 33.401 | -106.328 | 40.477 | -73.207  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/12/98 22:05:06 | 3 | 33.413 | -106.302 | 29.979 | -121.836 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/12/98 23:27:18 | A | 33.408 | -106.319 | 40.153 | -71.899  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/13/98 00:11:45 | B | 33.411 | -106.327 | 44.604 | -48.560  | 2000 B3 | 33 | 26 | 66 |
| 5707 | 9/13/98 01:08:02 | 2 | 33.412 | -106.298 | 30.595 | -119.881 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/13/98 01:52:28 | 2 | 33.404 | -106.341 | 35.354 | -97.056  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/13/98 03:48:45 | 3 | 33.413 | -106.304 | 30.902 | -118.157 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/13/98 10:30:12 | 2 | 33.417 | -106.291 | 34.431 | -110.989 | 2000 6B | 27 | EF | CB |
| 5707 | 9/13/98 11:45:57 | B | 33.439 | -106.342 | 23.692 | -59.236  | 2000 6B | 27 | EF | CB |
| 5707 | 9/13/98 13:29:49 | 0 | 33.409 | -106.255 | 0.657  | -2.211   | 2000 6B | 27 | EF | CB |
| 5707 | 9/13/98 14:11:49 | 3 | 33.427 | -106.315 | 28.697 | -84.333  | 2000 6B | 27 | EF | CB |
| 5707 | 9/13/98 14:33:34 | 1 | 33.429 | -106.299 | 22.993 | -59.074  | 2000 42 | 37 | EF | CC |
| 5707 | 9/13/98 20:16:19 | B | 33.418 | -106.133 | 41.206 | -69.034  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/13/98 21:52:37 | 2 | 33.427 | -106.294 | 31.283 | -116.403 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/13/98 23:03:04 | B | 33.440 | -106.255 | 42.087 | -61.517  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/14/98 00:46:54 | 2 | 33.435 | -106.252 | 32.793 | -109.472 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/14/98 01:29:55 | 2 | 33.421 | -106.323 | 37.471 | -86.269  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/14/98 01:55:53 | A | 33.427 | -106.323 | 42.136 | -64.201  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/14/98 03:11:32 | 3 | 33.432 | -106.304 | 27.572 | -134.048 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/14/98 03:36:45 | 3 | 33.437 | -106.284 | 32.178 | -112.192 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/14/98 08:39:18 | B | 33.376 | -106.328 | 23.016 | -57.550  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/14/98 10:21:31 | A | 33.464 | -106.503 | 33.237 | -105.432 | 2000 0  | 0  | 0  | 1  |
| 5707 | 9/14/98 11:57:48 | B | 33.437 | -106.428 | 43.212 | -152.863 | 2000 0  | 0  | 0  | 0  |

|      |                  |   |        |          |        |          |      |    |    |    |    |
|------|------------------|---|--------|----------|--------|----------|------|----|----|----|----|
| 5707 | 9/14/98 13:07:32 | 1 | 33.423 | -106.349 | 31.457 | -97.004  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/14/98 13:50:33 | 1 | 33.423 | -106.307 | 26.436 | -73.696  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/14/98 14:47:39 | 1 | 33.411 | -106.313 | 40.933 | -145.075 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/14/98 15:32:54 | 3 | 33.410 | -106.307 | 36.475 | -121.429 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/14/98 16:01:49 | 1 | 33.416 | -106.339 | 32.224 | -100.798 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 00:27:20 | 0 | 33.405 | -106.335 | 34.933 | -99.830  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 01:08:49 | 2 | 33.407 | -106.323 | 39.601 | -75.901  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 01:45:50 | A | 33.408 | -106.323 | 43.641 | -57.974  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 02:04:21 | A | 33.415 | -106.314 | 25.006 | -146.684 | 2000 | 0  | 0  | 0  | 40 |
| 5707 | 9/15/98 02:48:48 | 3 | 33.415 | -106.307 | 29.789 | -123.688 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 03:24:21 | 0 | 33.343 | -106.657 | 33.508 | -105.869 | 2000 | 0  | 40 | 0  | 0  |
| 5707 | 9/15/98 05:05:49 | A | 33.415 | -106.315 | 22.977 | -154.005 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 10:11:42 | 2 | 33.419 | -106.345 | 32.127 | -100.192 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 11:50:56 | A | 33.410 | -106.308 | 42.048 | -148.273 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 12:44:16 | 2 | 33.411 | -106.327 | 29.277 | -86.514  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 13:27:58 | A | 33.407 | -106.320 | 24.108 | -63.368  | 2000 | 4A | 10 | 4  | A0 |
| 5707 | 9/15/98 14:24:59 | 2 | 33.409 | -106.305 | 39.014 | -134.338 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 15:10:55 | 2 | 33.400 | -106.274 | 34.363 | -110.919 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 15:49:26 | 3 | 33.414 | -106.326 | 30.931 | -94.805  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 16:48:40 | 1 | 33.410 | -106.310 | 43.929 | -158.852 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 19:51:37 | B | 33.330 | -106.290 | 43.227 | -57.452  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 21:31:26 | 0 | 33.368 | -106.514 | 33.574 | -105.562 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/15/98 23:12:18 | 1 | 33.418 | -106.320 | 23.187 | -153.712 | 2000 | 0  | 0  | 8  | 0  |
| 5707 | 9/16/98 00:03:28 | 1 | 33.421 | -106.319 | 37.139 | -88.321  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/16/98 00:46:29 | 0 | 33.423 | -106.302 | 41.611 | -65.236  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/16/98 01:31:44 | A | 33.420 | -106.318 | 44.409 | -51.853  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/16/98 01:40:38 | 3 | 33.411 | -106.317 | 27.386 | -136.112 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/16/98 02:24:28 | 2 | 33.413 | -106.295 | 32.052 | -112.962 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/16/98 03:11:12 | 2 | 33.405 | -106.337 | 34.730 | -100.098 | 2000 | 10 | 0  | 1  | 20 |
| 5707 | 9/16/98 09:57:40 | A | 33.411 | -106.330 | 30.926 | -94.997  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/16/98 12:22:49 | 0 | 33.407 | -106.333 | 26.988 | -75.911  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/16/98 13:07:21 | 1 | 33.419 | -106.318 | 22.051 | -52.639  | 2000 | C5 | 37 | EF | CC |
| 5707 | 9/16/98 14:00:36 | 1 | 33.426 | -106.321 | 36.996 | -123.817 | 2000 | C5 | 37 | EF | CC |
| 5707 | 9/16/98 14:46:21 | 0 | 33.435 | -106.348 | 32.197 | -100.382 | 2000 | C5 | 37 | EF | CC |
| 5707 | 9/16/98 15:37:21 | B | 33.564 | -106.351 | 29.817 | -88.700  | 2000 | C5 | 37 | EF | CC |
| 5707 | 9/16/98 16:27:36 | 1 | 33.433 | -106.340 | 41.810 | -148.191 | 2000 | C5 | 37 | EF | CC |
| 5707 | 9/16/98 17:19:21 | 2 | 33.438 | -106.318 | 39.723 | -136.828 | 2000 | C5 | 37 | EF | CC |
| 5707 | 9/16/98 19:40:57 | B | 33.257 | -106.234 | 44.166 | -52.061  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/16/98 21:23:54 | 2 | 33.432 | -106.360 | 34.767 | -100.191 | 2000 | 0  | 0  | 0  | 10 |
| 5707 | 9/16/98 23:02:25 | A | 33.441 | -106.324 | 24.131 | -148.362 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/16/98 23:38:42 | A | 33.433 | -106.342 | 39.031 | -77.670  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/17/98 00:23:53 | B | 33.507 | -106.308 | 43.630 | -54.482  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/17/98 01:15:44 | B | 33.311 | -106.629 | 29.578 | -125.512 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/17/98 02:04:37 | 1 | 33.425 | -106.375 | 34.220 | -102.595 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/17/98 03:00:09 | 3 | 33.432 | -106.343 | 36.058 | -94.217  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/17/98 09:50:28 | A | 33.442 | -106.351 | 29.894 | -89.586  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/17/98 11:27:29 | A | 33.440 | -106.330 | 40.034 | -137.520 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/17/98 12:00:49 | 2 | 33.439 | -106.339 | 24.930 | -65.398  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/17/98 13:40:13 | 1 | 33.438 | -106.318 | 34.866 | -113.332 | 2000 | 48 | 37 | EF | CB |
| 5707 | 9/17/98 14:22:58 | 1 | 33.454 | -106.341 | 29.946 | -90.040  | 2000 | 48 | 37 | EF | CB |
| 5707 | 9/17/98 15:19:13 | A | 33.444 | -106.337 | 44.280 | -161.484 | 2000 | 48 | 37 | EF | CB |
| 5707 | 9/17/98 15:24:28 | 3 | 33.450 | -106.339 | 28.245 | -82.705  | 2000 | 48 | 37 | EF | CB |
| 5707 | 9/17/98 16:05:43 | B | 33.497 | -106.317 | 39.782 | -137.709 | 2000 | 48 | 37 | EF | CB |
| 5707 | 9/17/98 17:04:13 | 3 | 33.448 | -106.325 | 38.667 | -130.679 | 2000 | 48 | 37 | EF | CB |
| 5707 | 9/18/98 01:42:28 | A | 33.448 | -106.347 | 36.166 | -92.144  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/18/98 02:45:26 | 3 | 33.450 | -106.343 | 37.266 | -88.051  | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/18/98 03:24:41 | A | 33.465 | -106.316 | 26.333 | -139.553 | 2000 | 0  | 3F | FF | FF |
| 5707 | 9/18/98 04:24:40 | B | 33.447 | -106.340 | 27.126 | -136.033 | 2000 | 0  | 0  | 0  |    |
| 5707 | 9/18/98 09:36:29 | 3 | 33.452 | -106.344 | 28.681 | -84.204  | 2000 | 0  | 0  | 0  |    |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5707 | 9/18/98 | 13:18:31 | 2 | 33.459 | -106.365 | -0.001 | 1.383    | 2000 7  | 37 | EF | CB |
| 5707 | 9/18/98 | 14:02:01 | 1 | 33.459 | -106.324 | 27.694 | -79.437  | 2000 7  | 37 | EF | CB |
| 5707 | 9/18/98 | 14:57:31 | A | 33.468 | -106.318 | 42.253 | -150.764 | 2000 17 | 37 | EF | CB |
| 5707 | 9/18/98 | 15:14:01 | B | 33.420 | -106.366 | 27.077 | -76.712  | 2000 7  | 37 | EF | CB |
| 5707 | 9/18/98 | 15:41:46 | A | 33.454 | -106.313 | 37.832 | -127.322 | 2000 7  | 37 | EF | CB |
| 5707 | 9/18/98 | 16:52:16 | 3 | 33.456 | -106.317 | 37.391 | -124.666 | 2000 7  | 37 | EF | CB |
| 5707 | 9/19/98 | 00:36:40 | 1 | 33.443 | -106.430 | 33.854 | -104.420 | 2000 34 | 25 | EF | CB |
| 5707 | 9/19/98 | 01:20:55 | 2 | 33.461 | -106.352 | 38.395 | -81.683  | 2000 34 | 25 | EF | CB |
| 5707 | 9/19/98 | 02:17:55 | B | 33.466 | -106.335 | 23.948 | -152.774 | 2000 34 | 25 | EF | CB |
| 5707 | 9/19/98 | 02:35:10 | 2 | 33.461 | -106.349 | 38.691 | -82.228  | 2000 34 | 25 | EF | CB |
| 5707 | 9/19/98 | 03:00:40 | 3 | 33.464 | -106.334 | 28.662 | -129.303 | 2000 34 | 25 | EF | CB |
| 5707 | 9/19/98 | 04:13:25 | 3 | 33.465 | -106.336 | 28.444 | -129.969 | 2000 34 | 25 | EF | CB |
| 5707 | 9/19/98 | 12:53:19 | 1 | 33.439 | -106.317 | 30.564 | -92.574  | 2000 6D | 27 | EF | CB |
| 5707 | 9/19/98 | 13:42:04 | 1 | 33.453 | -106.320 | 25.497 | -68.752  | 2000 6D | 27 | EF | CB |
| 5707 | 9/19/98 | 14:37:34 | 0 | 33.463 | -106.330 | 40.144 | -140.122 | 2000 6D | 27 | EF | CB |
| 5707 | 9/19/98 | 14:59:19 | 2 | 33.453 | -106.327 | 25.434 | -70.745  | 2000 6D | 27 | EF | CB |
| 5707 | 9/19/98 | 15:22:34 | 2 | 33.447 | -106.304 | 35.544 | -116.565 | 2000 6D | 27 | EF | CB |
| 5707 | 9/19/98 | 16:41:19 | A | 33.448 | -106.315 | 36.209 | -118.287 | 2000 6D | 27 | EF | CB |
| 5707 | 9/20/98 | 00:58:37 | A | 33.435 | -106.332 | 40.472 | -70.874  | 2000 20 | 0  | 1  | 0  |
| 5707 | 9/20/98 | 01:56:24 | 2 | 33.454 | -106.321 | 25.922 | -141.626 | 2000 1E | 35 | ED | CB |
| 5707 | 9/20/98 | 02:21:54 | A | 33.445 | -106.330 | 39.590 | -76.252  | 2000 1E | 35 | EF | CB |
| 5707 | 9/20/98 | 02:36:54 | 3 | 33.456 | -106.315 | 30.908 | -118.738 | 2000 1E | 35 | EF | CB |
| 5707 | 9/20/98 | 04:03:54 | 3 | 33.455 | -106.319 | 29.596 | -123.899 | 2000 1E | 35 | EF | CB |
| 5707 | 9/21/98 | 09:05:33 | 1 | 33.422 | -106.301 | 25.353 | -68.318  | 2000 32 | 39 | EF | CC |
| 5707 | 9/21/98 | 10:41:33 | 3 | 33.421 | -106.277 | 35.539 | -116.148 | 2000 1E | 35 | EF | CB |
| 5707 | 9/21/98 | 12:11:33 | 1 | 33.417 | -106.308 | 26.006 | -71.293  | 2000 55 | 37 | EF | CC |
| 5707 | 9/21/98 | 13:51:52 | A | 33.573 | -106.417 | 36.418 | -118.554 | 2000 15 | 37 | EF | CC |
| 5707 | 9/21/98 | 14:39:40 | 3 | 33.436 | -106.314 | 31.254 | -95.669  | 2000 15 | 37 | EF | CC |
| 5707 | 9/22/98 | 14:12:04 | A | 33.436 | -106.342 | 29.031 | -85.510  | 2000 15 | 37 | EF | CC |
| 5707 | 9/22/98 | 15:09:26 | A | 33.446 | -106.295 | 43.334 | -156.681 | 2000 15 | 37 | EF | CC |
| 5707 | 9/22/98 | 15:54:26 | 3 | 33.435 | -106.294 | 38.919 | -132.776 | 2000 55 | 37 | EF | CC |
| 5707 | 9/22/98 | 16:04:11 | 1 | 33.433 | -106.329 | 32.071 | -100.370 | 2000 DB | 27 | EF | CC |
| 5707 | 9/22/98 | 17:41:41 | B | 33.446 | -106.200 | 42.206 | -148.499 | 2000 55 | 37 | EF | CC |
| 5707 | 9/22/98 | 21:55:14 | 3 | 33.421 | -106.281 | 31.254 | -116.364 | 2000 15 | 37 | EF | CC |
| 5707 | 9/23/98 | 21:45:31 | 1 | 33.430 | -106.275 | 32.380 | -111.049 | 2000 32 | 39 | EF | CC |
| 5707 | 9/23/98 | 22:47:46 | A | 33.410 | -106.270 | 44.325 | -51.587  | 2000 32 | 39 | EF | CC |
| 5707 | 9/24/98 | 00:26:46 | 2 | 33.437 | -106.337 | 34.777 | -99.800  | 2000 32 | 39 | EF | CC |
| 5707 | 9/24/98 | 01:11:01 | B | 33.448 | -106.332 | 39.386 | -76.663  | 2000 66 | 17 | EF | CC |
| 5707 | 9/24/98 | 01:32:01 | B | 33.470 | -106.318 | 44.496 | -51.607  | 2000 1E | 35 | EF | CB |
| 5707 | 9/24/98 | 02:05:46 | A | 33.450 | -106.326 | 24.846 | -147.686 | 2000 15 | 37 | EF | CC |
| 5707 | 9/24/98 | 02:48:31 | 3 | 33.447 | -106.326 | 29.747 | -124.408 | 2000 15 | 37 | EF | CC |
| 5707 | 9/24/98 | 03:12:34 | 0 | 33.437 | -106.366 | 34.830 | -99.856  | 2000 DB | 27 | EF | CC |
| 5707 | 9/25/98 | 04:41:16 | A | 33.429 | -106.340 | 25.727 | -141.802 | 2000 F3 | 37 | EF | CB |
| 5707 | 9/25/98 | 09:58:24 | 2 | 33.450 | -106.344 | 30.941 | -94.775  | 2000 DB | 27 | EF | CC |
| 5707 | 9/26/98 | 11:30:10 | A | 33.447 | -106.321 | 39.862 | -137.480 | 2000 78 | 45 | EF | CB |
| 5707 | 9/26/98 | 14:24:55 | 1 | 33.444 | -106.326 | 30.166 | -90.955  | 2000 AD | 27 | EF | CB |
| 5707 | 9/26/98 | 15:15:10 | A | 33.419 | -106.326 | 27.114 | -76.633  | 2000 78 | 45 | EF | CB |
| 5707 | 9/26/98 | 16:05:25 | B | 33.434 | -106.163 | 40.022 | -138.459 | 2000 DF | 27 | EF | 5  |
| 5707 | 9/26/98 | 16:54:25 | 2 | 33.431 | -106.298 | 37.225 | -124.402 | 2000 78 | 45 | EF | CB |
| 5707 | 9/27/98 | 09:40:34 | B | 33.475 | -106.419 | 28.743 | -83.840  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/27/98 | 11:16:51 | 1 | 33.455 | -106.314 | 38.914 | -132.066 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/27/98 | 16:38:06 | B | 33.280 | -105.643 | 36.022 | -118.220 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/27/98 | 21:01:24 | B | 33.469 | -106.103 | 36.918 | -90.080  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/27/98 | 22:38:38 | A | 33.438 | -106.323 | 26.804 | -137.570 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/28/98 | 04:06:34 | B | 33.384 | -106.032 | 28.927 | -124.512 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/28/98 | 12:58:20 | B | 33.382 | -106.412 | 30.732 | -93.373  | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/28/98 | 13:42:02 | A | 33.444 | -106.320 | 25.586 | -69.951  | 2000 0  | 40 | 20 | 0  |
| 5707 | 9/28/98 | 15:24:59 | B | 33.555 | -106.440 | 35.808 | -117.373 | 2000 0  | 0  | 0  | 0  |
| 5707 | 9/28/98 | 20:47:10 | A | 33.438 | -106.324 | 38.006 | -84.155  | 2000 0  | 0  | 0  | 0  |

|      |         |          |   |        |          |        |          |      |    |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|------|----|----|----|----|
| 5707 | 9/30/98 | 10:45:23 | B | 32.888 | -106.141 | 35.057 | -116.349 | 2000 | 0  | 2  | 0  | 0  |
| 5707 | 10/1/98 | 17:33:16 | A | 33.376 | -106.290 | 40.783 | -142.512 | 2000 | 0  | 0  | 0  | 0  |
| 5707 | 10/1/98 | 21:58:25 | B | 33.375 | -106.311 | 31.028 | -116.762 | 2000 | 0  | 0  | 0  | 4  |
| 5707 | 10/2/98 | 03:18:22 | B | 33.370 | -106.248 | 26.688 | -136.515 | 2000 | 0  | 0  | 0  | 0  |
| 5707 | 10/4/98 | 02:33:30 | B | 33.385 | -106.229 | 31.433 | -115.398 | 2000 | 0  | 0  | 24 | 80 |
| 5707 | 10/4/98 | 21:22:13 | B | 33.381 | -106.339 | 34.704 | -100.071 | 2000 | 0  | 0  | 0  | 0  |
| 5736 | 5/15/98 | 03:51:05 | 3 | 33.361 | -106.619 | 29.123 | -126.183 | 1000 | 7E | 37 | EF | C4 |
| 5736 | 5/15/98 | 09:20:47 | 2 | 33.353 | -106.604 | 28.226 | -83.375  | 1000 | 7E | 37 | EF | C4 |
| 5736 | 5/16/98 | 09:10:30 | B | 33.296 | -106.521 | 27.132 | -77.945  | 1000 | 67 | 27 | EF | C4 |
| 5736 | 5/16/98 | 10:53:00 | 3 | 33.351 | -106.621 | 37.333 | -125.740 | 1000 | 67 | 27 | EF | C4 |
| 5736 | 5/16/98 | 12:29:00 | A | 33.330 | -106.611 | 27.060 | -77.060  | 1000 | 4A | 37 | EF | C5 |
| 5736 | 5/16/98 | 12:32:00 | B | 33.366 | -106.597 | 46.775 | -174.543 | 1000 | 91 | 35 | EF | C5 |
| 5736 | 5/16/98 | 14:13:14 | A | 33.344 | -106.625 | 36.936 | -124.398 | 1000 | 70 | 37 | EF | C4 |
| 5736 | 5/16/98 | 16:04:17 | 0 | 33.355 | -106.680 | 33.830 | -108.882 | 1000 | 67 | 27 | EF | C4 |
| 5736 | 5/17/98 | 15:50:09 | 1 | 33.318 | -106.557 | 32.556 | -103.112 | 1000 | 91 | 35 | EF | C5 |
| 5736 | 5/17/98 | 17:30:25 | A | 33.351 | -106.643 | 42.895 | -151.148 | 1000 | D6 | 37 | EF | C4 |
| 5736 | 5/17/98 | 20:22:09 | B | 33.354 | -106.638 | 39.293 | -78.010  | 1000 | 91 | 35 | EF | C5 |
| 5736 | 5/17/98 | 22:01:53 | 0 | 33.368 | -106.700 | 29.338 | -125.827 | 1000 | D6 | 37 | EF | C4 |
| 5736 | 5/17/98 | 23:28:07 | 1 | 33.356 | -106.637 | 41.102 | -67.847  | 1000 | 92 | 29 | EF | C4 |
| 5736 | 5/18/98 | 23:07:24 | A | 33.349 | -106.619 | 43.195 | -57.081  | 1000 | 2E | 27 | EF | C4 |
| 5736 | 5/19/98 | 00:44:54 | A | 33.378 | -106.545 | 33.631 | -105.210 | 1000 | 46 | 29 | EF | C4 |
| 5736 | 5/19/98 | 01:21:39 | B | 33.389 | -106.637 | 44.057 | -53.923  | 1000 | DE | 25 | EF | C4 |
| 5736 | 5/19/98 | 02:27:39 | 2 | 33.361 | -106.643 | 23.520 | -152.773 | 1000 | 30 | 17 | EF | C4 |
| 5736 | 5/19/98 | 03:02:09 | 1 | 33.365 | -106.605 | 0.150  | 1.598    | 1000 | 6B | 29 | EF | C4 |
| 5736 | 5/19/98 | 04:45:26 | B | 33.337 | -106.712 | 23.742 | -150.449 | 1000 | 30 | 17 | EF | C4 |
| 5736 | 5/20/98 | 10:07:26 | 0 | 33.337 | -106.535 | 32.952 | -104.734 | 1000 | 30 | 17 | EF | C4 |
| 5736 | 5/20/98 | 11:47:27 | A | 33.373 | -106.620 | 43.107 | -152.897 | 1000 | C1 | 39 | EF | C4 |
| 5736 | 5/21/98 | 11:39:18 | 0 | 33.304 | -106.617 | 41.654 | -147.453 | 1000 | AE | 45 | EF | C4 |
| 5736 | 5/21/98 | 12:22:03 | A | 33.358 | -106.615 | 26.132 | -71.930  | 1000 | E7 | 27 | EF | C4 |
| 5736 | 5/21/98 | 14:01:03 | 3 | 33.358 | -106.623 | 36.070 | -119.833 | 1000 | E9 | 35 | EF | C4 |
| 5736 | 5/21/98 | 15:04:48 | B | 33.354 | -106.737 | 27.375 | -78.803  | 1000 | 97 | 27 | EF | C4 |
| 5736 | 5/21/98 | 16:40:48 | 2 | 33.356 | -106.626 | 37.762 | -126.963 | 1000 | 4C | 37 | EF | C4 |
| 5736 | 5/22/98 | 18:11:31 | B | 33.283 | -106.371 | 45.891 | -169.586 | 1000 | E2 | 27 | EF | C4 |
| 5736 | 5/22/98 | 19:30:16 | A | 33.357 | -106.599 | 44.882 | -51.105  | 1000 | 9C | 29 | EF | C4 |
| 5736 | 5/22/98 | 21:08:31 | 3 | 33.362 | -106.599 | 34.874 | -99.534  | 1000 | FD | 27 | EF | C4 |
| 5736 | 5/22/98 | 22:49:46 | 1 | 33.353 | -106.620 | 24.443 | -147.475 | 1000 | FD | 27 | EF | C4 |
| 5736 | 5/22/98 | 23:17:31 | A | 33.340 | -106.618 | 41.826 | -62.929  | 1000 | FD | 27 | EF | C4 |
| 5736 | 5/23/98 | 00:56:46 | 3 | 33.350 | -106.647 | 32.502 | -110.847 | 1000 | 6A | 27 | EF | C4 |
| 5736 | 5/24/98 | 00:39:09 | B | 33.315 | -106.698 | 34.676 | -101.154 | 1000 | 6A | 27 | EF | C4 |
| 5736 | 5/24/98 | 01:57:25 | B | 33.386 | -106.574 | 40.490 | -72.172  | 1000 | D7 | 27 | EF | C4 |
| 5736 | 5/24/98 | 02:16:10 | 1 | 33.362 | -106.638 | 24.657 | -148.278 | 1000 | D7 | 27 | EF | C4 |
| 5736 | 5/24/98 | 03:41:40 | 3 | 33.357 | -106.634 | 30.418 | -119.887 | 1000 | B0 | 27 | EF | C4 |
| 5736 | 5/25/98 | 09:12:45 | 3 | 33.356 | -106.622 | 27.119 | -78.073  | 1000 | B2 | 29 | EF | C4 |
| 5736 | 5/25/98 | 10:53:15 | A | 33.362 | -106.629 | 37.514 | -126.130 | 1000 | B0 | 27 | EF | C4 |
| 5736 | 5/25/98 | 12:34:30 | 1 | 33.356 | -106.623 | 27.413 | -77.739  | 1000 | B0 | 27 | EF | C4 |
| 5736 | 5/25/98 | 14:14:02 | 3 | 33.355 | -106.632 | 37.217 | -125.535 | 1000 | 68 | 29 | EF | C4 |
| 5736 | 5/26/98 | 13:51:28 | B | 33.340 | -106.653 | 34.936 | -114.978 | 1000 | 43 | 37 | EF | C4 |
| 5736 | 5/26/98 | 15:38:59 | 2 | 33.349 | -106.602 | 31.202 | -96.855  | 1000 | FF | 29 | EF | C4 |
| 5736 | 5/26/98 | 17:19:29 | A | 33.355 | -106.610 | 41.533 | -144.892 | 1000 | CB | 37 | EF | C4 |
| 5736 | 5/27/98 | 21:55:54 | 3 | 33.354 | -106.631 | 30.247 | -120.831 | 1000 | AC | 47 | EF | C5 |
| 5736 | 5/27/98 | 23:08:39 | B | 33.359 | -106.621 | 42.678 | -58.330  | 1000 | D2 | 27 | EF | C4 |
| 5736 | 5/28/98 | 02:28:54 | 1 | 33.353 | -106.628 | 23.343 | -154.054 | 1000 | CB | 37 | EF | C4 |
| 5736 | 5/28/98 | 02:52:33 | 3 | 33.356 | -106.616 | 35.685 | -95.905  | 1000 | 3  | 25 | EF | C5 |
| 5736 | 5/28/98 | 04:30:48 | 3 | 33.352 | -106.623 | 25.224 | -143.939 | 1000 | 69 | 27 | EF | C4 |
| 5736 | 5/29/98 | 04:20:00 | 3 | 33.362 | -106.637 | 26.422 | -137.848 | 1000 | DE | 29 | EF | C4 |
| 5736 | 5/29/98 | 08:28:15 | B | 33.416 | -106.644 | 22.868 | -56.550  | 1000 | 70 | 35 | EF | C5 |
| 5736 | 5/29/98 | 10:09:46 | 1 | 33.335 | -106.531 | 32.983 | -104.892 | 1000 | 35 | 39 | EF | C4 |
| 5736 | 5/30/98 | 09:55:45 | 1 | 33.356 | -106.618 | 31.847 | -99.697  | 1000 | EC | 39 | EF | C4 |
| 5736 | 5/30/98 | 09:55:45 | 1 | 33.356 | -106.618 | 31.847 | -99.697  | 1000 | EC | 39 | EF | C4 |

|      |         |          |   |        |          |        |          |      |    |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|------|----|----|----|----|
| 5736 | 5/30/98 | 11:39:14 | 1 | 33.357 | -106.633 | 41.823 | -147.479 | 1000 | C5 | 45 | EF | C4 |
| 5736 | 5/30/98 | 11:39:14 | 1 | 33.357 | -106.633 | 41.823 | -147.479 | 1000 | C5 | 45 | EF | C4 |
| 5736 | 5/30/98 | 13:59:29 | B | 33.599 | -106.890 | 36.998 | -119.169 | 1000 | 35 | 39 | EF | C4 |
| 5736 | 5/30/98 | 13:59:29 | B | 33.599 | -106.890 | 36.998 | -119.169 | 1000 | 35 | 39 | EF | C4 |
| 5736 | 5/31/98 | 17:58:03 | A | 33.373 | -106.645 | 45.038 | -162.900 | 1000 | CC | 27 | EF | C4 |
| 5736 | 5/31/98 | 17:58:03 | A | 33.373 | -106.645 | 45.038 | -162.900 | 1000 | CC | 27 | EF | C4 |
| 5736 | 5/31/98 | 21:10:02 | 3 | 33.363 | -106.622 | 34.860 | -99.589  | 1000 | F7 | 27 | EF | C5 |
| 5736 | 5/31/98 | 22:51:29 | 2 | 33.360 | -106.637 | 24.386 | -147.529 | 1000 | CC | 27 | EF | C4 |
| 5736 | 6/2/98  | 00:38:35 | 1 | 33.362 | -106.610 | 34.378 | -101.606 | 1000 | 30 | 37 | EF | C4 |
| 5736 | 6/2/98  | 01:49:05 | 1 | 33.359 | -106.625 | 41.967 | -65.939  | 1000 | 80 | 37 | EF | C4 |
| 5736 | 6/2/98  | 02:19:05 | 2 | 33.352 | -106.630 | 24.279 | -149.320 | 1000 | 6B | 27 | EF | C4 |
| 5736 | 6/2/98  | 03:27:20 | 1 | 33.356 | -106.630 | 31.814 | -113.858 | 1000 | F2 | 37 | EF | C5 |
| 5736 | 6/3/98  | 09:15:35 | 3 | 33.359 | -106.621 | 27.254 | -78.180  | 1000 | 2A | 27 | EF | C4 |
| 5736 | 6/3/98  | 10:55:20 | 3 | 33.361 | -106.633 | 37.515 | -126.034 | 1000 | 5E | 29 | EF | C4 |
| 5736 | 6/3/98  | 12:36:06 | 2 | 33.357 | -106.619 | 27.608 | -78.927  | 1000 | F8 | 37 | EF | C4 |
| 5736 | 6/4/98  | 12:11:29 | B | 33.368 | -106.617 | 25.306 | -68.031  | 1000 | E4 | 37 | EF | C4 |
| 5736 | 6/4/98  | 13:54:14 | 2 | 33.359 | -106.646 | 35.364 | -116.164 | 1000 | 79 | 37 | EF | 44 |
| 5736 | 6/4/98  | 15:30:14 | 3 | 33.356 | -106.631 | 29.941 | -90.620  | 1000 | 5D | 27 | EF | C4 |
| 5736 | 6/4/98  | 17:08:29 | 3 | 33.361 | -106.643 | 40.159 | -138.484 | 1000 | B7 | 27 | EF | C4 |
| 5736 | 6/5/98  | 20:14:03 | 3 | 33.363 | -106.635 | 40.336 | -73.071  | 1000 | 14 | 37 | EF | C4 |
| 5736 | 6/5/98  | 21:54:33 | 2 | 33.359 | -106.648 | 30.322 | -120.976 | 1000 | 54 | 39 | EF | C4 |
| 5736 | 6/6/98  | 00:48:56 | 0 | 33.394 | -106.369 | 33.128 | -107.656 | 1000 | CE | 27 | EF | C4 |
| 5736 | 6/6/98  | 02:29:50 | A | 33.396 | -106.636 | 23.316 | -155.363 | 1000 | 14 | 37 | EF | C4 |
| 5736 | 6/6/98  | 02:39:35 | 3 | 33.365 | -106.635 | 37.048 | -89.969  | 1000 | 54 | 39 | EF | C4 |
| 5736 | 6/7/98  | 02:08:41 | 2 | 33.359 | -106.637 | 25.316 | -144.742 | 1000 | 53 | 27 | EF | C4 |
| 5736 | 6/7/98  | 02:08:41 | 2 | 33.359 | -106.637 | 25.316 | -144.742 | 1000 | 53 | 27 | EF | C4 |
| 5736 | 6/7/98  | 02:25:56 | 2 | 33.357 | -106.624 | 38.132 | -83.997  | 1000 | 77 | 29 | EF | C4 |
| 5736 | 6/7/98  | 02:25:56 | 2 | 33.357 | -106.624 | 38.132 | -83.997  | 1000 | 77 | 29 | EF | C4 |
| 5736 | 6/7/98  | 04:05:41 | 3 | 33.358 | -106.635 | 27.957 | -131.770 | 1000 | 9C | 27 | EF | C4 |
| 5736 | 6/7/98  | 04:05:41 | 3 | 33.358 | -106.635 | 27.957 | -131.770 | 1000 | 9C | 27 | EF | C4 |
| 5736 | 6/7/98  | 08:29:12 | B | 33.386 | -106.632 | 22.809 | -56.829  | 1000 | 14 | 37 | EF | C4 |
| 5736 | 6/7/98  | 08:29:12 | B | 33.386 | -106.632 | 22.809 | -56.829  | 1000 | 14 | 37 | EF | C4 |
| 5736 | 6/8/98  | 10:00:24 | 2 | 33.354 | -106.606 | 31.842 | -99.608  | 1000 | B5 | 25 | EF | C4 |
| 5736 | 6/8/98  | 11:40:09 | 2 | 33.364 | -106.630 | 41.800 | -147.518 | 1000 | 53 | 27 | EF | C4 |
| 5736 | 6/8/98  | 12:25:54 | 1 | 33.356 | -106.623 | 26.613 | -74.253  | 1000 | 77 | 29 | EF | C4 |
| 5736 | 6/8/98  | 14:06:00 | 0 | 33.352 | -106.635 | 36.514 | -122.046 | 1000 | EE | 37 | F0 | 3D |
| 5736 | 6/8/98  | 14:38:15 | 2 | 33.343 | -106.606 | 24.532 | -66.729  | 1000 | 93 | 27 | EF | C4 |
| 5736 | 6/9/98  | 14:24:59 | B | 33.458 | -106.663 | 23.508 | -60.314  | 1000 | 92 | 37 | EF | C5 |
| 5736 | 6/9/98  | 15:24:44 | A | 33.350 | -106.618 | 43.563 | -159.849 | 1000 | 92 | 37 | EF | C5 |
| 5736 | 6/9/98  | 16:06:44 | 1 | 33.363 | -106.655 | 33.761 | -108.520 | 1000 | EE | 37 | F0 | 3D |
| 5736 | 6/9/98  | 17:46:29 | 0 | 33.348 | -106.636 | 43.811 | -156.639 | 1000 | 8D | FC | 7  | E0 |
| 5736 | 6/9/98  | 21:12:43 | 1 | 33.362 | -106.599 | 34.860 | -99.714  | 1000 | 92 | 37 | EF | C5 |
| 5736 | 6/10/98 | 20:56:52 | 1 | 33.357 | -106.611 | 35.925 | -94.237  | 1000 | 76 | 37 | EF | C4 |
| 5736 | 6/10/98 | 22:43:38 | 1 | 33.359 | -106.620 | 25.448 | -142.015 | 1000 | 8D | 37 | EF | C4 |
| 5736 | 6/11/98 | 00:42:08 | 2 | 33.358 | -106.597 | 34.181 | -102.608 | 1000 | 88 | 39 | EF | C4 |
| 5736 | 6/11/98 | 01:36:53 | 2 | 33.362 | -106.621 | 0.127  | -0.651   | 1000 | 76 | 37 | EF | C4 |
| 5736 | 6/11/98 | 02:19:38 | 2 | 33.355 | -106.632 | 24.198 | -150.612 | 1000 | E9 | 25 | EF | C4 |
| 5736 | 6/11/98 | 04:58:28 | A | 33.352 | -106.628 | 22.466 | -155.499 | 1000 | 76 | 37 | EF | C4 |
| 5736 | 6/12/98 | 04:45:03 | 1 | 33.349 | -106.618 | 23.921 | -149.634 | 1000 | AD | 39 | EF | C4 |
| 5736 | 6/12/98 | 09:15:03 | 3 | 33.360 | -106.624 | 27.191 | -78.360  | 1000 | 88 | 39 | EF | C4 |
| 5736 | 6/12/98 | 10:54:33 | 3 | 33.361 | -106.638 | 37.595 | -126.318 | 1000 | 6A | 39 | EF | C4 |
| 5736 | 6/13/98 | 10:43:15 | 3 | 33.356 | -106.634 | 36.466 | -120.959 | 1000 | B0 | 25 | EF | C4 |
| 5736 | 6/13/98 | 12:14:44 | 2 | 33.355 | -106.618 | 25.528 | -69.611  | 1000 | 44 | 37 | EF | C4 |
| 5736 | 6/13/98 | 12:24:29 | B | 33.370 | -106.616 | 45.872 | -169.468 | 1000 | A8 | 27 | EF | C4 |
| 5736 | 6/13/98 | 13:55:14 | A | 33.353 | -106.625 | 35.649 | -117.489 | 1000 | 45 | 29 | EF | C4 |
| 5736 | 6/13/98 | 15:19:14 | 1 | 33.356 | -106.617 | 28.672 | -84.614  | 1000 | A8 | 27 | EF | C4 |
| 5736 | 6/13/98 | 15:36:29 | B | 33.273 | -106.600 | 44.570 | -165.871 | 1000 | 45 | 29 | EF | C4 |
| 5736 | 6/13/98 | 16:57:30 | 3 | 33.357 | -106.620 | 38.750 | -132.128 | 1000 | 0B | 37 | EF | C4 |
| 5736 | 6/14/98 | 16:45:09 | 0 | 33.360 | -106.606 | 37.598 | -126.287 | 1000 | B0 | 25 | EF | C4 |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5736 | 6/14/98 | 20:16:32 | A | 33.356 | -106.621 | 40.331 | -73.166  | 1000 A4 | 29 | EF | C5 |
| 5736 | 6/14/98 | 21:56:17 | 3 | 33.354 | -106.629 | 30.239 | -121.086 | 1000 A4 | 29 | EF | C5 |
| 5736 | 6/14/98 | 23:12:23 | A | 33.367 | -106.639 | 42.485 | -60.625  | 1000 ED | 19 | EF | C4 |
| 5736 | 6/15/98 | 00:49:08 | A | 33.360 | -106.618 | 32.996 | -108.438 | 1000 DB | 37 | EF | C4 |
| 5736 | 6/16/98 | 00:29:44 | 3 | 33.356 | -106.606 | 35.098 | -98.122  | 1000 7F | 29 | EF | C4 |
| 5736 | 6/16/98 | 02:10:59 | A | 33.356 | -106.623 | 25.073 | -145.712 | 1000 F3 | 37 | EF | C4 |
| 5736 | 6/16/98 | 02:13:14 | 1 | 33.357 | -106.605 | 39.353 | -77.800  | 1000 7F | 29 | EF | C4 |
| 5736 | 6/16/98 | 03:54:28 | 3 | 33.356 | -106.622 | 29.250 | -125.696 | 1000 DF | 19 | EF | C4 |
| 5736 | 6/17/98 | 09:59:33 | 3 | 33.353 | -106.606 | 31.859 | -99.811  | 1000 D6 | 37 | EF | C4 |
| 5736 | 6/17/98 | 11:42:17 | 0 | 33.353 | -106.630 | 41.804 | -147.731 | 1000 D6 | 37 | EF | C4 |
| 5736 | 6/17/98 | 12:27:19 | 2 | 33.350 | -106.618 | 26.870 | -75.546  | 1000 7F | 29 | EF | C4 |
| 5736 | 6/18/98 | 13:46:03 | 1 | 33.358 | -106.640 | 34.606 | -112.765 | 1000 1F | 29 | EF | C4 |
| 5736 | 6/18/98 | 14:14:33 | A | 33.392 | -106.623 | 21.971 | -54.564  | 1000 20 | 37 | EF | C4 |
| 5736 | 6/18/98 | 15:53:33 | 2 | 33.350 | -106.606 | 32.462 | -102.589 | 1000 A5 | 37 | EF | C4 |
| 5736 | 6/18/98 | 17:36:18 | 2 | 33.359 | -106.631 | 42.403 | -150.303 | 1000 1F | 29 | EF | C4 |
| 5736 | 6/19/98 | 21:01:49 | 3 | 33.350 | -106.602 | 35.954 | -94.506  | 1000 57 | 29 | FB | C4 |
| 5736 | 6/19/98 | 22:43:04 | 2 | 33.348 | -106.614 | 25.461 | -142.509 | 1000 1F | 29 | EF | C4 |
| 5736 | 6/19/98 | 23:04:04 | 1 | 33.356 | -106.614 | 43.649 | -55.744  | 1000 EF | 47 | EF | C4 |
| 5736 | 6/20/98 | 00:42:19 | 1 | 33.358 | -106.571 | 33.891 | -103.971 | 1000 F1 | 47 | EF | C4 |
| 5736 | 6/20/98 | 01:26:50 | 0 | 33.363 | -106.592 | 44.599 | -53.362  | 1000 2E | 19 | EF | C5 |
| 5736 | 6/20/98 | 02:21:35 | 1 | 33.342 | -106.624 | 23.894 | -151.763 | 1000 1F | 29 | EF | C4 |
| 5736 | 6/20/98 | 03:05:50 | 1 | 33.357 | -106.567 | 34.354 | -101.807 | 1000 F1 | 47 | EF | C4 |
| 5736 | 6/21/98 | 02:01:20 | 1 | 33.360 | -106.635 | 26.043 | -141.040 | 1000 A0 | 37 | EF | C4 |
| 5736 | 6/21/98 | 02:52:20 | 3 | 33.355 | -106.604 | -0.158 | 0.851    | 1000 2E | 19 | EF | C5 |
| 5736 | 6/21/98 | 04:33:35 | 1 | 33.354 | -106.619 | 25.237 | -143.520 | 1000 F1 | 47 | EF | C4 |
| 5736 | 6/21/98 | 09:15:15 | 2 | 33.352 | -106.607 | 27.184 | -78.561  | 1000 2E | 19 | EF | C5 |
| 5736 | 6/22/98 | 09:06:01 | 3 | 33.361 | -106.616 | 26.192 | -73.071  | 1000 30 | 29 | EF | C4 |
| 5736 | 6/22/98 | 10:45:46 | 3 | 33.361 | -106.634 | 36.436 | -121.051 | 1000 85 | 45 | EF | C5 |
| 5736 | 6/22/98 | 12:16:31 | 2 | 33.358 | -106.616 | 25.819 | -70.819  | 1000 30 | 37 | EF | C5 |
| 5736 | 6/22/98 | 13:56:16 | 2 | 33.355 | -106.627 | 35.839 | -118.704 | 1000 85 | 45 | EF | C5 |
| 5736 | 6/22/98 | 15:02:32 | B | 33.343 | -106.465 | 26.916 | -78.083  | 1000 C5 | 37 | EF | C5 |
| 5736 | 6/22/98 | 15:36:17 | A | 33.359 | -106.615 | 45.179 | -166.899 | 1000 7C | 37 | EF | C5 |
| 5736 | 6/23/98 | 08:51:27 | A | 33.355 | -106.611 | 24.756 | -68.184  | 1000 0  | 0  | 0  | 0  |
| 5736 | 6/23/98 | 10:35:43 | 3 | 33.358 | -106.633 | 35.257 | -115.708 | 1000 50 | 37 | EF | C5 |
| 5736 | 6/23/98 | 12:14:43 | B | 33.365 | -106.629 | 44.879 | -164.108 | 1000 50 | 37 | EF | C5 |
| 5736 | 6/23/98 | 14:51:28 | 2 | 33.355 | -106.617 | 25.670 | -72.574  | 1000 50 | 37 | EF | C5 |
| 5736 | 6/23/98 | 15:14:48 | A | 33.139 | -106.778 | 42.930 | -156.179 | 1000 8D | 27 | EF | C5 |
| 5736 | 6/23/98 | 16:33:33 | 2 | 33.357 | -106.630 | 36.244 | -120.041 | 1000 50 | 37 | EF | C5 |
| 5736 | 6/24/98 | 10:22:45 | 1 | 33.362 | -106.653 | 34.172 | -110.440 | 1000 89 | 19 | EF | C4 |
| 5736 | 6/24/98 | 11:31:00 | B | 33.372 | -106.637 | 21.583 | -49.153  | 1000 89 | 19 | EF | C4 |
| 5736 | 6/24/98 | 12:03:15 | 1 | 33.366 | -106.618 | 44.171 | -158.620 | 1000 89 | 19 | EF | C4 |
| 5736 | 6/24/98 | 13:12:15 | 1 | 33.351 | -106.608 | 31.511 | -97.752  | 1000 89 | 19 | EF | C4 |
| 5736 | 6/24/98 | 14:39:15 | 1 | 33.354 | -106.627 | 24.427 | -66.523  | 1000 89 | 19 | EF | C4 |
| 5736 | 6/24/98 | 14:53:30 | 2 | 33.349 | -106.623 | 41.138 | -145.394 | 1000 89 | 19 | EF | C4 |
| 5736 | 6/24/98 | 16:21:47 | 1 | 33.359 | -106.632 | 34.947 | -114.227 | 1000 92 | 37 | EF | C4 |
| 5736 | 6/25/98 | 11:51:03 | B | 33.389 | -106.474 | 42.986 | -153.067 | 1000 3  | 37 | EF | C4 |
| 5736 | 6/25/98 | 12:53:18 | B | 33.563 | -106.406 | 29.618 | -87.105  | 1000 3  | 37 | EF | C4 |
| 5736 | 6/25/98 | 13:30:48 | A | 33.353 | -106.623 | 24.333 | -64.437  | 1000 3  | 37 | EF | C4 |
| 5736 | 6/25/98 | 14:29:18 | A | 33.355 | -106.617 | 23.415 | -60.462  | 1000 3  | 37 | EF | C4 |
| 5736 | 6/25/98 | 14:32:18 | 2 | 33.357 | -106.627 | 39.018 | -134.869 | 1000 3  | 37 | EF | C4 |
| 5736 | 6/25/98 | 15:11:18 | 3 | 33.358 | -106.638 | 34.507 | -112.176 | 1000 3  | 37 | EF | C4 |
| 5736 | 6/25/98 | 16:09:47 | 0 | 33.367 | -106.628 | 33.675 | -108.164 | 1000 3  | 37 | EF | C4 |
| 5736 | 6/25/98 | 16:49:48 | A | 33.351 | -106.626 | 44.195 | -160.281 | 1000 D2 | 35 | EF | C5 |
| 5736 | 6/25/98 | 17:50:33 | A | 33.343 | -106.620 | 43.416 | -156.561 | 1000 D2 | 35 | EF | C5 |
| 5736 | 6/26/98 | 11:42:01 | 2 | 33.354 | -106.624 | 41.866 | -147.727 | 1000 8A | 17 | EF | C4 |
| 5736 | 6/26/98 | 12:28:31 | 2 | 33.352 | -106.622 | 27.028 | -76.665  | 1000 8A | 17 | EF | C4 |
| 5736 | 6/26/98 | 14:09:00 | 3 | 33.357 | -106.625 | 36.984 | -124.450 | 1000 8A | 17 | EF | C4 |
| 5736 | 6/26/98 | 14:51:00 | 2 | 33.348 | -106.593 | 32.355 | -101.751 | 1000 8A | 17 | EF | C4 |
| 5736 | 6/26/98 | 15:49:30 | B | 33.325 | -106.611 | 45.837 | -172.987 | 1000 8A | 17 | EF | C4 |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5736 | 6/26/98 | 15:54:45 | 2 | 33.345 | -106.599 | 32.421 | -102.423 | 1000 8A | 17 | EF | C4 |
| 5736 | 6/26/98 | 16:29:15 | 2 | 33.351 | -106.623 | 41.989 | -149.501 | 1000 8A | 17 | EF | C4 |
| 5736 | 6/27/98 | 12:06:05 | A | 33.370 | -106.608 | 24.792 | -66.348  | 1000 40 | 19 | EF | C4 |
| 5736 | 6/27/98 | 13:47:19 | 3 | 33.357 | -106.634 | 34.888 | -113.887 | 1000 40 | 19 | EF | C4 |
| 5736 | 6/27/98 | 14:27:49 | 2 | 33.351 | -106.613 | 30.082 | -91.109  | 1000 40 | 19 | EF | C4 |
| 5736 | 6/27/98 | 15:27:04 | A | 33.366 | -106.615 | 44.138 | -162.069 | 1000 40 | 19 | EF | C4 |
| 5736 | 6/27/98 | 15:44:19 | 3 | 33.352 | -106.611 | 31.134 | -96.307  | 1000 40 | 19 | EF | C4 |
| 5736 | 6/27/98 | 16:09:04 | 3 | 33.355 | -106.620 | 39.811 | -138.993 | 1000 40 | 19 | EF | C4 |
| 5736 | 6/27/98 | 17:22:34 | 3 | 33.354 | -106.622 | 41.400 | -144.206 | 1000 40 | 19 | EF | C4 |
| 5736 | 6/28/98 | 21:03:51 | 3 | 33.360 | -106.606 | 35.967 | -94.521  | 1000 49 | 27 | EF | C4 |
| 5736 | 6/28/98 | 22:43:36 | 3 | 33.358 | -106.619 | 25.472 | -142.515 | 1000 DE | 37 | EF | C4 |
| 5736 | 6/28/98 | 23:04:36 | A | 33.358 | -106.618 | 42.929 | -57.245  | 1000 38 | 27 | EF | C4 |
| 5736 | 6/29/98 | 00:41:58 | 1 | 33.382 | -106.502 | 33.650 | -105.175 | 1000 49 | 27 | EF | C4 |
| 5736 | 6/29/98 | 01:22:28 | 3 | 33.356 | -106.612 | 38.169 | -82.771  | 1000 DE | 37 | EF | C4 |
| 5736 | 6/30/98 | 01:01:43 | B | 33.401 | -106.638 | 40.210 | -72.318  | 1000 49 | 27 | EF | C4 |
| 5736 | 6/30/98 | 02:01:43 | 2 | 33.360 | -106.629 | 25.880 | -142.367 | 1000 0F | 27 | EF | C4 |
| 5736 | 6/30/98 | 02:38:28 | 3 | 33.353 | -106.610 | 36.935 | -89.429  | 1000 7A | 45 | EF | C4 |
| 5736 | 6/30/98 | 02:39:13 | 2 | 33.352 | -106.629 | 30.601 | -119.974 | 1000 FB | 29 | EF | C4 |
| 5736 | 6/30/98 | 04:21:58 | 2 | 33.356 | -106.621 | 26.568 | -137.340 | 1000 C4 | 27 | EF | C4 |
| 5736 | 7/1/98  | 09:06:41 | 2 | 33.357 | -106.617 | 26.081 | -73.161  | 1000 8E | 19 | EF | C4 |
| 5736 | 7/1/98  | 10:47:56 | 1 | 33.365 | -106.636 | 36.475 | -121.014 | 1000 7A | 27 | EF | C4 |
| 5736 | 7/1/98  | 12:19:25 | 3 | 33.363 | -106.625 | 26.109 | -71.902  | 1000 52 | 27 | EF | C4 |
| 5736 | 7/1/98  | 14:54:48 | B | 33.254 | -106.701 | 25.909 | -72.215  | 1000 52 | 27 | EF | C4 |
| 5736 | 7/2/98  | 01:57:28 | 1 | 33.382 | -106.576 | 34.950 | -99.100  | 1000 D6 | 37 | EF | C4 |
| 5736 | 7/2/98  | 02:16:13 | A | 33.363 | -106.623 | 39.634 | -77.540  | 1000 D6 | 37 | EF | C4 |
| 5736 | 7/2/98  | 03:37:58 | 2 | 33.357 | -106.618 | -0.361 | -0.603   | 1000 D6 | 37 | EF | C4 |
| 5736 | 7/2/98  | 03:57:28 | 3 | 33.357 | -106.623 | 29.226 | -125.371 | 1000 D6 | 37 | EF | C4 |
| 5736 | 7/2/98  | 08:56:13 | 2 | 33.358 | -106.618 | 25.045 | -67.921  | 1000 60 | 27 | EF | C4 |
| 5736 | 7/3/98  | 08:44:30 | 1 | 33.344 | -106.624 | 23.824 | -62.617  | 1000 CF | 27 | EF | C5 |
| 5736 | 7/3/98  | 10:23:30 | 2 | 33.364 | -106.651 | 34.208 | -110.561 | 1000 60 | 27 | EF | C4 |
| 5736 | 7/3/98  | 12:04:00 | 0 | 33.354 | -106.640 | 44.210 | -158.767 | 1000 16 | 27 | EF | C4 |
| 5736 | 7/3/98  | 13:13:45 | 2 | 33.350 | -106.616 | 31.746 | -98.908  | 1000 CF | 27 | EF | C5 |
| 5736 | 7/3/98  | 13:54:14 | 1 | 33.350 | -106.615 | 26.800 | -76.108  | 1000 60 | 55 | 55 | 55 |
| 5736 | 7/3/98  | 14:56:18 | 0 | 33.333 | -106.639 | 41.174 | -146.668 | 1000 16 | 27 | EF | C4 |
| 5736 | 7/3/98  | 15:35:18 | 2 | 33.354 | -106.632 | 36.863 | -123.649 | 1000 55 | 37 | EF | C5 |
| 5736 | 7/3/98  | 16:09:03 | 1 | 33.372 | -106.701 | 33.662 | -108.062 | 1000 55 | 37 | EF | C5 |
| 5736 | 7/4/98  | 15:12:42 | 0 | 33.361 | -106.646 | 34.723 | -113.185 | 1000 E2 | 35 | EF | C5 |
| 5736 | 7/4/98  | 15:57:42 | A | 33.355 | -106.610 | 32.413 | -102.158 | 1000 3D | 27 | EF | C4 |
| 5736 | 7/4/98  | 16:53:12 | 2 | 33.349 | -106.627 | 44.220 | -161.196 | 1000 38 | 27 | EF | C4 |
| 5736 | 7/4/98  | 17:37:27 | A | 33.352 | -106.622 | 42.417 | -150.162 | 1000 38 | 27 | EF | C4 |
| 5736 | 7/4/98  | 19:56:12 | 0 | 33.383 | -106.631 | 42.537 | -62.581  | 1000 55 | 37 | EF | C5 |
| 5736 | 7/4/98  | 21:34:41 | 1 | 33.351 | -106.645 | 32.521 | -110.562 | 1000 E2 | 35 | EF | C5 |
| 5736 | 7/5/98  | 23:07:20 | 1 | 33.366 | -106.646 | 23.080 | -153.097 | 1000 0B | 27 | EF | C5 |
| 5736 | 7/5/98  | 23:48:35 | 3 | 33.353 | -106.625 | 38.813 | -79.505  | 1000 4B | 27 | EF | C5 |
| 5736 | 7/6/98  | 00:30:35 | A | 33.355 | -106.625 | 43.378 | -56.810  | 1000 AA | 25 | EF | C5 |
| 5736 | 7/6/98  | 01:26:05 | 0 | 33.348 | -106.620 | 44.287 | -53.245  | 1000 38 | 27 | EF | C4 |
| 5736 | 7/6/98  | 01:31:20 | 3 | 33.350 | -106.635 | 29.042 | -127.035 | 1000 6B | 27 | EF | C5 |
| 5736 | 7/6/98  | 02:10:20 | 1 | 33.366 | -106.549 | 0.607  | 3.206    | 1000 E2 | 35 | EF | C5 |
| 5736 | 7/6/98  | 03:07:20 | 1 | 33.359 | -106.593 | 34.464 | -101.518 | 1000 38 | 27 | EF | C4 |
| 5736 | 7/6/98  | 03:48:34 | 0 | 33.422 | -106.649 | 23.818 | -152.592 | 1000 AA | 25 | EF | C5 |
| 5736 | 7/6/98  | 04:47:04 | 1 | 33.350 | -106.628 | 24.024 | -149.219 | 1000 38 | 27 | EF | C4 |
| 5736 | 7/7/98  | 04:34:58 | 2 | 33.357 | -106.625 | 25.282 | -143.277 | 1000 95 | 29 | EF | C4 |
| 5736 | 7/7/98  | 09:39:28 | 3 | 33.357 | -106.614 | 29.589 | -89.360  | 1000 95 | 29 | EF | C4 |
| 5736 | 7/7/98  | 11:20:17 | 2 | 33.360 | -106.629 | 39.851 | -137.151 | 1000 49 | 47 | EF | C4 |
| 5736 | 7/7/98  | 11:46:32 | B | 33.371 | -106.617 | 23.244 | -56.576  | 1000 EB | 25 | EF | C5 |
| 5736 | 7/8/98  | 11:11:24 | 2 | 33.357 | -106.625 | 38.593 | -132.030 | 1000 E1 | 27 | EF | C4 |
| 5736 | 7/8/98  | 13:05:24 | 3 | 33.350 | -106.605 | 30.750 | -94.110  | 1000 B6 | 37 | EF | C4 |
| 5736 | 7/8/98  | 13:45:54 | 2 | 33.355 | -106.609 | 25.873 | -71.211  | 1000 AC | 37 | EF | C5 |
| 5736 | 7/8/98  | 14:45:54 | A | 33.350 | -106.622 | 40.194 | -141.934 | 1000 CC | 27 | EF | C5 |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5736 | 7/8/98  | 15:06:09 | 2 | 33.343 | -106.608 | 27.059 | -78.249  | 1000 AC | 37 | EF | C5 |
| 5736 | 7/8/98  | 15:24:09 | 2 | 33.352 | -106.623 | 35.931 | -118.965 | 1000 AC | 37 | EF | C5 |
| 5736 | 7/8/98  | 16:42:54 | B | 33.505 | -106.757 | 38.207 | -124.314 | 1000 AB | 57 | EF | 85 |
| 5736 | 7/9/98  | 20:41:20 | 3 | 33.354 | -106.604 | 38.130 | -84.108  | 1000 67 | 27 | EF | C5 |
| 5736 | 7/9/98  | 22:24:05 | 3 | 33.350 | -106.603 | 27.730 | -131.791 | 1000 61 | 35 | EF | C5 |
| 5736 | 7/10/98 | 00:00:46 | 3 | 33.353 | -106.601 | 37.658 | -85.277  | 1000 61 | 35 | EF | C5 |
| 5736 | 7/10/98 | 00:44:16 | B | 33.361 | -106.639 | 42.112 | -63.144  | 1000 67 | 27 | EF | C5 |
| 5736 | 7/11/98 | 01:20:45 | 3 | 33.353 | -106.617 | 30.046 | -122.391 | 1000 92 | 29 | EF | C5 |
| 5736 | 7/11/98 | 02:01:15 | 3 | 33.362 | -106.595 | 34.760 | -100.009 | 1000 67 | 27 | EF | C5 |
| 5736 | 7/11/98 | 02:04:15 | A | 33.361 | -106.597 | 40.619 | -71.388  | 1000 67 | 27 | EF | C5 |
| 5736 | 7/11/98 | 03:41:00 | 1 | 33.357 | -106.614 | 24.529 | -147.703 | 1000 48 | 37 | EF | C5 |
| 5736 | 7/11/98 | 03:42:30 | 1 | 33.352 | -106.618 | 30.715 | -119.175 | 1000 48 | 37 | EF | C5 |
| 5736 | 7/12/98 | 10:26:27 | 2 | 33.365 | -106.660 | 34.182 | -110.463 | 1000 7B | 27 | EF | C5 |
| 5736 | 7/12/98 | 13:16:16 | 2 | 33.352 | -106.609 | 31.986 | -99.968  | 1000 70 | 47 | EF | C4 |
| 5736 | 7/12/98 | 13:58:16 | 3 | 33.354 | -106.614 | 27.177 | -76.792  | 1000 70 | 47 | EF | C4 |
| 5736 | 7/13/98 | 13:35:30 | A | 33.355 | -106.635 | 24.854 | -66.514  | 1000 76 | 47 | EF | C5 |
| 5736 | 7/13/98 | 14:36:15 | 3 | 33.360 | -106.630 | 39.455 | -137.085 | 1000 26 | 27 | EF | C4 |
| 5736 | 7/13/98 | 15:16:44 | 3 | 33.361 | -106.637 | 34.900 | -114.187 | 1000 26 | 27 | EF | C4 |
| 5736 | 7/13/98 | 15:45:59 | 2 | 33.360 | -106.623 | 31.076 | -96.024  | 1000 D5 | 25 | ED | C0 |
| 5736 | 7/13/98 | 17:26:29 | 2 | 33.365 | -106.639 | 41.119 | -143.889 | 1000 70 | 47 | EF | C4 |
| 5736 | 7/13/98 | 19:58:15 | B | 33.428 | -106.774 | 42.455 | -62.647  | 1000 EE | 35 | EF | C4 |
| 5736 | 7/14/98 | 23:04:53 | B | 33.446 | -106.817 | 23.618 | -153.089 | 1000 26 | 27 | EF | C4 |
| 5736 | 7/14/98 | 23:50:38 | 3 | 33.362 | -106.614 | 38.594 | -80.516  | 1000 26 | 27 | EF | C4 |
| 5736 | 7/15/98 | 01:29:38 | 3 | 33.357 | -106.625 | 28.928 | -128.392 | 1000 76 | 47 | EF | C5 |
| 5736 | 7/15/98 | 02:08:12 | 0 | 33.338 | -106.701 | 33.557 | -105.626 | 1000 25 | 27 | EF | C4 |
| 5736 | 7/15/98 | 02:53:57 | 1 | 33.362 | -106.582 | 35.538 | -95.502  | 1000 25 | 27 | EF | C4 |
| 5736 | 7/16/98 | 02:41:44 | 1 | 33.360 | -106.615 | 37.075 | -89.290  | 1000 5E | 37 | EF | C5 |
| 5736 | 7/16/98 | 03:28:59 | A | 33.357 | -106.622 | 25.781 | -143.262 | 1000 68 | 47 | EF | C4 |
| 5736 | 7/16/98 | 04:22:14 | B | 33.319 | -106.614 | 26.832 | -137.180 | 1000 26 | 27 | EF | C4 |
| 5736 | 7/16/98 | 09:41:59 | 2 | 33.358 | -106.607 | 29.596 | -89.293  | 1000 68 | 47 | EF | C4 |
| 5736 | 7/17/98 | 09:30:29 | 3 | 33.359 | -106.613 | 28.406 | -83.976  | 1000 88 | 37 | EF | C4 |
| 5736 | 7/17/98 | 11:10:58 | 3 | 33.362 | -106.624 | 38.694 | -131.905 | 1000 5E | 37 | EF | C5 |
| 5736 | 7/17/98 | 13:04:58 | 1 | 33.354 | -106.609 | 30.992 | -95.259  | 1000 26 | 27 | EF | C4 |
| 5736 | 7/17/98 | 13:48:28 | 2 | 33.345 | -106.621 | 26.106 | -72.227  | 1000 AC | 27 | EF | C4 |
| 5736 | 7/17/98 | 14:43:58 | 1 | 33.358 | -106.629 | 40.894 | -143.427 | 1000 88 | 37 | EF | C4 |
| 5736 | 7/17/98 | 14:52:58 | B | 33.356 | -106.643 | 25.711 | -71.686  | 1000 26 | 27 | EF | C4 |
| 5736 | 7/17/98 | 15:27:50 | B | 33.340 | -106.662 | 35.951 | -119.886 | 1000 88 | 37 | EF | C4 |
| 5736 | 7/17/98 | 16:36:05 | 1 | 33.355 | -106.626 | 36.155 | -119.828 | 1000 E5 | 27 | EF | C4 |
| 5736 | 7/18/98 | 16:20:39 | Z | 33.357 | -106.636 | 34.916 | -113.336 | 1000 40 | 27 | EF | C4 |
| 5736 | 7/18/98 | 16:45:24 | B | 33.360 | -106.637 | 43.330 | -157.501 | 1000 40 | 27 | EF | C4 |
| 5736 | 7/18/98 | 20:41:39 | 1 | 33.357 | -106.613 | 38.046 | -84.259  | 1000 5E | 37 | EF | C5 |
| 5736 | 7/18/98 | 22:23:25 | 1 | 33.352 | -106.620 | 27.763 | -132.089 | 1000 70 | 37 | EF | C4 |
| 5736 | 7/19/98 | 22:12:15 | 0 | 33.386 | -106.579 | 29.005 | -126.673 | 1000 A2 | 35 | EF | C5 |
| 5736 | 7/19/98 | 23:40:45 | 3 | 33.352 | -106.607 | 39.539 | -75.989  | 1000 E0 | 27 | EF | C4 |
| 5736 | 7/20/98 | 00:21:15 | B | 33.348 | -106.604 | 43.809 | -52.988  | 1000 50 | 37 | EF | C4 |
| 5736 | 7/20/98 | 01:22:00 | 1 | 33.359 | -106.630 | 29.816 | -123.535 | 1000 A2 | 35 | EF | C5 |
| 5736 | 7/20/98 | 01:52:00 | 2 | 33.360 | -106.614 | 41.930 | -65.133  | 1000 13 | 37 | EF | C4 |
| 5736 | 7/20/98 | 01:58:45 | 1 | 33.361 | -106.594 | 34.493 | -100.999 | 1000 40 | 27 | EF | C4 |
| 5736 | 7/20/98 | 03:34:44 | 2 | 33.355 | -106.626 | 31.961 | -112.993 | 1000 13 | 37 | EF | C4 |
| 5736 | 7/20/98 | 03:40:44 | A | 33.357 | -106.608 | 24.649 | -148.854 | 1000 E0 | 27 | EF | C4 |
| 5736 | 7/21/98 | 05:01:22 | 2 | 33.355 | -106.622 | 22.690 | -154.934 | 1000 53 | 37 | EF | C5 |
| 5736 | 7/21/98 | 08:43:22 | A | 33.357 | -106.609 | 23.620 | -63.151  | 1000 E2 | 37 | EF | C4 |
| 5736 | 7/21/98 | 10:26:07 | 1 | 33.364 | -106.644 | 34.194 | -110.605 | 1000 E2 | 37 | EF | C4 |
| 5736 | 7/21/98 | 12:08:30 | B | 33.388 | -106.622 | 43.947 | -158.961 | 1000 E2 | 37 | EF | C4 |
| 5736 | 7/22/98 | 12:58:52 | 3 | 33.360 | -106.609 | 30.106 | -90.543  | 1000 84 | 33 | EF | C4 |
| 5736 | 7/22/98 | 13:37:52 | 1 | 33.354 | -106.608 | 25.055 | -67.551  | 1000 E2 | 37 | EF | C4 |
| 5736 | 7/22/98 | 14:37:07 | 3 | 33.361 | -106.617 | 39.678 | -138.334 | 1000 B1 | 27 | EF | C4 |
| 5736 | 7/22/98 | 15:16:52 | 1 | 33.360 | -106.620 | 35.186 | -115.346 | 1000 CB | 19 | EF | C4 |
| 5736 | 7/22/98 | 15:33:22 | 1 | 33.358 | -106.607 | 29.742 | -89.758  | 1000 DA | 25 | EF | C4 |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5736 | 7/22/98 | 17:13:07 | 2 | 33.356 | -106.614 | 39.991 | -137.697 | 1000 84 | 33 | EF | C4 |
| 5736 | 7/23/98 | 21:27:54 | 0 | 33.373 | -106.545 | 33.598 | -105.498 | 1000 CB | 19 | EF | C4 |
| 5736 | 7/23/98 | 23:09:54 | 0 | 33.348 | -106.622 | 22.946 | -153.174 | 1000 E3 | 27 | EF | C4 |
| 5736 | 7/23/98 | 23:51:54 | 2 | 33.358 | -106.612 | 38.369 | -81.710  | 1000 94 | 37 | EF | C4 |
| 5736 | 7/24/98 | 01:31:28 | 1 | 33.352 | -106.631 | 28.612 | -129.609 | 1000 94 | 37 | EF | C4 |
| 5736 | 7/25/98 | 01:11:51 | 3 | 33.351 | -106.634 | 30.804 | -118.836 | 1000 E8 | 25 | EF | C4 |
| 5736 | 7/25/98 | 01:53:06 | 1 | 33.369 | -106.604 | 0.663  | 1.021    | 1000 E8 | 25 | EF | C4 |
| 5736 | 7/25/98 | 02:29:51 | 2 | 33.360 | -106.618 | -0.381 | -0.570   | 1000 B6 | 27 | EF | C5 |
| 5736 | 7/25/98 | 03:30:36 | 2 | 33.353 | -106.614 | 25.611 | -144.098 | 1000 7B | 19 | EF | C4 |
| 5736 | 7/26/98 | 09:32:37 | A | 33.359 | -106.629 | 28.579 | -84.125  | 1000 37 | 35 | EF | C4 |
| 5736 | 7/26/98 | 11:13:52 | 2 | 33.357 | -106.623 | 38.618 | -132.043 | 1000 9  | 27 | EF | C4 |
| 5736 | 7/26/98 | 13:09:19 | 0 | 33.387 | -106.622 | 31.313 | -96.252  | 1000 F7 | 33 | EF | C5 |
| 5736 | 7/26/98 | 13:50:31 | 3 | 33.355 | -106.620 | 26.328 | -73.216  | 1000 F7 | 33 | EF | C5 |
| 5736 | 7/26/98 | 14:44:30 | 1 | 33.363 | -106.613 | 24.599 | -65.900  | 1000 11 | 27 | EF | C4 |
| 5736 | 7/26/98 | 14:49:00 | 3 | 33.352 | -106.621 | 40.814 | -144.138 | 1000 EE | 19 | EF | C4 |
| 5736 | 7/27/98 | 13:28:41 | B | 33.434 | -106.603 | 24.404 | -62.749  | 1000 EE | 1D | FC | DD |
| 5736 | 7/27/98 | 14:25:12 | A | 33.355 | -106.626 | 38.943 | -133.803 | 1000 AA | 25 | EF | C5 |
| 5736 | 7/27/98 | 14:31:12 | B | 33.368 | -106.609 | 23.406 | -59.888  | 1000 4B | 27 | EF | C4 |
| 5736 | 7/27/98 | 15:09:27 | 1 | 33.363 | -106.651 | 34.161 | -110.478 | 1000 4B | 27 | EF | C4 |
| 5736 | 7/27/98 | 17:49:57 | A | 33.331 | -106.646 | 43.776 | -155.996 | 1000 49 | 27 | EF | C4 |
| 5736 | 7/27/98 | 20:42:35 | B | 33.438 | -106.640 | 38.148 | -84.054  | 1000 CF | 35 | EF | C5 |
| 5736 | 7/28/98 | 20:32:56 | 1 | 33.357 | -106.617 | 39.301 | -78.900  | 1000 11 | 27 | EF | C4 |
| 5736 | 7/28/98 | 22:13:26 | 2 | 33.355 | -106.654 | 28.924 | -126.928 | 1000 11 | 27 | EF | C4 |
| 5736 | 7/28/98 | 23:42:41 | 3 | 33.351 | -106.626 | 39.350 | -76.950  | 1000 AA | 25 | EF | C5 |
| 5736 | 7/29/98 | 01:23:11 | 3 | 33.360 | -106.634 | 29.609 | -124.714 | 1000 49 | 27 | EF | C4 |
| 5736 | 7/29/98 | 02:02:56 | 1 | 33.362 | -106.594 | 34.273 | -102.148 | 1000 49 | 27 | EF | C4 |
| 5736 | 7/29/98 | 03:46:29 | B | 33.251 | -106.756 | 24.204 | -150.224 | 1000 17 | 37 | EF | C4 |
| 5736 | 7/30/98 | 03:11:15 | 2 | 33.354 | -106.594 | 33.887 | -103.276 | 1000 4B | 27 | EF | C4 |
| 5736 | 7/30/98 | 03:25:30 | 2 | 33.348 | -106.615 | 26.327 | -139.006 | 1000 CF | 35 | EF | C5 |
| 5736 | 7/30/98 | 04:50:15 | 2 | 33.349 | -106.615 | 23.994 | -148.782 | 1000 CF | 35 | EF | C5 |
| 5736 | 7/30/98 | 10:24:03 | 1 | 33.352 | -106.642 | 34.144 | -110.050 | 1000 AA | 25 | EF | C5 |
| 5736 | 7/31/98 | 10:16:01 | 0 | 33.318 | -106.412 | 33.149 | -105.626 | 1000 AA | 25 | EF | C5 |
| 5736 | 7/31/98 | 11:55:46 | B | 33.396 | -106.550 | 42.970 | -153.513 | 1000 AA | 25 | EF | C5 |
| 5736 | 7/31/98 | 12:58:46 | A | 33.362 | -106.613 | 30.380 | -91.463  | 1000 CF | 35 | EF | C5 |
| 5736 | 7/31/98 | 13:39:16 | 1 | 33.356 | -106.622 | 25.180 | -68.597  | 1000 11 | 27 | EF | C4 |
| 5736 | 7/31/98 | 14:37:46 | 2 | 33.358 | -106.629 | 39.980 | -139.383 | 1000 39 | 33 | EF | C4 |
| 5736 | 7/31/98 | 15:20:31 | B | 33.366 | -106.633 | 35.336 | -116.332 | 1000 17 | 37 | EF | C4 |
| 5736 | 7/31/98 | 17:01:04 | 2 | 33.352 | -106.601 | 38.697 | -131.483 | 1000 39 | 33 | EF | C4 |
| 5736 | 8/1/98  | 16:49:30 | 1 | 33.363 | -106.624 | 37.404 | -125.492 | 1000 11 | 27 | EF | C4 |
| 5736 | 8/1/98  | 19:48:00 | A | 33.364 | -106.580 | 43.428 | -57.447  | 1000 39 | 33 | EF | C4 |
| 5736 | 8/1/98  | 21:26:15 | 0 | 33.389 | -106.490 | 33.586 | -105.553 | 1000 F0 | 37 | EF | C5 |
| 5736 | 8/1/98  | 23:11:18 | A | 33.358 | -106.616 | 22.934 | -153.146 | 1000 49 | 27 | EF | C4 |
| 5736 | 8/1/98  | 23:54:03 | 2 | 33.351 | -106.610 | 38.147 | -82.811  | 1000 AA | 25 | EF | C5 |
| 5736 | 8/2/98  | 22:58:16 | A | 33.342 | -106.618 | 24.225 | -148.020 | 1000 F0 | 37 | EF | C5 |
| 5736 | 8/2/98  | 23:32:46 | 3 | 33.360 | -106.605 | 40.353 | -72.345  | 1000 F0 | 37 | EF | C5 |
| 5736 | 8/3/98  | 01:11:45 | 2 | 33.353 | -106.632 | 30.561 | -120.073 | 1000 A6 | 17 | EF | C5 |
| 5736 | 8/3/98  | 01:55:15 | 2 | 33.360 | -106.601 | 35.254 | -97.471  | 1000 39 | 33 | EF | C4 |
| 5736 | 8/3/98  | 02:17:00 | 1 | 33.350 | -106.614 | 39.482 | -76.786  | 1000 A6 | 17 | EF | C5 |
| 5736 | 8/3/98  | 03:35:00 | 3 | 33.349 | -106.622 | 25.112 | -145.207 | 1000 17 | 37 | EF | C4 |
| 5736 | 8/3/98  | 03:59:00 | 3 | 33.351 | -106.623 | 29.404 | -124.806 | 1000 A6 | 17 | EF | C5 |
| 5736 | 8/4/98  | 09:33:50 | A | 33.359 | -106.610 | 28.574 | -84.138  | 1000 29 | 37 | EF | C5 |
| 5736 | 8/4/98  | 11:12:05 | 3 | 33.359 | -106.615 | 38.774 | -132.113 | 1000 65 | 27 | EF | C4 |
| 5736 | 8/4/98  | 13:09:01 | B | 33.374 | -106.638 | 31.461 | -97.273  | 1000 65 | 27 | EF | C4 |
| 5736 | 8/5/98  | 00:28:06 | 2 | 33.370 | -106.600 | 34.885 | -99.097  | 1000 0  | 0  | 4  | 0  |
| 5736 | 8/5/98  | 01:08:53 | 0 | 33.362 | -106.592 | 39.384 | -76.298  | 1000 0  | 0  | 0  | 0  |
| 5736 | 8/5/98  | 01:54:52 | B | 33.343 | -106.587 | 41.838 | -65.041  | 1000 0  | 0  | 8  | 0  |
| 5736 | 8/5/98  | 02:49:45 | A | 33.342 | -106.607 | 29.746 | -124.063 | 1000 0  | 0  | 0  | 0  |
| 5736 | 8/5/98  | 03:35:44 | 3 | 33.341 | -106.627 | 32.018 | -112.676 | 1000 0  | 0  | 0  | 0  |
| 5736 | 8/6/98  | 09:08:21 | 2 | 33.354 | -106.605 | 26.045 | -73.624  | 1000 62 | 39 | EF | C5 |

|      |         |          |   |        |          |        |          |      |    |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|------|----|----|----|----|
| 5736 | 8/6/98  | 10:47:21 | 2 | 33.356 | -106.612 | 36.602 | -121.667 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/6/98  | 12:24:09 | A | 33.285 | -106.483 | 26.993 | -76.884  | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/6/98  | 12:31:39 | B | 33.399 | -106.632 | 45.963 | -170.004 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/6/98  | 13:06:09 | B | 33.379 | -106.661 | 22.086 | -52.638  | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/6/98  | 14:06:54 | 2 | 33.350 | -106.612 | 36.887 | -124.165 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/7/98  | 14:44:25 | 1 | 33.365 | -106.659 | 34.763 | -113.654 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/7/98  | 14:27:10 | 3 | 33.361 | -106.627 | 30.016 | -90.517  | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/7/98  | 15:24:55 | B | 33.306 | -106.623 | 43.905 | -161.997 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/7/98  | 15:36:55 | B | 33.300 | -106.769 | 29.517 | -89.403  | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/7/98  | 16:07:40 | 3 | 33.360 | -106.629 | 39.729 | -138.235 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/7/98  | 17:15:10 | 2 | 33.359 | -106.626 | 39.849 | -137.448 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/7/98  | 20:21:58 | A | 33.356 | -106.636 | 40.355 | -73.482  | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/8/98  | 20:10:45 | 2 | 33.363 | -106.631 | 41.406 | -68.230  | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/8/98  | 21:51:15 | 2 | 33.355 | -106.657 | 31.296 | -116.369 | 1000 | 62 | 1C | AD | 42 |
| 5736 | 8/8/98  | 23:31:45 | B | 33.340 | -106.696 | 21.237 | -164.077 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/9/98  | 00:39:15 | 0 | 33.382 | -106.502 | 33.687 | -104.982 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/9/98  | 01:22:45 | 3 | 33.359 | -106.611 | 38.360 | -82.182  | 1000 | 62 | 39 | ED | C5 |
| 5736 | 8/9/98  | 02:19:47 | B | 33.323 | -106.611 | 23.978 | -152.700 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/9/98  | 02:42:17 | A | 33.362 | -106.602 | 37.106 | -88.830  | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/9/98  | 03:01:47 | 3 | 33.359 | -106.614 | 28.437 | -130.045 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/10/98 | 01:57:53 | B | 33.346 | -106.559 | 26.173 | -142.468 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/10/98 | 02:32:34 | 2 | 33.366 | -106.605 | 38.471 | -82.736  | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/10/98 | 02:39:19 | A | 33.359 | -106.622 | 30.636 | -119.551 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/10/98 | 04:13:49 | 3 | 33.361 | -106.616 | 28.061 | -130.528 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/11/98 | 09:54:32 | 2 | 33.343 | -106.596 | 30.688 | -94.748  | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/11/98 | 11:35:02 | B | 33.361 | -106.606 | 40.824 | -142.833 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/11/98 | 12:15:32 | 3 | 33.349 | -106.603 | 26.064 | -71.652  | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/11/98 | 13:54:32 | 3 | 33.358 | -106.618 | 36.039 | -119.515 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/11/98 | 14:36:32 | 2 | 33.358 | -106.605 | 31.233 | -96.532  | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/11/98 | 16:19:32 | 2 | 33.363 | -106.619 | 40.851 | -144.087 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/11/98 | 16:28:32 | A | 33.362 | -106.628 | 34.812 | -113.469 | 1000 | 62 | 39 | EF | C5 |
| 5736 | 8/12/98 | 03:35:45 | A | 33.370 | -106.627 | 25.230 | -146.099 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/12/98 | 03:48:22 | 3 | 33.360 | -106.631 | 30.762 | -118.509 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/12/98 | 09:46:19 | A | 33.357 | -106.611 | 29.753 | -89.497  | 1000 | 2B | AD | 55 | 54 |
| 5736 | 8/13/98 | 03:33:48 | B | 33.341 | -106.575 | 32.061 | -112.566 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/13/98 | 09:31:44 | 2 | 33.352 | -106.608 | 28.466 | -84.006  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/13/98 | 11:14:10 | 3 | 33.353 | -106.619 | 38.649 | -132.077 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/14/98 | 11:01:43 | A | 33.357 | -106.612 | 37.531 | -126.569 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/14/98 | 12:52:58 | A | 33.356 | -106.613 | 29.640 | -88.119  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/14/98 | 13:32:17 | 2 | 33.357 | -106.623 | 24.411 | -64.808  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/14/98 | 14:31:37 | 3 | 33.354 | -106.607 | 39.092 | -135.939 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/14/98 | 15:14:37 | 3 | 33.359 | -106.627 | 34.563 | -112.521 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/14/98 | 15:48:00 | 1 | 33.349 | -106.610 | 30.908 | -95.416  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/14/98 | 17:28:12 | 3 | 33.359 | -106.616 | 40.989 | -143.186 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/15/98 | 10:50:43 | 1 | 33.365 | -106.656 | 36.516 | -121.330 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/15/98 | 12:27:08 | 2 | 33.355 | -106.610 | 27.240 | -77.472  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/15/98 | 13:11:38 | B | 33.371 | -106.630 | 22.633 | -54.256  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/15/98 | 14:08:00 | 1 | 33.351 | -106.616 | 37.170 | -125.104 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/15/98 | 14:51:01 | 1 | 33.350 | -106.616 | 32.379 | -102.020 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/15/98 | 16:30:23 | 0 | 33.347 | -106.623 | 42.094 | -149.793 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/15/98 | 17:16:11 | 3 | 33.354 | -106.620 | 39.790 | -137.189 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/16/98 | 17:05:07 | 2 | 33.358 | -106.625 | 38.479 | -131.370 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/16/98 | 20:21:45 | 2 | 33.356 | -106.614 | 40.175 | -73.507  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/16/98 | 22:05:35 | 2 | 33.353 | -106.632 | 30.131 | -121.286 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/16/98 | 23:22:48 | 0 | 33.349 | -106.609 | 40.833 | -68.537  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/17/98 | 01:05:09 | A | 33.360 | -106.627 | 31.321 | -116.236 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/18/98 | 01:24:13 | 1 | 33.358 | -106.613 | 38.131 | -83.211  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/18/98 | 02:25:02 | B | 33.310 | -106.763 | 23.246 | -154.448 | 1000 | 0  | 5  | 40 | 0  |
| 5736 | 8/18/98 | 02:32:27 | 2 | 33.352 | -106.621 | 38.420 | -82.624  | 1000 | 0  | 0  | 0  | 0  |

|      |         |          |   |        |          |        |          |      |    |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|------|----|----|----|----|
| 5736 | 8/18/98 | 03:04:20 | 1 | 33.341 | -106.635 | 28.263 | -130.929 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/19/98 | 10:09:14 | A | 33.352 | -106.607 | 32.010 | -100.169 | 1000 | 26 | 27 | EF | C4 |
| 5736 | 8/19/98 | 10:09:14 | A | 33.352 | -106.607 | 32.010 | -100.169 | 1000 | 26 | 27 | EF | C4 |
| 5736 | 8/19/98 | 11:46:43 | B | 33.364 | -106.605 | 41.882 | -148.177 | 1000 | 26 | 27 | EF | C4 |
| 5736 | 8/19/98 | 11:46:43 | B | 33.364 | -106.605 | 41.882 | -148.177 | 1000 | 26 | 27 | EF | C4 |
| 5736 | 8/19/98 | 12:40:01 | 3 | 33.356 | -106.604 | 28.565 | -83.243  | 1000 | BB | 35 | EF | C4 |
| 5736 | 8/19/98 | 12:40:01 | 3 | 33.356 | -106.604 | 28.565 | -83.243  | 1000 | BB | 35 | EF | C4 |
| 5736 | 8/19/98 | 13:23:31 | 1 | 33.357 | -106.605 | 23.554 | -59.994  | 1000 | 26 | 27 | EF | C4 |
| 5736 | 8/19/98 | 13:23:31 | 1 | 33.357 | -106.605 | 23.554 | -59.994  | 1000 | 26 | 27 | EF | C4 |
| 5736 | 8/20/98 | 09:53:14 | 3 | 33.327 | -106.605 | 30.775 | -94.978  | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/20/98 | 09:53:14 | 3 | 33.327 | -106.605 | 30.775 | -94.978  | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/20/98 | 11:38:59 | 2 | 33.328 | -106.622 | 40.706 | -142.991 | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/20/98 | 11:38:59 | 2 | 33.328 | -106.622 | 40.706 | -142.991 | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/20/98 | 12:17:14 | A | 33.333 | -106.609 | 26.245 | -72.833  | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/20/98 | 12:17:14 | A | 33.333 | -106.609 | 26.245 | -72.833  | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/20/98 | 13:56:29 | 3 | 33.356 | -106.623 | 36.355 | -120.318 | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/20/98 | 13:56:29 | 3 | 33.356 | -106.623 | 36.355 | -120.318 | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/20/98 | 14:30:59 | 0 | 33.349 | -106.593 | 22.837 | -59.603  | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/20/98 | 14:30:59 | 0 | 33.349 | -106.593 | 22.837 | -59.603  | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/20/98 | 14:37:44 | 2 | 33.346 | -106.594 | -0.347 | 1.011    | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/20/98 | 14:37:44 | 2 | 33.346 | -106.594 | -0.347 | 1.011    | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/21/98 | 13:33:07 | 1 | 33.355 | -106.605 | 33.908 | -109.102 | 1000 | 9C | 27 | EF | C5 |
| 5736 | 8/21/98 | 14:18:07 | 2 | 33.352 | -106.612 | 29.057 | -86.828  | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/21/98 | 15:16:37 | A | 33.336 | -106.609 | 43.221 | -158.252 | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/21/98 | 15:59:22 | 3 | 33.355 | -106.613 | 38.991 | -134.508 | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/21/98 | 16:02:22 | 2 | 33.352 | -106.602 | 32.214 | -101.270 | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/21/98 | 17:42:07 | 2 | 33.350 | -106.612 | 42.169 | -149.137 | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/21/98 | 21:07:40 | 1 | 33.359 | -106.633 | 35.881 | -94.953  | 1000 | 9C | 27 | EF | C5 |
| 5736 | 8/22/98 | 20:55:45 | 3 | 33.361 | -106.621 | 36.939 | -89.525  | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/22/98 | 22:38:29 | A | 33.362 | -106.638 | 26.473 | -137.395 | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/23/98 | 00:30:59 | 3 | 33.366 | -106.600 | 34.466 | -101.271 | 1000 | 9C | 27 | EF | C5 |
| 5736 | 8/23/98 | 02:06:59 | B | 33.348 | -106.613 | 24.748 | -148.976 | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/23/98 | 02:55:02 | 3 | 33.360 | -106.618 | 29.283 | -126.142 | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/23/98 | 03:08:32 | 2 | 33.365 | -106.592 | 34.668 | -100.409 | 1000 | 9C | 27 | EF | C5 |
| 5736 | 8/24/98 | 02:30:19 | 2 | 33.357 | -106.626 | 31.553 | -115.487 | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/24/98 | 02:56:37 | 1 | 33.362 | -106.600 | 35.928 | -94.539  | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/24/98 | 04:37:52 | 3 | 33.360 | -106.621 | 25.622 | -142.359 | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/24/98 | 09:10:54 | 3 | 33.361 | -106.606 | 26.068 | -73.504  | 1000 | 9C | 27 | EF | C5 |
| 5736 | 8/25/98 | 10:36:54 | B | 33.198 | -106.445 | 35.694 | -115.060 | 1000 | 7D | 29 | EF | C4 |
| 5736 | 8/25/98 | 12:06:54 | 2 | 33.354 | -106.627 | 25.288 | -68.050  | 1000 | 4D | 47 | EF | C4 |
| 5736 | 8/25/98 | 12:19:39 | 1 | 33.382 | -106.623 | 45.428 | -164.433 | 1000 | 9C | 27 | EF | C5 |
| 5736 | 8/25/98 | 13:48:09 | 3 | 33.365 | -106.649 | -0.334 | -0.363   | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/25/98 | 14:32:24 | 2 | 33.358 | -106.633 | -0.220 | 0.515    | 1000 | 68 | 29 | EF | C4 |
| 5736 | 8/25/98 | 15:11:24 | 3 | 33.358 | -106.631 | 26.916 | -77.123  | 1000 | EF | 37 | EF | C4 |
| 5736 | 8/25/98 | 16:11:39 | 3 | 33.359 | -106.642 | 40.155 | -140.195 | 1000 | 9C | 27 | EF | C5 |
| 5736 | 8/25/98 | 16:49:54 | B | 33.373 | -106.821 | 37.166 | -124.695 | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/26/98 | 16:40:28 | 3 | 33.359 | -106.607 | 36.002 | -119.069 | 1000 | 7D | 29 | EF | C4 |
| 5736 | 8/26/98 | 20:10:28 | B | 33.399 | -106.580 | 41.279 | -68.167  | 1000 | 4D | 47 | EF | C4 |
| 5736 | 8/26/98 | 21:50:13 | 3 | 33.355 | -106.623 | 31.369 | -116.056 | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/26/98 | 23:04:31 | 1 | 33.364 | -106.603 | 42.882 | -58.980  | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/27/98 | 23:23:13 | B | 33.325 | -106.650 | 22.247 | -158.924 | 1000 | 9C | 27 | EF | C5 |
| 5736 | 8/28/98 | 00:21:43 | 2 | 33.355 | -106.635 | 35.445 | -96.584  | 1000 | CC | 27 | EF | C4 |
| 5736 | 8/28/98 | 01:05:58 | 3 | 33.357 | -106.631 | 40.164 | -73.622  | 1000 | 1F | 45 | EF | C5 |
| 5736 | 8/28/98 | 02:01:28 | 1 | 33.345 | -106.644 | 25.414 | -144.405 | 1000 | EF | 37 | EF | C4 |
| 5736 | 8/28/98 | 02:08:13 | A | 33.368 | -106.636 | 41.063 | -70.421  | 1000 | 9C | 27 | EF | C5 |
| 5736 | 8/28/98 | 02:46:28 | 3 | 33.345 | -106.644 | 30.227 | -121.340 | 1000 | 7D | 29 | EF | C4 |
| 5736 | 8/28/98 | 03:49:28 | 3 | 33.346 | -106.646 | 30.813 | -118.250 | 1000 | 7D | 29 | EF | C4 |
| 5736 | 8/29/98 | 05:17:25 | A | 33.354 | -106.625 | 21.515 | -160.068 | 1000 | 4D | 47 | EF | C4 |
| 5736 | 8/29/98 | 09:53:24 | 1 | 33.353 | -106.599 | 30.866 | -95.107  | 1000 | EF | 37 | EF | C4 |

|      |         |          |   |        |          |        |          |      |    |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|------|----|----|----|----|
| 5736 | 8/29/98 | 11:37:22 | 3 | 33.358 | -106.629 | 40.864 | -142.557 | 1000 | 15 | 27 | EF | C4 |
| 5736 | 8/29/98 | 12:18:37 | 1 | 33.351 | -106.607 | 26.390 | -73.802  | 1000 | 15 | 27 | EF | D3 |
| 5736 | 8/30/98 | 11:26:11 | A | 33.352 | -106.620 | 39.853 | -137.416 | 1000 | F3 | 27 | EF | C5 |
| 5736 | 8/30/98 | 11:57:18 | 1 | 33.350 | -106.604 | 24.367 | -63.280  | 1000 | 6B | 27 | EF | C4 |
| 5736 | 8/30/98 | 13:37:48 | 1 | 33.365 | -106.662 | 34.259 | -111.068 | 1000 | 5F | 27 | EF | C4 |
| 5736 | 8/30/98 | 14:21:18 | 3 | 33.355 | -106.636 | 29.356 | -87.725  | 1000 | 5F | 27 | EF | C4 |
| 5736 | 8/30/98 | 15:49:02 | 2 | 33.356 | -106.613 | 30.766 | -94.989  | 1000 | 6B | 27 | EF | C4 |
| 5736 | 8/30/98 | 16:01:47 | 2 | 33.359 | -106.625 | 39.172 | -135.467 | 1000 | 98 | 27 | EF | C4 |
| 5736 | 8/30/98 | 17:30:17 | 1 | 33.346 | -106.625 | 40.857 | -143.041 | 1000 | 8F | 27 | EF | C4 |
| 5736 | 8/31/98 | 13:13:40 | 3 | 33.352 | -106.606 | 32.120 | -100.738 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/31/98 | 13:56:41 | A | 33.349 | -106.611 | 27.119 | -77.639  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/31/98 | 14:58:14 | B | 33.272 | -106.479 | 41.450 | -148.623 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/31/98 | 15:33:05 | B | 33.380 | -106.299 | 29.121 | -88.639  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/31/98 | 15:39:46 | 1 | 33.352 | -106.617 | 37.129 | -124.789 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 8/31/98 | 17:16:55 | 2 | 33.355 | -106.616 | 39.742 | -136.823 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/1/98  | 12:52:17 | A | 33.354 | -106.598 | 29.950 | -90.249  | 1000 | 2A | 35 | EF | C4 |
| 5736 | 9/1/98  | 13:35:47 | 1 | 33.354 | -106.620 | 24.755 | -66.886  | 1000 | 2A | 35 | EF | C4 |
| 5736 | 9/1/98  | 14:34:17 | 3 | 33.358 | -106.634 | 39.535 | -137.869 | 1000 | 2A | 35 | EF | C4 |
| 5736 | 9/1/98  | 15:17:47 | 2 | 33.359 | -106.635 | 34.987 | -114.467 | 1000 | 2A | 35 | EF | C4 |
| 5736 | 9/1/98  | 17:05:02 | 2 | 33.356 | -106.630 | 38.446 | -130.929 | 1000 | 2A | 35 | EF | C4 |
| 5736 | 9/1/98  | 20:45:54 | B | 33.428 | -106.613 | 38.116 | -84.130  | 1000 | 2A | 35 | EF | C4 |
| 5736 | 9/2/98  | 09:13:08 | 2 | 33.349 | -106.623 | 26.162 | -73.405  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/2/98  | 10:53:16 | 2 | 33.356 | -106.638 | 36.479 | -121.384 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/2/98  | 12:32:39 | B | 33.369 | -106.599 | 27.873 | -79.612  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/2/98  | 13:13:26 | B | 33.381 | -106.683 | 22.812 | -55.780  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/2/98  | 14:12:07 | 3 | 33.357 | -106.633 | 37.504 | -127.399 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/2/98  | 15:09:13 | B | 33.336 | -106.558 | 26.783 | -76.758  | 1000 | 0  | 0  | 0A | 56 |
| 5736 | 9/3/98  | 13:46:23 | 0 | 33.340 | -106.648 | 35.482 | -117.008 | 1000 | 91 | 23 | EF | C5 |
| 5736 | 9/3/98  | 14:32:32 | 3 | 33.349 | -106.601 | 30.596 | -93.499  | 1000 | 91 | 23 | EF | C5 |
| 5736 | 9/3/98  | 14:57:17 | 1 | 33.350 | -106.608 | 25.458 | -71.137  | 1000 | 91 | 23 | EF | C5 |
| 5736 | 9/3/98  | 15:28:47 | A | 33.249 | -106.633 | 44.558 | -165.138 | 1000 | 2E | 27 | EF | C4 |
| 5736 | 9/3/98  | 16:12:17 | A | 33.336 | -106.612 | 40.481 | -141.240 | 1000 | 91 | 23 | EF | C5 |
| 5736 | 9/3/98  | 16:37:02 | 2 | 33.345 | -106.632 | 36.053 | -118.971 | 1000 | 2E | 27 | EF | C4 |
| 5736 | 9/3/98  | 18:20:32 | B | 33.244 | -106.593 | 45.412 | -167.441 | 1000 | 2E | 27 | EF | C4 |
| 5736 | 9/3/98  | 20:24:39 | 2 | 33.353 | -106.604 | 40.283 | -73.604  | 1000 | 2E | 27 | EF | C4 |
| 5736 | 9/4/98  | 08:49:18 | 1 | 33.368 | -106.586 | 23.714 | -62.823  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/4/98  | 10:27:56 | 1 | 33.360 | -106.630 | 34.287 | -110.917 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/4/98  | 11:45:48 | 1 | 33.367 | -106.626 | 23.187 | -58.539  | 1000 | 0  | BC | 47 | 7A |
| 5736 | 9/4/98  | 12:10:17 | A | 33.362 | -106.599 | 43.936 | -158.896 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/4/98  | 14:09:41 | 2 | 33.356 | -106.607 | 28.282 | -83.081  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/4/98  | 14:46:12 | A | 33.356 | -106.600 | 24.141 | -65.027  | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/4/98  | 15:08:27 | B | 33.276 | -106.555 | 42.564 | -154.541 | 1000 | 0  | 0  | 0  | 0  |
| 5736 | 9/4/98  | 15:51:28 | 1 | 33.357 | -106.609 | 38.300 | -130.518 | 1000 | 0  | 0  | 0  | 0  |
| 5738 | 6/5/98  | 02:49:38 | 3 | 33.138 | -106.506 | 35.362 | -95.936  | 2000 | E0 | 47 | EF | C9 |
| 5738 | 6/5/98  | 04:30:53 | 2 | 33.139 | -106.493 | 25.065 | -143.772 | 2000 | E0 | 47 | EF | C9 |
| 5738 | 6/6/98  | 08:39:53 | 1 | 33.140 | -106.516 | 23.427 | -62.615  | 2000 | AB | 19 | EF | C7 |
| 5738 | 6/6/98  | 10:18:53 | 1 | 33.138 | -106.470 | 33.837 | -109.391 | 2000 | E3 | 27 | EF | C7 |
| 5738 | 6/6/98  | 12:01:36 | 1 | 33.138 | -106.496 | 43.916 | -158.685 | 2000 | EC | 49 | EF | C7 |
| 5738 | 6/6/98  | 13:12:06 | B | 33.147 | -106.510 | 30.933 | -95.525  | 2000 | AB | 19 | EF | C7 |
| 5738 | 6/7/98  | 11:51:04 | 1 | 33.128 | -106.492 | 42.789 | -153.303 | 2000 | A1 | 27 | EF | C7 |
| 5738 | 6/7/98  | 11:51:04 | 1 | 33.128 | -106.492 | 42.789 | -153.303 | 2000 | A1 | 27 | EF | C7 |
| 5738 | 6/7/98  | 12:48:49 | 3 | 33.143 | -106.515 | 0.374  | -0.573   | 2000 | CE | 27 | EF | C7 |
| 5738 | 6/7/98  | 12:48:49 | 3 | 33.143 | -106.515 | 0.374  | -0.573   | 2000 | CE | 27 | EF | C7 |
| 5738 | 6/7/98  | 14:27:49 | 3 | 33.139 | -106.496 | 38.454 | -132.804 | 2000 | B3 | 47 | EF | C7 |
| 5738 | 6/7/98  | 14:27:49 | 3 | 33.139 | -106.496 | 38.454 | -132.804 | 2000 | B3 | 47 | EF | C7 |
| 5738 | 6/7/98  | 14:51:49 | B | 33.123 | -106.514 | 25.917 | -72.918  | 2000 | CE | 23 | EF | C7 |
| 5738 | 6/7/98  | 14:51:49 | B | 33.123 | -106.514 | 25.917 | -72.918  | 2000 | CE | 23 | EF | C7 |
| 5738 | 6/7/98  | 16:32:19 | 3 | 33.139 | -106.492 | 36.181 | -120.754 | 2000 | EC | 49 | EF | C7 |
| 5738 | 6/7/98  | 16:32:19 | 3 | 33.139 | -106.492 | 36.181 | -120.754 | 2000 | EC | 49 | EF | C7 |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5738 | 6/8/98  | 21:20:44 | A | 33.127 | -106.584 | 33.506 | -104.773 | 2000 84 | 37 | EF | C7 |
| 5738 | 6/8/98  | 23:43:59 | 2 | 33.140 | -106.513 | 39.306 | -75.857  | 2000 0E | 39 | EF | C7 |
| 5738 | 6/9/98  | 01:22:46 | 2 | 33.146 | -106.491 | 29.610 | -123.892 | 2000 28 | 27 | EF | C7 |
| 5738 | 6/9/98  | 02:01:46 | 2 | 33.139 | -106.514 | 40.508 | -71.858  | 2000 84 | 37 | EF | C7 |
| 5738 | 6/10/98 | 01:01:07 | 0 | 33.158 | -106.457 | 31.773 | -113.258 | 2000 E7 | 19 | EF | C7 |
| 5738 | 6/10/98 | 01:50:37 | A | 33.135 | -106.513 | 41.883 | -65.571  | 2000 35 | 27 | EF | C7 |
| 5738 | 6/10/98 | 03:27:22 | 2 | 33.147 | -106.480 | 31.607 | -113.726 | 2000 C6 | 27 | EF | C7 |
| 5738 | 6/11/98 | 09:25:26 | 3 | 33.145 | -106.513 | 28.183 | -83.913  | 2000 EA | 27 | EF | C7 |
| 5738 | 6/11/98 | 11:08:11 | 3 | 33.141 | -106.497 | 38.429 | -131.797 | 2000 91 | 37 | EF | C7 |
| 5738 | 6/11/98 | 13:01:25 | 3 | 33.143 | -106.514 | 29.959 | -90.884  | 2000 35 | 27 | EF | C7 |
| 5738 | 6/11/98 | 14:41:15 | 2 | 33.142 | -106.501 | 39.498 | -138.784 | 2000 35 | 27 | EF | C7 |
| 5738 | 6/12/98 | 14:19:17 | 2 | 33.141 | -106.498 | 37.486 | -128.160 | 2000 87 | 37 | EF | C7 |
| 5738 | 6/12/98 | 15:31:17 | 3 | 33.144 | -106.517 | 29.757 | -90.754  | 2000 74 | 29 | EF | C7 |
| 5738 | 6/12/98 | 17:11:02 | 3 | 33.139 | -106.498 | 39.843 | -138.622 | 2000 5A | 39 | EF | C7 |
| 5738 | 6/12/98 | 20:37:33 | 3 | 33.141 | -106.514 | 37.947 | -83.781  | 2000 74 | 29 | EF | C7 |
| 5738 | 6/13/98 | 22:07:03 | 3 | 33.145 | -106.493 | 28.836 | -126.431 | 2000 3  | 37 | EF | C7 |
| 5738 | 6/13/98 | 23:34:03 | A | 33.135 | -106.504 | 40.234 | -71.128  | 2000 3  | 37 | EF | C7 |
| 5738 | 6/14/98 | 01:12:18 | A | 33.145 | -106.490 | 30.601 | -119.044 | 2000 51 | 29 | EF | C7 |
| 5738 | 6/14/98 | 02:39:18 | 3 | 33.140 | -106.516 | 36.713 | -89.751  | 2000 E4 | 47 | EF | C7 |
| 5738 | 6/14/98 | 04:20:00 | 2 | 33.143 | -106.498 | 26.305 | -137.681 | 2000 3  | 37 | EF | C7 |
| 5738 | 6/15/98 | 04:06:53 | 3 | 33.143 | -106.498 | 27.662 | -131.729 | 2000 2A | 19 | EF | C7 |
| 5738 | 6/15/98 | 10:21:24 | 1 | 33.134 | -106.469 | 34.038 | -110.648 | 2000 71 | 37 | EF | C7 |
| 5738 | 6/16/98 | 03:52:23 | 2 | 33.145 | -106.497 | 29.116 | -125.496 | 2000 0  | 0  | 0  | 0  |
| 5738 | 6/16/98 | 10:10:33 | 0 | 33.165 | -106.655 | 32.850 | -105.201 | 2000 B1 | 27 | EF | C7 |
| 5738 | 6/17/98 | 10:00:01 | 2 | 33.148 | -106.531 | 31.736 | -99.867  | 2000 A9 | 27 | EF | C7 |
| 5738 | 6/17/98 | 11:40:02 | B | 33.127 | -106.528 | 41.642 | -147.945 | 2000 A9 | 27 | EF | C7 |
| 5738 | 6/18/98 | 09:47:59 | 3 | 33.142 | -106.517 | 30.547 | -94.769  | 2000 0  | 0  | 0  | 0  |
| 5738 | 6/18/98 | 11:29:40 | A | 33.131 | -106.492 | 40.779 | -142.671 | 2000 0  | 0  | 0  | 0  |
| 5738 | 6/19/98 | 09:41:45 | B | 33.109 | -106.368 | 29.528 | -89.308  | 2000 A3 | 29 | EF | C7 |
| 5738 | 6/19/98 | 11:19:15 | 3 | 33.141 | -106.498 | 39.568 | -137.264 | 2000 A3 | 29 | EF | C7 |
| 5738 | 6/19/98 | 13:24:01 | 1 | 33.149 | -106.535 | 32.304 | -102.475 | 2000 C5 | 27 | EF | C7 |
| 5738 | 6/20/98 | 11:06:58 | 3 | 33.139 | -106.496 | 38.592 | -131.988 | 2000 F4 | 29 | EF | C7 |
| 5738 | 6/20/98 | 13:06:00 | B | 33.235 | -106.662 | 30.338 | -91.547  | 2000 F4 | 29 | EF | C7 |
| 5738 | 6/21/98 | 09:18:47 | A | 33.144 | -106.511 | 27.274 | -78.788  | 2000 8C | 27 | EF | C7 |
| 5738 | 6/21/98 | 10:57:02 | B | 33.132 | -106.491 | 37.299 | -126.605 | 2000 8C | 27 | EF | C7 |
| 5738 | 6/21/98 | 14:19:32 | 3 | 33.140 | -106.497 | 37.764 | -129.378 | 2000 21 | 29 | EF | C7 |
| 5738 | 6/22/98 | 10:43:34 | B | 33.159 | -106.543 | 36.303 | -120.826 | 2000 F4 | 37 | EF | C7 |
| 5738 | 6/22/98 | 13:59:18 | B | 33.089 | -106.424 | 35.633 | -118.953 | 2000 F4 | 37 | EF | C7 |
| 5738 | 6/23/98 | 10:38:23 | A | 33.145 | -106.518 | 35.134 | -116.083 | 2000 5  | 19 | EF | C7 |
| 5738 | 6/23/98 | 13:36:07 | 2 | 33.127 | -106.432 | 33.545 | -108.479 | 2000 5  | 19 | EF | C7 |
| 5738 | 6/23/98 | 15:16:00 | A | 33.142 | -106.500 | 42.887 | -156.398 | 2000 4A | 29 | EF | C7 |
| 5738 | 6/23/98 | 16:34:00 | 2 | 33.142 | -106.502 | 36.140 | -120.409 | 2000 4A | 29 | EF | C7 |
| 5738 | 6/24/98 | 03:55:25 | 3 | 33.144 | -106.492 | 29.022 | -125.495 | 2000 52 | 19 | EF | C7 |
| 5738 | 6/24/98 | 10:22:40 | 1 | 33.133 | -106.469 | 33.431 | -109.153 | 2000 0C | 29 | EF | C7 |
| 5738 | 6/25/98 | 10:12:54 | 1 | 33.168 | -106.632 | 32.811 | -105.063 | 2000 0  | 0  | 0  | 0  |
| 5738 | 6/26/98 | 10:02:39 | 3 | 33.148 | -106.531 | 31.769 | -99.998  | 2000 12 | 19 | EF | C7 |
| 5738 | 6/26/98 | 11:40:24 | B | 33.131 | -106.527 | 41.690 | -147.887 | 2000 12 | 19 | EF | C7 |
| 5738 | 6/26/98 | 12:32:54 | B | 33.159 | -106.632 | 27.091 | -76.667  | 2000 A9 | 29 | EF | C7 |
| 5738 | 6/27/98 | 09:49:40 | A | 33.145 | -106.519 | 30.556 | -94.775  | 2000 69 | 37 | EF | C7 |
| 5738 | 6/27/98 | 11:30:55 | 2 | 33.136 | -106.494 | 40.708 | -142.644 | 2000 69 | 37 | EF | C7 |
| 5738 | 6/27/98 | 13:46:46 | 3 | 33.140 | -106.489 | 34.734 | -114.261 | 2000 BD | 19 | EF | C7 |
| 5738 | 6/28/98 | 11:20:31 | A | 33.140 | -106.495 | 39.618 | -137.248 | 2000 C6 | 37 | EE | C7 |
| 5738 | 6/28/98 | 13:24:16 | 0 | 33.170 | -106.598 | 32.565 | -103.671 | 2000 9  | 37 | EF | C7 |
| 5738 | 6/28/98 | 14:04:46 | A | 33.145 | -106.507 | 27.625 | -81.036  | 2000 C6 | 37 | EF | C7 |
| 5738 | 6/28/98 | 15:05:31 | 1 | 33.145 | -106.504 | 42.033 | -151.661 | 2000 C6 | 37 | EF | C7 |
| 5738 | 6/29/98 | 11:09:10 | 3 | 33.140 | -106.497 | 38.519 | -132.056 | 2000 DC | 37 | EF | C7 |
| 5738 | 6/29/98 | 13:06:10 | B | 33.168 | -106.634 | 30.417 | -92.979  | 2000 DC | 37 | EF | C7 |
| 5738 | 6/29/98 | 14:43:10 | 3 | 33.144 | -106.499 | 40.071 | -141.039 | 2000 F6 | 27 | EF | C7 |
| 5738 | 6/29/98 | 15:26:40 | A | 33.139 | -106.488 | 35.526 | -118.346 | 2000 DC | 37 | EF | C7 |

|      |         |          |   |        |          |        |          |         |    |    |    |
|------|---------|----------|---|--------|----------|--------|----------|---------|----|----|----|
| 5738 | 6/30/98 | 09:18:00 | A | 33.146 | -106.521 | 27.227 | -78.786  | 2000 3B | 29 | EF | C7 |
| 5738 | 6/30/98 | 10:57:00 | 3 | 33.140 | -106.494 | 37.478 | -126.716 | 2000 3B | 29 | EF | C7 |
| 5738 | 6/30/98 | 14:21:45 | 3 | 33.141 | -106.499 | 37.962 | -130.530 | 2000 3B | 29 | EF | C7 |
| 5738 | 6/30/98 | 15:03:00 | 2 | 33.120 | -106.398 | 33.410 | -107.813 | 2000 3B | 29 | EF | C7 |
| 5738 | 6/30/98 | 15:06:00 | B | 33.106 | -106.505 | 27.117 | -78.486  | 2000 3B | 29 | 6F | C7 |
| 5738 | 6/30/98 | 16:40:15 | B | 33.143 | -106.500 | 42.802 | -155.491 | 2000 77 | 47 | EF | C7 |
| 5738 | 6/30/98 | 16:47:00 | 3 | 33.141 | -106.497 | 37.365 | -126.435 | 2000 77 | 47 | EF | C7 |
| 5738 | 7/1/98  | 10:46:33 | 3 | 33.137 | -106.491 | 36.339 | -121.400 | 2000 51 | 47 | EF | C7 |
| 5738 | 7/1/98  | 12:21:48 | B | 33.145 | -106.526 | 26.156 | -72.183  | 2000 51 | 47 | EF | C7 |
| 5738 | 7/1/98  | 14:00:48 | 3 | 33.138 | -106.492 | 35.783 | -120.024 | 2000 51 | 47 | EF | C7 |
| 5738 | 7/1/98  | 14:42:48 | B | 33.122 | -106.457 | 31.262 | -97.075  | 2000 51 | 47 | EF | C7 |
| 5738 | 7/1/98  | 16:18:28 | B | 33.170 | -106.432 | 40.878 | -144.990 | 2000 A0 | 27 | EF | C7 |
| 5738 | 7/1/98  | 16:33:28 | 0 | 33.132 | -106.497 | 36.149 | -120.468 | 2000 51 | 47 | EF | C7 |
| 5738 | 7/2/98  | 10:36:44 | 2 | 33.139 | -106.481 | 35.040 | -115.861 | 2000 DF | 19 | EF | C7 |
| 5738 | 7/3/98  | 10:24:33 | 2 | 33.134 | -106.466 | 34.074 | -110.853 | 2000 F2 | 29 | EF | C7 |
| 5738 | 7/3/98  | 13:15:49 | 2 | 33.145 | -106.524 | 31.575 | -98.963  | 2000 D6 | 19 | EF | C7 |
| 5738 | 7/4/98  | 10:13:01 | 1 | 33.176 | -106.662 | 32.861 | -105.263 | 2000 B9 | 37 | EF | C7 |
| 5738 | 7/4/98  | 12:53:47 | 0 | 33.139 | -106.527 | 29.355 | -88.405  | 2000 1E | 47 | EF | C7 |
| 5738 | 7/4/98  | 14:33:32 | 3 | 33.141 | -106.498 | 39.110 | -136.282 | 2000 B9 | 37 | EF | C7 |
| 5738 | 7/5/98  | 10:03:05 | 2 | 33.148 | -106.534 | 31.767 | -100.125 | 2000 99 | 37 | EF | C7 |
| 5738 | 7/5/98  | 12:31:35 | 3 | 33.143 | -106.511 | 27.063 | -77.874  | 2000 99 | 37 | EF | C7 |
| 5738 | 7/5/98  | 14:11:36 | 3 | 33.141 | -106.496 | 37.024 | -125.823 | 2000 39 | 27 | EF | C7 |
| 5738 | 7/5/98  | 14:51:21 | 2 | 33.151 | -106.544 | 0.358  | -1.752   | 2000 39 | 27 | EF | C7 |
| 5738 | 7/6/98  | 09:53:16 | B | 33.003 | -106.707 | 30.385 | -94.591  | 2000 8F | 37 | EF | C7 |
| 5738 | 7/6/98  | 11:33:45 | B | 33.078 | -106.471 | 40.609 | -142.888 | 2000 8F | 37 | EF | C7 |
| 5738 | 7/6/98  | 13:52:30 | 1 | 33.138 | -106.487 | 34.924 | -115.467 | 2000 8F | 37 | EF | C7 |
| 5738 | 7/6/98  | 14:27:16 | B | 33.144 | -106.466 | 29.900 | -92.012  | 2000 8F | 37 | EF | C7 |
| 5738 | 7/6/98  | 15:32:31 | 3 | 33.143 | -106.514 | 29.676 | -90.365  | 2000 8F | 17 | EF | C7 |
| 5738 | 7/6/98  | 16:07:46 | A | 33.142 | -106.505 | 40.203 | -140.491 | 2000 8F | 37 | EF | C7 |
| 5738 | 7/7/98  | 09:41:36 | B | 33.093 | -106.576 | 29.424 | -89.456  | 2000 66 | 37 | EA | C7 |
| 5738 | 7/7/98  | 11:22:06 | 2 | 33.143 | -106.499 | 39.581 | -137.503 | 2000 76 | 27 | EF | C7 |
| 5738 | 7/7/98  | 13:28:06 | 1 | 33.153 | -106.566 | 32.786 | -104.738 | 2000 76 | 27 | EF | C7 |
| 5738 | 7/7/98  | 15:08:07 | B | 33.258 | -106.479 | 42.256 | -152.865 | 2000 76 | 27 | EF | C7 |
| 5738 | 7/7/98  | 16:58:22 | B | 33.144 | -106.315 | 38.648 | -132.270 | 2000 76 | 27 | EF | C7 |
| 5738 | 7/8/98  | 04:20:58 | 3 | 33.143 | -106.497 | 26.479 | -137.251 | 2000 9B | 17 | EF | C7 |
| 5738 | 7/8/98  | 09:28:28 | 3 | 33.143 | -106.514 | 28.160 | -84.220  | 2000 9B | 17 | EF | C7 |
| 5738 | 7/8/98  | 11:09:26 | 3 | 33.139 | -106.496 | 38.590 | -131.968 | 2000 33 | 37 | EF | C7 |
| 5738 | 7/9/98  | 04:10:35 | 2 | 33.142 | -106.499 | 27.714 | -131.087 | 2000 0  | 0  | 0  | 0  |
| 5738 | 7/9/98  | 09:19:15 | 3 | 33.143 | -106.512 | 27.193 | -78.861  | 2000 50 | 19 | EF | C7 |
| 5738 | 7/9/98  | 10:59:18 | A | 33.139 | -106.494 | 37.554 | -126.624 | 2000 1B | 29 | EF | C7 |
| 5738 | 7/10/98 | 09:04:45 | B | 33.135 | -106.461 | 25.823 | -73.201  | 2000 8D | 27 | EF | C7 |
| 5738 | 7/10/98 | 10:48:15 | 2 | 33.140 | -106.493 | 36.342 | -121.420 | 2000 8D | 27 | EF | C7 |
| 5738 | 7/10/98 | 12:18:47 | A | 33.139 | -106.502 | 26.160 | -73.687  | 2000 8D | 27 | EF | C7 |
| 5738 | 7/11/98 | 10:38:30 | B | 33.078 | -106.309 | 35.202 | -116.416 | 2000 7D | 29 | EF | C7 |
| 5738 | 7/11/98 | 13:38:45 | A | 33.137 | -106.487 | 33.964 | -110.605 | 2000 3C | 49 | EF | C7 |
| 5738 | 7/12/98 | 10:25:46 | 2 | 33.134 | -106.468 | 34.076 | -110.896 | 2000 F0 | 19 | EF | C7 |
| 5738 | 7/12/98 | 13:18:16 | 1 | 33.146 | -106.522 | 31.850 | -100.099 | 2000 E2 | 19 | EF | C7 |
| 5738 | 7/12/98 | 13:58:01 | 2 | 33.144 | -106.511 | 26.948 | -77.175  | 2000 E2 | 19 | EF | C7 |
| 5738 | 7/13/98 | 14:35:48 | 3 | 33.140 | -106.505 | 39.279 | -137.429 | 2000 DB | 29 | EF | C7 |
| 5738 | 7/13/98 | 15:17:03 | 1 | 33.138 | -106.494 | 34.733 | -114.381 | 2000 DB | 29 | EF | C7 |
| 5738 | 7/13/98 | 15:45:33 | 3 | 33.144 | -106.520 | 30.923 | -96.190  | 2000 F8 | 29 | EF | C7 |
| 5738 | 7/14/98 | 10:04:14 | A | 33.151 | -106.532 | 31.831 | -100.164 | 2000 F7 | 37 | EF | C7 |
| 5738 | 7/14/98 | 12:32:44 | B | 33.098 | -106.503 | 27.569 | -78.985  | 2000 F7 | 37 | EF | C7 |
| 5738 | 7/14/98 | 14:54:00 | 0 | 33.106 | -106.305 | 32.650 | -104.153 | 2000 F7 | 37 | EF | C7 |
| 5738 | 7/14/98 | 15:31:46 | 2 | 33.144 | -106.508 | 29.586 | -90.308  | 2000 F7 | 37 | EF | C7 |
| 5738 | 7/15/98 | 11:34:18 | A | 33.137 | -106.494 | 40.589 | -143.046 | 2000 DB | 27 | EF | C7 |
| 5738 | 7/15/98 | 13:52:18 | 3 | 33.139 | -106.493 | 35.147 | -116.555 | 2000 DB | 27 | EF | C7 |
| 5738 | 7/15/98 | 14:32:48 | 2 | 33.143 | -106.510 | 30.437 | -93.433  | 2000 DB | 27 | EF | C7 |
| 5738 | 7/15/98 | 16:10:34 | A | 33.137 | -106.498 | 40.370 | -141.460 | 2000 DB | 27 | EF | C7 |

|      |                  |   |        |          |        |          |         |    |    |    |
|------|------------------|---|--------|----------|--------|----------|---------|----|----|----|
| 5738 | 7/15/98 17:00:48 | B | 33.242 | -106.456 | 38.630 | -132.229 | 2000 87 | 39 | EF | C7 |
| 5738 | 7/16/98 04:23:37 | A | 33.140 | -106.495 | 26.369 | -137.016 | 2000 0  | 0  | 0  | 0  |
| 5738 | 7/16/98 09:39:38 | 3 | 33.142 | -106.514 | 29.443 | -89.705  | 2000 D7 | 27 | EF | C7 |
| 5738 | 7/16/98 11:23:30 | A | 33.142 | -106.497 | 39.521 | -137.712 | 2000 D7 | 27 | EF | C7 |
| 5738 | 7/17/98 11:08:36 | A | 33.141 | -106.502 | 38.733 | -132.427 | 2000 4C | 37 | EF | C7 |
| 5738 | 7/17/98 13:04:26 | B | 33.143 | -106.607 | 30.511 | -94.964  | 2000 2D | 47 | EF | C7 |
| 5738 | 7/18/98 10:59:55 | A | 33.141 | -106.496 | 37.451 | -126.822 | 2000 21 | 37 | EF | C7 |
| 5738 | 7/18/98 14:22:36 | A | 33.145 | -106.499 | 38.597 | -133.003 | 2000 E0 | 37 | EF | C7 |
| 5738 | 7/19/98 10:47:21 | A | 33.139 | -106.491 | 36.388 | -121.571 | 2000 2A | 27 | EF | C7 |
| 5738 | 7/19/98 14:02:08 | 3 | 33.143 | -106.498 | 36.382 | -122.340 | 2000 83 | 37 | EF | C7 |
| 5738 | 7/19/98 14:44:08 | 1 | 33.144 | -106.514 | 31.629 | -99.208  | 2000 2A | 27 | EF | C7 |
| 5738 | 7/20/98 10:37:57 | 2 | 33.138 | -106.483 | 35.186 | -116.218 | 2000 5  | 37 | EF | C7 |
| 5738 | 7/20/98 13:40:56 | 1 | 33.142 | -106.494 | 34.229 | -111.668 | 2000 5  | 37 | EF | C7 |
| 5738 | 7/20/98 14:20:41 | 3 | 33.146 | -106.509 | 29.366 | -88.909  | 2000 5  | 37 | EF | C7 |
| 5738 | 7/20/98 15:57:13 | 3 | 33.149 | -106.539 | 32.193 | -102.148 | 2000 C9 | 27 | EF | C7 |
| 5738 | 7/20/98 15:59:28 | B | 33.147 | -106.498 | 39.364 | -135.908 | 2000 C9 | 27 | EF | C7 |
| 5738 | 7/21/98 10:25:55 | 1 | 33.133 | -106.465 | 34.115 | -111.027 | 2000 3A | 29 | EF | C7 |
| 5738 | 7/21/98 13:17:39 | 3 | 33.145 | -106.529 | 0.102  | -0.529   | 2000 3A | 29 | EF | C7 |
| 5738 | 7/21/98 15:38:34 | 3 | 33.140 | -106.494 | 37.277 | -126.127 | 2000 E5 | 47 | EF | C7 |
| 5738 | 7/21/98 15:45:19 | A | 33.144 | -106.524 | 30.865 | -96.191  | 2000 E5 | 47 | EF | C7 |
| 5738 | 7/22/98 10:15:16 | 0 | 33.193 | -106.789 | 32.892 | -105.385 | 2000 38 | 27 | EF | C7 |
| 5738 | 7/23/98 10:03:01 | 2 | 33.145 | -106.531 | 31.787 | -100.368 | 2000 C3 | 37 | EF | C7 |
| 5738 | 7/23/98 23:54:44 | A | 33.143 | -106.517 | 38.321 | -81.306  | 2000 6A | 37 | EF | C7 |
| 5738 | 7/24/98 01:32:58 | 3 | 33.143 | -106.493 | 28.370 | -129.377 | 2000 6A | 37 | EF | C7 |
| 5738 | 7/24/98 02:44:13 | A | 33.138 | -106.515 | 36.953 | -88.880  | 2000 6A | 37 | EF | C7 |
| 5738 | 7/24/98 13:51:02 | 2 | 33.144 | -106.494 | 35.438 | -117.629 | 2000 0  | 0  | 0  | 0  |
| 5738 | 7/24/98 14:33:19 | 1 | 33.142 | -106.508 | 30.650 | -94.312  | 2000 0  | 0  | 0  | 0  |
| 5738 | 7/24/98 16:48:17 | 3 | 33.143 | -106.499 | 37.304 | -125.979 | 2000 0  | 0  | 0  | 0  |
| 5738 | 7/25/98 01:11:03 | 3 | 33.144 | -106.493 | 30.584 | -118.926 | 2000 0E | 19 | EF | C7 |
| 5738 | 7/25/98 01:53:03 | 3 | 33.139 | -106.521 | -0.147 | -0.970   | 2000 0E | 19 | EF | C7 |
| 5738 | 7/25/98 03:29:48 | B | 33.155 | -106.530 | 25.399 | -144.060 | 2000 0E | 19 | EF | C7 |
| 5738 | 7/25/98 14:13:50 | B | 33.175 | -106.476 | 28.510 | -83.992  | 2000 74 | 17 | EF | C7 |
| 5738 | 7/25/98 15:51:20 | A | 33.140 | -106.501 | 38.411 | -131.905 | 2000 74 | 17 | EF | C7 |
| 5738 | 7/26/98 15:30:07 | 1 | 33.143 | -106.505 | 36.182 | -121.195 | 2000 0  | 0  | 0  | 0  |
| 5738 | 7/26/98 16:24:15 | 3 | 33.138 | -106.491 | 34.743 | -113.998 | 2000 0  | 0  | 0  | 0  |
| 5738 | 7/26/98 20:55:47 | 2 | 33.136 | -106.515 | 36.861 | -89.273  | 2000 0  | 0  | 0  | 0  |
| 5738 | 7/27/98 02:06:42 | B | 33.181 | -106.622 | 40.600 | -70.951  | 2000 0  | 0  | 0  | 0  |
| 5738 | 7/27/98 02:45:51 | A | 33.146 | -106.505 | 29.783 | -122.970 | 2000 9C | 27 | EF | C7 |
| 5738 | 7/27/98 20:46:13 | A | 33.241 | -106.207 | 38.010 | -84.038  | 2000 D8 | 37 | EF | C7 |
| 5738 | 7/27/98 22:24:44 | 3 | 33.143 | -106.497 | 27.528 | -131.977 | 2000 D8 | 37 | EF | C7 |
| 5738 | 7/28/98 03:34:22 | 1 | 33.154 | -106.456 | 31.753 | -113.025 | 2000 0  | 0  | 0  | 0  |
| 5738 | 7/28/98 10:48:08 | 2 | 33.138 | -106.492 | 36.408 | -121.618 | 2000 C3 | 27 | EF | C7 |
| 5738 | 7/29/98 10:37:10 | 3 | 33.137 | -106.486 | 35.248 | -116.310 | 2000 0  | 0  | 0  | 0  |
| 5738 | 7/30/98 10:26:38 | 1 | 33.133 | -106.467 | 34.121 | -110.982 | 2000 DE | 19 | EF | C7 |
| 5738 | 7/31/98 10:16:02 | 1 | 33.173 | -106.651 | 32.918 | -105.468 | 2000 66 | 37 | EF | C7 |
| 5738 | 8/1/98 10:04:02  | 3 | 33.147 | -106.530 | 31.803 | -100.347 | 2000 BE | 29 | EF | C7 |
| 5738 | 8/1/98 12:35:07  | B | 33.111 | -106.458 | 27.922 | -81.264  | 2000 61 | 27 | EF | C7 |
| 5738 | 8/1/98 14:15:37  | 3 | 33.143 | -106.499 | 37.760 | -129.152 | 2000 BE | 29 | EF | C7 |
| 5738 | 8/2/98 09:52:00  | 2 | 33.145 | -106.520 | 30.673 | -95.206  | 2000 56 | 19 | EF | C7 |
| 5738 | 8/2/98 11:36:15  | 2 | 33.138 | -106.498 | 40.639 | -143.060 | 2000 56 | 19 | EF | C7 |
| 5738 | 8/2/98 12:13:00  | A | 33.145 | -106.508 | 25.594 | -71.027  | 2000 56 | 19 | EF | C7 |
| 5738 | 8/2/98 14:35:11  | 3 | 33.145 | -106.517 | 30.823 | -95.554  | 2000 56 | 19 | EF | C7 |
| 5738 | 8/2/98 14:54:41  | B | 33.167 | -106.510 | 25.635 | -71.548  | 2000 56 | 19 | EF | C7 |
| 5738 | 8/3/98 01:56:15  | 2 | 33.134 | -106.525 | 35.077 | -97.265  | 2000 D8 | 19 | EF | C7 |
| 5738 | 8/3/98 02:21:00  | B | 33.137 | -106.345 | 39.237 | -77.532  | 2000 D8 | 19 | EF | C7 |
| 5738 | 8/3/98 04:00:45  | A | 33.141 | -106.493 | 29.085 | -124.561 | 2000 D8 | 19 | EF | C7 |
| 5738 | 8/3/98 09:40:30  | B | 33.159 | -106.237 | 29.278 | -89.479  | 2000 D8 | 19 | EF | C7 |
| 5738 | 8/3/98 15:54:49  | B | 33.169 | -106.486 | 38.364 | -132.644 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/3/98 16:23:44  | 2 | 33.138 | -106.481 | 34.725 | -113.841 | 2000 0  | 0  | 0  | 0  |

|      |                  |   |        |          |        |          |         |    |    |    |
|------|------------------|---|--------|----------|--------|----------|---------|----|----|----|
| 5738 | 8/3/98 21:07:53  | 3 | 33.139 | -106.519 | 35.689 | -94.741  | 2000 0  | 1  | 8  | 1  |
| 5738 | 8/4/98 03:13:21  | 1 | 33.141 | -106.471 | 27.145 | -134.659 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/4/98 03:48:13  | 2 | 33.143 | -106.488 | 30.462 | -118.703 | 2000 8  | 8  | 0  | 0  |
| 5738 | 8/4/98 09:29:27  | A | 33.144 | -106.514 | 28.343 | -84.691  | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/4/98 15:33:28  | A | 33.132 | -106.478 | 36.398 | -122.220 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/4/98 16:11:18  | 0 | 33.141 | -106.487 | 33.420 | -107.778 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/4/98 20:56:50  | 3 | 33.137 | -106.516 | 36.838 | -89.392  | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/4/98 22:34:24  | 2 | 33.150 | -106.488 | 26.539 | -137.413 | 2000 EB | 37 | EF | C7 |
| 5738 | 8/5/98 10:59:52  | 3 | 33.140 | -106.496 | 37.579 | -127.068 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/5/98 17:39:38  | B | 33.357 | -106.329 | 42.291 | -149.913 | 2000 35 | 39 | EF | C7 |
| 5738 | 8/5/98 20:44:52  | 2 | 33.140 | -106.510 | 37.938 | -84.129  | 2000 35 | 39 | EF | C7 |
| 5738 | 8/5/98 22:25:54  | B | 33.124 | -106.459 | 27.565 | -132.304 | 2000 35 | 39 | EF | C7 |
| 5738 | 8/6/98 00:07:54  | 2 | 33.131 | -106.510 | 36.900 | -88.371  | 2000 35 | 39 | EF | C7 |
| 5738 | 8/6/98 09:07:21  | B | 33.026 | -106.060 | 25.876 | -73.721  | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/6/98 10:49:42  | A | 33.139 | -106.494 | 36.444 | -121.740 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/6/98 20:34:00  | B | 33.075 | -106.169 | 38.736 | -79.158  | 2000 DA | 29 | EF | C7 |
| 5738 | 8/6/98 22:12:15  | A | 33.145 | -106.498 | 28.857 | -126.700 | 2000 DA | 29 | EF | C7 |
| 5738 | 8/6/98 23:44:33  | A | 33.137 | -106.509 | 39.015 | -78.026  | 2000 F2 | 29 | EF | C7 |
| 5738 | 8/7/98 10:37:46  | 3 | 33.138 | -106.490 | 35.280 | -116.394 | 2000 OD | 37 | EF | C7 |
| 5738 | 8/7/98 13:43:19  | 2 | 33.141 | -106.489 | 34.705 | -113.994 | 2000 OD | 37 | EF | C7 |
| 5738 | 8/8/98 13:20:09  | 0 | 33.152 | -106.534 | 32.521 | -103.491 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/8/98 14:01:41  | A | 33.145 | -106.516 | 27.589 | -80.633  | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/9/98 10:14:52  | 0 | 33.172 | -106.649 | 32.975 | -105.734 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/9/98 12:57:18  | A | 33.143 | -106.509 | 30.404 | -93.239  | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/9/98 14:38:59  | 2 | 33.143 | -106.505 | 40.108 | -140.864 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/10/98 02:33:22 | 0 | 33.122 | -106.555 | 38.297 | -82.619  | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/10/98 02:40:47 | A | 33.163 | -106.479 | 30.509 | -119.342 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/10/98 04:12:45 | 3 | 33.143 | -106.493 | 27.864 | -130.588 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/10/98 10:05:07 | 3 | 33.147 | -106.530 | 31.808 | -100.362 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/10/98 15:00:10 | 0 | 33.081 | -106.226 | 33.311 | -107.331 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/10/98 16:35:51 | 2 | 33.136 | -106.494 | 36.031 | -119.839 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/10/98 19:48:40 | B | 33.121 | -106.497 | 43.113 | -57.239  | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/10/98 21:29:33 | 0 | 33.108 | -106.663 | 33.391 | -105.345 | 2000 6D | 19 | EF | C7 |
| 5738 | 8/11/98 03:58:01 | 1 | 33.155 | -106.495 | 29.325 | -124.527 | 2000 OC | 19 | EF | C7 |
| 5738 | 8/11/98 11:34:03 | A | 33.144 | -106.495 | 40.977 | -143.210 | 2000 OC | 19 | EF | C7 |
| 5738 | 8/11/98 21:19:37 | 1 | 33.134 | -106.535 | 34.531 | -100.081 | 2000 5F | 27 | EF | C7 |
| 5738 | 8/11/98 23:36:39 | B | 33.111 | -106.597 | 39.878 | -73.774  | 2000 25 | 35 | EF | C7 |
| 5738 | 8/12/98 09:42:25 | 2 | 33.143 | -106.516 | 29.470 | -89.801  | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/12/98 11:23:40 | 2 | 33.139 | -106.497 | 39.775 | -137.649 | 2000 24 | 25 | EF | C7 |
| 5738 | 8/12/98 21:08:26 | 3 | 33.138 | -106.519 | 35.682 | -94.752  | 2000 10 | 35 | EF | C7 |
| 5738 | 8/12/98 22:45:11 | B | 33.151 | -106.513 | 25.418 | -142.738 | 2000 10 | 35 | EF | C7 |
| 5738 | 8/13/98 00:52:44 | 1 | 33.149 | -106.460 | 32.300 | -110.560 | 2000 10 | 35 | EF | C7 |
| 5738 | 8/13/98 01:35:29 | 3 | 33.139 | -106.515 | 37.044 | -87.848  | 2000 5F | 29 | EF | C7 |
| 5738 | 8/13/98 11:13:20 | 3 | 33.140 | -106.497 | 38.603 | -132.229 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/13/98 13:11:20 | 3 | 33.146 | -106.521 | 31.534 | -98.702  | 2000 10 | 0  | 0  | 0  |
| 5738 | 8/13/98 13:54:21 | A | 33.146 | -106.511 | 26.586 | -75.532  | 2000 0  | 4  | A5 | 29 |
| 5738 | 8/13/98 20:56:31 | 3 | 33.139 | -106.515 | 36.795 | -89.447  | 2000 23 | 49 | EF | C7 |
| 5738 | 8/13/98 22:34:46 | A | 33.139 | -106.492 | 26.580 | -137.379 | 2000 23 | 49 | EF | C7 |
| 5738 | 8/14/98 00:28:45 | 2 | 33.136 | -106.535 | 34.445 | -100.031 | 2000 23 | 49 | EF | C7 |
| 5738 | 8/14/98 01:14:16 | B | 33.137 | -106.550 | 39.054 | -77.442  | 2000 A6 | 29 | EF | C7 |
| 5738 | 8/14/98 11:02:54 | 3 | 33.140 | -106.495 | 37.458 | -126.964 | 2000 D3 | 19 | EF | C7 |
| 5738 | 8/14/98 12:50:54 | A | 33.141 | -106.513 | 29.475 | -88.175  | 2000 D3 | 19 | EF | C7 |
| 5738 | 8/14/98 14:29:31 | A | 33.143 | -106.507 | 39.171 | -135.895 | 2000 C5 | 37 | EF | C8 |
| 5738 | 8/14/98 15:10:45 | 3 | 33.136 | -106.484 | 34.487 | -112.914 | 2000 C5 | 37 | EF | C8 |
| 5738 | 8/14/98 20:46:11 | A | 33.143 | -106.523 | 37.989 | -83.993  | 2000 2C | 37 | EF | C7 |
| 5738 | 8/15/98 00:06:25 | B | 33.016 | -106.650 | 36.484 | -89.318  | 2000 2C | 37 | EF | C7 |
| 5738 | 8/15/98 02:28:19 | 2 | 33.149 | -106.488 | 31.519 | -114.491 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/15/98 03:11:16 | 2 | 33.135 | -106.529 | 34.458 | -100.448 | 2000 0  | 0  | 0  | 0  |
| 5738 | 8/15/98 10:53:32 | A | 33.142 | -106.495 | 36.313 | -121.802 | 2000 59 | 19 | EF | C7 |

|      |         |          |   |        |          |        |          |      |    |    |       |
|------|---------|----------|---|--------|----------|--------|----------|------|----|----|-------|
| 5738 | 8/15/98 | 17:15:56 | 1 | 33.152 | -106.525 | 39.679 | -137.467 | 2000 | 0  | 0  | 0     |
| 5738 | 8/15/98 | 22:12:17 | 1 | 33.148 | -106.497 | 28.853 | -126.754 | 2000 | 0  | 0  | 0     |
| 5738 | 8/15/98 | 23:47:13 | A | 33.140 | -106.506 | 38.795 | -78.890  | 2000 | 0  | 0  | 0     |
| 5738 | 8/16/98 | 01:25:12 | 1 | 33.145 | -106.488 | 28.933 | -126.951 | 2000 | 0  | 0  | 0     |
| 5738 | 8/16/98 | 10:39:47 | 3 | 33.138 | -106.487 | 35.257 | -116.360 | 2000 | F6 | 37 | EF C7 |
| 5738 | 8/16/98 | 13:45:17 | 3 | 33.140 | -106.487 | 34.871 | -115.038 | 2000 | 2B | 39 | EF C7 |
| 5738 | 8/16/98 | 14:27:17 | A | 33.150 | -106.527 | 30.063 | -91.963  | 2000 | 2B | 39 | EF C7 |
| 5738 | 8/17/98 | 01:05:18 | 2 | 33.143 | -106.485 | 31.092 | -116.308 | 2000 | 0  | 0  | 0     |
| 5738 | 8/17/98 | 01:46:51 | 1 | 33.136 | -106.527 | 35.806 | -93.581  | 2000 | 8B | 37 | EF C7 |
| 5738 | 8/17/98 | 02:47:36 | A | 33.138 | -106.509 | 37.075 | -88.264  | 2000 | 8B | 37 | EF C7 |
| 5738 | 8/17/98 | 03:24:21 | B | 33.204 | -106.759 | 26.102 | -141.144 | 2000 | 8B | 37 | EF C7 |
| 5738 | 8/17/98 | 04:24:21 | B | 33.253 | -106.654 | 26.888 | -136.306 | 2000 | 8B | 37 | EF C7 |
| 5738 | 8/17/98 | 15:46:58 | 3 | 33.141 | -106.498 | 37.752 | -128.972 | 2000 | 0  | 0  | 0     |
| 5738 | 8/17/98 | 16:50:00 | 2 | 33.142 | -106.501 | 37.206 | -125.489 | 2000 | 0  | 0  | 0     |
| 5738 | 8/17/98 | 21:48:14 | B | 33.356 | -106.026 | 31.143 | -116.958 | 2000 | 0  | 0  | 0     |
| 5738 | 8/18/98 | 02:34:23 | B | 33.145 | -106.402 | 38.182 | -82.920  | 2000 | 0  | 0  | 0     |
| 5738 | 8/18/98 | 03:04:03 | 0 | 33.136 | -106.472 | 28.073 | -130.846 | 2000 | 0  | 7  | F8 3  |
| 5738 | 8/19/98 | 02:41:34 | A | 33.144 | -106.493 | 30.328 | -120.258 | 2000 | 0  | 0  | 0     |
| 5738 | 8/19/98 | 02:41:34 | A | 33.144 | -106.493 | 30.328 | -120.258 | 2000 | 0  | 0  | 0     |
| 5738 | 8/19/98 | 03:58:25 | 2 | 33.146 | -106.493 | 29.342 | -124.380 | 2000 | 0  | 0  | 0     |
| 5738 | 8/19/98 | 03:58:25 | 2 | 33.146 | -106.493 | 29.342 | -124.380 | 2000 | 0  | 0  | 0     |
| 5738 | 8/19/98 | 10:06:22 | 3 | 33.147 | -106.533 | 31.815 | -100.372 | 2000 | 0  | 0  | 0     |
| 5738 | 8/19/98 | 10:06:22 | 3 | 33.147 | -106.533 | 31.815 | -100.372 | 2000 | 0  | 0  | 0     |
| 5738 | 8/20/98 | 03:49:14 | 3 | 33.143 | -106.489 | 30.547 | -118.316 | 2000 | 0  | 0  | 0     |
| 5738 | 8/20/98 | 03:49:14 | 3 | 33.143 | -106.489 | 30.547 | -118.316 | 2000 | 0  | 0  | 0     |
| 5738 | 8/20/98 | 13:57:43 | A | 33.146 | -106.501 | 36.075 | -120.818 | 2000 | 0  | 0  | 0     |
| 5738 | 8/20/98 | 13:57:43 | A | 33.146 | -106.501 | 36.075 | -120.818 | 2000 | 0  | 0  | 0     |
| 5738 | 8/20/98 | 16:13:10 | 1 | 33.119 | -106.398 | 33.374 | -107.567 | 2000 | 0  | 0  | 0     |
| 5738 | 8/20/98 | 16:13:10 | 1 | 33.119 | -106.398 | 33.374 | -107.567 | 2000 | 0  | 0  | 0     |
| 5738 | 8/20/98 | 21:18:49 | 2 | 33.137 | -106.531 | 34.503 | -100.157 | 2000 | 0  | 0  | 0     |
| 5738 | 8/20/98 | 21:18:49 | 2 | 33.137 | -106.531 | 34.503 | -100.157 | 2000 | 0  | 0  | 0     |
| 5738 | 8/21/98 | 03:34:53 | B | 33.225 | -106.659 | 32.026 | -112.261 | 2000 | 0  | 0  | 0     |
| 5738 | 8/21/98 | 16:01:24 | B | 33.128 | -106.555 | 32.048 | -101.498 | 2000 | 0  | 0  | 0     |