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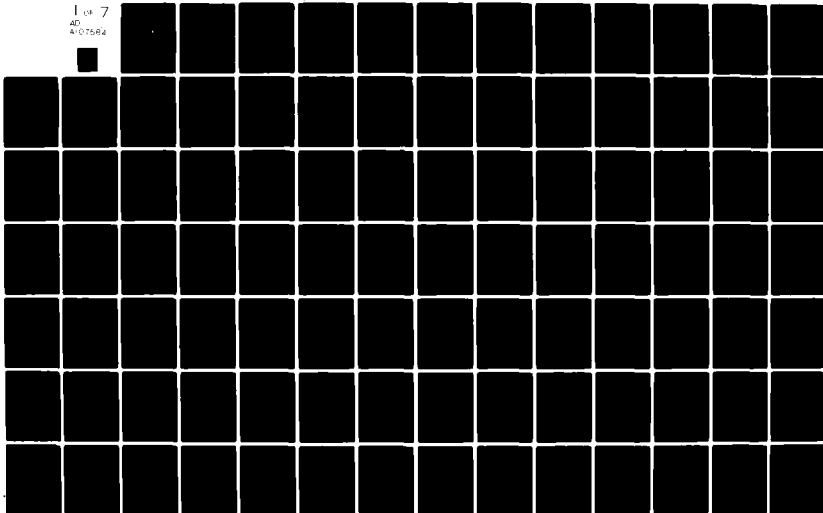
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APPLICATION OF ACOUSTIC SIGNAL
PROCESSING TECHNIQUES TO SEISMIC DATA

by

Cynthia E. Irvine

June 1977

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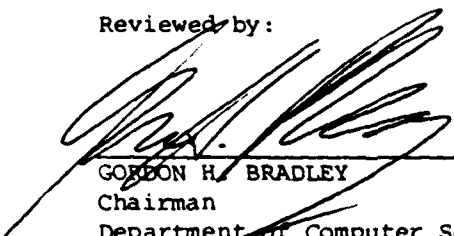
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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER NPS-52Ir77061	2. GOVT ACCESSION NO. AD-A267	3. RECIPIENT'S CATALOG NUMBER 584
4. TITLE (and Subtitle) Application of Acoustic Signal Processing Techniques to Seismic Data		5. TYPE OF REPORT & PERIOD COVERED Technical Report
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Cynthia E. Irvine		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Postgraduate School Monterey, CA 93940		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS Agreement NO. AC7NA306
11. CONTROLLING OFFICE NAME AND ADDRESS U. S. Arms Control and Disarmament Agency Washington, D. C.		12. REPORT DATE 30 June 1977
		13. NUMBER OF PAGES 608
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) signal processing, seismology, detection, discrimination		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) In order to obtain an effective discriminant between earthquakes and explosions, techniques which originally had been developed for acoustic signal processing have been applied to seismic data. These techniques include Fourier analysis and related applications software as well as interactive graphics displays of the data. A numeric has been obtained which may provide a useful discriminant between earthquakes and explosions.		

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20. (cont)

In conjunction with this investigation, a large amount of seismic data has been consolidated. These data are discussed.

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Application of Acoustic Signal Processing Techniques
to
Seismic Data

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Application of Acoustic Signal Processing Techniques
to
Seismic Data

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Abstract

In order to obtain an effective discriminant between earthquakes and explosions, techniques which originally had been developed for acoustic signal processing have been applied to seismic data. These techniques include Fourier analysis and related applications software as well as interactive graphics displays of the data. A numeric has been obtained which may provide a useful discriminant between earthquakes and explosions.

In conjunction with this investigation, a large amount of seismic data has been consolidated. These data are discussed.

Keywords: signal processing, seismology, detection, discrimination

I. Motivation

An effective system used to monitor nuclear testing by all members of the world community is a prerequisite to obtaining a meaningful treaty to either limit or ban nuclear testing. Clearly, unrestricted on-site inspection by an unbiased group of observers provides a most effective way of assessing the activities of all parties involved. Regrettably, the competitive aspect of human nature may render this method of investigation useless and reliable alternative techniques must be found to monitor clandestine nuclear testing.

The measurement of the density of certain radioactive materials in the atmosphere has been used as an indicator of nuclear test activity. Atmospheric testing or leakage from underground tests can cause a detectable increase in the atmospheric abundance of radioactive waste products. By following the movement of these radioactive clouds, it is possible to localize their origin. Atmospheric evidence will be nugatory when an underground test is completely contained.

Cratering, a by-product of surface testing or the subsidence of chimneys produced in underground tests, may be visible on some satellite photographs. However, cratering can be caused by natural processes and by various non-nuclear man-made projects or it can go undetected.

The detection of seismic signals caused by explosions

provides yet another means of monitoring nuclear test activities. Not all seismic signals resulting from explosions can be detected. Seismic signals are detectable from both subterranean and surface explosions. The Baker test in the Bikini atoll in July 1946 was fired underwater. Detectors in California recorded the event. The transfer of energy from surface tests to seismic waves is only partial (Richter 1958). Some explosions are too small to be detected and others are indistinguishable from natural seismic events such as small earthquakes or rockslides.

This report presents the results of a program to improve the reliability of the seismic detection of nuclear explosions. A seismic monitoring system for explosions must satisfy three objectives: first, each event must be detected above random noise; second, it must be located; and, finally, it must be distinguished from naturally occurring seismic activity.

II. Review

Consider some of the facts known about earthquakes and explosions and their detection at teleseismic distances.

Seismic events are characterized by a variety of waves emanating from their foci. The three most powerful and best known of these waves will be reviewed.

The first signals from a seismic event to arrive at a distant detector are the undae primae or P waves. Vibrating in the direction of propagation, these longitudinal or "compressional" waves are able to penetrate the earth's crust, mantle, and liquid core.

Undae secundae, S waves, propagate at a lower speed than P waves. They cause transverse or "shear" motion in the surrounding medium; in other words, they set up oscillations perpendicular to their direction of propagation. Because of their transverse nature, S waves are unable to propagate through liquids and do not penetrate the earth's core.

The third type of seismic wave has been given the name surface wave because it travels along the surface of the earth rather than deep in its interior. They are guided waves following a channel between two discontinuities one of which is the earth's surface. The other is the Mohorovicic discontinuity. It delimits the base of the continental crust and is a point where S and P waves undergo dramatic

velocity changes due to a transition in the elastic properties of the medium.

It is necessary to point out that not all types of seismic waves are seen with the same relative strengths for all types of seismic events. Typical earthquakes are caused by slipping or "shearing" along a fault. Thus the S or "shear" waves resulting from an earthquake are quite strong. The situation for explosions is quite different. They are essentially point source impacts and show a marked reduction in strength of the S waves relative to the P waves. In addition, surface waves from explosions are often imperceptible. The ratio of P wave energy to S wave energy or the ratio of compressional waves to surface waves can provide an indication of the properties of the generating event (Leet 1962; Lacos 1969). Unfortunately, the relative amplitudes of the different types of waves do not yield a foolproof discriminant between earthquakes and explosions. A large explosion near the earth's surface may cause strains which will produce S waves. Also, since the amplitude of surface waves is proportional to $\exp(-H)$, where H is depth, many deep focus earthquakes show no surface waves.

The detection of an event will depend upon the amplitude of the signal received by the seismometer. If the signal is small and the detector insensitive, then, without the proper use of signal processing techniques, the event may pass unnoticed. It is possible that the detector has not been "tuned" to the dominant frequency of the signal, or that the

detector and subsequent processing filter out useful information at certain frequencies. For small events, the balance will be weighted against detection.

The amplitude of the signal received is proportional to the energy or yield of the event. However, the correlation is not exact since there is a strong dependence of the amplitude of the seismic signal upon the type of material in which the event originates. Consider alluvium, an example of which is the material deposited in river beds. Ten times the explosive energy will be required by an event occurring in alluvium to produce the same effect at the detector as an event occurring in granite (Hollard 1961). Since the signal can also be attenuated by the material in which the seismometer is embedded, its location at a geologically favorable site enhances the likelihood of detecting small events.

Another factor influencing the detection of seismic signals is background noise. This can be quite significant in heavily populated areas, where trucks, trains, construction and many other aspects of human activity pump noise into the ground. Isolated areas are by no means all free of high levels of background noise. The pounding of the surf in coastal areas or the transmission of wind energy into the ground by forests can also introduce significant amounts of background noise. Many sources of microseismic noise appear to be unavoidable. The evidence suggest that large weather systems cause an increase in microseismic noise.

To minimize both noise and attenuation, detectors are best located toward the centers of continents, often in regions of granite. LISA, the Large Aperture Seismic Array, located near Billings, Montana, is a good example of a modern seismic detection system. Instead of merely one seismometer, it consists of 21 clusters or subarrays each containing 25 seismometers. Its diameter is 200 kilometers. Each seismometer is buried approximately 61 meters underground to minimize the effects of surface noise. Presently only 13 of the subarrays are in use. Because it is so large, it takes a measurable time for signals from many Eurasian sites to traverse the LISA array. It is possible to calculate time shifts in the data received at each seismometer so that the entire array appears to be "steered" in a particular direction.

Discrimination of explosions from earthquakes can usually be accomplished by a combination of the four methods discussed below.

A. Location of the event

The velocity of seismic waves through the earth is finite; therefore, a more distant seismometer will receive the signal from an event after a nearer one. With data from several seismometers or seismic arrays scattered about the earth, triangulation methods can be used to locate an event. Inaccuracies in location are contributed to primarily by local irregularities in seismic velocities caused by

variations in conditions of the earth's upper crust and mantle. Each detector may be located in geologically dissimilar regions and the rocks beneath the event itself may have different propagation velocities in different directions.

Not all regions of the earth have the same seismicity. The "ring of fire" or circum-Pacific belt defines a very active region. Hardly a year passes without an earthquake or volcano wreaking havoc in one of the many countries fronting on the Pacific. Other regions are seismically inactive and include the Canadian shield, the Brazilian shield, western Australia, the Angara shield of northern Asia, and most of Africa. (Dott and Fatten 1976). An event located in one of these stable areas must be suspected of being an explosion. Of course, location alone is insufficient to determine the nature of the event, but, when combined with other data, it often provides strong circumstantial evidence for discrimination.

b. Complexity of the signal

Explosions are basically simple events. A force emanating from the explosion's focus impacts upon the surrounding medium causing the propagation of seismic energy through the earth. Their spatial and temporal locations can be well defined. On the other hand, earthquakes are rather complex. The event occurs along a fault which may be many kilometers in length and is not instantaneous at every point along the

fault.

The complexity of the signal received at the seismometer is often an indication of the genre of the original event. An explosion usually has a very simple signature while those of earthquakes are much more complex. This method is not foolproof. A nebulous zone of simple earthquakes and relatively complex explosions clouds discrimination.

C. Depth

Depth also provides a means of distinguishing the two types of events. The deepest earthquakes occur 750 kilometers beneath the earth's surface and about 30 percent of all earthquakes take place at depths below 50 kilometers. It would be impractical if not impossible to drill holes of that depth in which to place explosive charges. Unfortunately, depths for shallower earthquakes sometimes cannot be determined with the accuracy necessary to enable their discrimination from explosions.

D. Relative strengths of S, P, and surface waves

As mentioned previously, the S and surface waves are not strong in explosions and thus there is a third criterion by which earthquakes and explosions can be distinguished. This too is an imperfect method, particularly when working at or near the limits of the detectors. S and surface waves can be buried in noise and earthquakes may be indistinguishable from explosions. Several methods have been postulated which

can be used to evade or obfuscate detection of nuclear testing. One technique used to diminish the apparent amplitude of an explosion is to set the charge off in a large cavity. As in the case of a surface test, less energy is transmitted to the ground. By setting several explosions off along a line and in a well timed sequence, it is possible to increase the complexity of the signal received sufficiently to make it appear like an earthquake.

In this paper a possible new method for distinguishing explosions from earthquakes will be presented. It does not depend upon depth, the detection of S or surface waves, or the appearance of the P waves in the time domain. Through examination of the P wave signatures in the frequency domain it has been shown that the energies delivered in certain frequency intervals differ for earthquakes and explosions. By taking advantage of these differences, a numerical discriminant was developed.

The report includes a discussion of the data received, its value as a large collection of seismic events, and questions regarding its integrity.

III. Equipment

The Computer Laboratory of the Naval Postgraduate School is designed to provide the equipment necessary to conduct research in the areas of digital signal processing and computer science. A number of computers within this laboratory were used for this project.

A. Adage AGT-10

Designed for interactive graphics display, the Adage AGT-10 system consists of a display screen which is refreshed 40 times per second, a main computer with 16K of memory, a disk drive for additional storage, and a teletype. A set of 16 function switches, a joystick, six control dials, a lightpen, and foot pedals allow a variety of user interactions. Its 30 bit word length and well designed programming language make program execution rapid. Thus there is little perceptible delay between an interactive command and its product on the screen.

With an interface to the SDS 9300, it is possible to obtain interactive graphics display of large signal processing programs.

B. SDS 9300

The Scientific Data Systems SDS 9300, is a medium sized second generation computer. It was the nucleus for the majority of the signal processing done for this research. It has a 1.75 microsecond cycle time, 24 bit words, and 32K of

memory. Included among its peripherals are: two seven-track tape drives, a card reader, a line printer, a drum for mass storage, and a teletype. This computer is interfaced to the Adage AGT-10, the CSP-125, and the Comcor CI-5000, all of which were used.

Languages available to SDS 9300 users are FORTRAN and an assembly language called Metasymbol. Because of its many interfaces, a variety of FORTRAN callable subroutines is available for intercomputer communications.

C. CSP-125

The CSP Incorporated CSP-125 is a 16 bit digital computer with a cycle time of one hundred nanoseconds. It is designed to rapidly perform the calculations necessary for signal processing of massive quantities of data. Of its 16K of memory, 4K consists of logically equivalent IC and core memory. Through its interface with the SDS 9300, the CSP-125 can be sent time data. The transform is computed in the CSP-125 and the spectrum is delivered to the SDS 9300.

The CSP-125 has the capability of doing transforms either through software or its hardware box. Due to scaling problems, the latter has not been used extensively.

D. Comcor CI-5000

A hands-on analog computer is available to users of the laboratory facilities in the form of the Comcor CI-5000. Programming is done on patchboards. The use of the CI-5000

in this research was quite limited and very simple. By using its interface with the SDS 9300, chart recordings of the digitized time data were obtained.

E. PDP 11/50

The PDP 11/50 is a state of the art fourth generation 16 bit digital computer built by the Digital Equipment Company. The system at the Naval Postgraduate School is more complex than that found at other installations since two PDP 11/50's share a section of common memory and access three 80 megabyte disc drives through a dual port controller. The UNIX timesharing system developed at Bell Laboratories is currently being used. Because these computers have been subjected to extensive on-going system development, they did not provide a secure environment in which to undertake a project involving a large data base.

One of the peripheral devices to the PDP 11/50 system is the Versatec Printer/Plotter. It was ideal for obtaining hardcopy of the graphics displays of the AGT-10. The necessary software was written so that an output tape from the SDS 9300 could be mounted on the PDP 11/50 and the display data plotted with the Versatec.

IV. Software

A series of computer programs was written or modified to allow a large data sample to be analyzed. In this section a brief description of this software is given. For more details about each program, the reader is referred to Appendix A.

A. READDATA

This program was written to transcribe the RCD data tape provided by ACDA into a more compact binary form which was also compatible with existing signal processing and display programs.

A standard header record was designed and all signal processing programs were written or modified to conform to the universal header record.

a. DSO

Designed to display the unprocessed seismic waveforms, the Digitally Simulated Oscilloscope or DSO program takes full advantage of the interactive features of the SDS 4300/AGT graphics system. With the capability of handling up to ten seismograms simultaneously, its options are selected by using the function switches on the AGT-10 and include: panelist, timesweep, amplitude scaling, trigger, variable timebase, and spotlight.

C. DXD

Essentially the same as DSU except for changes in the input parameters and data, the Digital Transform Display or DXD allows the simultaneous display of as many as ten transforms. Transforms are read into the computer and stored on the drum. It is then possible to sweep in any direction through the transforms either in frequency or in time.

Its options are similar to those of DSU and include: namelist, frequency sweep, timesweep, amplitude scaling, trigger, variable frequency resolution, and spotlight.

D. NIFTY

Written to facilitate the handling of the numerous magnetic tapes involved in the project, NIFTY consists of tightly coded assembly language subroutines covering all aspects of tape manipulation. A master program, written in FORTRAN, may be compiled with the subroutines for stand-alone or overlay use or the subroutines can be used in conjunction with arbitrary programs.

Options available to the user of NIFTY include: reading and writing tapes in either BCD or binary; skipping forward or backward a specified number of records or files; dumping a tape out onto another tape or onto the lineprinter; writing end-of-file marks on tapes; and rewinding tapes.

E. XFORM

Designed to take fast Fourier transforms of up to 1024 points in length with a user specified increment between transforms, this program can be used stand-alone or, with slight modification, as a subroutine. By taking full advantage of the drum peripheral to the SDS 9300, this program was designed to minimize execution time when used as a part of an interactive graphics display package.

The user can choose to have an average noise transform computed from the average of the first k transforms. These are used to compute the deviation from the mean of the original transforms.

$$x(f) = \begin{cases} x_i(f) - \bar{x}(f) & \\ 0 & \text{if } x_i(f) - \bar{x}(f) < 0 \end{cases} \quad i = 1, N$$

where

$$\bar{x}(f) = 1/k \sum_{i=1}^k x_i(f) \quad k < N$$

This procedure can, in many cases, result in signal enhancement.

F. ON-LINE-FSP

The Extended Signal Processing program was developed to provide the user with a versatile display of transformed signals in three dimensions through which the dynamic characteristics of the signals in both the frequency and time domains could be studied. Originally designed for use with a few long data sets, ESP underwent extensive modifications to allow it to be more efficient when processing the numerous short seismic data sets. An option was included to allow the transforms to be performed while the interactive graphics display was in progress. Other features added to the program were the ability to handle multiple file input tapes and a hard-copy option. The hard-copy option was particularly useful when making comparisons of the qualitative aspects of various events. The following options are available to the user: namelist, input halt, amplitude scaling, frequency sweep, spotlight, hard-copy, and harmonic display.

G. BANDS

This program was written to aid the search for a quantitative discriminant between earthquakes and explosions. Transforms were taken on-line and, within specified frequency bands, a numeric was found which was chosen to be proportional to either the amplitude or the power of the Fourier coefficients within that window. The algorithm is essentially a simple integration:

$$\text{Band factor } i = \sum_{j=SBi}^{EBi} x_j \times \text{resolution} / \text{normalization factor for window widths}$$

where

S_{Ri} is the starting frequency of band i

E_{Ri} is the ending frequency of band i

x_j is either the amplitude or power of the Fourier coefficient,

and if no normalization is desired, the normalization factor is set equal to 1.

The results were stored on magnetic tape and could be processed through an output program, RSLTS, which allowed the user to choose several options for normalization and intercomparison of the data and obtain a hard-copy print out.

Program options included a choice of either amplitude or power results, normalization with respect to window width, noise subtraction, and output normalization with respect to any frequency band for the spectra collectively or individually.

4. EQPLOT

EQPLOT, the hard-copy plotting program, was written in C, the high level programming language available within the UNIX operating system, which has been implemented on the PDP-11/50. The hard-copy output was obtained on the Versatec printer/plotter, working essentially as a black-box

program, EQPLOT took the results of the ESP hard-copy option and formatted them for plotting.

The hard-copy capability we have developed allows the user to make detailed comparisons between the spectral characteristics of earthquakes and explosions. The user is not forced to rely on the remembered appearances of interesting event after they have disappeared from the AGT-10 screen.

V. Observations

Most explosions can be distinguished from earthquakes using a combination of the following: location, complexity, depth, and the presence or absence of S and surface waves. There are, however, exceptional events. The discrimination of these was a motivation for this research.

To be meaningful, a discriminant must be valid for typical as well as extraordinary events. Consequently, a large sample of events from many sites and possessing a range in depth and magnitude was examined. To eliminate variations caused by using data obtained at several sites on many different kinds of detectors, only data from LASA were used.

Two sets of data were obtained: a copy of a tape sent by Control Data Corporation, dubbed from data in the files at MIT and elsewhere and approximately 110 events through ACDA. The MIT data consisted of 327 events from 1966 through 1974. Of these, 215 included steered beam sums and data from four subarrays, either F1, F2, F3, and F4 or D1, D2, D3, or D4. The ACDA data were sent by Teledyne Geotech in Alexandria, Virginia and included 25 explosions and 84 earthquakes. These data included all of the operative subarrays at LASA but not the main beam.

Preliminary analysis was based upon the application of graphical display techniques originally developed at the Naval Postgraduate School for acoustic signal processing.

Software was optimized for use with seismic data.

A selection of events was processed using On-Line-ESP. With its dynamic capabilities and hard-copy option, it was possible to tell that the frequency distributions of explosions were quite different from those of earthquakes. Figures 1 - 7 illustrate this point.

It was found that certain test sites possessed distinctive signatures on the spectra obtained from transforming the LASA data. In particular, events originating from Semipalatinsk were quite unique and it took only a little practice before most events from that location could be identified solely on the basis of their spectra.

Software was developed to aid in the search for a quantitative discriminant based on the spectral differences between the events. It was found that, for some events, signals were detected at the highest attainable frequencies. Since the sampling rate determines the highest reliable frequency on a transform, subsequent discussions will be based solely upon subarray data from the MIT tape having a sampling rate of 20 samples per second. Only events prior to 15 April 1969 were truly sampled at 20 samples per second. The reader is referred to the discussion of the data for more information regarding the sampling rates. The sampling rates of the data were programmatically verified.

By processing the data with the subroutine BANDS, the sums of the amplitudes of the Fourier coefficients within

several spectral windows were found. The spectral windows chosen were:

r_1	0.4 - 0.6 Hz,
r_2	0.6 - 1.0 Hz,
r_3	1.0 - 1.4 Hz,
r_4	1.4 - 2.0 Hz,
r_5	2.0 - 3.0 Hz,
r_6	3.0 - 4.5 Hz,
r_7	4.5 - 6.0 Hz, and
r_8	6.0 - 9.0 Hz.

To accentuate the response in the larger high frequency windows, the sums were not normalized with respect to window width. However, to aid comparison of events, the results for each window were normalized with respect to the results for the 0.6 to 1.0 Hz window.

A good correlation was found between the amplitude in the 0.6 to 1.0 Hz window and the magnitude, m , of the event. (Figure 4) The data on explosions and shallow focus earthquakes were separated into groups according to their unnormalized amplitudes in the 0.6 to 1.0 Hz window. The groups were as follows:

A	$0.1 - 0.5 \times 10^5$,
B	$0.5 - 0.499 \times 10^4$,
C	$0.1 - 0.499 \times 10^4$,
D	$0.5 - 0.999 \times 10^3$, and
E	$0.1 - 0.499 \times 10^3$.

Means were calculated for each r within each of the five groups. Despite the fact that the normalized response in the windows covering 1.0 to 4.5 Hz was a function of the magnitude of the event, a simple discriminant was attainable.

We found that, for all explosions, the response in the 1.0 - 1.4 Hz window was greater than that in the 0.6 - 1.0 Hz window. The reverse was true for earthquakes which also had higher means at 0.4 - 0.6 Hz than did explosions. A discriminant can be constructed from the simple combination of these responses and is written as:

$$U_j = \sum_{i=1}^8 n_i r_{ij} ,$$

where r_{ij} is one of eight spectral windows for event j and n_i is a normalization factor depending upon the amplitude at 0.6 - 1.0 Hz or the magnitude, m , of the event.

VI. Discussion

The discriminant gave strongly negative values for essentially all deep and shallow focus earthquakes and zero to strongly positive values for all explosions. Signals arriving at LASA from Nevada Test Site, NTS, explosions yielded anomalously negative values; however, because of the proximity of NTS to LASA, they are not teleseismic. It may be necessary to consider local crustal conditions when using spectral criteria based on such nearby events.

Inspection of the data and plots of amplitude versus frequency revealed that earthquakes with magnitudes below 5.5 have a common high frequency asymptote, while larger earthquakes have a higher, but parallel, high frequency asymptote. A factor largely responsible for this result may be the increased source persistence of larger earthquakes. No high frequency asymptote was found for explosions. This does not preclude the possibility that such an asymptote exists; nevertheless, within the frequency range studied in this project, none was found.

Graphical analysis of the earthquakes and explosions using tentative estimates of the attenuation resulted in estimates of the source spectra. It is possible to explain the low D values obtained at several sites as being the result of differences in attenuation at the site. For example, lower D values will result when the explosion takes

place in softer rocks. The lower than normal D values for Novaya Zemlya can be explained by the fact that these few very large explosions were dragged down while being averaged with other members of Group A. By separately reanalyzing these events, it is possible to bring their D values up to more positive levels. Also it should be noted that for such large events, the roll-over in the source spectra occurs at frequencies less than 5 Hz. This will contribute to somewhat lower D values. The low D values for the NTS explosions can be explained as being due to frequency sensitive attenuation.

Given data between 6 and 9 Hz, it is possible to evaluate attenuation effects for an arbitrary event and, if its attenuation has a higher frequency dependance than normally found for earthquakes, a modified discriminant can be calculated by first adjusting the data to give a high frequency dependancy similar to that of an earthquake and then proceeding as usual.

It may also be possible to compute yields for explosions from uncalibrated sites. Once an event has been determined to be an explosion, it is possible to force the data to fit the observed spectra for Site A at Semipalatinsk. The resultant amplitude near 1 Hz is proportional to magnitude from which yield can be found using a known relationship between yield and magnitude.

For a more detailed discussion of our data analysis, the

reader is referred to Appendix B which contains a presentation by Evernden (1977) of preliminary findings taken from this study.

VII. Data

As mentioned above, it is necessary to discuss the data. One would expect that the number of observations that have been collected in this program of both earthquakes and explosions would provide seismologists with a useful data-base for further research. However, questions as to the integrity of these data have been uncovered. It is felt that any research based on them is rendered suspect, including that reported in this paper and consequently the paper of Evernden (1977), which describes this study. Below are discussed some of the revelations that gradually surfaced.

A. Sampling Rate

In October 1975, a conv of a tape that had been dubbed from events selected from the data library at MIT's Lincoln Laboratories and elsewhere was received through Control Data Corporation and Col. Russell Ives. Enclosed with the tape was a complete description of its format. The data for each event included three records of header information. Although great care had been given to the location and the timing of the event, no information was given regarding the sampling rate of the data. Verbal inquiry resulted in a report that all of the data were sampled at 20 samples per second.

As the data were being processed, a difference between the older and more recent data was noticed. Concurrent with the processing of the CDC data J. Evernden obtained from a

colleague at MIT a tape with a few events on it most of which duplicated those on the CDC tape. When processing identical events on the MIT and CDC tapes we found large differences in the results. In particular, there appeared to be large differences in the frequency distributions of the spectra. At that point, difficulties with the sampling rates were suspected. A few calls to Boston and Alexandria yielded the following tale.

At its inception LASA seismometers were sampled at 20 samples per second and the digitized data were sent to Washington where they were stored. Copies of the data were sent to scientists working in the area of seismic surveillance. The published work of many of these scientists lead to the general belief that there was no information above 5 Hz for either earthquakes or explosions (Philco-Ford report ref unknown). Faced with the storage of massive quantities of apparently over sampled data, the decision was made to halve the sampling rate. On 15 April 1969 LASA data were decimated.

By 1969, however, a large quantity of software had been written. MIT wished to obtain data compatible with the existing software, so, at their request, Teledyne sent to MIT data which were pseudo-sampled at 20 Hz. To obtain pseudo-sampled data, two adjacent points were averaged and the resulting interpolated point was inserted between them.

The reaction to this information was complete disbelief.

Quite a bit of both manpower and computer time had been spent trying to analyze data sampled at a different rate than had been reported. A discussion with R.W. Hamming confirmed what was intuitively obvious, that high frequencies in the pseudo-sampled data would be depressed relative to high frequencies in data that were actually sampled at 20 Hz.

To be off by a factor of two when analyzing the spectra has deleterious consequences. The Nyquist frequency has been halved, thus a spectrum which appears to cover N Herz actually covers only $N/2$ Hertz. The band integration analysis would yield meaningless results unless the true sampling rate of the data was known and used.

B. Filtering

At the request of ACDA, an attempt to detect a few very small events had been planned. A tape, L 16283, was received from ACDA. It contained two events: one in December 1974 and the other in April 1975. It was reported that all of the data had been sampled at 20 Hz.

Preliminary analysis of the data using the ESP interactive graphics display program showed that most of the detectors had anomalous spikes at a frequency of about 5 Hz and that the amplitudes did not fall off with increasing frequency in a manner characteristic of a detector response curve. It appeared to be filtered. Again, R.W. Hamming applied his practiced eye to the data and agreed that they were rather

peculiar.

Discussion with ACDA ultimately revealed that the data had been filtered at 5 Hz. The type of filter remains unknown.

Shortly thereafter, it was discovered that, given the start time of the data and the start time of the signal for the event, the analysis lead to one of two conclusions: first, that the time window of the data did not include the event or, second, that the data were actually sampled at 10 Hz.

The situation could have been saved by resampling the original analog data without the use of filters and at an appropriate sampling rate. Unfortunately, the analog tapes had been recycled and the original data were lost.

C. Data Acquisition

The length of time, over a year in the case of the data on tape L 16283, to obtain much of the data was quite long. With the delay between the request for and the acquisition of data shortened, it may be possible to have less information pertaining to data specifications lost or forgotten. Of course, requests for data should be reasonable in size.

One product of this study is a set of ascii tapes of the data received to investigate seismic detection and discrimination. The tapes include the CDC data, the ACDA supplied earthquakes, and the ACDA supplied explosions. Data

recorded prior to 15 April 1969 were sampled at 20 Hz. Data following 15 April 1969 were sampled at 10 Hz. Any preprocessing to which the data were subjected prior to receipt at the Naval Postgraduate School was neither reported nor uncovered; therefore, the user must beware and work with this data at his own risk.

VIII. Conclusions

We have described the software tools built to analyze the large quantity of seismic data involved in this project. Using this software on short period seismic data, we have been able to obtain a numeric which may provide a discriminant between earthquakes and explosions. This discriminant appears to be effective against multishot events and, given adequate information about the path, it may be possible to discriminate events only a few degrees from the detector.

The adequacy of the data we received has been discussed. We feel that every step of the data acquisition and analysis process should be sufficiently documented so that subsequent users will know the exact status of the data they receive. We have been in the unfortunate position of receiving data that were vaguely specified.

Figure Captions

Figures 1-7. These are plots made with the hard copy option of ESP of an explosion, a deep focus earthquake and a shallow focus earthquake. Notice that high frequencies are more pronounced for the subarrays than for the beam in all cases and that the explosion shows more high frequency information.

Fig 1. CDC data set event #5, Beam. Explosion at Novva Zemlya on October 27, 1966 having a magnitude of 6.3.

Fig 2. CDC data set event #5, subarray F2. Explosion at Novva Zemlya on October 27, 1966 having a magnitude of 6.3.

Fig 3. CDC data set event #5, subarray F3. Explosion at Novva Zemlya on October 27, 1966 having a magnitude of 6.3.

Fig 4. CDC data set event #202, Beam. Deep focus earthquake in the Hindu Kush region on January 20, 1972 having a magnitude of 6.0.

Fig 5. CDC data set event #202, subarray F1. Deep focus earthquake in the Hindu Kush region on January 20, 1972 having a magnitude of 6.0.

Fig 6. CDC data set event #210, Beam. Shallow focus earthquake in the Andreanof Islands of the Aleutian arc on March 20, 1973 having a magnitude of 6.0.

Fig 7. CDC data set event #210, subarray F1. Shallow focus earthquake in the Andreanof Islands of the Aleutian arc on March 20, 1973 having a magnitude of 5.0.

Fig 8. Amplitude within the spectral window 0.6 to 1.0 Hz versus magnitude of the event for explosions and earthquakes.

MS 73.4N 546E
D.C. 4.63

FIGURE 1

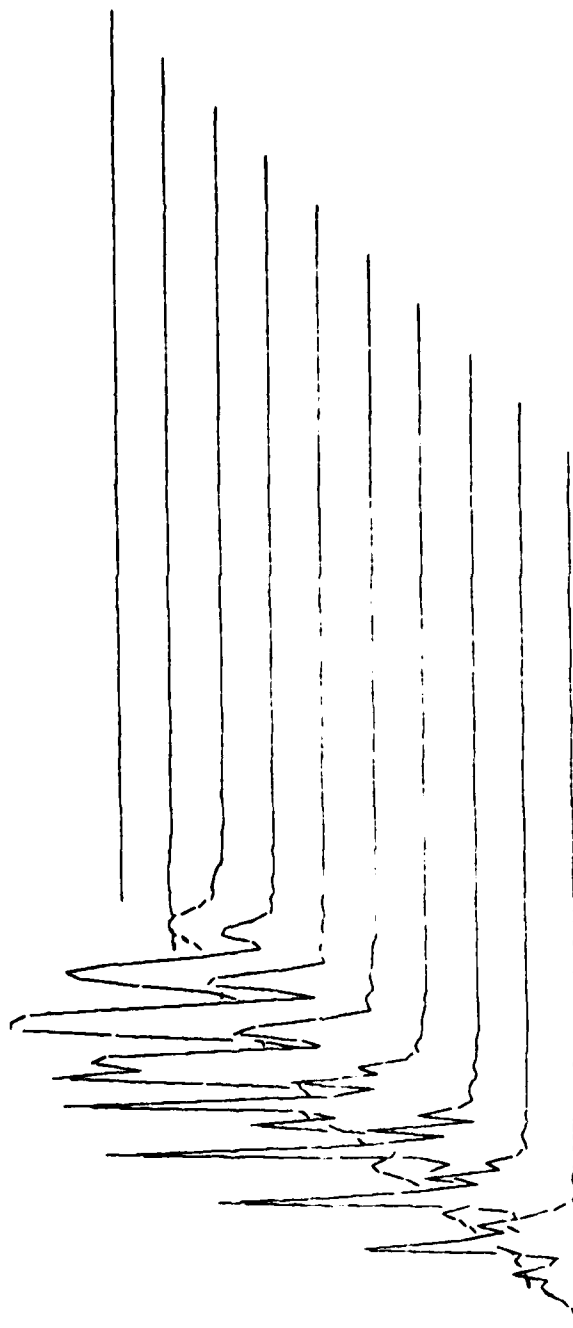
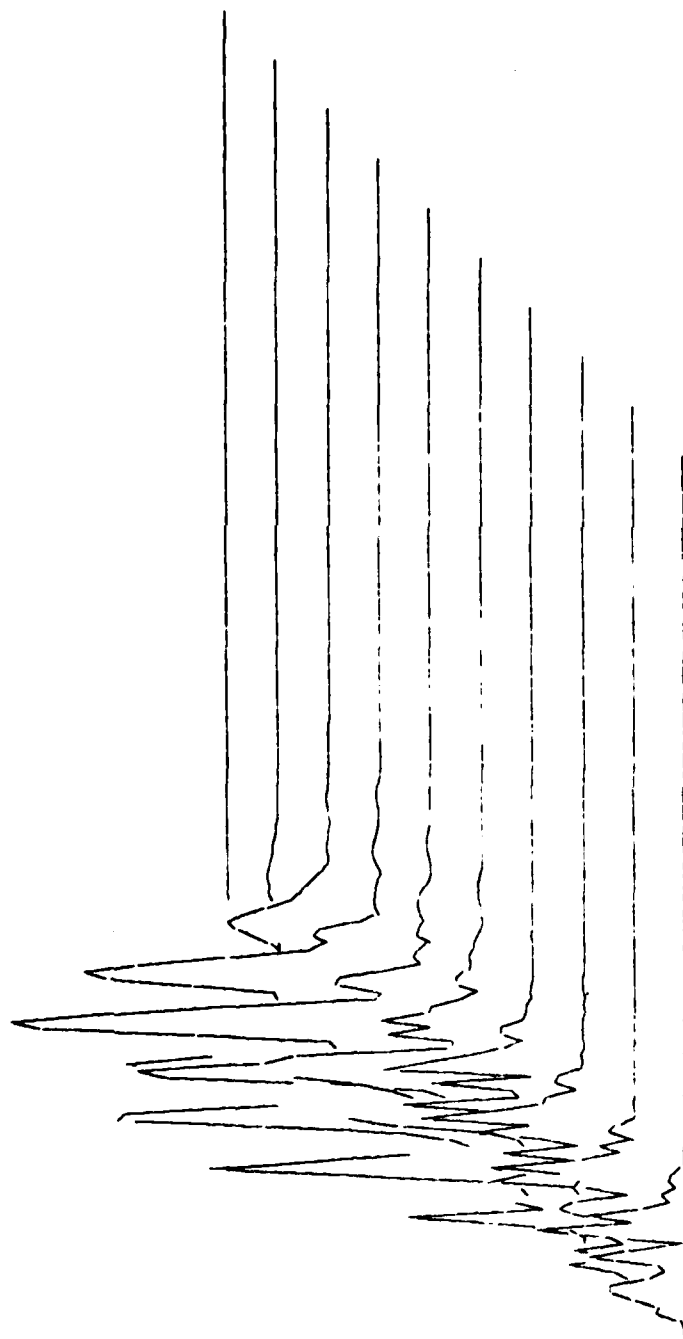
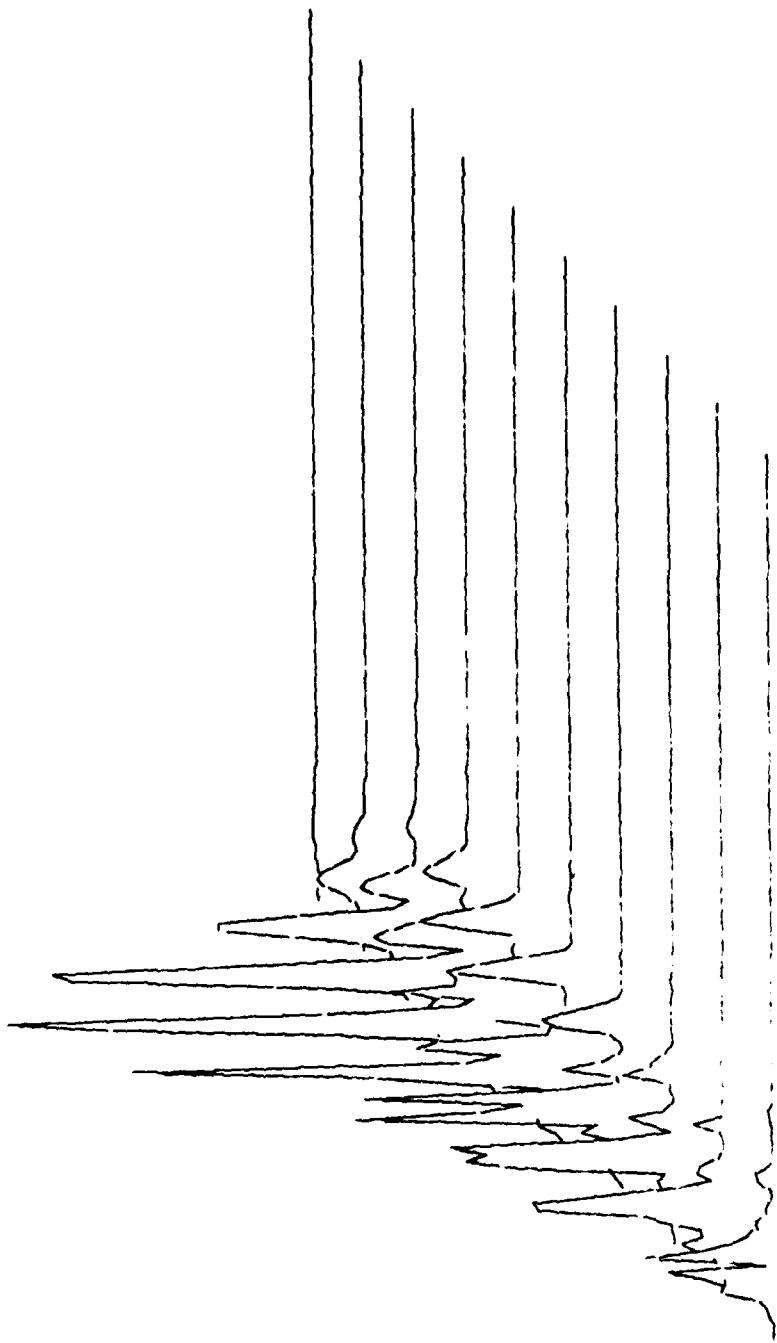


FIGURE 2



45-

FIGURE 3



$N = 6.0$

$D = 213$

70.76

$36.4N$

σ

FIGURE 4

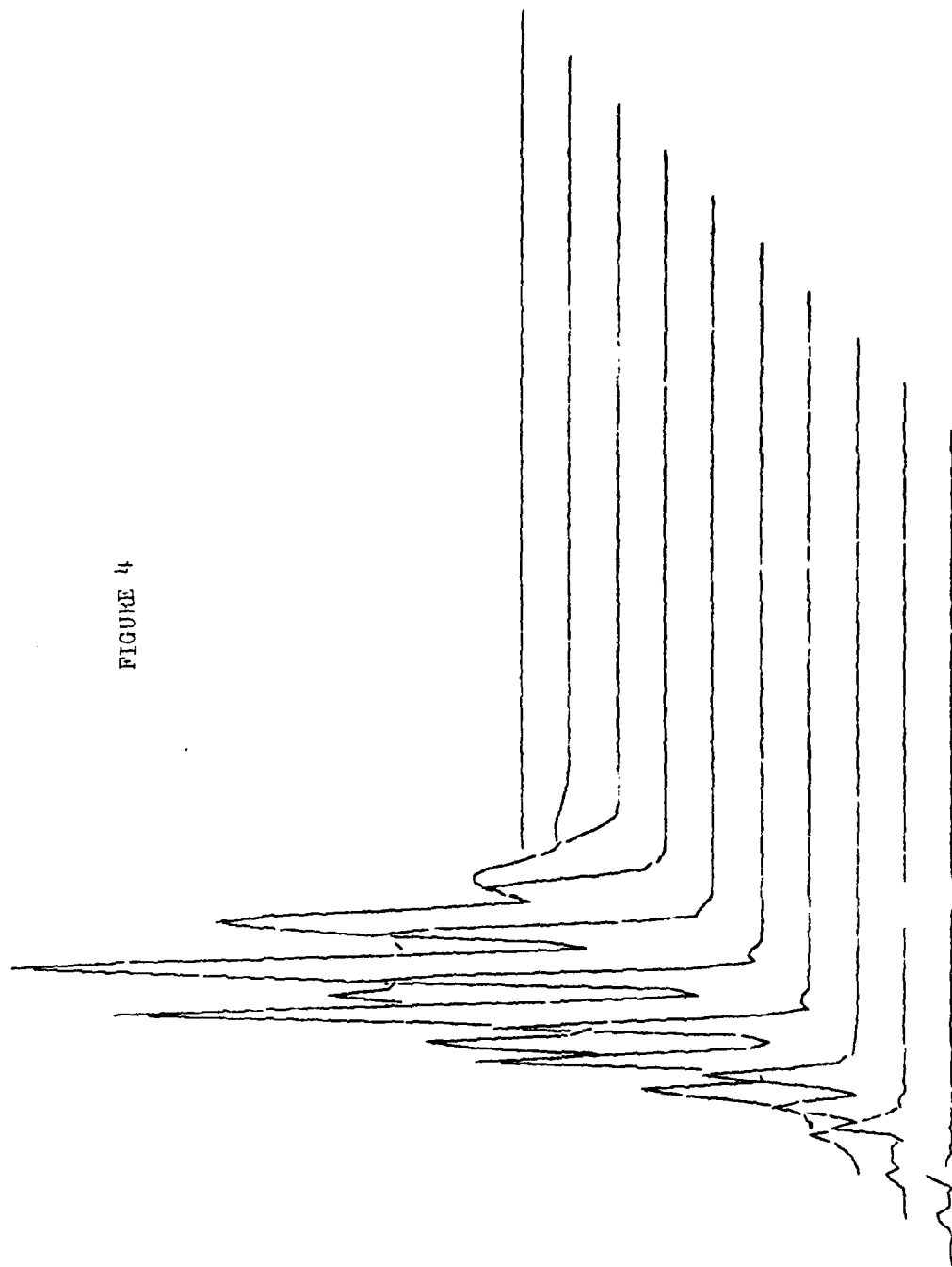
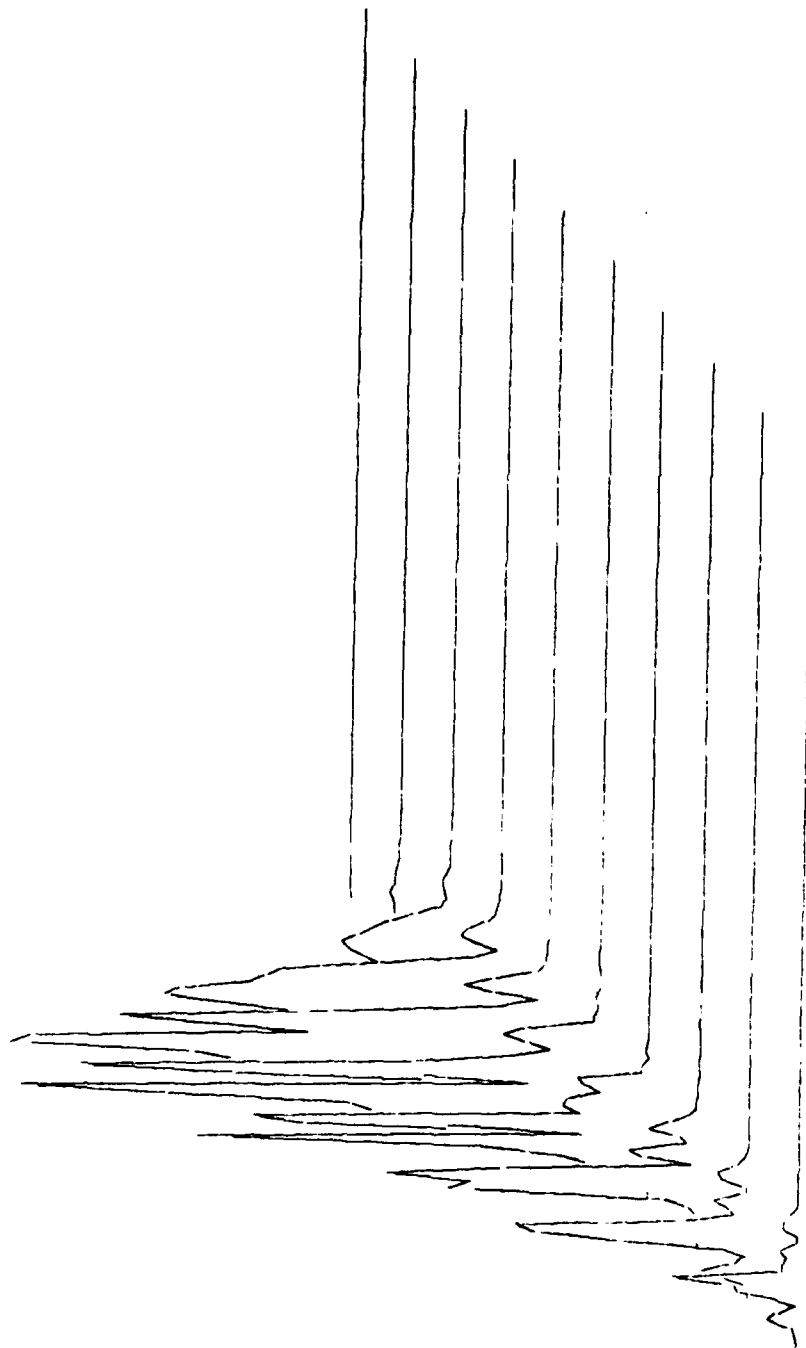
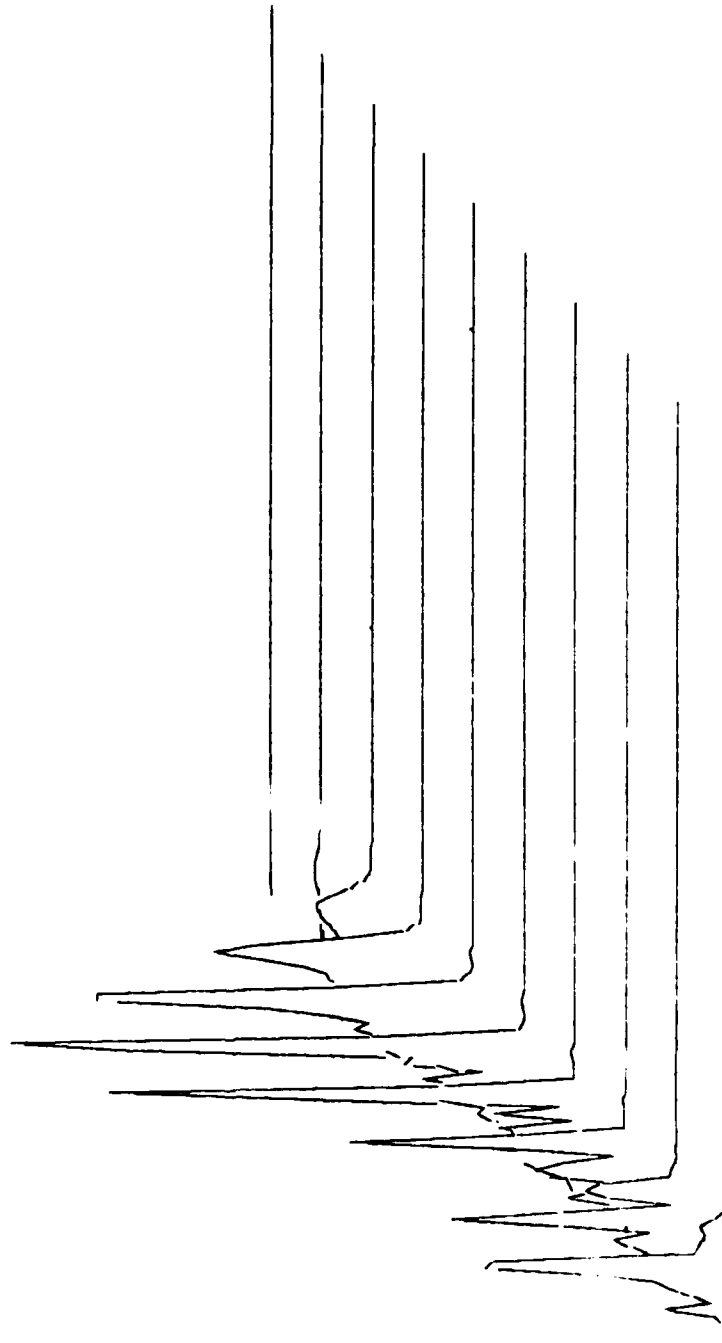


FIGURE 5



200 1797 20 20 20 20

FIGURE 6



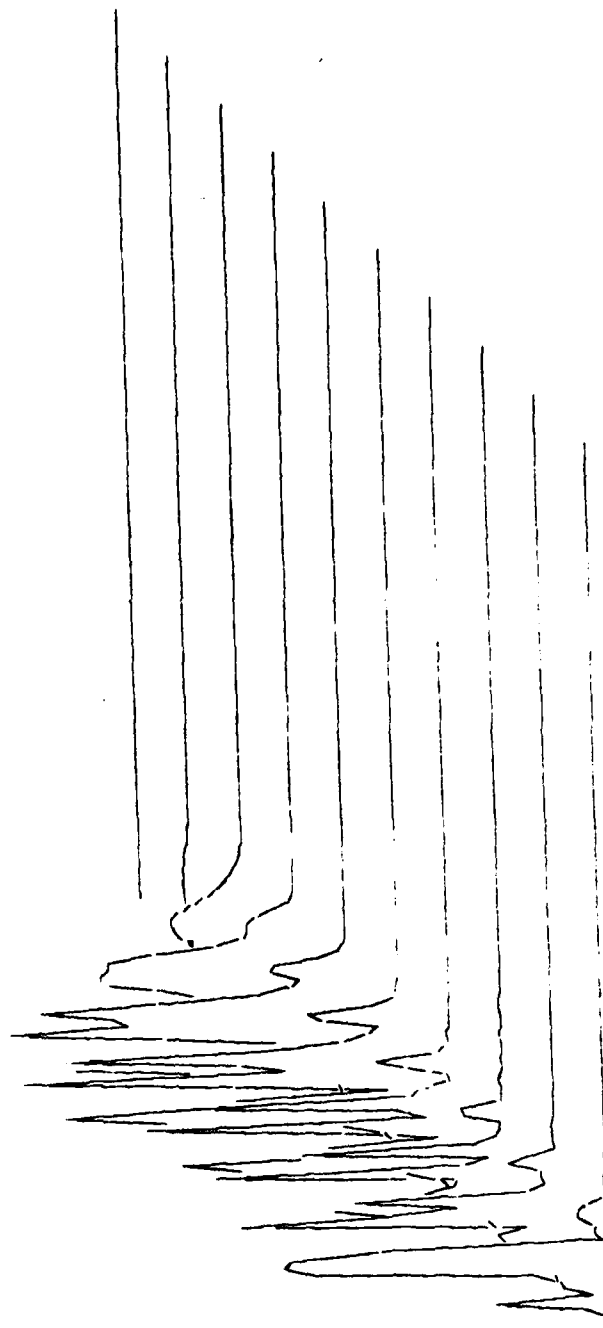


FIGURE 7

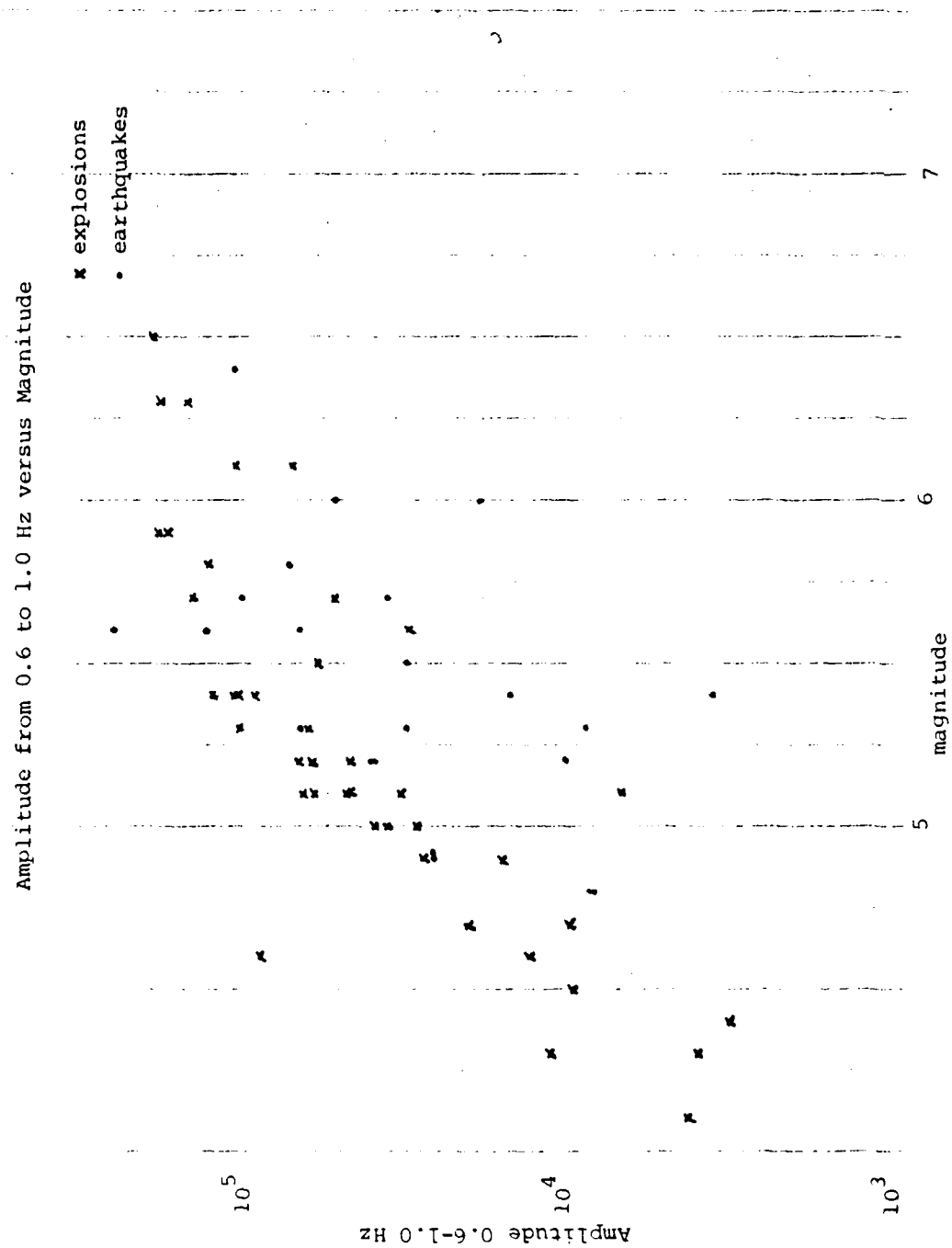


FIGURE 8

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Appendix A
Software

Digitally Simulated Oscilloscope

Designed to display the unprocessed seismic waveforms, the Digitally Simulated Oscilloscope or DSO program takes full advantage of the interactive features of the XDX 9300/AGT graphics system. With the capability of handling up to ten seismograms simultaneously, its options are selected by using the function switches on the AGT-10 and include:

i. Namelist

The user is allowed to modify the value of any parameter specified as a namelist variable in the FORTRAN code. When this option is selected, a cursor appears on the AGT-10 screen. Using the AGT teletype, the operator types the name and value of the variable to be changed. Each character typed will appear on the screen. The line-edit facility provided by the AGT-10 system allows the user to modify the current line. When it is satisfactory, a carriage return signifies its completion. Several namelist parameters may be modified. When the operator is finished, a * carriage return will turn off the namelist option and normal program execution will resume.

ii. Timesweep

Because the maximum number of points that can be plotted in the x direction is limited to 200, it is

impossible to view most seismograms in their entirety and at a resolution of one sample point per plot point. The time sweep option allows the operator to inspect any time segment of a seismogram. There are several ways of exercising this option.

a. Coarse Timesweep

This allows the operator to use the control dials to sweep both forward and backward through selected seismograms rapidly.

b. Fine Timesweep

Similar to coarse timesweep, this option serves as a vernier. Again the control dials are used to position the time trace.

c. Autosweep

All seismograms will be swept in time simultaneously with this option. The timesweep is continuous until the option is turned off and it is possible to move either forward or backward through time. Pointers assure that the display will not run off either end of the seismogram.

d. Single Sweep

Instead of sweeping continuously, this option is automatically turned off after completing one timesweep of the data. Again the user chooses to

sweep either forward or backward across the data.

iii. Amplitude Scaling

As an alternative to changing the data's scale factor through namelist, it is possible to use a control dial to modify the scaling of the data. This option will remain in effect until it is turned off by the user.

iv. Trigger

By using a combination of function switches and control dials, it is possible to set a positive or negative amplitude trigger level and to trigger either from the beginning of the data or from the current lead point of the data being displayed on the AGI-10. This allows the user to find large fluctuations in the data without inspecting the entire seismogram.

v. Timebase

It is possible to alter the displayed resolution of the data by varying the timebase with a control dial. An increase of resolution to ten points per seismogram is possible and, by an averaging process, the resolution can be decreased so that the entire seismogram just fills the screen.

vi. Spotlight

A moveable highlight is available so that the user

can accentuate interesting features of the display. Spotlighting is also useful when searching for interesting features since the operator is subconsciously forced to pay more attention to the highlighted region.

I. DSO - Operating Summary

DSO may be used on a stand-alone basis or as a segment in a larger overlay job. To begin using DSO, the operator must transfer program control to DSO. This may be done by rerunning a core image of DSO from a save tape when using stand-alone DSO or, in the case of an overlay job, by setting appropriate flags in the control program. It is necessary to prepare the AGT-10 for DSO execution by calling the "GATED" graphics package.

The data tape, which has been prepared with the standard header records, is mounted on the appropriate drive (Unit 2).

Because there are many namelist variables which must be specified when running this program, it is convenient to prepare a card deck containing namelist input information. When the program requests input, instead of laboriously typing in all namelist parameters, the user types the following on the XDS 9300 teletype console:

```
ICARD = 1
```

```
c/r *
```

c/r

II. Function Switch Definitions

Once the program has been initialized, the AGT-10 console, function switches, and control dials are used for program control. Below are listed the function switch definitions. When control dials are to be used in conjunction with a particular function switch option, they have been indicated in parentheses.

3 - namelist input

This allows the operator to modify namelist parameters from the AGT-10 teletype console.

4 - dial overlay option

Since there are only six control dials and since a maximum of ten seismograms can be displayed simultaneously, this function switch allows the operator to use one control dial for more than one seismogram when the sweep option has been selected.

5 - coarse sweep (all dials)

Each seismogram can be swept individually in time and is governed by the control dials.

6 - fine sweep (all dials)

This serves as a vernier to the coarse sweep option. For both the coarse and fine sweep options, function

switch 10 is used to reverse direction.

7 - scaling (dial D)

As an alternative to namelist, amplitudes may be scaled manually.

8 - trigger (dial C)

The control dial is used to set the trigger level, for which there is a numeric display on the screen, and function switch 10 is used to change the sign of the trigger level.

9 - auto sweep

This option causes continuous time sweeping of all seismograms. Function switch 10 will reverse the direction of the sweep.

10 - sign option

Used in conjunction with function switches 5, 6, 8, 9, and 11, the sign of the timesweep direction or of the trigger amplitude becomes negative.

11 - auto sweep once

A single time sweep of all of the data is executed. The sweep direction is reversed by selecting function switch 10.

12 - span (dial C)

This option expands or contracts the timebase of the display.

13 - spotlight (dial A)

The control dial is used to position the spotlight at the desired location. When the function switch is turned off, the highlight will remain on and stationary.

14 - remove spotlight

This option turns off the spotlight.

16 - tape input

This function switch allows tape input of inverse FFT's. It was not extensively used in this project.

When several function switches are on simultaneously, a function switch precedence will cause certain options to be overridden. Switches 7, 6, and 5 are listed in decending order of precedence.

III. Control Parameters

The namelist variables are listed below. For each, the range and default value have been given in parentheses. 'I' has been used to indicate array variables all of which can have up to ten entries. Real variables are indicated by the use of decimal points.

A. Original Data Specifications:

NCH(1-?;2)	number of channels
MP(?;0;I)	maximum number of points on the seismogram

SR(?;20.0)	original sampling rate of data in samples/second
IT0(?;?,?;0,0,0;1)	start time of the data in hours, minutes, and seconds
IDGRAM(?;0;1)	seismogram identification number

B. Mechanical Data Specifications:

ICH(?;1)	channel to be displayed
LREC(1-1024;1024)	length of input record in words
DZONE(0-?;.009)	sensitivity of dials; as DZONE is decreased, the dials become more sensitive

C. Basic Display Specifications

NPT(1-200;200)	number of points to be displayed per line
BIAS(?;0;1)	bias for displayed data
SCL(?;10.0)	scale factor, this scale factor should be used for interactive modification
SF(?;65536)	scale factor for AGI-10 output
INT(1-10;1)	intensity of data display

MAXGM(1-10;10)	maximum number of seismograms that can be displayed
IW(0-1,1,1)	flags choosing which seismograms will be displayed 0-no display ; 1-display

D. Program Control Specifications

ITAPE(0-7;2)	input tape unit number
MTAPE(0-7;0)	rewind specified tape unit
IDEV(1-2;1)	AGI-10 number
ICARD(0-1;0)	read card input
INITL(0-1;0)	reinitialize program
KILL(0-1;0)	return to master program

E. Display Specifications

LP(1-MP;1;1)	lead point of displayed data
X0(?;-0.4)	location of X=0, coordinate and data display
Y0(?;-0.7)	location of Y=0, coordinate and data display
INCR(0-?;100)	lead point increment when using auto sweep
INC(0-?;0)	number of points skipped between each point displayed

F. Spot Display Specifications

IWIDE(1-10;10) width of spotlight in points

G. Trigger Control Specifications

MAXV(0-?;4096) maximum value of triader
level

IV. Example of a Change of Control Parameters

Initially the user has the following display:

1. 8 seismograms, numbered 1 through 8
2. INT = 1, the lowest possible intensity on the display
3. INC = 0, one data point per plot point on the screen

The parameters are to be changed to yield the following:

1. 2 seismograms, numbers 5 and 7

Type

1. IW = 0,0,0,0,1,0,1,0,0,0

or

IW(1) = 0

.

.

.

IW(4) = 0

IW(5) = 1

IW(6) = 0

IN(7) = 1

IN(8) = 0

IN(9) = 0

IN(10) = 0

2. INT = 2, increase screen intensity

3. INC = 2, two data points are averaged to produce one plot point. (Function switch 12 could also have been used.)

```

*
*
* PROJECT EARTHQUAKE
*
* SUBTASK DSB - DIGITALLY SIMULATED OSCILLOSCOPE
*
*
* JSW(I) = LAND(JW,LLS(1,23-I))
* JBFF(I)=LAND(JW,LXBR(-1,LLS(1,23-I)))
*
* INTEGER VBUF(400),XVER,YVER,DMVER
* INTEGER EVID
* DIMENSION Y(200,10),MD(200,10),IBUF(1024),IMAGE(2002),IMG(200,10),
* LP(10),IP(10),MP(10),IREC(10),NREC(10),LPD(10),
* * DIALS(10),COS(10),VDS(10),ITIME(3,10),ITO(3,10),IT(10),
* * ITX(2),ITDIR(30),IGDIR(10),IMSPT(102),IMS(10,10),
* * BIAS(10),IC9R(24),IDGM(10),IDGRAM(10),ITXA(6),IW(10)
*
* EQUIVALENCE (IMAGE(2),IMG), (IMSPT(2),IMS)
* EQUIVALENCE (X9,X0),(Y9,Y0)
* EQUIVALENCE (MD,IBUF)
*
* NAMELIST NCH,ICH,LREC,SR,NPT,IWIDE,BIAS,ITAPE,MTAPE,
1 IDEV,LP,MP,X0,Y0,ITO,SCL,ICARD,INCR,DZENE,SF,INITL
I ,INC,MAXV,INT,MAXGM,IDGRAM,IW,NSKIP, IDELT
NAMELIST KILL
NAMELIST NFILE
NAMELIST EVID
*
* DATA NULL/-1/,LREC/1024/,MAXV/4096/,DZENE/.0080/,IDEV/1/,
* ITAPE/2/,IWIDE/10/,X0/-0.4/,Y0/-0.7/,SR/20./,SCL/10./,NPT/200/,
* ,INC/0/,INT/1/,INTSP/10/,DX/0.007/,INCR/100/,SF/65536/
* ,ICURS/0/,NSKIP/0/,IDELT/128/
DATA KILL/0/
DATA NFILE/0/
DATA EVID/0/
*
* INTEGER TRL
C
C
C
PARAMETER INPUT
10 INITL = 1
ITADD = 0
OUTPUT(102) 'PARAMETER INPUT'
INPUT(101)
20 IF(ICARD .EQ. 1) ICARD = 0 ; INPUT(5)
IF(INITL .EQ. 0) GO TO 100
30 CALL INIT
IF(NFILE .LE. 0) GO TO 32

```

```

      CALL FORSCN(ITAPE,NFILE)
      NFILE = 0
32  CONTINUE
C
C  READ INPUT TAPE
C
31  INITL = 0
    DO 90 I = 1,NGM
      MREC = 0
      DO 35 N = 2,I
35  MREC = MREC + NREC(N-1)
      IFILE = 10 + MREC
      DO 90 J = 1,NCH
        IF(J .NE. ICH) GO TO 60
*
*  READ IN RECORDS OF CHANNEL TO BE DISPLAYED AND STORE ON DRUM
*
      DO 50 K = 1,NREC(I)
        CALL BININ(ITAPE,IBUF,LREC,IND)
        IF(IND .EQ. 1) STOP
        CALL WRITE(IFILE,IBUF,LREC)
50  IFILE = IFILE + 1
      GO TO 90
*
*  READ THROUGH RECORDS OF THE CHANNELS TO BE SKIPPED
*
60  DO 80 K = 1,NREC(I)
      CALL BININ(ITAPE,IBUF,1,IND)
      IF(IND .EQ. 1) GO TO 10
80  CONTINUE
90  CONTINUE
C
C  SETUP DISPLAY BUFFER
C
      IFLD = 1
*
*  COMPUTE THE RECORD IN WHICH THE CURRENT LEAD POINT IS LOCATED
*  THE LEAD POINT IS THE IP-TH POINT OF THE RECORD
*
100 DO 110 I = 1,NGM
      IREC(I) = LP(I) / LREC
      IP(I) = LP(I) - IREC(I)*LREC
110 IF(IP(I) .EQ. 0) IP(I) = LREC
C
      I = 0
      DO 160 IJK = 1,MAXGM
        IF(IW(IJK) .EQ. 0) GO TO 160
        I = I + 1
        IF(ISCL .NE. 0) GO TO 101
        IF(LP(I) .EQ. LPD(I)) GO TO 160

```

```

101 MREC = 0
    DO 115 N = 2, IJK
115 MREC = MREC + NREC(N - 1)
    IFILE = 10 + IREC(I) + MREC
    CALL READD(IFILE, IBUF, LREC)
    LPD(I) = LP(I)
    DO 130 J = 1, NPT
*
*       IF THE CURRENT POINT EXCEEDS THE BOUNDS OF THE GRAM, STUFF ZEROS
*       IN THE REMAINDER OF THE DISPLAY BUFFER
*
        IF(LP(I) + (J-1)*(INC+1) .GT. MP(I)) GO TO 155
        IR = IP(I) + (J-1)*(INC+1)
*
*       MUST GO TO THE NEXT RECORD
*
        IF(IR.GT.LREC) IP(I)=IR-LREC; GO TO 140
        Y(J,I) = IBUF(IR)*SCL/SF
130 CONTINUE
        GO TO 160
140 IFILE = IFILE + 1
*
*       TEST TO SEE IF ALL DATA HAS BEEN EXHAUSTED, IF SO, STUFF ZEROS INTO
*       THE REMAINDER OF ITS OUTPUT ARRAY
*
        IF(IFILE .GE. MREC + 10 + NREC(I)) GO TO 155
        CALL READD(IFILE, IBUF, LREC)
        DO 150 K = J, NPT
            IR=IP(I)+(K-J)*(INC+1)
*
*       MUST GO TO THE NEXT RECORD
*
            IF(IR.GT.LREC) J=K; IP(I)=IR-LREC; GO TO 140
150 Y(K,I) = IBUF(IR)*SCL/SF
            GO TO 160
*
*       STUFF ZEROS INTO THE REMAINDER OF THE GRAPHICS ARRAY
*
155 DO 156 JJ = J, NPT
156 Y(JJ,I) = 0.0
160 CONTINUE
    ISCL = 0
C
C       DISPLY BUFFER
C
        IF(IFLD .EQ. 0) GO TO 165
        CALL TIMETX
        CALL REMOVE
        CALL DSPLY
165 IF(KSFLG .EQ. 0) GO TO 170

```

```

      IF(KSPT .NE. 0) CALL SP8T
      KSPT = 0
170  CONTINUE
C
C      SENSE FUNCTION SWITCH OPTION
C
C      FUNCTION SWITCH ASSIGNMENT
C      3  NAMELIST INPUT
C      4  DIAL OVERLAY OPTION
C      5  TIME SWEEP - COARSE - ALL DIALS
C      6  TIME SWEEP - VERNIER - ALL DIALS
C      7  AMPLITUDE SCALING - DIAL 4
C      8  TRIGGER - DIAL 3
C      9  AUTO SWEEP
C      10 DIRECTION OF SWEEP
C      11 SINGLE SWEEP
C      12 TIME BASE - DIAL 3
C      13 SPOTLIGHT - DIAL 1
C      14 REMOVE SPOTLIGHT
C      15 TRIGGER FROM CURRENT LP
C      16 ADVANCE TAPE OR REVERSE TAPE IF FN SWITCH 10 IS 9V
C
200  CALL FNS(IDEV,ISW,IER)
      IF(IER .NE. 0) OUTPUT(102) IER,'ISW'
      JW = LXOR(JW,ISW)
      LB = NGM + 3
      DO 220 I = 3,16
      IF(JSW(I) .EQ. 0) GO TO 220
      ENCODE(4,210,ITX) I
210  FORMAT(I2)
      CALL TEXT9(IDEV,ITX,1,LB,1,1,3,IER)
      IF(IER .NE. 0) OUTPUT(102) IER,'SW'
      LB = LB + 1
220  CONTINUE
      DO 230 I = LB, NGM + 16
      CALL TEXT9(IDEV,NULL,1,1,1,1,3,IER)
      IF(IER .NE. 0) OUTPUT(102) IER,'NUL'
230  CONTINUE
      CALL VCD(IDEV,DIALS, IER)
      IF(IER .NE. 0) OUTPUT(102) IER,'VCD'
C
      IFLO = 1
      *
      *      TEST FOR NAMELIST INPUT
      *
300  IF(JSW(3) .EQ. 0) GO TO 310
      I3 = NGM + 17
      CALL GINPUT(IDEV, ITDIR,I3)
      CALL PAR
      JW = J9FF(I3)

```

```

IF(MTAPE .NE. 0) CALL RWND(MTAPE); MTAPE = 0
IF(ICARD .EQ. 1) GO TO 20
IF(INITL .EQ. 1) GO TO 30

```

```

*
* IF THE NUMBER OF GRAMS TO BE DISPLAYED HAS BEEN CHANGED, REINITIALI
*

```

```

IF(LSTNGM .NE. NGM) CALL INIT
KSPT=1
GO TO 100

```

```

*
* EXERCISE VARIOUS FUNCTION SWITCH OPTIONS
*

```

```

310 IF(JSW(5) .NE. 0) CALL COARSE; GO TO 100
IF(JSW(6) .NE. 0) CALL VERNIER; GO TO 100
IF(JSW(7) .NE. 0) CALL SCALE; GO TO 100
IF(JSW(8) .NE. 0) CALL TRIGGER; JW = JBFF(8); GO TO 100
IF(JSW(9) .NE. 0) CALL AUTO; GO TO 100
IF(JSW(11) .NE. 0) CALL AUTO; JW=JBFF(11); GO TO 100
IF(JSW(12) .NE. 0) CALL SPAN; GO TO 100
IF(JSW(13) .NE. 0) KSPT = 0; CALL SPST; GO TO 100
IF(JSW(14) .NE. 0) CALL SPST; JW=JBFF(14); GO TO 100
IF(JSW(15) .NE. 0) CALL VERSA; JW=JBFF(15)
IF(JSW(16) .NE. 0) CALL TAPEIP; JW=JBFF(16); GO TO 31
GO TO 200

```

```

*
*
*
SUBROUTINE SCALE
IF(ABS(DIALS(4) - SCLD) .LT. DZONE) IFLD = 0; RETURN
SCLD=DIALS(4)
SCL=(1.0+SCLD)*10.0
DO 10 I=1,NGM
10 LPO(I) = -1
KSPT = 1
RETURN

```

```

*
*
*
SUBROUTINE TRIGER
ISGN = 0

```

```

*
* OPTION FOR NEGATIVE TRIGGER LEVEL
*

```

```

IF(JSW(10) .NE. 0) ISGN = -1

```

```

*
* MAXV IS THE UPPER LIMIT OF THE TRIGGER LEVEL
*

```

```

TRL = (DIALS(3) + 1) * MAXV / 2
TRL = ISGN(TRL, ISGN)
I = 0

```



```

      DO 30 IJK = 1, MAXGM
      IF(IW(IJK) .EQ. 0) GO TO 30
      I = I + 1
      MREC=0
      IRT = 1
      IST = 1
*
*      OPTION TO TRIGGER FROM CURRENT LEAD POINT
*
      IF(JSW(15) .NE. 0) IST=IREC(I) + 1; IRT=LP(I)-IREC(I)*LREC
      DO 10 J = 2, IJK
10    MREC = MREC + NREC(J-1)
      DO 25 K = IST, NREC(I)
      IFILE=10+MREC + (K-1)
      CALL READD(IFILE,IBUF,LREC)
      DO 20 L = IRT, LREC
      KK=LREC*(K-1)+L
      IF((IBUF(L) .LT. 0) .AND. (TRL .LT. 0)) GO TO 15
      IF(IBUF(L) .LT. 0) GO TO 20
      IF(TRL .LT. 0) GO TO 20
*
*      POSITIVE TRIGGER LEVEL
*
      IF((IBUF(L) - TRL) .GE. 0) LP(I) = KK; GO TO 30
      GO TO 20
*
*      NEGATIVE TRIGGER LEVEL
*
      15 IF((IBUF(L) - TRL) .LE. 0) LP(I) = KK; GO TO 30
20    CONTINUE
      IRT = 1
      25 CONTINUE
*
*      IF NO TRIGGER LEVEL IS FOUND, SET THE LEAD POINT EQUAL TO THE LAST
*      POINT OF THE GRAM
*
      LP(I) = MP(I)
      30 CONTINUE
      ENCODE(8,100,ITX)TRL
100   FORMAT(I8)
      CALL TEXT8(IDEV,ITX,2,1,92,1,3,IER)
      IF(IER.NE.0)OUTPUT(102)IER,'TRL'
      KSPT = 1
      200 RETURN
*
*
*
      SUBROUTINE CSARSE
      IF(JSW(6) .NE. 0) CALL VERNIER; RETURN
      IF(JSW(7) .NE. 0) CALL SCALE; RETURN

```

```

IFLD = 0
N1=NGM
N2=0
IF(NGM.GT.6)N1=6;N2=NGM-6
IF(JSW(+).NE.0)GO TO 20
.
.
COMPUTATION FOR LINES 1 TO 6
.
DO 10 I=1,N1
IF(ABS(DIALS(I) - COS(I)) .LT. DZPVE) GO TO 10
COS(I)=DIALS(I)
.
.
THE RANGE OF THE LEAD PRINT IS LIMITED BY THE TOTAL NUMBER OF
PRINTS IN THE GRAM
.
LP(I) = (1.0 + DIALS(I)) * MP(I)/2
.
INSURE DISPLAY AND SPOTLIGHT UPDATE
.
IFLD = 1
KSPT = 1
10 CONTINUE
RETURN
.
.
COMPUTATION FOR LINES 7 TO 10
.
DO 30 I=1,N2
IF(ABS(DIALS(I) - COS(I+6)) .LT. DZPVE) GO TO 30
COS(I+6)=DIALS(I)
LP(I+6) = (1.0 + DIALS(I)) * MP(I+6)/2
.
.
INSURE DISPLAY AND SPOTLIGHT UPDATE
.
KSPT = 1
IFLD = 1
30 CONTINUE
RETURN
.
.
SUBROUTINE VERNIER
IFLD = 0
N1=NGM
N2=0
ISGN = 1
.
.
OPTION TO GO BACKWARDS
.
IF(JSW(10).NE.0) ISGN = -1
IF(NGM.GT.6)N1=6;N2=NGM-6

```

```

      IF(JSW(4).NE.0)GO TO 20
*
*
*
      COMPUTATION FOR LINES 1 TO 6
*
      DO 10 I=1,N1
      IF(ABS(DIALS(I) - VDS(I)) .LT. DZ9NE) GO TO 10
      VDS(I) = DIALS(I)
      LP(I) = LP(I) + (1.0 + DIALS(I))*NPT*ISGN/2
      IF(LP(I) .LT. 1) LP(I) = 1
*
*
*
      INSURE DISPLAY AND SPOTLIGHT UPDATE
*
      KSPT = 1
      IFLD = 1
10    CONTINUE
      RETURN
*
*
*
      COMPUTATION FOR LINES 7 TO 10
*
      DO 30 I=1,N2
      IF(ABS(DIALS(I) - VDS(I+6)) .LT. DZ9NE) GO TO 30
      VDS(I+6)=DIALS(I)
      LP(I+6) = LP(I+6) + (1.0 + DIALS(I))*NPT*ISGN/2
      IF(LP(I+6) .LT. 1) LP(I+6) = 1
*
*
*
      INSURE DISPLAY AND SPOTLIGHT UPDATE
*
      KSPT = 1
      IFLD = 1
30    CONTINUE
      RETURN
*
*
*
      SUBROUTINE AUTO
      ISGN=0
*
*
*
      OPTION TO GO BACKWARDS
*
      IF(JSW(10).NE.0)ISGN=-1
      DO 10 I=1,NGM
*
*
*
      INCREMENT EACH LEAD POINT BY +/- INCR, REMAINING WITHIN THE
      LIMITS OF THE TOTAL NUMBER OF PRINTS IN THE GRAM
*
      LP(I)=LP(I)+ISGN(INCR,ISGN)
      IF(LP(I) .LT. 1) LP(I) = 1
      IF(LP(I) .GT. MP(I)) LP(I) = MP(I)
10    CONTINUE
      KSPT = 1

```

```

      RETURN
*
*
*
      SUBROUTINE SPAN
      IF (ABS(DIALS(3) - SPN) .LT. DZONE) IFLD = 0; RETURN
      SPN = DIALS(3)
      IF (SPN .LE. 0) GO TO 20
*
*
*
      EXPAND THE GRAM
*
10  NPT = (1-SPN)*200
      IF (NPT .LT. 10) NPT = 10
      DX = 1.4/NPT
      INC = 0
      GO TO 30
*
*
*
      CONTRACT THE GRAM
*
20  INC = (ABS(SPAN))*PMX
      DX = 0.007
      NPT = 200
*
*
*
      NUMBER OF SECONDS BEING DISPLAYED ON THE GRAPH
*
30  S = (NPT/SR)*(INC+1)
35  ENCODE(8,100,ITX) S
100 FORMAT(F8.2)
      CALL TEXT9(IDEV,ITX,2,2,92,1,3,IER)
      IF (IER .NE. 0) OUTPUT(102) IER, 'SPAN'
      DO 200 I = 1,NGM
*
*
*
      CHANGE LPD TO INSURE THAT THE DISPLAY WILL BE UPDATED
*
200 LPD(I) = 0
      KSPT = 1
      RETURN
*
*
*
      SUBROUTINE TIMETX
      DO 20 NM = 1,NGM
      I = NGM - (NM - 1)
*
*
*
      COMPUTE THE TIME OF THE FIRST POINT ON EACH SEISMOGRAM
*
      K = IT(I) + LPD(I)/SR
*
*
*
      IF THE SPOTLIGHT IS ON, DISPLAY THE TIME AT ITS MIDPOINT

```

```

      IF(ICURS.NE.0) K = K + (INC+1)*(SPTA + (IWIDE/2))/SR
      ITIME(1,I) = K /3600
      ITIME(2,I) = (K-ITIME(1,I)*3600)/60
      ITIME(3,I) = K - ITIME(1,I)*3600 - ITIME(2,I)*60
*
*   AMPLITUDE IS GIVEN FOR THE FIRST POINT ON EACH LINE
*
      IAMP = Y(1,I)*(SF/SCL)
      ENCODE(24,100,ITXA) IDGM(1),ITIME(1,I),ITIME(2,I), ITIME(3,I),IAMP
100  FORMAT(A4,' ',12,' ',12,' ',12,' ',15,' ')
      CALL TEXT0(IDEV,ITXA,6,NM,1,1,3,IERRSR)
      IF(IERRSR.NE.0) OUTPUT(102) IERRSR,'TX9'
20  CONTINUE
      RETURN
*
*
*
C   A SUBROUTINE TO DISPLAY GRAPHICAL DATA
C   CALLS IHEAD, IPACK,GRAPH9
C
      SUBROUTINE DSPLY
      IMAGE(1) = IHEAD(0,INT)
      L = NPT*NGM + 2
      MKZ9 = LSTNPT - NPT
      DO 15 I = 1,NGM
      K = (I - 1)*NPT + 1
*
*   COMPUTE THE VERTICLE SPACING OF EACH LINE
*
      YV = Y0 + (I-1)*DY
      DO 10 J = 1,NPT
      XIM = X0 + DX*(J - 1)
      YIM = YV + Y(J,I) - BIAS(I)
      IF(J.NE.1) GO TO 9
*
*   MAKE THE FIRST POINT ON EACH LINE A DRAW
*
      IMAGE(K+J) = IPACK(XIM,YIM,0)
      GO TO 10
9  IMAGE(K+J) = IPACK(XIM,YIM,MD(J,I))
10  CONTINUE
15  CONTINUE
      IMAGE(L) = 0
*
*   PUT ZEROS IN THE UNUSED PORTION OF THE ARRAY
*
      DO 20 I = 1,MKZ9*NGM
20  IMAGE(L+I) = 0
      CALL GRAPH0(IDEV, IMAGE,L, 1, IER)
      IF(IER.NE.0) OUTPUT(102) IER,'GP9'

```

```

LSTNPT = NPT
RETURN

C
C
C
SUBROUTINE SPBT
ICURS = 1
IF(USW(14) .NE. 0) ICURS = 0; GO TO 15
*
* WHEN THE KSPT FLAG IS ON, THE SPBT WILL BE UPDATED; HOWEVER,
* THE AGT DIALS WILL NOT BE READ
*
IF(KSPT .NE. 0) GO TO 9
*
* READ THE AGT DIALS
*
IF(ABS(DIALS(1) - SPT) .LT. DZ9NE) IFLD = 0; RETURN
SPT = DIALS(1)
SPTA = (DIALS(1) + 1)*NPT
SPTB = SPTA + IWIDE
IF(SPTB .LE. NPT) GO TO 5
SBV = SPTB - NPT
SPTA = SPTA - SBV
5 CONTINUE

C
C
C
WITH -1<DIALS<+1 GET NUMBER OF LEAD SPBT POINT
9 IMSPT(1) = IHEAD(0,INTSP)
L = IWIDE*NGM + 2
DO 10 I = 1,NGM
K = (I-1)*NPT + 1 + SPTA
DO 10 J = 1,IWIDE
IMS(J,I) = IMAGE(K+J)
*
* FOR EACH SEISMOGRAM, MAKE THE FIRST POINT OF THE SPBT A MOVE.
* ALL SUBSEQUENT POINTS WILL BE DRWS
IF(J .EQ. 1) IMS(J,I) = LAND(777777768,IMS(J,I))
10 CONTINUE
IMSPT(L) = 0
KSFLG = 1
GO TO 17
*
* ZERO THE SPBTLIGHT ARRAY, THUS MAKING EACH POINT A MOVE
15 DO 16 I = 1,NGM
DO 16 J = 1,IWIDE
16 IMS(J,I) = 0
K = NGM*IWIDE + 1
IMSPT(K) = 0
IMSPT(K+1) = 0
KSFLG = 0

```

```

17 CONTINUE
  KSPT = 0
  CALL GRAPH8(IDEV,IMSPT,L,3,IERR8R)
  IF(IERR8R.NE.0) OUTPUT(102) IERR8R,'GS9'
  CALL TIMETX
  IFLD = 0
  RETURN

```

C
C
C

```

SUBROUTINE C99RD
  IC9R(1) = IHEAD(1,INT)

```

C
C
C

```

  PL9T Y AXIS

```

```

  IC9R(2) = IPACK(X9,Y9,0)
  YC9R = Y9 + 1.4
  IC9R(3) = IPACK(X9,YC9R,1)

```

C
C
C

```

  PL9T X AXES

```

```

  DO 10 I = 1,NGM
    XC9R = X9 + 1.4
    YC9R = Y9 + (I-1)*DY
    K = (I-1)*2 + 4
    IC9R(K) = IPACK(X9,YC9R,0)
10  IC9R(K+1) = IPACK(XC9R,YC9R,1)
    IC9R(K+2) = 0
    CALL GRAPH8(IDEV,IC9R,K+2,2,IERR8R)
    IF(IERR8R.NE.0) OUTPUT(102) IERR8R,'C9R'
    RETURN

```

C
C
C
C
C
C

```

SUBROUTINE INIT

```

```

  CALL PAR
  DO 10 I = 1,MAXGM
    IT(I) = ITO(3,I) + 60*(ITO(2,I)+60*ITC(1,I)) + IDELT*(I-1)
    LP(I) = 1
    LPD(I) = 0
    CDS(I) = 0
    VDS(I) = 0
    BIAS(I) = 0.0
  DO 10 J = 1,NPT
10  Y(J,I) = 0.0
  CALL DTINIT(IDEV,ITDIR,30,IER)
  IF(IER.NE.0) OUTPUT(102) IER,'DTIN'

```

```

CALL TIMETX
CALL DGINIT(IDEV,IGDIR,10,IER)
IF(IER.NE. 0) OUTPUT(102) IER,'DGIN'
CALL DSPLY
TRL = 0
ENC9DE(8,20,ITX) TRL
20 FORMAT(I8)
CALL TEXT8(IDEV,ITX,2,1,92,1,3,IER)
IF(IER.NE. 0) OUTPUT(102) IER,'ITRL'
S = NPT*(INC+1)/SR
ENC9DE(8,30,ITX) S
30 FORMAT(F8.2)
CALL TEXT8(IDEV,ITX,2,2,92,1,3,IER)
IF(IER.NE. 0) OUTPUT(102) IER,'ISPAN'
LSTNPT = LSTWID = 0
LSTNGM = NGM
CALL C88RD
MPMX = MP(1)
DO 40 I = 2,NGM
40 IF(MP(I) .LT. MPMX) MPMX = MP(I)
MPMX = (MPMX/NPT) = 1
RETURN

```

C
C
C

```

SUBROUTINE PAR
NGM = 0

```

*
*
*

COUNT THE NUMBER OF GRAMS AND THE NUMBER OF RECORDS PER GRAM

```

DO 10 I = 1,MAXGM
5 NGM = NGM + 1
NREC(I) = MP(I)/LREC
10 IF(MP(I) .GT. NREC(I)*LREC) NREC(I) = NREC(I) + 1
I = 0
DO 20 IJK = 1,MAXGM
IF(IW(IJK) .EQ. 0) GO TO 20
I = I + 1
20 IDGM(I) = IDGRAM(IJK)
DX = 1.4/NPT
DY = 1.4/NGM
IF(SCL.NE. SCLSAV) SCLSAV = SCL; ISCL = 1
IF(SF.NE. SFSAV) SFSAV = SF; ISCL = 1
RETURN

```

C
C
C
C

```

SUBROUTINE REMOVE

```

*

* REMOVE HIDDEN LINES FROM GRAPHICS DISPLAY

```

*
  DO 10 I = 1,NGM
  DO 10 J = 1,NPT
10 MD(J,I) = 1
  DO 100 I = 1,NGM-1
  DO 100 J = 1,NPT
  DO 100 N = I+1,NGM
  IF(MD(J,N).EQ.0) GO TO 100
  IF( (Y(J,I)-BIAS(I)).GT.( (Y(J,N)-BIAS(N))+DY*(N-I))) MD(J,N)=
1 0
100 CONTINUE
  RETURN

```

C
C
C

```

SUBROUTINE TAPEIP
  IXFDEL = NGM*IDELT
  KSPT=1
  IFLD= 1
  ISGN = 1
  IF(JSW(10).EQ.0) GO TO 20
  ISGN = -1
  DO 10 K = 1,2
  DO 10 I = 1,NGM
  DO 10 J = 1,NREC(I)
10 CALL BAKREC(ITAPE,I)
20 DO 30 I = 1,NGM
  LPO(I) = 0
30 IT(I) = IT(I) + ISIGN(IXFDEL,ISGN)
  RETURN

```

C

```

SUBROUTINE VERSA
  IF(JSW(10).NE.0) CALL WE9F(4,0); RETURN
  DO 10 I = 1,400
10 VBUF(1) = 0
  VBUF(1) = NPT
  VBUF(2) = NGM
  VBUF(3) = SF
  VBUF(4) = ITIME(1,1)
  VBUF(5) = ITIME(2,1)
  VBUF(6) = ITIME(3,1)
  VBUF(8) = EVID
  DO 15 I = 1,NGM
15 VBUF(9+I) = Y(1,NGM-(I-1))
  CALL BINOUT(1,VBUF,400,IND)
  DO 30 J = 1,NGM
  DO 20 I = 1,NPT
  CALL UNPACK(IMAGE(1+(J-1)*NPT+1),XVER,YVER,DMVER)
  VBUF(I*2-1) = XVER

```

```
20 YVER = LISR(LAND(YVER,0777777768),DMVER)
    VBUF(I*2) = YVER
30 CALL BINOUT(1,VBUF,400,IND)
    RETURN
    END
```

```

      PAGE
A      EQU      5
B      EQU      4
*
*      FBRREC BAKREC      SPACE THE TAPE EITHER FORWARD OR
*      BACKWARD 1 RECORDS
*      CALLS      9SETUPN, R/IOPS
*      CALLED BY      MAIN PROGRAM
*      CALL BAKREC(N,I)  N = UNIT, I = NO. OF RECORDS
*
*
*BAKREC PZE      0
*      LDA      BAKREC
*      STA      FBRREC
*      BRU      FBRREC+1
*
*
*FBRREC PZE      0
*      BRM      9SETUPN
*      PZE      2
FUNIT PZE      0      ;UNIT
FNREC PZE      0      ;NO. OF RECORDS
*      LDA      *FUNIT
*      STA      FUNT
*      BRM      ASGN
*      PZE      1
FUNT PZE      0
*      LDA      ARFDT
*      ADD      *03000C00
*      STA      FBAL
*      LDA      *FNREC
*      SKN      *0
*      BRU      RCEND
*      LDB      BAKREC
*      SKB      *077777      ;38 BACKWARDS
*      BRU      *+2
*      COPY      (-A,A)
*      STA      TFDI+4
*      BRM      R/IOPS
*      PZE      1
FBAL PZE      0
*      SKN      TDI
*      BRU      *+2
*      BF      *+2
RCEND S      BAKREC
*      BRB      FBRREC
*      PAGE
*
*      BAKSCN FBRSCN SCANS FORWARD OR BACKWARD ON A TAPE FOR A
*      KEYWORD OR AN END FILE MARK

```

```

*      CALLS      9SETUPN, R/19PS, BCDCVT, ASGN
*      CALLED BY  MAIN PROGRAM
*
*
*BAKSCN PZE      0
*      LDA      BAKSCN
*      STA      F9RSCN
*      BRU      F9RSCN+1
*
*
*F9RSCN PZE      0
*      BRM      9SETUPN
*      PZE      2
SUNIT PZE      0
SE9F  PZE      0
*      STZ      C9UNT
*      LDA      *SUNIT
*      STA      SUNIT
*      BRM      ASGN          ;SEARCH SYMBOL TABLE
*      PZE      1
SUNT  PZE      0
*      LDA      =0600          ;600 = 4 CHARACTER/WORD
*      STA      MODE          ;STORE MODE IN FDT
PLC1  LDA      =017170000      ;PUT EOF KEYWORD IN FDT
*      STA      TFDT+4
*      LDA      *SE9F          ;GET NO. OF E9F'S
*      SKJ      =0
*      BRU      FEND
*      SUB      =1
*      STA      C9UNT
PLC2  LDB      BAKSCN
*      LDA      ARFDT
*      ADD      =02000000
*      SKB      =077777          ;SCAN BACKWARDS
*      BRJ      $+2          ;N9
*      ADD      =00100000
*      STA      SCNCAL
DS19  BRM      R/19PS
*      PZE      1
SCNCAL PZE      0
*      SKN      TFDT
*      BRJ      $+2
*      BRJ      $-2          ;N8
*      LDA      TFDT
*      SKU      =06000000      ;BEGIN OR END TAPE
*      BRU      FEND
*      LDA      *SE9F
*      SKU      =0
*      BRU      CNTR

```

```

      LDA      TFDY
      SKE      =010000000
      BRU      D019
CNTR  SKR      COUNT
      BRU      D019
      LDA      BAKSCN      ;WAS THERE BACKSCANNING
      SKU      =0
      BRU      FEND
      LDA      SUNIT
      STA      PLC3
      LDA      1
      STA      PLC4
      BRM      F0RREC      ;GO FORWARD 1 RECORD TO GET PAST THE EOF
      PZE      2
PLC3  PZE      0
PLC4  PZE      0
FEND  STZ      BAKSCN
      BRR      F0RSCN
*
*
COUNT PZE      0
      PAGE
*
*      BCD CVT      CONVERTS A WORD TO BCD
*      CALLS      NONE
*      CALLED BY      ASGN, F0RSCN, BAKSCN
*
*BCDCVT PZE      0
      BRM      9SETUPN
      PZE      1
WORD  PZE      0
      STX      STORE,1
      LDX      =0200000-4,1
      LDA      =060606060
      STA      NAMTAB
      STA      NAMTAB+1
CL99P LDB      WORD
      ALSB      1
      COPY      (C,A)
      DIV      =10
      COPY      (A,B),(B,A)
      STB      WORD
      LDB      MASK
      STS      NAMTAB
      LDA      NAMTAB
      CRSA      6
      STA      NAMTAB
      BRX      CL99P,1
      BRU      EL99P

```

```

CL00P LDA WORD
      SKE =0
      BRU CL00P
EL00P LDX STORE,1
      BRR BCDCVT
STORE PZE 0
MASK PZE 077
      PAGE

```

```

*
*   ASGN      FINDS SYMBOL TABLE ADDRESS OF TAPE UNIT
*   CALLS     R/RSTS
*   CALLED BY ALL TAPE HANDLING SUBROUTINES
*   WILL CAUSE AN ABORT IF AN ADDRESS CORRESPONDING TO THE UNIT
*   IS NOT FOUND
*
*

```

```

$ASGN PZE 0
      BRM 9SETUPN
      PZE 1
TUNT PZE 0
      LDA TUNT
      STA ASGN1
      BRM BCDCVT
      PZE 1
ASGN1 PZE 0
ASGN2 BRM R/RSTS
      PZE 1
      PZE NAMTAB
      SKU =0
      BRU TERR
      STA TFDT+5
      BRR ASGN
TERR LDA NAMTAB
      STA MSG+1
      BRM RIABRT
      PZE 1
      PZE MSG

```

```

*
*   NAMTAB TEXT 8,
      PZE 3
*
MSG PZE 4
    TEXT 16, NOT FOUND

```

```

*
*   ARFDT PZE TFDT
*

```

```

TFDT  PZE      0
      PZE      0
      PZE      0
MODE  PZE      0
DIRECT PZE      0
FCB   PZE      0
      PZE      0

```

*

PAGE

*

* BCDIN/OUT BININ/OUT READ OR WRITE A TAPE IN EITHER BCD OR

*

BINARY

*

* CALLS ASGN, 9SETUPN, R/ISPS

*

* CALLED BY MAIN PROGRAM

*

```

$BINOUT PZE      0
        LDA      BINOUT
        STA      BCDOUT
        STA      BCDIN
        LDA      =01
        STA      BINFLG
        BRU      BCDIN+1

```

*

*

```

$BININ  PZE      0
        LDA      BININ
        STA      BCDIN
        LDA      =01
        STA      BINFLG
        BRU      BCDIN+1

```

*

*

```

$BCDOUT PZE      0
        LDA      BCDOUT
        STA      BCDIN
        BRU      BCDIN+1

```

*

*

```

$BCDIN  PZE      0
        BRM      9SETUPN
        PZE      4

```

```

BUNIT  PZE      0          ;TAPE UNIT
BBUF   PZE      0          ;BUFFER ADDRESS
BREC   PZE      0          ;RECORD LENGTH
BIND   PZE      0
        STZ      *BIND
        LDA      *BUNIT
        STA      BUNT
        BRM      ASGN
        PZE      1

```

```
BUNT      PZE      0
          LDA       #0600
          LDB       BINFLG
          SKB       =077777      ;IS FLAG SET - BINARY
          BRU       $+2
          ADD       #01000      ;YES
          STA       MODE
          STZ       BINFLG
          LDA       BBUF
          LDB       *BREC
          STD       TFDT+1
          LDA       ARFDT        ;FDT ADDRESS
          LDB       BCDSUT
          SKB       =077777      ;OUTPUT
          BRU       $+2          ;NO
          ADD       *04000000    ;YES
          STA       BCAL
          STZ       BCDSUT
          BRM       R/IAPS
          PZE       1
BCAL      PZE       0
          SKN       TFDT
          BRU       $+2
          BRU       $-2
          LDB       TFDT
          SKB       *016000000
          BRU       BFIN
          LDA       =01
          STA       *BIND
BFIN      STZ       BINFLG
          ERR       BCDIN
*
*
BINFLG    PZE       0
          PAGE
*
*   WRBF      WRITES AN END OF FILE WITH AN OPTION TO REWIND THE
*             TAPE AT THE USER'S REQUEST
*   CALLS     GSETUPN, R/IAPS, RWND
*   CALLED BY MAIN PROGRAM
*   CALL WRBF(N,IR)      N=UNIT, IR=0 OR 1 - NO REWIND OR REWIND
*
*
$WRBF     PZE       0
          BRM       GSETUPN
          PZE       0
          PZE       0
          PZE       0
          PZE       0
          PZE       0
```


	BRM	ASGN	;SEARCH SYMBOL TABLE
	PZE	1	
WUNT	PZE	0	
	LDA	ARFDT	;FDT ADDRESS
	ADD	=03100000	;BP CODE FOR ENDFILE
	LOB	*WFLAG	;REWIND FLAG
	SKB	=077777	
	BRU	\$+2	
	ADD	=00200000	
	STA	WECAL	;STORE BP CODE + FDT ADDRESS
	BRM	RVI9PS	
	PZE	1	
WECAL	PZE	0	
	SKN	TFDT	
	BRU	\$+2	
	BRU	\$+2	
	BRR	WEOF	
	PAGE		
*			
\$RWND	PZE	0	
	BRM	9SETUPN	
	PZE	1	
RUNIT	PZE	0	
	LDA	*RUNIT	
	STA	RUNT	
	BRM	ASGN	;BP SEARCH SYMBOL TABLE
	PZE	1	
RUNT	PZE	0	
	LDA	ARFDT	;FDT ADDRESS
	ADD	=03200000	;BP CODE FOR REWIND
	STA	RACAL	;STORE IN CALLING SEQUENCE
	BRM	RVI9PS	
	PZE	1	
RACAL	PZE	0	
	SKN	TFDT	
	BRU	\$+2	
	BRU	\$+2	
	BRR	RAND	
*			
*			

Digital Transform Display

Essentially the same as DSO except for changes in the input parameters and data, the Digital Transform Display or DXD allows the simultaneous display of as many as ten transforms. Transforms are read into the computer and stored on the drum. It is then possible to sweep in any direction through the transforms either in frequency or in time.

Its options are similar to those of DSO and include: namelist, frequency sweep, timesweep, amplitude scaling, trigger, variable frequency resolution, and spotlight.

i. Namelist

When this option is chosen, the user is allowed to modify the value of any namelist parameter. The line-edit capability provided by the AGI-10 makes this task easy for even the worst typist.

ii. Frequency sweep

With a possible maximum of 200 points per line on the screen at any one time, it is necessary to sweep in frequency to be able to examine the entire spectrum of a long transform at high resolution. This option can be used in either of two modes: automatic frequency sweep in which all transforms are swept in frequency simultaneously, and individual sweep mode for which the sweep of each transform is regulated by one six control dials.

iii. Time sweep

Since each transform covers a certain window in time, to sweep in time will mean to display either younger or older transforms. In this application of time sweep, it is possible to sweep automatically or with the use of variable control dials.

iv. Amplitude scaling

Interactive amplitude scaling is provided with this option, which provides an alternative to amplitude scaling via panelist input. A control dial is used to govern the scaling.

v. Trigger

This option allows the operator to trigger on the amplitudes of the transforms currently being displayed. A control dial is used to set the trigger level.

vi. Variable frequency resolution

As the user of DSD is allowed to expand or contract the timebase of the display, so the user of DXD is allowed to modify the frequency base of the display with a control dial. As few as 10 frequency points can be displayed simultaneously or the entire transform can be averaged in such a way that it fits on the screen. In the latter case, the resolution is usually somewhat diminished.

vii. Spotlight

A spotlight, whose position is regulated by a control dial, is available to help accentuate interesting features of the spectra.

I. DXD - Operating Summary

DXD was designed to illustrate the transforms from a given number of seismograms on an two-dimensional display of amplitude versus frequency. Time control is available through two options: time sweep for individual seismograms and autosweep in time for which all of the seismograms are updated simultaneously.

Used either stand-alone or as an overlay segment, DXD requires that the "GATED" graphics package be activated in the AGT-10. To transfer control to DXD either a save-tape containing the program must be loaded or the appropriate subroutine call must be made. A data tape containing transforms from up to ten seismograms is mounted on the appropriate unit. The user has the option of specifying namelist variables by typing them in on the XDS 9300 teletype console or by loading a prepared card deck and typing:

ICARD = 1

c/r *

c/r

II. Function Switch Definitions

Once the program has been initialized, the AGI-10 console, function switches, and control dials are used for program control. Below are listed the function switch definitions. When control dials are to be used in conjunction with a particular function switch option, they have been indicated in parentheses.

3 - namelist input

This allows the operator to modify namelist parameters from the AGI-10 teletype console.

4 - dial overlay option

Since there are only six control dials and since a maximum of ten transforms can be displayed simultaneously, this function switch allows the operator to use one control dial for more than one transform when one of the sweep options has been selected.

5 - timesweep (all dials)

This option allows the user to view either previous or subsequent transforms using the control dials to select the transform of interest.

6 - frequency sweep (all dials)

Each transform can be swept individually in frequency and is governed by the control dials.

7 - scaling (dial D)

As an alternative to namelist, amplitudes may be scaled manually.

8 - trigger (dial C)

The control dial is used to set the trigger level and function switch 10 is used to change the sign of the trigger level. Function switch 15 should be on for triggering from current position; off for triggering from beginning of the transform.

9 - auto sweep

This option causes continuous frequency sweeping of all seismograms. Function switch 10 will reverse the direction of the sweep. By selecting function switch 15, the auto sweep will be applied to the time sweep option rather than the frequency sweep option.

10 - sign option

Used in conjunction with function switches 5, 6, 8, 9, and 11, the sign of the time sweep direction, the frequency sweep direction, or of the trigger amplitude becomes negative.

11 - auto sweep once

A single time sweep or frequency sweep of all of the data is executed. The sweep direction is reversed by selecting function switch 10 and function switch 15 must be on to obtain a time sweep.

12 - span (dial C)

This option expands or contracts the frequency base of the display.

13 - spotlight (dial A)

The control dial is used to position the spotlight at the desired location. When the function switch is turned off, the highlight will remain on and stationary.

14 - remove spotlight

This option turns off the spotlight.

15 - miscellaneous

When this function switch is on the user is allowed to either trigger from the lead point of the data currently being displayed or to use the auto option to sweep in time.

III. Control Parameters

The namelist variables are listed below. For each, the range and default value have been give in parentheses. 'I' has been used to indicate array variables all of which can have up to ten entries. Real variables are indicated by the use of decimal points.

A. Original Data Specifications:

NCH(1-?;2)	number of channels
MP(??;0;I)	maximum number of points on the seismogram
SP(??;20.0)	original sampling rate of data in samples/second

ITU(?,?,?:0,0,0;I)	start time of the data in hours, minutes, and seconds
IDGRAM(?:0;I)	seismogram identification number

B. Mechanical Data Specifications:

ICH(?:1)	channel to be displayed
LREC(1-1024;1024)	length of input record in words
DZONE(0-?:.00#)	sensitivity of dials; as DZONE is decreased, the dials become more sensitive

C. Basic Display Specifications

NPT(1-200;200)	number of points to be displayed per line
BIAS(?:0;I)	bias for displayed data
SCL(?:10.0)	scale factor, this scale factor should be used for interactive modification
SF(?:65536)	scale factor for AGI-10 output
INT(1-10;1)	intensity of data display
MAXGM(1-10;10)	maximum number of seismograms that can be displayed

IW(0-1,1,I)	flags choosing which seismograms will be displayed 0-no display ; 1-display

D. Program Control Specifications

ITAPE(0-7;2)	input tape unit number
MTAPE(0-7;0)	rewind specified tape unit
IDEV(1-2;1)	AGI-10 number
ICARD(0-1;0)	read card input
INITL(0-1;0)	reinitialize program
KILL(0-1;0)	return to master program

E. Display Specifications

LP(1-MP;1;I)	lead point of displayed data
X0(?;-0.4)	location of X=0, coordinate and data display
Y0(?;-0.7)	location of Y=0, coordinate and data display
INCR(0-?;100)	lead point increment when using auto sweep
INC(0-?;0)	number of points skipped between each point displayed

F. Spot Display Specifications

IWIDE(1-10;10)	width of spotlight in points

G. Trigger Control Specifications

MAXV(0-?;40%) maximum value of trigger
level

IV. Example of a Change of Control Parameters

Initially the user has the following display:

1. 8 seismograms, numbered 1 through 8
2. INT = 1, the lowest possible intensity on the display
3. INC = 0, one data point per plot point on the screen

The parameters are to be changed to yield the following:

1. 2 seismograms, numbers 5 and 7

Type

1. IW = 0,0,0,0,1,0,1,0,0,0

or

IW(1) = 0

.

.

.

IW(4) = 0

IW(5) = 1

IW(6) = 0

IW(7) = 1

IW(8) = 0

IW(9) = 0

IW(10) = 0

2. INT = 2, increase screen intensity 3. INC = 2,
two data points are averaged to produce one
plot point. (Function switch 12 could also have
been
used.)

```

*
*
* PROJECT EARTHQUAKE
*
* SUBTASK DXD - DIGITAL TRANSFORM DISPLAY
*
* SUBROUTINE DXD
*
* JSW(1) = LAND(JW,LLS(1,23-1))
* JSFF(1) = LAND(JW,LXSR(-1,LLS(1,23-1)))
*
* DIMENSION Y(200,10),MD(200,10),IBUF(2048),IMAGE(2002),IMG(200,10),
*          LP(10),MIDLE(10),NRECS(10),NREC(10),LPD(10),
*          DIALS(10),FDS(10),TDS(10),ITIME(3,10),ITO(3,10),IT(10),
*          ITX(2),ITDIR(30),IGDIR(10),IMSPT(102),IMS(10,10),
*          BIAS(10),ICSR(24),IDGM(10),IDGRAM(10),ITXA(7),IW(10)
*          ,IDT(10),IDTD(10),NXF(10),LXF(10)
*
* EQUIVALENCE (IMAGE(2),IMG), (IMSPT(2),IMS)
* EQUIVALENCE (X9,XC),(Y8,YC)
* EQUIVALENCE (IBUF,MD)
*
* NAMELIST LREC,NPT,IWIDE,BIAS,ITAPE,T,TMSCL,NSGM,
1      IDEV,LP,MP,XC,YO,ITO,SCL,ICARD,INCR,DZBNE,SF,INITL
2      ,INC,MAXV,INT,MAXGM,IDGRAM,IW,LXFM,TMSCL
3      ,NXF,IDT
* NAMELIST KILL
*
* DATA NULL/-1/,LREC/2048/,MAXV/4096/,DZBNE/.0030/,IDEV/1/,
*      ITAPE/2/,IWIDE/10/,XC/-0.4/,YO/-0.7/,SR/20./,SCL/10./,NPT/200/,
*      INC/0/,INT/1/,INTSP/10/,DX/0.007/,INCR/25/,SF/1/,
*      LXFM/512/,ICURS/0/
* DATA KILL/0/
*
* INTEGER TRL
C
C C
C C C
C C C
10 INITL = 1
   OUTPUT(102) 'PARAMETER INPUT'
   INPUT(101)
20 IF (ICARD .EQ. 1) ICARD = 0 ; INPUT(5)
   IF (INITL .EQ. 0) GO TO 100
30 CALL INIT
C
C C
C C C
   READ INPUT TAPE
   INITL = 0
   DO 90 J = 1,NSGM

```

```

MREC = 0
DO 35 N = 2, I
35 MREC = MREC + NREC(N-1)
   IFILE = 10 + MREC
   DO 50 K = 1, NREC(I)+1
   DO 45 J=1, IXF
   CALL BININ(ITAPE, IBUF(LHXFM*(J-1)+1), LHXFM, IND)
   IF(IND .EQ. 0) GO TO 45
   IF(J .EQ. 1) GO TO 90
   CALL WRITE(IFILE, IBUF, LREC)
   GO TO 90
45 CONTINUE
   CALL WRITE(IFILE, IBUF, LREC)
50 IFILE = IFILE + 1
90 CONTINUE

C
C   SETUP DISPLAY BUFFER
C
   IFLD = 1
100 I = 0
   DO 160 IJK = 1, MAXGM
   IF(IW(IJK) .EQ. 0) GO TO 160
   I = I + 1

*
*   IF THE SCALE HAS BEEN CHANGED, UPDATE DISPLAY
*
   IF(ISCL .NE. 0) GO TO 101

*
*   IF REINITIALIZATION OR LEAD POINT CHANGE, UPDATE DISPLAY
*

   IF((IDTD(I) .EQ. IDT(I)) .AND. (LP(I) .EQ. LPD(I))) GO TO 160
101 IDTD(I) = IDT(I)
   LPD(I) = LP(I)
   MREC = 0
   DO 115 N = 2, IJK
115 MREC = MREC + NREC(N - 1)
   NRECS(I) = NREC(IJK)
   IDLE = (IDT(I) - 1)/IXF
   IFILE = 10 + MREC + IDLE
   CALL READD(IFILE, IBUF, LREC)
   MIDLE(I) = (IDT(I) - IDLE*IXF - 1)*LHXFM
   DO 130 J = 1, NPT
   IR = LP(I) + (J-1)*(INC+1) + MIDLE(I)
   IF(IR.GT.MIDLE(I)+LHXFM)GO TO 120
   Y(J,I) = IBUF(IR)*SCL/SF
   GO TO 130

*
*   STUFF ZEROS INTO THE DISPLAY
*
120 Y(J,I) = 0.0

```

AD-A107 584

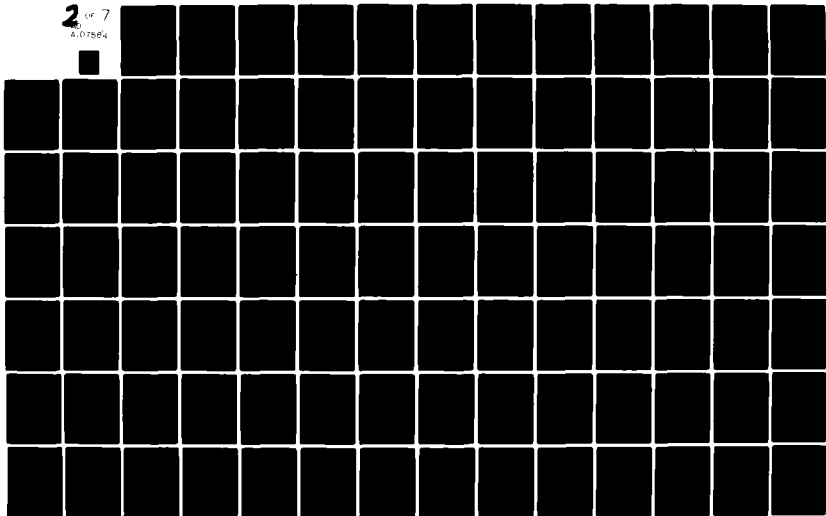
NAVAL POSTGRADUATE SCHOOL MONTEREY CA
APPLICATION OF ACOUSTIC SIGNAL PROCESSING TECHNIQUES TO SEISMIC--ETC(U)
JUN 77 C E IRVINE
NPS-52IR77061

F/G 17/10

NL

UNCLASSIFIED

2 of 7
A.07864



```

130 CONTINUE
160 CONTINUE
    ISCL = 0
C
C    DISPLY BUFFER
C
    IF(IFLD .EQ. 0) GO TO 165
    CALL TIMEX
    CALL REMOVE
    CALL DSPLY
165 IF(KSFLG .EQ. 0) GO TO 170
    IF(KSPT .NE. 0) CALL SPOT
    KSPT = 0
170 CONTINUE
C
C    SENSE FUNCTION SWITCH OPTION
C
C    FUNCTION SWITCH ASSIGNMENT
C    3 NAMELIST INPUT
C    4 DIAL OVERLAY OPTION
C    5 TIME SWEEP = ALL DIALS
C    6 FREQUENCY SWEEP = ALL DIALS
C    7 AMPLITUDE SCALING = DIAL 4
C    8 TRIGGER = DIAL 3
C    9 AUTO SWEEP
C    10 DIRECTION OF SWEEP
C    11 SINGLE SWEEP
C    12 FREQUENCY BASE = DIAL 3
C    13 SPOTLIGHT = DIAL 1
C    14 REMOVE SPOTLIGHT
C    15 TRIGGER FROM CURRENT LP, OR AUTO SWEEP IN TIME
C    16 UNUSED
C
200 CALL FNS(IDEV,ISW,IER)
    IF(IER .NE. 0) OUTPUT(102) IER,'ISW'
    JW = LXBR(JW,ISW)
    LB = NGM + 3
    DO 220 I = 3,16
        IF(JSW(I) .EQ. 0) GO TO 220
        ENCODE(4,210,ITX) I
210 FORMAT(12)
        CALL TEXT9(IDEV,ITX,1,LB,1,1,3,IER)
        IF(IER .NE. 0) OUTPUT(102) IER,'SW'
        LB = LB + 1
220 CONTINUE
        DO 230 I = LB, NGM + 16
            CALL TEXT9(IDEV,NULL,1,I,1,1,3,IER)
            IF(IER .NE. 0) OUTPUT(102) IER,'NULL'
230 CONTINUE
        CALL VCD(IDEV,DIALS, IER)

```

```

      IF (IER .NE. 0) OUTPUT(102) IER, 'VCD'
C
      IFLD = 1
      .
      .
      .
      TEST FOR MANELIST INPUT
      .
      .
      300 IF (JSA(3) .EQ. 0) GO TO 310
          IB = NGM + 17
          CALL GINPUT(IDEV, ITDIR, IB)
          CALL PAR
          JA = JOFF(3)
          IF (KILL .NE. 0) KILL = 0; RETURN
          IF (LSTNGM .NE. NGM) CALL INIT
          GO TO 100
      310 IF (JSA(5) .NE. 0) CALL TIMESAP; GO TO 100
          IF (JSA(6) .NE. 0) CALL FREGSAP; GO TO 100
          IF (JSA(7) .NE. 0) CALL SCALE; GO TO 100
          IF (JSA(8) .NE. 0) CALL TRIGER; JA = JOFF(8); GO TO 100
          IF (JSA(9) .NE. 0) CALL AUTO; GO TO 100
          IF (JSA(11) .NE. 0) CALL AUTO; JA = JOFF(11); GO TO 100
          IF (JSA(12) .NE. 0) CALL SPAN; GO TO 100
          IF (JSA(13) .NE. 0) KSPT = 0; CALL SPST; GO TO 100
          IF (JSA(14) .NE. 0) CALL SPST; GO TO 100
          GO TO 200
      .
      .
      .
      SUBROUTINE SCALE
      IF (ABS(DIALS(4) - SCLO) .LT. DZONE) IFLD = 0; RETURN
      SCLO = DIALS(4)
      SCL = (1.0 + SCLO) * 10.0
      DO 10 I = 1, NGM
      10 LPO(I) = -1
          KSPT = 1
          RETURN
      .
      .
      .
      SUBROUTINE TRIGER
      ISGN = 0
      .
      .
      .
      MAXV IS THE UPPER LIMIT OF THE TRIGGER LEVEL
      .
      .
      .
      TRL = (DIALS(3) + 1) * MAXV / 2
      I = 0
      DO 30 IJK = 1, MAXGM
          IF (IN(IJK) .EQ. 0) GO TO 30
          I = I + 1
          MREC = 0
          DO 10 J = 2, IJK

```



```

10 MREC = MREC + NREC(J-1)
   DO 20 K=1,NREC(I)
     IFILE=10+MREC + (K-1)
     CALL READD(IFILE,IBUF,LREC)
     IST = 1
   *
   *   OPTION TO TRIGGER FROM CURRENT LEAD POINT
   *
     IF(JSW(10) .NE. 0) IST = LP(I)
     DO 20 KK = IST,LHXF
       L = KK + MIDLE(I)
       IF((IBUF(L)*(SCL/SF) - TRL) .GE. 0) LP(I) = KK; GO TO 30
20  CONTINUE
   *
   *   IF NO TRIGGER LEVEL IS FOUND, SET THE LEAD POINT TO THE LAST
   *   POINT OF THE GRAM
   *
     LP(I) = LHXF
30  CONTINUE
     ENCODE(R,100,ITX)TRL
100  FORMAT(I8)
     CALL TEXT9(IDEV,ITX,2,1,2,1,3,IER)
     IF(IER.NE.0)OUTPUT(102)IER,'TRL'
     KSPT = 1
200 RETURN
   *
   *
   *   SUBROUTINE TIMESAP
   *
   *   MOVE THROUGH THE TRANSFORMS IN TIME
   *
     IFLD = 0
     N1=NGM
     N2=0
     IF(NGM.GT.6)N1=6;N2=NGM-6
     IF(JSW(4).NE.0)GO TO 20
   *
   *   DO TRANSFORMS 1 TO 6
   *
     DO 10 I=1,N1
       IF(ABS(DIALS(I) - TDS(I)) .LT. 0.29NE) GO TO 10
       TDS(I) = DIALS(I)
       IDT(I) = (1.0 + DIALS(I))*LXF(I)/2+1
       IF(IDT(I) .LT. 1) IDT(I) = 1
   *
   *   INSURE DISPLAY AND SPOTLIGHT UPDATE
   *
     IFLD = 1
     KSPT = 1

```

```

10  CONTINUE
    RETURN
*
*  DO TRANSFORMS 7 TO 10
*
20  DO 30 I=1,N2
    IF (ABS(DIALS(I)) - TDS(I+6)) .LT. DZONE) GO TO 30
    TDS(I+6) = DIALS(I)
    IDT(I+6) = (1.0 + DIALS(I)) * LXF(I+6)/2.1
    IF (IDT(I+6) .LT. 1) IDT(I+6) = 1
*
*  INSURE DISPLAY AND SPOTLIGHT UPDATE
*
    IFLD = 1
    KSPT = 1
30  CONTINUE
    RETURN
*
*
*  SUBROUTINE FREGSAP
*
*  CHANGE FREQUENCIES DISPLAYED FOR THE CURRENT TRANSFORM
*
    IFLD = 0
    N1=NGM
    N2=0
    IF (NGM.GT.6) N1=6:N2=NGM-6
    IF (JSA(4).NE.0) GO TO 20
*
*  DO TRANSFORMS 1 TO 6
*
    DO 10 I=1,N1
    IF (ABS(DIALS(I)) - FDS(I)) .LT. DZONE) GO TO 10
    FDS(I) = DIALS(I)
    LP(I) = (1.0 + DIALS(I)) * (LHXF4/2)
    IF (LP(I) .LT. 1) LP(I) = 1
*
*  INSURE DISPLAY AND SPOTLIGHT UPDATE
*
    KSPT = 1
    IFLD = 1
10  CONTINUE
    RETURN
*
*  DO TRANSFORMS 7 TO 10
*
20  DO 30 I=1,N2
    IF (ABS(DIALS(I)) - FDS(I+6)) .LT. DZONE) GO TO 30
    FDS(I+6) = DIALS(I)

```

```

      LP(I+6) = (1.0 + DIALS(I) ) * (LHXM/2)
      IF(LP(I+6) .LT. 1) LP(I+6) = 1
      .
      .
      .
      INSURE DISPLAY AND SPOTLIGHT UPDATE
      .
      .
      .
      KSPT = 1
      IFLD = 1
30    CONTINUE
      RETURN
      .
      .
      .
      SUBROUTINE AUTO
      .
      .
      .
      AUTOMATIC SWEEP IN TIME OR FREQUENCY
      .
      .
      .
      ISGN=0
      .
      .
      .
      FUNCTION SWITCH DETERMINES DIRECTION
      .
      .
      .
      IF(JSW(10).NE.0) ISGN=-1
      IF(JSW(15) .NE. 0) GO TO 20
      .
      .
      .
      SWEEP IN FREQUENCY
      .
      .
      .
      DO 10 I=1,NGM
      LP(I)=LP(I)+ISGN(INCH,ISGN)
      IF(LP(I) .LT. 1) LP(I) = 1
      IF(LP(I) .GT. LHXM) LP(I) = LHXM
10    CONTINUE
      KSPT = 1
      RETURN
      .
      .
      .
      SWEEP IN TIME
      .
      .
      .
      DO 30 I = 1,NGM
      IDT(I) = IDT(I) + ISGN(1,ISGN)
      IF(IDT(I) .GT. LXF(I)) IDT(I) = LXF(I)
      IF(IDT(I) .LT. 1) IDT(I) = 1
      .
      .
      .
      CONTINUE
      .
      .
      .
      KSPT = 1
      RETURN
      .
      .
      .
      SUBROUTINE SPAN
      .
      .
      .
      EXPAND OR CONTRACT THE FREQUENCY BASELINE
      .
      .
      .
      IF(ABS(DIALS(3) - SPN) .LT. DZONE) IFLD = 0;RETURN

```

```

      SPN = DIALS(3)
      IF (SPN .LE. 0) GO TO 20
      *
      *   EXPAND THE TRANSFORM
      *
      10 NPT = (1-SPN)*200
      IF (NPT .LT. 10) NPT = 10
      DX = 1./NPT
      INC = 0
      GO TO 30
      *
      *   CONTRACT THE TRANSFORM
      *
      20 NPT = 200
      MIRC = LHXFM/NPT
      IF (MIRC*NPT .LT. LHXFM) MIRC = MIRC + 1
      INC = (ABS(SPN))*MIRC
      DX = 0.007
      *
      *   DISPLAY THE FREQUENCY RANGE BEING DISPLAYED
      *
      30 S = (NPT/T)*((INC+1)
      35 ENCODE(8,100,ITX) S
      100 FORMAT(F8.2)
      CALL TEXT9(IDEV,ITX,2,2,92,1,3,IER)
      IF (IER .NE. 0) OUTPUT(102) IER,'SPAN'
      DO 200 I = 1,NGM
      200 LPD(I) = 0
      KSPT = 1
      RETURN
      *
      *
      *   SUBROUTINE TIMETX
      *
      DO 20 NM = 1,NGM
      I = NGM - (NM - 1)
      *
      *   COMPUTE THE TIME OF EACH TRANSFORM
      *
      K = IT(1) + (IDT(I) - 1) * TMSCL
      ITIME(1,I) = K / 3600
      ITIME(2,I) = (K - ITIME(1,I) * 3600) / 60
      ITIME(3,I) = K - ITIME(1,I) * 3600 - ITIME(2,I) * 60
      IAMP = Y(1,I) * (SF / SCL)
      FRQ = LP(I) / T
      *
      *   IF THE SPOTLIGHT IS ON, DISPLAY THE TIME AT THE CENTER OF THE CURSOR
      *
      IF (ICURS .NE. 0) FRQ = FRQ + (SFTA + (IWIDTH/2)) / T
      ENCODE(28,100,ITXA) IDGM(I),ITIME(1,I),ITIME(2,I),ITIME(3,I),

```

```

1 FRQ,IAMP
100 FORMAT(A4,' ',12,' ',12,' ',12,' ',F7.4,' ',15)
CALL TEXT8(IDEV,ITXA,7,M,1,1,3,IERR9R)
IF(IERR9R.NE.0) OUTPUT(102) IERR9R,ITXA'
20 CONTINUE
RETURN

```

*
*
*
C
C
C

A SUBROUTINE TO DISPLAY GRAPHICAL DATA
CALLS IHEAD, IPACK, GRAPH8

```

SUBROUTINE DSPLY
IMAGE(1) = IHEAD(0,INT)
L = NPT*NGM + 2
MKZ9 = LSTNPT - NPT
DO 15 I = 1,NGM
K = (I - 1)*NPT + 1

```

*
*
*

COMPUTE THE VERTICLE SPACING OF EACH LINE

```

YV = Y8 + (I-1)*DY
DO 10 J = 1,NPT
XIM = X8 + DX*(J - 1)
YIM = YV + Y(J,I) - BIAS(I)
IF(J.NE.1) GO TO 9

```

*
*
*

MAKE THE FIRST POINT OF EACH LINE A MOVE

```

IMAGE(K+J) = IPACK(XIM,YIM,0)
GO TO 10
9 IMAGE(K+J) = IPACK(XIM,YIM,MD(J,I))
10 CONTINUE
15 CONTINUE
IMAGE(L) = 0
DO 20 I = 1,MKZ9*NGM
IMAGE(L+1) = 0
20 CONTINUE
CALL GRAPH8(IDEV, IMAGE,L, 1, IER)
IF(IER.NE.0) OUTPUT(102) IER,'GPS'
LSTNPT = NPT
RETURN

```

C
C
C
*
*
*
*

SPOTLIGHT A CERTAIN BAND OF EACH TRANSFORM READING BUT THE FREQUENCY
AT THE CENTER OF THE SPOTLIGHT

SUBROUTINE SP9T

```

ICURS = 1
IF(JSW(14) .NE. 0) ICURS = 0; GO TO 15
*
* WHEN THE KSPT FLAG IS ON, THE SPOTLIGHT WILL BE UPDATED WITHOUT
* READING THE AGT DIALS
*
IF(KSPT .NE. 0) GO TO 9
*
* READ THE AGT DIALS
*
IF(ABS(DIALS(1) - SPT) .LT. DZONE) IFLD = 0; RETURN
SPT = DIALS(1)
SPTA = (DIALS(1) + 1)*NPT
SPTB = SPTA + I*WIDE
IF(SPTB .LE. NPT) GO TO 5
SBV = SPTB - NPT
SPTA = SPTA - SBV
5 CONTINUE
C
C WITH -1<DIALS<+1 GET NUMBER OF LEAD SPOT POINT
C
9 IMSPT(1) = IHEAD(0,INTSP)
L = I*WIDE*NGM + 2
DO 10 I = 1,NGM
K = (I-1)*NPT + 1 + SPTA
DO 10 J = 1,I*WIDE
IMS(J,I) = IMAGE(K+J)
IF(J .EQ. 1) IMS(J,I) = LAND(77777776B,IMS(J,I))
10 CONTINUE
IMSPT(L) = 0
KSFLG = 1
GO TO 17
*
* ZERO THE SPOTLIGHT ARRAY, THUS MAKING EACH POINT A MOVE
*
15 DO 16 I = 1,NGM
DO 16 J = 1,I*WIDE
IMS(J,I) = 0
16 CONTINUE
K = NGM*I*WIDE + 1
IMSPT(K) = 0
IMSPT(K+1) = 0
KSFLG = 0
17 CONTINUE
KSPT = 0
CALL GRAPH6(IDEV,IMSPT,L,3,IERROR)
IF(IERROR .NE. 0) OUTPUT(102) IERROR,'GS9'
CALL TIMETX
IFLD = 0
RETURN

```

C
C
C

SUBROUTINE C09RD
IC0R(1) = IHEAD(1,INT)

C
C
C

PLST Y AXIS

IC0R(2) = IPACK(X0,Y0,0)
YC0R = Y0 + 1.4
IC0R(3) = IPACK(X0,YC0R,1)

C
C
C

PLST X AXES

DO 10 I = 1,NGM
XC0R = X0 + 1.4
YC0R = Y0 + (I-1)*DY
K = (I-1)*2 + 4
IC0R(K) = IPACK(X0,YC0R,0)
IC0R(K+1) = IPACK(XC0R,YC0R,1)
10 CONTINUE
IC0R(K+2) = 0
CALL GRAPH0(IDEV,IC0R,K+2,2,IERR0)
IF(IERR0.NE.0) OUTPUT(102) IERR0,'C0R'
RETURN

C
C
C
C
C
C

SUBROUTINE INIT

*
*
*

INITIALIZE THE GRAPHICS DISPLAY AND PROGRAM OPERATIONS

CALL PAR
DO 10 I = 1,MAXGM
IT(I) = ITO(3,I) + 60*(IT0(2,I)+60*IT0(1,I))
LP(I) = 1
LPD(I) = 0
IDT(I) = 1
IDTD(I) = 0
FDS(I) = 0
TDS(I) = 0
BIAS(I) = 0.0
DO 10 J = 1,NPT
Y(J,I) = 0.
MD(J,I) = 1
IF (J.EQ.1) MD(1,I) = 0
10 CONTINUE

```

CALL DTINIT(IDEV, ITDIR, 30, IER)
IF(IER .NE. 0) OUTPUT(102) IER, 'DTINI'
CALL TIMETX
CALL DGINIT(IDEV, IGDIR, 10, IER)
IF(IER .NE. 0) OUTPUT(102) IER, 'DGINI'
CALL DSPLY
TRL = 0
ENCODE(8, 20, ITX) TRL
20 FORMAT(18)
CALL TEXT8(IDEV, ITX, 2, 1, 92, 1, 3, IER)
IF(IER .NE. 0) OUTPUT(102) IER, 'ITRL'
S = NPT*(INC+1)/T
ENCODE(8, 30, ITX) S
30 FORMAT(F8.2)
CALL TEXT8(IDEV, ITX, 2, 2, 92, 1, 3, IER)
IF(IER .NE. 0) OUTPUT(102) IER, 'ISPAN'
LSTNPT = LSTWID = 0
LSTNGM = NGM
CALL C08RD
RETURN

C
C
*
C
SUBROUTINE PAR
DO 10 I=1, NSGM
*
*
*
*
NSF = NUMBER OF TRANSFORMS PER GRAM
IXF = NUMBER OF TRANSFORMS PER 2048 (I.E. PER DRUM FILE)
NREC = NUMBER OF DRUM FILES
*
IXF = LREC/LHXFM
NREC(I)=NXF(I)/IXF
IF(NXF(I).GT.NREC(I)*IXF) REC(I)=NREC(I)+1
10 CONTINUE
NGM = 0
I = 0
DO 20 IJK = 1, MAXGM
IF(IW(IJK) .EQ. 0) GO TO 20
I = I + 1
NGM=NGM+1
IDGM(I) = IDGRAM(IJK)
LXF(I)=NXF(IJK)
20 CONTINUE
DX = 1.4/NPT
DY = 1.4/NGM
IF(SCL .NE. SCLSAV) SCLSAV=SCL; ISCL = 1
IF(SF .NE. SFSAV) SFSAV = SF; ISCL = 1
RETURN
C

```


C
C
C

SUBROUTINE REMOVE

DE 10 I = 1,NGM

DE 10 J = 1,NPT

10 MD(J,I) = 1

DE 100 I = 1,NGM-1

DE 100 J = 1,NPT

DE 100 N = I+1,NGM

IF(MD(J,N) .EQ. 0) GO TO 100

IF((Y(J,I)-BIAS(I)).GT.((Y(J,N)-BIAS(N))+DY*(N-I))) MD(J,N)=

1 0

100 CONTINUE

RETURN

C
C
C

SUBROUTINE DUMMY; RETURN

C

END

On-Line Extended Signal Processing

This is a revision of the Extended Signal Processing program, which was originally written for acoustic data. The prime motivation for restructuring ESP was the very considerable amount of time required to process the seismic data. Previously, the fast Fourier transforms were taken as a separate step in the data analysis and were stored on magnetic tape. For data sets consisting of hundreds of thousands of sample points, separate computation of the transforms is reasonable; however, when the data consisted of only a few thousand points, the overhead in terms of man hours for magnetic tape manipulation is excessive. Thus a version of ESP was written which calls a subroutine to perform the transforms on the time data, sending the results back to ESP for display.

Another improvement in ESP was the addition of a multiple input file capability allowing the user to move from one seismogram to the next with ease. Previous versions of ESP had required complete program reinitialization before a new data set could be processed.

A useful addition to the program was its hard-copy option. Any picture on the AGT screen could be read out onto magnetic tape for subsequent processing on the PDP 11/50 to produce line drawings on the Versatec printer-plotter. This option is particularly useful when qualitative comparison of many seismic spectra is desired.

To provide the user with greater flexibility in data handling, the NIFTY tape handling package was included in the Un-Line-ESP package.

The basic function of ESP itself is to provide a versatile display of transformed signals in three dimensions. Unlike DXD, it allows the user to study, for one seismic record, the dynamic characteristics of the signals in both the frequency and time domains. Options are chosen using the AGI-10 function switches and often require the control dials. Since ESP does not use the standard package of graphics subroutines, it differs in some respects from DSD and DXD.

i. Namelist

This option is always operative and does not have to be signaled by a function switch. When a * carriage return is issued by the operator, all newly specified namelist parameters are updated in the program.

ii. Input halt

Unless this option is selected, the program will continue to compute transforms and update the display. Thus when something of interest appears on the screen, it is possible to stop and inspect the transforms in greater detail.

iii. Amplitude Scaling

halting the display update process and allowing the operator to modify the scale factor of the displayed data; this option provides an easy alternative to scaling through nanelist.

iv. Frequency sweep

With both automatic and single sweep modes, the operator can inspect all frequencies of the display despite the fact that the transforms may be too long to allow the entire spectrum to appear on the screen at once.

v. Spotlight

Control dials are used to set up to three spotlights on the desired frequencies. As the display is updated, interesting or promising frequencies are accentuated.

vi. Hardcopy

At any time the operator may choose to record the display on magnetic tape for subsequent processing into hardcopy output. It adds to the versatility of the program since not all analysis needs to be done in the laboratory.

vii. Harmonic display

This option is useful in some applications by allowing the operator to examine and spotlight the time history of selected frequency harmonics. It was not

extensively used in this project.

I. On-Line ESP - Operating Summary

On-line ESP was written to save time and space during the processing of seismic data. As an alternative to the three-step process of performing the transforms, storing them on magnetic tape, and finally displaying them using ESP, a program has been written which performs the transforms and supplies them to ESP as they are needed. The only tape necessary is that containing the original time data; however, it is possible to create an output tape containing x-y pairs for plotting on the Versatec Matrix Plotter.

Because of the limitations of the core size of the XDS 9300, On-Line-ESP was written as an overlay package. It consists of a main segment and three primary overlay segments: ESP, xFORM, and NIFTY. ESP is the basic display program, xFORM computes the Fast Fourier transforms of the seismic data, and NIFTY is used for tape manipulation.

II. Program Modules

A. NIFTY

This is an all-purpose tape handling package. It can be called prior to the first processing of the data or can be called from ESP. Upon returning from NIFTY, control is

transferred directly to the beginning of ESP. It is the user's responsibility to position the input tape at a header record when completing use of NIFTY. The data tapes used in this project have one seismogram per file, so positioning at the beginning of a file is sufficient. If the multiple file option of ESP is being used, the program will require parameter input and a card deck should be ready when it is reentered. If no parameter update is necessary, a "*" card is sufficient.

NIFTY asks for commands, which can be any of the following:

1. RECORDS = 1	space forward or backward a given number of records
2. FILES = 1	space forward or backward a given number of files
3. TAPRWD = 1	rewind a tape
4. WPTEOF = 1	write an end of file
5. DUMP = 1	read a tape and dump on line printer
6. COPY = 1	copy one tape to another tape

Subsequent instructions to the user will be issued after '*' c/r' has been typed on the control console.

B. XFORM

This program performs the transforms. It receives all of its parameters from ESP. Most of the parameters are given in the header record; however, there are a few which should be specified when ESP is initialized:

LFT = length, in points, of the transform

LAG = lag, in points, between transforms

NONOISE = the number of transforms to be averaged together to create the mean noise transform, which will be subtracted from all of the transforms prior to their being displayed on the AGT. If NONOISE = 0, the transforms will be displayed without noise subtraction. If NONOISE = 1000 all of the transforms will be used to find the mean noise transform.

Transforms will be taken for as much data as possible. The maximum number of possible transforms will depend upon their length and the lag between the transforms:

number of transforms = (number of sample points - LFT)/LAG .

Because the overlay system requires a non-trivial amount of time to transfer from one program module to another, it was found that program efficiency could be improved by storing transforms on the drum. While in XFORM, transforms are stored on the drum in a 1K word data area. Thus if the transform length is 256 points, eight transforms could be stored. The mirror image half of the transform having been discarded. When control returns to ESP, the drum is read and the transforms are displayed with the maximum speed.

C. ESP

This is the Extended Signal Processing Fourier Transform

display program. A maximum of ten transforms are displayed simultaneously within a three dimensional plot. The x axis is frequency, the y axis is amplitude or power, and the z axis is time. An excellent hidden line removal algorithm developed by Albert Wong allows the display to be rotated and scaled with no distortion of the image. Its jobs are to request transforms from XFORM and to communicate with the AGI either to change its display parameters or to send it new transforms.

Because of its interactive capabilities, many parameters must be specified when the program is initialized and most can be changed to modify the appearance of the display. These parameters are listed below. Many parameters are initialized within the program and others are given their values via card input. For the latter group, each parameter is followed by its default value in brackets.

Function Switch Options

The program's dynamic interactive capability is provided by the function switches, control dials, and teletype console available on the AGI-10. The function switches are listed below with their corollary control dials indicated when applicable.

1 - restart

Flags will be set for program reinitialization. The user is given the opportunity to modify namelist parameters before proceeding.

2 - sideline display

The most recently displayed transform is given an additional separate display on a section of the screen. This allows the operator to inspect each transform as it appears with greater detail.

3 - rotation (dial C)

While this function switch is on, dial C may be used to rotate the display through 180°. The hidden line removal algorithm will help to yield a display which can be viewed from the sides as well as in a waterfall.

4 - display loop

Update of the display is continuous unless this function switch is on. The use of this function switch allows the operator to examine certain spectra in more detail and to apply other function switch options for enhancement of the data.

5 - spotlight adjust (dials A, B, and C)

As many as three spotlights may be displayed simultaneously. The spotlight adjust option allows the user to reposition the spotlights using the control dials.

6 - harmonic option

This function switch causes the spotlights to move simultaneously while they are separated from each other by a specified harmonic factor.

7 - spotlight display

The spotlight option is turned on and off with this function switch. Current initialization procedures cause the spotlight to be on when the display begins.

8 - amplitude scaling (dials D, E, and F)

Control dials are used to alter the amplitude of the display. Because up to three data windows may be displayed concurrently, their amplitude scaling is regulated separately by three different control dials.

9 - frequency sweep

This option caused continuous frequency sweeping of all spectra being displayed. Function switch 10 is used to reverse the direction of the sweep. When the frequency sweep option is turned off the lead point frequency of the display will remain at the chosen frequency as the display is updated.

10 - direction of sweep

Use of this function switch reverses the direction of the frequency sweep in either the continuous or single sweep mode.

11 - single sweep

The user is allowed to sweep the data in frequency one frequency increment with this function switch. Selection of function switch 10 will cause a reversal of the sweep direction.

13 - hard-copy

Each time that this function switch is depressed the

x-y coordinates of the current display are output to magnetic tape with a header record.

14 - endfile on hard-copy tape

This option allows the user to put an end of file mark on the hard-copy output tape. The plotting program expects an end of file mark at the termination of all data sets. The output tape will be rewound after the end of file is written.

Control parameters

ISFG(??;512)	sampling rate in points per second (10)
NBC	number of box car averages (1) Several transforms may be averaged together to produce a spectrum on the screen.
MDLAY(??;10000)	scaling parameter
N1(??;1)	averaging parameter
WOINT(??;1.0)	sideline window intensity on AGT-10
ISQRT(0,1;1)	power option Power, the squares of the amplitudes of the Fourier coefficients, will be displayed on the AGT-10.
SLINT(??;1.0)	sideline intensity on AGT-10
SINT(??;1.0)	line intensity on AGT-10
WINT(??;0.5)	window intensity on AGT-10
LFT(??;8192)	length of transform in points

LAG(?;512)	lag between transforms in points
STRT1(?;3.5)	frequency of leadpoint of first window
IEOF(0,1;0)	flag to indicate multiple file input tape
ITAPE(?;1)	input tape unit number
LG10(0,1;0)	flag to take base 10 logarithm of transform before displaying it
LGNAT(0,1;0)	flag to take the base e log of the transform before displaying it
STRT2	frequency of the lead point of the second window
STRT3	frequency of the lead point of the third window
SAMPTS	number of sample points on time sequence (read from header record)
LGCNT	transform counter
LREC(?;1024)	length of input record
INITL(0,1;0)	initialization flag
ICARD(0,1;0)	card input flag
IREP(0,1;0)	repeat flag
IREWIND(0,1;0)	rewind flag
CSPI(0,1;0)	flag to obtain transforms from CSPI-125 (inoperative)
KNIFTY(0,1;0)	flag to signal transfer to NIFTY subroutine package
NONOISE(?;0)	noise subtraction from transforms

(see XFORM description)

Display parameters

IWIDE(?;10)	width of spotlight in points
NSL(0-3;2)	number of spotlights
ISWEEP	frequency sweep option
SWINC(?)	frequency sweep increment in Hz
SWU(?)	upper limit of frequency sweep
SWL(?)	lower limit of frequency sweep
ISCL(?;500)	inverse scale factor for display
NPT(0-150;128)	number of points per line on AGT display
LINE(0-10;10)	number of lines of transforms on AGT display
NGRP	number of harmonic groups
HARM1	harmonic window 1
HARM2	harmonic window 2
LSD(0,1;0)	side-line display option

Movie parameters

NFRAM	number of frames per second
NSPUT	shutter speed

Output parameters

IDATE	date: month, day, year
ISITE	site identification in BCD

Input Tape Format

Each sequence of time data must be preceded by a standard header record in which the following parameters are specified:

word	value
1	number of 1024 records of time data If the number of sample points is not evenly divisible by 1024, an additional record is used.
2	event identification
3	date - month
4	date - day
5	date - year
6	site identification
7	number of channels
8	total number of sample points on seismogram
9	sampling rate in samples per second
10	time - hours
11	time - minutes
12	time - seconds

The header record is followed by the time samples which are

divided into records having a length of 1024 words. If not completely filled, the last record will be padded with zeros.

Hard-copy Output Tape Format

If data for plotting on the Versatek are desired, they may be recorded on magnetic tape and then taken to the PDP 11/50 system for further processing. Each record is 300 words long and all words are right justified. A complete plot will consist of eleven records: one header record and ten data records. The header record has the following format:

word	value
1	number of points per line
2	number of lines
3	x-increment (AGT)
4	y-increment (AGT)
5	current line pointer (AGT)
6	number of spotlights
7	center of spotlight 1
8	center of spotlight 2
9	center of spotlight 3
10	start time - hours
11	time - minutes
12	time - seconds

13	length of transform
14	lag between transforms
15	sampling rate of data
	site identification (BCD)
17	site identification (BCD)
18	site identification (BCD)
19	lead point of data currently being displayed on AGT
20	scale factor
21	date - month
22	date - day
23	date - year

The data records will consist of up to 150 x-y pairs per record.

To operate On-Line ESP:

1. mount program tape on MT3A and use a rerun deck to enter it
2. mount the input tape on MT1A and, if desired, an out-put tape on MT2A
3. a message will appear on the control console
'SET UP AGT FOR ESP'
4. carry out this instruction by
 - a. typing on the AGT control console
RESET(4,4)!
 - b. when disk activity has ceased, type
ESP93!

Fast Fourier Transform Control Program

XFORM - Operating Summary

This program performs transforms on earthquake data. The description given here is for its stand-alone operation for which data are

input from and output to magnetic tape. The spacing, in points, between transforms can be specified by the user. The number of records for each time trace must be specified, NOREC, as well as the total number of grams to be transformed, NGM.

OPERATING PROCEDURE:

This program is part of the EARTHQUAKE overlay package. It is called when

COMMAND MF is followed by

XFORM

with this program operating in core the user is issued a command for

PARAMETER INPUT

for which there are two options to type in on the terminal:

ICARD=0 resulting in no parameter input (in most cases an error)

ICARD=1 resulting in input from the card reader usually including

NOREC, NGM, and LAG.

The program will then start the transforms with the input data on tape unit 1 and the output on tape unit 2. After the transforms have been performed on a particular time sequence, an ENDFILE will be written and the following information will be output:

IFILE=the number of the file of the transforms, with respect to the first set of transforms

IREC=the number of records output for that particular set of transforms. Since these are recorded on 1K records, IREC = number of transforms.

Upon completion of all of the transforms, control will return to the main program, which again requests:

COMMAND ME.

Nifty

I. Description

NIFTY is a self-contained, general-purpose program for handling tapes. It is accessible in two forms: as a stand-alone program or as part of an overlay package. Once NIFTY is in the computer, its operating procedure is the same regardless of its status as a main program or a subroutine. NIFTY maintains a dialogue with the operator, asking for input parameters and dispensing information.

II. Operating Procedure

The reader is referred to the operating instructions of the various overlay packages when calling NIFTY as an overlay is desired. To use the stand-alone version, the NIFTY DRIVER and its Metasympol subroutines are compiled.

When the program is in the computer and execution is begun, NIFTY takes the initiative asking:

WHAT DO YOU WANT TO DO

The user then responds by asking for one or more of six options, which are listed below in order of priority:

A. FILES = 1

skip a given number of files

B. RECORDS = 1

skip a given number of records

C. DUMP = 1

dump a record on the line printer

D. COPY = 1

copy a record from one tape to another

E. WEOF = 1

write an end of file on the tape

F. TAPRWD = 1

rewind the tape

these instructions should be followed by:

c/r *

c/r

Program control will be transferred to the subroutine designed to execute the requested option. In each case the operator will be asked to specify various parameters.

When NIFTY is part of an overlay an additional option allowing return to the main overlay segment is available. It is the KILL option. By typing KILL = 1, control is returned to the calling program.

III. NIFTY Subroutines

At the start of each subroutine, a message will be printed on the XDS 9300 teletype console. It will state SPECIFY and will be followed by a list of parameters which must be defined in order that the subroutine execute properly. If a subroutine is being called repeatedly, its parameters will be remembered between calls; however, if a different subroutine call precedes the recall of a subroutine, the user is advised to play it safe and respecify all

parameters.

A. FILES

This subroutine will space a magnetic tape forward or backward the number of files requested by the operator. An error will result if either the beginning or end of tape mark is encountered, so the user is required to keep track of which file is currently being accessed and should know the total number of files on the tape.

SPECIFY NFILE, DIR, UNIT

where

NFILE = number of files to be skipped

DIR = direction 0 = forward; 1 = backward

UNIT = tape unit 1 or 2

B. RECORDS

By choosing this option it is possible to position the tape forward or backward a given number of records. An error will occur if the end of tape or beginning of tape marks are encountered and the user must remember where in the current file the tape is positioned.

SPECIFY UNIT, NREC, DIR

where

UNIT = tape unit 1 or 2

NREC = number of records to be skipped

DIR = direction 0 = forward; 1 = backward

C. DUMP

One can dump a few records of either a binary or BCD tape onto the lineprinter using this option.

SPECIFY LREC, NREC, MODE, UNIT

where

LREC = length of records

NREC = number of records

MODE = 1 for binary; 0 for BCD

UNIT = tape unit 1 or 2

d. COPY

By using this option, one tape can be copied onto another either as is or with a conversion from binary to BCD or vice versa. This is a convenient way of merging two tapes.

SPECIFY LREC, NREC, MODE, INUNIT, OTUNIT, EOF

where

LREC = length of records

NREC = number of records

INMODE = 1 for binary; 0 for BCD on input tape

OTMODE = 1 for binary; 0 for BCD on output tape

INUNIT = input tape unit

OUTUNIT = output tape unit

EOF = end of file option for output tape.

1 to write an endfile after copying is completed

0 for no endfile mark

e. WRTEOF

This option allows the user to write an end of file on a tape with no other tape activity or with a subsequent rewind.

SPECIFY UNIT, RWOPTN

where

UNIT = tape unit 1 or 2

RWOPTN = option to rewind the tape after the EOF.

1 for rewind

0 for no rewind

f. TAPRWD

The specified tape unit is rewound.

SPECIFY UNIT

where

UNIT = tape unit 1 or 2

Each list of specifications should be followed by * c/r

Some of these subroutines will send messages to the user upon completion of the operation, then the program will return and reissue its original request:

WHAT DO YOU WANT TO DO

•	ESP - XFBRM CONTROL PROGRAM	0001
•		0002
	INTEGER PTR, CSPI	0003
	INTEGER XFCT, XCNT, SAMPTS	0004
	COMMON IP, LINE, NGRP, NPIS, NSL, ITIME, LFTIME, IRES9, LG(3),	0005
	* IHARM1, IHARM2, IWIDE, NFRAM, NSHUT, INTL, INTS, INTSL, INTL9, VPT,	0006
	* LAG, MDLAY, IEFF, LFT, N1, KILL, ITAPE, NBC, INITL, ICARD,	0007
	* MTAPE, ISWEEP, ISGRT, ISCL, IREP, CSPI, ISTUP(3),	0008
	* LP(3), LGRP, ISCP, LSPEC, NREC, NCTR, IPTR, LPTR, LSD, IDISPY,	0009
	* ISCAN, ISCAL, IFILE, IAB, JAB, IREWIND, STRT1, STRT2, STRT3,	0010
	* HARM1, WINT, SINT, SLINT, WBINT, HARM2, SWINC, SWL, SWJ, SINC, IFLAG,	0011
	* PTR, ICTR, ISHT, N8REC, ISTAR, IF, ISWI, ISWU, ISWL, I9PTN, NP	0012
	* KNIFTY, N8N9ISE, XFCT, XCNT, LG10, LGNAT, IDATE(3), ISITE, LGCNT,	0013
	* SAMPTS, ISF3	0014
•		0015
	NAMelist KNIFTY, N8N9ISE	0016
•		0017
•		0018
5	CALL UPSET	0019
	OUTPUT(102) 'SETUP AGT FOR ESP'	0020
	INPUT(101)	0021
	ISTAR = 1	0022
	IF(KNIFTY .EQ. 1) KNIFTY = 0; CALL NIFTY	0023
10	CALL ESP	0024
	IF(KNIFTY .EQ. 1) KNIFTY = 0; CALL NIFTY; GO TO 10	0025
	IF(KILL .EQ. 1) KILL = 0; OUTPUT(102) 'STP'; INPUT(101)	0026
	IF(CSPI .EQ. 1) GO TO 20	0027
	CALL XFBRM	0028
	GO TO 10	0029
20	OUTPUT(102) 'CIRCUS'	0030
	GO TO 10	0031
	END	0032

	PAGE			0001
A	EQU	5		0002
B	EQU	4		0003
*				0004
*	FORREC	BAKREC	SPACE THE TAPE EITHER FORWARD OR	0005
*	BACKWARD	I RECORDS		0006
*	CALLS	9SETUPN, R/19PS		0007
*	CALLED BY	MAIN PROGRAM		0008
*	CALL	BAKREC(N,I)	N = UNIT, I = NO. OF RECORDS	0009
*				0010
*				0011
	\$BAKREC	PZE	0	0012
	LDA	BAKREC		0013
	STA	FORREC		0014
	BRU	FORREC+1		0015
*				0016
*				0017
	\$FORREC	PZE	0	0018
	BRM	9SETUPN		0019
	PZE	2		0020
FNIT	PZE	0	UNIT	0021
FNREC	PZE	0	NO. OF RECORDS	0022
	LDA	*FNIT		0023
	STA	FUNIT		0024
	BRM	ASGN		0025
	PZE	1		0026
FUNIT	PZE	0		0027
	LDA	ARFOT		0028
	ADD	=03000000		0029
	STA	FBCAL		0030
	LDA	*FNREC		0031
	SKU	=0		0032
	BRU	RCEND		0033
	LDB	BAKREC		0034
	SKB	=077777	GO BACKWARDS	0035
	BRU	*+2		0036
	CBPY	(-A,A)		0037
	STA	TFOT+4		0038
	BRM	R/19PS		0039
	PZE	1		0040
FBCAL	PZE	0		0041
	SKN	TFOT		0042
	BRU	*+2		0043
	BRU	*-2		0044
RCEND	STZ	BAKREC		0045
	BRR	FORREC		0046
	PAGE			0047
*				0048
*	BAKSCN	FORSCN	SCANS FORWARD OR BACKWARD ON A TAPE FOR A	0049
*	KEYWORD	OR AN END FILE MARK		0050
*	CALLS	9SETUPN, R/19PS, BCDCVT, ASGN		0051
*	CALLED BY	MAIN PROGRAM		0052
*				0053
*				0054

*BAKSCN	PZE	0		0053
	LDA	BAKSCN		0054
	STA	F0RSCN		0055
	BRU	F0RSCN+1		0056
* 0061				
*F0RSCN	PZE	0		0062
	BRM	9SETUPN		0063
	PZE	2		0064
SUNIT	PZE	0		0065
SE0F	PZE	0		0066
	STZ	CBUNT		0067
	LDA	*SUNIT		0068
	STA	SUNT		0069
	BRM	ASGN	;SEARCH SYMBOL TABLE	0070
	PZE	1		0071
SUNT	PZE	0		0072
	LDA	=0600	;600 = 4 CHARACTER/WORD	0073
	STA	MODE	;STORE MODE IN FDT	0074
PLC1	LDA	=017170000	;PUT EOF KEYWORD IN FDT	0075
	STA	TFDT+4		0076
	LDA	*SE0F	;GET NO. OF EOF'S	0077
	SKU	=0		0078
	BRU	FEND		0079
	SUB	=1		0080
	STA	CBUNT		0081
PLC2	LDB	BAKSCN		0082
	LDA	AREDT		0083
	ADD	=02000000		0084
	SKB	=077777	;SCAN BACKWARDS	0085
	BRU	*+2	;NS	0086
	ADD	=00100000		0087
	STA	SCNCAL		0088
DB19	BRM	R\19PS		0089
	PZE	1		0090
SCNCAL	PZE	0		0091
	SKN	TFDT		0092
	BRU	*+2		0093
	BRU	*-2	;NS	0094
	LDA	TFDT		0095
	SKU	=06000000	;BEGIN OR END TAPE	0096
	BRU	FEND		0097
	LDA	*SE0F		0098
	SKU	=0		0099
	BRU	CNTR		0100
	LDA	TFDT		0101
	SKE	=010000000		0102
	BRU	DB19		0103
CNTR	SKR	CBUNT		0104
	BRU	DB19		0105
	LDA	BAKSCN	;WAS THERE BACKSCANNING	0106
	SKU	=0		0107
	BRU	FEND		0108
	LDA	SUNIT		0109

	STA	PLC3		0110
	LDA	1		0111
	STA	PLC4		0112
	BRM	FBRREC	:GB FORWARD 1 REC9RD TO GET PAST THE E9F	0113
	PZE	2		0114
PLC3	PZE	0		0115
PLC4	PZE	0		0116
FEND	STZ	BAKSCN		0117
	BRR	FBRSCN		0118
*				0119
*				0120
COUNT	PZE	0		0121
	PAGE			0122
*				0123
*	BCDCVT	CONVERTS A WORD TO BCD		0124
*	CALLS	NONE		0125
*	CALLED BY	ASGN, FBRSCN, BAKSCN		0126
*				0127
*				0128
*BCDCVT	PZE	0		0129
	BRM	9SETUPN		0130
	PZE	1		0131
WORD	PZE	0		0132
	STX	STORE,1		0133
	LDX	=0200000-4,1		0134
	LDA	=060606060		0135
	STA	NAMTAB		0136
	STA	NAMTAB+1		0137
CL99P	LOB	WORD		0138
	ALSB	1		0139
	COPY	(0,A)		0140
	DIV	=10		0141
	COPY	(A,B),(B,A)		0142
	STB	WORD		0143
	LDB	MASK		0144
	STS	NAMTAB		0145
	LDA	NAMTAB		0146
	CRSA	6		0147
	STA	NAMTAB		0148
	BRX	DL99P,1		0149
	BRU	EL99P		0150
DL99P	LDA	WORD		0151
	SKE	=0		0152
	BRU	CL99P		0153
EL99P	LDX	STORE,1		0154
	BRR	BCDCVT		0155
STORE	PZE	0		0156
MASK	PZE	077		0157
	PAGE			0158
*				0159
*	ASGN	FINDS SYMBOL TABLE ADDRESS OF TAPE UNIT		0160
*	CALLS	R/RSTS		0161
*	CALLED BY	ALL TAPE HANDLING SUBROUTINES		0162
*		WILL CAUSE AN ABORT IF AN ADDRESS CORRESPONDING TO THE UNIT		0163
*		IS NOT FOUND		0164

*				0168
*				0169
*				0167
*				0168
*\$ASGN	PZE	0		0169
	BRM	9SETUPN		0170
	PZE	1		0171
TUNT	PZE	0		0172
	LDA	TUNT		0173
	STA	ASGN1		0174
	BRM	3CDCVT		0175
	PZE	1		0176
ASGN1	PZE	0		0177
ASGN2	BRM	RVRSTS		0178
	PZE	1		0179
	PZE	NAMTAB		0180
	SKL	=0		0181
	BRU	TERR		0182
	STA	TFOT+5		0183
	BRR	ASGN		0184
TERR	LDA	NAMTAB		0185
	STA	MSG+1		0186
	BRM	R/ABRT		0187
	PZE	1		0188
	PZE	MSG		0189
*				0190
*				0191
NAMTAB	TEXT	8,		0192
	PZE	3		0193
*				0194
MSG	PZE	4		0195
	TEXT	16,	NOT FOUND	0196
*				0197
*				0198
*				0199
ARFDT	PZE	TFOT		0200
*				0201
TFOT	PZE	0		0202
	PZE	0		0203
	PZE	0		0204
MODE	PZE	0		0205
DIRECT	PZE	0		0206
FCB	PZE	0		0207
	PZE	0		0208
*				0209
	PAGE			0210
*				0211
*	BCDIN/OUT	BININ/OUT	READ OR WRITE A TAPE IN EITHER BCD OR	0212
*	BINARY			0213
*	CALLS	ASGN, 9SETUPN, R/IBPS		0214
*	CALLED BY	MAIN PROGRAM		0215
*				0216
\$BINOUT	PZE	0		0217
	LDA	BINOUT		0218
	STA	BCDOUT		0219
	STA	BCDIN		0220

LDA	=01		0220
STA	BINFLG		0221
BRU	BCDIN+1		0222
*			0223
*			0224
*\$BININ PZE	0		0225
LDA	BININ		0226
STA	BCDIN		0227
LDA	=01		0228
STA	BINFLG		0229
BRU	BCDIN+1		0230
*			0231
*			0232
*\$BCDOUT PZE	0		0233
LDA	BCDOUT		0234
STA	BCDIN		0235
BRU	BCDIN+1		0236
*			0237
*			0238
*\$BCDIN PZE	0		0239
BRM	9SETUPN		0240
PZE	4		0241
BUNIT PZE	0	;TAPE UNIT	0242
BBUF PZE	0	;BUFFER ADDRESS	0243
BREC PZE	0	;RECORD LENGTH	0244
BIND PZE	0		0245
STZ	*BIND		0246
LDA	*BUNIT		0247
STA	BUNT		0248
BRM	ASGN		0249
PZE	1		0250
BUNT PZE	0		0251
LDA	=0600		0252
LOB	BINFLG		0253
SKB	=077777	;IS FLAG SET - BINARY	0254
BRU	\$+2		0255
ADD	=01000	;YES	0256
STA	M0DE		0257
STZ	BINFLG		0258
LDA	BBUF		0259
LOB	*BREC		0260
STD	TFDT+1		0261
LDA	AREDT	;FDT ADDRESS	0262
LOB	BCDOUT		0263
SKB	=077777	;OUTPUT	0264
BRU	\$+2	;IN	0265
ADD	=04000000	;YES	0266
STA	BCAL		0267
STZ	BCDOUT		0268
BRM	R\10PS		0269
PZE	1		0270
BCAL PZE	0		0271
SKN	TFDT		0272
BRU	\$+2		0273
BRU	\$-2		0274

	LDB	TFDT		0275
	SKB	=C16C00C00		0276
	BRU	BFIN		0277
	LDA	=C1		0278
	STA	*BND		0279
BFIN	STZ	BINFLG		0280
	BRR	BCDIN		0281
*				0282
*				0283
BINFLG	PZE	C		0284
	PAGE			0285
*				0286
*	WE9F	WRITES AN END 9F FILE WITH AN 9PTION TO REWIND THE		0287
*		TAPE AT THE USER'S REQUEST		0288
*	CALLS	9SETUPN, R/19PS, RWD		0289
*	CALLED BY	MAIN PROGRAM		0290
*	CALL WE9F(N,IR)	N=UNIT, IR=0 OR 1 = N9 REWIND OR REWIND		0291
*				0292
*				0293
\$WE9F	PZE	0		0294
	BRM	9SETUPN		0295
	PZE	2		0296
WUNIT	PZE	0		0297
WFLAG	PZE	0		0298
	LDA	*WUNIT		0299
	STA	WUNT		0300
	BRM	ASGN	;SEARCH SYMBOL TABLE	0301
	PZE	1		0302
WUNT	PZE	0		0303
	LDA	ARFDT	;FDT ADDRESS	0304
	ADD	=C3100000	;9P CODE FOR ENDFILE	0305
	LDB	*WFLAG	;REWIND FLAG	0306
	SKB	=C77777		0307
	BRU	\$+2		0308
	ADD	=C0200000		0309
	STA	WECAL	;STORE 9P CODE + FDT ADDRESS	0310
	BRM	R/19PS		0311
	PZE	1		0312
WECAL	PZE	0		0313
	SKN	TFDT		0314
	BRU	\$+2		0315
	BRU	\$-2		0316
	BRR	WE9F		0317
	PAGE			0318
*				0319
\$RAND	PZE	0		0320
	BRM	9SETUPN		0321
	PZE	1		0322
RUNIT	PZE	0		0323
	LDA	*RUNIT		0324
	STA	RUNT		0325
	BRM	ASGN	;99 SEARCH SYMBL TABLE	0326
	PZE	1		0327
RUNT	PZE	0		0328
	LDA	ARFDT	;FDT ADDRESS	0329

	ADD	*03200000	18P CODE FOR REWIND	0330
	STA	RACAL	STORE IN CALLING SEQUENCE	0331
	BRM	RNI9PS		0332
	PZE	1		0333
RACAL	PZE	0		0334
	SKN	TFOT		0335
	BRU	*+2		0336
	BRU	*-2		0337
	BRR	RAND		0338
*				0339
*				0340
REW	SPD	03200000		0341
WRIT	SPD	04000000		0342
\$CLR	PZE	0		0343
	STZ	REOFFLAG		0344
	MDR	CLR		0345
	BRR	CLR		0346
*				0347
*	CALL	WRITE (IFILE,IBUF		0348
*				0349
\$WRITE	PZE	0		0350
	LDA	WRITE		0351
	STA	READD		0352
	BRU	READD+1		0353
*				0354
*	CALL	READD (IFILE,IBUF,NWORD)		0355
*				0356
\$READD	PZE	0		0357
	BRM	9SETUPN		0358
	PZE	3		0359
IFILE	PZE	0		0360
IBUF	PZE	0		0361
NWORD	PZE	0		0362
	STX	SAVE,1		0363
	LDA	*IFILE		0364
	SUB	*10		0365
	COPY	(5,1)		0366
	LDA	FILE,1		0367
	STA	LOGK		0368
	BRM	RIRSTS		0369
	PZE	1		0370
	PZE	LOGK		0371
	SKU	RNZEPO		0372
	BRU	NBFILE		0373
	COPY	(5,1)		0374
	LDA	0,1		0375
	COPY	(5,1)		0376
	LDA	2,1		0377
	STA	SECT		0378
	LDA	IBUF		0379
	LDB	*NWORD		0380
	STD	BUF		0381
	LDA	READER		0382
	LDB	WRITE		0383
	SKB	*077777		0384

	BRU	\$+2	0385
	ADD	*04000000	0386
	STZ	WRITE	0387
	STA	199P	0388
	BRM	R\10PS	0389
	PZE	1	0390
199P	PZE	0	0391
	LDX	*0100000,1	0392
	SKN	FDT	0393
	BRU	ERCK	0394
	BRX	\$-2,1	0395
	LDA	011	0396
	STA	\$+1	0397
	PZE	0	0398
	NBP		0399
ERCK	LDA	FDT	0400
	SKA	ERRP	0401
	BRU	READER	0402
	LDX	SAVE,1	0403
	BRR	READD	0404
			0405
* READER	LDP	RER	0406
	BRU	PRINT	0407
RER	PZE	\$+2	0408
	PZE	5	0409
	TEXT	16,DISK IO ERROR	0410
	DATA	060605252	0411
			0412
* NOFILE	LDP	FER	0413
	BRU	PRINT	0414
FER	PZE	\$+2	0415
	PZE	5	0416
	TEXT	16,FILE NOT FOUND	0417
	DATA	060605252	0418
			0419
* PRINT	STD	ERBUF	0420
	BRM	R\10PS	0421
	PZE	1	0422
	WRIT	ERFDT	0423
	SKN	ERFDT	0424
	BRR	READD	0425
	BRU	\$-2	0426
			0427
			0428
			0429
FDT	PZE	0	0430
BUF	PZE	0	0431
	PZE	0	0432
	PZE	03600	0433
SECT	PZE	0	0434
	PZE	R\SYST	0435
	PZE	0	0436
			0437
* FILE	TEXT	4,10	0438
	TEXT	4,11	0439

TEXT	4,12	0440
TEXT	4,13	0441
TEXT	4,14	0442
TEXT	4,15	0443
TEXT	4,16	0444
TEXT	4,17	0445
TEXT	4,18	0446
TEXT	4,19	0447
TEXT	4,20	0448
TEXT	4,21	0449
TEXT	4,22	0450
TEXT	4,23	0451
TEXT	4,24	0452
TEXT	4,25	0453
TEXT	4,26	0454
TEXT	4,27	0455
TEXT	4,28	0456
TEXT	4,29	0457
TEXT	4,30	0458
TEXT	4,31	0459
TEXT	4,32	0460
TEXT	4,33	0461
TEXT	4,34	0462
TEXT	4,35	0463
TEXT	4,36	0464
TEXT	4,37	0465
TEXT	4,38	0466
TEXT	4,39	0467
TEXT	4,40	0468
TEXT	4,41	0469
TEXT	4,42	0470
TEXT	4,43	0471
TEXT	4,44	0472
TEXT	4,45	0473
TEXT	4,46	0474
TEXT	4,47	0475
TEXT	4,48	0476
TEXT	4,49	0477
TEXT	4,50	0478
TEXT	4,51	0479
TEXT	4,52	0480
TEXT	4,53	0481
TEXT	4,54	0482
TEXT	4,55	0483
TEXT	4,56	0484
TEXT	4,57	0485
TEXT	4,58	0486
TEXT	4,59	0487
TEXT	4,60	0488
TEXT	4,61	0489
TEXT	4,62	0490
TEXT	4,63	0491
TEXT	4,64	0492
TEXT	4,65	0493
TEXT	4,66	0494

	TEXT	4,67	0495
	TEXT	4,68	0496
	TEXT	4,69	0497
*			0498
LOOK	PZE	0	0499
	TEXT	4,	0500
	PZE	3	0501
*			0502
ERRSR	DATA	0200000000	0503
SAVE	PZE	0	0504
READOP	PZE	FDT	0505
ERFDT	PZE	0	0506
ERBUF	PZE	0	0507
	PZE	0	0508
	PZE	02600	0509
	PZE	0	0510
	PZE	R\CHNS	0511
	PZE	0	0512
	END		0513

SUBROUTINE UPSET	0001
INTEGER PTR,CSPI	0002
INTEGER XFCT,XCNT,SAMPTS	0003
COMMON IP,LINE,NGRP,NPIG,NSL,ITIME,LFTIME,IRES9,LG(3),	0004
* IHARM1,IHARM2,IWIDE,NFRAM,NSHUT,INTL,INTS,INTSL,INTL9,NPT,	0005
* LAG,MDLAY,IEBF,LFT,N1,KILL,ITAPE,NBC,INITL,ICARD,	0006
* MTAPE,ISWEEP,ISQRT,ISCL,IREF,CSPI,ISTUP(3),	0007
* LP(3),LGRP,ISCP,LSPEC,NREC,NCTR,IPTR,LPTR,LSO,IDISPY,	0008
* ISCAN,ISCAL,IFILE,IAB,JAB,IWIND,STRT1,STRT2,STRT3,	0009
* HARM1,WINT,SINT,SLINT,W9INT,HARM2,SWINC,SWL,SWJ,SINC,IFLAG,	0010
* PTR,ICTR,ISHT,N9REC,ISTAR,TF,ISW1,ISWU,ISWL,I9PTN,NP	0011
* ,KNIFTY,N9NOISE,XFCT,XCNT,LG10,LGNAT,IDATE(3),ISITE,LGCNT,	0012
* SAMPTS,ISFG	0013
N9NOISE = 0	0014
LINE = 10	0015
NGRP=NSL=LAG=N1=ITAPE=1	0016
NPT = 150	0017
ISFG = 512	0018
STRT1 = 3.5	0019
STRT2 = 0.	0020
STRT3 = 0.	0021
HARM1 = HARM2 = 0.	0022
LFT = 8192	0023
WINT = 0.5	0024
SINT=SLINT=W9INT=1.0	0025
ISKIP = IFLAG = 0	0026
NBC = 5	0027
NSKIP = LSD = 0	0028
IWIDE = 10	0029
NP = 20	0030
CSPI = KILL = ISWEEP = KNIFTY = 0	0031
SWL = 0.	0032
SWU = 150.	0033
SWINC = .5	0034
ISCL = 16	0035
RETURN	0036
END	0037

30	CALL PRESET	0055
C		0056
C		0057
C	INITIATE AGT DISPLAY	0058
C		0059
	CALL CORMOV(IP,NP,IDUM)	0060
	CALL SEND(3,IDUM,NP)	0061
C		0062
C	N1 INTEGRATION	0063
C		0064
	XFCT = 0	0065
100	DO 110 I=1,LSPEC	0066
110	IAV(I)=0	0067
C		0068
	DO 150 IAB = 1,N1	0069
	DO 150 JAB = 1,NREC	0070
	ISTAR = 3	0071
	IF(XFCT .NE. 0) GO TO 120	0072
	CALL DEATH	0073
	RETURN	0074
120	CALL BIRTH	0075
129	IF(IFLAG .EQ. 777) GO TO 300	0076
130	NEBF=0	0077
	N = (JAB -1)*LREC	0078
	DO 140 K=1,LREC	0079
140	IAV(N+K)=IAV(N+K)+IBUF(K)/N1	0080
150	CONTINUE	0081
C		0082
	NFT=NFT+N1	0083
C		0084
C	UPDATE BOX CAR	0085
C		0086
	IFILE = IPTR + 30	0087
	CALL WRITE(IFILE,IAV,LSPEC)	0088
	IPTR = MOD(IPTR+1,NBC)	0089
C		0090
C	SIDE LINE DISPLAY OPTION	0091
C		0092
	IF(LSD.EQ.C) GO TO 160	0093
	DO 155 I=1,NGRP	0094
	M=LP(I)	0095
	N=(I-1)*NPIG	0096
	DO 155 J=1,NPIG	0097
	ITEMP=IAV(M+J)/ISCL	0098
	CALL ADJUST	0099
155	IAV(N+J)=ITEMP	0100
	CALL SEND(5,IAV,NPT)	0101
C		0102
160	NCTR=NCTR+1	0103
	IF(NCTR.LT.NBC)GO TO 100	0104
C		0105
C	BOX CAR AVERAGING	0106
C		0107
200	DO 205 I=1,LSPEC	0108
205	IAV(I)=0	0109

C	IF (ISWEEP.EQ.0) GO TO 220	0110
	DO 210 I=1,NBC	0111
	IFILE = I + 29	0112
	CALL READD(IFILE,IBUF,LSPEC)	0113
C		0114
	DO 210 J=1,LSPEC	0115
210	IIV(J)=IIV(J)+IBUF(J)/NBC	0116
C		0117
	IFILE = LPTR + 35	0118
	CALL WRITE(IFILE,IIV,LSPEC)	0119
	GO TO 240	0120
C		0121
220	DO 230 I=1,NBC	0122
	IFILE = I + 29	0123
	CALL READD(IFILE,IBUF,LSPEC)	0124
	DO 230 J=1,NGRP	0125
	N=LP(J)	0126
	DO 230 K=1,NPIG	0127
	M=(J-1)*NPIG	0128
230	IIV(M+K)=IIV(M+K)+IBUF(N+K)/NBC	0129
C		0130
C	UPDATE DISPLAY DATA	0131
C		0132
240	DO 250 I=1,NGRP	0133
	N=(I-1)*NPIG	0134
	M=LP(I)	0135
C		0136
	DO 250 J=1,NPIG	0137
	ITEMP=IIV(M+J)/ISCL	0138
	CALL ADJUST	0139
250	LDATA(N+J,LPTR+1)=ITEMP	0140
	CALL SEND(6,LDATA(1,LPTR+1),NPT)	0141
	LPTR = MOD(LPTR+1,LINE)	0142
C		0143
C		0144
C		0145
260	CALL CORMOV(ISTUP,3,IW)	0146
	CALL SEND(1,IW,1)	0147
	IW(2)=LXOR(IW(1),IW(3))	0148
	IW(3)=IW(1)	0149
	CALL CORMOV(IW,3,ISTUP)	0150
	IF (ISW(1).NE.0) GO TO 280	0151
	IF (JSW(2).NE.0) LSD=MOD(LSD+1,2); CALL SEND(4,0,0)	0152
	IF (ISW(3).NE.0) CALL SEND(7,0,0)	0153
	IF (JSW(4).NE.0) IDISPY=MOD(IDISPY+1,2)	0154
	IF (ISW(5).NE.0) CALL SEND(16B,0,0)	0155
	IF (JSW(6).NE.0) CALL SEND(15B,0,0)	0156
	IF (JSW(7).NE.0) CALL SEND(14B,0,0)	0157
	ISCAL=0	0158
	IF (ISW(8).NE.0) ISCAL=1; CALL SCALE	0159
	ISCAN=0	0160
	IF (ISW(9).NE.0) ISCAN=1; CALL SCAN	0161
	IF (ISW(11).NE.0) CALL SCAN	0162
	IF (ISW(13).NE.0) CALL VERSA	0163
		0164

	IF (ISW(18) .NE. 0) MDLAY=MDLAY; CALL DELAY; CALL SEND(118,0,0)	0165
	IF (ISW(19) .NE. 0) CALL INPUT; CALL SETI; CALL SEND(3, IDUM, NP)	0166
	IF (NGRP .EQ. LGRP) GO TO 270	0167
	CALL REGRP	0168
	LGRP=NGRP	0169
270	IHOLD=ISCAN+ISCAL+IDISPY	0170
	IF (IHOLD .NE. 0) GO TO 260	0171
	IF (NEBF .NE. 0) GO TO 260	0172
	IF (SENSESWITCH 6) 280, 100	0173
280	CALL SEND(0,0,0)	0174
	IF (ISW(14) .NE. 0) CALL NEBF(IVTAPE,1)	0175
	CALL INPUT	0176
	CALL SETI	0177
	IF (IREWIND .EQ. 0) CALL RWND(ITAPE)	0178
	IF (IREWIND .EQ. 1) CALL BAKREC(ITAPE, NREC); CALL FORSCN(ITAPE,1)	0179
*	GET PAST END OF FILE MARK SEPARATING TIME SEQUENCES	0180
*	GET PAST END OF FILE MARK SEPARATING TIME SEQUENCES	0181
	IF (IREP .EQ. 1) IREP=0; GO TO 30	0182
	IF (IEBF .NE. 0) ICARD=1	0183
	INITL=1	0184
	IF (ICARD .EQ. 1) GO TO 20	0185
	KILL = 1	0186
	ISTAR = 1	0187
	RETURN	0188
300	NEBF=NEBF+1	0189
	CALL CLREBF	0190
	GO TO 260	0191
C		0192
C		0193
C		0194
	SUBROUTINE PRESET	0195
	CALL BININ(ITAPE, IBUF, LREC, IND)	0196
	NREC = IBUF(1)	0197
	DO 31 I = 1, 7	0198
31	IKEEP(I) = IBUF(2+I)	0199
	LGCNT = 0	0200
30	INITL=0	0201
	LGRP=NGRP	0202
	ISCP=ISCL	0203
	CALL SETI	0204
	LSPEC=LFT/2	0205
	XCNT = LREC/LSPEC	0206
	NREC=LSPEC/LREC	0207
	IF (NREC .LE. 0) NREC = 1	0208
	ITIME = IBUF(12)+60*(IBUF(11)+60*IBUF(10))	0209
	NCTR=IPTR=LPTR=0	0210
	LSD=0	0211
	IDISPY=ISCAN=ISCAL=0	0212
	IW(1)=IW(2)=IW(3)=0	0213
	DO 33 I=1, LSPEC	0214
33	IBUF(I)=0	0215
	DO 34 I=1, LINE	0216
	IFILE = I + 34	0217
34	CALL WRITE(IFILE, IBUF, LSPEC)	0218
	DO 35 I=1, LINE	0219

35	DO 35 J=1,NPT	0220
	LODATA(J,I)=0	0221
	PTR = 1	0222
	IFLAG = 0	0223
	ISHT = 0	0224
	RETURN	0225
*		0226
*		0227
*		0228
	SUBROUTINE BIRTH	0229
	IF(XFCT .NE. 0) GO TO 25	0230
	CALL READD(IAVFILE,IAV,KJREC)	0231
	CALL READD(DTFILE,IBUF,KJREC)	0232
	DO 20 IV = 1,1500	0233
20	LKDAT(IV) = IBUF(500+IV)	0234
25	IF(CSPI .EQ. 0) GO TO 30	0235
	XFILE = 47	0236
	CALL READD(XFILE,IBUF,KJREC)	0237
	LGCNT = LGCNT + 1	0238
	RETURN	0239
30	CALL READD(XFILE,IBUF,KJREC)	0240
	LGCNT = LGCNT + 1	0241
	MA = XFCT * LSPEC	0242
	DO 40 IV = 1,LSPEC	0243
40	IBUF(IV) = IBUF(MA+IV)	0244
	XFCT = MOD(XFCT+1,XCNT)	0245
	IF(LGCNT .GE. (SAMPTS-LFT)/LAG) IFLAG = 777	0246
	RETURN	0247
*		0248
*		0249
*		0250
	SUBROUTINE DEATH	0251
	DO 10 IV = 1,1500	0252
10	IBUF(500+IV) = LKDAT(IV)	0253
	CALL WRITE(DTFILE,IBUF,KJREC)	0254
	CALL WRITE(IAVFILE,IAV,KJREC)	0255
	RETURN	0256
*		0257
*		0258
*		0259
*		0260
*		0261
*		0262
*		0263
	SUBROUTINE SCAN	0264
	IF(ISWEEP.EQ.0)RETURN	0265
	ISGN=0	0266
	IF(ISW(10).NE.0)ISGN=-1	0267
	DO 10 I=1,NGRP	0268
	LP(I)=LP(I)+ISIGN(ISW,I,ISGN)	0269
	IF(I.NE.1)GO TO 10	0270
	IF(LP(I).LT.ISWL)LP(I)=LP(I)-ISIGN(ISW,I,ISGN);RETURN	0271
	IF(LP(I).GT.ISWU)LP(I)=LP(I)-ISIGN(ISW,I,ISGN);RETURN	0272
10	CONTINUE	0273
	DO 20 I=1,NGRP	0274


```

20  LG(1)=LG(1)+ISIGN(ISW1,ISGN)
    IF(NGRP.EQ.1)LP(3)=LP(2)=LP(1);LG(3)=LG(2)=LG(1)
    CALL RECON
    CALL CORMOV(LG,3,NULG)
    CALL SEND(138,NULG,3)
    CALL CORMOV(NULG,3,LG)
    IF(LSD.NE.0)CALL SIDE
    RETURN

```

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    SUBROUTINE RECON
    N=LPTR+1
    IF(N.LT.0)N=LINE+1
    DO 20 I=1,LINE
    IFILE = N + 35
    CALL READD(IFILE,IBUF,LSPEC)
    DO 15 J=1,NGRP
    L=(J-1)*NPIG
    M=LP(J)
    DO 15 K=1,NPIG
    ITEMP=IBUF(M+K)/ISCL
    CALL ADJUST
15  LDATA(L+K,N+1)=ITEMP
    CALL SEND(128,LDATA(1,N+1),NPT)
    N=N+1
    IF(N.LT.0)N=LINE+1
20  CONTINUE
    RETURN

```

C
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    SUBROUTINE SIDE
    N=IPTR+1
    IF(N.LT.0)N=NBC+1
    IFILE = N + 30
    CALL READD(IFILE,IBUF,LSPEC)
    DO 25 I=1,NGRP
    L=(I-1)*NPIG
    M=LP(I)
    DO 25 J=1,NPIG
    ITEMP=IBUF(M+J)/ISCL
    CALL ADJUST
25  IAV(L+J)=ITEMP
    CALL SEND(5,IAV,NPT)
    RETURN

```

C
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```

    SUBROUTINE REGRP
    CALL SEND(173,0,0)
    CALL RECON
    IF(LSD.NE.0)CALL SIDE
    RETURN

```

C

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SUBROUTINE SCALE
CALL SEND(108,10PTN,1)
IF(10PTN.LT.0)RETURN
N=LPTR-1
IF(N.LT.0)N=LINE+1
DO 10 I=1,LINE
CALL SEND(108,LDATA(1,N+1),NPT)
N=N-1
IF(N.LT.0) N=LINE-1
CONTINUE
IF(LSD.NE.0)CALL SIDE
RETURN

```

SUBROUTINE VERSA

DESCRIPTION OF MEASURE	
1	NUMBER OF POINTS
2	NUMBER OF LINES

[illegible]

*	3	X INCREMENT	038
*	4	Y INCREMENT	038
*	5	CURRENT LINE POINTER	038
*	6	NUMBER OF SPOTLIGHTS	038
*	7	CENTER OF SPOTLIGHT 1	038
*	8	CENTER OF SPOTLIGHT 2	039
*	9	CENTER OF SPOTLIGHT 3	039
*	10	TIME HOURS	039
*	11	TIME MINUTES	039
*	12	TIME SECONDS	039
*	13	FFT LENGTH	039
*	14	FFT LAG	039
*	15	SAMPLING RATE	039
*	16	SITE IDENTIFICATION	039
*	17	SITE IDENTIFICATION	039
*	18	SITE IDENTIFICATION	040
*	19	LEAD POINT	040
*	20	SCALE	040
*	21	MONTH	040
*	22	DAY	040
*	23	YEAR	040
			040
			040
10	08 10 IV = 1,300		040
	IVERB(IV) = 0		040
	CALL SEND(208, IVERB, NPT*2)		040
	IF (ISW(15) .NE. 0) IVERB(6) = -1		041
*			041
*	FUNCTION SWITCH 15 = NO SPOTLIGHT FOR HARDCOPY OUTPUT		041
*			041
	IVERB(12) = ITIME + (LGENT*LAG)/ISFC		041
	IVERB(10) = IVERB(12) / 3600		041
	IVERB(11) = (IVERB(12) - IVERB(10)*3600)/60		041
	IVERB(12) = IVERB(12) - 60*(IVERB(11) + 60*IVERB(10))		041
	IVERB(13) = LFT		041
	IVERB(14) = LAG		041
	IVERB(15) = ISFC		042
	CALL IDFIX(USITE, JSITE)		042
	IVERB(16) = JSITE		042
	IVERB(17) = IVERB(18) = 0		042
	IVERB(19) = LP(1)		042
	IVERB(20) = ISCL		042
	IVERB(21) = IDATE(1)		042
	IVERB(22) = IDATE(2)		042
	IVERB(23) = IDATE(3)		042
	CALL BINOUT(IVTAPE, IVERB, NPT*2, IND)		042
	09 40 IV = 1, LINE		043
	CALL SEND(208, IVERB, NPT*2)		043
	CALL BINOUT(IVTAPE, IVERB, NPT*2, IND)		043
40	CONTINUE		043
	RETURN		043
*			043
*			043
*			043
*			043
*	SUBROUTINE ADJUST		043
*			043

```

IF(ISQRT .NE. 0) ITEMP=ITEMP**2; IF(ITEMP.LT.0) ITEMP=2**14-1
IF(ITEMP .EQ. 0) ITEMP = 1
IF(LG10 .NE. 0) ITEMP = 1000*(ALOG10(FL9AT(ITEMP)))
IF(LGNAT .NE. 0) ITEMP = 1000*(ALOG(FL8AT(ITEMP)))
IF(ITEMP .LT. -2**14-1) ITEMP = -2**14-1
IF(ITEMP .GT. 2**14-1) ITEMP = 2**14-1
RETURN
END

```

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*IDFIX	PZE	0
	BRM	9SETUPN
	PZE	2
SITE	PZE	0
SIT2	PZE	0
	LDA	*SITE
	LRSA	014
	STA	*SIT2
	BRR	IDFIX
	END	

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0004
0005
0006
0007
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0009
0010

#	SCB8RM9V	PZE	0	0000
	BRM		9SETUPN	0000
	PZE		3	0000
	CIP	PZE	0	0000
	CNP	PZE	0	0000
	CIDUM	PZE	0	0000
	STZ		CTR	0000
LOOP	LDA		*CIP	0000
	STA		*CIDUM	0000
	LDA		CIP	0010
	ADD		=01	0010
	STA		CIP	0010
	LDA		CIDUM	0010
	ADD		=01	0014
	STA		CIDUM	0010
	LDA		CTR	0010
	ADD		=01	0017
	STA		CTR	0010
	SKE		*CNP	0010
	BRU		LOOP	0020
	BRR		CB8RM9V	0020
CTR	PZE		0	0020
	END			0020

*				0001
*				0002
*				0003
*	\$CLRESF	PZE	0	0004
		STZ	8E9FFLAG	0005
		MPS	CLRESF	0006
		BRR	CLRESF	0007
*				0008
*				0009
*				0010
*	SUBROUTINE	TO SEND MESSAGR TO AGT		0011
*				0012
*				0013
*	\$SEND	PZE	0	0014
		BRM	9SETUPN	0015
		PZE	3	0016
	NCODE	PZE	0	0017
	NBUF	PZE	0	0018
	NAD	PZE	0	0019
		LDA	*NCODE	0020
		LLSA	15	0021
		STA	TEMP	0022
		LDA	NBUF	0023
		ETR	*077777	0024
		ADD	TEMP	0025
		LDS	*NAD	0026
		LLSB	15	0027
		STD	SW9	0028
		EBM	032020	0029
		SKN	SW9	0030
		BRU	*-1	0031
		BRR	SEND	0032
	TEMP	PZE	0	0033
	ACCESS	DATA	040000000	0034
	SWI	EGU	077774	0035
	SW9	EGU	077776	0036
*				0037
*	SUBROUTINE	FOR GRAPHIC INPUT		0038
*				0039
*	\$INPUT	PZE	0	0040
		LDA	INPADR	0041
		ADD	BUF	0042
		STA	IBUF	0043
		LDA	INPADR	0044
		ADD	READ	0045
		STA	PATCH	0046
		LDA	BRM	0047
		XMA	*PATCH	0048
		STA	BRM	0049
	INPADR	BRM	\$INPUT	0050
		LDA	BRM	0051
		XMA	*PATCH	0052
		STA	BRM	0053
		MPS	INPUT	0054
		BRR	INPUT	

```

*
BRM   BRM   IND
INP   PZE   0
      BRM   SEND
      PZE   3
      PZE   *2
IBUF  PZE   0
      PZE   *5
      MPB   IND
      BRR   IND
*
*
BUF   DATA 0773
READ  DATA 0563
PATCH PZE   0
      END

```

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0070

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```

* THIS PROGRAM FEEDS TRANSFORMS WITH A MAXIMUM LENGTH OF 1024
* POINTS TO THE CALLING PROGRAM. IT IS DESIGNED FOR 94-LINE
* DISPLAYS, THE TRANSFORMS ARE NOT SAVED.
*
*
*
*
*
*
* SUBROUTINE XFORM
*
* INTEGER RECNR
* INTEGER SVFILE,XFILE,DYFILE,PTR,C9SFILE,CSPI,KREC,LREC
* INTEGER XFCT,XCNT,SAMPTS
* REAL PI
*
* COMMON IP,LINE,NGRP,NPIS,NSL,ITIME,LFTIME,IRES9,LG(3),
* * IHARM1,IHARM2,IWIDE,NFRAM,NSHUT,INTL,INTS,INTSL,INTLB,NPT,
* * LAG,MOLAY,IEBF,LFT,N1,KILL,ITAPE,NBC,INITL,ICARD,
* * MTAPE,ISKEEP,ISQRT,ISCL,IREF,CSPI,ISTUP(3),
* * LP(3),LGRP,ISCP,LSPEC,NREC,NCTR,IPTR,LPTR,LSD,DISPY,
* * ISCAN,ISCAL,IFILE,IAB,JAB,IWIND,STRT1,STRT2,STRT3,
* * HARM1,INT,SINT,SLINT,ABINT,HARM2,SWINC,SWL,SWJ,SINC,IFLAG,
* * PTR,ICTR,ISHT,NOREC,ISTAR,IF,ISWI,ISWJ,ISWL,ISPTN,NP
* * ,KNIFTY,N9NSE,XFCT,XCNT,LG10,LGNAT,DATE(3),SITE,LGCNT,
* * SAMPTS,ISF2
* DIMENSION NBUF(1024)
*
* DIMENSION IBUF(2048),KBUF(1024),NTAB(1024),FBUF(2,1024)
*
* DATA SVFILE/20/,PI/3.1415926535/,C9SFILE/21/,XFILE/10/,KREC/2048/
* ,LREC/1024/,N9SFILE/11/
*
*
*
* SF = 2.0**23
* IF(IFLAG.EQ. 1) GO TO 15
*
* TRANSFER PARAMETER INFORMATION IN FILE 10 TO XFORM
*
*
*
* NOREC IS THE NUMBER OF 1024 RECORDS OF SEISMIC DATA
* NPT IS THE LENGTH OF THE TRANSFORM, IN POINTS
* LAG IS THE SEPARATION, IN POINTS, BETWEEN TRANSFORMS
* IPUT IS 1 FOR DRUM INPUT; 0 FOR TAPE INPUT
* PTR INITIALLY 1, INDICATED WHICH HALF OF DRUM RECORD SHOULD BE
* PUT INTO THE PRE-TRANSFORM BUFFER
* IFLAG INDICATES WHETHER THE INITIAL RECORD HAS BEEN READ IN IF 1,
* IF 777 INDICATES END OF FILE AND/OR END OF SEISMIC RECORD
* ISHT KEEPS TRACK OF THE LEAD POINT OF THE TRANSFORM WITHIN THE
* CURRENT SEISMIC RECORD
* IFILE IS THE FILE OF THE INPUT DATA IF THE DRUM IS BEING USED
*
*
* COMPUTE THE COSINE TABLE

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```

THETA = 0	0055
DTHETA = 2*PI/LFT	0056
DO 20 I = 1,LFT	0057
WTAB(I) = (1-COS(THETA))/2.0	0058
20 THETA = THETA + DTHETA	0059
CALL WRITE(COSFILE,WTAB,LFT*2)	0060
DO 25 I = 1,1024	0061
25 KBUF(I) = 0	0062
CALL WRITE(NSFILE,KBUF,LREC)	0063
*	0064
*	0065
15 CALL READD(COSFILE,WTAB,LFT*2)	0066
LAST = 0	0067
IREF = 0	0068
NXSHT = LREC/LAG	0069
NXREC = LFT/LREC	0070
NTX = LREC/(LFT/2)	0071
IF(NXREC.LT. 1) NXREC = 1	0072
*	0073
*	0074
READ IN DATA	0075
*	0076
IF((IFLAG.EQ. 0).AND. (NONSENSE.NE. 0))GO TO 180	0077
IF(IFLAG.EQ. 1) GO TO 45	0078
28 DO 30 I = 1,NXREC + 1	0079
L = (I-1)*LREC + 1	0080
CALL BININ(1,IBUF(L),LREC,IND)	0081
30 CONTINUE	0082
CALL WRITE(SVFILE,IBUF,KREC)	0083
45 CALL READD(SVFILE,IBUF,KREC)	0084
*	0085
PREPARE PRE-TRANSFORM BUFFER, TO TO TRANSFORM	0086
*	0087
DO 48 I = 1,LREC	0088
48 KBUF(I) = 0	0089
DO 150 N = 1,NTX	0090
50 IRP = LAG*ISHT	0091
DO 60 I = 1,LFT	0092
FBUF(1,I) = IBUF(IRP + I)*WTAB(I)/2.0**23	0093
60 FBUF(2,I) = 0.0	0094
CALL FOUR2(FBUF,LFT,1,-1)	0095
CALL READD(NSFILE,NBUF,LREC)	0096
LA = (N-1)*LFT/2	0097
DO 80 I = 1,LFT/2	0098
KBUF(LA+I) = (SQRT(FBUF(1,I)**2 + FBUF(2,I)**2)*SF)- NBUF(I)	0099
IF(KBUF(LA+I).LT. 0) KBUF(LA+I) = 0	0100
80 CONTINUE	0101
*	0102
IF(LGCNT + N.GE. (SAMPTS-LFT)/LAG) GO TO 170	0103
TAKE CARE OF BOOKKEEPING	0104
*	0105
ISHT = MOD(ISHT+1,NXSHT)	0106
IF(ISHT.NE. 0) GO TO 150	0107
*	0108
DO NOT NEED MORE DATA YET	0109

<pre> * DO 90 I = 1,LREC 90 IBUF(I) = IBUF(I + LREC) CALL BININ(1,IBUF(LREC+1),LREC,IND) * * STORE PRE-TRANSFORM BUFFER * CALL WRITE(SVFILE,IBUF,KREC) 150 CONTINUE 151 IFLAG = 1 GO TO 170 * * ALL INPUT DATA HAS BEEN EXHAUSTED * 170 CALL WRITE(XFILE,KBUF,LREC) RETURN * * * 180 RECNR = 2 LA = 0 * IF NNOISE IS SET EQUAL TO 1000, THE PROGRAM DEFAULTS TO THE * CASE IN WHICH THE AVERAGE NOISE IS FOUND FROM THE ENTIRE SET OF * TRANSFORMS IF(NNOISE .EQ. 1000) NNOISE = (SAMPTS-LFT)/LAG DO 181 I = 1,NXREC + 1 L = (I-1)*LREC + 1 181 CALL BININ(1,IBUF(L),LREC,IND) CALL WRITE(SVFILE,IBUF,KREC) DO 182 I = 1,LREC 182 KBUF(I) = 0 183 IRP = LAG*ISHT DO 184 I = 1,LFT FBUF(1,I) = IBUF(IRP+I)*WTAB(I)/2.0**23 184 FBUF(2,I)=0.0 CALL FOUR2(FBUF,LFT,1,-1) DO 185 I = 1,LFT/2 185 KBUF(I) = (SQRT(FBUF(1,I)**2+FBUF(2,I)**2)*SF/NNOISE) + KBUF(I) LA = LA + 1 IF(LA .EQ. NNOISE) GO TO 187 ISHT = MOD(ISHT+1,NXSHT) IF(ISHT .NE. 0) GO TO 183 IF(RECNR .EQ. NREC) GO TO 187 DO 186 I = 1,LREC 186 IBUF(I) = IBUF(I+LREC) CALL BININ(1,IBUF(LREC+1),LREC,IND) RECNR = RECNR + 1 GO TO 183 187 CALL BAKREC(ITAPE,RECNR) CALL WRITE(NSFILE,KBUF,LREC) ISHT = 0 GO TO 28 * * END </pre>	<pre> 0110 0111 0112 0113 0114 0115 0116 0117 0118 0119 0120 0121 0122 0123 0124 0125 0126 0127 0128 0129 0130 0131 0132 0133 0134 0135 0136 0137 0138 0139 0140 0141 0142 0143 0144 0145 0146 0147 0148 0149 0150 0151 0152 0153 0154 0155 0156 0157 0158 0159 0160 0161 0162 0163 0164 </pre>

F9JC0164

SUBROUTINE NIFTY	0001
NIFTY DRIVER	0002
DIMENSION IBUF(8192)	0003
INTEGER INUNIT, OTUNIT, EBF, INMODE, OUTMODE	0004
INTEGER WRTEBF, TAPRWD, FINISH, FILES, RECORDS, DUMP, NFILE, DIR,	0005
* UNIT, MODE, NREC, RWBPTN, LREC	0006
NAMelist WRTEBF, TAPRWD, FINISH, FILES, RECORDS, DUMP, NFILE, DIR,	0007
* UNIT, MODE, NREC, RWBPTN, LREC	0008
NAMelist KILL, COPY	0009
NAMelist INUNIT, OTUNIT, EBF	0010
NAMelist INMODE, OUTMODE	0011
DATA KILL/0/	0012
10 WRTEBF = TAPRWD = FINISH = FILES = RECORDS = DUMP = 0	0013
COPY = 0	0014
OUTPUT(102) 'REQUEST'	0015
INPUT(101)	0016
IF(KILL .NE. 0) RETURN	0017
IF(FILES .NE. 0) CALL FILSKP	0018
IF(RECORDS .NE. 0) CALL RECSKP	0019
IF(DUMP .NE. 0) CALL SDUMP	0020
IF(COPY .NE. 0) CALL TCOPY	0021
IF(WRTEBF .NE. 0) GO TO 30	0022
20 IF(TAPRWD .NE. 0) GO TO 40	0023
IF((FILES .EQ. 0) .AND. (RECORDS .EQ. 0) .AND. (DUMP .EQ. 0)	0024
* .AND. (WRTEBF .EQ. 0) .AND. (TAPRWD .EQ. 0) .AND. (COPY .EQ. 0))	0025
* OUTPUT(102) 'WAKE UP SLEEPY '	0026
GO TO 10	0027
30 OUTPUT(102) 'SPECIFY UNIT, RWBPTN'	0028
INPUT(101)	0029
CALL WRBF(UNIT, RWBPTN)	0030
GO TO 20	0031
40 OUTPUT(102) 'SPECIFY UNIT'	0032
INPUT(101)	0033
CALL RWB(UNIT)	0034
GO TO 10	0035
* SKIP A CERTAIN NUMBER OF FILES ON A TAPE	0036
* CAUTION - DO NOT TRY TO SKIP PAST THE BEGINNING OR END OF TAPE	0037
* MARKS. WHEN IN DOUBT REWIND	0038
SUBROUTINE FILSKP	0039
OUTPUT(102) 'SPECIFY NFILE, DIR, UNIT'	0040
INPUT(101)	0041
IF(DIR .NE. 0) CALL BAKSCN(UNIT, NFILE); GO TO 10	0042
CALL FBRSCN(UNIT, NFILE)	0043
10 OUTPUT(102) 'DESIRED FILE'	0044
RETURN	0045
* SKIP A CERTAIN NUMBER OF RECORDS ON A TAPE	0046

<pre> * CAUTION - DO NOT TRY TO SKIP PAST THE BEGINNING OR END OF TAPE * MARKS. WHEN IN DOUBT, REWIND * SUBROUTINE RECSKP OUTPUT(102) 'SPECIFY UNIT, NREC, DIR' INPUT(101) IF(DIR .NE. 0) CALL BAKREC(UNIT,NREC); GO TO 10 CALL FORREC(UNIT,NREC) 10 OUTPUT(102) 'DESIRED RECORD' RETURN * READ IN A TAPE AND DUMP ON LINE PRINTER * SUBROUTINE SDUMP OUTPUT(102) 'SPECIFY LREC, NREC, MODE, UNIT' OUTPUT(102) 'MODE=0-BCD; 1-BINARY' INPUT(101) NLINES = LREC/8 IF(NLINES*8 .LT. LREC) NLINES = NLINES + 1 DO 30 I = 1,NREC DO 5 ICLR = 1,LREC 5 IBUF(ICLR) = 0 IF(MODE.EQ.0) CALL BCDIN(UNIT,IBUF,LREC,IND);GO TO 10 CALL BININ(UNIT,IBUF,LREC,IND) 10 IF(IND .NE. 0) OUTPUT(102) 'YOU HIT AN EOF';GO TO 40 DO 20 L = 1,NLINES K = (L-1)*8 + 1 WRITE(6,200) IBUF(K),IBUF(K+1),IBUF(K+2),IBUF(K+3),IBUF(K+4), * IBUF(K+5), IBUF(K+6), IBUF(K+7) 200 FORMAT (1X,B012) 20 CONTINUE 30 CONTINUE 40 RETURN SUBROUTINE TCOPY * * COPIES ONE TAPE ONTO ANOTHER TAPE IN BCD OR BINARY * WITH THE OPTION OF PUTTING AN ENDFILE ON THE OUTPUT TAPE * WHEN THE COPYING IS COMPLETED THE VALUE OF IRECNT, THE * NUMBER OF RECORDS THAT HAVE BEEN TRANSCRIBED ONTO THE OUTPUT TAPE , * WILL BE OUTPUT * OUTPUT(102) 'SPECIFY LREC,NREC,INMODE,OUTMODE,INUNIT,OUTUNIT,EOF' OUTPUT(102) 'MODE=1-BINARY;0-BCD' INPUT(101) IRECNT = 0 DO 30 I = 1,NREC DO 10 J = 1,LREC 10 IBUF(J) = 0 IF(INMODE.EQ.0) CALL BCDIN(INUNIT,IBUF,LREC,IND);GO TO 20 CALL BININ(INUNIT,IBUF,LREC,IND) 20 IF(IND .NE. 0) OUTPUT(102) 'YOU HIT AN EOF'; GO TO 40 IF(OUTMODE.EQ.0) CALL BCDOUT(OUTUNIT,IBUF,LREC,IND);GO TO 30 CALL BINOUT(OUTUNIT,IBUF,LREC,IND) 30 IRECNT = IRECNT + 1 40 IF(EOF .EQ. 1) CALL WE0F(OUTUNIT,0) </pre>	<pre> 0055 0056 0057 0058 0059 0060 0061 0062 0063 0064 0065 0066 0067 0068 0069 0070 0071 0072 0073 0074 0075 0076 0077 0078 0079 0080 0081 0082 0083 0084 0085 0086 0087 0088 0089 0090 0091 0092 0093 0094 0095 0096 0097 0098 0099 0100 0101 0102 0103 0104 0105 0106 0107 0108 0109 </pre>

OUTPUT(102) IRECNT
RETURN
SUBROUTINE ADUMMY
RETURN
END

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0111
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0114

ESP93

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F

EXPUNGE

TITLE ESP93

EXTENDED SIGNAL PROCESSING PROGRAM

VERSION 1175, REVISION A

11/6/75

NSCARRET

ENTRY ESP93,INIT,A9300,INI2,
NPAR,TSFLG,TDXY,LDXY,DTXY,WAIT1,NEAL,
INI5,INI7,INI8,TL00P,TL10,TL30,TL50,
CDXY,NEXT,MVED,FREQD,FREQ2,FREQ3,FREQ4,
F2,F3,TIMED,CNVI,CNVF,FSD,FSD1,SLIST,
GPAR,GP10,GP40,GP60,AT08,PNAME,BLANK,
BEGIN,INTL,INTS,INTSL,INTL9,
CTBL,PIU,SDU,LDU,SCLN,
FBU,SCLD,READ,SWITCH,REMBF,REMBV,REM4,REM8,
R0T,SLADJ,SCADJ,SPL,SPLP,
IPL,LINE,GRP,NPTR,NSL,TIMED,FTIME,RES0,LP1,LP2,LP3,
INTX,XGAP,DELX,SCYO,NFRAM,NSHUT,PICS,MOVIE,
LCTR,ALINE,BLINE,GCTR,XSP,PCTR,SBA,LOXN,LDYN,VOXY,
TEMP1,DBA,TIME,INTGT,FUNCT,SCTR,CS1,LIGHT,RBUF,
SCL1,08,13,CAPTR,WBUF,CBLK,
VERSAT,DBLK,DBLK1,VTSEND,GET93,ANGLE;
CARRET

DBLK1=16000
BASEA=10000
BASEB=BASEA+1500.
NN=0
[REPEAT ZZ,(1,2,3,4,5,6,7,8,9,10)
ABLK\ZZ=BASEA+NN
BBLK\ZZ=BASEB+NN
NN=NN+150.
ENDI

MD05=250000VH
MD10=300000VH

TPVT1=77750
TPVT2=77751
SVFPV=77771
TTY9F=-3
PINPV=77743

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ESP93:	JUMP	.	[AGT/9300 ENTRY
	JPSR	\$AXINZ	[INITIALIZE 9300 COMMUNICATIONS
	JPSR	\$AXINT	
	MDAR	\$FCLH	[SET FRAME CLOCK PIVOT
	ARMD	77755	
	MDAR'F	\$CHARS	[CLEAR CHAR BUFFER
	MDAS'F'N	1	
	ARMD	TEMP	
	ARX8'F		
	ARMD'X'I	TEMP	
	MDAR	TEMP	
	MDX8'F	\$ECHAR	
	JPLS	.-4	
	MDIC'A'L;	-10	[LCG OFF
	MD10	C0	[AVG, CLOCK AND SCOPE OFF
	JUMP	INI1	
INIT:	0		[REINITIALIZATION
	JPSR	\$AXINT	[RESET COMMAND WORDS
	MDAR'N	NPAR	[WAIT FOR INPUT
	JPAV	.-1	
	JPSR	SPAR	[PROCESS INPUT
INI1:	ARX8'F		[RESET SWITCH OPTIONS
	ARMD	HSL	
	ARMD	PICS	
	ARMD	STARF	
	ARMD	RELINE	
	ARMD'8	LIGHT	
	MDAR	C1	
	ARMD	SCAD6	
	MDAR'H	\$SW81	[LOOK FOR INITIAL 9300 COMMAND
	MDX8'F	3	
	JPLS	.-2	[JUMP IF COMMAND NOT CODE 2
	MDAR	\$SW81	[READ INITIAL PARAMETERS
	ARMD'L		
INADR:	0		
	MDAR'H	\$SW82	
	ARMD	NIP	
	JPSR	\$R9XFW	
		0	
		INADR	
		IPL	
NIP:		0	
	JPSR	\$FINSH	[SEND COMPLETION CODE
			[SETUP INITIAL DISPLAY ORDINATES
REC8N:	MDAR'F	CAPTR	[SETUP INIT LINE POINTERS
	ARMD	CAPTR	

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MDARIF
ARMO

CBPTR
CBPTR

	MDAR'N	LINE	[GET LINE COUNT
	MDAS'F	1	
	ARMO	LCTR	
INI2:	MDAR'I'X	CAPTR	[GET LINE BUFFER
	MDAS'F'N	1	
	ARMO	ALINE	
	MDAR'I'X	CBPTR	
	MDAS'F'N	1	
	ARMO	BLINE	
	MDAR'H	XO	[GET INIT SPACING
	MDAE'H'N	INTX	
	ARMO	XSP	
	MDAR'N	GRP	[SET GROUP COUNT
	MDAS'F	1	
	ARMO	GCTR	
INI3:	MDAR'N	NPTR	[SET POINT COUNT
	MDAS'F	1	
	ARMO	PCTR	
	ARXB'F		[GET MOVE BIT
	ARMO	TEMP	
INI4:	MDAR	XSP	[BUMP SPACING
	MDAE'H	INTX	
	MDAR'A	M1	
	ARMO	XSP	
	MDAR'B	TEMP	[SET DRAW/MOVE BIT
	ARMO'I'X	ALINE	[ENTER VALUE
	ARMO'I'X	BLINE	
	MDAR	C1	[GET DRAW BIT
	ARMO	TEMP	
	MDAR'X	PCTR	[BUMP POINT COUNT
	JPLS	INI4	
	MDAR'X	GCTR	[BUMP GROUP COUNT
	JPLS	+2	
	JUMP	INI5	
	MDAR	XSP	[ADD GAP
	MDAE'H	XGAP	
	ARMO	XSP	
	JUMP	INI3	
INI5:	MDAR	XSP	[SET E9L BIT
	MDAR'B	C1M1	
	ARMO'I	ALINE	
	ARMO'I	BLINE	
	MDAR'X	LCTR	[BUMP LINE COUNT
	JPLS	INI2	
	MDAR	NPTR	[SETUP BREAK POINTS
	ARMO	L1	
	MDAS	NPTR	

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ARMO
MDAS
ARMO

L2
NPTR
L3

[SET UP ALTERNATE LINE DISPLAY BUFFER

INI7:	MDAR	GRP	[SET POINT COUNT
	MPYL	NPTR	
	0		
	ARRS	1	
	ARMD	PCTR	
	MDAR	ABLK	[GET BUFFER ADDRESS
	ARMD	•+2	
	JPSR	MOVED	[TRANSFER DATA
		0	
		CBLK	
		PCTR	
	MDAR'B	XGAP	[SETUP POINTS IN GAP
	DIVL	INTX	
	0		
	ARMD	GAP	
	MDAR	NPTR	
	ARMD	R1	
	MDAS	GAP	
	MDAS'N	C1	
	ARMD	R2	
	MDAR	L2	
	MDAS	GAP	
	MDAS'N	C1	
	ARMD	R3	
	MDAR	GAP	
	MDAS	GAP	
	MDAS'N	C2	
	ARMD	TEMP	
	MDAR	L2	
	MDAS	TEMP	
	ARMD	R4	
	MDAR	L3	
	MDAS	TEMP	
	ARMD	R5	
	MDAR	RELIN	[SKIP IF REGRUP
	JPAN	RECN1	

[SETUP DXDY TABLE FOR LINE DISPLAY

MDAR'L'N;	06000	[INIT. ANGLE APPRXX 30 DEG
JPSR	ANGLE	

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MDAR'A	MADR	
ARMD'N	LDYN	[SAVE Y SPACING
ARMD'0	CT9G	
JPSR	CDXDY	[COMPUTE DXDY

[SET UP DOUBLE BUFFER DISPLAY LIST

RECON1:

JPSR	M0VED
	ABLK
	\$GRPO
	LINE
JPSR	M0VED
	BBLK
	\$GRP1
	LINE

ARX0'F [RESET BUFFER SELECTOR

ARMD	\$LGRP
ARMD	\$NBUF
ARMD	ST9G
MDAR'F	SPL-1
ARMD	SPLP

[RESET NEW BUFFER READY INDICATOR
[RESET SPOT TOGGLE
[RESET SPOT PTR

[SET UP SIDE LINE DISPLAY ORDINATES

MDAR'F	\$NADAT
MDAS'F'N	1
ARMD	SBA
ARX0'F	
ARMD	XSP
MDAR'N	GRP
MDAS'F	1
ARMD	GCTR
MDAR'N	VPTR
MDAS'F	1
ARMD	PCTR
ARX0'F	
ARMD	TEMP

[SETUP SIDE LINE

[SET INITIAL SPACING

[SETUP GROUP COUNT

INIT8:

[SETUP POINT COUNT

[RESET MOVE BIT

FSP93

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INI9:

MDAR	XSP	[PACK DATA
MDAR'A	M1	
MDAR'B	TEMP	
ARMO'I'X	SBA	[ENTER DATA
MDAR	C1	[SET DRAW BIT
ARMO	TEMP	
MDAR	XSP	[BUMP SPACING
MDAE'H	DELX	
ARMO	XSP	
MDAR'X	PCTR	[BUMP POINT COUNT
JPLS	INI9	
MDAR	XSP	[BUMP GAP
MDAE'H	XGAP	
ARMO	XSP	
MDAR'X	GCTR	[BUMP GROUT
JPLS	INI8	
MDAR'I	SBA	
MDAR'B'H	C1	
ARMO'I	SBA	
MDAR	SXOYO	[SET UP DXDY
ARMO	\$NDXDY	
MDAR'L		[RESET WORDING BUFFER
MOCS	CBLK	
ARMO	WBUF	
MDAR'F	\$GRP0	
ARMO	DGRP	
MDAR'F	\$GRP1	
ARMO	WGRP	
MDAR'L;	2525252525	
ARMO	ALTB	
MDAR	RELIN	[SKIP IF REGROUP
UPAN	REC9N2	
ARXB'F		
ARMO	\$AJXD	[CLEAR SIDE LINE DISPLAY OPTION
ARMO	CLPTR	[RESET CRNT LINE PTR
MDAR'L;	4000	[SET UNITY SCALE FACTOR
ARMO	SCL1	[GROUP SCALES
ARMO	SCL2	
ARMO	SCL3	

[SET UP DISPLAY PARAMETERS

MDAR	LINE	[NUMBER OF DISPLAY LINES
ARMO	\$NLINE	
MDAR'H	M1629	[INITIAL PICTURE SCALE
ARMO	\$SCALE	
MDAR	LIGHT	[SPRT LIGHT OPTIO
ARMO	\$SFLG	

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REC8N2:

ARX8'F	
ARMD	LP1
ARMD	LP2
ARMD	LP3
MDAR	NPTR
MDAS'FIN	1
ARMD	EP1
ARMD	EP2
ARMD	EP3
MDAR	GRP
MDX8	C1
JPLS	•+2
JUMP	INI10
MDAR	LP1
MDAS	NPTR
ARMD	LP2
MDAS	NPTR
ARMD	LP3
MDAR	EP1
MDAS	NPTR
ARMD	EP2
MDAS	NPTR
ARMD	EP3

[MODIFY IT FOR GROUP

INI10:

MDAR'N	C2
ARMD	LCTR
MDAR'F	LP1-1
ARMD	TEMP1
MDAR'F	SP9T-1
ARMD	TEMP2
MDAR'F	CS1-1
ARMD	SPTR

[SET INIT. SP9TLIGHT POSITION

[ADDR 8F LEAD P9INT

[ADDR 9F SP9T DISPLAY

[ADDR 9F CENTER 8F SP9T

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INI11:	MDAR	NPTR	[POSITION SPOTS
	MDAS'N	IWIDE	[AT THE CENTER OF LINE
	ARRS	1	
	MDAS'I'X	TEMP1	[ADD LEAD POINT
	ARMO	TEMP	[LEADING EDGE OF SPOT
	ARMO'I'X	TEMP2	[SETUP S1,S2,S3
	MDAR	IWIDE	[GET CENTERS
	ARRS	1	
	MDAS	TEMP	
	ARMO'I'X	SPTR	
	MDAR'X	LCTR	
	JPLS	INI11	
	MDAR	GRP	
	ARMO	NSPAT	
	MDX0'F	1	
	JPLS	++3	
	MDAR	NSL	
	ARMO	NSPOT	
	JPSR	GSPOT	
	JPSR	FREQD	[COMPUTE CENTER FREQUENCY
	MDAR	RELIN	
	JPAN	++2	
	JUMP	INI12	
	MD10	\$AVG8N	[TAKE RELINE PATH
	JPSR	\$DISPL	
	JUMP	REDONE	
INI12:	MDAR	TIMED	[STARTING TIME
	JPSR	TIMED	
	ARX0'F		
	ARMO	FUNCT	[CLEAR FS LATCH
	JPSR	FSD	[CLEAR FS ON COUNT
	MD10	\$AVG8N	[AVG, SCOPE, CLOCK ON
	JPSR	\$DISPL	[START DISPLAY
	MDAR'F	\$CHARS	
	MDAS'F'N	1	
	ARMO	CP1	[RESET PTR TO CHAR BUFFER
	MDAR'L		
	JUMP	BEGIN	[SET JP FOREGROUND/BACKGROUND
	ARMO	WT1	
TL09P:	JPSR	ICHTY	[INPUT CHAR FROM TTY
		2	
TL5:	ARMO'L		[GAVE AR
	0		
	MDAR'N	NPAR	
	JPAN	TL10	[GO ON, READY FOR NEW INPUT
TL7:	MDAR	TL5	[RESTORE AR

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	JUMP	TL90P	[RESTART TTY INPUT
TL10:	MDAR	TTYC	[GET THE ASCII CHAR
	MDAR'A'F	177	[MASK OUT PARITY
	MDX0'F	15	[IS IT CARRIAGE RETURN>C
	JPLS	TL30	[N0

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	ARM'D	NPAR	[SET PARAM. VALUE READY FLAG
	JUMP	TL7	[AND RESTART TTY INPUT
TL30:	MDX8'F	15'177	[RUB9UT
	JPLS	TL50	[N0
TL40:	MDAR'F	\$CHARS	
	MDAS'F'N	1	
	MDX8	CP1	
	JPLS	++2	[THIS JUMP IF CHAR T0 RUB 9UT
	JUMP	TL7	[ELSE N0 CHAR YET, IGNORE RUB9UT
	ARX8'F		
	ARM'D	CP1	[REMOVE LAST CHAR FROM BUFFER
	MDAR	CP1	[AND DECREMENT PTR
	MDAS'F'N	1	
	ARM'D	CP1	
	JUMP	TL7	[START TTY AGAIN
TL50:	MDAR'F	\$ECHAR	
	MDAS'F'N	1	
	MDX8	CP1	
	JPLS	++2	[JUMP IF R08M FOR A CHAR
	JUMP	TL7	[ELSE IGNORE THE CHAR, WAIT FOR C/R
	MDAR	TTYC	
	MDAR'A'F	177	[IS CHAR. A ' '*''
	MDX8'F	52	
	JPLS	++2	[N0, SKIP IT
	ARM'D	STARF	[SET *FLAG
	MDAR'B	TTYC	[GET THE CHAR, POSITIONED
	MDAR'A'F	376	[MASK 9UT PARITY
	ARM'D'I'X	CP1	[AND PUT IT IN BUFFER
	ARM'D	TSFLG	[SET DISPLAY FLAG
	JUMP	TL7	[09 RESTART TTY

[SUBROUTINE TO COMPUTE OXDY TABLE

COXDY:	JUMP	.	
	MDAR'N	CT9G	[GET ALTERNATE BUFFER
	ARM'D	CT9G	
	JPA'N	++3	
	MDAR'F	LXDXY	
	JUMP	++2	
	MDAR'F	TDXCY	
	ARM'D	WDXY	
	MDAS	LINE	[START WITH BOTTOM OF STACK
	MDAS'F'N	1	
	ARM'D	SBA	
	MDAR'N	LINE	[RESET LINE COUNT
	MDAS'F	2	

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ARMED

LCTR

	ARX0'F		[SET JP INITIAL VALUE	
	ARMD	VDXY		
	ARMD'I	SBA	[ENTER VALUE	
NEXT:	MDAR	SBA	[BUMP STACK POINTER	
	MDAS'F'N	1		
	ARMD	SBA		
	MDAR	VDXY	[BUMP DXDY VALUE	
	MDAE'W	LDXN		
	MDAS	LDYN		
	ARMD	VDXY		
	ARMD'I	SBA		
	MDAR'X	LCTR	[BUMP LINE COUNT	
	JPLS	NEXT		
	MDAR	WDXY	[UPDATE DISPLAY	POINT
	ARMD	DTXY		
	MDIR	CDXDY		

[SUBROUTINE TO DO SOME OF THE COMPUTATION FOR THE DXDY TABLE
[CALLED BY IN17 AND R0T0

ANGLE:	JUMP	.	
	JPSR	\$SNCS	
	MDAR	INTX	[GET SPACING
	MPYL	LINE	
	0		
	ARRS	1	
	ARMD	TEMP	
	ARX0'F		
	MDAS	\$SINE	[EXTEND SIGN
	DIVL	TEMP	
	0		
	ARMD	TEMP	
	ARX0'F		
	MDAS	TEMP	
	ARMD	XINC	[SAVE POINT COUNT IN X
	MPYL	INTX	[QUANTIZE X
	0		
	ARRS	1	
	MDAR'A	MAOR	
	ARMD	LDXN	[SAVE X-SPACING
	ARX0'F		
	MDAS	\$COSN	[EXTEND SIGN
	DIVL	LINE	
	0		
	MDIR	ANGLE	[RETURN

[SUBROUTINE TO TRANSFER DATA

MOVED:	JUMP	.	
	MDAR'I	MOVED	[GET SOURCE ADDRESS
	MDAS'F'N	1	
	ARM0	SBA	
	MDAR'I'X	MOVED	[GET DESTINATION ADDRESS
	MDAS'F'N	1	
	ARM0	DBA	
	MDAR'I'X	MOVED	[GET WORD COUNT
	ARM0	TEMP	
	MDAR'I'N	TEMP	
	MDAS'F	1	
	ARM0	WCTR	
MORE:	MDAR'I'X	SBA	[TRANSFER DATA
	ARM0'I'X	DBA	
	MDAR'X	WCTR	
	JPLS	MORE	
	MDIR'X	MOVED	

[SUBROUTINE TO CALCULATE SPOTLIGHT FREQUENCIES

FREQD:	JUMP	.	
	MDAR'N	LIGHT	
	ANIR	FREQD	[RETURN IF NOT REQD
	MDAR	GRP	[RESET SPOT COUNT
	MDX0'F	1	
	JPLS	FREQ1	
	MDAR'N	NSL	
	JUMP	FREQ2	

FREQ1:	MDAR'N	GRP	
FREQ2:	MDAS'F	1	
	ARMD	LCTR	
	MDAR	CS1	[GET CENTER SPBT
	MDAS	ST1	[ADD STARTING POINT
	ARAR'F'B		
	DIVL	RES8	[CONVERT TO FREQUENCY
	0		
	ARMD	CF1	[SAVE INTEGER
	MDAR'A'H	MADR	[GET REMAINDER
	ARRS	1	
	DIVL	RES8	[DIVID OUT REMAINDER
	0		
	MDAR'A	MADR	
	JPSR	CONVF	[CONVERT FRACTION
		4	
		\$F1R1	
	MDAR	CF1	[GET INTEGER PART
	MDAR'A	MADR	[CONVERT INTEGER
	JPSR	CONVI	
		3	
		\$F1L3	
		\$F1L2	
		\$F1L1	
	MDAR'X	LCTR	[BUMP SPBT COUNT
	JPLS	FREQ3	[MORE
	MDAR'N	C13	[CLEAR REMAINING DISPLAY
	ARMD	LCTR	
	MDAR'F	F2-1	
	MDAR'B'H	C1	
	ARMD	SBA	
	MDAR	C40	
	ARMD'I'X'B	SBA	
	MDAR'X	LCTR	
	JPLS	.-3	
	MDAR	C1	[SET NSPBT TO 1
	ARMD	\$NSPBT	
	ARMD	NSPBT	
	MDIR	FREQ0	
FREQ3:	MDAR	CS2	[DO NEXT SPBT
	MDAS	ST2	
	ARAR'F'B		
	DIVL	RES8	
	0		
	ARMD	CF2	
	MDAR'A'H	MADR	
	ARRS	1	
	DIVL	RES9	
	0		
	MDAR'A	MADR	
	JPSR	CONVF	
		4	

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PA

MDAR
MDAR'A

3F2R1
CF2
MADR

	JPSR	CONVI	
		3	
		\$F2L3	
		\$F2L2	
		\$F2L1	
	MDAR'X	LCTR	
	JPLS	FREQ4	
	MDAR'N	C6	[CLEAR REMAINING DISPLAY
	ARMO	LCTR	
	MDAR'F	F3-1	
	MDAR'8'H	C1	
	ARMO	SBA	
	MDAR	C40	
	ARMO'I'X'B	SBA	
	MDAR'X	LCTR	
	JPLS	•-3	
	MDAR	C2	[SET NSPBT TO 2
	ARMO	\$NSPBT	
	ARMO	NSPBT	
	MDIR	FREQD	
FREQ4:	MDAR	CS3	
	MDAS	ST3	
	ARAR'F'B		
	DIVL	RES8	
	0		
	ARMO	CF3	
	MDAR'A'H	MADR	
	ARRS	1	
	DIVL	RES8	
	0		
	MDAR'A	MADR	
	JPSR	CONVF	
		4	
		\$F3R1	
	MDAR	CF3	
	MDAR'A	MADR	
	JPSR	CONVI	
		3	
		\$F3L3	
		\$F3L2	
		\$F3L1	
	MDAR	C3	[SET NSPBT TO 3
	ARMO	\$NSPBT	
	ARMO	NSPBT	
	MDIR	FREQD	
F2:	\$F2L1; \$F2L2; \$F2L3		
	\$F2R1; \$F2R2; \$F2R3; \$F2R4		
F3:	\$F3L1; \$F3L2; \$F3L3		
	\$F3R1; \$F3R2; \$F3R3; \$F3R4		

[SUBROUTINE TO UPDATE TIME

TIMED:	JUMP	.	
	ARM0	TIME	[UPDATE TIME
	ARAR'B'F		
	DIVI	60.	[GET NUMBER 9F SECONDS
	0		
	ARM0	TEMP1	
	ARRS	16.	
	0		
	JPSR	CONVI	[CONVERT SECONDS
		2	
		\$SEC2	
		\$SEC1	
	MDAR'B	TEMP1	[GET NUMBER 9F MINUTES
	MDAR'A	MAOR	
	DIVI	60.	
	0		
	ARM0	TEMP1	
	ARRS	16.	
	0		
	JPSR	CONVI	[CONVERT MINUTES
		2	
		\$MIN2	
		\$MIN1	
	MDAR	TEMP1	[GET NUMBER 9F HOURS
	MDAR'A	MAOR	
	JPSR	CONVI	[CONVERT HOURS
		2	
		\$HOUR2	
		\$HOUR1	
	MDIR	TIMED	

[SUBROUTINE TO CONVERT INTEGERS TO ASCII

CONVI:	JUMP	.	
	ARM0	INT3	[SAVE INTEGER VALUE
	MDAR'I'N	CONVI	[GET CHAR COUNT
	MDAS'F	1	
	ARM0	LCTR1	
	MDAR'X	LCTR1	
	JPLS	++2	
	JUMP	CONV2	[CONVERT INTEGER TO DECIMAL
	MDAR'X'!	CONVI	
	ARM0	TEMP	
	MDAR'X	INT3	
		12	
		INT3	
		INT3	[CONVERT DECIMAL TO ASCII

	MDAS'F	60	
	ARMD'I'B	TEMP	[ENTRY ASCII CHAR
	MDAR	INTG	[DB NEXT CHARACTER
	MDAR'A	MADR	
	ARMD	INTG	
	JUMP	CONV1	
CNV2:	MDAR'X'I	CONVI	
	ARMD	TEMP	
	MDAR	INTG	
	MDAS'F	60	
	ARMD'I'B	TEMP	[ENTER LAST ASCII CHAR
	MDIR'X	CONVI	

[SUBROUTINE TO CONVERT FRACTION

CNVF:	JUMP	.	
	ARMD	TEMP	[SAVE VALUE
	MDAR'I'N	CONVF	[GET DIGIT COUNT
	MDAS'F	1	
	ARMD	LCTR1	
	MDAR'I'X	CONVF	[GET ADDRESS
	MDAS'F'N	1	
	ARMD	SPTX	
CNVF1:	MDAR	TEMP	[CONVERT VALUE
	MPYI	12	
	0		
	ARMD	TEMP	[SAVE REMAINING VALUE
	ARRS	15.	
	0		
	MDAS'F	60	
	ARMD'I'X'B	SPTX	[UPDATE DIGITS
	MDAR	TEMP	
	MDAR'A	MADR	
	ARRS	1	
	ARMD	TEMP	
	MDAR'X	LCTR1	[JUMP DIGIT COUNT
	JPLS	CONVF1	
	MDIR'X	CONVF	[RETURN

[SUBROUTINE TO TURN ON FUNCTION SWITCH INDICATORS

FSD:	JUMP	.	
	ARRS	1	[SAVE SWITCH STATUS
	ARMD	FCT	
	MDAR	MBS	[BLANK OUT SWITCH BUFFER
	ARMD	LCTR	
	MDAR'F	SBUF-1	
	ARMD	SPTX	
	MDAR	C40	
	ARMD'I'X'B	SPTX	
	MDAR'X	LCTR	
	JPLS	-3	

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	MDAR'F	SBJF-1	[RESET BUFFER POINTER
	ARM0	SPTR	
	MDAR'N	C17	[RESET SWITCH COUNTER
	ARM0	LCTR	
FSD0:	MDAR'B	FCT	[CHECK SWITCH STATUS
	ARM0	FCT	
	JPAN	FSD3	[CN - DISPLAY NUMBER
FSD1:	MDAR'X	LCTR	
	JPLS	FSD0	
	MDAR	\$END2	[SET TEXT END OF LIST
	ARM0'I'X	SPTR	
	MDAR	M35	[TRANSFER DISPLAY BUFFER
	ARM0	LCTR	
	MDAR'F	SBJF-1	
	ARM0	IB	
	MDAR'F	SLIST-1	
	MDAR'0'H	C1	
	ARM0	99	
FSD2:	MDAR'I'X	IB	
	ARM0'I'X	98	
	MDAR'X	LCTR	
	JPLS	FSD2	
	MDIR	FSD	[RETURN
FSD3:	MDAR'X	SPTR	
	ARM0	FSD5	
	MDAR'X	SPTR	
	ARM0	FSD4	
	MDAR	LCTR	
	MDAS'F	18.	
	JPSR	CONVI	
		2	
FSD4:		0	
FSD5:		0	
	JUMP	FSD1	
SLIST:	\$S1A; \$S1B		[SWITCH DISPLAY LIST
	\$S2A; \$S2B; \$S3A; \$S3B		
	\$S4A; \$S4B; \$S5A; \$S5B		
	\$S6A; \$S6B; \$S7A; \$S7B		
	\$S8A; \$S8B; \$S9A; \$S9B		
	\$S10A; \$S10B; \$S11A; \$S11B		
	\$S12A; \$S12B; \$S13A; \$S13B		
	\$S14A; \$S14B; \$S15A; \$S15B		
	\$S16A; \$S16B; \$F1A; \$F1B		
	\$F2A; \$F2B		

ROUTINE TO GET NEW PARAMETER VALUE TYPED IN

GP0:	JUMP	.	
	MDAR	FUNCT	
	MDAR'A	MSKSW	
	ARMD	FUNCT	
	MDAR	\$SW81	[SAVE NAMELIST BUFFER ADDR.
	ARMD	A9300	
GP1:	ARMD	TSFLG	[RESET INPUT TEXT DISPLAY FLAG
GP5:	MDAR'FIN	4	[CLEAR AND PACK PNAME BUFFER
	ARMD	T2	
	MDAR'F	PNAME-1	
	ARMD	T3	
	MDBR	BLANK	
	BRMD'I'X	T3	
	MDAR'X	T2	
	JPLS	•-2	
	MDAR'F	\$CHARS	
	MDAS'FIN	1	
	ARMD	T1	[RESET PTR TO CHARS TABLE
	MDAR'F	PNAME	
	ARMD	T2	[RESET PTR TO PACK BUFFER
	ARX8'F		
	ARMD	T3	[RESET CNT OF CHARS PACKED INTO CRN
	ARMD	T4	[RESET TOTAL CHAR PACKED COUNT
GP10:	MDAR'I'X	T1	[GET NEXT CHAR
	JPLS	GP30	[JUMP IF NON-ZERO
GP20:	JPSR	\$R8AFW	
		-C	
		A9300	
		PNAME	
		5	
	JPSR	\$FINSH	
	MDAR'F	\$CHARS	[CLEAR CHARS DISPLAY BUFFER
	MDAS'FIN	1	
	ARMD	T1	
	MDBR	C0	
	BRMD'I'X	T1	
	MDAR	T1	
	MDX8'F	\$ECHAR	
	JPLS	•-3	
	ARX8'F		
	ARMD	NPAR	[RESET NEW PARAM. READY FLAG

	MDAR'F	\$CHARS	[RESET PTR TO CHARS BUFFER
	MDAS'F'N	1	
	ARMO	CP1	
	MDAR	STARF	[LAST RECORD
	JPAN	GP25	
	MDAR'N	NPAR	[WAIT FOR NEXT BLOCK
	JPAN	0-1	
	JUMP	GP1	[GO TO IT
GP25:	ARX0'F		
	ARMO	STARF	[RESET EOR INDICATOR
	MDIR'X	GPAR	
GP30:	ARRS	1	
	MDAS'F'N	37	
	ARMO	T5	[SAVE FOR ASCII TO BCD TABLE LOOKUP
	JPAN	GP40	[JUMP IF ASCII 0-37 (USE CHECK)
	MDAS'F'N	100	
	JPAN	GP50	[JUMP IF TO DS TABLE LOOKUP
GP40:	MDAR	C2	[ELSE ASCII 140-177 (USE CHECK)
	ARMO	T1	
GP50:	MDAR'F	AT92-1	
	MDAS	T5	
	ARMO	T5	[SAVE PTR TO TABLE ENTRY
	MDAR'X	T3	[JUMP CHAR COUNT
	MDX0'F	5	
	JPLS	GP60	[JUMP IF ROOM IN CRNT WORD
	MDAR	C1	[ELSE SET CNT TO 1
	ARMO	T3	
	MDAR'X	T2	[JUMP PTR TO PACK WORD
GP60:	MDAR'F	BTAG-1	
	MDAS	T3	
	ARMO	T6	[SAVE PTR TO MASK TABLE
	MDAR'F	LSFT-1	
	MDAS	T3	
	ARMO	T7	[SAVE PTR TO SHIFT TABLE
	MDAR'I	T2	[GET CRNT WORD
	MDIR'I	T6	[MASK OUT CRNT POSITION
	ARBR'F		[SAVE IN BR

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	MDAR'I	T5	[GET THE BCD CHAR
	MDIR'I	T7	[SHIFT IT
	0		
	BRAR'0'F		[MERGE INTO CRNT WORD
	ARMD'I	T2	[AND SAVE NEW CRNT WORD
	MDAR'X	T4	[BUMP TOTAL CHAR CNT
	MDX0'F	20.	
	JPLS	GP10	[GET NEXT CHAR IF NOT 20 YET
	JUMP	GP20	[ELSE ALL DONE
BTAB:	MDAR'A	M0611	[MASK TABLE
	MDAR'A	M1217	
	MDAR'A	M1823	
	MDAR'A	M2429	
LSFT:	ARLS	18.	[SHIFT TABLE
	ARLS	12.	
	ARLS	6	
	0		

[ASCII TO BCD CONVERSION TABLE --

AT03:	60	[SPACE
	17;17;17;17;17;17	[ASSERTED INVALIDS
	14	[
	74	[
	34	[
	54	[*
	20	[+
	73	[,
	40	[=
	33	[.
	61	[/
	0	[0
	1;2;3;4;5;6;7;10;11	[1 TO 9
	15	[:
	17	[;
	36	[LT
	13	[*
	16	[GT
	17;17	[2 INVALIDS
	21;22;23;24;25;26;27;30;31	[A TO I
	41;42;43;44;45;46;47;50;51	[J TO R
	62;63;64;65;66;67;70;71	[S TO Z
	17;17;17;17;17	[5 INVALIDS

PNAME: 0;0;0;0;0

BLANK: 60606060

[MAIN LOOP CALCULATIONS

BEGIN:	MDAR'N	NPAR	[TTY INPUT REQUEST
	JPAR	SCAN	[N0
	MDAR	C40	[YES, SET NAMELIST REQ BIT
	MDAR'0	FUNCT	[PUT IN AS IF FUNCTION SWITCH
	ARM0	FUNCT	
SCAN:	MDAR'K	FUNCT	[DISPLAY SWITCH STATUS
	JPSR	FSD	
	MDAR'K	\$SW01	[LOOK FOR 9300 COMMAND
	JPAR	BEGIN	
	MDAR'H	\$SW01	[GET COMMAND CODE
	MDAR'A	MA0R	
	MDAS'F'N	21	[CHECK FOR LEGALITY
	JPAR	+2	[OK
	JUMP	SC5	[IGNORE ILLEGAL CODE
	MDAS'F	22	
	MDAS'F	CT3L	[BUILD JUMP ADDR
	MDAR'H'0	C1	[SET INDIRECT BIT
	ARM0	CT3L	
	JPSR'I	CT3L	[PROCESS COMMAND
SC5:	JPSR	\$FINSH	[CLEAR ACCESS FOR NEXT COMMAND
	JUMP	BEGIN	

[9300 COMMAND TABLE

CT3L:	0	[CURRENT COMMAND LINK
INIT	[CODE 00	- INITIALIZATION
FSR	[	01 - FUNCTION SWITCH REQUEST
GPAR	[	02 - NAMELIST INPUT REQUEST
PIU	[	03 - PARAMETER UPDATE
SLE	[	04 - SIDE LINE DISPLAY OPTION
SDU	[	05 - SIDE LINE DATA UPDATE
LDU	[	06 - LINE DATA UPDATE
R0T	[	07 - ROTATION
SCADJ	[	10 - AMPLITUDE SCALING
M0VIE	[	11 - MOVIE OPTION
FBU	[	12 - FREQUENCY SWEEP OPTION
FSDIR	[	13 - FREQUENCY SWEEP DIRECTION
SP0	[	14 - SPOTLITE DISPLAY OPTION
HS0	[	15 - HARMONIC RELATED SPOTS
SLADJ	[	16 - SPOT LITE ADJUST
REGRP	[	17 - RE-GROUP OPTION
VERSAT	[	20 - HARD-COPY OPTION

[FUNCTION SWITCH ASSIGNMENTS:

[	1	RE-INITIALIZATION
[	2	SIDE LINE DISPLAY OPTION
[	3	ROTATION
[	4	DISPLAY LOOP
[	5	SPOTLITE ADJUST
[	6	HARMONIC RELATED SPOTLITE
[	7	SPOTLITE DISPLAY OPTION
[	8	AMPLITUDE SCALING
[	9	FREQUENCY SWEEP OPTION
[	10	FREQUENCY SWEEP DIRECTION
[	11	SINGLE SWEEP
[	12	
[	13	HARD-COPY OPTION
[	14	
[	15	
[	16	MOVIE OPTION

[CONTROL DIALS ASSIGNMENTS:

[	A	SPOTLITE ADJUST
[	B	SPOTLITE ADJUST
[	C	SPOTLITE ADJUST/ROTATION
[	D	AMPLITUDE SCALING
[	E	AMPLITUDE SCALING
[	F	AMPLITUDE SCALING

[SUBROUTINE TO OBTAIN HARD-COPY OUTPUT

VERSAT:	JUMP	.	
	MDARIN	LINE	[GET NUMBER OF LINES
	MDASIF	1	
	ARMO	LCYR	[SET UP LINE COUNTER
VERSC:	MDAR	DBLK	[DESTINATION BLOCK
	MDASIFIN	1	
	ARMO	DBA	[DESTINATION ADDRESS
	MDAR	NPTR	[GET NUMBER OF POINTS
	ARMO'I'X	DBA	
	MDAR	LINE	[GET NUMBER OF LINES
	ARMO'I'X	DBA	
	ARX8'F		
	MDAS	LDXN	[GET X-INCREMENT
	ARMO'I'X	DBA	
	ARX8'F		
	MDAS	LDYN	[GET Y-INCREMENT
	ARMO'I'X	DBA	
	MDAR	CLPTR	[GET CURRENT LINE POINTER
	ARMO'I'X	DBA	
	JPSR	VTSEND	

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VERS1:

MDAR
MDAS'FIN
ARMD

DGRP
1
ISBA

[GET SOURCE BLOCK ADDRESS
[SOURCE BLOCK ADDRESS

VERS2:	MDAR	DBLK	[DESTINATION BLOCK
	MDAS'F'N	1	
	ARMO	DBA	[DESTINATION OF ADDRESS
	MDAR'I'X	ISBA	
	MDAS'F'N	1	
	ARMO	SBA	[SOURCE ADDRESS
	MDAR'N	NPTR	[GET NUMBER OF POINTS PER LINE
	MDAS'F	1	
	ARMO	PCTR	[SET UP POINT COUNTER
VERS3:	MDAR'I'X	SBA	[GET X VALUE
	ARRS	15.	
	ARMO'I'X	DBA	[STUFF IN DUMP BLOCK
	ARXO'F		[PUT ZERO IN A REGIS.
	MDAS'I	SBA	[GET Y VALUE
	ARMO'I'X	DBA	[STUFF IN DUMP BLOCK
	MDAR'X	PCTR	[CHECK POINT COUNTER
	JPLS	VERS3	[NOT DONE WITH LINE
	JPSR	VTSEND	[SEND OUT THE LINE
	MDAR'X	LCTR	[CHECK LINE COUNTER
	JPLS	VERS2	[ALL LINES NOT DONE
	MDAR'L		
VERS4:	0077773740		[TURN OFF SWITCH 13
	MDAR'A	\$LFNS	
	ARMO	\$LFNS	
	MDAR	VERS4	
	MDAR'A	FUNCT	
	ARMO	FUNCT	
	MDIR	VERSAT	
VTSEND:	JUMP	.	
	MDAR'K	\$SW01	[WAIT FOR GO AHEAD
	JPAN	.-1	
	MDAR	\$SW01	[GET 9300 DESTINATION ADDRESS
	ARMO	A9300	
	MDAR'H	\$SW02	[GET WORD COUNT
	ARMO	OUTCTR	
	JPSR	\$R9AFW	[WRITE TO 9300
		-0	
		A9300	
		DBLK1	
OUTCTR:		0	
	JPSR	\$FINSH	
	MDIR	VTSEND	
ISBA:		0	
[SUBROUTINE TO RE-GRP			
REGRP:	JUMP	.	
	ARMO'0	RELIN	[SET RELINE INDICATOR
	JUMP	RECN	[TO RE CON LINE BUFFER
REDONE:	JPSR	\$FINSH	
	JPSR	FBJ	[REGROUP DATA
		0	

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P

ARX0'F
ARM0
MDIR'X
0

[RESET RELINE

RELINE
REGRP

RELINE:

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```
FSR:      JUMP      •
          MDAR      $SWB1
          ARMD      A9300
          MDAR'H    $SWB2
          ARMD      FSR1
          JPSR      $R9FW
          -0
          A9300
          FUNCT
          0
```

```
FSR1:     •
          MDIR      FSR
```

```
FSDIR:    •
          JUMP      ST1
          MDAR'F    GET93
          JPSR      FREQD
          JPSR
```

```
DIR2:     0077757740
          MDAR'L
          MDAR'A    $LFNS
          ARMD      $LFNS
          MDAR      DIR2
          MDAR'A    FUNCT
          ARMD      FUNCT
          MDIR      FSDIR
```

```
SL8:      JUMP      •
          MDAR'N    $AJXD
          ARMD      $AJXD
          MDIR      SL9
```

```
H88:      JUMP      •
          MDAR'N    HSL
          ARMD      HSL
          MDIR      H89
```

```
SP8:      JUMP      •
          MDAR'N    LIGHT
          ARMD      LIGHT
          ARMD      $SFLG
          MDIR      SP9
```

[SUBROUTINE FOR MOVIES

```
MOVIE:    JUMP      •
          ARMD'8    PICS      [SET MOVIE RECD FLAG
          MDAR      PICS      [WAIT FOR IT TO BE RESET
          JPAN      •-1
          MDIR      MOVIE     [RETURN
```

[SUBROUTINE FOR PARAMETER UPDATE

```
PIU:      JUMP      •
          MDAR'F    IPL
          JPSR      GET93
```

MDIR

PIU

[SUBROUTINE FOR SIDE LINE DATA UPDATE

```

SDU:      JUMP      *
          JPSR      READ      [READ SIDE LINE DATA

          MDIRIN    GRP      [SET GROUP COUNT
          MDAS'F    1
          ARMD      GCTR
          MDAR'F    SCL1     [GROUP SCALES
          ARMD      SD10
          MDAR'F    RBJF     [INPUT BUFFER
          ARMD      SD20
          MDAR'F    $NADAT    [SIDE LINE BUFFER
          ARMD      SD30

SD05:     JPSR      SCLD     [SCALE DATA
SD10:
SD20:
SD30:
          NPTR

          MDIR'X    GCTR     [BUMP COUNT
          JPLS      ++2
          JUMP      SD40
          MDIR'X    SD10
          MDIR      NPTR
          MDAS      SD20
          ARMD      SD20
          MDIR      NPTR
          MDAS      SD30
          ARMD      SD30
          JUMP      SD05

SD40:     JPSR      SPJ
          MDIR      SDJ      [RETURN

```

[SUBROUTINE TO GET DATA FROM THE 9300

```

GET93:    JUMP      *
          MDIR'A    MADR     [MASK OUT UPPER BITS
          ARMD      GET1     [A REGISTER - BUFFER LOC TO GET1
          MDIR      $SWB1
          ARMD      A9300
          MDIR'H    $SWB2
          ARMD      GET2
          JPSR      $R9FW
          0
          A9300
GET1:
GET2:
          0

```

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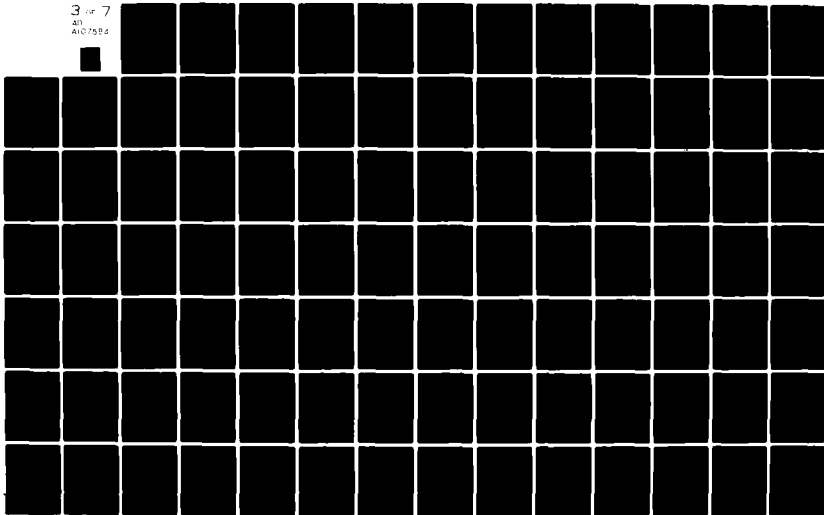
NAVAL POSTGRADUATE SCHOOL MONTEREY CA
APPLICATION OF ACOUSTIC SIGNAL PROCESSING TECHNIQUES TO SEISMIC--ETC(U)
JUN 77 C E IRVINE
NPS-52IR77061

F/G 17/10

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MDIR

GET93

(SUBROUTINE TO UPDATE SIDELINE SPST

SPU:	JUMP	.	
	MDAR	GRP	(GET ADDRESS OF SPOTS
	MPYL	MPTR	
	0		
	ARRS	1	
	MDAS'F	BNADAT	
	ARMO	SDJ3	
	MDAS'F'N	1	(RESTORE E9L
	ARMO	SDJ4	
	MDAR'I	SDJ4	
	MDAR'9'H	C1	
	ARMO'I	SDJ4	
	MDAR'N	LIGHT	(SPSTLITE OPTION
	ANIR	SPJ	(NO, RETURN
	MDAR	GRP	(GET SPST COUNT
	MDXG'F	1	
	JPLS	++3	
	MDAR'N	VSL	
	JUMP	++2	
	MDAR'N	GRP	
	MDAS'F	1	
	ARMO	GCTR	
	MDAR'F	SPST-1	(GET ADDR OF SPSTS
	ARMO	SPTR	
SDU1:	MDAR'F	BNADAT	(GET SOURCE ADDR
	MDAS'I'X	SPTR	
	ARMO	SDJ2	
	JPSR	MOVED	(TRANSFER SPST DATA
SDU2:	0		
SDU3:	0		
	1*ICE		

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MDAR'I	SDJ3	[MAKE FIRST POINT A MOVE
MDAR'A	M1	
ARMO'I	SDJ3	
MDAR	SDJ3	[BUMP TRANSFER ADDR
MDAS	IWIDE	
ARMO	SDJ3	
MDAR'X	GCTR	[BUMP COUNT
JPLS	SDJ1	[GET NEXT SPOT
MDAR'H	C1	[TURN ON EOL BIT
ARMO'I	SDJ3	
MDAR'I	SDJ4	[LINK SPOTS TO LINE
MDAR'A'H	M1	[REMOVE PREVIOUS EOL
ARMO'I	SDJ4	
MDIR	SPJ	

SDU4: 0

[SUBROUTINE FOR LINE DATA UPDATE

LDU:	JUMP	.	
	JPSR	READ	[READ NEW DATA
	MDAR'N	GRP	[RESET GROUP COUNT
	MDAS'F	1	
	ARMO	GCTR	
	MDAR'F	SCL1	[SET UP GROUP SCALE
	ARMO	SCLN	
	MDAR'F	CRBUF	[SETUP CURRENT INPUT GROUP
	ARMO	CRBUF	
	MDAR	WBUF	[SET UP WORKING GROUP BUFFER
	ARMO	CDBUF	

LDU1:	JPSR	SCLD	[SCALE AND UPDATE GROUP DATA
SCLN:		0	
CRBUF:		0	
CDBUF:		0	
		NPTR	

MDAR'X	GCTR	[BUMP GROUP COUNT
JPLS	++2	
JUMP	LDU2	[END OF GROUPS
MDAR'X	SCLN	[GET NEXT GROUP SCALE
MDAR	NPTR	
MDAS	CRBUF	[GET NEXT GROUP INPUT
ARMO	CRBUF	
MDAR	NPTR	
MDAS	CDBUF	[GET NEXT LINE GROUP
ARMO	CDBUF	
JUMP	LDU1	[SCALE NEXT GROUP

LDU2:	MDAR	CLPTR	[BUMP LINE POINTER	
	MDAS'FIN	1		
	ARM0	CLPTR		
	JPAN	++2	[CHECK LINE BOUND	
	JUMP	LDU3	[OK	
	ARX0'F'H			
	JPLS	++3	[NOT ZERO	
	ARM0	CLPTR	[RESET POINTER TO ZERO	
	JUMP	LDU3		
	MDAR	LINE		
	MDAS'FIN	1		
	ARM0	CLPTR		
LDU3:	ARM0'9	NEWL	[SET NEW LINE FLAG	
	MDAR	NEWL	[WAIT FOR IT TO BE RESET	
	JPAN	++1		
	MDAR	DGRP	[GET ADDR OF PSP ENTRY	
	MDAS	CLPTR		
	ARM0	TEMP1		
	MDAR'I	TEMP1	[SAVE PSP ENTRY	
	ARM0	TEMP2		
	MDAR	CLPTR	[UPDATE DISPLAY	POINT:
	ARM0	\$CLINE		
	MDAR	WBUF	[SWAP ENTIES	
	ARM0'I	TEMP1		
	MDAR	TEMP2		
	ARM0	WBUF		
LDU4:	MDAR	DGRP	[REMOVE HIDDEN LINES	
	ARM0	RGRP		
	JPSR	REMAP		
	JPSR	GSP0T		
	MDAR	TIME	[UPDATE TIME	
	MDAE	FTIME		
	JPSR	TIMED		
	ARX0'F			
	ARM0	WAIT1	[RESET WAIT FLAG	
	MDIR	LDU		

[SUBROUTINE FOR FREQ BAND UPDATE

FBU:	JUMP	.	
	MDAR'N	LINE	[RESET LINE COUNT
	MDAS'F	1	
	ARM0	LCTR	
	MDAR	WGRP	[GET CURRENT LINE PTR
	MDAS	CLPTR	
	ARM0	CWPTR	
	MDAR	WGRP	[GET LAST LINE PTR +1
	MDAS	LINE	
	ARM0	LPTR	
FBU1:	MDAR'I	CWPTR	[GET DATA BUFFER
	ARM0	CWBUF	
	JPSR	READ	[INPUT DATA
	JPSR	\$FINSH	

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P.

MDARIN	GRP
MDASIF	1
ARMO	GCTR
MDARIF	RBUF
ARMO	FRBUF

FBU2: MDAR'F SCL1
 FSCLN: ARMD FSCLN
 FRBUF: JPSR SCLD
 CWBUF: 0
 0
 0
 NPTR

MDAR'X GCTR
 JPLS ++2
 JUMP FBU3
 MDAR'X FSCLN
 MDAR FRBUF
 MDAS NPTR
 ARMD FRBUF
 MDAR CWBUF
 MDAS NPTR
 ARMD CWBUF
 JUMP FBU2

FBU3: MDAR'X CWPTR [JUMP BUFFER PTR
 MDX8 LPTP [END OF BUFFER
 JPLS ++3 [NO, CONTINUE
 MDAR WGRP [YES, RESET PRINTER
 ARMD CWPTR
 MDAR'X LCTR [JUMP LINE COUNT
 JPLS FBU1
 MDAR WGRP
 ARMD RGRP
 JPSR REMOV [REMOVE HIDDEN LINES
 JPSR SWITCH [RESET WORK BUFFER
 MDAR'L
 MDOS CBLK
 ARMD WBUF
 MDIR'X FBU

[SUBROUTINE TO SCALE INPUT DATA

SCLD: JUMP * [RESET MOVE INSTRUCTION
 MDAR'L
 MDAR'A M1
 ARMD SD3
 MDAR'I SCLD [GET ADDRESS OF SCALE
 ARMD SCLA
 MDAR'I'X SCLD [GET INPUT BUFFER
 MDAS'F'N 1
 ARMD IB

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	MDAR'I'X	SCLD	[GET 9JTPJT BUFFER
	MDAS'F'N	1	
	ARMO	9B	
	MDAR'I'X	SCLD	[GET WORD COUNT
	ARMO	TEMP	
	MDAR'N'I	TEMP	
	MDAS'F	1	
	ARMO	LCTR1	
SD1:	MDAR'I'X	1B	[SCALE INPUT DATA
	MPYL'I	SCLA	
	0		
	ARMO	TEMP	[CHECK FOR OVERFLOW
	MDAE'N	YMAX	
	JPAN	++3	
	MDAR	YMAX	
	JUMP	SD2	
	MDAR	TEMP	
SD2:	ARRS	12.	[SCALE DATA
	0		
	MDAR'A	YMASK	[MASK SCALED DATA
	ARMO	TEMP	
	MDAR'N	YMASK	[MASK OUT PREVIOUS VALUE
	MDAR'I'X'A	9B	
	MDAS	TEMP	[UPDATE CRNT VALUE
SD3:	0		[SET DRAW/MOVE BIT
	ARMO'I	9B	
	MDAR'L		[SET DRAW INSTRUCTION
	MDAR'9	C1	
	ARMO	SD3	
	MDAR'X	LCTR1	[DUMP WORD COUNT
	JPLS	SD1	[AND CONTINUE
	MDIR'X	SCLD	[RETURN
YMAX:	377777777		
YMASK:	77776		
[SUBROUTINE TO READ NEW DATA			
READ:	JUMP	.	
	MDAR'X	\$SWB1	[WAIT FOR NEW DATA
	JPAN	--1	
	MDAR'F	RBJF	
	JPSR	GET93	
	MDIR	READ	

[SUBROUTINE TO SWITCH DISPLAY BUFFER

SWITCH:	JUMP	.	
	MDAR	\$NBUF	
	JPAN	--1	[WAIT IF LAST NEW BUFF NOT HANDLED
	JPSR	MOVED	
		ABLK	
		\$GRP0	
		LINE	
	MDAR'F	\$GRP0	
	ARND	WGRP	
	MDAR'F	\$GRP1	
	ARND	JGRP	
	MDAR'B	ALTB	
	ARND	ALTB	
	JPAN	SWIT	
	JPSR	MOVED	
		BBLK	
		\$GRP1	
		LINE	
	MDAR'F	\$GRP0	
	ARND	JGRP	
	MDAR'F	\$GRP1	
	ARND	WGRP	
SWIT:	ARND'B	\$NBUF	
	JPSR	GSPBT	
	MDIR	SWITCH	
ALTB:	2525252525		

[SUBROUTINE TO REMOVE HIDDEN LINES

REMBF:	JUMP	.	[SINGLE LINE REMBEVAL ENTRY
	ARND'B	LPT	[SET SINGLE LINE OPTION
	JUMP	REMA	
REMBV:	JUMP	.	[COMPLETE REMOVAL ENTRY
	ARND'F		[CLEAR SINGLE LINE FLAG
	ARND	LPT	

[RESTORE DRAW BITS

	MDAR'N	LINE	[RESET LINE COUNT
	MDAS'F	1	
	ARND	LCTR	
REM1:	MDAR	RGRP	[GET CURRENT LINE ADDR
	MDAS'N	LCTR	
	ARND	CADR	
	MDAR'I	CADR	
	ARND	CADR	
	MDAR'N	GRP	
	MDAS'F	1	
	ARND	GCTR	

REM2:	MDAR'N	NPTR	[RESET POINT COUNT
	MDAS'F	2	[SKIP FIRST WORD
	ARM0	PCTR	
	MDAR'I	CADR	
	MDAR'A	M1	
	ARM0'I	CADR	
REM3:	MDAR'I'X	CADR	[GET DATA WORD
	MDAR'0	C1	[RESTORE DRAW BIT
	ARM0'I	CADR	
	MDAR'X	PCTR	[BUMP POINT COUNT
	JPLS	REM3	
	MDAR'X	GCTR	[BUMP GROUP COUNT
	JPLS	++2	
	JUMP	++3	[END 9F GROUP
	MDAR'X	CADR	[JUMP ADDRESS TO SKIP FIRST PTR
	JUMP	REM2	
	MDAR'X	LCTR	[BUMP LINE COUNT
	JPLS	REM1	
[SET UP POINTER ADDRESS			
REM4:	MDAR	CLPTR	[GET CURT LINE PTR
	ARM0	RPTR	[SET REFERENCE LINE PTR
REM5:	ARM0	TPTR	[RESET TEST LINE PTR
	MDAR	XINC	[GET SPACING IN POINTS
	ARM0	XOFF	[INITIAL OFFSET
	ARX9'F		[EXTEND SIGN
	MDAS	LDYN	
	ARM0	YINC	
	ARM0	YOFF	
	MDAR	RGRP	[SET JP REFERENCE DATA ADDR
	MDAS	RPTR	
	ARM0	RBLK	
	MDAR'I	RBLK	
	MDAR'A	MADR	
	ARM0	RADR	
REM6:	MDAR'X	TPTR	[BUMP TPTR MODULO LINE
	MDX9	LINE	
	JPLS	++2	
	ARM0	TPTR	
	MDAR	CLPTR	[INCE AROUND THE LOOP
	MDX0	TPTR	
	JPLS	REM7	[NO - PROCESS LINE

	MDAR	LBPT	[YES - IT IS SINGLE LINE OPTION
	ANIR	REMBF	[YES - DONE
	MDAR'X	RPTR	[BUMP RPTR MODULE LINE
	MDXB	LINE	
	JPLS	++2	
	ARMO	RPTR	
	MDAR	RPTR	[END OF REFERENCE
	MDAS'F	1	
	ARMO	TEMP	
	MDXB	LINE	[MODULE LINE
	JPLS	++2	
	ARMO	TEMP	
	MDAR	TEMP	[ENCE AROUND
	MDXB	CLPTR	
	JPLS	++2	[NO - GET NEXT REFERENCE LINE
	MDIR	REMBV	[RETURN
	MDAR	RPTR	
	JUMP	REMS	
REM7:	MDAR	TPTR	[GET TEST DATA ADDR
	MDAS	RGRP	
	ARMO	TB_LK	
	MDAR'I	TB_LK	
	MDAR'A	MAJR	
	ARMO	TAJR	
	MDAR	XOFF	[GET ABSOLUTE OFFSET DISTANCE
	JPAN	++2	
	JUMP	++3	
	ARXB'F		
	MDAS'N	XOFF	
	MDAS'N	C1	
	JPAN	++2	
	JUMP	++2	
	ARXB'F		
	ARMO	TP1	
	ARXB'F		
	ARMO	TP2	
	MDAR	R1	[CHECK OFFSET DISTANCE
	MDAS'N	TP1	[WITHIN FIRST GROUP
	JPAN	++2	[NO
	JUMP	REMB0	[YES, TO TEST POINTS
	MDAR	GRP	[ONE GROUP OPTION
	MDXB'F	1	
	JPLS	++2	[NO
	JUMP	REMB5	[YES, DONE
	MDAR	R2	[WITHIN FIRST GAP
	MDAS'N	TP1	
	JPAN	REMB8	[NO
	MDAS	TP2	[YES, BUMP TP2 PASS GAP
	ARMO	TP2	
	MDAR	L1	[RESET TP1
	ARMO	TP1	

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PA

JUMP

REM20

[19 TEST POINTS

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REM8:	MDAR	R3	[WITHIN SECOND GROUP
	MDASIN	TP1	
	JPAN	REM9	[N9
	MDAR	TP1	[YES, RESET GAP
	MDASIN	GAP	
	MDAS	C1	
	ARMO	TP1	
	JUMP	REM20	[T9 TEST POINTS
REM9:	MDAR	GRP	[T9 GROUP OPTION
	MDX8IF	2	
	JPLS	++2	[N9
	JUMP	REM25	[YES, DONE
	MDAR	R4	[WITHIN SECOND GAP
	MDASIN	TP1	
	JPAN	REM10	[N9
	MDAS	TP2	[YES, BUMP TP2 PASS GAP
	ARMO	TP2	
	MDAR	L2	[RESET TP1
	ARMO	TP1	
	JUMP	REM20	[T9 TEST POINTS
REM10:	MDAR	R5	[WITHIN THIRD GROUP
	MDASIN	TP1	
	JPAN	REM25	[YES, DONE
	MDAR	TP1	[YES, RESET TP1
	MDASIN	GAP	[DOUBLE GAP
	MDASIN	GAP	
	MDAS	C2	
	ARMO	TP1	
	JUMP	REM20	[T9 TEST POINTS
REM11:	MDARIX	TP1	[BUMP TEST POINT 1
	MDX8	L1	[COMPARE FIRST BREAK POINT
	JPLS	REM12	[N9
	MDAR	GRP	[YES, CHECK ONE GROUP OPTION
	MDX8IF	1	
	JPLS	++2	[N9
	JUMP	REM25	[YES, DONE
	JPSR	PGAP	[ADVANCE TP2
		TP2	
		TP1	
	JUMP	REM20	[T9 TEST POINTS
REM12:	MDAR	TP1	[COMPARE SECOND BREAK POINT
	MDX8	L2	
	JPLS	REM13	[N9
	MDAR	GRP	[YES, CHECK TWO GROUP OPTION
	MDX8IF	2	
	JPLS	++2	[N9
	JUMP	REM25	[YES, DONE
	JPSR	PGAP	[ADVANCE TP2
		TP2	
		TP1	
	JUMP	REM20	[T9 TEST POINTS
REM13:	MDAR	TP1	[COMPARE LAST BREAK POINT
	MDX8	L3	

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JPLS
JUMP

++2
RE425

[N9
[YES, DONE

	MDAR'X	TP2	[BUMP TEST POINT 2
	MDXB	L1	[COMPARE FIRST BREAK POINT
	JPLS	REM14	[N0
	MDAR	TP1	
	MDAS'N	C1	
	ARM0	TP1	
	JPSR	PGAP	[ADVANCE TP1
		TP1	
		TP2	
	JUMP	REM20	[T8 TEST POINTS
REM14:	MDAR	TP2	[COMPARE SECOND BREAK POINT
	MDXB	L2	
	JPLS	REM20	[N9, T9 TEST POINTS
	MDAR	TP1	
	MDAS'N	C1	
	ARM0	TP1	
	JPSR	PGAP	[ADVANCE TP1
		TP1	
		TP2	
	JUMP	REM20	

[SUBROUTINE TO ADVANCE TEST POINTS PASS GAP

PGAP:	JUMP	.	
	MDAR'I	PGAP	[GET ADDR OF TEST POINTS
	ARM0	TEST1	
	MDAR'I'X	PGAP	
	ARM0	TEST2	
	MDAR'I	TEST1	[BUMP PASS GAP
	MDAS	GAP	
	ARM0'I	TEST1	
	MDAR	L1	[CHECK PASS BREAK POINT
	MDAS'I'N	TEST1	
	JPAN	•+2	[YES
	MDIR'X	PGAP	[N0, RETURN
	MDAS	GAP	[CHECK PASS GAP
	JPAN	GAP1	[YES
	MDAS'N	C1	[N0, ADJUST POINTS
	MDAS'I	TEST2	
	ARM0'I	TEST2	
	MDAR	L1	
	ARM0'I	TEST1	
	MDIR'X	PGAP	
GAP1:	MDAR	L2	[CHECK PASS SECOND BREAK POINT
	MDAS'N'I	TEST1	
	JPAN	•+2	[YES
	MDIR'X	PGAP	[N0, RETURN
	MDAS	GAP	[CHECK PASS GAP
	MDIR'X	PGAP	[N0, RETURN
	MDAS'N	C1	[ADJUST TEST POINT
	MDAS'I	TEST2	
	ARM0'I	TEST2	
	MDAR	L2	
	ARM0'I	TEST1	

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PA

MDIRIX

PGAP

REM20:	MDAR	L3	[CHECK LINE TERMINATION
	MDAS'N	TP1	
	JPAN	REM25	
	MDAR	L3	
	MDAS'N	TP2	
	JPAN	REM25	
	MDAR	X8FF	[DETERMINE QUADRANT
	JPAN	REM21	[QUADRANT 3
	MDAR	TP1	[QUADRANT 4
	MDAS	TADR	[OFFSET TEST LINE
	ARMD	TEST1	
	MDAR	TP2	
	JUMP	REM22	
REM21:	MDAR	TP2	[OFFSET REFERENCE LINE
	MDAS	TADR	
	ARMD	TEST1	
	MDAR	TP1	
REM22:	MDAS	RADR	
	ARMD	TEST2	
	MDAR'I	TEST1	[CHECK DRAW BIT
	MDAR'A	C1	
	JPLS	++2	[ON
	JUMP	REM11	[OFF, GET NEXT POINT
	MDAR'I	TEST1	[GET TEST VALUE
	MDAR'A	YMASK	
	MDAS'N	Y8FF	[ADD 8FFSET
	ARMD'H	TDATA	[SAVE IT
	MDAR'I'H	TEST2	[GET REFERENCE VALUE
	MDAR'A'H	YMASK	
	MDAE'N	TDATA	[COMPARE VALUE
	JPAN	REM11	[OK, TRY NEXT POINT
	MDAR'I	TEST1	[ELSE, REMOVE POINT
	MDAR'A	M1	[CLEAR DRAW BIT
	ARMD'I	TEST1	
	JUMP	REM11	[NEXT POINT
REM25:	MDAR	X8FF	[BUMP 8FFSET SPACING
	MDAS	XINC	
	ARMD	X8FF	
	MDAR	Y8FF	
	MDAS	YINC	
	ARMD	Y8FF	
	MDAR'I	RBLK	[RESET REF ADDR
	MDAR'A	MADR	
	ARMD	RADR	
	JUMP	REM6	[ON NEXT LINE

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PA

L0PT:	0	[SINGLE LINE OPTION INDICATOR
CADR:	0	[CURRENT LINE ADDR
RPTR:	0	[REFERENCE LINE PRINTER
TPTR:	0	[TEST LINE PTR
X0FF:	0	[X-OFFSET
Y0FF:	0	[Y-OFFSET
RBLK:	0	[REFERENCE BLOCK PTR
TBLK:	0	[TEST BLOCK PTR
RADR:	0	[REFERENCE DATA ADDR
TADR:	0	[TEST DATA ADDR
TDATA:	0	[TEST DATA
NCTR:	0	[TOTAL POINTS
NREF:	0	
XINC:	0	
YINC:	0	
TP1:	0	
TP2:	0	
L1:	0	
L2:	0	
L3:	0	
R1:	0	
R2:	0	
R3:	0	
R4:	0	
R5:	0	
TEST1:	0	
TEST2:	0	

[SUBROUTINE FOR AXES ROTATION

RST:	JUMP	.	
	MDAR	\$TVCC	[READ DIAL C
	ARRS	1	[SCALE FOR +/- 90 DEG IN RAD
	ARND	TEMP	[SAVE IT
	MDAEIN	LRST	[DIFFERENCE OF LAST SETTING
	ARND	TEMP1	
	JPAN	•+2	[GET ABS VALUE
	JUMP	RSTC	
	ARXOF		
	MDAEIN	TEMP1	
RSTC:	MDAEIN	DZNE	[OFF DEAD ZONE
	ANIR	RST	[NO, RETURN
	MDAR	TEMP	[UPDATE LAST SETTING
	ARND	LRST	
	ARAR'F'H		[GET SIN AND COS
	MDAR'A	MADR	
	JPSR	ANGLE	
	ARAR'F'N		
	MDAR'A	MADR	
	ARND	LDYN	
	MDAR'N	LIVE	[TRANSFER GROUP DATA
	MDAS'F	1	
	ARND	LCTR	

RST1:	MDAR'N	LCTR	
	MDAS	DGRP	[GET BLOCK ADDR
	ARMO	LPTR	
	MDAR'I	LPTR	
	ARMO	IB	
	MDAR'N	LCTR	[GET DESTINATION BLOCK
	MDAS	WGRP	
	ARMO	LPTR	
	MDAR'I	LPTR	
	ARMO	SB	
	MDAR	NPTR	[GET WORD COUNT
	MPYL	GRP	
	O		
	ARRS	1	
	ARMO	PCTR	
	JPSR	MOVED	[TRANSFER BLOCK
19:		O	
93:		O	
		PCTR	
	MDAR'X	LCTR	[BUMP LINE COUNT
	JPLS	RST1	[DB NEXT LINE
	MDAR	WGRP	
	ARMO	RGRP	
	JPSR	REMB	[REMOVE HIDDEN LINES
	JPSR	COXDY	[SET CXDY TABLE
	JPSR	SWITCH	[SWITCH DISPLAY BUFFER
	MDAR'L		
	MDOS	CBLK	[RESET WORKING LINE BUFFER
	ARMO	WBUF	
	MDIR	RST	

[SUBROUTINE TO ADJUST SPOT LIGHT SEARCH

SLADJ:	JUMP	.	
	MDAR	GRP	[RESET SPOT COUNT
	MDAS'FIN	1	
	ARXG'FIN		
	JPLS	•+3	
	MDAR'N	NSL	
	JUMP	•+2	
	MDAR'N	GRP	
	MDAS'F	1	
	ARMO	GCTR	
	ARMO	TEMP2	
	MDAR'F	CS1-1	[ADDR OF CENTER SPOT
	ARMO	SLAD6	
	MDAR'F	LP1-1	[ADDR OF LEAD POINT
	ARMO	SLAD7	
	MDAR'F	EP1-1	[ADDR OF END POINT
	ARMO	SLAD8	
	MDAR'F	HARM1-1	[ADDR OF HARMONIC GROUP
	ARMO	SLAD9	

	MDAR'F	\$TVCD	[GET DIAL ADDR
	MDAS'F'N	1	
	ARM	SLAD3	
	MDAR'F	SPBT-1	[ADD 9F SPBT WORD
	ARM	SLAD4	
	MDAR'F	LSP1-1	
	ARM	SLAD12	[SAVE FWA-1 9F LAST SPBT DIAL VALU
	ARX8'F		
	ARM	SLAD13	[RESET NEW DIAL VAL FLAG
SSL:	MDAR'I'X	SLAD3	[GET DIAL READING
	ARRS	1	
	ARM	TEMP1	[SAVE IT
	MDAE'N'I'X	SLAD12	[GET DIFF. WITH LAST TIME
	JPAV	++2	[GET ABS. VAL 9F DIFF
	JUMP	++2	
	ARAR'F'N		
	MDAE'N	DZ9NE	[OFF DEAD ZONE
	JPAV	++4	[NO, GET NEXT ONE
	ARM'8	SLAD13	[YES, SET FLAG
	MDAR	TEMP1	[GET DIAL READING
	ARM'I	SLAD12	[SAVE F9R NEXT TIME
	MDAR'X	GCTR	[BUMP SPBT COUNTER
	JPLS	SSL	[JUMP IF MORE
	MDAR'N	SLAD13	[ELSE CHECK NEW VAL FLAG
	ANIR	SLADJ	[RETURN IF NO UPDATE REQD
	MDAR	TEMP2	[ELSE RESET SPBT COUNTER
	ARM	GCTR	
	MDAR'N	ST9G	[T99GLE
	ARM	ST9G	
	MDAR'F	LSP1-1	[GET FWA-1 9F CRNT DIAL VALS
	ARM	SLAD3	[SAVE IT
SLAD0:	MDAR'I'X	SLAD3	[GET DIAL READING
	MDAE	9FSET	[SCALE READING
	ARAR'F'H		
	MPYL	NPTR	[COMPUTE NO. 9F P9INTS
	C		
	ARAR'F'H		
	MDAR'A	MADR	[MASK LOWER SIGNIFICANCE
	ARM	TEMP	[SAVE IT
SLAD1:	MDAS'I'X	SLAD7	[ADD LEAD POINT
	ARM	TEMP1	
	MDAS	IWIDE	
	ARM	TEMP2	
	MDAS'I'X'N	SLAD8	[CHECK LINE BOUND
	JPAV	++2	
	JUMP	SLAD5	

```

SLAD2:      MDAR      TEMP1
            ARMD'I'X   SLAD4
            MDAR      IWIDE
            ARRS      1
            MDAS      TEMP1
            ARMD'I'X   SLAD6      ISET CENTERS

            MDAR      HSL        [HARMONIC OPTION
            JPAN      SLAD10     [END OF GROUP
            MDAR'X    GCTR       [NO, NEXT
            JPLS      SLAD0
            JPSR      GSP0T
            JPSR      FREQD
            MDAR      $AJXD      [SIDE LINE OPTION
            JSAN      SPU        [UPDATE SIDE LINE SPOTS
            MDIR      SLADJ      [RETURN

SLAD3:      0
SLAD4:      0

SLAD5:      MDAR'I    SLAD8      [GET HARD STOP
            MDAS'N    IWIDE
            ARMD      TEMP1
            JUMP      SLAD2

SLAD6:      0
SLAD7:      0
SLAD8:      0
SLAD9:      0

SLAD10:     MDAR'X    GCTR
            JPLS      *+2
            JUMP      SLAD11
            MDAR      GRP       [SEE IF GROUP=1
            MDX8'F    1        [NO, DO HARMONIC
            JPLS      SLADH     [YES, GET DIAL A
            MDAR      TEMP      [ADDED FIXED LENGTH
            MDAS      IPL
            ARMD      TEMP
            JUMP      SLAD1

SLADH:      MDAR      HC        [COMPUTE (1-H)*NPTR/2
            MDAS'N'I'X SLAD9
            MPYL      NPTR
            0
            ARRS      11.
            0
            ARMD      HB
            MDAR      TEMP      [GET DIAL A READING
            MPYL'I    SLAD9     [COMPUTE H*A
            0
            ARRS      10.
            0
            MDAS      HB        208 [COMPUTE HA+(1-H)*NPTR 2

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	JPAN	++2	[SET TO ZERO IF NEGATIVE
	JUMP	++2	
	ARX8'F		
	ARM0	HA	
	MDAS'N	NPTR	[LIMIT TO NPTR
	JPAN	++3	
	MDAR	NPTR	
	JUMP	SLAD1	
	MDAR	HA	
	JUMP	SLAD1	
SLAD11:	JPSR	GSPBT	
	JPSR	FREQD	
	MDAR	SAJXD	[SIDE LINE SPT19N
	JSAN	SPU	[UPDATE SP9TS
	MDIR	SLADJ	
SLAD12:	0		
SLAD13:	0		
HA:	0		
HB:	0		
HC:	1000		

[SUBROUTINE TO MOVE THE SPOTS

GSP0T:	JUMP	.	
	MDAR	ST9G	[GET TOGGLE
	JPAN	++3	[JUMP IF WANT 1SP9T SET
	MDAR'F	SPL-1	[ELSE OSP9T SET
	JUMP	++2	
	MDAR'F	1SPL-1	
	ARM0	DPTR	[SAVE DISPLAY PTR
	ARM0	SPLL	[AND FOR DISPLAY PR9G. ALSO
	MDAR'N	LINE	[RESET LINE COUNT
	MDAS'F	1	
	ARM0	LCTR	
	MDAR	DGRP	[GET LINE DATA ADDR
	MDAS	CLPTR	
	ARM0	GSP5	
	MDAR	DGRP	[GET ADDR 9F LAST LINE
	MDAS	LINE	
	ARM0	LPTR	
GSP0:	MDAR'F	SP9T-1	[GET SP9T POINTER
	ARM0	SPTR	
	MDAR'N	NSP9T	[GET SP9T COUNT
	MDAS'F	1	
	ARM0	GCTR	
	MDAR'I'X	DPTR	[SET UP DISPLAY ADDR
GSP1:	ARM0	GSP3	
	MDAR'I	GSP5	[SET UP SP9T DATA
	MDAS'I'X	SPTR	
	ARM0	GSP2	
	JPSR	MOVED	[XFER SP9T DATA
GSP2:		0	
GSP3:		0	
		IWIDE	
	MDAR'I	GSP3	[MAKE 1ST WORD A MOVE
	MDAR'A	M1	
	ARM0'I	GSP3	
	MDAR'X	GCTR	[BUMP COUNT
	JPLS	++2	
	JUMP	GSP4	[DONE
	MDAR	GSP3	[BUMP TRANSFER ADDR
	MDAS	IWIDE	
	JUMP	GSP1	
GSP4:	MDAR	GSP3	[SET E9L
	MDAS	IWIDE	
	MDAS'F'N	1	
	ARM0	TEMP	
	MDAR'I	TEMP	
	MDAR'9'H	C1	
	ARM0'I	TEMP	

MDAR'X	LCTR	[JUMP LINE COUNT
JPLS	++4	
MDAR	SPLL	[STORE ADDR 9F SP9T DISPLAY LIST
ARM0	SPLP	
MDIR	GSP9T	
MDAR'X	GSP5	[JUMP LINE PTR
MDXB	LPTR	
JPLS	GSP0	
MDAR	JGRP	[WRAP AROUND
ARM0	GSP5	
JUMP	GSP0	

GSP5: 0

[SUBROUTINE TO ADJUST AMPLITUDE SCALING

SCADJ:	JUMP	.	
	ARM0'B	DBNT	[CLEAR DBNT FLAG
	MDAR'N	GRP	[RESET LINE COUNT
	MDAS'F	1	
	ARM0	GCTR	
	MDAR'F	\$TVCD0	[GET CONTR9L DIAL ADDR
	MDAS'F'N	1	
	ARM0	SCA	
	MDAR'F	SCL1-1	[ADDR 9F SCALES
	ARM0	SCLN	
	MDAR'F	LSC1-1	[ADDR 9F PREVIOUS SCALE
	ARM0	LSCN	
SCAD1:	MDAR'X	SCLN	[BUMP ADDR 9F SCALES
	MDAR'I'X	SCA	[READ CONTR9L DIAL
	ARRS	1	
	ARM0	TEMP	[SAVE IT
	MDAE'N'I'X	LSCN	[GET DIFFERENCE
	ARM0	TEMP1	[GET ABS VALUE
	JPAN	++2	
	JUMP	SCAD2	
	ARXB'F		
SCAD2:	MDAE'N	TEMP1	
	MDAE'N	DBNE	[OFF DEAD ZONE
	JPAN	SCAD3	[N8
	ARXB'F		[YES, SET DBIT FLAG
	ARM0	DBNT	
	MDAR	TEMP	[UPDATE PAST SCALE
	ARM0'I	LSCN	
	MDAE	9FSET	[BIAS DIAL READING
	ARAR'F'H		
	MDAR'A	MAOR	
	ARM0'I	SCLN	[SAVE SCALE

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P:

SCAD3:	MDAR'X JPLS	GCTR SCAD1	[NEXT GROUP
	MDAR MDX8 JPLS JUMP	DBNT SCAD6 ++2 SCAD4	[COMPARE PREVIOUS VALUE [SEND IF DIFFERENT [END DIFFERENT
	MDAR ARMD JPSR	\$SWB1 A9300 \$R9AFW -0 A9300 DBNT 1	[SEND DBNT FLAG
SCAD4:	MDAR ARMD JPSR MDAR ANIR'X	DBNT SCAD6 \$FINSH DBNT SCADU	[UPDATE PASS VALUE
SCAD5:	JPSR MDIR'X	FBU 0 SCADU	[SCALE AND UPDATE DATA
SCAD6:	0		
ICHTY:	0		[INPUT 8 BIT CODE FROM TTY
	MDAR'I ARMD MDAR'F ARMD ARXB'F ARMD JPSR MDAR JUMP'I'X	ICHTY ++6 TTYIB TTYSR TTYC TTWT 0 TTYC ICHTY	[GET INP-MODE CONTROL CODE
TTYIB:	JUMP ARMD'L	.	
TTYCC:	MDAR ARRS	0 TTYC 1	
	MDAR'0'X SKLA MDXB'K ARMD MDAR MDIR	C2 1 C2 TTYC TTYCC TTYIB	

TTWT:	JUMP	0
	MDIR'A	9FTTY
	MDAR'F	TT83
	ARMO	TPVT2
	MDAR'F	TTYB
	ARMO	TPVT1
	MDAR	S39VF
	ARMO	9VFPV
	MDAR	S3A
	MDIC'I'B	TTWT
	MDIR	WT1

TT83:	JUMP	.
	JPSR'I	TTYBR
	MDIC'L'A	

9FTTY:TPTEF:	TTYBF	
	ARMO	TTYCC
	MDAR'F	N8
	ARMO	WT1+2
	MDAR'F	WT1
	FPRI	
	ARMO'I	LGP
	MDAR'F	WT1+2
	ARMO	LGP
	JPRI	
	PINT	
	MDAR	TTYCC
	JUMP'I	TT83

S3A:	0
S39VF:	0
TTYC:	0

TTYB:	0

JPSR'I	TTYBR
JUMP'I	TTYB

TTYBR:	0

ENT:	JUMP	0

	ARMO'L	
ENTA:	0	
	MDAR	9VFPV
	ARMO'L	

ENTB:	0	
	FPRI	
	MDAR'I	ENT
	ARMO	PINPV
	MDXB'F	N8
	JPLS	•+3

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	MDAR'F	PINPV
	ARMO	LGP
	JPRJ	
	ARX8'F	
	ARMO'I'X	ENT
	MDIR'X	ENT
EXT:	JUMP'I	0
	MDAR	ENT8
	ARMO	9VFPV
	MDAR	ENTA
	PINT	
LGP:	JUMP'I	EXT
		PINPV
AT1:	JUMP	.
	JPSR	ENT
		0
		0
	MDAR	ENT8
	ARMO	S38VF
	MDAR	ENTA
	ARMO	S3A
	ARX8'F	
	ARMO	ENT8
	ARMO	ENTA
	ARMO	9VFPV
	PINT	
	JUMP'I'X	TTWT
DBNT:	0	
LSCN:	0	
LSC1:	0	
LSC2:	0	
LSC3:	0	
DZONE:	3700000	
LRST:	0	
MSKSA:	77777700	

[PARAMETER INPUT LIST

IPL:	0	[FIXED SPOTLIGHT INTERVAL
LINE:	10.	[NUMBER OF SPECTRUM LINES
GRP:	1	[NUMBER OF HARMONIC GROUPS
NPTR:	150.	[NUMBER OF POINTS PER LINE
NSL:	1	[NUMBER OF SPOT LIGHTS
TIMEO:	4000.	[STARTING TIME IN SECONDS
FTIME:	32.	[FFT UPDATE TIME IN SECONDS
RESS:	1000	[FREQ RESOLUTION
ST1:	0	[START OF GROUP 1
ST2:	0	[START OF GROUP 2
ST3:	0	[START OF GROUP 3
HARM1:	1	[HARMONIC FACTOR
HARM2:	1	
WIDE:	10.	
NFRAM:	18.	
NSHUT:	0	
INTL:	0	
INTS:	0	
INTSL:	0	
INTLR:	0	
INTX:	100	
XGAP:	1400	

[PARAMETER OUTPUT LIST

LIGHT:	-0	[SPOT LIGHT OPTION
HSL:	0	[HARMONIC RELATED SPOT OPTION
FUNCT:	0	

[LOCAL PARAMETERS

C1:	1	
YO:	67776	[2 1/2 INCH X AXES OFFSET
Y0:	0	[90 Y AXES OFFSET
DELX:	100	[.039 INCH FOR SIDE LINE DISPLAY
SXCY0:	7600012000	[SIDE LINE DISPLAY ORIGIN
YADR:	77777	[ADDRESS MASK
C18:	22	
M35:	-35.	
M2:	-2	
C9:	9.	
C13:	13.	
C40:	40	
C6:	6	
OFFSET:	2000000000	[SPOTLIGHT DIAL OFFSET
C0:	0	
C2:	2	
C3:	3	
C4:	4	
C5:	5	

M0611: 7700777777
M1217: 7777007777
M1823: 7777770077
M2429: 7777777700
M1629: 37777
M1: -1
C1M1: 100001
C16200: 16200
C17: 17.

LOCAL VARIABLES

WCTR:	0	[WORD COUNT
LCTR:	0	[RUNNING LINE COUNT
ALINE:	0	[CURRENT A BLOCK PTR
BLINE:	0	[CURRENT B BLOCK PTR
GCTR:	0	[RUNNING GROUP COUNT
XSP:	0	[INITIAL DISPLAY ORDINATES
PCTR:	0	[RUNNING PT COUNT
SBA:	0	[XDY TABLE PTR
LDXN:	0	[INCREMENTAL DX VALUE
LDYN:	0	[DITTO DY
VDXY:	0	[CURRENT DXDY VALUE
TEMP:	0	
TEMP1:	0	
TEMP2:	0	
DBA:	0	[DESTINATION ADDR PTR
TIME:	0	[UPDATE TIME
INTGT:	0	[INTEGER VALUE TO BE CONVERTED
FCN:	0	[STATUS
SCTR:	0	[COUNT
SPTR:	0	
CS1:	0	[CENTER SPOTLIGHT POINT
CS2:	0	
CS3:	0	
CF1:	0	[CENTER SPOT FREQ
CF2:	0	
CF3:	0	
EP1:	0	
EP2:	0	
EP3:	0	
LP1:	0	
LP2:	0	
LP3:	0	
WAIT1:	0	
NEWL:	0	

```

RBUF:          L9C(.*+150.*)      [INPUT DATA BUFFER

SCL1:          400                [GRSUP 1 SCALE
SCL2:          400                [      2
SCL3:          400                [      3
SCLA:          0
DTXY:          0
WDX:           0
LDXDY:         L9C(.*+16.*)
TDXDY:         L9C(.*+16.*)
CAPTR:         0                [WORKING BUFFER ADDR

NPAR:          0
TSFLG:         0
T1:0; T2:0; T3:0; T4:0; T5:0; T6:0; T7:0; T8:0

RGRP:          0                [BUFFER ADDR FOR LINE REMOVAL
WGRP:          0                [WRK GRP
DGRP:          0                [DISPLAY GRP

LSP1:          0
LSP2:          0
LSP3:          0

SPLL:          0
SPLP:          0
STG:           0
CTG:           0

1SPL:          MD05              1S1
                  MD05              1S2
                  MD05              1S3
                  MD05              1S4
                  MD05              1S5
                  MD05              1S6
                  MD05              1S7
                  MD05              1S8
                  MD05              1S9
                  MD05              1S10
SPL:           MD05              S1
                  MD05              S2
                  MD05              S3
                  MD05              S4
                  MD05              S5
                  MD05              S6
                  MD05              S7
                  MD05              S8
                  MD05              S9
                  MD05              S10

```

1S1:	L9C(.*+30.)
1S2:	L9C(.*+30.)
1S3:	L9C(.*+30.)
1S4:	L9C(.*+30.)
1S5:	L9C(.*+30.)
1S6:	L9C(.*+30.)
1S7:	L9C(.*+30.)
1S8:	L9C(.*+30.)
1S9:	L9C(.*+30.)
1S10:	L9C(.*+30.)

S1:	L9C(.*+30.)
S2:	L9C(.*+30.)
S3:	L9C(.*+30.)
S4:	L9C(.*+30.)
S5:	L9C(.*+30.)
S6:	L9C(.*+30.)
S7:	L9C(.*+30.)
S8:	L9C(.*+30.)
S9:	L9C(.*+30.)
S10:	L9C(.*+30.)

DPTR:	0
SPAT:	L9C(.*+3)
NSP9T:	0
GAP:	0
CLPTR:	0
CP1:	0
INTG:	0
SCA:	0
LPTR:	0
BIAS:	0
LCTR1:	0
FCT:	0
SBUF:	L9C(.*+36.)
PICS:	0
STARF:	0
49300:	0

[DISPLAY BUFFER PTRS

CAPTR:	0	[CURRENT INPUT BUFFER POINTER
ABLK:	MD05	ABLK1
	MD05	ABLK2
	MD05	ABLK3
	MD05	ABLK4
	MD05	ABLK5
	MD05	ABLK6
	MD05	ABLK7
	MD05	ABLK8
	MD05	ABLK9
	MD05	ABLK10

CBPTR:	0	[CURRENT INPUT BUFFER POINTER
BBLK:	MD05	BBLK1
	MD05	BBLK2
	MD05	BBLK3
	MD05	BBLK4
	MD05	BBLK5
	MD05	BBLK6
	MD05	BBLK7
	MD05	BBLK8
	MD05	BBLK9
	MD05	BBLK10

WBUF:	MD05	CBLK	[WORKING BUFFER POINTER

CBLK:	L9C(.*+150.)

DBLK:	DBLK1	.
MB:	JUMP	N8
	MDIR	

TERMINATE

TWDIS

VERSION 2 REVISION C CREATED 31 JAN 75

DATE

EXPUNGE

TITLE TWDIS

[DISPLAY SUBROUTINE FOR ESP
[VERSION 2, REVISION C
[1/31/75

NOCARRET
ENTRY DISPL,
CHARS,ECHAR,
LALX,LA20,LA30,
E0LL,LL5,LL20,LL50,LL70,
E0LS,LS5,LS50,
E0LT,LT5,
FCLH,FC5,FC10,FC30,FC80,FC90,
E0LX,LX5,END2,
AVGBN,LCNT,SFLG,LGRP,GRPO,GRP1,LASTL,LPTR,NLINE,
GEND,PXY,TDAT,TDAT1,H0UR1,H0UR2,MIN1,MIN2,SEC1,SEC2,
F1L1,F1R1,F2L1,F2R1,F3L1,F3R1,S1A,S2A,S3A,S4A,S5A,S6A,
S7A,S8A,S9A,S10A,S11A,S12A,S13A,S14A,S15A,S16A,F1A,F2A,
NSPBT,DDUN,TEMP1,TEMP2,TEMP3,
SCALE,NADAT,CLINE,
F2L3,F3R2,S5B,S12B,F3R4,F1L3,F1B,S6B,F3L2,S13B,S15B,
F2R3,F2B,S7B,F2L2,S10B,S2B,S14B,F3R3,S8B,F1L2,S3B,
S11B,CLINE,F3L3,F2R2,S9B,S4B,S16B,F2R4,S1B,
TCNT,NBUF,AUXD,NXDY,DCNT,FNS,LFNS;
CARRET
[SYMBOL DEFINITIONS

E0LPV=77757; E0VPV=77756; E0SPV=77736; E0APV=77735; FCLPV=77755

M005=250000JH; M006=260000JH; M007=270000JH; M010=300000JH; M011=310000JH

[FOLLOWING GENERATES VALUES (ASCII) FOR THE SYMBOLS: A.,B.,...,Y.,Z.
[FOR USE IN CALLS TO P MACRO

ZZZ=101
[REPEAT ZZ,(A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,Q,R,S,T,U,V,W,X,Y,Z)
ZZ\.=ZZZ
ZZZ=ZZZ+1
ENDI
P.=120

[P MACRO FOR BUILDING DISPLAY WORDS FOR THE CHAR. GENERATOR

MACRO1 P(A1,A2,A3,A4,A5)
A1VBK + A2VB + A5VBK + A3VBK + A4VB + 0
ENDM

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[LFCR MACRO TO BUILD LINE FEED AND CARRIAGE RETURN WORD FOR TEXT

MACR91 LFCR
P(12,15,0,0)
ENDM

DISPL:	JUMP	.	[REFRESH STARTER ROUTINE
	MD11	SCALE	[SET SCALE
	MDIC'A	M10	[TURN OFF LCG
	MD10	AVGON	[TURN ON AVG, SCOPE AND CLOCK
	MDAR'N	AUXD	[SEE IF NON-AVGD CRNT LINE DISPLAY
	JPAN	DIS10	[JUMP IF NOT TO BE DRAWN
	MDAR'F	EELX	[ELSE SPECIFY EEL HANDLER FOR IT
	ARMD	EELPV	
	MDAR'L		[LOAD EGV PIVOT
	MD05	NADAT	
	ARMD	EBVPV	
	MD07	NODDY	[SET DDDY
	MD06	\$INTSL	[SET INTENSITY
	JUMP	DIS20	
DIS10:	MD06	\$INTLB	
	JPSR	LALX	[GO SET UP FOR LINES DWG
	MD07'I	PXY	[SET DDDY FOR 1ST LINE
DIS20:	MDAR'N	\$PICS	[TAKING MOVIES>>
	JPAN	DIS60	[NO, GO START REFRESH
	MDAR	NSHUT	[YES, GET NO OF REFRESHES SHUTTER
	JPLS	++2	[HAS BEEN OPEN
	JUMP	DIS40	[JUMP IF ALREADY AT LEAST ONE
			[ELSE THIS JUMP
	MDXB	\$NSHUT	[OPEN REQD NO OF TIMES YET>>
	JPLS	DIS50	[NO, LEAVE OPEN AGAIN
	MDIC'A	M1000	[YES, CLOSE SHUTTER
	S4AR'F		[WAIT TILL CLOSED
	MDAR'F'A	1000	
	JPLS	--2	
	ARXB'F		[WAIT FOR SURE
	ARMD'L		

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	MDAR'X	•-1	
	MDX8'F	3720	
	JPLS	•-2	
	ARX8'F		[RESET NO. 9F TIMES OPEN COUNTER
	ARM0	VSHUT	
	MDAR	VFRAM	[COMPARE FRAMES DONE
	MDX8	\$NFRAM	[WITH NO. REGD
	JPLS	DIS40	[JUMP IF MORE FRAMES REGD
	ARM0	VFRAM	[ELSE RESET FRAMES DONE COUNT
	ARM0	\$PICS	[AND MOVIES REGD FLAG
	JUMP	DIS60	[AND GO START REFRESH
DIS40:	MDAR'X	VFRAM	[BUMP NO 9F FRAMES DONE
	MDIC'8	C1000	[OPEN THE SHUTTER
	S4AR'F		[WAIT TILL IT IS
	MDAR'F'A	1000	
	JPLS	•+2	
	JUMP	•-3	
	ARX8'F		[WAIT 20MSEC TO BE SURE
	ARM0'L		
	0		
	MDAR'X	•-1	
	MDX8'F	3720	
	JPLS	•-2	
DIS50:	MDAR'X	VSHUT	[BUMP SHUTTER OPEN COUNT
DIS60:	MDIR	EBVPV	[START DWG.
	MDIR	DISPL	[RETURN
LALX:	JUMP	.	[ROUTINE TO SET UP FOR LINES DWG.
	ARX8'F		
	ARM0	LCNT	[RESET COUNT 9F LINES DRAWN
	MDAR'N	SFLG	[GET SPOTLIGHTS REGD FLAG
	JPAN	•+2	[JUMP IF NO SPOTS
	MDC6	\$INTL	[ELSE SET INT. FOR LINES WITH SP
	MDAR'F	E8LL	[SPECIFY E8L HANDLER FOR LINES
	ARM0	E8LPV	
	MDAR	\$DTXY	
	ARM0	PXY	[SAVE PTR TO DXY TABLE
	MDAR	LGRP	[SEE WHICH LINE GROUP TO DRAW
	JPAN	LA20	[JUMP IF GROUP 1

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	MDAR'F	GRPO	[ELSE GROUP 0, GET DISPLAY LIST FWA
	MDAS	LASTL	[ADD NO. 9F LAST RECD LIND
	ARMD	LPTR	[SAVE PTR TO LAST RECD'S LIST ENTR
	MDAR'F	GRPO	[GET DISPLAY LIST FWA AGAIN
	JUMP	LA30	[G9 9N WITH CODING COMMON TO B9TH
LA20:	MDAR'F	GRP1	[GET GROUP 1 DISPLAY LIST FWA
	MDAS	LASTL	
	ARMD	LPTR	[SAVE PTR TO LAST RECD LINE'S LIST
LA30:	MDAR'F	GRP1	[GET FWA 9F DISPLAY LIST AGAIN
	MDAS	NLINE	[ADD NO. 9F LINES TO DRAW
	ARMD	GEND	[SAVE ADDRESS OF LOCATION LIST END
	MDAR'I	LPTR	[LOAD E9V PIVST F9R 1ST LINE
	ARMD	E9VPV	
	MDIR	LALX	[RETURN
E9LX:	JUMP	.	[E9L HANDLER F9R NON-AVGD LINE DRA
LX5:	ARMD'L		[SAVE AR
	0		
	MD06	\$INTL9	[SET INT. F9R LINES W70 SP9TS
	JPSR	LALX	[SET UP TO DRAW LINES NEXT
	MDAR	LX5	[RESTORE AR
	MD07'I	PXY	[SET OXDY F9R 1ST LINE
	MDIR	E9VPV	[START LINE DAG
	JUMP'I	E9LX	[CLEAR AND RETURN
E9LL:	JUMP	.	[E9L HANDLER F9R LINES
LL5:	ARMD'L		[SAVE AR
	0		
	MDAR'X	LCNT	[BUMP COUNT 9F LINES DRAWN
	MDX8	NLINE	[COMPARE WITH NO. TO DRAW
	JPLS	++2	[THIS JUMP IF MORE TO DRAW
	JUMP	LL50	[ELSE THIS JUMP , ALL DRAWN

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	MDAR'X	LPTR	[GET NEXT DISPLAY LIST ADDRESS
	MDX8	GEND	[SEE IF BEYOND LIST END
	JPLS	LL20	[ISN'T, CONTINUE
	MDAR	LGRP	[ELSE CHECK GROUP'S ID
	JPAN	++3	[JUMP IF GRP 1
	MDAR'F	GRPO	[GET FWA 9F GRP 0 DISPLAY LIST
	JUMP	++2	
	MDAR'F	GRP1	[GET FWA 9F GRP 1 DISPLAY LIST
LL20:	ARM0	LPTR	[SAVE PTR TO GROUPS DISPLAY LIST
	MD07'IX	PXY	[SET DXDY FOR NEXT LINE
	MDAR'I	LPTR	[LOAD E9V PIVST FOR NEXT LINE
	ARM0	EBVPV	
	MDAR	LL5	[RESTORE AR
	MDIR	EBVPV	[START LINE DRAW
	JUMP'I	EBLL	[CLEAR AND RETURN
LL50:	MDAR	SFLG	[HERE IF LINES ALL DRAWN
	JPAN	LL70	[JUMP IF TO DRAW SPOTLIGHTS
	MD10'A	MD429	[ELSE TURN OFF AVG
	MDAR'F	E9LT	[SPECIFY E9S HANDLER FOR TEXT
	ARM0	EBSPV	
	MDAR'F	TDAT-1	[LOAD E9W PIVST FOR TEXT DRAW
	ARM0	EBWPV	
	MDAR'N	\$TSFLG	
	JPAN	++3	[JUMP IF NOT DNG TEXT INPUT LINE
	MDAR'F	TDAT1-1	[RELOAD E9W PIVST
	ARM0	EBWPV	
	MDAR	LL5	[RESTORE AR
	MDIC'B	C10	[START TEXT DISPLAY
	JUMP'I	EBLL	[CLEAR AND RETURN
LL70:	ARX9'F		[HERE IF TO DRAW SPOTLIGHTS
	ARM0	LCNT	[RESET LINES DRAWN COUNT
	MD06	\$INTS	[SET INT. FOR SPOTS
	MDAR'F	E9LS	[SPECIFY E9L HANDLER FOR SPOTS
	ARM0	EBLPV	
	MDAR	\$DTXY	
	ARM0	PXY	[SAVE PTR TO DXDY TABLE

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	MDAR	\$SPLP	
	ARM0	LPTR	[SAVE PTR TO SPOTS DISPLAY LIST
	MD07'I	PXY	[SET DXDY FOR 1ST SPOT
	MDAR'I'X	LPTR	
	ARM0	EOVPV	[SET EOV PIVOT FOR 1ST SPOT
	MDAR	LL5	[RESTORE AR
	MDIR	EOVPV	[START SPOT DRAW
	JUMP'I	E0LL	[CLEAR AND RETURN
E0LS:	JUMP	.	[E0L HANDLER FOR SPOTLITES
	ARM0'L		[SAVE AR
LS5:	0		
	MDAR'X	LCNT	[BUMP COUNT OF LINES DONE
	MDXB	NLINE	[COMPARE WITH NO. TO DO
	JPLS	LS50	[JUMP IF MORE YET
	MDAR'F	E0LT	[ELSE SPOTS DONE, SPECIFY E0S
	ARM0	E0SPV	[HANDLER FOR TEXT DRAW
	MD10'A	MD429	[TURN OFF AVG
	MDAR'F	T0AT-1	
	ARM0	E0WPV	[LOAD E0W PIVOT FOR TEXT DRAW
	MDAR'N	*TSFL3	
	JPAN	.*3	[JUMP IF NOT DWG TEXT INPUT LINE
	MDAR'F	T0AT1-1	
	ARM0	E0WPV	[RELOAD E0W PIVOT
	MDAR	LS5	[RESTORE AR, BR
	MDIC'0	C10	[START TEXT DWG
	JUMP'I	E0LS	[CLEAR AND RETURN
LS50:	MD07'I'X	PXY	[SET DXDY FOR NEXT SPOT
	MDAR'I'X	LPTR	[LOAD EOV PIVOT FOR NEXT SPOTS
	ARM0	EOVPV	
	MDAR	LS5	[RESTORE AR
	MDIR	EOVPV	[START NEXT SPOT DWG
	JUMP'I	E0LS	[CLEAR AND RETURN

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E8LT:	JUMP	.	[TEXT E8S HANDLER	
LT5:	ARMD'L 0		[SAVE AR	
	ARMD'0	DDJN	[SET DNG D9NE FLAG	
	MDAR	LT5	[RESTORE AR	
	JUMP'I	E8LT	[CLEAR AND RETURN	
FCLH:	JUMP	.	[FRAME CLOCK HANDLER	
FC5:	ARMD'L 0		[SAVE AR,ER	
FC10:	BRMD'L 0			
FC30:	MDAR MDAS'F ARMD JPAN MDAR JPAN	TCNT 1 TCNT FC90 \$WAIT1 FC90	[GET CL9CK TICK COUNT [JUMP IT [JUMP IF NOT TIME TO REFRESH [CHECK NEW LINE WAIT FLAG [JUMP IF SET, D9NT REFRESH	
	MDAR'N JPAN	DDJN FC90	[ELSE SET DRAWING D9NE FLAG [JUMP IF NOT D9NE	
	JPSR MDIC'0'H SSBR'F MDER'A MDIC'A'H SSAR'F'H MDAR'A ARLS 0 BRAR'F'0 ARRS ARMD MDX9 MDAR'A MDX9 ARMD MDAR ARMD	\$TRVCO C40 M0015 M40 C7 12. 6 FNS LFNS FNS \$FJUNCT \$FJUNCT FNS LFNS	[ELSE 99 SAMPLE DIALS AND SWITCHES	
			[MATCH 9300 WORD LENGTH [SAVE SWITCHES [DETECT CHANGES 9F STATUS [SAVE T9GGLE STATUS [LATCH STATUS [SAVE LATCHED STATUS [UPDATE PREVIOUS STATUS	

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	MDAR'N	\$NEWL	[GET NEW LINE FLAG
	JPAN	++4	[JUMP IF NOT SET
	ARMO	\$NEWL	[ELSE RESET IT
	ARMO'B	\$WAIT1	[AND SET WAIT FLAG
	JUMP	FC90	[AND DONT DISPLAY, DONT RESET
			[DWG DONE FLAG OR TICK C90
	MDAR	M2	[RESET TICK COUNT
	ARMO	TCNT	
	ARX9'F		
	ARMO	DDUN	[RESET DRAW DONE FLAG
	MDAR'N	NBUF	[GET NEW BUFFER READY FLAG
	JPAN	FC80	[JUMP IF NOT READY
	ARMO	NBUF	[ELSE RESET NEW BUFFER FLAG
	MDAR'N	LGRP	[AND TOGGLE GROUP SPECIFIER
	ARMO	LGRP	
FC80:	JPSR	DISPL	[99 START REFRESH
FC90:	MDAR	FC5	[RESTORE AR, BR
	MDAR	FC10	
	JUMP'I	FCLH	[CLEAR AND RETURN

[CONSTANTS

AVG8N:	61400VH	[AVG, SCOPE AND CLOCK 8N
C0:	0	
C1:	1	
C10:	10	
C40:	40	
C7:	7	
WINT:	17777	[MAX INTENSITY
M0015:	77777VH	
M0429:	3777777777	
M1:	-1	
M10:	-10	
M11:	-11	
M1629:	37777	
M2:	-2	
M40:	-40	
M1000:	-1000	
C1000:	1000	

[VARIABLES

AUXD:	0	[N9N-AVGD LINE DRAW DESIRED FLAG
DCNT:	0	[CLOCK TICK COUNT FOR DIALS
DDUN:	0	[REFRESH DONE FLAG
FNS:	0	[SWITCH STATUS HOLDER
LFNS:	0	[PREVIOUS SWITCH STATUS
GEN0:	0	[ADDRESS 8F DISPLAY LIST + 1
GRP0:	L9C (..+16.)	[LINE GROUP 0 DISPLAY LIST
GRP1:	L9C (..+16.)	[LINE GROUP 1 DISPLAY LIST
CLINE:		
LASTL:	0	[ID N9. 8F LAST LINE RECD
LCNT:	0	[COUNT 9F LINES DRAWN
LGRP:	0	[CURRENT LINE GROUP IDENTIFIER
LPTR:	0	[PTR INTO DISPLAY LIST
NADAT:	L9C (..+180.)	[SIDE LINE DISPLAY BUFFER PLUS SPOTS
	1VH	[E9L FOR SIDE LINE WITH SPOTS
NBUF:	0	[NEW BUFFER READY FLAG
NDXDY:	0	[XDXY VALUE FOR N9N-AVGD LINE DISPLAY
NLINE:	0	[N9. 8F LINES TO DRAW
NSPOT:	0	[N9. 8F SPOTS PER LINE
PXY:	0	[PTR TO LXDXY TABLE
SCALE:	0	[PICTURE SCALE FACTOR
SFLG:	0	[SPOTLITES RECD FLAG
TCNT:	-2	[TICK COUNT FOR REFRESH PURPOSES
TEMP1:	0	
TEMP2:	0	
LCTR:	0	
TEMP3:	0	
NSHUT:	0	
NFRAM:	0	

[TEXT DISPLAY BUFFER

TDAT1:	P(11,16.,13,102.)	[INPUT TEXT LINE BUFFER
CHARS:	L9C(..+19.)	
ECHAR:	0	

TDAT:	P(11,16.,13,24.); P(22,37,0,0)	[HEADER

HOUR1:	0;	HOUR2:	0;	100	[TIME
MIN1:	0;	MIN2:	0;	100	
SEC1:	0;	SEC2:	0;	LFCR	

F1L1:	0;	F1L2:	0;	F1L3:	0;	134	[FREQ 1	
F1R1:	0;	F1R2:	0;	F1R3:	0;	F1R4:	0;	LFCR

F2L1:	0;	F2L2:	0;	F2L3:	0;	134	[FREQ 2	
F2R1:	0;	F2R2:	0;	F2R3:	0;	F2R4:	0;	LFCR

F3L1:	0;	F3L2:	0;	F3L3:	0;	134	[FREQ 3	
F3R1:	0;	F3R2:	0;	F3R3:	0;	F3R4:	0;	LFCR

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S1A: 0; S1B: 0; LFCR [SWITCH 1
S2A: 0; S2B: 0; LFCR [SWITCH 2
S3A: 0; S3B: 0; LFCR [ETC
S4A: 0; S4B: 0; LFCR
S5A: 0; S5B: 0; LFCR
S6A: 0; S6B: 0; LFCR
S7A: 0; S7B: 0; LFCR
S8A: 0; S8B: 0; LFCR
S9A: 0; S9B: 0; LFCR
S10A: 0; S10B: 0; LFCR
S11A: 0; S11B: 0; LFCR
S12A: 0; S12B: 0; LFCR
S13A: 0; S13B: 0; LFCR
S14A: 0; S14B: 0; LFCR
S15A: 0; S15B: 0; LFCR
S16A: 0; S16B: 0; LFCR
F1A: 0; F1B: 0; LFCR
F2A: 0; F2B: 0
END1: 0
END2: P(11,64,,13,64,,1)

VAX: 20000
1/H 1

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P

11.3	FC90	10.25	S14B	12.16
10.41	FCLH	7.16	S15A	12.17
10.42	FNS	11.6	S15B	12.17
10.44	GEND	11.10	S16A	12.20
10.61	GRPO	11.11	S16B	12.20
10.43	GRP1	11.12	S1A	12.1
10.45	HINT	10.47	S1B	12.1
10.46	HOUR1	11.51	S2A	12.2
11.44	HOUR2	11.51	S2B	12.2
11.13	LA20	4.10	S3A	12.3
11.4	LA30	4.15	S3B	12.3
11.5	LALX	3.43	S4A	12.4
2.12	LASTL	11.14	S4B	12.4
2.37	LCNT	11.15	S5A	12.5
2.44	LCTR	11.34	S5B	12.5
3.16	LFNS	11.7	S6A	12.6
3.33	LGRP	11.16	S6B	12.6
3.35	LL20	5.14	S7A	12.7
11.45	LL5	4.55	S7B	12.7
12.23	LL50	5.26	S8A	12.10
12.24	LL70	5.54	S8B	12.10
4.52	LPTR	11.17	S9A	12.11
6.22	LS5	6.25	S9B	12.11
7.1	LS50	6.56	SCALE	11.27
4.30	LT5	7.4	SEC1	11.53
12.21	LX5	4.33	SEC2	11.53
12.21	M0015	10.50	SFLG	11.30
11.55	M0429	10.51	TCNT	11.31
11.55	M10	10.53	TDAT1	11.43
11.55	M1000	10.60	TDAT	11.47
11.56	M11	10.54	TEMP1	11.32
11.56	M1629	10.55	TEMP2	11.33
11.56	M1	10.52	TEMP3	11.35
11.56	M2	10.56	VAX	12.26
12.22	M40	10.57		
12.22	MIN1	11.52		
11.60	MIN2	11.52		
11.60	NADAT	11.20		
11.60	NBUF	11.22		
11.61	NOXDY	11.23		
11.61	NFRAM	11.37		
11.61	NLINE	11.24		
11.61	NSHUT	11.36		
11.63	NSPOT	11.25		
11.63	PXY	11.26		
11.63	S10A	12.12		
11.64	S10B	12.12		
11.64	S11A	12.13		
11.64	S11B	12.13		
11.64	S12A	12.14		
7.23	S12B	12.14		
7.25	S13A	12.15		
7.21	S13B	12.15		
10.24	S14A	12.16		

INTSR

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[INTSR

[MOD OF AXINT FOR USE WITH WONG'S NEW 9300 PROGRAM

[VERSION 2 , REVISION C

[1/7/75

EXPUNGE

TITLE INTSR

ENTRY AXINZ, AGTEX, RQUSE, AXINT, ROWFW, SDSSV, FINSH, SW0A, SW01, SW02

AXINZ:	JUMP	.	
	MDAR'F	SDSSV	
	ARM0	77732	[SET JP INTERFACE INTERRUPT PIV0T
	MDAR'L		[SET COMMUNICATIONS PIV0TS
	33000VH	PVT1	
	ARM0	77730	
	MDAS'F	1	
	ARM0	77731	
	0PI0	43120	[IS THIS AGT C0NNECTED TO THE INTER
	JUMP	++2	[N0, D0NT RELEASE
	0PI0	43010	[RELEASE INTERFACE
	0PI0	43004	[ENABLE 9300 TO AGT INTERRUPT
	MDIR	AXINT	

[SUBROUTINE TO REINITIALIZE SW0'S AND SW1'S IN BOTH PROCESSORS

AXINT:	JUMP	.	
	MDAR	CLR	
	ARM0	SW01	
	ARX0'F		
	ARM0	SW02	
	JPSR	ROWFW	
		-0	
		SW0A	
		SW01	
		2	
	MDIR	AXINT	

[SUBROUTINE TO SET DIRECTION 0F TRANSFER IN INTERFACE

AGTEX:	JUMP	.	
	MDAR	TAPE1	
	ARM0	PVT1	
	MDIR	AGTEX	

[SUBROUTINE TO REQUEST USAGE 0F INTERFACE

RQUSE:	JUMP	.	
	0PI0	43040	
	JUMP	--1	[WAIT
	0PI0	43120	[C0NNECTED
	JUMP	--1	[N0, WAIT

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MDIR'X

RQUSE

[RETURN

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P

[SUBROUTINE TO READ OR WRITE IN 9300 MEMORY

R0WFW:	JUMP	.	[ENTRY
	0PI0	43150	[BUSY OR REQUEST PENDING
	JUMP	--1	[YES, WAIT
	FPRI		[FREEZE
	ARX0'F		[N0, CLEAR PIVOT 1
	ARMD	PVT1	
	MDAR'I	R0WFW	[IS THIS A WRITE TO 9300
	JSLS	AGTEX	[YES, SET AGT TO EXTERNAL
	MDAR'X'I	R0WFW	[N0, GET PARAMETERS AND SET PIVOTS
	ARMD	PVT2	
	MDAR'I	PVT2	
	MDAR'A	AMSK	
	MDAR'0	PVT1	
	ARMD	PVT1	
	MDAR'X'I	R0WFW	
	MDAR'X'I'H'0	R0WFW	
	ARMD	PVT2	[CONNECTED
	0PI0	43120	[N0, REQUEST USAGE
	JPSR	R0USE	[YES, CONTINUE USAGE
	0PI0	43020	[UNFREEZE
	JPRI		[BUSY
	0PI0	43110	[YES, WAIT
	JUMP	--1	[RELEASE INTERFACE
	0PI0	43010	[RETURN
	MDIR'X	R0WFW	

[INTERFACE INTERRUPT SERVICE ROUTINE

SDSSV:	JUMP	.	
	FPRI		
	ARMD'L		
SAVAR:		0	
	BRMD'L		
SAVBR:		0	
	JPSR	R0WFW	[FILL STATUS WORD OUTPUT BUFFER
		0	
		SW9A	
		SW01	
		2	
	MDAR	SAVAR	
	MDBR	SAVER	
	JPRI		
	JUMP'I	SDSSV	[RETURN

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P

ROUTINE TO SET 9300 ACCESS BIT

FINSH:	JUMP	.
	MDAR	CLR
	ARMD	SW91
	JPSR	R0WFW
		-0
		SW8A
		SW91
		2
	MDIR	FINSH
		RETURN

API0=600JH

TAPE1:	200JH
AMSK:	77777
PVT1:	0
PVT2:	0
SW01:	0
SW02:	0
SW8A:	77776
CLR:	400JH

TERMINATE

Earthquake Plotting Program

This program was written on the PDP 11/50 in the C programming language, which is similar to PL/1. C is an excellent language for symbol manipulation and allows the user to specify new data types by using structures. Pointers are an important part of C and can be used to address structure elements as well as for more mundane purposes such as array indexing.

For the purpose of illustration, we will discuss the plotting of spectral data as displayed on the AGT-10 using On-line-ESP. An output tape is produced from ESP which consists of $n+1$ records for each plot to be processed. The first record contains header information which includes the fact that there are n subsequent records for the plot. Each of the n records contains the x - y coordinates of the transform spectrum for one line as it appeared on the AGT-10. The x values increase in neat steps, but the y values are the amplitudes or squared amplitudes of the Fourier coefficients at a particular frequency and can have a large range of values.

The Versatec can plot 264 bytes in one line and there are 200 lines per inch. It plots from the top of the page to the bottom. In order to draw the picture as it was seen on the AGT-10, the spectra must be plotted point by point from the largest to the smallest y value. The data are first scaled and then sorted in descending order. While the

plot is being made, additional points, resulting from the interpolation between actual data points, are included in the plot buffer. This results in a smoother, more continuous plot.

When all of the data have been plotted, the program plots a set of scale markers along the x-axis. These are appropriately annotated. In this application several frequencies are given along the x-axis. Finally the plot is documented with identifying information and useful data for each event.

The hard-copy capability we have developed allows the user to make detailed comparisons between the spectral characteristics of earthquakes and explosions. The user is not forced to rely on the remembered appearances of interesting events after they have disappeared from the AGT-10 screen.

I. ENPLOT - Operating Summary

Mount the seven track tape produced by On-Line-ESP on the seven track tape drive of the PDP 11/50. The user has the option to execute the plotting program with an argument, which is the number of pictures to be skipped on the tape. If no argument is given, the plotting will begin with the first data set on the tape. The execution synopsis is:

enplot n

where n is the number of plots to be skipped.

```

1 #define XINT 320
2 #define YINT 8000
3 #define DELY 3200
4 #define DELX 16
5 #define AMPY 8000
6 #define NLINE 1
7 #define PI 3.141596525
8 #define NPT 150
9 int zero 0;
10 int one 1;
11
12
13 struct { //structure for header
14     int npt;
15     int line;
16     int ldx;
17     int ldv;
18     int cptr;
19     int nspt;
20     int spot1;
21     int spot2;
22     int spot3;
23     int hr,min,sec;
24     int nft;
25     int laa;
26     int sr;
27     int id[3];
28     int lp;
29     int scl;
30     int mo,day,yr;
31     int noise;
32     int event;
33 } head, *h;
34
35 int hbuf[300];
36 struct data { //structure for data
37     int x;
38     int yd;
39 };
40
41 struct data *d;
42 int dbuf[3000];
43 int np;
44 int nio 8;
45
46
47 int idev,odev,sclx,sclv,biasx,tdev;
48
49
50
51 //main main program may be called with one argument
52 // which is the number of pictures to be skipped
53 // on the input tape
54
55 main(argc,argv)
56 int **argv;
57 {
58     int i,j,n;
59     char *cs;
60     if((tdev = open("/dev/spn",1)) < 0){

```

```

61         printf("cannot open spn \n");
62         exit();
63     }
64     if((pdev = open("/dev/rvp",1))<0){           //open the versatec
65         printf("cannot open rvp \n");
66         exit();
67     }
68     if((idev = open("/dev/rmt6",0))<0){         //open the tape drive
69         printf("cannot open rmt6 \n");
70         exit();
71     }
72
73     if(argc > 1){                               //skip specified number of pictures
74         cs = argv[1];
75         n = 0;
76         while ( *cs >= '0' && *cs <= '9')
77             n = n * 10 + *cs++ - '0';
78         n += 11;
79         for ( i=0; i<n; i++)
80             inp(idev, dbuf,1200);
81         printf ("number of records skipped, %d\n",n);
82     }
83     while((inp(idev,hbuf,1200))>0){              //input header
84         h = hbuf;
85         j = 0;
86         for(i = 0; i< h->line; i++){              //input data lines
87             n = inp(idev,xchuf[j], 1200);
88             j += 2*(h->npt);
89         }
90
91         sclx = 0100; sclv = 014;
92         biasx=20;
93         np = h->npt * h->line;
94         scale();
95         plot();
96         header();
97         cvers(pdev,020);
98         stty(pdev,&one);
99     }
100 }
101
102
103
104
105
106 #define NBYT 263
107 #define NBLK 0
108 #define NSL 1250
109 #define DRAW 1
110
111
112 struct intf
113     int      y;
114     char     *xpb;
115     char     yinc;
116     char     xdir;
117     int      yf;
118     int      cxb;
119     int      *flink;
120     int      *blink;

```

```

121 } itab[7*NBYT],*ip,*ia;
122
123 char pb[NBYT];
124
125
126 int *dn[1500];
127
128
129
130 plot()
131 {
132
133     struct ipt *s;
134     int i,j;
135     sort();
136     for(i = 0; i < NBYT; i++)           //clear plot buffer
137         pb[i] = 0;
138     for(i = 0; i < NBLK; i++)
139         write(pdev,pb,NBYT);           //move to top of plot area
140     ip = 0; ia = itab;                 //plot scan line
141     i = 0;
142     for(i = NSL; i > -1; i--){
143         while(j < np && *dn[j] == i){
144             sip(dn[j]);                 //set up plot point for interpolation
145             j++;
146         }
147         nih(i);                         //set up plot buffer
148         write(pdev,pb,NBYT);           //plot line
149     }
150 }
151
152
153 int jsort;
154
155 sort()
156 {
157     register i,k,t;
158
159     i=0;
160     for(d = dbuf; d < &dbuf[np*2]; d++)
161         dn[i++] = R(d->vc);
162
163     k=np;
164     while ( k >> 1 ){
165         jsort++;
166         while ( jsort ){
167             jsort = 0;
168             for ( i=0; i< (np-k); i++)
169                 if ( *dn[i] < *dn[i+k] ){
170                     t=dn[i];
171                     dn[i]=dn[i+k];
172                     dn[i+k]=t;
173                     jsort++;
174                 }
175         }
176     }
177
178 // }
179 }
180

```

```

181
182 sin(dpi)
183     int *dpi;
184 {
185     int xi,vi,xl,yl,xr,yr,incv,fv,dirx,cx,*s,lcx,inc;
186     int i;
187     s=dpi;
188     lcx = 1;
189     vi = *dpi--; xi = *dpi;
190
191     if(++s < &(dbuf[2*nd])){
192         xr = *s++;
193         yr = *s;
194         if(yr & DRAW){
195             if((inc = vi - yr) >= 0){
196                 if((incv = inc) == 0)
197                     dirx = nio;
198             }
199             else{
200                 for(i = 0; ((incv = (inc/(nio >> i))) == 0); i++);
201                 dirx = (1 << i);
202             }
203             fv = yr;
204             cx = 0200;
205             lcx = 0;
206             stack(vi-incv,incv,fv,xi,dirx,cx);
207         }
208     }
209     if(--dpi >= dbuf){
210         if(yi & DRAW){
211             vl = *dpi--;
212             xl = *dpi;
213             if((inc = vi - vl) >= 0){
214                 if((incv = inc) == 0)
215                     dirx = -nio;
216             }
217             else{
218                 for(i = 0; ((incv = (inc/(nio >> i))) == 0); i++);
219                 dirx = -(1 << i);
220             }
221             fv = vl;
222             cx = lcx;
223             stack(vi-incv,incv,fv,xi-1,dirx,cx);
224         }
225     }
226 }
227
228
229
230 stack(a,b,c,nd,e,f)
231     int a,b,c,dd,e,f;
232 {
233     int *s;
234     int i;
235     struct int *z;
236
237     ia -> v = a;
238     ia -> vinc = b;
239     ia -> vf = c;
240     if(dd >= NPYT && dd < 0){

```

```

241     printf("bad scale x=%d\n",dd);
242     exit();
243 }
244 ia -> xph = dd + ph;
245 ia -> xdir = e;
246 ia -> cyp = f;
247
248 if(io == 0){
249     ip=itab;
250     ip->flink=ip->blink=0;
251     ia++;
252     ia->blink=ip;
253     ia->flink=0;
254 }
255 else{
256     s=ia->blink;
257     s->flink=ia;
258     if(ia->flink == 0){
259         s = ia;
260         if(++ia >= &itab[7*MYT]){
261             printf("itab overflow \n");
262             exit();
263         }
264         ia->blink=s;
265         ia->flink=0;
266     }
267     else{
268         s = ia -> flink;
269         s -> blink = ia;
270         ia -> flink = 0;
271         ia = s;
272     }
273 }
274 }
275
276
277 nih(sl)
278     int sl;
279 {
280     int i,j,n;
281     int *s; s = io;
282     while(s){
283         if(s -> yf < 0) //setup plotting buffer
284             if((s=free(s)) == 0) //delete point
285                 return;
286         *s -> xph = s -> cyp;
287         if(sl == s -> y){ //line break
288             i = ((n = s -> xdir) > 0 ? n : -n);
289             if( n < 0 ) //left
290                 for(j = 0; j < i; j++){
291                     if(s -> cyp == 0){
292                         *s -> xph = + 1;
293                         s -> cyp = 1;
294                     }
295                     *s -> xph =! (s -> cyp ==<< 1);
296                 }
297         else
298             for(j = 0; j < i; j++){
299                 *s->xph =! (s->cyp ==>> 1);
300             }

```



```

301         s->y = s->yinc;
302
303     }
304     if(s1 <= s->yf)                //end of point
305         s->yf = -1;
306     s = s->flink;
307 }
308 }
309
310
311 //free                restore data cells to free list
312
313 free(s)
314     int *s;
315 {
316     int *t;
317     int i;
318     struct int *z;
319     *s -> xob = 0;
320     if(s->blink == 0){
321         ip = s->flink;
322         ip->blink = 0;
323         t=ip;
324     }
325     else{
326         t = s->olink;
327         t->flink = s->flink;
328         t = s -> flink;
329         if(t == 0){
330             s -> flink = ia;
331             ia = s;
332             return(t);
333         }
334         t -> blink = s -> blink;
335     }
336     s->flink = ia;
337     s->blink = ia->blink;
338     ia = s;
339     return(t);
340 }
341
342
343 //scale                scale the input data points
344
345 scale()
346 {
347     struct data *s;
348     int dm,i,j,c,minx,miny;
349     int dx[10],dv[10];
350     s = dbuf; minx = miny = 077777;
351     d=s;
352     for(i=0; i<h->line; i++) {
353         j=(h->cptr+i)%h->line;
354         dx[j]=(h->line-i-1)*(h->ldx);
355         dv[j]=(h->line-i-1)*(h->ldv);
356     }
357     for(i=0; i<h->line; i++) {
358         for(j=0; j<h->not; j++) {
359             dm = d->vd & 1;                //get the draw-move bit
360             d->x += dx[i];                //add in the x-bias

```

```

361         d->yd += dv[i];           //add in the y-bias
362         d->yd = & 0177770;        //mask for draw-move
363         d->yd =! dm;               //replace draw-move bit
364         dt++;
365     }
366 }
367 for(i = 0; i < np; i++){          //find the x and y minima
368     minx = ((c = s -> x) < minx? c : minx);
369     miny = ((c = s -> yd) < miny? c : miny);
370     s++;
371 }
372 if(minx > 0)
373     minx = 0;
374 if(miny > 0)
375     miny = 0;
376 s=dbuf;
377 for(i = 0; i < np; i++){
378     dm = s -> yd & 1;             //get draw-move bit
379     s -> x -= minx;                //bias by minimum x
380     s -> yd -= miny;              //bias by minimum y
381     s -> x /= sclx;               //scale
382     s -> x += biasx;
383     if(s->x >= NSXT){
384         printf("overflow on \n");
385         exit();
386     }
387     s -> yd /= sclv;              //scale
388     if(s->yd > NSL)
389         s->yd = NSL-1;
390     s -> yd = & 0177770;         //mask for draw-move
391     s -> yd =! dm;               //replace draw-move
392     s++;
393 }
394 }
395
396 inp(idf,buf,nbyte)
397     int idf,*buf,nbyte;
398 {
399     int i,t,n,c;
400     struct{
401         char c1,c2,c3,c4;
402     } cf[1200], *s;
403     s = cf;
404     if((n = read(idf,cf,nbyte)) > 0){
405         for(i = 0; i < nbyte/4; i++){
406             c = s -> c2 << 2;
407             t = c << 10;
408             t =! s -> c3 << 6;
409             t =! s -> c4;
410             s++;
411             buf[i] = t;
412         }
413     }
414 }
415
416 char *cbp,*loc,t1[132],ch[10];
417 header()
418 {
419     int i,j,ix,jx,n,m;
420     double fn,f100;

```

```

421
422     f100 = 100;
423     skip(20);                                //skip 20 lines
424
425     clr();
426     j = h -> cntr * h -> npt*2;
427     ix = dbuf[j] ;                            //locate correct line
428     jx = dbuf[j] + (h -> npt - 1)*21 ;
429     i = ix;
430     while(i < jx){
431         ob[i] = 0200;
432         i =+ 20;
433     }
434     for(i = 0; i < 20; i++)                    //plot scale marker
435         write(pdev,ph,NBYT);
436     for(i = ix; i < jx; i++)                  //set up scale line
437         ob[i] = 0377;
438     write(pdev,ph,NBYT);                      //plot scale line
439     skip(10);                                //skip 10 lines
440     clr();
441     loc = 8*tl[ix/21];                        //annotation
442     i = h -> lo;
443     while(i < (h -> lo + h -> npt)){
444         fn = f100 * i * h -> sr/h -> nft;
445         cbp = cb;
446         conv(j = fn/100);
447         m = cbp - cb;
448         mov(loc, ch, m);
449         *(loc + m) = '.';
450         cbp = cb;
451         conv(j = fn - j*100);
452         n = cbp - cb;
453         if(n == 1){
454             cb[11] = cb[01];
455             cb[01] = '0';
456         }
457         mov(loc + 1 + m, ch, 2);
458         loc =+ 10;
459         i =+ 20;
460     }
461     // cvers(pdev,040);
462     write(pdev,tl,132);
463     skip(25);
464     clr();                                    //clear text line
465     for(i = 0; i < 2; i++)
466         write(pdev,tl,132);
467     skip(25);
468     // mov(tl + 60, "EVENT : ",8);
469     // cbp = cb;
470     // conv(h -> event);                      //write event number
471     // n = cbp - cb;
472     // mov(tl + 68, ch, n);
473     // write(pdev,tl,132);
474     // clr();
475     // mov(tl + 40,"ID : ",5);
476     // n = conv(h -> id,cb,2);
477     // mov(tl + 45, ch,2);
478     // mov(tl + 60,"DATE : ",7);
479     cbp = co;
480     conv(h -> mo);                            //write month

```

```

481     n = cbp - cb;
482     m = n + 67;
483     mov(tl + 67, ch, n);
484     tllm] = '/';
485     m = m + 1;
486     cbp = cb;
487     conv(h -> day);
488                                     //write day
489     n = cbp - cb;
490     mov(tl + m, ch, n);
491     m = m + n;
492     tllm] = '/';
493     m = m + 1;
494     cbp = cb;
495     conv(h -> yr);
496                                     //write year
497     n = cbp - cb;
498     mov(tl + m, cb, n);
499     conv(h -> hr);
500                                     //write hour
501     n = cbp - cb;
502     mov(tl + 87, ch, n);
503     m = n + 87;
504     tllm] = ':';
505     m = m + 1;
506     cbp = cb;
507     conv(h -> min);
508                                     //write minute
509     n = cbp - cb;
510     mov(tl + m, cb, n);
511     m = m + n;
512     tllm] = ':';
513     m = m + 1;
514     cbp = cb;
515     conv(h -> sec);
516                                     //write second
517     n = cbp - cb;
518     mov(tl + m, cb, n);
519     write(tdev, tl, 132);
520     skip(25);
521     clr();
522     mov(tl + 40, "SIZE : ", 7);
523     cbp = cb;
524     conv(h -> nft);
525                                     //write transform length
526     n = cbp - cb;
527     mov(tl + 47, ch, n);
528     mov(tl + 60, "OVERLAP : ", 10);
529     cbp = cb;
530     conv(h -> lag);
531                                     //write transform lag
532     n = cbp - cb;
533     mov(tl + 70, cb, n);
534     mov(tl + 80, "SR : ", 5);
535     cbp = cb;
536     conv(h -> sr);
537                                     //write sampling rate
538     n = cbp - cb;
539     mov(tl + 85, ch, n);
540     write(tdev, tl, 132);
541     skip(25);
542     clr();
543     mov(tl + 40, "SCALE : ", 8);
544     cbp = cb;
545     conv(h -> scl);
546                                     //write scale factor
547     n = cbp - cb;

```

```

541     mov(tl + 48, cb, n);
542 //   mov(tl + 60, "NONOISE : ", 10);
543 //   cbn = cb;
544 //   conv(h -> noise);
545 //   n = cbn - cb;
546 //   mov(tl + 70, cb, n);
547     write(tdev, tl, 132);
548     skip(25);
549     for(i=0; i<10000; i++);
550     skip(300);
551 //   cvers(odev, 040);
552 //   stty(odev, &zero);
553 }
554
555
556 conv(val)
557     int val;
558
559 {
560     int a;
561     if(a = val/10)
562         conv(a);
563     *cbp++ = val % 10 + '0';
564 }
565
566
567 conc(c1, c2, n)
568     char *c2;
569     int n, *c1;
570 {
571     int i, m;
572     for(i = 0; i < n; i++){
573         if(i == 0)
574             m = (*c1 & 07700) >> 6;
575         else
576             m = *c1 & 0077;
577         if(m == 012)
578             *c2 = '0';
579         if(m >= 01 && m <= 011)
580             *c2 = '1' + m - 1;
581         if(m >= 021 && m <= 031)
582             *c2 = 'A' + m - 021;
583         if(m >= 041 && m <= 051)
584             *c2 = 'J' + m - 041;
585         if(m >= 062 && m <= 071)
586             *c2 = 'S' + m - 062;
587         c2++;
588     }
589     return(i);
590 }
591
592
593
594
595 skip(cnt)
596
597     int cnt;
598 {
599     int i;
600     for(i = 0; i < cnt; i++)

```

```

601         write(pdev,oh,2);
602     }
603
604
605     clr()
606     {
607         int i;
608         for(i = 0; i < 132; i++)
609             t1[i] = ' ';
610         t1[131] = '\n';
611     }
612
613
614     mov(to,from,n)
615
616     char *to,*from;
617     int n;
618     {
619         int i;
620         for(i = 0; i < n; i++)
621             *tott = *from++;
622     }

```

Bands

BANDS is the program used to find the spectral discriminant between earthquakes and explosions. It is relatively simple to run; however, because the transforms are performed as part of this program, it can consume large amounts of computer time. The algorithm used is that described in the main section of this report. Results from the band analysis are stored on magnetic tape. By using the subroutine RSLTS, the operator can obtain a listing of the band analysis. The program also allows the user to call NIFTY, our general-purpose tape management subroutine.

The following parameters allow the user full control over the program:

IGM(0,1;0)	a 1-dimensional array with 21 entries. Each entry corresponds to a subarray. When IGM(I) = 1, the subarray is processed.
LFT(?;256)	Length, in points, of the transforms.
LAG(?;32)	Lag, in points, between transforms.
SP(?;10)	Sampling rate of data in points/sec.
FREQ(?)	High and low frequency limits of each band to be processed.
NBANDS(?;6)	Number of bands to be processed.
KNIFTY(0,1;0)	when 1, NIFTY will be called.

IRSLT(0,1;0)	when 1, RSLTS will be called.
MAMP(0,1)	0 - integrate over power of Fourier coefficients 1 - integrate over amplitudes of Fourier coefficients
NONORM(0,1)	0 - normalize with respect to bandwidth 1 - no normalization
NONOISE(??;0)	number of transforms to be averaged into noise spectrum
MGM(13)	maximum number of subarrays
LOOP(1)	total number of events to be processed. Each event may include several subarrays.


```

*      MONITOR FOR BAND PROCESSING
*
*      ALL NAMELIST INPUT IS HANDLED AT THE LEVEL OF THE SUBROUTINES, SO
*      THERE IS NONE APPEARING AT THIS STAGE OF THE PROGRAM
*
      INTEGER BTAPE,XCNT,BNDCTR,SR,SAMPTS
      REAL STOR
      COMMON NGM,NBANDS,FREQ(2,8),LFT,SR,LAG,XCNT,RES,LGNT,IFILE,N9REC,
*      N9NOISE,IFLAG,ISHT,NPT,KILL,ITAPE,ICARD,ISTAR,IAB,LSPEC,BNDCTR,
*      BTAPE,KNIFTY,IRSLT,ICBUF(13),L98P,L9P,STOR(100,6),NGMCNT,IGM(21),
*      MGM,MAMP,N9N9RM
10      OUTPUT(102) 'READY'
      INPUT(101)
*
      ISTAR = 1
20      IF(KNIFTY .EQ. 1) CALL NIFTY
      KNIFTY = 0
      IF(IRSLT .EQ. 1) CALL RSLTS
      IRSLT = 0
30      CALL BANDS
      IF((KNIFTY .EQ. 1) .OR. (IRSLT .EQ. 1)) ISTAR=1; GO TO 20
      CALL XF8RM
      GO TO 30
      END

```

SUBROUTINE BANDS

THIS PROGRAM FINDS THE ENERGY WITHIN GIVEN FREQUENCY BANDS.
 AS MANY AS 8 BANDS MAY BE USED
 TRANSFORM LENGTH IS RESTRICTED TO 1024 POINTS
 THE TOTAL NUMBER OF TRANSFORMS CAN BE NO MORE THAN 1024 OR THE
 TOTAL NUMBER OF POINTS CAN BE NO MORE THAN 32K.

DATA DESCRIPTION

IGM A 1-DIMENSIONAL ARRAY WITH 21 ENTRIES. WHEN IGM(1) IS
 SET EQUAL TO 1, THE ARRAY IS PROCESSED
 LFT LENGTH, IN POINTS, OF TRANSFORM
 LAG LAG, IN POINTS, OF TRANSFORM
 SR SAMPLING RATE OF INPUT DATA IN POINTS PER SECOND
 FREQ A 1-DIMENSIONAL ARRAY IN WHICH THE HIGH AND LOW FREQUENCY
 LIMITS OF EACH BAND ARE ENTERED
 NBANDS NUMBER OF FREQUENCY BANDS TO BE PROCESSED
 KNIFTY DEFAULTS TO 0, WHEN SET TO 1, CONTROL WILL PASS TO THE
 NIFTY MAGNETIC TAPE PACKAGE
 IRSLT DEFAULTS TO 0, WHEN SET TO 1, CONTROL WILL PASS TO THE
 SUBROUTINE WHICH PRINTS OUT THE RESULTS
 MAMP 0 - INTEGRATE OVER POWER OF FOURIER COEFFICIENTS
 1 - INTEGRATE OVER AMPLITUDES OF FOURIER COEFFICIENTS
 NENORM 0 - NORMALIZE INTEGRATION WITH RESPECT TO WIDTH OF BAND
 1 - NO NORMALIZATION
 NNOISE DEFAULT IS 0. THE NUMBER OF TRANSFORMS TO BE AVERAGED
 INTO THE NOISE SPECTRUM
 NGM TOTAL NUMBER OF SEISMOGRAMS FOR THE EVENT
 L99P TOTAL NUMBER OF EVENTS TO BE PROCESSED

REAL STOR
 REAL FREBUF, KBUF
 INTEGER SAMPTS, XFILE, SR
 INTEGER BNDCTR, BTAPE, XCNT, XFCT
 DIMENSION IBUF(1024), FREBUF(8), KBUF(512), INTSTR(1000)
 DIMENSION BUF(10)

COMMON NGM, NBANDS, FREQ(2,8), LFT, SR, LAG, XCNT, RES, LSCNT, IFILE, NREC,
 NNOISE, IFLAG, ISHT, NPT, KILL, ITAPE, ICARD, ISTAR, IAB, LSPEC, BNDCTR,
 BTAPE, KNIFTY, IRSLT, IDBUF(13), L99P, L9P, ST9R(100,6), NGMCNT, IGM(21),

```

* MGM,MAMP,NBNORM
*
*   NAMELIST LFT,SR,FREQ,NBANDS,KNIFTY,IRSLT,KILL
*   NAMELIST IGM,ICARD,MAMP,NBNORM,LAG,ITAPE,STAPE
*
*   DATA XFILE/10/,LREC/1024/,NBSFILE/25/
*   EQUIVALENCE(SAMPTS,IBUF(8)),(STOR,INTSTR)
*   EQUIVALENCE (IBUF(100),BUF)
*   NAMELIST NBNORM,L99P,MGM
*
*
*   RECOVER AT THE APPROPRIATE PLACE IN THIS SUBROUTINE
*
*   GO TO (5,10,20,40) ISTAR
*
*   SET UP PARAMETERS
5   FREQ(1,1) = 0.4
    FREQ(2,1) = FREQ(1,2) = 0.6
    FREQ(2,2) = FREQ(1,3) = 1.0
    FREQ(2,3) = FREQ(1,4) = 1.4
    FREQ(2,4) = FREQ(1,5) = 2.0
    FREQ(2,5) = FREQ(1,6) = 3.0
    FREQ(2,6) = 4.5
    LFT = 256
    MGM = 13
    MAMP = 0
    LAG = 32
    L99P = 1
    SR = 10
    KNIFTY = IRSLT=KILL=0
    ITAPE = 1
    STAPE = 2
    ISTAR = 2
    NBANDS = 6
    ICARD = 0
    NBNORM = 0
    DO 6 I = 1,21
6   IGM(I) = 0
    IGM(3) = IGM(7) = IGM(8) = IGM(11) = IGM(13) = 1
    DO 7 I = 1,NBANDS = 1
7   FREQ(1,I+1)=FREQ(1,I+1) + .001
*
10  OUTPUT(102) 'READY TO GO'
    INPUT(101)
    IF(ICARD .EQ. 1) INPUT(5)
    NGM = 0
    DO 12 I = 1,13
12  NGM = NGM + IGM(I)
    ICARD = 0

```

```

      LPP = 0
20  IF(KNIFTY .EQ. 1) ISTAR = 3; RETURN
13  IF(IRSTL .EQ. 1) ISTAR = 1; RETURN
15  LPP = LPP + 1
      IF(LPP .GT. LPP0) GO TO 10
      NGMCNT = 0
17  NGMCNT = NGMCNT + 1
      IF(NGMCNT .GT. NGM) GO TO 15
      IF(IIGN(NGMCNT) .EQ. 0) CALL FMRSCN(ITAPE,1); GO TO 17
      CALL INIT
      IF(XFCT .NE. 0) GO TO 40
      ISTAR = 4
      RETURN
40  CALL BIRTH
      IF(IFLAG .EQ. 777) GO TO 100
      CALL INTEGR
      BNDCTR = BNDCTR + 1
      DO 60 IAB = 1,NBANDS
      STOR(BNDCTR,IAB) = FREBUF(IAB)
60  CONTINUE
      IF(BNDCTR .EQ. 100) GO TO 100
      GO TO 30
      END OF INPUT DATA, OUTPUT RESULTS.
100  IORUF(13) = BNDCTR
      CALL READD(NBFILE,IRUF,LREC)
      CALL INTEGR
      DO 110 IAB = 1,LREC
110  IRUF(IAB) = 0
      DO 120 IAB = 1,13
120  IRUF(IAB) = IORUF(IAB)
      DO 125 IAB = 1,NBANDS
125  IRUF(IAB) = FREBUF(IAB)
      CALL RINRUT(ITAPE,IRUF,LREC,IND)
      DO 150 IAB = 1,NBANDS
      DO 130 K = 1,512
130  KRUF(K) = 0.0
      DO 140 K = 1,BNDCTR
140  KRUF(K) = STOR(K,IAB)
150  CALL RINRUT(ITAPE,KRUF,LREC,IND)
      CALL WREF(ITAPE,0)
      CALL RAKRUC(ITAPE,1)
      CALL FMRSCN(ITAPE,1)
      GO TO 17

```

```

*
SUBROUTINE BIRTH
*
* RECOVERY SUBROUTINE AFTER RETURN FROM TRANSFORM
*
IF(XFCT .NE. 0) GO TO 20
*
20 CALL READD(XFILE,IBUF,LREC)
   LGCNT = LGCNT + 1
   MA = XFCT*LSPEC
   DO 30 II = 1,LSPEC
30  IBUF(II) = IBUF(MA+II)
   XFCT = MOD(XFCT+1,XCNT)
   IF(LGCNT.GE.(SAMPTS-LFT)/LAG) IFLAG = 777
   RETURN
*
*
*
SUBROUTINE INTEGR
*
* DOES TRAPEZOIDAL INTEGRATION OVER A GIVEN FREQUENCY BAND.
* THE ENERGY PER RESOLUTION ELEMENT IS FOUND
*
DO 10 IAB = 1,NBANDS
  IP1 = FREQ(1,IAB)/RES
  IP2 = FREQ(2,IAB)/RES
  INT1 = IP2-IP1 + 1
  FREBUF(IAB) = 0
  DO 10 II = 1,INT1
    M = IP1 + II
    * THIS APPEARS TO BE ONE POINT OFF; HOWEVER, WHEN THE DC COMPONENT
    * IS ACCOUNTED FOR, WE START ON THE CORRECT FREQUENCY POINT
    VAL = FLOAT(IBUF(M))*2
    IF(YAMP .EQ. 1) VAL = IBUF(M)
    IF(VAL .LT. 0) VAL = 0
    IF(NONORM .EQ. 1) FREBUF(IAB) = FREBUF(IAB) + VAL*RES; GO TO 10
  FREBUF(IAB) = VAL*RES/INT1 + FREBUF(IAB)
10 CONTINUE
   RETURN
*
*
SUBROUTINE INIT
*
* READ IN HEADER RECORD AND SAVE IT
*
BNDCTR = 0
LGCNT = 0
XFCT = 0
LSPEC = LFT/2

```

```

XCNT = LREC/LSPEC
IFLAG=ISHT=0
RES=FLSAT(SR)/FLSAT(LFT)
CALL BININ(ITAPE,IBUF,LREC,IND)
NOREC = IBUF(1)
DO 10 IAB = 1,13
10  IDBUF(IAB) = IBUF(IAB)
   IDBUF(1) = NBANDS
DO 20 IAB = 1,512
20  KBUF(IAB) = 0
DO 30 IAB = 1,1000
30  INTSTR(IAB) = 0
   IF((((IDBUF(8) -LFT/LAG).GT.100).AND.(NBANDS.GT.6)) BUTPUT(102) 'T9
   *8 BAD'; INPUT(101)
   IF(NOREC .GT. 16) BUTPUT(102) 'TOO MANY'; INPUT(101)
   RETURN
*
END

```

```

SUBROUTINE RSLTS
*
* PRINT OUT THE RESULTS OF INTEGRATIONS IN USEABLE FORM
*
* NAMELIST PARAMETERS:
*
* L88P = NUMBER OF OUTPUT FILES TO BE PRINTED OUT
* RNORM = NUMBER OF FREQUENCY BAND WITH RESPECT TO WHICH THE
*        NORMALIZATION WILL TAKE PLACE FOR A PARTICULAR SPECTRUM
* NORM = NUMBER OF FREQUENCY BAND WITH RESPECT TO WHICH NORMALIZA-
*        TION OF ALL OF THE SPECTRA WILL TAKE PLACE
* IRWD = FLAG TO REWIND INPUT TAPE
*
REAL HBUF
REAL MX
REAL IBUF,KBUF
INTEGER TAPE,SR,RNORM,NORM

*
DIMENSION IBUF(512,8),JBUF(1024),NBUF(20),BUE(512)
DIMENSION KBUF(6),FBUF(6),HBUF(6),MX(6),RBUF(10)
*
COMMON NGM,NBANDS,FREQ(2,8),LFT,SR,LAG,ISTUP(6),N8N8ISE
NAMELIST NGM,LFT,SR,LAG
NAMELIST MXALL,MXN8,ISUM
NAMELIST L88P,RNORM,NORM,ISF,TAPE
NAMELIST IRWD
DATA IRWD/0/
DATA TAPE/2/,ISF/1/,RNORM/2/,NORM/2/
DATA LREC/1024/
DATA MXALL/1/,MXN8/1/,ISUM/0/
EQUIVALENCE (KBUF,NBUF),(JBUF,BUE),(JBUF(100),RBUF)
*
*
10  OUTPUT(102) 'DATA'
    INPUT(101)
    IF (IRWD .NE. 0) CALL RWND(TAPE)
    IF (ISUM .EQ. 0) L88P = L88P * NGM
    DO 90 LP=1,L88P
    IF (ISUM .NE. 0) CALL SUMAR; GO TO 21
15  CALL BININ(TAPE,JBUF,LREC,IND)
*
    NBANDS = JBUF(1)
    IF (NBANDS .GT. 8) OUTPUT(102) 'NBANDS'; INPUT(101)
*
    DO 20 I = 1,NBANDS
    CALL BININ(TAPE,IBUF(1,I),LREC,IND)
20  CONTINUE
*
21  WRITE(6,99)

```

```

WRITE(6,100) JBUF(1),JBUF(2),JBUF(6),(JBUF(I),I=3,5),
* (JBUF(I),I=10,12),LFT,LAG,JBUF(9),JBUF(13),NBN9ISE
*
WRITE(6,200)((FREQ(I,J),I=1,2),J=1,NBANDS)
WRITE(6,250) (RBUF(I),I = 1,NBANDS)
WRITE(6,300)
ICTR = JCTR = 0
ICTR = 1
IFLAG = 1
IF(MXALL .EQ. 1) MXN0 = JBUF(13)
DO 25 I = 1,6
MX(I) = 0
DO 25 K = 1,MXN0
MX(I) = AMAX(MX(I),IBUF(K,I))
25 CONTINUE
30 DO 51 K = 1,5
DO 49 I = 1,NBANDS
IF(ICTR .GT. JBUF(13)) GO TO 80
*
IF(IBUF(ICTR,NBNRM).EQ.0) IBUF(ICTR,NBNRM)=0.01
KBUF(I) = IBUF(ICTR,I)
FBUF(I) = IBUF(ICTR,I)/IBUF(ICTR,NBNRM)*ISF
HBUF(I) = IBUF(ICTR,I)/MX(NBNRM)*ISF
49 CONTINUE
ICTR = ICTR + 1
WRITE(6,400) (KBUF(I),FBUF(I),HBUF(I),I=1,NBANDS)
51 CONTINUE
WRITE(6,500)
JCTR = JCTR + 5
IF(((IFLAG .EQ. 1) .AND. (JCTR .GE. 40)) .OR. (JCTR .GE. 45))
* CALL HEADER
GO TO 30
*
*
80 IF(ISUM .EQ. 0) CALL F0RSCN(TAPE,1)
90 CONTINUE
*
99 FORMAT(1H1)
100 FORMAT('N0. BANDS ',I5,3X,'ID. N0. ',I5,3X,'SUBARRAY ',A4,3X,
* 'M0 ',I2,' DAY ',I2,' YR ',I2,' HR ',I2,' MIN ',I2,' SEC ',
* I2/'TRANSFORM LENGTH ',I4,'PTS',3X,'LAG ',I4,'PTS',3X,'SAMPLING
* RATE ',I4,'PTS/SEC',3X,'N9. XF0RMS ',I4,4X,'NBN9ISE ',I4///)
*
200 FORMAT(6(6X,F4.2,1X,'-',1X,F4.2,5X))
250 FORMAT(6(F14.1,8X))
*
300 FORMAT(6(2X,'VALUE',3X,'RATIO',2X,'NBNRM',1X))
*
400 FORMAT(6(E8.3,1X,F5.2,1X,F5.3,2X))
*

```



```

500  FORMAT(' ')
*
      SUBROUTINE HEADER
      WRITE(6,99)
      WRITE(6,200) ((FREQ(I,J),I=1,2),J=1,NBANDS)
      WRITE(6,300)
      JCTR = IFLAG = 0
99    FORMAT(1H1)
200   FORMAT(6(6X,F4.2,1X,'-',1X,F4.2,5X))
300   FORMAT(6(2X,'VALUE',3X,'RATIO',2X,'NSRM',1X))
      RETURN
*
*
      SUBROUTINE SUMAR
      CALL BININ(TAPE,JBUF,LREC,IND)
      DO 20 I = 1,20
20    NBUF(I) = JBUF(I)
      NBUF(6) = 602143438
      NBANDS = NBUF(1)
      DO 30 I = 1,NBANDS
30    CALL BININ(TAPE,IBUF(1,I),LREC,IND)
      CALL FORSCN(TAPE,1)
      DO 40 I = 1,ISUM -1
      CALL BININ(TAPE,JBUF,LREC,IND)
      DO 35 K = 1,NBANDS
      CALL BININ(TAPE,JBUF,LREC,IND)
      DO 35 J = 1,512
35    IBUF(J,K) = IBUF(J,K) + BUF(J)
40    CALL FORSCN(TAPE,1)
      DO 50 I = 1,NBANDS
      DO 50 J = 1,512
50    IBUF(J,I) = IBUF(J,I)/ISUM
      DO 60 J = 1,20
60    JBUF(J) = NBUF(J)
      RETURN
      END

```

Tape Preparation Programs

There are three programs for the preparation of tapes to be used with ESP, DSO, and DXD. They are: READDATA, MERGE, and EVTRD. These programs are part of an overlay package. Below is a description of the purpose and operation of these programs.

I. READDATA

This program was written to read and transcribe the ordinary seismic data tapes provided by Teledyne Geotech. The original format of the tapes is BCD with short records. This is very bulky since large quantities of tape are used merely for end of record gaps. The tapes resulting from READDATA are binary and have the following format:

1. a header record of length 1024 words
2. data records of length 1024. The last data record is padded with zeros.

The header record contains the following information:

WORD	NEMONIC	DESCRIPTION
1	NPEC	number of data records to follow header record
2	IDTAPE	tape identification number
3	MO	month
4	DAY	day

5	YR	year
6	ISITE	site identification, for LASA this was the subarray descriptor
7	NCH	number of channels on the data records. Usually this was one channel, but, for a few test tapes, two chan- nels one of which was for timing, were used.
8	LENGTH	total number of sample points
9	SR	sampling rate in samples per second
10	TIME(1)	time in hours
11	TIME(2)	time in minutes
12	TIME(3)	time in seconds

For the data supplied by CDC, the time was the arrival time of the signal. The time given for the data supplied by ACDA was the start time of the data.

Operation

1. mount program tape on MT3A and read into the computer using a rerun deck for MT3A. Type IREAD = 1 * c/r on the control console.
2. mount original Teledyne tape on MT1A and the output tape on MT2A

3. a message will appear on the control console

'DATA IN'

4. input parameters should be specified.

 IDATE mo, day, yr each two digits

 IDTAPE five-digit tape identification number

 NARAY number of subarrays on input tape to be processed

5. on the line-printer the header for each time sequence will be printed out

6. when all of the subarrays have been processed, steps 3, 4, and 5 may be repeated

II. MERGF

To conserve as much magnetic tape as possible, this program allows the user to consolidate the results of several READDATA runs on one tape. It simply copies the input tape verbatim onto an output tape.

Operation

1. mount program tape on MT3A and read into computer using card deck to rerun from MT3A. Type IMERG = 1 * c/r on the control console.

2. mount input tape on MT1A and output tape on MT2A

3. a message will appear on the control console

START

4. input parameters

NARRAY number of subarrays for data set about to be copied

5. upon completing the copy, steps 3 and 4 may be repeated.

III. EVTRD

This program was written to read BCD event tapes from Teledyne. The format of the input and output tapes is the same as that described for tapes used by READDATA.

Operation

1. mount program tape on MT3A and run using card deck labeled rerun from MT3A. Type IEVNT = 1 * c/r on the control console.
2. mount input and output tapes on MT1A and MT2A respectively
3. the message, TAPE, will appear on the control console. At this point, make sure that the correct input tape is mounted, then type * c/r.
4. the message, DATA IN, will appear on the control console.

5. specify the parameters

IDTAPE, IDATE, NARRAY, and SF

where the first three are the same as those described in READATA and the last is the scale factor.

6. The program will loop through steps 4 and 5 ten times and then go back to step 3 at which point the input and/or output tapes can be changed.

```

*      MONITOR FOR TAPE PROCESSING
*
*      COMMANDS ARE:
*
*      IREAD = 1      TO READ A TYPICAL DATA TAPE FROM TELEDYNE
*      IMERG = 1      TO MERGE TOGETHER SEVERAL TAPES
*      IEVNT = 1      TO READ AN EVENT TAPE
*
*      NAMELIST IREAD,IMERG,IEVNT
*      DATA IREAD/0/,IMERG/0/,IEVNT/0/
*
5      OUTPUT(102) 'COMMAND'
      INPUT(101)
      IF(IREAD .NE. 0) CALL READDT; IREAD = 0; GO TO 5
      IF(IMERG .NE. 0) CALL MERGE; IMERG = 0; GO TO 5
      IF(IEVNT .NE. 0) CALL EVTRD; IEVNT = 0; GO TO 5
      GO TO 5
      END

```

*MITE	PZE	0
	BRM	9SETUPN
	PZE	2
IDSITE	PZE	0
ISITE	PZE	0
	LDA	*IDSITE
	LRSA	014
	LLSA	014
	STA	*ISITE
	BRR	MITE
	END	

SHIFT UPPER 12 BITS TO LOWER 96 WORD


```

SUBROUTINE EVTRD
*   SUBROUTINE TO READ EVENT TAPE
*
  DIMENSION IBUF(1024),JBUF(1200),ARAY1(1040),IARAY2(13,80),
*   ISDAT(3),IDATE(3),RDATA(8),TIME(4),SITE(70),ZEROS(330),
*   ISITE(3),IRY(1040)
  EQUIVALENCE(IRY,IARAY2)
  INTEGER STAPE
  NAMELIST SF,ICARD,IDTAPE,IDATE,NARRAY,LSTAPE,IFIN
  DATA SF/100/,ICARD/0/,STAPE/2/,ITAPE/1/,LREC/1024/, NARRAY/13/,
*   LSTAPE/0/,JREC/1200/,IFIN/0/

  CALL EBFSET(2005)

*
5   OUTPUT(102) 'TAPE'
   INPUT(101)
   IF(IFIN .NE. 0) RETURN
   DO 170 NMK = 1,10
   OUTPUT(102) 'DATA IN'
   INPUT(101)
   IF(ICARD .EQ. 1) INPUT(5)
   ICARD = 0

*
10  READ(1,1000) ISDAT,TIME,SITE,ZEROS
   CALL WRTHED
   IF(NREC*1024 .LT. ISDAT(3)) NREC = NREC + 1
   DO 60 IJ = 1,NREC
   DO 20 I = 1,1024
20   IBUF(I) = 0
   DO 50 J = 1,128
   DO 30 M = 1,8
30   RDATA(M) = 0.0
   LENC8M = (IJ-1)*LREC+ J*8
   READ(1,3000) (RDATA(K), K = 1,8)
   DO 40 L = 1,8
40   IBUF((IJ-1)*8 + L) = RDATA(L)*SF
   IF(LENC8M .GE. LENGTH) GO TO 70
50   CONTINUE
   CALL BINOUT(STAPE,IBUF,LREC,IND)
60   CONTINUE
   CALL WEBF(STAPE,0)
   GO TO 80
70   CALL BINOUT(STAPE,IBUF,LREC,IND)
   CALL WEBF(STAPE,0)
80   CONTINUE

*
   READ(1,1000) ISDAT,TIME,SITE,ZEROS
   DO 140 I = 1,13
   DO 90 J = 1,150
   READ(1,3000) (RDATA(K),K = 1,8)

```

```

      DB 90 K = 1,8
90   JBUF((J-1)*8 + K) = RDATA(K) *SF
      DB 100 J = 1,1024
100  IBUF(J) = 0
      CALL WRTHED
      DB 110 J = 1,1024
110  IBUF(J) = JBUF(J)
      CALL BINOUT(9TAPE,IBUF,LREC,IND)
      DB 120 J = 1,1024
120  IBUF(J) = 0
      DB 130 J = 1,176
130  IBUF(J) = JBUF(1024 + J)
      CALL BINOUT(9TAPE,IBUF,LREC,IND)
      CALL WRBF(9TAPE,0)
140  CONTINUE
170  CONTINUE
*
200  OUTPUT(102) 'E9F'
      GO TO 5
1000  FORMAT(3I10,F10.2,2F5.0,F5.1,25X/3(20A4/),10A4,10F4.0/
* 15(20F4.0/),20F4.0)
3000  FORMAT(8F10.4)
*
*   WRITE OUT THE HEADER
*
*   SUBROUTINE WRTHED
*
      NREC = ISDAT(3)/1024
      IF(NREC*1024 .LT. ISDAT(3)) NREC = NREC + 1
      CALL MITE(SITE(1),ISITE)
      IBUF(1) = NREC
      IBUF(2) = IDTAPE
      IBUF(3) = IDATE(1)
      IBUF(4) = IDATE(2)
      IBUF(5) = IDATE(3)
      IBUF(6) = ISDAT(1)
      IBUF(7) = ISDAT(2)
      IBUF(8) = ISDAT(3)
      IBUF(9) = TIME(1)
      IBUF(10) = TIME(2)
      IBUF(11) = TIME(3)
      IBUF(12) = TIME(4)
      WRITE(6,2000) ISDAT,TIME,NREC,SITE(1)
2000  FORMAT(1X,'SEISMogram NR. = ',17,5X,'NCH = ',110,5X,'SMPLS/CH = ',
* 110,'RATE',13,5X,'HR',13,5X,'MIN',13,5X,'SEC',13,5X,'NREC',13/
* 'SITE',A2)
      CALL BINOUT(9TAPE,IBUF,LREC,IND)
      LENGTH = ISDAT(3)
      RETURN

```

```

SUBROUTINE READDT
CONVERT DATA TO INTEGER AND DUMP ON TAPE
RECORDS ARE 1024 WORDS LONG - THE FIRST RECORD IS AN IDENTIFIER

ARRANGEMENT OF DATA IN HEADER RECORD
1 - NREC - NUMBER OF RECORDS OF DATA TO FOLLOW FOR CURRENT GRAM
2 - EVENT ID - A 5 DIGIT INTEGER NUMBER
3 - EVENT DATE MONTH
4 - EVENT DATE DAY
5 - EVENT DATE YEAR
6 - SITE AND GRAM NUMBER IDENTIFIER
7 - NUMBER OF CHANNELS OF DATA ONLY ONE IS LEGAL
8 - LENGTH OF SEISMOGRAM NUMBER OF SAMPLES PER CHANNEL
9 - SAMPLING RATE IN SAMPLES PER SECOND
10 - START TIME OF SEISMOGRAM HR
11 - START TIME OF SEISMOGRAM MIN
12 - START TIME OF SEISMOGRAM SEC

DIMENSION ISDAT(3)
DIMENSION IDATE(3), RDATA(8), TIME(4), SITE(70), ZEROS(330),
      IBUF(1024)
INTEGER IDATE, IDTAPE, ISDAT, IRATE, NREC, IBUF, TESTF, ITWO, STAPE, LREC
NAMelist SF, ICARD, IDTAPE, IDATE, NARRAY, LSTAPE, IFIN, IRWD
DATA SF/1000/, ICARD/0/, STAPE/2/, LREC/1024/, IDTAPE/1/,
      NARRAY/13/, LSTAPE/0/, IFIN/0/, IRWD/0/
EQUIVALENCE (IBUF(6), ISDAT)

CALL E9FSET(60S)

READ A SEISMOGRAM AND CONVERT DATA TO INTEGER

5 OUTPUT(102) 'DATA INPUT'

SUGGESTED INPUT - 5-DIGIT IDTAPE, 3 INTEGER NUMBERS IDATE =
MONTH, DAY, YEAR; NARRAY = NUMBER OF SUBARRAYS; LSTAPE = 1 IF
WORKING ON LAST TAPE AND WANT A DOUBLE EOF AT THE END OF THE
OUTPUT TAPE

INPUT(101)
IF(IFIN .NE. 0) RETURN
IF(ICARD .EQ. 1) INPUT(5)
ICARD = 0

READ HEADER ON DATA TAPE

WRITE(6,250)
250 FORMAT(1H1)

```

```

6 D0 55 NALL = 1, NARRAY
10 READ(1,100) ISDAT, TIME, SITE, ZER9S
100 FORMAT(3I10,F10.2,2F5.0,F5.1,25X/3(20A4/),10A4,10F4.0/
*      15(20F4.0/),20F4.0)
TESTF = 0
MPTS = (ISDAT(3) - (ISDAT(3)/8)*8) + ISDAT(3)
MPTS = MPTS*ISDAT(2)
NREC = MPTS/1024
IF(NREC*1024 .LT. MPTS) NREC = NREC + 1
LENGTH = MPTS
IBUF(1) = NREC
IBUF(2) = IDTAPE
IBUF(3) = IDATE(1)
IBUF(4) = IDATE(2)
IBUF(5) = IDATE(3)
IBUF(9) = TIME(1)
IBUF(10) = TIME(2)
IBUF(11) = TIME(3)
IBUF(12) = TIME(4)
CALL MITE(SITE(1),ISITE)
IBUF(6) = ISITE
CALL BINOUT(8TAPE,IBUF,LREC,IND)
WRITE(6,200) ISDAT, TIME, NREC, SITE(1)
200 FORMAT(1X,'SEISMOGRAM NO. = ',A4,5X,'INCH = ',I10,5X
* 'SMPLS/CH = ',I10/'RATE',I3,5X,'HR',I3,5X,'MIN',I3,5X,'SEC',I3,
* 5X,'NREC',I3/'SITE',A2)
*
* READ DATA
*
D0 50 IJ = 1,NREC
D0 20 I = 1,1024
20 IBUF(I) = 0
D0 40 J = 1,128
D0 25 M = 1,8
25 RDATA(M) = 0.0
LENC9M = (IJ-1)*LREC + J*8
READ(1,300) (RDATA(K),K=1,8)
300 FORMAT(8F10.4)
D0 30 L = 1,8
30 IBUF((IJ-1)*8 + L) = RDATA(L)*SF
IF(LENC9M .GE. LENGTH) GO TO 45
40 CONTINUE
CALL BINOUT(8TAPE,IBUF,LREC,IND)
50 CONTINUE
CALL WEOF(8TAPE,0)
GO TO 55
45 CALL BINOUT(8TAPE,IBUF,LREC,IND)
CALL WEOF(8TAPE,0)
55 CONTINUE
GO TO 70

```

```
60 TESTF = TESTF + 1
   IF (TESTF .GT. 1) GO TO 70
   GO TO 6
70  IF (IRWND .NE. 0) CALL RWND(ITAPE)
   IF (LSTAPE .EQ. 1) CALL W9F(8TAPE,0)
   GO TO 5
   SUBROUTINE DUMMY
   RETURN
   END
```

```

*      NAMELIST PARAMETERS
*      NARRAY = NUMBER OF ARRAYS TO BE COPIED
*      IFIN = 1      TO GO BACK TO THE MONITOR PROGRAM
*
SUBROUTINE MERGE
PROGRAM TO MERGE EARTHQUAKE READDATA TAPES
*
      INTEGER OTAPE
      DIMENSION IBUF(1024)
      NAMELIST IFLAG,NARRAY,IFIN
      DATA LREC/1024/,NARRAY/13/,ITAPE/1/,OTAPE/2/,IFIN/0/
*
      IFLAG = 0
10     OUTPUT(102) 'START'
        INPUT(101)
        IF(IFIN .NE. 0) RETURN
        DO 50 I = 1,NARRAY
        DO 20 K = 1,1024
20     IBUF(K) = 0
        CALL BININ(ITAPE,IBUF,LREC,IND)
        IF(IND .NE. 0) GO TO 60
        IF(IFLAG .EQ. 1) IBUF(2) = 6; IFLAG = 0
        NREC = IBUF(1)
        CALL BINOUT(OTAPE,IBUF,LREC,IND)
        DO 40 J = 1,NREC
        DO 30 K = 1,1024
30     IBUF(K) = 0
        CALL BININ(ITAPE,IBUF,LREC,IND)
        IF(IND .NE. 0) GO TO 60
        CALL BINOUT(OTAPE,IBUF,LREC,IND)
40     CONTINUE
        CALL WE9F(OTAPE,0)
        CALL BININ(ITAPE,IBUF,LREC,IND)
        IF(IND .NE. 0) GO TO 50
        OUTPUT(102) 'WE9F'
        INPUT(101)
50     CONTINUE
        GO TO 10
60     OUTPUT(102) 'WRONG E9F'
        INPUT(101)
        GO TO 10
      END

```

Appendix B

Spectral Characteristics
of the
P Codas of Eurasian Earthquakes and Explosions

SPECTRAL CHARACTERISTICS OF THE P CODAS OF EURASIAN EARTHQUAKES AND EXPLOSIONS

J.F. Evernden

Introduction

Over the past decade, numerous analyses of the short-period digitized seismograms recorded at the Large Aperture Seismic Array (LASA) in Montana have been conducted with the intent of ascertaining the discrimination (earthquake versus explosion) capability inherent in those seismograms. The modes of analytical treatment of the data in these several studies varied in some detail but all studies processed the data in an identical manner prior to application of the variable analytical procedures.

LASA originally consisted of 21 small arrays (25 instruments closely grouped within a circle of 7 kilometer radius) distributed in a logarithmic spiral over a circle having a diameter of 200 kilometers. In all studies published to date, the resultant 525 signals were merged into one by, first, direct summing of all seismometers of a subarray ("infinite velocity" sums) and, then, beam-steering of the resultant 21 signals ("time-shift and sum"), striving to thus accentuate on a particular LASA beam the signals from a particular area.

Given this final single trace for signals emanating from a particular area, analyses of various types were conducted:

- a. Ratio of energy in first five seconds of seismogram to energy in next 20 seconds ("complexity"), the idea being that signals from explosions would be of shorter duration than those from earthquakes. It was found that, on the average, this was indeed true but that there are earthquakes having the same

complexity ratio as the typical explosion, and vice versa. Therefore, the criterion fails frequently on an event-by-event basis and thus constitutes an unsatisfactory discrimination criterion (Evernden, 1969, for example).

b. More complex treatments of the pattern of energy in the P coda have been published again seeking to characterize shape of the continuing signal. An improved discrimination capability was achieved but overlap still occurred between earthquake and explosion values.

c. Because of the narrowness of the signal band-pass on the beam-steered LASA sum and because of concentration on energy-related discriminants, efforts to develop a discriminant based on spectral properties of the signals were limited to use of data between 0.5 and 2 Hz. When comparing energy in the band-passes .35 - .85 Hz and 1.45 - 1.95 Hz, general separation (the explosions having the greater high frequency content) was found, but such a discriminant failed to separate extreme values of each event type (Lacoss, 1969). In a recent study, Savino and Archambeau (1974) (details in Archambeau, 1975, and Bache, et.al., 1974) have investigated the discrimination inherent in using low Q ($Q = 10$) filters centered at 0.5 and 2 Hz applied to normal LASA main beam seismograms and in comparison of the relative amplitudes of the resultant "seismograms". They found that they could achieve discrimination for all but some deep-focus earthquakes.

An important fact that emerged at an early date in studies of LASA data was that the signal-to-noise ratio on the best subarray is invariably about two times greater than that on the main LASA beam, i.e., heterogeneities in earth structures under LASA are causing drastic focusing and de-focusing phenomena. By extensive testing, it was established that all signals detected by computer

processing of the main beams were easily detected by an analyst using visual display of the subarray beams. In addition, the analyst had an essentially zero false alarm rate while the computer had a very high false alarm rate near its "detection" threshold.

Associated with this effect was the observation that it is always impossible to achieve a $\sqrt{n}$ increase in signal-to-noise ratio when steering the array. If a sub-set of adequately separated seismometers are used, a $\sqrt{n}$ suppression of noise can be achieved but this does not result in a $\sqrt{n}$ increase in signal-to-noise. Thus, there is unavoidable degradation in signal amplitude near 1 Hz when trying to steer the entire array, implying even more severe degradation at higher frequencies.

Investigation of the signals from earthquakes as displayed on the main beams indicated there to be very little energy at and above a frequency of 2 Hz. Therefore, the decision was made in early 1969 to decimate the data as collected at the seismometer site (20 samples per record) to 10 samples per second to reduce data transmission and storage problems.

In spite of the phenomena reported above, no published study has investigated the signals as recorded on the subarray beams. The remarkable results to be reported in the next few pages follow upon the simple act of looking at those signals.

Comparison of Full-Beam and Subarray Signals

All seismograms used in this study have been played out in analogue format for detection of clipped signals and data errors ("glitches"). As recorded on infinite-velocity subarray-beams, none of the signals used displayed any clipping. For events with m_b values of about 6 or greater, at least some individual seismometers did display clipping even though the infinite velocity subarray beams did not. Complete recordings of all individual seismometers are not available. The quantitative effect of such clipping of occasional seismometers on the subarray sums is unknowable without detailed knowledge of each seismometer trace. Therefore, the subarray beams of the larger events will be used and analyzed in the same manner as those of the smaller events. Thus, all data for events of $m_b \geq 6$ must be considered as in error at some unknown level. Though the details of spectra may be perturbed from the correct values for the larger events, it is hard to imagine how discrimination criteria could be strongly perturbed. All glitches were removed prior to spectral analysis. All analysis to be reported in this paper is based on Fourier analysis of hammed time-window seismograms. The time-window is 12.8 seconds. Successive time-windows have a 7/8's overlap, i.e., the time-window shifted forward 1.6 seconds for each successive spectrogram (Figure 1 through 4). Only data obtained at 20 samples per second will be investigated as regards discrimination capability in the present study, analysis being limited, therefore, to data acquired prior to early 1969. For this initial paper, the only time-window considered is that containing maximum energy.

Because of a marked contrast in the spectra of normal microseismic noise and signals, the presence of a signal is generally obvious when looking at spectral composition of a time-segment. Thus, Figures 1 through 4 illustrate signal arrival and decay for spectrograms from which the mean value of noise at all frequencies has been removed. Each curve on these figures is the Fourier

spectrum, plotted as the square of the Fourier spectral amplitude (A), of successive time-windows as defined above. Figures 1 and 2 are for an earthquake and Figures 3 and 4 for an explosion. The typical contrast in rate of signal decay is obvious, but is not used in the present study. The tendency to higher frequencies in the explosion is also clear. It should be understood that amplitudes on Figures 1 through 4 are not expressive of (ground motion)² but rather of (amplitude)² as recorded on the seismogram, the response curve of the seismometer and electronics (Figure 5) causing a marked difference between relative spectral amplitudes in the ground and on the seismogram.

For purposes of quantitative analysis, the spectral data of each event were treated in terms of several spectral windows, all Fourier amplitudes falling in each window being simply added together with no normalization for width of the spectral window. Because of the peak in instrument response at 4-5 Hz (Figure 5) and the lengthening of the spectral windows at higher frequencies, the mode of data presentation adopted accentuates any high frequency

(Ed: Sentence continues on next page)

content of the signal. Corrections to relative ground motion can be made by data provided in the paper and are so done in later portions of the paper.

The spectral windows investigated are (the digitization rate preventing investigation of higher frequencies):

Spectral Window 1	0.4 - 0.6 Hz,
2	0.6 - 1.0 Hz,
3	1.0 - 1.4 Hz,
4	1.4 - 2.0 Hz,
5	2.0 - 3.0 Hz,
6	3.0 - 4.5 Hz,
7	4.5 - 6.0 Hz,
8	6.0 - 9.0 Hz.

Lower frequencies were not investigated routinely because of high noise amplitudes and steepness of response curve of short period LASA seismometers below 0.5 Hz. Limitation to data below 4.5 Hz in the first stages of analysis here reported is arbitrary and done only when comparing differences in main beam and subarray data.

Table 1 presents comparative spectral data uncorrected for noise level for several large Russian explosions as recorded on the main LASA beams and on the infinite-velocity beam of the F4 subarray, this subarray having the highest signal-to-noise ratio of the available subarray beams for the events studied. The entries in the several r_i columns of this and subsequent tables are ratios of the sum of Fourier spectral amplitude components in each window (1 through 6 in Tables 1 and 2, 1 through 8 in Tables 3 and 4) divided by the sum of spectral amplitude components in window 2 (i.e., $A_{0.6}^{1.0}$). It is apparent that the decorrelation effects that prevent $\sqrt{n}$ gain in signal-to-noise ratio near 1 Hz (see above) cause near elimination of all energy above 2 Hz on the main LASA beam, even reducing mean amplitude in the 1.4 - 2 Hz spectral window by a factor of 2. It is obvious that assertions used as the basis for decimating LASA data as recorded originally, i.e., no signal strength beyond 2 Hz, were in error. As

will be shown in a subsequent section, the signal-to-noise ratio in the 6 - 9 Hz pass-band for Russian explosions of m_b 6.0 as recorded on the F4 subarray is generally approximately 10, suggesting the presence of detectable signal at even higher frequencies.

Table 2 presents similar data for a set of Eurasian earthquakes. The point to be noticed is that there is a detectable increase in relative amplitudes of the high frequency windows for only the largest earthquakes, i.e., only noise is being recorded in these windows for most earthquakes. Inspection of the data of earthquakes alone might give a basis for keeping only 10 samples per second of data, but the data of Russian explosions show clearly the error of doing this. The lack of detectable high frequency energy in Eurasian earthquakes at LASA must derive from the spectral characteristics of those earthquakes, not from a characteristic of the propagation path to LASA.

Because of the phenomenon displayed in Table 1, all further analysis will use only spectral data from the best subarray available (F1, 2, 3, 4).

A second point requiring emphasis is the impact of using an energy criterion. If the data of either Table 1 or 2 are treated on a direct energy basis (i.e., $\sum(\text{amplitude})^2$ values), it is obvious that any contributions to such a summation for frequencies of greater than 2 Hz will be undetectable, thus giving another erroneous basis for decimating the LASA data. A criterion based on $\sum(\text{amplitude})$ values combined with a normalization factor for each spectral window seems far more appropriate. Even though amplitudes at higher frequencies are low relative to those between 1 and 2 Hz, the levels measured may be many times noise level and may be extremely important in discrimination.

Discriminant D, Using 0.4 to 9 Hz Data

With the general observations noted above in mind, the spectral composition of the subarray signals of 36 explosions and 23 earthquakes for which we had valid 20 samples per second data (i.e., events earlier than March 1969) were investigated.

Table 3 gives the conventional and spectral data for each event studied. The m_b values for all USSR explosions are carefully intercalibrated by use of data of a fixed network and normalizing to values expected of a network of low amplitude stations (Evernden, 1975). The $A_{.6}^{1.0}$ column is the summation of spectral components in the [.6-1.0] Hz window expressed in arbitrary units, the last two digits being the power of ten by which to multiply the initial three-digit number. Spectral values are as appropriate to the seismogram, not to ground motion. Spectral values in all windows (i.e., r_i entries) are expressed as a ratio to the spectral sum in the [.6 - 1.0] Hz window. Values are corrected for noise level in so far as the limited data available permit (from 10 seconds before to 30 seconds after P arrival). When the observed values appear to be simply noise, the noise value is indicated in parentheses followed by an N.

Table 4 presents average spectral values for groups of Eurasian explosions and shallow-focus earthquakes, the grouping being by amplitudes in the [.6-1.0] Hz window. The mean m_b value for USSR explosions in each group is indicated. The groupings are identical for explosions and earthquakes. The gross contrast in spectral composition of explosions and earthquakes is clearly apparent. Of equal significance is the clear presence of 6-9 Hz energy for all of the larger explosions, the average value of the amplitude sum for the 10 largest explosions of Group A being about 10 times the ambient noise level. It can also be seen in Table 4 that the spectral composition of both explosions and earthquakes is a function of magnitude of the explosions. In a later portion of this paper, these data will be analyzed in terms of source spectra, etc. but, for the moment, discussion is restricted to examination of a simple spectral discriminant using the full band width of data obtained from LASA recordings.

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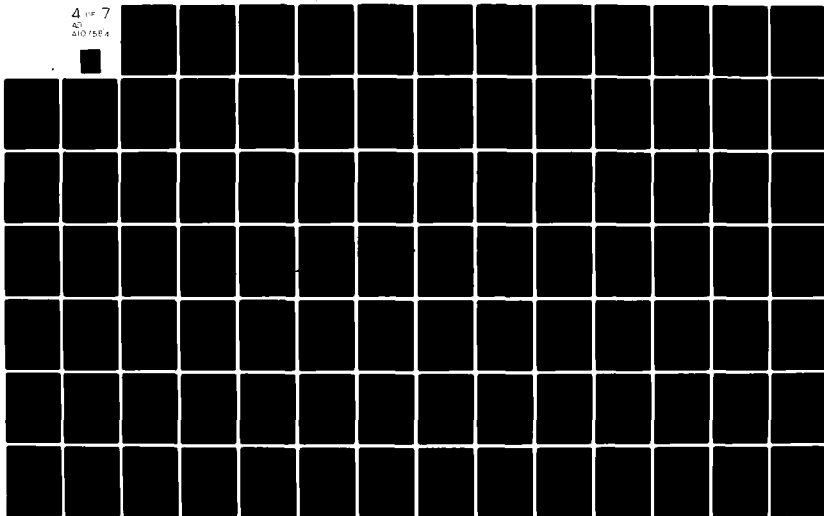
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Note in Table 4 that the spectral values for all explosion means is greater at 1.0 - 1.4 Hz than at .6 - 1.0 Hz while being less for earthquakes. On the contrary, explosion means are less at .4 - .6 Hz than are those for earthquakes. Therefore, the following discriminant is examined.

$$D_j = \sum_{i=1}^8 n_i r_{ij} \quad i = 1 \text{ to } 8$$

where j designates the event number, i the spectral window with $i = 1$ for .4 - .6 Hz and 8 for 6 - 9 Hz. The n_i are normalization factors, calculated by taking the ratio of the $\bar{r}_3$ and $\bar{r}_i$ values ($\bar{r}_i$ values being the mean values of Table 4), the appropriate value for each j event being dictated by its $A_{.6}^{1.0}$ value or m_b value. The values of n_1 and n_2 are used as negative numbers, while all others are positive, this usage being intended to accentuate the relative spectral difference of explosions and earthquakes noted above.

Table 5 gives the resultant D value for each event, the events being grouped according to their $A_{.6}^{1.0}$ values. The parentheses following each D value contain two numbers characterizing the number of spectral windows in the (-) and (+) groups with data above noise level.

Table 5A, for the events of Groups A of Table 4 ($A_{.6}^{1.0} > .100 \times 10^5$), shows all Eurasian explosions to have positive D values while all earthquakes have negative D values, the two least negative values being for deep focus earthquakes (D_{108} and D_{113}). There is apparently clear contrast in D values for explosions at Semipalatinsk and Novaya Zemlya. The presumed explosions at 38.8 N 65.1 E and 47.9 N 47.8 E had the lowest D values in Group A.

Table 5 B, for events of Group B of Table 4 with $A_{.6}^{1.0}$ between $.5 \times 10^4$ and $.10 \times 10^5$ shows similar D values. All shallow focus earthquakes studied to date give more negative D values than explosions.

Table 5C, for events of Group C of Table 4 with $A_{.6}^{1.0}$ values between $.1 \times 10^4$ and $.5 \times 10^4$, shows similar results. The presumed explosion at 57.7N 65.3E (D_{17} Table 5C) shows a much smaller D value than do most explosions at Semipalatinsk. The single explosion studied at or near 50.1 N 79.0 E (D_{27}) has the lowest D value calculated for USSR explosions.

Tables 5D and E show similar results, an Algerian explosion (D_{158}) giving a D value of + 1.8.

Therefore, this simple D discriminant achieves strongly negative values for essentially all earthquakes, even for all except one deep-focus earthquake, and zero (event No. 27) to strongly positive values for all explosions.

Implications So Far

Previous analyses of LASA P coda data have failed to exploit the spectral content of the signals for discrimination purposes because of three major errors: use of the main LASA beam in analysis, use of an energy discriminant without normalization as a function of frequency, and resultant use of data only from .4 to 2.0 Hz. The analysis above shows that a discriminant using data from .4 to 9 Hz with normalization as a function of frequency achieves separation of the set of earthquakes and explosions studied.

It should also be noted that the bandwidth available is adequate to discriminate the largest events, (including deep-focus earthquakes) whereas a bandwidth limited to .6 and 3 Hz cannot achieve such success. Additionally, it is noted that, rather than decimating LASA data in 1969, the digitizing rate should have been increased. A signal-to-noise ratio of 10 at 6 - 9 Hz for m_b 6.0 events suggests presence of measurable energy at even higher frequencies.

For reference, the last line of entries in several $\bar{r}_i$ columns of Table 4 below the earthquakes $\bar{r}_i$ values contains data on the mean noise levels, expressed in the same units as $A_{.6}^{1.0}$, in each spectral window. Though somewhat premature relative to the total discussion it is pointed out here that these values imply a f^{-3} dependency (where f is frequency). This indicates, as will be seen via analysis given later, there to be an f^{-1} dependency of signal/noise ratio for Semipalatinsk signals at 2 - 9 Hz. Thus, a signal/noise ratio of 10 at 6 - 9 Hz suggests detectable energy well above noise level at above 10 Hz.

Generalities on Source Spectra of Explosions and
Shallow-Focus Earthquakes

The data base presented in Table 3 is certainly of limited size and the drawing of expansive conclusions from it may seem unwarranted. However, the attempt will be made to illustrate the internal consistency of the data set with both itself and other seismological data, and thus to substantiate general conclusions.

First, note that the m_b values for Soviet explosions and the logarithm of the $A_{.6}^{1.0}$ values (Table 4) are nearly proportional, 1.4 m_b units being associated with a factor of about 35 decrease in mean value of recorded $A_{.6}^{1.0}$ values between events included in Groups A & E. Therefore, the amplitude scaling near 1 second at LASA is, on the average near the m_b network scaling, a not unexpected result.

Next, inspection of the $A_{.6}^{1.0}$ and $\bar{r}_i$ or r_i values of Group B Earthquakes ($.50 \times 10^4 \leq A_{.6}^{1.0} \leq .99 \times 10^4$), Group C Earthquakes ($.10 \times 10^4 \leq A_{.6}^{1.0} \leq .49 \times 10^4$), Earthquake 90 ($A_{.6}^{1.0} = .94 \times 10^3$), and Earthquake 100 ($A_{.6}^{1.0} = .40 \times 10^3$) shows that all of these events appear to have a common spectral composition at high frequencies. This conclusion is independent of mode of reduction of the data to estimates of source spectra, deriving as it does simply from noting that the product ($A_{.6}^{1.0} \times r_i$) is nearly constant for all of those groups of data at the higher frequencies. Figures 6A and 6B, in which the data of all of these events is adjusted in an identical manner, show these relationships. Thus, commonality of the high frequency asymptote for earthquakes below magnitude 5.5 or so is suggested. The larger earthquakes (Group A) have a relative amplitude of $\bar{r}_i$ values for the higher frequencies similar to that for the Group B earthquakes but appear to have higher amplitudes at all frequencies, thus following a parallel but different asymptote than the smaller earthquakes. This difference may be the result of source persistence for large earthquakes, and

the result of analyzing a 12.8 second time window.

In contrast, the explosion data show no tendency for explosions of different sizes to reach the same high frequency asymptote, at least not within the band-width investigated here (Figure 7). In addition, the rate of fall-off of spectral amplitudes with increasing frequency for explosions is far less than for earthquakes.

In any effort to estimate the shape of the source spectra of earthquakes and explosions from the data of Tables 3 and 4, a degree of arbitrariness must be included. The factors to be considered are frequency dependent attenuation due to inelastic processes during propagation and loss of high frequencies associated with making the infinite velocity sum for the subarray beam. The former effect is generally assumed to be of the form $e^{-\alpha f}$ where α is independent of frequency; the latter effect is probably more an f^{-B} effect. The mode of analysis will be to assume certain attenuation effects with the intent of having reasonable values of attenuation associated with a reasonable source spectrum for earthquakes and explosions.

Interpreted Source Spectra of Earthquakes

Figure 6B illustrates the calculated source spectrum for earthquakes when taking account of widths of each spectral window used and when using $\alpha = .824$ in the attenuation term $e^{-\alpha f}$, and using $B = .38$ in the term f^{-B} . These values are selected by trial and error to yield an f^{-3} high frequency slope for earthquake spectra and to allow for frequency sensitive attenuation in the subarray sum. Comparison of Figures 6A and 6B illustrates the role of the f^{-B} term.

The interpreted result is then a source spectrum for earthquakes having an f^{-3} asymptote at high frequencies while flattening at low frequencies, all of which is within

some current models. The implied mean Q for the entire propagation path from Eurasia to LASA is

$$Q = \pi(10,000)/15(.824) = 2500$$

(path length of 10,000 kilometers with average velocity of 15 km/sec). This is an acceptable value.

Therefore, the spectral data of earthquakes of Table 3 and 4 can be processed to yield credible values for attenuation and source spectra.

Interpreted Source Spectra of Explosions

To begin with, consider only the data for the explosions near 50N 48E, (here designated as Semipalatinsk, Site A). Since nearly all explosions studied are from this area, the values for Table 4 will be used as typical of this site.

Semipalatinsk, Site A

The data of Figures 6 and 7 suggest three bases for spectral discrimination between earthquakes and explosions. Firstly, there is an $f^{-1.3}$ greater rate of high frequency attenuation of earthquake spectra relative to those of Semipalatinsk/Site A explosions. Secondly, explosions have a higher corner frequency than do shallow focus earthquakes for the same source spectral level around 1 Hz. Thirdly, the spectral values below the corner frequency decrease with decreasing frequency for explosions. The accentuation of these latter characteristics within the range $.5 \leq f \leq 4$ for small magnitude events explains why failure to detect frequencies higher than 4.5 Hz does not decrease the discrimination capability of the D discriminant at small magnitudes even though higher frequencies are not measurable. The behavior at large magnitudes explains in part why the large Novaya Zemlya explosions have lower D values, i.e., for a pass-band limited to periods of less than 2 seconds, the complete low frequency behavior is not incorporated into the discriminant.

These data suggest that the discrimination between earthquakes and explosions via the D discriminant resides in the contrasting source spectra of these two types of seismic events, not in contrasting attenuation due to systematic differences in location.

Semipalatinsk, Site B

As noted above, all except one of the presumed explosions from the general area around Semipalatinsk are from near 50N 78E, while a single event (Number 27) is a presumed explosion from near 50N 79E, here termed Site B. Though this event is successfully discriminated as an explosion, it had an unusually low D value. Being from a locality so near the other explosions, one cannot appeal to changes in deep crustal or mantle properties to explain the different spectral shape. The differences between the two sites seem more reasonably to be a response to differences in properties of the rocks in which the explosions were implaced or in rocks at very shallow depths. Events No. 27 can be used in support of this hypothesis. Inspection of the data of this event shows the basic difference between the spectra of events from Sites A and B is an apparent nearly f^{-1} greater frequency dependency of the calculated source spectrum for the Site B explosion if interpretation is by the model of Figure 7. However, it would appear probable that the source spectrum of this explosion is fundamentally similar to that of those from Site A and that the calculated f^{-1} greater slope of the data of this event is a response to near-site properties, the only obvious way to get such a drastic effect being in the inelastic zone around the explosion. Whatever the case, it is of interest that multiplication of the r_{ij} values of Event No. 27 by a factor of $e^{-.28f}$ to correct them to an f dependency at high frequency similar to that for events from Site A yields adjusted r_{ij} values which, when used in the formula of Table 5, result in calculation of a high positive value for D_{27} .

Such a situation suggests that the low D values of the presumed explosions of Tables 3 and 4 at sites other than near Semipalatinsk and Novaya Zemlya may well be the result in part of explosions in softer rocks than those at Semipalatinsk. In all cases, the low D values of such explosions are associated with spectral decrease with increasing frequency being more exaggerated than that for Site A explosions.

It is suggested that departure from $f^{-1.67}$ dependency of calculated source spectra via the calculational procedures described above implies an additional $e^{-\alpha f}$ dependency from one or more/beyond that appropriate to Semipalatinsk/Site A. ^{causes} By multiplying data of all spectral windows by the factor required to bring the high frequency data to an $f^{-1.67}$ dependency, one can determine the spectral amplitudes around 1 Hz that would have been observed if any non-Semipalatinsk/Site A explosion had actually been at Site A. In principle, the intercalibration could extend to referring all USSR explosions to NTS via use of data from such a station as NORSAR. Such a potentiality is being evaluated.

Novaya Zemlya Explosions

Though the low D values for the Novaya Zemlya explosions might be expected to arise from the same effects as noted above, investigation of the data of these events by the model of Figure 7 shows them to have a calculated $f^{-1.66}$ dependency at high frequencies, i.e., in agreement with data for explosions from Site A, Semipalatinsk. Therefore, another explanation for the low D values must exist.

Since the large Novaya Zemlya explosions are larger than any Semipalatinsk explosions and since the $\bar{r}_i$ and thus n_i values of Tables 4 and 5 show definite correlation with size of event, it seems relevant to extrapolate the $\bar{r}_i$ values of Table 4 to a higher m_b . Such extrapolation is indicated in Figure 8, where smoothed lines are put through the $\bar{r}_i$ data of Table 4. If one uses the $\bar{r}_i$ values for m_b 6.4 as pertinent to Novaya Zemlya events, D_5 increases from 3.55 to 6.26. All other D values for Novaya Zemlya events of Table 5 increase similarly.

A correlated factor leading to lower D values for these explosions has been noted above, i.e., the fact that the spectral flattening and rolling over typical of explosion

spectra is largely at lower frequency than 0.5 Hz for these events, thus preventing the contrast in low frequency behavior of explosions and earthquakes from entering a criterion limited to frequencies of or greater than 0.5 Hz. Gains of the LASA short period instruments are so uncertain at periods of greater than 2 seconds that no investigation of this point is made at this time.

Further Comments

It was pointed out in Evernden (1975) that assumption of a common high frequency asymptote with slope of f^{-3} for spectra of all earthquakes provided a simple spectral model that agreed with the observed $M_S:m_b$ relationship at all magnitudes. The inverse of that demonstration is that the observed $M_S:m_b$ relationship cannot be explained via an earthquake scaling model which has a common high frequency asymptote with a slope of other than f^{-3} . If extensive documentation of the situation suggested in this paper results, i.e., a common high frequency asymptote for spectra of all earthquakes, the conclusion would be unequivocal that source spectra of earthquakes as calculated via spectral analysis of signals must have a slope at high frequencies of f^{-3} .

Assumption of an f^{-3} high frequency slope for earthquake spectra led to an $f^{-1.67}$ slope for spectra of Semipalatinsk explosions. Arguments given by Brune (1970) show this slope must be $f^{-1.5}$ or greater and studies such as that of Bach, et.al., (1975) derive theoretical values of $f^{-1.5}$ to $f^{-2.3}$ for explosions in various media. Use of an f^{-2} slope for earthquakes would give lower Q values for the mantle and a high frequency spectral slope of f^{-1} or less for Semipalatinsk explosions, an unacceptable value.

Therefore, the multiple constraints, both observational and theoretical, that can be applied to restrict possible spectral models for earthquakes and explosions appear to suggest the models used here. The mantle Q value is reasonable, and any marked change in the slope of the high frequency asymptote for either explosions or earthquakes would lead to apparently unacceptable values for the other.

A Modified D Discriminant and Estimates of Yield

The results presented above suggest that attenuation effects can be approximately evaluated if data to 6 - 9 Hz or greater are available. Also, they suggest use of a modified D discriminant for events whose LASA recordings appear to have higher f dependency than expected of earthquakes. Simply adjust all data of such events so as to have a high frequency dependency similar to that of an earthquake. Calculation of D using the resultant r_{ij} values should yield D values high enough for discrimination.

It may be useful to point out a possible procedure for estimating yields of explosions at uncalibrated test sites. Having proven an event to be an explosion by use of the D discriminant or by $M_s:m_b$ or other criterion, adjustment of all spectral data to yield a high frequency behavior of the "observed" LASA spectra for Site A explosions, or of $f^{-1.67}$ on calculated source spectra, should yield spectral values in the neighborhood of 1 Hz nearly correctly calibrated as to equivalent yield against any reference test site with a known Y vs. m_b relationship.

Final Implications

From the data of Table 4 and 5, it appears that, because of the progressive change in spectral shape of explosions with decreasing magnitude, a D-type discriminant will successfully discriminate earthquakes and explosions to essentially the threshold of network detection and location (i.e., ≥ 4 station detection), there being nearly certainly at least two stations at which an accurate D value could be calculated.

These results, if massively substantiated, will make irrelevant the attainment of the capability to detect surface waves of small events, make irrelevant both planned and inadvertent mixing of long period waves as a confusion factor in discrimination, and make irrelevant accurate calculations of depths of focus of earthquakes. In addition, the demonstrated presence of signal at 3 - 4.5 Hz for explosions of m_b 4.1 (Table 3) at epicentral distances of 85° and greater implies a far greater capability to separate closely spaced events than deemed possible in the past and thus to detect multi-shot sequences previously deemed unseparable. In this regard, it is pertinent to remember Archambeau's prediction (1976) that multiple-explosions in scenarios deemed credible by conventional criteria will result in augmented high frequencies, i.e., will look "more like an explosion than an explosion".

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Tables

Table 1 - Spectral Compositions of the Full LASA Beam (BM) and F4 Subarray (F4) Beam for Selected USSR Explosions (Sampling rate = 10 per second).

$A_{0.6}^{1.0}$ is sum of Fourier spectral components (ΣA) in spectral window 2, i.e., from 0.6 to 1.0 Hz. r_i is ratio of sum of Fourier spectral components in window 1 and 2.

Table 2 - Spectral Compositions of the Full LASA Beam (BM) and F4 Subarray (F4) Beam for Selected Eurasian Earthquakes (Sampling rate = 10 per second).

$A_{0.6}^{1.0}$ is sum of Fourier spectral components (ΣA) in spectral window 2, i.e., from 0.6 - 1.0 Hz. r_i is ratio of sum of Fourier spectral components in window 1 and 2. Depth is in kilometers.

Table 3 - Spectral Composition of Subarray Beams of Selected Explosions and Earthquakes (Sampling rate = 20 per second). $A_{0.6}^{1.0}$ is sum of

Fourier spectral components (ΣA) in spectral window 2, i.e., from 0.6 - 1.0 Hz. r_i is ratio of sum of Fourier spectral components in window 1 and 2.

Table 4 - Mean Spectral Composition of Groups of Explosions and Earthquakes of

Table 3, Grouping being by Value of $A_{0.6}^{1.0}$. $A_{0.6}^{1.0}$ is sum of Fourier spectral components (ΣA) in spectral window 2, i.e., from 0.6 to 1.0 Hz. r_i is ratio of sum of Fourier spectral components in windows 1 and 2. No. is number of events in each group.

Table 5 - Value of D Discriminant for Each Event of Table 3.

Figures

Figure 1 - Spectrogram of Earthquake of 6/26/75. Time-window - 12.8 seconds, time step between adjacent spectrograms = 1.6 seconds, vertical scale = A^2 in arbitrary units, where A is amplitude of Fourier component. Noise corrections have been made based on mean values of noise over 30 seconds prior to signal.

Figure 2 - Continuation of spectrograms for Event of Figure 1. Short horizontal arrows on Figure 1 and 2 indicate same time window.

Figure 3 - Spectrograms of Explosion. Time-window = 12.8 seconds, time step between adjacent spectrograms = 1.6 seconds, vertical scale = A^2 in arbitrary units, where A is amplitude of Fourier component. Noise corrections have been made based on mean values of noise over 30 seconds prior to signal.

Figure 4 - Continuation of Spectrograms for Event of Figure 3. Short horizontal arrows on Figure 3 and 4 indicate same time-window.

Figure 5 - Short Period Response Curve - LASA

Figure 6A- Interpreted Source Spectra of Earthquakes: Attenuation Assumed = $e^{-.824f}$. B and C indicate spectra of Groups B and C of Table 4. 90, 92, and 100 indicate spectra of events of those numbers in Table 3.

Figure 6B- Interpreted Source Spectra of Earthquakes: Attenuation Assumed = $e^{-.824f} \times f^{-.38}$. B, C, 90, 92 and 100 as in Figure 6A.

Figure 7 - Interpreted Source Spectra of Semipalatinsk (Site A Explosions: Attenuation Assumed = $e^{-.824f} \times f^{-.38}$. A, C, E, indicate spectra of explosions of Groups A, C, and E of Table 4.

Figure
Table 8 - $\bar{r}_1$ versus m_b .

Table 1
USSR Explosions

No.	Date		m_b	Array	r_i					
	YR	MO DY			(.4-.6)	(.6-1.0)	(1.0-1.4)	(1.4-2)	(2-3)	(3-4.5)
1	66	02 13	6.3	BM F4	.142 .369	1.000 1.000	2.023 1.538	1.286 2.286	.493 1.721	.161 .507
2	66	03 20	6.2	BM F4	.105 .204	1.000 1.000	1.937 2.047	1.365 2.800	.388 1.553	.067 .368
3	66	08 19	4.7	BM F4	.372 .572	1.000 1.000	4.232 2.989	2.721 2.927	1.241 3.932	.270 1.365
4	66	10 19	5.6	BM F4	.089 .115	1.000 1.000	2.002 2.151	1.649 2.875	.630 2.697	.032 .370
5	66	10 27	6.3	BM F4	.266 .220	1.000 1.000	1.572 1.051	.959 1.794	.329 .725	.084 .169
6	66	12 03	4.9	BM F4	.434 .680	1.000 1.000	3.517 4.839	3.265 6.183	.744 3.458	.104(N) .600
7	66	12 18	5.9	BM F4	.204 .272	1.000 1.000	1.860 2.570	1.863 3.888	.730 2.370	.076 .507
8	67	02 26	6.0	BM F4	.197 .397	1.000 1.000	1.935 1.800	1.203 2.118	.713 1.690	.736 .228
9	67	03 25	5.3	BM F4	.123 .257	1.000 1.000	2.300 2.563	.1446 2.636	.538 2.377	.036(N) .200
10	67	04 20	5.7	BM F4	.151 .266	1.000 1.000	2.488 2.601	1.587 2.766	.525 2.506	.082 .500

Table 2

Eurasian Earthquakes

No.	Date YR MO DY	m_b	Array	r						Depth
				(.4-.6)	(.6-1.0)	(1.0-1.4)	(1.4-2)	(2-3)	(3-4.5)	
				r ₁	r ₂	r ₃	r ₄	r ₅	r ₆	
201	72 01 20	4.6	BM F4	.207 .200	1.000 1.000	.922 .757	.123 .154	.090(N) .179	.081 .091	144
202	72 01 20	6.0	BM F3	.203 .056	1.000 1.000	.965 1.438	.605 1.569	.054 .187	.020 .132	214
206	72 02 22	5.3	BM F4	.244 .154	1.000 1.000	.694 .956	.519 .790	.034(N) .081	.016(N) .022(N)	213
207	72 02 26	5.3	BM F1	.480 .295	1.000 1.000	1.170 1.224	.443 .183	.064(N) .066(N)	.029(N) .040(N)	36
208	72 03 04	5.1	BM F4	.191 .216	1.000 1.000	1.589 2.056	1.302 1.935	.415 .869	.122 .169	160
209	72 03 17	5.2	BM F4	.173 .144	1.000 1.000	1.263 1.638	.409 .696	.184 .304	.113 .250	25
210	72 03 20	6.0	BM F3	.286 .126	1.000 1.000	1.641 2.202	.513 .895	.056 .263	.043 .194	46
212	72 04 05	5.0	BM F4	.163 .482	1.000 1.000	.930 1.011	.302(N) .512	.133(N) .119(N)	.082(N) .120	

Table 3

Explosions

No.	Epicenter	Origin Time YR MO DY	M _b	Depth	A _{1.0} .6	r ₁ (.4-.6)	r ₂ (.6-1.0)	r ₃ (1.0-1.4)	r ₄ (1.4-2.0)	r ₅ (2-3)	r ₆ (3-4.5)	r ₇ (4.5-6)	r ₈ (6-9)	Subarray
1	49.8N 78.1E	66 02 13	6.1	-	.116 05	.368	1.000	1.806	1.636	1.147	.396	.189	.030	F4
3	49.8N 78.1E	66 08 19	4.3	-	.442 03	(.287)N	1.000	2.379	1.709	2.377	7.51	(.028)N	(.044)N	F4
4	49.8N 78.1E	66 10 19	5.5	-	.640 04	.215	1.000	2.235	1.930	1.700	.231	.093	.022	F4
5	73.4N 54.6E	66 10 27	6.5	-	.205 05	.376	1.000	1.111	1.355	.545	.108	.103	.016	F4
6	49.7N 78.0E	66 12 03	4.4	-	.349 03	(.235)N	1.000	4.019	3.093	1.751	.322	.041	.065	F4
7	49.9N 77.7E	66 12 18	5.7	-	.569 04	.330	1.000	2.581	2.352	1.449	.330	.135	.033	F4
8	49.8N 78.1E	67 02 26	5.9	-	.167 05	.443	1.000	2.030	1.747	1.172	.194	.224	.053	F4
9	49.8N 78.1E	67 03 25	5.1	-	.659 04	.211	1.000	2.038	1.454	1.298	.106	.043	(.006)N	F4
10	49.7N 78.1E	67 04 20	5.4	-	.996 04	.285	1.000	2.396	1.627	1.498	.300	.130	.056	F4
11	49.8N 78.0E	67 05 28	5.2	-	.732 04	.192	1.000	1.939	1.561	1.259	.134	.083	.020	F4
12	49.7N 78.0E	67 06 29	5.1	-	.355 04	.222	1.000	2.058	1.100	.427	.126	.029	.010	F2
13	49.8N 78.1E	67 07 15	5.2	-	.506 04	.193	1.000	2.321	1.977	2.152	.279	.069	.015	F4
14	49.8N 78.0E	67 08 04	5.1	-	.521 04	.179	1.000	2.309	2.023	1.129	.142	.040	(.004)N	F4
15	50.0N 77.7E	67 09 16	5.0	-	.318 04	.447	1.000	2.382	1.767	1.364	.310	.030	(.010)N	F4
16	49.9N 77.7E	67 09 22	4.9	-	.302 04	.246	1.000	2.078	1.711	.956	.251	.037	(.019)N	F4
17	57.7N 65.3E	67 10 06	4.7	-	.108 04	.260	1.000	.810	1.488	.536	.312	(.166)N	(.045)N	F1
18	49.8N 78.0E	67 10 17	5.4	-	.117 05	.194	1.000	2.313	1.337	1.046	.191	.099	.035	F4
19	73.4N 54.8E	67 10 21	5.8	-	.139 05	.367	1.000	1.561	1.848	.433	.299	.090	.015	F4
20	49.8N 78.0E	67 10 30	5.2	-	.663 04	.181	1.000	2.486	1.758	1.134	.223	.093	.027	F4
21	50.0N 77.7E	67 11 22	4.1	-	.470 03	(.666)N	1.000	1.829	1.772	.857	.249	.094	.035	F4
22	49.8N 78.2E	67 12 08	5.1	-	.518 04	.317	1.000	1.902	1.945	2.073	.326	.076	.020	F4
23	49.8N 78.0E	68 01 07	4.7	-	.223 04	(.202)N	1.000	2.496	2.091	1.133	.196	.034	(.012)N	F4
24	49.8N 78.1E	68 04 24	4.6	-	.144 04	(.230)N	1.000	3.209	2.409	2.400	.628	.049	(.016)N	F4

No.	Epicenter	Origin Time YR MO DY	M _b	Depth	A _{1.0} .6	r ₁ (.4-.6)	r ₂ (.6-1.0)	r ₃ (1.0-1.4)	r ₄ (1.4-2.0)	r ₅ (2-3)	r ₆ (3-4.5)	r ₇ (4.5-6)	r ₈ (6-9)	Subarray
25	38.8N 65.1E	68 05 21	5.3	-	.112 05	.079	1.000	1.444	.476	.348	.057	(.006)N	(.003)N	F4
26	49.8N 78.1E	68 06 11	5.0	-	.429 04	.254	1.000	2.308	1.809	1.060	.247	.031	(.008)N	F4
27	50.0N 79.1E	68 06 19	5.3	-	.689 04	.454	1.000	1.122	1.531	.914	.092	.026	(.005)N	F4
28	47.9N 47.8E	68 07 01	5.4	-	.136 05	.176	1.000	.916	.710	.485	.137	.017	.005	F4
29	49.8N 78.1E	68 07 12	5.0	-	.396 04	.216	1.000	2.348	1.841	1.892	.403	.057	.016	F4
30	50.0N 78.0E	68 08 20	4.5	-	.107 04	(.125)N	1.000	2.908	2.626	2.128	.475	(.056)N	(.015)N	F4
31	49.8N 78.1E	68 09 29	5.7	-	.157 05	.321	1.000	1.972	1.605	1.213	.145	.180	.050	F4
32	73.4N 54.9E	68 11 07	5.9	-	.199 05	.457	1.000	1.590	1.605	.262	.228	.093	.012	F4
33	49.8N 78.0E	68 11 09	4.3	-	.124 04	.226	1.000	1.968	1.834	1.692	.308	(.045)N	(.018)N	F4
34	49.7N 78.1E	68 12 18	4.9	-	.177 04	.157	1.000	2.253	1.600	.879	.169	.033	(.013)N	F4
35	49.8N 78.1E	69 03 07	5.4	-	.112 05	.238	1.000	1.732	1.355	1.492	.223	.150	.040	F4
157	51.4N 179.2E	65 10 29	6.1	-	.761 04	.195	1.000	3.840	1.722	.325	.446	.097	.030	F4
158	24.1N 5.2E	65 12 01	5.1	-	.756 03	.395	1.000	2.066	3.045	1.249	.092	(.037)N	(.028)N	F4
159	37.1N 116.0N	67 09 27	4.6	-	.964 04	.393	1.000	.225	.074	.060	(.033)N	(.014)N	(.004)N	F4
160	36.7N 107.2N	67 12 10	5.1	-	.710 04	.287	1.000	1.058	.518	1.240	.533	.105	.017	F4
161	37.3N 116.5N	68 04 26	6.3	-	.162 05	.936	1.000	.371	.110	.057	.060	.011	.0005	F4
162	37.1N 116.0N	68 09 06	5.6	-	.342 04	1.123	1.000	3.392	.456	.135	.076	.029	.012	F4
163	37.2N 116.5N	68 12 19	6.3	-	.198 05	.993	1.000	.284	.668	.049	.025	.006	.0005	F4

Table 3 (Cont.)

Earthquakes

No.	Epicenter	Origin Time YR MO DY	M _b	Depth	A _{1.0} .6	r ₁ (.4-.6)	r ₂ (.6-1.0)	r ₃ (1.0-1.4)	r ₄ (1.4-2.0)	r ₅ (2-3)	r ₆ (3-4.5)	r ₇ (4.5-6)	r ₈ (6-9)	Subarray
90	51.2N 178.9E	65 10 01	4.8	24	.940 03	.562	1.000	1.433	1.065	(.241)N	(.162)N	(.067)N	(.041)N	F3
92	43.8N 87.7E	65 11 13	6.4	29	.117 05	1.483	1.000	1.292	.489	.396	.075	.021	.005	F4
93	39.3N 73.1E	66 01 28	5.3	41	.347 04	.305	1.000	.802	.154	.077	(.012)N	(.008)N	(.19)N	F4
94	29.8N 69.7E	66 02 07	6.0	10	.205 04	.415	1.000	.913	.373	.229	(.026)N	(.018)N	(.039)N	F4
95	13.9N 146.1E	66 05 20	6.0	69	.575 04	.580	1.000	.2977	.1697	.0467	(.004)N	(.002)N	(.004)N	F4
96	55.0N 165.7E	66 05 20	5.2	35	.442 04	.577	1.000	.574	.206	.195	.051	(.005)N	(.004)N	F4
97	6.4S 131.1E	66 05 25	5.6	57	.744 03	(.567)N	1.000	.825	.773	.626	(.123)N	(.032)N	(.022)N	F4
98	34.0N 77.0E	66 06 04	5.7	215	.397 04	.215	1.000	1.544	1.312	.423	.053	(.005)N	(.005)N	F4
100	43.6N 132.2E	66 06 30	5.4	476	.397 03	.463	1.000	1.527	.972	.402	.264	(.050)N	(.061)N	F4
101	12.6N 144.2E	66 07 07	5.3	46	.987 03	.321	1.000	.603	.217	(.049)N	(.019)N	(.012)N	(.018)N	F4
102	36.4N 141.7E	66 08 19	5.5	28	.346 04	.350	1.000	1.446	(.532)N	(.157)N	(.064)N	(.057)N	(.011)N	F4
103	46.6N 144.1E	66 09 10	5.2	344	.435 04	.248	1.000	.995	1.038	.407	(.080)N	(.012)N	(.006)N	F4
104	45.7N 26.3E	66 10 15	4.8	140	.925 03	.757	1.000	.910	.765	1.011	.065	.022	(.024)N	F4
105	39.2N 21.2E	66 10 29	5.7	20	.111 05	.500	1.000	.541	.204	.066	(.008)N	(.001)N	(.002)N	F4
106	52.4N 173.0E	66 11 08	4.9	31	.282 04	.291	1.000	.590	.649	.407	.157	.011	(.007)N	F4
107	26.9N 125.5E	66 11 09	5.4	45	.166 04	.446	1.000	.861	.240	.056	(.018)N	(.013)N	(.010)N	F4
109	41.8N 144.1E	66 11 12	5.8	32	.798 04	.672	1.000	.330	.221	.0497	(.017)N	(.008)N	(.004)N	F4
110	35.0N 23.5E	66 11 19	5.3	17	.773 04	.149	1.000	.606	.229	.112	.009	(.003)N	(.002)N	F4
111	40.5N 142.7E	66 11 19	4.9	42	.291 04	.551	1.000	1.624	1.214	.212	(.052)N	(.034)N	(.012)N	F4
112	46.7N 152.5E	66 11 21	5.6	60	.143 05	.248	1.000	.856	.193	.087	.024	.004	(.002)N	F4
113	48.2N 146.7E	66 11 22	5.6	443	.275 05	.235	1.000	.777	.214	.194	.051	.012	.003	F4
91	51.3N 174.0E	65 11 11	5.2	45	.111 04	.702	1.000	1.033	.396	.321	.010	(.014)N	(.018)N	F3

Table 4

I USSR Explosions

Group	m_b	$A^{1.0}_{1.6}$	$\bar{r}_1$	$\bar{r}_2$	$\bar{r}_3$	$\bar{r}_4$	$\bar{r}_5$	$\bar{r}_6$	$\bar{r}_7$	$\bar{r}_8$	No.	
A	5.7	.1 - .5	05	.304	1.000	1.649	1.367	.814	.198	.115	.026	(10)
B	5.3	.500 - .499	04	.256	1.000	2.133	1.816	1.461	.216	.079	$\leq .018$	(10)
C	4.8	.100 - .499	04	$\leq .235(9)$	1.000	2.257	1.843	1.315	.311	$\leq .040(8)$	$\leq .017(2)$	(11)
D	-	.500 - .999	03	[.220]	1.000	[2.500]	[2.000]	[1.500]	[.375]	[.040]	[.030]	(1)
E	4.3	.100 - .499	03	.200	1.000	2.742	2.191	1.662	.441	.0543(2)	.0480(2)	(3)

[] = interpolated values

II Shallow Focus Earthquake $\bar{r}_8(D < 100 \text{ km})$

A	.1 - .5	05	.744	1.000	.896	.295	.183	$< .036(2)$	$< .009(2)$	$< .003(1)$	(3)
B	.5 - .999	04	.467	1.000	.411	.206	.069	$< .010(1)$	$< .004(0)$	$\leq .003(0)$	(3)
C	.100 - .499	04	.319	1.000	.973	$\leq .481(6)$	.189(5)	$< .054(2)$	.011(1)	(0)	(7)
D	.500 - .999	03	$< .483(2)$	1.000	.954	.685	$< .305(1)$	(0)	(0)	(0)	(3)
E	.100 - .499	03									(0)

III Noise Means

.32 03 .11 03 .041 03 .027 03

Table 5

A. $A_{.6}^{1.0} \geq .1 \times 10^5$

$$D = -5.424 r_{1j} - 1.649 r_{2j} + r_{3j} + 1.206 r_{4j} \\ + 2.026 r_{5j} + 8.328 r_{6j} + 14.34 r_{7j} + 63.42 r_{8j}$$

Explosions

D_7	(2+6) = 10.37
D_5	(2+6) = 3.55
D_8	(2+6) = 10.66
D_{18}	(2+6) = 8.57
D_{19}	(2+6) = 5.65
D_{25}	(2+6) = 1.12
D_{28}	(2+6) = 2.77
D_{31}	(2+6) = 9.93
D_{32}	(2+6) = 3.92
D_{35}	(2+6) = 9.99

Earthquakes

D_{92}	(2+6) = -5.77	depth = 29 km
D_{105}	(2+3) = -3.44	20
D_{112}	(2+5) = -1.47	60
D_{113}	(2+6) = -0.71	443

Table 5 (cont.)

$$B. .5 \times 10^4 < A_{.6}^{1.0} < .1 \times 10^5$$

$$D = -8.332 r_{1j} - 2.133 r_{2j} + r_{3j} + 1.176 r_{4j} + 1.460 r_{5j} \\ + 9.875 r_{6j} + 27.00 r_{7j} + 118.5 r_{8j}$$

Explosions

D_4	(2+6)	=	10.46
D_7	(2+6)	=	13.39
D_9	(2+5)	=	3.96
D_{10}	(2+6)	=	15.08
D_{11}	(2+6)	=	7.81
D_{13}	(2+6)	=	10.44
D_{14}	(2+5)	=	5.19
D_{20}	(2+6)	=	10.48
D_{22}	(2+6)	=	10.08
D_{27}	(2+5)	=	-.05

Earthquakes

D_{95}	(2+3)	=	-6.40
D_{109}	(2+3)	=	-7.07
D_{110}	(2+4)	=	-2.25

depth = 69 km

32

17

Table 5 (cont.)

$$C. \ .1 \times 10^4 < A_{.6}^{1.0} < .5 \times 10^4$$

$$D = -9.604r_{1j} - 2.257r_{2j} + r_{3j} + 1.225r_{4j} + 1.716r_{5j} \\ + 7.257r_{6j} + 56.43r_{7j} + 132.8r_{8j}$$

Explosions

$$D_{12} (2+6) = 3.63$$

$$D_{15} (2+5) = 4.28$$

$$D_{16} (2+5) = 5.10$$

$$D_{17} (2+4) = 1.06$$

$$D_{23} (2+5) = 6.15(\text{Using } N \text{ at } r_{1j})$$

$$D_{24} (1+5) = 13.13(\text{Using } N \text{ at } r_{1j})$$

$$D_{26} (2+5) = 5.19$$

$$D_{29} (2+6) = 11.78$$

$$D_{30} (1+4) = 9.77(\text{Using } N \text{ at } r_{1j})$$

$$D_{33} (2+4) = 4.93$$

$$D_{34} (2+5) = 5.05$$

Earthquakes

$$D_{93} (2+3) = -4.06$$

$$D_{94} (2+6) = -5.33$$

$$D_{96} (2+4) = -6.64$$

$$D_{98} (2+4) = - .06$$

$$D_{102} (2+1) = -4.17$$

$$D_{103} (2+3) = -1.67$$

$$D_{106} (2+5) = -1.21$$

$$D_{107} (2+3) = -5.29$$

$$D_{111} (2+3) = -4.07$$

$$D_{91} (2+5) = -6.86$$

depth = 41 km

10

35

215

28

344

31

45

42

45

Table 5 (cont.)

$$D. \ .5 \times 10^3 < A_{.6}^{1.0} < .1 \times 10^4$$

$$D = -11.3r_{1j} - 2.500r_{2j} + r_{3j} + 1.250r_{4j} + 1.667r_{5j} + 6.667r_{6j} \\ + 62.50r_{7j} + 83.33r_{8j}$$

Explosions

$$D_{158}(2+4) = 1.82 \text{ (Algeria)}$$

Earthquakes

$$D_{90}(2+2) = -5.88$$

depth = 24 km

$$D_{97}(1+3) = -5.10^*$$

57

$$D_{101}(2+2) = -5.03$$

46

$$D_{104}(2+5) = -5.50$$

140

*Using .5 at r_{1j}

$$E. \ .1 \times 10^3 < A < .5 \times 10^3$$

$$D = -13.715r_{1j} - 2.742r_{2j} + r_{3j} + 1.251r_{4j} + 1.650r_{5j} \\ + 6.667r_{6j} + 50.50r_{7j} + 57.13r_{8j}$$

Explosions

$$D_3(1+4) = 7.25 \text{ (Using N at } r_{1j})$$

$$D_6(1+6) = 13.23 \text{ (Using N at } r_{1j})$$

$$D_{21}(1+6) = 8.18 \text{ (Using } r_{1j} = .25)$$

Earthquakes

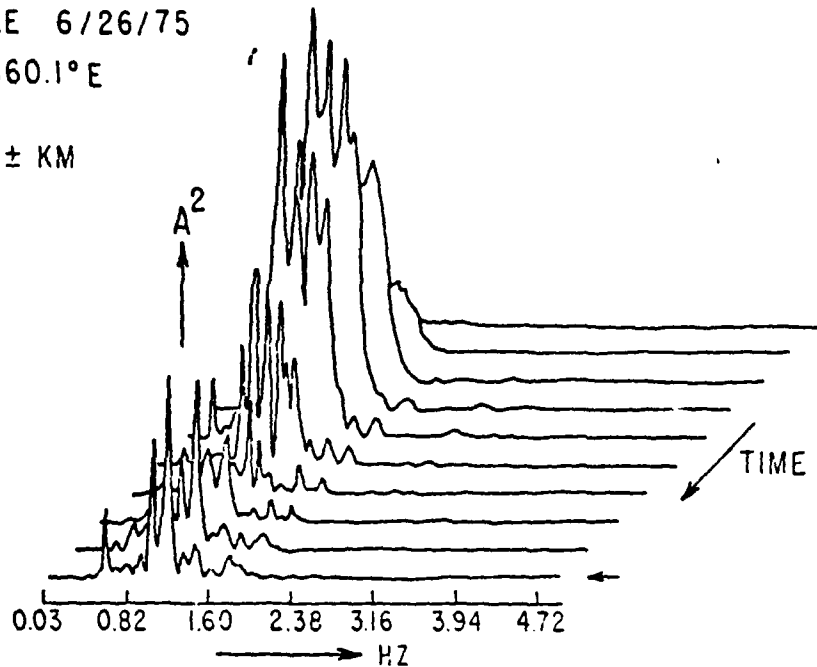
$$D_{100}(2+4) = -3.44 \text{ depth } \approx 476 \text{ km}$$

EARTHQUAKE 6/26/75

52.9°N 160.1°E

$m_b = 5.7$

DEPTH = $33 \pm$ KM

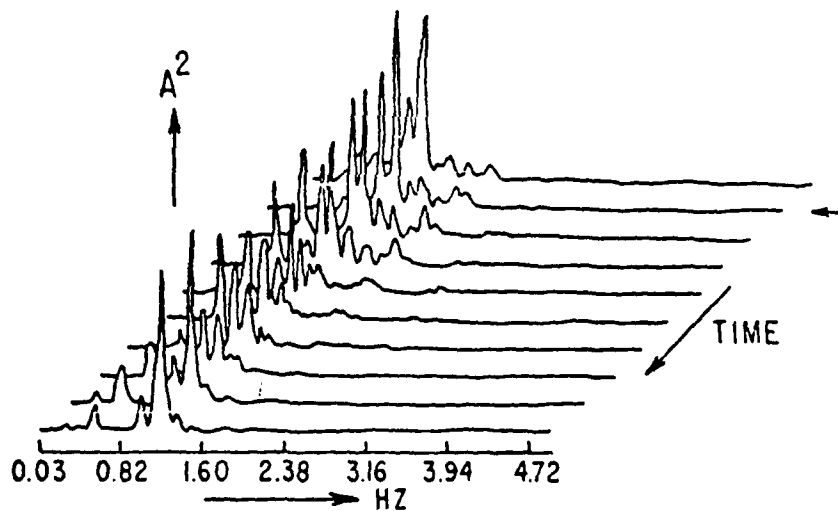


EARTHQUAKE 6/26/75

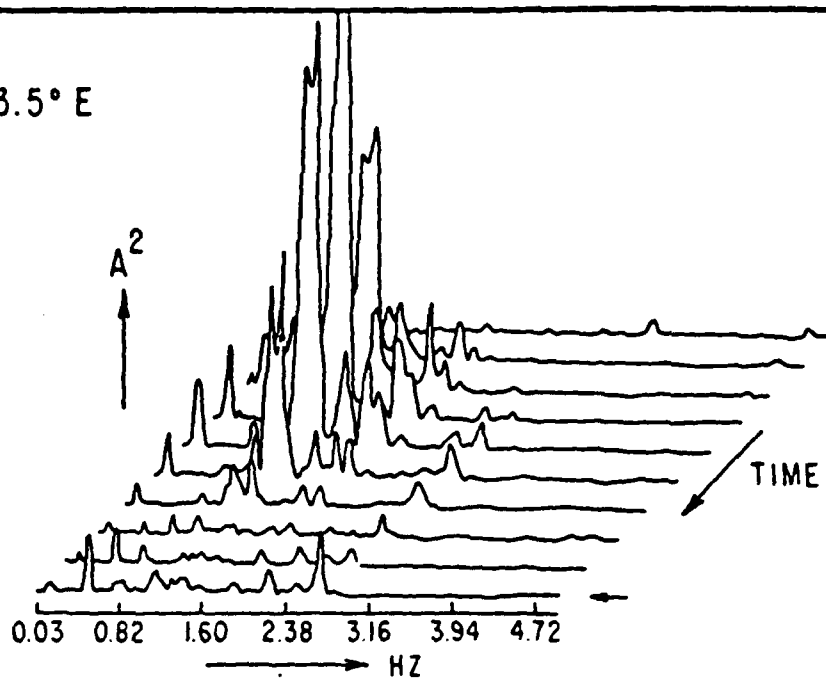
52.9°N 160.1°E

$m_b = 5.7$

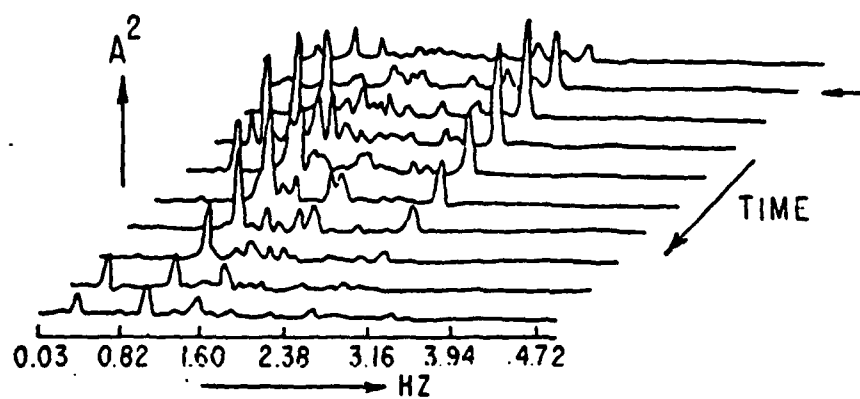
DEPTH = $33 \pm$ KM

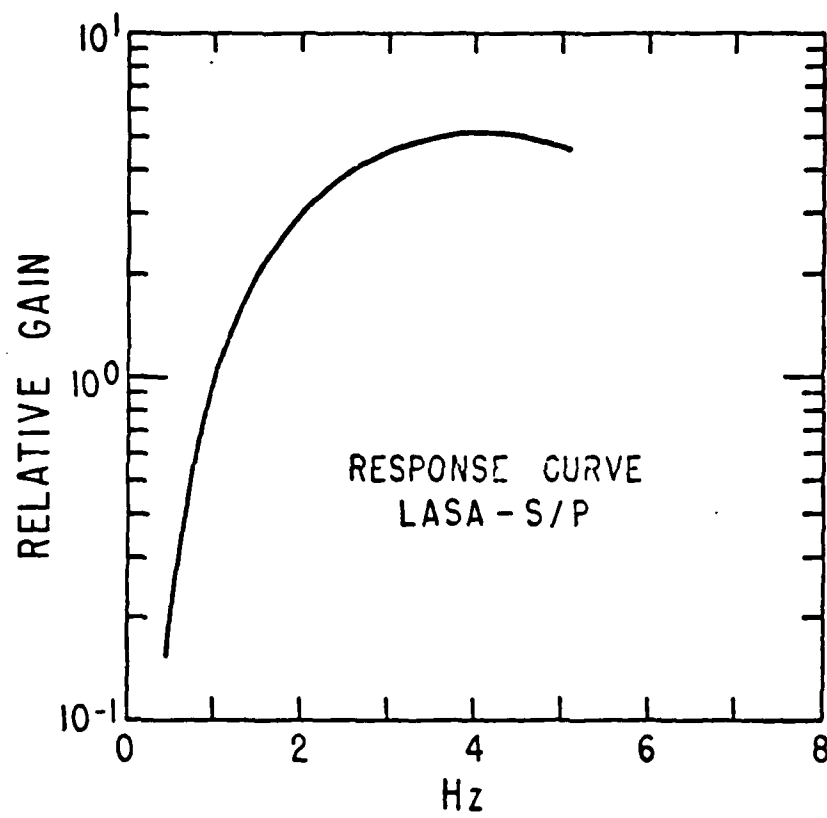


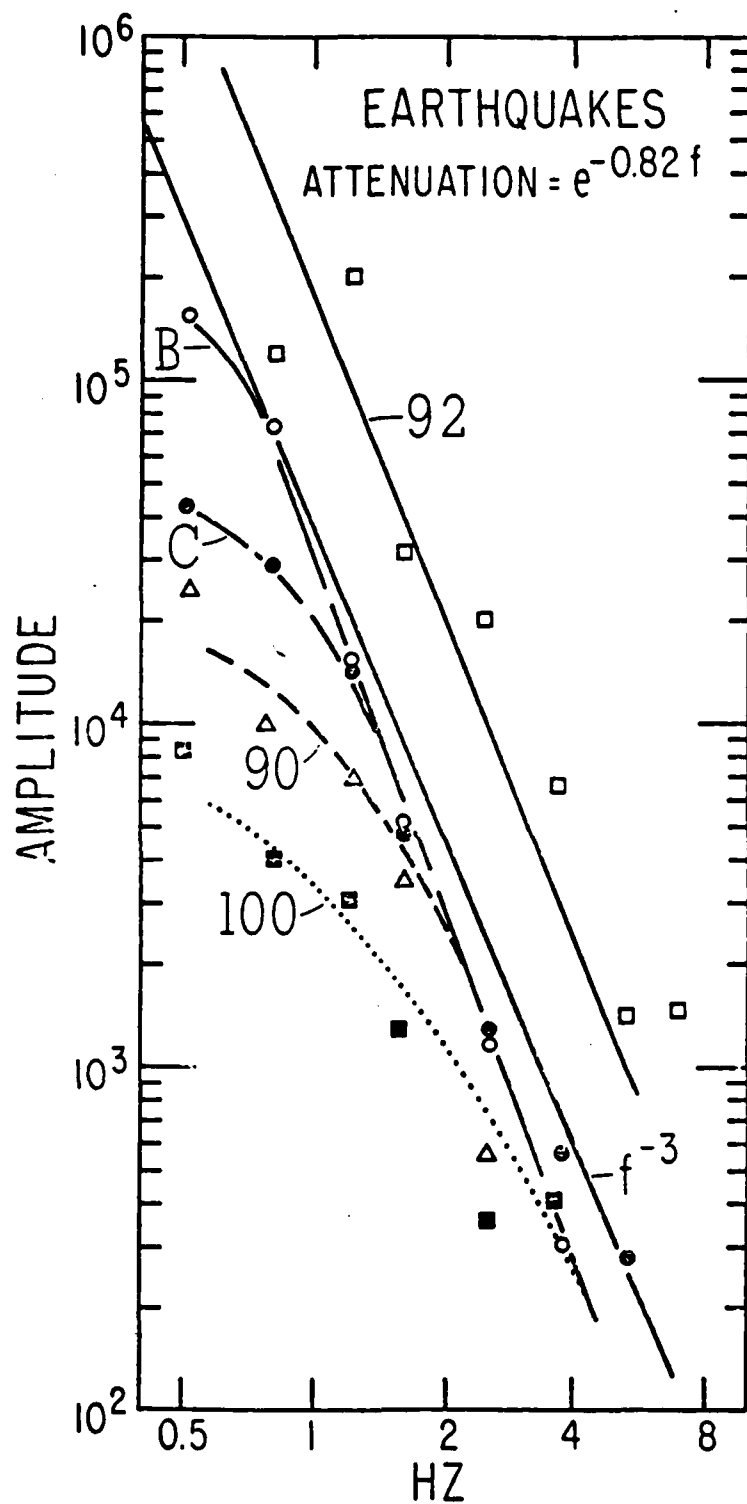
EXPLOSION
67.3° N 63.5° E

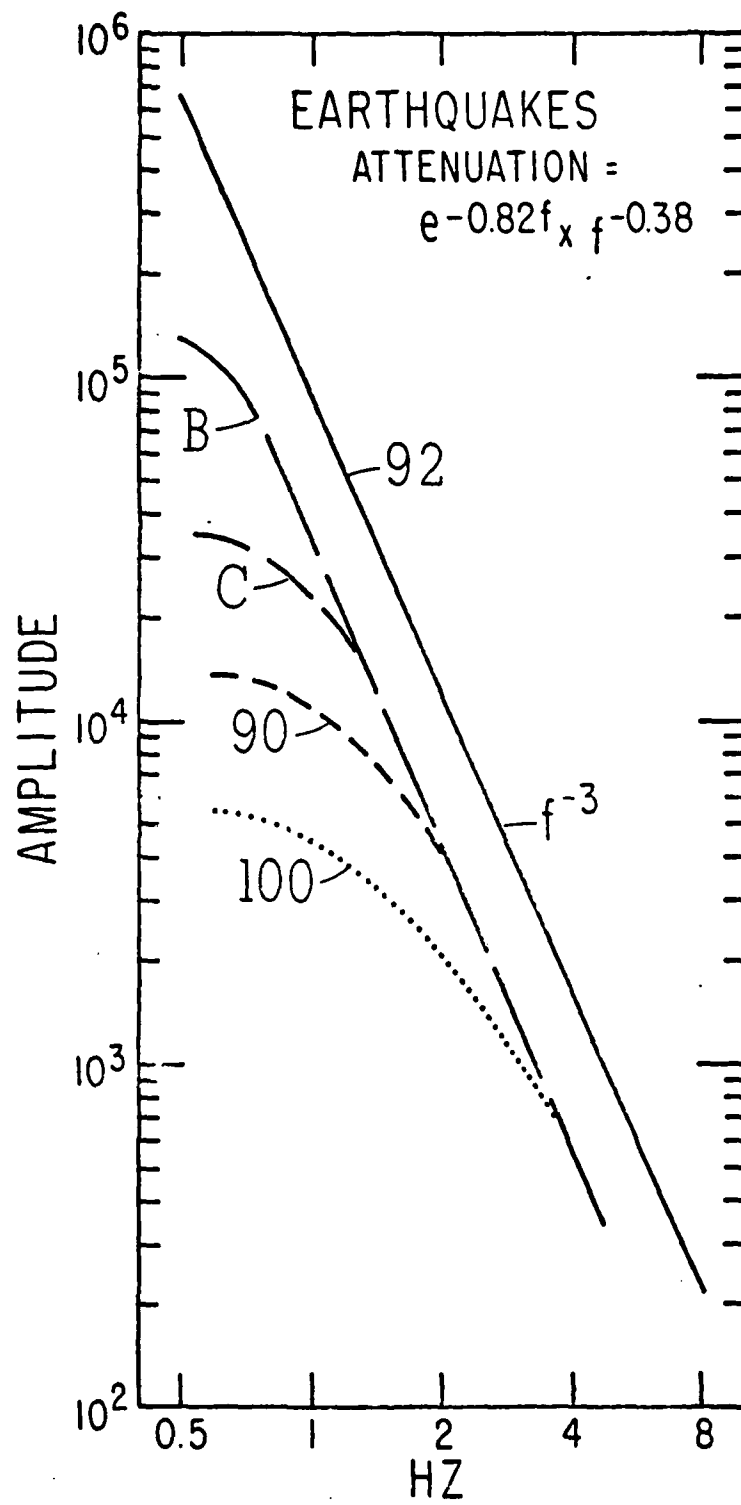


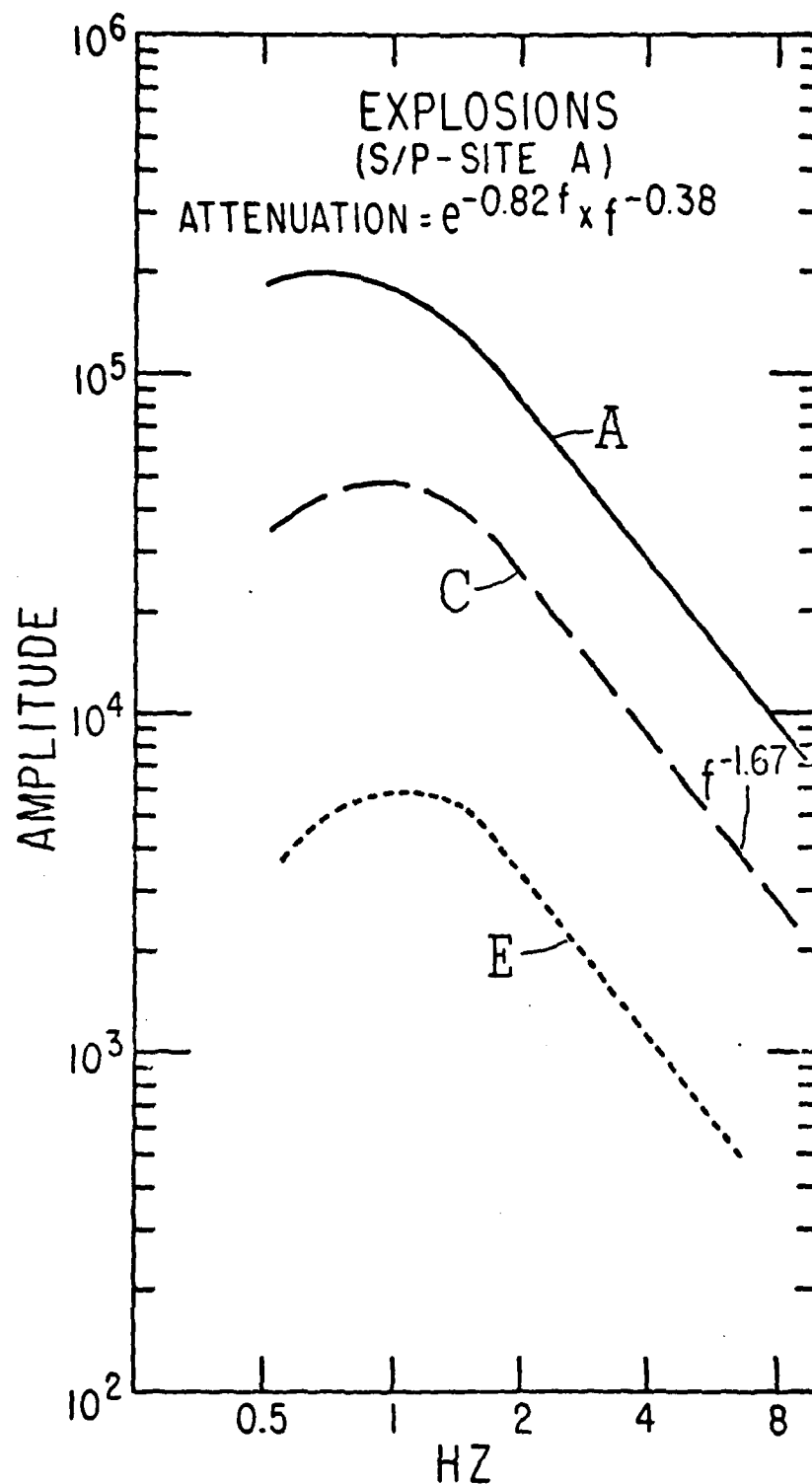
EXPLOSION
67.3° N 63.5° E



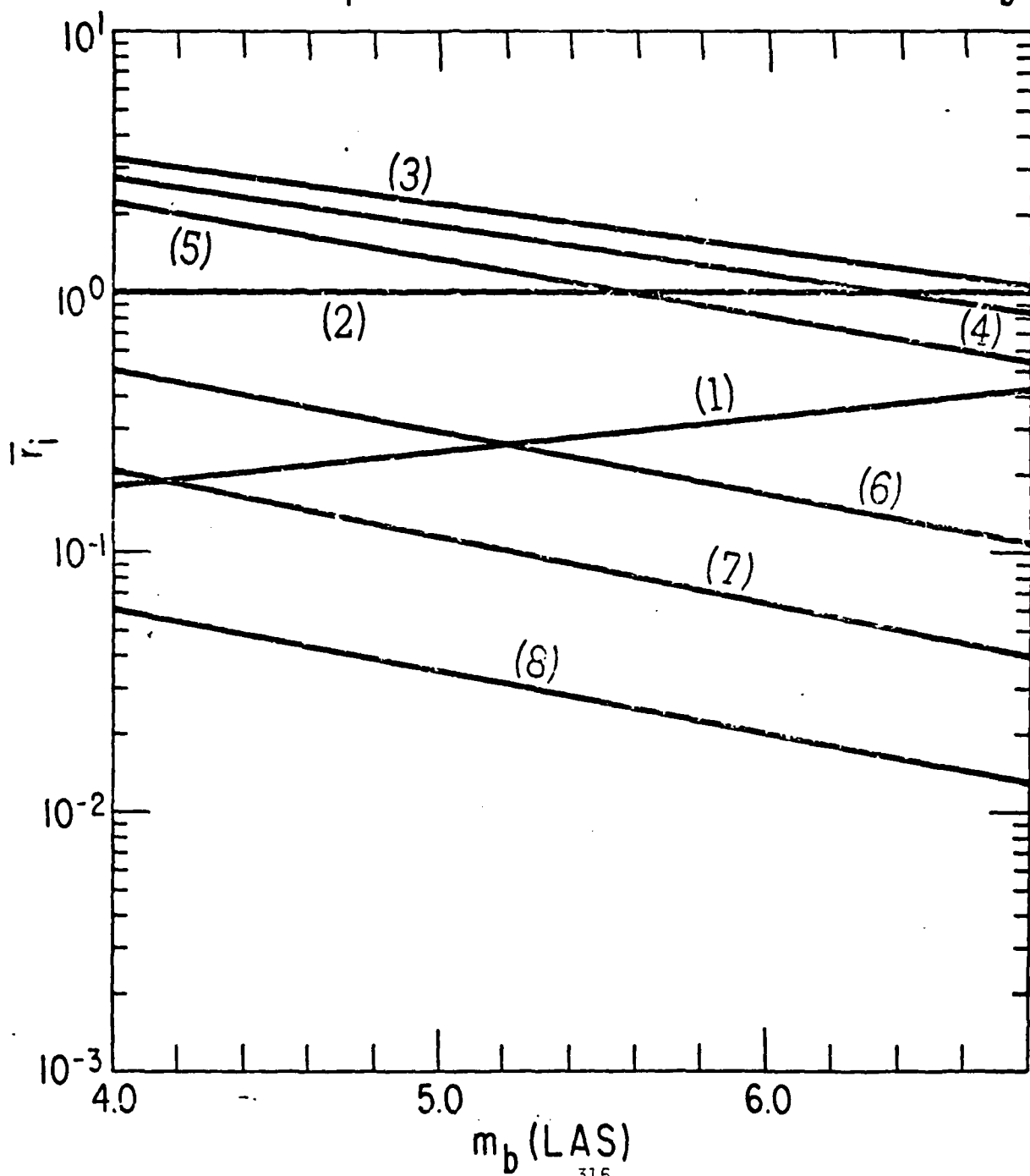








SMOOTHED $\bar{r}_i$ VALUES vs. MAGNITUDE (m_b)



Appendix C
Earthquake and Explosion Data Sets

Appendix C
Earthquake and Explosion Data Sets

During the course of this investigation a large quantity of data has been obtained. Because many of these data were acquired with no mean effort, we have compiled them onto several tapes and thus hope to provide others with a more easily accessible data base. We have attempted to format the data in a way that would allow the non-computer expert to use them with ease. There are two data sets: the data supplied by ACDA and the data obtained through Col. Ives and CDC.

ACDA data:

These data are recorded in ascii on 9 track tapes at a density of 400 bpi. Every record is 512 bytes long and eight ascii characters make up one word. None of the tapes contains any computer system dependant records. An end of file mark terminates the data on each tape. For each seismogram the first record is a header record containing the following information:

- total number of records of data to follow
- event identification number
- date - month
- date - day
- date - year
- site identification (alpha-numeric)

number of channels of data

total number of data points on seismogram

sampling rate in samples per second

time of first data point - hours

time of first data point - minutes

time of first data point - seconds.

The subsequent records contain the data. Each integer data point is recorded as 8 ascii characters and may have leading blanks and a minus sign.

These data have been divided into two sets: type A data on earthquakes and type B data, which are explosions. In the following pages the headers for all of these data are listed.

CDC data

These data are recorded in ascii on 9 track tapes at a density of 800 hoi. Each record is 1920 bytes long. For each seismogram there is a header the format of which is described in Table 1. The header does not constitute a separate record. Subsequent information is the 1200 data points which are in 8 character ascii format. Again, each data point may contain leading blanks and an optional minus sign. An end of file mark terminates the data on each tape. A listing of the headers for all of the seismograms in this data set is included as part of this report.

The user should take care to apply the appropriate sampling rates to these data. Data recorded prior to 15 April 1969 were sampled at 20 Hz and data obtained

subsequent to that data were sampled at 10 Hz.

TABLE 1

Description of CDC Data Format

Each record of 1920 bytes is subdivided into 20 segments containing 96 characters. There are five types of segments.

Type 1 - Header

Description	Format	Byte
Record number	I3	1-3
Event number	I6	4-9
Space	1x	10
Channel type	A2	11-12
Year	I3	13-15
Month	I3	16-18
Day	I3	19-21
Julian Date	I8	22-29
Latitude	F5.1	30-34
Space	1x	35
Latitude direction	A1	36
Longitude	F6.1	37-42
Space	1x	43
Longitude direction	A1	44
Seismic Region number	I3	45-47
Geographic Region number	I4	48-51
Depth	F4.0	52-55
Depth	I4	56-59
Distance in degrees	F7.1	60-66

Azimuth	FR.1	67-74
Arrival time - hour	I3	75-77
Arrival time - minute	I3	78-80
Arrival time - second	F5.1	81-85
Origin time - hour	I3	86-88
Origin time - minute	I3	89-91
Origin time - second	F5.1	92-96

Type 2 - Description Format - 6A10

Description	Byte
Event number	1-6
Channel type	8-9
Date	14-21
Julian date	25-31
Latitude	35-40
Longitude	44-50
Magnitude	54-56

Type 3 - Description

Format - 6A10

Description	Byte
Depth	1-3
Distance	7-11
Azimuth	15-20
Arrival time	24-33
Origin time	37-46
Designator	50-59

Type 4 - Description

Format - 7A10,A2

Description	Byte
Seismic region number	1-2
Seismic name	4-35
Geographic region number	37-39
Geographic name	41-72

Type 5 - Data

Format - 12I8

This segment is repeated 100 times to write 1200 data points.

Headers for ACDA Data - Earthquakes

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	R1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	R2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	R3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	R4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	C2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	C3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	C4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	D1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	D2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	D3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	18	37		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	71	6	29	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	18	37		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	R2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	R3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	13	45		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	D3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	72	6	29	75	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	13	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	R1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	R2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	R3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	R4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	C3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	D1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	12	33	45		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	D2	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	D3	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	73	6	29	75	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	12	33	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	A0	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	P1	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	P2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	P3	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	P4	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	C1	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	C2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	C3	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	C4	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	0	49	23		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	74	6	28	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	49	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	4	28		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	C4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	D1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	D2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	D3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	75	6	28	75	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	9	4	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	A0	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	R1	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	R2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	R3	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	R4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	C1	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	C2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	13	57	35		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	C3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	C4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	D1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	D2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	D3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	76	6	28	75	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	13	57	35		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	A0	1
LENGTH	SR	HOURL	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	2	75	B1	1
LENGTH	SR	HOURL	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	B2	1
LENGTH	SR	HOURL	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	B3	1
LENGTH	SR	HOURL	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	B4	1
LENGTH	SR	HOURL	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	C1	1
LENGTH	SR	HOURL	MINUTE	SEC		
2401	10	16	43	47		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	C2	1
LENGTH	SR	HOOR	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	C4	1
LENGTH	SR	HOOR	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	D1	1
LENGTH	SR	HOOR	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	77	6	28	75	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
2401	10	16	43	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	A0	1
LENGTH	SR	HOOR	MINUTE	SEC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	B1	1
LENGTH	SR	HOOR	MINUTE	SEC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	B2	1
LENGTH	SR	HOOR	MINUTE	SEC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	B3	1
LENGTH	SR	HOOR	MINUTE	SEC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	B4	1
LENGTH	SR	HOOR	MINUTE	SEC		
2999	10	18	4	12		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	C4	1
LENGTH	SR	HOUR	MINUTE	SFC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	D1	1
LENGTH	SR	HOUR	MINUTE	SFC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	78	6	28	75	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
2999	10	18	4	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	B1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	B2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	B3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	6	10	16		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	C2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	C3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	27	75	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	6	10	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	B1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	7	40	58		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	B3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	B4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	C1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	C2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	C3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	C4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	D1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	D2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	D3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	80	6	26	75	D4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	7	40	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	81	6	26	75	A0	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	81	6	26	75	R1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	8	16	23		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R1	6	26	75	R2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R1	6	26	75	R3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R1	6	26	75	R4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R1	6	26	75	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R1	6	26	75	C2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R1	6	26	75	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R1	6	26	75	C4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R1	6	26	75	D1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R1	6	26	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R1	6	26	75	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R1	6	26	75	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	8	16	23		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	R2	6	26	75	A0	1
LENGTH	SR	HOOR	MINUTE	SEC		
2401	10	9	27	44		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	B1	1
LENGTH	SR	HOUR	MINUTE	SFC		
2401	10	9	27	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
2401	10	9	27	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	B3	1
LENGTH	SR	HOUR	MINUTE	SFC		
2401	10	9	27	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	B4	1
LENGTH	SR	HOUR	MINUTE	SFC		
2401	10	9	27	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
2401	10	9	27	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
2401	10	9	27	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
2401	10	9	27	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
2401	10	9	27	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
2401	10	9	27	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	D2	1
LENGTH	SR	HOUR	MINUTE	SFC		
2401	10	9	27	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	D3	1
LENGTH	SR	HOUR	MINUTE	SFC		
2401	10	9	27	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	A2	6	26	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
2401	10	9	27	44		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	A0	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	R1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	R2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	R3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	R4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	C2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	D1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	D3	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	10	2	2		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R3	6	26	75	D4	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	10	2	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R4	6	26	75	A0	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	13	16	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R4	6	26	75	R1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	16	5		
NRE	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R4	6	26	75	R2	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	13	16	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R4	6	26	75	R3	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	13	16	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R4	6	26	75	R4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	16	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R4	6	26	75	C1	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	13	16	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R4	6	26	75	C2	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	13	16	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R4	6	26	75	C3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	16	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R4	6	26	75	C4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	16	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R4	6	26	75	D1	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	13	16	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R4	6	26	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	13	16	5		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	84	6	26	75	D3	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	13	16	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	84	6	26	75	D4	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	13	16	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	A0	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	B1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	B2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	B3	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	B4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	C1	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	C2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	C3	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	C4	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	D1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	15	7	24		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	85	6	26	75	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	15	7	24		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	86	6	26	75	A0	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	36	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	86	6	26	75	B1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	36	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	86	6	26	75	B2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	36	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	86	6	26	75	B3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	36	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	86	6	26	75	B4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	36	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	86	6	26	75	C1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	36	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	86	6	26	75	C2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	36	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	86	6	26	75	C3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	36	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	86	6	26	75	C4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	36	7		

NREC 47 LENGTH 3001	ID R6 SR 10	MONTH 6 HOUR 15	DAY 26 MINUTE 36	YEAR 75 SEC 7	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	ID R6 SR 10	MONTH 6 HOUR 15	DAY 26 MINUTE 36	YEAR 75 SEC 7	SITE D2	NCHAN 1
NREC 47 LENGTH 3001	ID R6 SR 10	MONTH 6 HOUR 15	DAY 26 MINUTE 36	YEAR 75 SEC 7	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID R6 SR 10	MONTH 6 HOUR 15	DAY 26 MINUTE 36	YEAR 75 SEC 7	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID R7 SR 10	MONTH 6 HOUR 10	DAY 25 MINUTE 39	YEAR 75 SEC 19	SITE A0	NCHAN 1
NREC 47 LENGTH 3001	ID R7 SR 10	MONTH 6 HOUR 10	DAY 25 MINUTE 39	YEAR 75 SEC 19	SITE R1	NCHAN 1
NREC 47 LENGTH 3001	ID R7 SR 10	MONTH 6 HOUR 10	DAY 25 MINUTE 39	YEAR 75 SEC 19	SITE R2	NCHAN 1
NREC 47 LENGTH 3001	ID R7 SR 10	MONTH 6 HOUR 10	DAY 25 MINUTE 39	YEAR 75 SEC 19	SITE R3	NCHAN 1
NREC 47 LENGTH 3001	ID R7 SR 10	MONTH 6 HOUR 10	DAY 25 MINUTE 39	YEAR 75 SEC 19	SITE R4	NCHAN 1
NREC 47 LENGTH 3001	ID R7 SR 10	MONTH 6 HOUR 10	DAY 25 MINUTE 39	YEAR 75 SEC 19	SITE C1	NCHAN 1
NREC 47 LENGTH 3001	ID R7 SR 10	MONTH 6 HOUR 10	DAY 25 MINUTE 39	YEAR 75 SEC 19	SITE C2	NCHAN 1
NREC 47 LENGTH 3001	ID R7 SR 10	MONTH 6 HOUR 10	DAY 25 MINUTE 39	YEAR 75 SEC 19	SITE C3	NCHAN 1

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R7	6	25	75	C4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	10	39	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R7	6	25	75	D1	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	10	39	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R7	6	25	75	D2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	10	39	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R7	6	25	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	39	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R7	6	25	75	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	39	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R8	6	25	75	A0	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	16	30	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R8	6	25	75	R1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	16	30	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R8	6	25	75	R2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	16	30	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R8	6	25	75	R3	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	16	30	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R8	6	25	75	R4	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	16	30	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R8	6	25	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	16	30	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	R8	6	25	75	C2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	16	30	25		

NREC 47 LENGTH 3001	ID R8 SR 10	MONTH 6 HOUR 16	DAY 25 MINUTE 30	YEAR 75 SEC 25	SITE C3	NCHAN 1
NREC 47 LENGTH 3001	ID R8 SP 10	MONTH 6 HOUR 16	DAY 25 MINUTE 30	YEAR 75 SEC 25	SITE C4	NCHAN 1
NREC 47 LENGTH 3001	ID R8 SR 10	MONTH 6 HOUR 16	DAY 25 MINUTE 30	YEAR 75 SEC 25	SITE D1	NCHAN 1
NREC 47 LENGTH 3001	ID R8 SR 10	MONTH 6 HOUR 16	DAY 25 MINUTE 30	YEAR 75 SEC 25	SITE D2	NCHAN 1
NREC 47 LENGTH 3001	ID R8 SR 10	MONTH 6 HOUR 16	DAY 25 MINUTE 30	YEAR 75 SEC 25	SITE D3	NCHAN 1
NREC 47 LENGTH 3001	ID R8 SR 10	MONTH 6 HOUR 16	DAY 25 MINUTE 30	YEAR 75 SEC 25	SITE D4	NCHAN 1
NREC 47 LENGTH 3001	ID R9 SR 10	MONTH 6 HOUR 19	DAY 25 MINUTE 1	YEAR 75 SEC 33	SITE A0	NCHAN 1
NREC 47 LENGTH 3001	ID R9 SR 10	MONTH 6 HOUR 19	DAY 25 MINUTE 1	YEAR 75 SEC 33	SITE B1	NCHAN 1
NREC 47 LENGTH 3001	ID R9 SR 10	MONTH 6 HOUR 19	DAY 25 MINUTE 1	YEAR 75 SEC 33	SITE R2	NCHAN 1
NREC 47 LENGTH 3001	ID R9 SR 10	MONTH 6 HOUR 19	DAY 25 MINUTE 1	YEAR 75 SEC 33	SITE R3	NCHAN 1
NREC 47 LENGTH 3001	ID R9 SR 10	MONTH 6 HOUR 19	DAY 25 MINUTE 1	YEAR 75 SEC 33	SITE R4	NCHAN 1
NREC 47 LENGTH 3001	ID R9 SR 10	MONTH 6 HOUR 19	DAY 25 MINUTE 1	YEAR 75 SEC 33	SITE C1	NCHAN 1

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	89	6	25	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	19	1	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	89	6	25	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	19	1	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	89	6	25	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	19	1	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	89	6	25	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	19	1	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	89	6	25	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	19	1	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	89	6	25	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	19	1	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	89	6	25	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	19	1	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	90	6	23	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	22	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	90	6	23	75	R1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	22	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	90	6	23	75	R2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	22	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	90	6	23	75	R3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	22	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	90	6	23	75	R4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	9	22	47		

NREC 47	ID 90	MONTH 6	DAY 23	YEAR 75	SITE C1	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 22	SEC 47		
NREC 47	ID 90	MONTH 6	DAY 23	YEAR 75	SITE C2	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 22	SEC 47		
NREC 47	ID 90	MONTH 6	DAY 23	YEAR 75	SITE C3	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 22	SEC 47		
NREC 47	ID 90	MONTH 6	DAY 23	YEAR 75	SITE C4	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 22	SEC 47		
NREC 47	ID 90	MONTH 6	DAY 23	YEAR 75	SITE D1	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 22	SEC 47		
NREC 47	ID 90	MONTH 6	DAY 23	YEAR 75	SITE D2	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 22	SEC 47		
NREC 47	ID 90	MONTH 6	DAY 23	YEAR 75	SITE D3	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 22	SEC 47		
NREC 47	ID 90	MONTH 6	DAY 23	YEAR 75	SITE D4	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 22	SEC 47		
NREC 47	ID 91	MONTH 6	DAY 22	YEAR 75	SITE A0	NCHAN 1
LENGTH 3001	SR 10	HOUR 4	MINUTE 32	SEC 58		
NREC 47	ID 91	MONTH 6	DAY 22	YEAR 75	SITE B1	NCHAN 1
LENGTH 3001	SR 10	HOUR 4	MINUTE 32	SEC 58		
NREC 47	ID 91	MONTH 6	DAY 22	YEAR 75	SITE B2	NCHAN 1
LENGTH 3001	SR 10	HOUR 4	MINUTE 32	SEC 58		
NREC 47	ID 91	MONTH 6	DAY 22	YEAR 75	SITE B3	NCHAN 1
LENGTH 3001	SR 10	HOUR 4	MINUTE 32	SEC 58		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	91	6	22	75	R4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	32	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	91	6	22	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	32	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	91	6	22	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	32	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	91	6	22	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	32	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	91	6	22	75	C4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	4	32	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	91	6	22	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	32	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	91	6	22	75	D2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	4	32	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	91	6	22	75	D3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	4	32	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	91	6	22	75	D4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	4	32	58		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	92	6	21	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	16	30	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	92	6	21	75	R1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	16	30	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	92	6	21	75	R2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	16	30	20		

NREC 47	ID 92	MONTH 6	DAY 21	YEAR 75	SITE R3	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SFC 20		
NREC 47	ID 92	MONTH 6	DAY 21	YEAR 75	SITE R4	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 20		
NREC 47	ID 92	MONTH 6	DAY 21	YEAR 75	SITE C1	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SFC 20		
NREC 47	ID 92	MONTH 6	DAY 21	YEAR 75	SITE C2	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 20		
NREC 47	ID 92	MONTH 6	DAY 21	YEAR 75	SITE C3	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SFC 20		
NREC 47	ID 92	MONTH 6	DAY 21	YEAR 75	SITE C4	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 20		
NREC 47	ID 92	MONTH 6	DAY 21	YEAR 75	SITE D1	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SFC 20		
NREC 47	ID 92	MONTH 6	DAY 21	YEAR 75	SITE D2	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 20		
NREC 47	ID 92	MONTH 6	DAY 21	YEAR 75	SITE D3	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 20		
NREC 47	ID 92	MONTH 6	DAY 21	YEAR 75	SITE D4	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 20		
NREC 47	ID 93	MONTH 6	DAY 16	YEAR 75	SITE A0	NCHAN 1
LENGTH 3001	SR 10	HOUR 4	MINUTE 26	SFC 31		
NREC 47	ID 93	MONTH 6	DAY 16	YEAR 75	SITE B1	NCHAN 1
LENGTH 3001	SR 10	HOUR 4	MINUTE 26	SFC 31		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	93	6	16	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	26	31		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	93	6	16	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	26	31		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	93	6	16	75	B4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	4	26	31		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	93	6	16	75	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	4	26	31		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	93	6	16	75	C2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	4	26	31		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	93	6	16	75	C3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	4	26	31		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	93	6	16	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	26	31		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	93	6	16	75	D1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	4	26	31		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	93	6	16	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	26	31		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	93	6	16	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	26	31		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	93	6	16	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	26	31		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	94	6	15	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	9	33		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	R1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	R2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	R4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	95	6	14	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	37	39		

NREC 47	ID 95	MONTH 6	DAY 14	YEAR 75	SITE D4	NCHAN 1
LENGTH 3001	SR 10	HOUR 5	MINUTE 37	SEC 39		
NREC 47	ID 96	MONTH 6	DAY 10	YEAR 75	SITE A0	NCHAN 1
LENGTH 3001	SR 10	HOUR 6	MINUTE 34	SFC 32		
NREC 47	ID 96	MONTH 6	DAY 10	YEAR 75	SITE B1	NCHAN 1
LENGTH 3001	SR 10	HOUR 6	MINUTE 34	SFC 32		
NREC 47	ID 96	MONTH 6	DAY 10	YEAR 75	SITE R2	NCHAN 1
LENGTH 3001	SR 10	HOUR 6	MINUTE 34	SFC 32		
NREC 47	ID 96	MONTH 6	DAY 10	YEAR 75	SITE B3	NCHAN 1
LENGTH 3001	SR 10	HOUR 6	MINUTE 34	SFC 32		
NREC 47	ID 96	MONTH 6	DAY 10	YEAR 75	SITE R4	NCHAN 1
LENGTH 3001	SR 10	HOUR 6	MINUTE 34	SFC 32		
NREC 47	ID 96	MONTH 6	DAY 10	YEAR 75	SITE C1	NCHAN 1
LENGTH 3001	SR 10	HOUR 6	MINUTE 34	SEC 32		
NREC 47	ID 96	MONTH 6	DAY 10	YEAR 75	SITE C2	NCHAN 1
LENGTH 3001	SR 10	HOUR 6	MINUTE 34	SFC 32		
NREC 47	ID 96	MONTH 6	DAY 10	YEAR 75	SITE C3	NCHAN 1
LENGTH 3001	SR 10	HOUR 6	MINUTE 34	SFC 32		
NREC 47	ID 96	MONTH 6	DAY 10	YEAR 75	SITE C4	NCHAN 1
LENGTH 3001	SR 10	HOUR 6	MINUTE 34	SEC 32		
NREC 47	ID 96	MONTH 6	DAY 10	YEAR 75	SITE D1	NCHAN 1
LENGTH 3001	SR 10	HOUR 6	MINUTE 34	SEC 32		
NREC 47	ID 96	MONTH 6	DAY 10	YEAR 75	SITE D2	NCHAN 1
LENGTH 3001	SR 10	HOUR 6	MINUTE 34	SEC 32		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	96	6	10	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	34	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	96	6	10	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	34	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	B1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	B2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	C2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	C4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	D1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	8	53	17		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	D2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	D3	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	79	6	10	75	D4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	8	53	17		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	A0	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	B1	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	B2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	B3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	B4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	C1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	C2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	C3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	C4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	51	22		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	D1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	D2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	98	6	9	75	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	1	51	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	99	6	9	75	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	20	29	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	99	6	9	75	B1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	20	29	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	99	6	9	75	B2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	20	29	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	99	6	9	75	R3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	29	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	99	6	9	75	R4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	20	29	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	99	6	9	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	29	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	99	6	9	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	29	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	99	6	9	75	C3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	20	29	43		

NREC 47	ID 99	MONTH 6	DAY 9	YEAR 75	SITE C4	NCHAN 1
LENGTH 3001	SP 10	HOUR 20	MINUTE 29	SEC 43		
NREC 47	ID 99	MONTH 6	DAY 9	YEAR 75	SITE D1	NCHAN 1
LENGTH 3001	SP 10	HOUR 20	MINUTE 29	SFC 43		
NREC 47	ID 99	MONTH 6	DAY 9	YEAR 75	SITE D2	NCHAN 1
LENGTH 3001	SP 10	HOUR 20	MINUTE 29	SEC 43		
NREC 47	ID 99	MONTH 6	DAY 9	YEAR 75	SITE D3	NCHAN 1
LENGTH 3001	SP 10	HOUR 20	MINUTE 29	SEC 43		
NREC 47	ID 99	MONTH 6	DAY 9	YEAR 75	SITE D4	NCHAN 1
LENGTH 3001	SP 10	HOUR 20	MINUTE 29	SEC 43		
NREC 47	ID 100	MONTH 6	DAY 9	YEAR 75	SITE A0	NCHAN 1
LENGTH 3001	SP 10	HOUR 22	MINUTE 13	SEC 8		
NREC 47	ID 100	MONTH 6	DAY 9	YEAR 75	SITE B1	NCHAN 1
LENGTH 3001	SP 10	HOUR 22	MINUTE 13	SEC 8		
NREC 47	ID 100	MONTH 6	DAY 9	YEAR 75	SITE B2	NCHAN 1
LENGTH 3001	SP 10	HOUR 22	MINUTE 13	SEC 8		
NREC 47	ID 100	MONTH 6	DAY 9	YEAR 75	SITE B3	NCHAN 1
LENGTH 3001	SP 10	HOUR 22	MINUTE 13	SFC 8		
NREC 47	ID 100	MONTH 6	DAY 9	YEAR 75	SITE B4	NCHAN 1
LENGTH 3001	SP 10	HOUR 22	MINUTE 13	SFC 8		
NREC 47	ID 100	MONTH 6	DAY 9	YEAR 75	SITE C1	NCHAN 1
LENGTH 3001	SP 10	HOUR 22	MINUTE 13	SEC 8		
NREC 47	ID 100	MONTH 6	DAY 9	YEAR 75	SITE C2	NCHAN 1
LENGTH 3001	SP 10	HOUR 22	MINUTE 13	SFC 8		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	100	6	9	75	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	22	13	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	100	6	9	75	C4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	22	13	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	100	6	9	75	D1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	22	13	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	100	6	9	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	22	13	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	100	6	9	75	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	22	13	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	100	6	9	75	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	22	13	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	A0	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	R1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	R2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	R3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	R4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	10	34		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	C2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	C3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	C4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	D1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	D2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	D3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	101	6	8	75	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	5	10	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	A0	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	R1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	R2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	B3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	R4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	18	44	55		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	C4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	D2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	D3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	102	6	8	75	D4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	18	44	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	6	9	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	R1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	6	9	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	R2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	6	9	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	R3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	9	50		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	B4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	6	9	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	6	9	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	C2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	6	9	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	C3	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	6	9	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	C4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	6	9	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	D1	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	6	9	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	D3	1
LENGTH-	SR	HOOR	MINUTE	SEC		
3001	10	6	9	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	103	6	7	75	D4	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	6	9	50		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	A0	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	B1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	B2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	B3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	17	39	26		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	R4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	104	6	7	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	39	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	R1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	105	6	7	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	47	28		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	P1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	1	40		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	B3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	11	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	11	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	D2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	11	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	D3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	11	1	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	106	6	6	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	11	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	36	6		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	B3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	D3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	36	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	107	6	4	75	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	36	6		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	A0	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	B1	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	B2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	B3	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	B4	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	C1	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	C2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	C3	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	C4	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	D1	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	D2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	D3	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	6	6		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	108	6	4	75	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	6	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	A0	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	B1	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	B2	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	B3	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	B4	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	C1	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	C2	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	C3	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	C4	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	D1	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	D2	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	7	43		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	03	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	109	6	4	75	D4	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	3	7	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	A0	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	R1	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	R2	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	R3	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	R4	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	C1	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	C2	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	C3	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	C4	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	01	1
LENGTH	SP	HOURL	MINUTE	SFC		
3001	10	3	35	39		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	110	6	3	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	35	39		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	111	6	2	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	29	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	R1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	R3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	R4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	26	47		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	D2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	112	5	31	75	D4	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	14	26	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	B1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	B3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	C1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	58	33		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	C4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	D1	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	113	5	30	75	D4	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	0	58	33		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	A0	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	R1	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	B2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	P3	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	B4	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	C1	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	22	21	43		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	C2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	C3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	C4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	D1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	D2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	D3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	114	5	26	75	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	21	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	A0	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	B1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	B2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	B3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	B4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	14	15	36		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	115	5	21	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	14	15	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	1	13	4		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	C1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	C2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	C4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	D2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	D3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	116	5	20	75	D4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	1	13	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	R1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	R2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	36	47		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	R3	1
LENGTH	SP	HOURL	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	R4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	C1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	C2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	C3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	C4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	D1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	D2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	D3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	117	5	19	75	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	36	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	118	5	18	75	A0	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	6	7	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	118	5	18	75	R1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	6	7	45		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	118	5	18	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	7	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	118	5	18	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	7	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	118	5	18	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	7	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	118	5	18	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	7	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	118	5	18	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	7	45		
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47	118	5	18	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
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NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	118	5	18	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
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47	118	5	18	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	7	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	118	5	18	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	7	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	118	5	18	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	7	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	118	5	18	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	6	7	45		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	119	5	17	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	19	51		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	119	5	17	75	R1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	19	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	119	5	17	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	19	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	119	5	17	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	19	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	119	5	17	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	19	51		
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47	119	5	17	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
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47	119	5	17	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
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47	119	5	17	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
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NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	119	5	17	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
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47	119	5	17	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
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47	119	5	17	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
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47	119	5	17	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	19	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	119	5	17	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	19	51		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	A0	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	36	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	B1	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	1	36	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	B2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	36	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	B3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	36	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	B4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	36	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	36	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	C2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	36	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	36	26		
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47	120	5	16	75	C4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	36	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	D1	1
LENGTH	SR	HOOR	MINUTE	SEC		
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NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	1	36	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	D3	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	1	36	26		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	120	5	16	75	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	1	36	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	A0	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	B1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	B2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	B3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	B4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	C1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	C2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	C3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	C4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	D1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	D2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	22	34	27		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	D3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	121	5	14	75	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	22	34	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
51	122	5	13	75	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3201	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	B2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	B3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	B4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	C2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	C3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	122	5	13	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
51	122	5	13	75	D1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3201	10	0	33	20		

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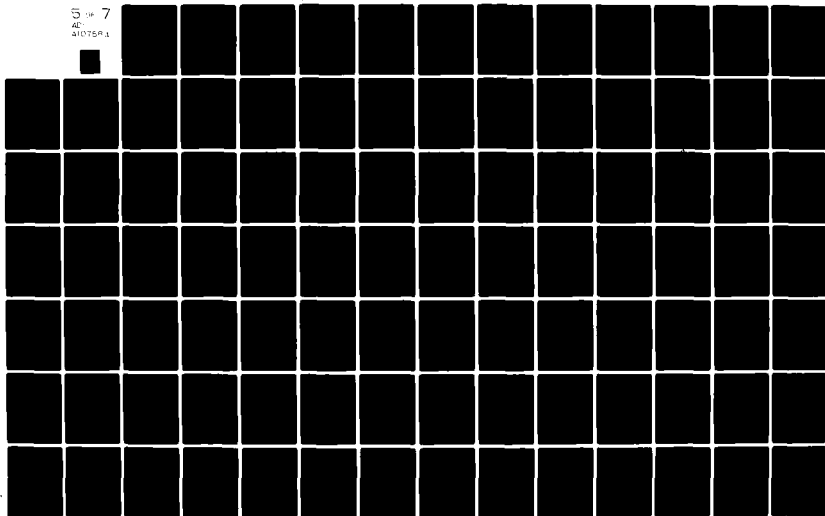
NAVAL POSTGRADUATE SCHOOL MONTEREY CA
APPLICATION OF ACOUSTIC SIGNAL PROCESSING TECHNIQUES TO SEISMIC--ETC(U)
JUN 77 C E IRVINE
NPS-52IR77061

F/G 17/10

UNCLASSIFIED

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NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
51	122	5	13	75	D2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3201	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
51	122	5	13	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3201	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
51	122	5	13	75	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3201	10	0	33	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	12	30	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	36	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	36	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	36	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	B4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	12	36	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
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NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	36	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
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NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	36	8		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	D1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	12	36	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	36	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	36	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	123	5	13	75	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	36	8		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	A0	1
LENGTH	SR	HOOR	MINUTE	SEC		
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NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	R1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	1	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	R2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	12	1	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	B3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	1	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	R4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	1	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	1	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	C2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	1	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	1	36		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	1	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	1	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	1	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	1	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	124	5	12	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	1	36		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	30	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	30	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	30	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	30	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	30	10		
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47	125	5	11	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	30	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	30	10		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	30	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	C4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	30	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	D1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	30	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	30	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	30	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	125	5	11	75	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	30	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	A0	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	23	22	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	R1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	23	22	21		
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47	126	5	11	75	R2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	23	22	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	R3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	23	22	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	R4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	23	22	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	23	22	21		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	22	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	22	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	22	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	22	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	22	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	22	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	126	5	11	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	22	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	R1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	R4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	C2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	C4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	127	5	7	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	17	54	56		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	R1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	R2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	R3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	5	30	26		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	B4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	C4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	D1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	128	5	5	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	30	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	R1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	24	32		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	B3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	R4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	C2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	C3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	C4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	D1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	D2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	129	5	3	75	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	24	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	A0	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	B1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	39	47		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	R2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	R3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	R4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	C1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	C2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	C3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	C4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	D1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	D2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	D3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	131	4	30	75	D4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	39	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	A0	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	4	53	43		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	B1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	B2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	B3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	B4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	C2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	C4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	D1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	132	4	30	75	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	4	53	43		

NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE A0	NCHAN 1
LENGTH 3001	SR 10	HOUR 3	MINUTE 19	SEC 32		
NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE B1	NCHAN 1
LENGTH 3001	SP 10	HOUR 3	MINUTE 19	SEC 32		
NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE B2	NCHAN 1
LENGTH 3001	SP 10	HOUR 3	MINUTE 19	SEC 32		
NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE B3	NCHAN 1
LENGTH 3001	SR 10	HOUR 3	MINUTE 19	SEC 32		
NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE B4	NCHAN 1
LENGTH 3001	SP 10	HOUR 3	MINUTE 19	SEC 32		
NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE C1	NCHAN 1
LENGTH 3001	SR 10	HOUR 3	MINUTE 19	SEC 32		
NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE C2	NCHAN 1
LENGTH 3001	SP 10	HOUR 3	MINUTE 19	SEC 32		
NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE C3	NCHAN 1
LENGTH 3001	SP 10	HOUR 3	MINUTE 19	SEC 32		
NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE C4	NCHAN 1
LENGTH 3001	SP 10	HOUR 3	MINUTE 19	SEC 32		
NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE D1	NCHAN 1
LENGTH 3001	SP 10	HOUR 3	MINUTE 19	SEC 32		
NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE D2	NCHAN 1
LENGTH 3001	SP 10	HOUR 3	MINUTE 19	SEC 32		
NREC 47	ID 133	MONTH 4	DAY 29	YEAR 75	SITE D3	NCHAN 1
LENGTH 3001	SP 10	HOUR 3	MINUTE 19	SEC 32		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	133	4	29	75	D4	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	3	19	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	A0	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	P1	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	B2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	B3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	P4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	C1	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	C2	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	C4	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	D1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	15	47	47		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	D3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	134	4	29	75	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	15	47	47		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	A0	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	R1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	R2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	R3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	R4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	C2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	C4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	D1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	2	12	53		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	135	4	28	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	12	53		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	11	18	16		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	D1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	D2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	D3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	136	4	28	75	D4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	11	18	16		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	A0	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	B1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	B2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	B3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	B4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	C2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	C3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	12	10	7		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	137	4	28	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	12	10	7		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	R3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	R4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	138	4	27	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	21	45	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	R1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	R2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	R3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	R4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3601	10	1	1	54		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	C2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	C3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	C4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
57	139	4	25	75	D4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3601	10	1	1	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	B1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	B2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	B3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	B4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	23	8	44		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	C3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	D2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	D3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	140	4	24	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	8	44		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	141	4	23	75	A0	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	23	59	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	141	4	23	75	B1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	23	59	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	141	4	23	75	B2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	23	59	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	141	4	23	75	B3	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	23	59	2		

NREC 47	ID 141	MONTH 4	DAY 23	YEAR 75	SITE R4	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 59	SEC 2		
NREC 47	ID 141	MONTH 4	DAY 23	YEAR 75	SITE C1	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 59	SEC 2		
NREC 47	ID 141	MONTH 4	DAY 23	YEAR 75	SITE C2	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 59	SFC 2		
NREC 47	ID 141	MONTH 4	DAY 23	YEAR 75	SITE C3	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 59	SEC 2		
NREC 47	ID 141	MONTH 4	DAY 23	YEAR 75	SITE C4	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 59	SFC 2		
NREC 47	ID 141	MONTH 4	DAY 23	YEAR 75	SITE D1	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 59	SFC 2		
NREC 47	ID 141	MONTH 4	DAY 23	YEAR 75	SITE D2	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 59	SEC 2		
NREC 47	ID 141	MONTH 4	DAY 23	YEAR 75	SITE D3	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 59	SFC 2		
NREC 47	ID 141	MONTH 4	DAY 23	YEAR 75	SITE D4	NCHAN 1
LENGTH 3001	SR 10	HOUR 23	MINUTE 59	SEC 2		
NREC 47	ID 142	MONTH 4	DAY 23	YEAR 75	SITE A0	NCHAN 1
LENGTH 3001	SR 10	HOUR 0	MINUTE 26	SEC 54		
NREC 47	ID 142	MONTH 4	DAY 23	YEAR 75	SITE R1	NCHAN 1
LENGTH 3001	SR 10	HOUR 0	MINUTE 26	SFC 54		
NREC 47	ID 142	MONTH 4	DAY 23	YEAR 75	SITE B2	NCHAN 1
LENGTH 3001	SR 10	HOUR 0	MINUTE 26	SFC 54		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	142	4	23	75	R3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	26	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	142	4	23	75	R4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	26	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	142	4	23	75	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	26	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	142	4	23	75	C2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	26	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	142	4	23	75	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	26	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	142	4	23	75	C4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	26	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	142	4	23	75	D1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	26	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	142	4	23	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	26	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	142	4	23	75	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	26	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	142	4	23	75	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	26	54		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	A0	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	R1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	5	23	2		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	B2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	B4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	C1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	C2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	C3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	C4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	D1	1
LENGTH	SP	HOUR	MINUTE	SFC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	143	4	23	75	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	5	23	2		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	A0	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	20	31	38		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	R1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	20	31	38		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	R2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	20	31	38		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	R3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	20	31	38		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	R4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	20	31	38		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	C1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	20	31	38		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	C2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	20	31	38		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	C3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	20	31	38		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	C4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	20	31	38		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	D1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	20	31	38		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	D2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	20	31	38		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	D3	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	20	31	38		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	144	4	21	75	D4	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	20	31	38		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	R2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	B3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	C4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	D2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	22	46	55		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	146	4	15	75	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	22	46	55		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	A0	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	B1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	B2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	B3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	B4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	C1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	C2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	C3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	C4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	D1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	13	10	12		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	147	4	14	75	D4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	13	10	12		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	148	4	13	75	A0	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	14	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	148	4	13	75	R1	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	15	14	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	148	4	13	75	R2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	15	14	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	148	4	13	75	R3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	14	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	148	4	13	75	R4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	14	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	148	4	13	75	C1	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	15	14	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	148	4	13	75	C2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	15	14	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	148	4	13	75	C3	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	15	14	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	148	4	13	75	C4	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	15	14	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	148	4	13	75	D1	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	15	14	10		

NREC 47	ID 148	MONTH 4	DAY 13	YEAR 75	SITE D2	NCHAN 1
LENGTH 3001	SR 10	HOUR 15	MINUTE 14	SEC 10		
NREC 47	ID 148	MONTH 4	DAY 13	YEAR 75	SITE D3	NCHAN 1
LENGTH 3001	SR 10	HOUR 15	MINUTE 14	SEC 10		
NREC 47	ID 148	MONTH 4	DAY 13	YEAR 75	SITE D4	NCHAN 1
LENGTH 3001	SR 10	HOUR 15	MINUTE 14	SEC 10		
NREC 47	ID 149	MONTH 4	DAY 13	YEAR 75	SITE A0	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 21		
NREC 47	ID 149	MONTH 4	DAY 13	YEAR 75	SITE B1	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 21		
NREC 47	ID 149	MONTH 4	DAY 13	YEAR 75	SITE B2	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 21		
NREC 47	ID 149	MONTH 4	DAY 13	YEAR 75	SITE B3	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 21		
NREC 47	ID 149	MONTH 4	DAY 13	YEAR 75	SITE B4	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 21		
NREC 47	ID 149	MONTH 4	DAY 13	YEAR 75	SITE C1	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 21		
NREC 47	ID 149	MONTH 4	DAY 13	YEAR 75	SITE C2	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 21		
NREC 47	ID 149	MONTH 4	DAY 13	YEAR 75	SITE C3	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 21		
NREC 47	ID 149	MONTH 4	DAY 13	YEAR 75	SITE C4	NCHAN 1
LENGTH 3001	SR 10	HOUR 16	MINUTE 30	SEC 21		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	149	4	13	75	D1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	16	30	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	149	4	13	75	D2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	16	30	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	149	4	13	75	D3	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	15	30	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	149	4	13	75	D4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	16	30	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	A0	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	R1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	R2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	R3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	R4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	C1	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	C2	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	C3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	0	1	10		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	D3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	150	4	12	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	0	1	10		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	B2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	B4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	6	0		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	151	4	9	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	20	6	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
0	151	4	9	75	+	-7936
LENGTH	SR	HOUR	MINUTE	SEC		
0	1	0	0	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
1801	10	1	58	43		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	C1	1
LENGTH	SP	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	C2	1
LENGTH	SP	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	C3	1
LENGTH	SP	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	C4	1
LENGTH	SP	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	D1	1
LENGTH	SP	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	D2	1
LENGTH	SP	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	D3	1
LENGTH	SP	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
29	152	4	8	75	D4	1
LENGTH	SP	HOUR	MINUTE	SEC		
1801	10	1	58	43		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	A0	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	2	58	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	R1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	2	58	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	R2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	2	58	6		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	R3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	2	58	6		

NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	R4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	58	6		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	58	6		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	58	6		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	58	6		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	58	6		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	58	6		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	58	6		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	153	4	8	75	D3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	58	6		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	26	4		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	B1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	23	26	4		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	23	26	4		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	B3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	23	26	4		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	B4	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	23	26	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	C1	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	23	26	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	C2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	23	26	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	C3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	23	26	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	C4	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	23	26	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	D1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	23	26	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	D2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	23	26	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	D3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	23	26	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	154	4	8	75	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	23	26	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	A0	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	18	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	B1	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	3	18	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	B2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	3	18	25		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	18	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	18	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	18	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	18	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	18	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	18	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	18	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	18	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	18	25		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	155	4	10	75	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	3	18	25		

Headers for ACDA Data - Explosions

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	E1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	F2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	F3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	F4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	F1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	F2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	F3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	37	3	23	71	F4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	9	22		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	17	8	49		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	B4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	C3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	D1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	D2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	D3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	E1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	E2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	17	8	49		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	E3	1
LENGTH	SR	HOURL	MINUTE	SFC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	F4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	F1	1
LENGTH	SR	HOURL	MINUTE	SFC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	F2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	F3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	38	7	2	71	F4	1
LENGTH	SR	HOURL	MINUTE	SFC		
3004	10	17	8	49		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	A0	1
LENGTH	SR	HOURL	MINUTE	SFC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	R1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	B2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	R3	1
LENGTH	SP	HOURL	MINUTE	SFC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	R4	1
LENGTH	SR	HOURL	MINUTE	SFC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	C1	1
LENGTH	SR	HOURL	MINUTE	SFC		
3005	10	17	9	5		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	E1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	E2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	E3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	F4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	F1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	F2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	F3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	39	7	10	71	F4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	17	9	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	B2	1
LENGTH	S	HOUR	MINUTE	SEC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	B3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	B4	1
LENGTH	SP	HOUR	MINUTE	SFC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	C1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	C2	1
LENGTH	SP	HOUR	MINUTE	SFC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	C3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	C4	1
LENGTH	SP	HOUR	MINUTE	SFC		
3002	10	11	9	32		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	D2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	E1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	F2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	F3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	E4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	F1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	F2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	F3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3002	10	11	9	32		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	40	9	19	71	F4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3002	10	11	9	32		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		

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NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	E1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	E2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	E3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	E4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	F1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	F2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	F3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	41	10	4	71	F4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	10	9	15		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	E1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	42	10	22	71	E2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3002	10	5	10	40		

NREC 47	ID 42	MONTH 10	DAY 22	YEAR 71	SITE E3	NCHAN 1
LENGTH 3002	SR 10	HOUR 5	MINUTE 10	SEC 40		
NREC 47	ID 42	MONTH 10	DAY 22	YEAR 71	SITE E4	NCHAN 1
LENGTH 3002	SR 10	HOUR 5	MINUTE 10	SEC 40		
NREC 47	ID 42	MONTH 10	DAY 22	YEAR 71	SITE F1	NCHAN 1
LENGTH 3002	SR 10	HOUR 5	MINUTE 10	SFC 40		
NREC 47	ID 42	MONTH 10	DAY 22	YEAR 71	SITE F2	NCHAN 1
LENGTH 3002	SR 10	HOUR 5	MINUTE 10	SEC 40		
NREC 47	ID 42	MONTH 10	DAY 22	YEAR 71	SITE F3	NCHAN 1
LENGTH 3002	SR 10	HOUR 5	MINUTE 10	SFC 40		
NREC 47	ID 42	MONTH 10	DAY 22	YEAR 71	SITE F4	NCHAN 1
LENGTH 3002	SR 10	HOUR 5	MINUTE 10	SEC 40		
NREC 47	ID 43	MONTH 12	DAY 22	YEAR 71	SITE A0	NCHAN 1
LENGTH 3004	SR 10	HOUR 7	MINUTE 10	SFC 27		
NREC 47	ID 43	MONTH 12	DAY 22	YEAR 71	SITE B1	NCHAN 1
LENGTH 3004	SR 10	HOUR 7	MINUTE 10	SEC 27		
NREC 47	ID 43	MONTH 12	DAY 22	YEAR 71	SITE B2	NCHAN 1
LENGTH 3004	SR 10	HOUR 7	MINUTE 10	SFC 27		
NREC 47	ID 43	MONTH 12	DAY 22	YEAR 71	SITE B3	NCHAN 1
LENGTH 3004	SR 10	HOUR 7	MINUTE 10	SFC 27		
NREC 47	ID 43	MONTH 12	DAY 22	YEAR 71	SITE B4	NCHAN 1
LENGTH 3004	SR 10	HOUR 7	MINUTE 10	SEC 27		
NREC 47	ID 43	MONTH 12	DAY 22	YEAR 71	SITE C1	NCHAN 1
LENGTH 3004	SR 10	HOUR 7	MINUTE 10	SEC 27		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	E1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	E2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	E3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	E4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	F1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	7	10	27		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	F2	1
LENGTH	SR	HOOR	MINUTE	SFC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	F3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	43	12	22	71	F4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3004	10	7	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	A0	1
LENGTH	SR	HOOR	MINUTE	SFC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	B1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	B2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	B3	1
LENGTH	SP	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	B4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	C1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	C2	1
LENGTH	SP	HOOR	MINUTE	SFC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	C3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	C4	1
LENGTH	SP	HOOR	MINUTE	SEC		
3002	10	6	12	30		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	D1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	D2	1
LENGTH	SR	HOOR	MTNUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	D3	1
LENGTH	SR	HOOR	MTNUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	D4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	E1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	E2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	E3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	E4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	F1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	F2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	F3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	45	4	11	72	F4	1
LENGTH	SR	HOOR	MINUTE	SEC		
3002	10	6	12	30		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	E1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	E2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	F3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	F4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	F1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	F2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	F3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	46	7	9	72	F4	1
LENGTH	SP	HOUR	MINUTE	SFC		
3005	10	7	10	3		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	20		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	R3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	R4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	C2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	C3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	C4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	E1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	F2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	20		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	E3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	F4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	F1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	F2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	F3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	47	8	20	72	F4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	20		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	B1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	B3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	B4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3003	10	7	8	26		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	C2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	C4	1
LENGTH	SP	HOUR	MINUTE	SFC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	D2	1
LENGTH	SP	HOUR	MINUTE	SEC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	D3	1
LENGTH	SP	HOUR	MINUTE	SFC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	D4	1
LENGTH	SP	HOUR	MINUTE	SEC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	F1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	F2	1
LENGTH	SP	HOUR	MINUTE	SFC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	E3	1
LENGTH	SP	HOUR	MINUTE	SFC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	E4	1
LENGTH	SP	HOUR	MINUTE	SFC		
3003	10	7	8	26		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	48	9	4	72	F1	1
LENGTH	SP	HOUR	MINUTE	SFC		
3003	10	7	8	26		

NREC 47	ID 48	MONTH 9	DAY 4	YEAR 72	SITE F2	NCHAN 1
LENGTH 3003	SR 10	HOUR 7	MINUTE 8	SEC 26		
NREC 47	ID 48	MONTH 9	DAY 4	YEAR 72	SITE F3	NCHAN 1
LENGTH 3003	SR 10	HOUR 7	MINUTE 8	SFC 26		
NREC 47	ID 48	MONTH 9	DAY 4	YEAR 72	SITE F4	NCHAN 1
LENGTH 3003	SR 10	HOUR 7	MINUTE 8	SEC 26		
NREC 47	ID 49	MONTH 9	DAY 21	YEAR 72	SITE A0	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 10	SEC 9		
NREC 47	ID 49	MONTH 9	DAY 21	YEAR 72	SITE B1	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 10	SFC 9		
NREC 47	ID 49	MONTH 9	DAY 21	YEAR 72	SITE B2	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 10	SEC 9		
NREC 47	ID 49	MONTH 9	DAY 21	YEAR 72	SITE B3	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 10	SFC 9		
NREC 47	ID 49	MONTH 9	DAY 21	YEAR 72	SITE B4	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 10	SEC 9		
NREC 47	ID 49	MONTH 9	DAY 21	YEAR 72	SITE C1	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 10	SEC 9		
NREC 47	ID 49	MONTH 9	DAY 21	YEAR 72	SITE C2	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 10	SEC 9		
NREC 47	ID 49	MONTH 9	DAY 21	YEAR 72	SITE C3	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 10	SFC 9		
NREC 47	ID 49	MONTH 9	DAY 21	YEAR 72	SITE C4	NCHAN 1
LENGTH 3001	SR 10	HOUR 9	MINUTE 10	SEC 9		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	D1	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	9	10	9		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	D2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	9	10	9		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	D3	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	9	10	9		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	D4	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	9	10	9		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	F1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	9	10	9		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	F2	1
LENGTH	SP	HOOR	MINUTE	SFC		
3001	10	9	10	9		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	F3	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	9	10	9		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	F4	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	9	10	9		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	F1	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	9	10	9		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	F2	1
LENGTH	SR	HOOR	MINUTE	SEC		
3001	10	9	10	9		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	F3	1
LENGTH	SR	HOOR	MINUTE	SFC		
3001	10	9	10	9		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	49	9	21	72	F4	1
LENGTH	SP	HOOR	MINUTE	SEC		
3001	10	9	10	9		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	B4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	C2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	C4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	D3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	9	10	29		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	E1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	E2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	E3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	E4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	F1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	F2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	F3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	50	10	3	72	F4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	9	10	29		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	B1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	B2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	10	19		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	C1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	D1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	F1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	F2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	F3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	F4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	F1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	F2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	F3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	51	11	24	72	F4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	10	10	19		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	R1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	R2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	R4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	2	11	5		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	C2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	C3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	C4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	C1	1
LENGTH	SR	HOURL	MINUTE	SFC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	D2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	D3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	53	8	15	73	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	2	11	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	A0	1
LENGTH	SR	HOURL	MINUTE	SEC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	B1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	B2	1
LENGTH	SR	HOURL	MINUTE	SFC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	B3	1
LENGTH	SR	HOURL	MINUTE	SFC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	B4	1
LENGTH	SR	HOURL	MINUTE	SFC		
3004	10	3	10	27		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	C1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	C2	1
LENGTH	SP	HOURL	MINUTE	SEC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	C3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	C4	1
LENGTH	SP	HOURL	MINUTE	SEC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	D1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	D2	1
LENGTH	SP	HOURL	MINUTE	SEC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	D3	1
LENGTH	SP	HOURL	MINUTE	SEC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	54	8	28	73	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3004	10	3	10	27		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	A0	1
LENGTH	SP	HOURL	MINUTE	SEC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	B1	1
LENGTH	SR	HOURL	MINUTE	SEC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	R2	1
LENGTH	SR	HOURL	MINUTE	SEC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	R3	1
LENGTH	SR	HOURL	MINUTE	SEC		
3004	10	3	10	51		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	B4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	C4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	D1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	D3	1
LENGTH	SP	HOUR	MINUTE	SEC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	55	9	19	73	D4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	3	10	51		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	B1	1
LENGTH	SP	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	B2	1
LENGTH	SR	HOUR	MINUTE	SFC		
3005	10	7	8	21		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	56	9	27	73	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3005	10	7	8	21		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	6	10	4		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	B3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	C4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	57	10	26	73	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	6	10	4		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	62	1	30	74	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	5	7	34		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	R2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	C4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	D3	1
LENGTH	SR	HOUR	MINUTE	SFC		
3001	10	4	7	30		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	63	1	25	74	D4	1
LENGTH	SR	HOURL	MINUTE	SEC		
3001	10	4	7	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	A0	1
LENGTH	SR	HOURL	MINUTE	SFC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	B1	1
LENGTH	SR	HOURL	MINUTE	SEC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	B2	1
LENGTH	SR	HOURL	MINUTE	SEC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	B3	1
LENGTH	SR	HOURL	MINUTE	SEC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	B4	1
LENGTH	SR	HOURL	MINUTE	SFC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	C1	1
LENGTH	SR	HOURL	MINUTE	SEC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	C2	1
LENGTH	SR	HOURL	MINUTE	SEC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	C3	1
LENGTH	SR	HOURL	MINUTE	SFC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	C4	1
LENGTH	SR	HOURL	MINUTE	SEC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	D1	1
LENGTH	SR	HOURL	MINUTE	SFC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	D2	1
LENGTH	SR	HOURL	MINUTE	SFC		
2242	10	6	10	5		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
36	64	7	8	74	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
2242	10	6	10	5		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	A0	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	1	8	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	B1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	1	8	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	1	8	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	1	8	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	B4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	1	8	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	1	8	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	1	8	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	1	8	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	C4	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	1	8	30		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	D1	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	1	8	30		

NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	02	1
LENGTH	SR	HOUR	MINUTE	SFC		
3004	10	1	8	30		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	03	1
LENGTH	SP	HOUR	MINUTE	SEC		
3004	10	1	8	30		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	65	10	2	74	04	1
LENGTH	SR	HOUR	MINUTE	SEC		
3004	10	1	8	30		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
2382	10	7	12	0		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
2382	10	7	12	0		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
2382	10	7	12	0		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
2382	10	7	12	0		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	B4	1
LENGTH	SR	HOUR	MINUTE	SFC		
2382	10	7	12	0		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	C1	1
LENGTH	SR	HOUR	MINUTE	SFC		
2382	10	7	12	0		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	C2	1
LENGTH	SR	HOUR	MINUTE	SFC		
2382	10	7	12	0		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	C3	1
LENGTH	SR	HOUR	MINUTE	SFC		
2382	10	7	12	0		
NRFC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
2382	10	7	12	0		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	D1	1
LENGTH	SR	HOURL	MINUTE	SFC		
2382	10	7	12	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	D2	1
LENGTH	SR	HOURL	MINUTE	SEC		
2382	10	7	12	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	D3	1
LENGTH	SR	HOURL	MINUTE	SFC		
2382	10	7	12	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	D4	1
LENGTH	SR	HOURL	MINUTE	SFC		
2382	10	7	12	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	E1	1
LENGTH	SR	HOURL	MINUTE	SFC		
2382	10	7	12	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	F2	1
LENGTH	SR	HOURL	MINUTE	SFC		
2382	10	7	12	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	F3	1
LENGTH	SR	HOURL	MINUTE	SFC		
2382	10	7	12	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	F4	1
LENGTH	SR	HOURL	MINUTE	SFC		
2382	10	7	12	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	F1	1
LENGTH	SR	HOURL	MINUTE	SFC		
2382	10	7	12	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	F2	1
LENGTH	SR	HOURL	MINUTE	SEC		
2382	10	7	12	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	F3	1
LENGTH	SR	HOURL	MINUTE	SEC		
2382	10	7	12	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
38	66	12	12	70	F4	1
LENGTH	SR	HOURL	MINUTE	SEC		
2382	10	7	12	0		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	A0	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	B1	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	B2	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	B3	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	B4	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	C1	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	C2	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	C3	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	C4	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	D1	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	D2	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
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47	67	6	25	70	D3	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		

NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	D4	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	F1	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	E2	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	E3	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	E4	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	F1	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	F3	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		
NREC	ID	MONTH	DAY	YEAR	SITE	NCHAN
47	67	6	25	70	F4	1
LENGTH	SR	HOUR	MINUTE	SEC		
2992	10	5	10	0		

Headers for CDC Data

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 83.7 357.2 5 10 29.9 4 57 57.6 1142 RM 66/02/13
 2439170 49.8 N 078.1 E 6.3
 0 83.7 357.2 05-10-29.9 04-57-57.

.6 ULEDKOGIEK 28 ALMA-
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

1 1142 F1 66 2 13 2439170 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 5 10 29.9 4 57 57.6 1142 F1 66/02/13
 2439170 49.8 N 078.1 E 6.3
 0 83.7 357.2 05-10-29.9 04-57-57

.6 ULEDKOGIEK 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

1 1142 F2 66 2 13 2439170 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 5 10 29.9 4 57 57.6 1142 F2 66/02/13
 2439170 49.8 N 078.1 E 6.3
 0 83.7 357.2 05-10-29.9 04-57-57

.6 ULEDKOGIEK 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

1 1142 F3 66 2 13 2439170 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 5 10 29.9 4 57 57.6 1142 F3 66/02/13
 2439170 49.8 N 078.1 E 6.3
 0 83.7 357.2 05-10-29.9 04-57-57

.6 ULEDKOGIEK 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

1 1142 F4 66 2 13 2439170 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 5 10 29.9 4 57 57.6 1142 F4 66/02/13
 2439170 49.8 N 078.1 E 6.3
 0 83.7 357.2 05-10-29.9 04-57-57

.6 ULEDKOGIEK 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

2 2317 RM 66 3 20 2439205 49.7 N 78.0 E 28 329 0. 0
 83.8 357.3 6 2 30.4 5 49 57.4 2317 RM 66/03/20
 2439205 49.7 N 078.0 E 6.2
 0 83.8 357.3 06-02-30.4 05-49-57

.4 XELGYIKICK 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

2 2317 F1 66 3 20 2439205 49.7 N 78.0 E 28 329 0. 0
 83.8 357.3 6 2 30.4 5 49 57.4 2317 F1 66/03/20
 2439205 49.7 N 078.0 E 6.2
 0 83.8 357.3 06-02-30.4 05-49-57

.4 XELGYIKICK 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

2 2317 F2 66 3 20 2439205 49.7 N 78.0 E 28 329 0. 0
 83.8 357.3 6 2 30.4 5 49 57.4 2317 F2 66/03/20
 2439205 49.7 N 078.0 E 6.2
 0 83.8 357.3 06-02-30.4 05-49-57

.4 XELGYIKICK 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

2 2317 F3 66 3 20 2439205 49.7 N 78.0 E 28 329 0. 0
 83.8 357.3 6 2 30.4 5 49 57.4 2317 F3 66/03/20
 2439205 49.7 N 078.0 E 6.2
 0 83.8 357.3 06-02-30.4 05-49-57

.4 XELGYIKICK 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

2 2317 F4 66 3 20 2439205 49.7 N 78.0 E 28 329 0. 0
83.8 357.3 6 2 30.4 5 49 57.4 2317 F4 66/03/20
2439205 49.7 N 078.0 E 6.2
0 83.8 357.3 06-02-30.4 05-49-57

.4 XELGYIKICK 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

3 1174 RM 66 8 19 2439357 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 4 5 30.6 3 52 58.3 1174 RM 66/08/19
2439357 49.8 N 078.1 E 4.7
0 83.7 357.2 04-05-30.6 03-52-58

.3 KPVXPILKWI 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

3 1174 F1 66 8 19 2439357 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 4 5 30.6 3 52 58.3 1174 F1 66/08/19
2439357 49.8 N 078.1 E 4.7
0 83.7 357.2 04-05-30.6 03-52-58

.3 KPVXPILKWI 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

3 1174 F2 66 8 19 2439357 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 4 5 30.6 3 52 58.3 1174 F2 66/08/19
2439357 49.8 N 078.1 E 4.7
0 83.7 357.2 04-05-30.6 03-52-58

.3 KPVXPILKWI 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

3 1174 F3 66 8 19 2439357 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 4 5 30.6 3 52 58.3 1174 F3 66/08/19
2439357 49.8 N 078.1 E 4.7
0 83.7 357.2 04-05-30.6 03-52-58

.3 KPVXPILKWI 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

3 1174 F4 66 8 19 2439357 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 4 5 30.6 3 52 58.3 1174 F4 66/08/19
2439357 49.8 N 078.1 E 4.7
0 83.7 357.2 04-05-30.6 03-52-58

.3 KPVXPILKWI 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

4 1156 RM 66 10 19 2439418 49.7 N 78.0 E 28 329 0. 0
83.8 357.3 4 10 30.4 3 57 57.4 1156 RM 66/10/19
2439418 49.7 N 078.0 E 5.6
0 83.8 357.3 04-10-30.4 03-57-57

.4 LYDXEKZHCK 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

4 1156 F1 66 10 19 2439418 49.7 N 78.0 E 28 329 0. 0
83.8 357.3 4 10 30.4 3 57 57.4 1156 F1 66/10/19
2439418 49.7 N 078.0 E 5.6
0 83.8 357.3 04-10-30.4 03-57-57

.4 LYDXEKZHCK 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

4 1156 F2 66 10 19 2439418 49.7 N 78.0 E 28 329 0. 0

83.8 357.3 4 10 30.4 3 57 57.4 1156 F2 66/10/19
 2439418 49.7 N 078.0 E 5.6
 0 83.8 357.3 04-10-30.4 03-57-57
 .4 LYDXEKZHZK 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

4 1156 F3 66 10 19 2439418 49.7 N 78.0 E 28 329 0. 0
 83.8 357.3 4 10 30.4 3 57 57.4 1156 F3 66/10/19
 2439418 49.7 N 078.0 E 5.6
 0 83.8 357.3 04-10-30.4 03-57-57
 .4 LYDXEKZHZK 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

4 1156 F4 66 10 19 2439418 49.7 N 78.0 E 28 329 0. 0
 83.8 357.3 4 10 30.4 3 57 57.4 1156 F4 66/10/19
 2439418 49.7 N 078.0 E 5.6
 0 83.8 357.3 04-10-30.4 03-57-57
 .4 LYDXEKZHZK 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

5 1603 RM 66 10 27 2439426 73.4 N 54.6 E 40 648 0. 0
 59.4 6.3 6 8 4.7 5 57 57.8 1603 RM 66/10/27
 2439426 73.4 N 054.6 E 6.3
 0 59.4 6.3 06-08-04.7 05-57-57
 .8 DOUVLOUUDY 40 ARCT
 IC ZONE 648 NOVAYA ZEMLYA

5 1603 F1 66 10 27 2439426 73.4 N 54.6 E 40 648 0. 0
 59.4 6.3 6 8 4.7 5 57 57.8 1603 F1 66/10/27
 2439426 73.4 N 054.6 E 6.3
 0 59.4 6.3 06-08-04.7 05-57-57
 .8 DOUVLOUUDY 40 ARCT
 IC ZONE 648 NOVAYA ZEMLYA

5 1603 F2 66 10 27 2439426 73.4 N 54.6 E 40 648 0. 0
 59.4 6.3 6 8 4.7 5 57 57.8 1603 F2 66/10/27
 2439426 73.4 N 054.6 E 6.3
 0 59.4 6.3 06-08-04.7 05-57-57
 .8 DOUVLOUUDY 40 ARCT
 IC ZONE 648 NOVAYA ZEMLYA

5 1603 F3 66 10 27 2439426 73.4 N 54.6 E 40 648 0. 0
 59.4 6.3 6 8 4.7 5 57 57.8 1603 F3 66/10/27
 2439426 73.4 N 054.6 E 6.3
 0 59.4 6.3 06-08-04.7 05-57-57
 .8 DOUVLOUUDY 40 ARCT
 IC ZONE 648 NOVAYA ZEMLYA

5 1603 F4 66 10 27 2439426 73.4 N 54.6 E 40 648 0. 0
 59.4 6.3 6 8 4.7 5 57 57.8 1603 F4 66/10/27
 2439426 73.4 N 054.6 E 6.3
 0 59.4 6.3 06-08-04.7 05-57-57
 .8 DOUVLOUUDY 40 ARCT
 IC ZONE 648 NOVAYA ZEMLYA

6 1691 RM 66 12 3 2439463 49.7 N 78.0 E 28 329 33. 33
 83.8 357.3 5 14 31.4 5 1 58.4 1691 RM 66/12/03
 2439463 49.7 N 078.0 E 4.9
 33 83.8 357.3 05-14-31.4 05-01-58
 .4 VHLRDFUEBX 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

6 1691 F1 66 12 3 2439463 49.7 N 78.0 E 28 329 33. 33
 83.8 357.3 5 14 31.4 5 1 58.4 1691 F1 66/12/03
 2439463 49.7 N 078.0 E 4.9
 33 83.8 357.3 05-14-31.4 05-01-58
 .4 WHLRDFUEOX 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

6 1691 F2 66 12 3 2439463 49.7 N 78.0 E 28 329 33. 33
 83.8 357.3 5 14 31.4 5 1 58.4 1691 F2 66/12/03
 2439463 49.7 N 078.0 E 4.9
 33 83.8 357.3 05-14-31.4 05-01-58
 .4 WHLRDFUEOX 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

6 1691 F3 66 12 3 2439463 49.7 N 78.0 E 28 329 33. 33
 83.8 357.3 5 14 31.4 5 1 58.4 1691 F3 66/12/03
 2439463 49.7 N 078.0 E 4.9
 33 83.8 357.3 05-14-31.4 05-01-58
 .4 WHLRDFUEOX 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

6 1691 F4 66 12 3 2439463 49.7 N 78.0 E 28 329 33. 33
 83.8 357.3 5 14 31.4 5 1 58.4 1691 F4 66/12/03
 2439463 49.7 N 078.0 E 4.9
 33 83.8 357.3 05-14-31.4 05-01-58
 .4 WHLRDFUEOX 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7 1591 BM 66 12 18 2439478 49.9 N 77.7 E 28 329 0. 0
 83.6 357.5 5 10 29.5 4 57 57.6 1591 BM 66/12/18
 2439478 49.9 N 077.7 E 5.9
 0 83.6 357.5 05-10-29.5 04-57-57
 .6 CLPDVRRHXZ 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7 1591 F1 66 12 18 2439478 49.9 N 77.7 E 28 329 0. 0
 83.6 357.5 5 10 29.5 4 57 57.6 1591 F1 66/12/18
 2439478 49.9 N 077.7 E 5.9
 0 83.6 357.5 05-10-29.5 04-57-57
 .6 CLPDVRRHXZ 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7 1591 F2 66 12 18 2439478 49.9 N 77.7 E 28 329 0. 0
 83.6 357.5 5 10 29.5 4 57 57.6 1591 F2 66/12/18
 2439478 49.9 N 077.7 E 5.9
 0 83.6 357.5 05-10-29.5 04-57-57
 .6 CLPDVRRHXZ 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7 1591 F3 66 12 18 2439478 49.9 N 77.7 E 28 329 0. 0
 83.6 357.5 5 10 29.5 4 57 57.6 1591 F3 66/12/18
 2439478 49.9 N 077.7 E 5.9
 0 83.6 357.5 05-10-29.5 04-57-57
 .6 CLPDVRRHXZ 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7 1591 F4 66 12 18 2439478 49.9 N 77.7 E 28 329 0. 0
 83.6 357.5 5 10 29.5 4 57 57.6 1591 F4 66/12/18

243947A 49.9 N 077.7 E 5.9
0 83.6 357.5 05-10-29.5 04-57-57
.6 CLPDVRRHXZ 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

R 3153 RM 67 2 26 243954R 49.8 N 78.1 E 2R 329 0. 0
83.7 357.2 4 10 29.9 3 57 57.6 3153 RM 67/02/26
243954R 49.8 N 078.1 E 6.0
0 83.7 357.2 04-10-29.9 03-57-57

.6 PEVKXRJLTJ 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

R 3153 F1 67 2 26 243954R 49.8 N 78.1 E 2R 329 0. 0
83.7 357.2 4 10 29.9 3 57 57.6 3153 F1 67/02/26
243954R 49.8 N 078.1 E 6.0
0 83.7 357.2 04-10-29.9 03-57-57

.6 PEVKXRJLTJ 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

R 3153 F2 67 2 26 243954R 49.8 N 78.1 E 2R 329 0. 0
83.7 357.2 4 10 29.9 3 57 57.6 3153 F2 67/02/26
243954R 49.8 N 078.1 E 6.0
0 83.7 357.2 04-10-29.9 03-57-57

.6 PEVKXRJLTJ 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

R 3153 F3 67 2 26 243954R 49.8 N 78.1 E 2R 329 0. 0
83.7 357.2 4 10 29.9 3 57 57.6 3153 F3 67/02/26
243954R 49.8 N 078.1 E 6.0
0 83.7 357.2 04-10-29.9 03-57-57

.6 PEVKXRJLTJ 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

R 3153 F4 67 2 26 243954R 49.8 N 78.1 E 2R 329 0. 0
83.7 357.2 4 10 29.9 3 57 57.6 3153 F4 67/02/26
243954R 49.8 N 078.1 E 6.0
0 83.7 357.2 04-10-29.9 03-57-57

.6 PEVKXRJLTJ 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

R 317R RM 67 3 25 2439575 49.8 N 78.1 E 2R 329 33. 33
83.7 357.2 6 10 32.2 5 57 59.9 317R RM 67/03/25
2439575 49.8 N 078.1 E 5.3
33 83.7 357.2 06-10-32.2 05-57-59

.9 LJZCEXDRHU 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

R 317R F1 67 3 25 2439575 49.8 N 78.1 E 2R 329 33. 33
83.7 357.2 6 10 32.2 5 57 59.9 317R F1 67/03/25
2439575 49.8 N 078.1 E 5.3
33 83.7 357.2 06-10-32.2 05-57-59

.9 LJZCEXDRHU 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

R 317R F2 67 3 25 2439575 49.8 N 78.1 E 2R 329 33. 33
83.7 357.2 6 10 32.2 5 57 59.9 317R F2 67/03/25
2439575 49.8 N 078.1 E 5.3
33 83.7 357.2 06-10-32.2 05-57-59

.9 LJZCEXDRHU 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

9 3178 F3 67 3 25 2439575 49.8 N 78.1 E 28 329 33. 33
83.7 357.2 6 10 32.2 5 57 59.9 3178 F3 67/03/25
2439575 49.8 N 078.1 E 5.3
33 83.7 357.2 06-10-32.2 05-57-59

.9 LJZCEXDRHU 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

9 3178 F4 67 3 25 2439575 49.8 N 78.1 E 28 329 33. 33
83.7 357.2 6 10 32.2 5 57 59.9 3178 F4 67/03/25
2439575 49.8 N 078.1 E 5.3
33 83.7 357.2 06-10-32.2 05-57-59

.9 LJZCEXDRHU 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

10 1828 BM 67 4 20 2439601 49.7 N 78.1 E 28 329 0. 0
83.8 357.2 4 20 30.3 4 7 57.3 1828 BM 67/04/20
2439601 49.7 N 078.1 E 5.7
0 83.8 357.2 04-20-30.3 04-07-57

.3 XOFBULGZCR 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

10 1828 F1 67 4 20 2439601 49.7 N 78.1 E 28 329 0. 0
83.8 357.2 4 20 30.3 4 7 57.3 1828 F1 67/04/20
2439601 49.7 N 078.1 E 5.7
0 83.8 357.2 04-20-30.3 04-07-57

.3 XOFBULGZCR 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

10 1828 F2 67 4 20 2439601 49.7 N 78.1 E 28 329 0. 0
83.8 357.2 4 20 30.3 4 7 57.3 1828 F2 67/04/20
2439601 49.7 N 078.1 E 5.7
0 83.8 357.2 04-20-30.3 04-07-57

.3 XOFBULGZCR 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

10 1828 F3 67 4 20 2439601 49.7 N 78.1 E 28 329 0. 0
83.8 357.2 4 20 30.3 4 7 57.3 1828 F3 67/04/20
2439601 49.7 N 078.1 E 5.7
0 83.8 357.2 04-20-30.3 04-07-57

.3 XOFBULGZCR 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

10 1828 F4 67 4 20 2439601 49.7 N 78.1 E 28 329 0. 0
83.8 357.2 4 20 30.3 4 7 57.3 1828 F4 67/04/20
2439601 49.7 N 078.1 E 5.7
0 83.8 357.2 04-20-30.3 04-07-57

.3 XOFBULGZCR 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

11 3257 BM 67 5 28 2439639 49.8 N 78.0 E 28 329 33. 33
83.7 357.3 4 20 36.5 4 8 4.2 3257 BM 67/05/28
2439639 49.8 N 078.0 E 5.9
33 83.7 357.3 04-20-36.5 04-08-04

.2 HLWXEYSN2S 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

11 3257 F1 67 5 28 2439639 49.8 N 78.0 E 28 329 33. 33
83.7 357.3 4 20 36.5 4 8 4.2 3257 F1 67/05/28
2439639 49.8 N 078.0 E 5.9

33 83.7 357.3 04-20-36.5 04-08-04
 .2 HLWXEYSWZS 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

11 3257 F2 67 5 28 2439639 49.8 N 78.0 E 28 329 33. 33
 83.7 357.3 4 20 36.5 4 8 4.2 3257 F2 67/05/28
 2439639 49.8 N 078.0 E 5.9
 33 83.7 357.3 04-20-36.5 04-08-04

.2 HLWXEYSWZS 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

11 3257 F3 67 5 28 2439639 49.8 N 78.0 E 28 329 33. 33
 83.7 357.3 4 20 36.5 4 8 4.2 3257 F3 67/05/28
 2439639 49.8 N 078.0 E 5.9
 33 83.7 357.3 04-20-36.5 04-08-04

.2 HLWXEYSWZS 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

11 3257 F4 67 5 28 2439639 49.8 N 78.0 E 28 329 33. 33
 83.7 357.3 4 20 36.5 4 8 4.2 3257 F4 67/05/28
 2439639 49.8 N 078.0 E 5.9
 33 83.7 357.3 04-20-36.5 04-08-04

.2 HLWXEYSWZS 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

12 3323 RM 67 6 29 2439671 49.7 N 78.0 E 28 329 33. 33
 83.8 357.3 3 9 21.8 2 56 48.8 3323 RM 67/06/29
 2439671 49.7 N 078.0 E 5.9
 33 83.8 357.3 03-09-21.8 02-56-48

.8 KHLRGWRJXO 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

12 3323 F1 67 6 29 2439671 49.7 N 78.0 E 28 329 33. 33
 83.8 357.3 3 9 21.8 2 56 48.8 3323 F1 67/06/29
 2439671 49.7 N 078.0 E 5.9
 33 83.8 357.3 03-09-21.8 02-56-48

.8 KHLRGWRJXO 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

12 3323 F2 67 6 29 2439671 49.7 N 78.0 E 28 329 33. 33
 83.8 357.3 3 9 21.8 2 56 48.8 3323 F2 67/06/29
 2439671 49.7 N 078.0 E 5.9
 33 83.8 357.3 03-09-21.8 02-56-48

.8 KHLRGWRJXO 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

12 3323 F3 67 6 29 2439671 49.7 N 78.0 E 28 329 33. 33
 83.8 357.3 3 9 21.8 2 56 48.8 3323 F3 67/06/29
 2439671 49.7 N 078.0 E 5.9
 33 83.8 357.3 03-09-21.8 02-56-48

.8 KHLRGWRJXO 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

12 3323 F4 67 6 29 2439671 49.7 N 78.0 E 28 329 33. 33
 83.8 357.3 3 9 21.8 2 56 48.8 3323 F4 67/06/29
 2439671 49.7 N 078.0 E 5.9
 33 83.8 357.3 03-09-21.8 02-56-48

.8 KHLRGWRJXO 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

13 3496 RM 67 7 15 2439687 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 3 39 29.6 3 26 57.3 3496 RM 67/07/15
 2439687 49.8 N 078.1 E 5.4
 0 83.7 357.2 03-39-29.6 03-26-57

.3 TRXBWHDLVF 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

13 3496 F1 67 7 15 2439687 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 3 39 29.6 3 26 57.3 3496 F1 67/07/15
 2439687 49.8 N 078.1 E 5.4
 0 83.7 357.2 03-39-29.6 03-26-57

.3 TRXBWHDLVF 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

13 3496 F2 67 7 15 2439687 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 3 39 29.6 3 26 57.3 3496 F2 67/07/15
 2439687 49.8 N 078.1 E 5.4
 0 83.7 357.2 03-39-29.6 03-26-57

.3 TRXBWHDLVF 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

13 3496 F3 67 7 15 2439687 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 3 39 29.6 3 26 57.3 3496 F3 67/07/15
 2439687 49.8 N 078.1 E 5.4
 0 83.7 357.2 03-39-29.6 03-26-57

.3 TRXBWHDLVF 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

13 3496 F4 67 7 15 2439687 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 3 39 29.6 3 26 57.3 3496 F4 67/07/15
 2439687 49.8 N 078.1 E 5.4
 0 83.7 357.2 03-39-29.6 03-26-57

.3 TRXBWHDLVF 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

14 3576 RM 67 8 4 2439707 49.8 N 78.0 E 28 329 33. 33
 83.7 357.3 7 10 30.5 6 57 58.2 3576 RM 67/08/04
 2439707 49.8 N 078.0 E 5.3
 33 83.7 357.3 07-10-30.5 06-57-58

.2 GVYTXJLKKO 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

14 3576 F1 67 8 4 2439707 49.8 N 78.0 E 28 329 33. 33
 83.7 357.3 7 10 30.5 6 57 58.2 3576 F1 67/08/04
 2439707 49.8 N 078.0 E 5.3
 33 83.7 357.3 07-10-30.5 06-57-58

.2 GVYTXJLKKO 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

14 3576 F2 67 8 4 2439707 49.8 N 78.0 E 28 329 33. 33
 83.7 357.3 7 10 30.5 6 57 58.2 3576 F2 67/08/04
 2439707 49.8 N 078.0 E 5.3
 33 83.7 357.3 07-10-30.5 06-57-58

.2 GVYTXJLKKO 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

14 3576 F3 67 8 4 2439707 49.8 N 78.0 E 28 329 33. 33
 83.7 357.3 7 10 30.5 6 57 58.2 3576 F3 67/08/04
 2439707 49.8 N 078.0 E 5.3
 33 83.7 357.3 07-10-30.5 06-57-58

.2 GVYTXJLKKO 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

14 3576 F4 67 8 4 2439707 49.8 N 78.0 E 28 329 33. 33
83.7 357.3 7 10 30.5 6 57 58.2 3576 F4 67/08/04
2439707 49.8 N 078.0 E 5.3
33 83.7 357.3 07-10-30.5 06-57-58

.2 GVYTXJLKKO 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

15 1249 RM 67 9 16 2439750 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 4 16 29.2 4 3 57.9 1249 RM 67/09/16
2439750 50.0 N 077.7 E 5.3
0 83.5 357.5 04-16-29.2 04-03-57

.9 SPXBLKPVJR 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

15 1249 F1 67 9 16 2439750 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 4 16 29.2 4 3 57.9 1249 F1 67/09/16
2439750 50.0 N 077.7 E 5.3
0 83.5 357.5 04-16-29.2 04-03-57

.9 SPXRLKPVJR 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

15 1249 F2 67 9 16 2439750 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 4 16 29.2 4 3 57.9 1249 F2 67/09/16
2439750 50.0 N 077.7 E 5.3
0 83.5 357.5 04-16-29.2 04-03-57

.9 SPXRLKPVJR 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

15 1249 F3 67 9 16 2439750 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 4 16 29.2 4 3 57.9 1249 F3 67/09/16
2439750 50.0 N 077.7 E 5.3
0 83.5 357.5 04-16-29.2 04-03-57

.9 SPXBLKPVJR 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

15 1249 F4 67 9 16 2439750 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 4 16 29.2 4 3 57.9 1249 F4 67/09/16
2439750 50.0 N 077.7 E 5.3
0 83.5 357.5 04-16-29.2 04-03-57

.9 SPXRLKPVJR 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

16 3808 RM 67 9 22 2439756 49.9 N 77.7 E 28 329 0. 0
83.6 357.5 5 16 29.2 5 3 57.3 3808 RM 67/09/22
2439756 49.9 N 077.7 E 5.3
0 83.6 357.5 05-16-29.2 05-03-57

.3 OLJMPXZPWF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

16 3808 F1 67 9 22 2439756 49.9 N 77.7 E 28 329 0. 0
83.6 357.5 5 16 29.2 5 3 57.3 3808 F1 67/09/22
2439756 49.9 N 077.7 E 5.3
0 83.6 357.5 05-16-29.2 05-03-57

.3 OLJMPXZPWF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

16 3808 49.9 N 77.7 E 28 329 0. 0

83.6 357.5 5 16 29.2 5 3 57.3 3808 F2 67/09/22
 2439756 49.9 N 077.7 E 5.3
 0 83.6 357.5 05-16-29.2 05-03-57
 .3 OLIMPXZPWF 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

16 3808 F3 67 9 22 2439756 49.9 N 77.7 E 28 329 0. 0
 83.6 357.5 5 16 29.2 5 3 57.3 3808 F3 67/09/22
 2439756 49.9 N 077.7 E 5.3
 0 83.6 357.5 05-16-29.2 05-03-57
 .3 OLIMPXZPWF 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

16 3808 F4 67 9 22 2439756 49.9 N 77.7 E 28 329 0. 0
 83.6 357.5 5 16 29.2 5 3 57.3 3808 F4 67/09/22
 2439756 49.9 N 077.7 E 5.3
 0 83.6 357.5 05-16-29.2 05-03-57
 .3 OLIMPXZPWF 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

17 4100 BM 67 10 6 2439770 57.7 N 65.3 E 28 326 33. 33
 75.7 4.7 7 11 45.6 6 59 56.7 4100 BM 67/10/06
 2439770 57.7 N 065.3 E 4.7
 33 75.7 4.7 07-11-45.6 06-59-56
 .7 BYCLOZMFBX 28 ALMA
 -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

17 4100 F1 67 10 6 2439770 57.7 N 65.3 E 28 326 33. 33
 75.7 4.7 7 11 45.6 6 59 56.7 4100 F1 67/10/06
 2439770 57.7 N 065.3 E 4.7
 33 75.7 4.7 07-11-45.6 06-59-56
 .7 BYCLOZMFBX 28 ALMA
 -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

17 4100 F2 67 10 6 2439770 57.7 N 65.3 E 28 326 33. 33
 75.7 4.7 7 11 45.6 6 59 56.7 4100 F2 67/10/06
 2439770 57.7 N 065.3 E 4.7
 33 75.7 4.7 07-11-45.6 06-59-56
 .7 BYCLOZMFBX 28 ALMA
 -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

17 4100 F3 67 10 6 2439770 57.7 N 65.3 E 28 326 33. 33
 75.7 4.7 7 11 45.6 6 59 56.7 4100 F3 67/10/06
 2439770 57.7 N 065.3 E 4.7
 33 75.7 4.7 07-11-45.6 06-59-56
 .7 BYCLOZMFBX 28 ALMA
 -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

17 4100 F4 67 10 6 2439770 57.7 N 65.3 E 28 326 33. 33
 75.7 4.7 7 11 45.6 6 59 56.7 4100 F4 67/10/06
 2439770 57.7 N 065.3 E 4.7
 33 75.7 4.7 07-11-45.6 06-59-56
 .7 BYCLOZMFBX 28 ALMA
 -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

18 4152 BM 67 10 17 2439781 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 5 16 30.2 5 3 57.9 4152 BM 67/10/17
 2439781 49.8 N 078.0 E 5.7
 0 83.7 357.3 05-16-30.2 05-03-57
 .9 RIJUEZLHXT 28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

18 4152 F1 67 10 17 2439781 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 5 16 30.2 5 3 57.9 4152 F1 67/10/17
 2439781 49.8 N 078.0 E 5.7
 0 83.7 357.3 05-16-30.2 05-03-57

.9 RIRUEZLHXT

28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

18 4152 F2 67 10 17 2439781 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 5 16 30.2 5 3 57.9 4152 F2 67/10/17
 2439781 49.8 N 078.0 E 5.7
 0 83.7 357.3 05-16-30.2 05-03-57

.9 RIRUEZLHXT

28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

18 4152 F3 67 10 17 2439781 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 5 16 30.2 5 3 57.9 4152 F3 67/10/17
 2439781 49.8 N 078.0 E 5.7
 0 83.7 357.3 05-16-30.2 05-03-57

.9 RIRUEZLHXT

28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

18 4152 F4 67 10 17 2439781 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 5 16 30.2 5 3 57.9 4152 F4 67/10/17
 2439781 49.8 N 078.0 E 5.7
 0 83.7 357.3 05-16-30.2 05-03-57

.9 RIRUEZLHXT

28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

19 4180 RM 67 10 21 2439785 73.4 N 54.8 E 40 648 0. 0
 59.4 6.2 5 10 4.8 4 59 57.8 4180 RM 67/10/21
 2439785 73.4 N 054.8 E 5.9
 0 59.4 6.2 05-10-04.8 04-59-57

.8 AWGLXJMFYP

40 ARCT

IC ZONE

648 NOVAYA ZEMLYA

19 4180 F1 67 10 21 2439785 73.4 N 54.8 E 40 648 0. 0
 59.4 6.2 5 10 4.8 4 59 57.8 4180 F1 67/10/21
 2439785 73.4 N 054.8 E 5.9
 0 59.4 6.2 05-10-04.8 04-59-57

.8 AWGLXJMFYP

40 ARCT

IC ZONE

648 NOVAYA ZEMLYA

19 4180 F2 67 10 21 2439785 73.4 N 54.8 E 40 648 0. 0
 59.4 6.2 5 10 4.8 4 59 57.8 4180 F2 67/10/21
 2439785 73.4 N 054.8 E 5.9
 0 59.4 6.2 05-10-04.8 04-59-57

.8 AWGLXJMFYP

40 ARCT

IC ZONE

648 NOVAYA ZEMLYA

19 4180 F3 67 10 21 2439785 73.4 N 54.8 E 40 648 0. 0
 59.4 6.2 5 10 4.8 4 59 57.8 4180 F3 67/10/21
 2439785 73.4 N 054.8 E 5.9
 0 59.4 6.2 05-10-04.8 04-59-57

.8 AWGLXJMFYP

40 ARCT

IC ZONE

648 NOVAYA ZEMLYA

19 4180 F4 67 10 21 2439785 73.4 N 54.8 E 40 648 0. 0
 59.4 6.2 5 10 4.8 4 59 57.8 4180 F4 67/10/21

2439785 73.4 N 054.8 E 5.9
 0 59.4 6.2 05-10-04.8 04-59-57
 .8 WWGLXJMEYP 40 ARCT
 TC ZONE 648 NOVAYA ZEMLYA

20 4578 RM 67 10 30 2439794 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 6 16 30.1 6 3 57.8 4578 RM 67/10/30
 2439794 49.8 N 078.0 E 5.5
 0 83.7 357.3 06-16-30.1 06-03-57
 .8 OZRKLSJTXR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

20 4578 F1 67 10 30 2439794 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 6 16 30.1 6 3 57.8 4578 F1 67/10/30
 2439794 49.8 N 078.0 E 5.5
 0 83.7 357.3 06-16-30.1 06-03-57
 .8 OZRKLSJTXR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

20 4578 F2 67 10 30 2439794 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 6 16 30.1 6 3 57.8 4578 F2 67/10/30
 2439794 49.8 N 078.0 E 5.5
 0 83.7 357.3 06-16-30.1 06-03-57
 .8 OZRKLSJTXR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

20 4578 F3 67 10 30 2439794 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 6 16 30.1 6 3 57.8 4578 F3 67/10/30
 2439794 49.8 N 078.0 E 5.5
 0 83.7 357.3 06-16-30.1 06-03-57
 .8 OZRKLSJTXR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

20 4578 F4 67 10 30 2439794 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 6 16 30.1 6 3 57.8 4578 F4 67/10/30
 2439794 49.8 N 078.0 E 5.5
 0 83.7 357.3 06-16-30.1 06-03-57
 .8 OZRKLSJTXR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

21 2135 RM 67 11 22 2439817 50.0 N 77.7 E 28 329 0. 0
 83.5 357.5 4 16 28.9 4 3 57.6 2135 RM 67/11/22
 2439817 50.0 N 077.7 E 4.8
 0 83.5 357.5 04-16-28.9 04-03-57
 .6 BLH7IRDSVX 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

21 2135 F1 67 11 22 2439817 50.0 N 77.7 E 28 329 0. 0
 83.5 357.5 4 16 28.9 4 3 57.6 2135 F1 67/11/22
 2439817 50.0 N 077.7 E 4.8
 0 83.5 357.5 04-16-28.9 04-03-57
 .6 BLH7IRDSVX 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

21 2135 F2 67 11 22 2439817 50.0 N 77.7 E 28 329 0. 0
 83.5 357.5 4 16 28.9 4 3 57.6 2135 F2 67/11/22
 2439817 50.0 N 077.7 E 4.8
 0 83.5 357.5 04-16-28.9 04-03-57
 .6 BLH7IRDSVX 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

21 2135 F3 67 11 22 2439A17 50.0 N 77.7 E 2A 329 0. 0
 83.5 357.5 4 16 28.9 4 3 57.6 2135 F3 67/11/22
 2439A17 50.0 N 077.7 E 4.8
 0 83.5 357.5 04-16-28.9 04-03-57

.6 BLHZIRDSVX 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

21 2135 F4 67 11 22 2439A17 50.0 N 77.7 E 2A 329 0. 0
 83.5 357.5 4 16 28.9 4 3 57.6 2135 F4 67/11/22
 2439A17 50.0 N 077.7 E 4.8
 0 83.5 357.5 04-16-28.9 04-03-57

.6 BLHZIRDSVX 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

22 2A37 BM 67 12 A 2439A33 49.8 N 78.2 E 2A 329 0. 0
 83.7 357.1 6 16 29.3 6 3 57.0 2A37 BM 67/12/08
 2439A33 49.8 N 078.2 E 5.4
 0 83.7 357.1 06-16-29.3 06-03-57

.0 E7XGVYPWLM 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

22 2A37 F1 67 12 A 2439A33 49.8 N 78.2 E 2A 329 0. 0
 83.7 357.1 6 16 29.3 6 3 57.0 2A37 F1 67/12/08
 2439A33 49.8 N 078.2 E 5.4
 0 83.7 357.1 06-16-29.3 06-03-57

.0 E7XGVYPWLM 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

22 2A37 F2 67 12 A 2439A33 49.8 N 78.2 E 2A 329 0. 0
 83.7 357.1 6 16 29.3 6 3 57.0 2A37 F2 67/12/08
 2439A33 49.8 N 078.2 E 5.4
 0 83.7 357.1 06-16-29.3 06-03-57

.0 E7XGVYPWLM 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

22 2A37 F3 67 12 A 2439A33 49.8 N 78.2 E 2A 329 0. 0
 83.7 357.1 6 16 29.3 6 3 57.0 2A37 F3 67/12/08
 2439A33 49.8 N 078.2 E 5.4
 0 83.7 357.1 06-16-29.3 06-03-57

.0 E7XGVYPWLM 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

22 2A37 F4 67 12 A 2439A33 49.8 N 78.2 E 2A 329 0. 0
 83.7 357.1 6 16 29.3 6 3 57.0 2A37 F4 67/12/08
 2439A33 49.8 N 078.2 E 5.4
 0 83.7 357.1 06-16-29.3 06-03-57

.0 E7XGVYPWLM 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

23 503A BM 68 1 7 2439A63 49.8 N 78.0 E 2A 329 0. 0
 83.7 357.3 3 59 29.9 3 46 57.6 503A BM 68/01/07
 2439A63 49.8 N 078.0 E 5.3
 0 83.7 357.3 03-59-29.9 03-46-57

.6 WLSCYWCYXGJ 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

23 503A F1 68 1 7 2439A63 49.8 N 78.0 E 2A 329 0. 0
 83.7 357.3 3 59 29.9 3 46 57.6 503A F1 68/01/07
 2439A63 49.8 N 078.0 E 5.3

0 83.7 357.3 03-59-29.9 03-46-57
 .6 WLSCYWCXGJ 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

23 5038 F2 68 1 7 2439863 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 3 59 29.9 3 46 57.6 5038 F2 68/01/07
 2439863 49.8 N 078.0 E 5.3
 0 83.7 357.3 03-59-29.9 03-46-57

.6 WLSCYWCXGJ 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

23 5038 F3 68 1 7 2439863 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 3 59 29.9 3 46 57.6 5038 F3 68/01/07
 2439863 49.8 N 078.0 E 5.3
 0 83.7 357.3 03-59-29.9 03-46-57

.6 WLSCYWCXGJ 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

23 5038 F4 68 1 7 2439863 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 3 59 29.9 3 46 57.6 5038 F4 68/01/07
 2439863 49.8 N 078.0 E 5.3
 0 83.7 357.3 03-59-29.9 03-46-57

.6 WLSCYWCXGJ 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

24 5907 RM 68 4 24 2439971 49.8 N 78.1 E 28 329 51. 51
 83.7 357.2 10 35 42.7 10 23 10.4 5907 RM 68/04/24
 2439971 49.8 N 078.1 E 4.1
 51 83.7 357.2 10-35-42.7 10-23-10

.4 BVXFYRUYLT 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

24 5907 F1 68 4 24 2439971 49.8 N 78.1 E 28 329 51. 51
 83.7 357.2 10 35 42.7 10 23 10.4 5907 F1 68/04/24
 2439971 49.8 N 078.1 E 4.1
 51 83.7 357.2 10-35-42.7 10-23-10

.4 BVXFYRUYLT 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

24 5907 F2 68 4 24 2439971 49.8 N 78.1 E 28 329 51. 51
 83.7 357.2 10 35 42.7 10 23 10.4 5907 F2 68/04/24
 2439971 49.8 N 078.1 E 4.1
 51 83.7 357.2 10-35-42.7 10-23-10

.4 BVXFYRUYLT 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

24 5907 F3 68 4 24 2439971 49.8 N 78.1 E 28 329 51. 51
 83.7 357.2 10 35 42.7 10 23 10.4 5907 F3 68/04/24
 2439971 49.8 N 078.1 E 4.1
 51 83.7 357.2 10-35-42.7 10-23-10

.4 BVXFYRUYLT 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

24 5907 F4 68 4 24 2439971 49.8 N 78.1 E 28 329 51. 51
 83.7 357.2 10 35 42.7 10 23 10.4 5907 F4 68/04/24
 2439971 49.8 N 078.1 E 4.1
 51 83.7 357.2 10-35-42.7 10-23-10

.4 BVXFYRUYLT 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

25 6150 BM 6R 5 21 243999R 38.8 N 65.1 E 4R 714 33. 33
 94.4 6.8 3 11 39.4 2 58 16.2 6150 BM 68/05/21
 243999R 38.8 N 065.1 E 4.3
 33 94.4 6.8 03-11-39.4 02-58-16

.2 YPDTQLOUDW 48 HIND
 U KUSH AND PAMIR 714 SOUTHEASTERN UZBEK SSR

25 6150 F1 6R 5 21 243999R 38.8 N 65.1 E 4R 714 33. 33
 94.4 6.8 3 11 39.4 2 58 16.2 6150 F1 68/05/21
 243999R 38.8 N 065.1 E 4.3
 33 94.4 6.8 03-11-39.4 02-58-16

.2 YPDTQLOUDW 48 HIND
 U KUSH AND PAMIR 714 SOUTHEASTERN UZBEK SSR

25 6150 F2 6R 5 21 243999R 38.8 N 65.1 E 4R 714 33. 33
 94.4 6.8 3 11 39.4 2 58 16.2 6150 F2 68/05/21
 243999R 38.8 N 065.1 E 4.3
 33 94.4 6.8 03-11-39.4 02-58-16

.2 YPDTQLOUDW 48 HIND
 U KUSH AND PAMIR 714 SOUTHEASTERN UZBEK SSR

25 6150 F3 6R 5 21 243999R 38.8 N 65.1 E 4R 714 33. 33
 94.4 6.8 3 11 39.4 2 58 16.2 6150 F3 68/05/21
 243999R 38.8 N 065.1 E 4.3
 33 94.4 6.8 03-11-39.4 02-58-16

.2 YPDTQLOUDW 48 HIND
 U KUSH AND PAMIR 714 SOUTHEASTERN UZBEK SSR

25 6150 F4 6R 5 21 243999R 38.8 N 65.1 E 4R 714 33. 33
 94.4 6.8 3 11 39.4 2 58 16.2 6150 F4 68/05/21
 243999R 38.8 N 065.1 E 4.3
 33 94.4 6.8 03-11-39.4 02-58-16

.2 YPDTQLOUDW 48 HIND
 U KUSH AND PAMIR 714 SOUTHEASTERN UZBEK SSR

26 8162 BM 6R 6 11 244001R 49.8 N 78.1 E 2R 329 0. 0
 83.7 357.2 3 1R 30.0 3 5 57.7 8162 BM 68/06/11
 244001R 49.8 N 078.1 E 5.3
 0 83.7 357.2 03-18-30.0 03-05-57.

.7 VVRAPHPOLZ 2R ALMA-
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

26 8162 F1 6R 6 11 244001R 49.8 N 78.1 E 2R 329 0. 0
 83.7 357.2 3 1R 30.0 3 5 57.7 8162 F1 68/06/11
 244001R 49.8 N 078.1 E 5.3
 0 83.7 357.2 03-18-30.0 03-05-57

.7 VVRXRPOLZ 2R ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

26 8162 F2 6R 6 11 244001R 49.8 N 78.1 E 2R 329 0. 0
 83.7 357.2 3 1R 30.0 3 5 57.7 8162 F2 68/06/11
 244001R 49.8 N 078.1 E 5.3
 0 83.7 357.2 03-18-30.0 03-05-57

.7 VVRXRPOLZ 2R ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

26 8162 F3 6R 6 11 244001R 49.8 N 78.1 E 2R 329 0. 0
 83.7 357.2 3 1R 30.0 3 5 57.7 8162 F3 68/06/11
 244001R 49.8 N 078.1 E 5.3

0 83.7 357.2 03-18-30.0 03-05-57
 .7 VVRXRBPOLZ 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

26 8162 F4 6A 6 11 2440019 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 3 18 30.0 3 5 57.7 8162 F4 68/06/11
 2440019 49.8 N 078.1 E 5.5
 0 83.7 357.2 03-18-30.0 03-05-57
 .7 VVRXRBPOLZ 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

27 8191 BM 6A 6 10 2440027 50.0 N 79.1 E 28 329 0. 0
 83.5 356.6 5 18 28.3 5 5 57.3 8191 BM 68/06/19
 2440027 50.0 N 079.1 E 5.5
 0 83.5 356.6 05-18-28.3 05-05-57
 .3 CJXLVOEJIR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

27 8191 F1 6A 6 10 2440027 50.0 N 79.1 E 28 329 0. 0
 83.5 356.6 5 18 28.3 5 5 57.3 8191 F1 68/06/19
 2440027 50.0 N 079.1 E 5.5
 0 83.5 356.6 05-18-28.3 05-05-57
 .3 CJXLVOEJIR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

27 8191 F2 6A 6 10 2440027 50.0 N 79.1 E 28 329 0. 0
 83.5 356.6 5 18 28.3 5 5 57.3 8191 F2 68/06/19
 2440027 50.0 N 079.1 E 5.5
 0 83.5 356.6 05-18-28.3 05-05-57
 .3 CJXLVOEJIR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

27 8191 F3 6A 6 10 2440027 50.0 N 79.1 E 28 329 0. 0
 83.5 356.6 5 18 28.3 5 5 57.3 8191 F3 68/06/19
 2440027 50.0 N 079.1 E 5.5
 0 83.5 356.6 05-18-28.3 05-05-57
 .3 CJXLVOEJIR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

27 8191 F4 6A 6 10 2440027 50.0 N 79.1 E 28 329 0. 0
 83.5 356.6 5 18 28.3 5 5 57.3 8191 F4 68/06/19
 2440027 50.0 N 079.1 E 5.5
 0 83.5 356.6 05-18-28.3 05-05-57
 .3 CJXLVOEJIR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

28 6166 BM 6A 7 1 2440039 47.9 N 47.8 E 30 357 33. 33
 83.0 17.2 4 14 25.3 4 1 57.2 6166 BM 68/07/01
 2440039 47.9 N 047.8 E 5.5
 33 83.0 17.2 04-14-25.3 04-01-57
 .2 KFYLTIXCHC 30 MIDO
 LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

28 6166 F1 6A 7 1 2440039 47.9 N 47.8 E 30 357 33. 33
 83.0 17.2 4 14 25.3 4 1 57.2 6166 F1 68/07/01
 2440039 47.9 N 047.8 E 5.5
 33 83.0 17.2 04-14-25.3 04-01-57
 .2 KFYLTIXCHC 30 MIDO
 LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

28 6166 F2 6R 7 1 2440039 47.9 N 47.8 E 30 357 33. 33
 83.0 17.2 4 14 25.3 4 1 57.2 6166 F2 68/07/01
 2440039 47.9 N 047.8 E 5.5
 33 83.0 17.2 04-14-25.3 04-01-57

.2 KFYLTIXCHC 30 MIDD
 LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

28 6166 F3 6R 7 1 2440039 47.9 N 47.8 E 30 357 33. 33
 83.0 17.2 4 14 25.3 4 1 57.2 6166 F3 68/07/01
 2440039 47.9 N 047.8 E 5.5
 33 83.0 17.2 04-14-25.3 04-01-57

.2 KFYLTIXCHC 30 MIDD
 LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

28 6166 F4 6R 7 1 2440039 47.9 N 47.8 E 30 357 33. 33
 83.0 17.2 4 14 25.3 4 1 57.2 6166 F4 68/07/01
 2440039 47.9 N 047.8 E 5.5
 33 83.0 17.2 04-14-25.3 04-01-57

.2 KFYLTIXCHC 30 MIDD
 LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

29 6347 RM 6R 7 12 2440050 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 12 20 29.9 12 7 57.6 6347 RM 68/07/12
 2440050 49.8 N 078.1 E 5.4
 0 83.7 357.2 12-20-29.9 12-07-57

.6 EXMPJRPPLCP 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

29 6347 F1 6R 7 12 2440050 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 12 20 29.9 12 7 57.6 6347 F1 68/07/12
 2440050 49.8 N 078.1 E 5.4
 0 83.7 357.2 12-20-29.9 12-07-57

.6 EXMPJRPPLCP 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

29 6347 F2 6R 7 12 2440050 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 12 20 29.9 12 7 57.6 6347 F2 68/07/12
 2440050 49.8 N 078.1 E 5.4
 0 83.7 357.2 12-20-29.9 12-07-57

.6 EXMPJRPPLCP 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

29 6347 F3 6R 7 12 2440050 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 12 20 29.9 12 7 57.6 6347 F3 68/07/12
 2440050 49.8 N 078.1 E 5.4
 0 83.7 357.2 12-20-29.9 12-07-57

.6 EXMPJRPPLCP 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

29 6347 F4 6R 7 12 2440050 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 12 20 29.9 12 7 57.6 6347 F4 68/07/12
 2440050 49.8 N 078.1 E 5.4
 0 83.7 357.2 12-20-29.9 12-07-57

.6 EXMPJRPPLCP 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

30 6543 RM 6R 8 20 2440089 50.0 N 78.0 E 28 329 0. 0
 83.5 357.3 3 45 0.0 3 32 28.8 6543 RM 68/08/20
 2440089 50.0 N 078.0 E 0.0
 0 83.5 357.3 03-45-00.0 03-32-28

.8 TIPPJGLXWF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

30 6543 F1 68 8 20 2440089 50.0 N 78.0 E 28 329 0. 0
83.5 357.3 3 45 0.0 3 32 28.8 6543 F1 68/08/20
2440089 50.0 N 078.0 E 0.0
0 83.5 357.3 03-45-00.0 03-32-28

.8 TIPPJGLXWF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

30 6543 F2 68 8 20 2440089 50.0 N 78.0 E 28 329 0. 0
83.5 357.3 3 45 0.0 3 32 28.8 6543 F2 68/08/20
2440089 50.0 N 078.0 E 0.0
0 83.5 357.3 03-45-00.0 03-32-28

.8 TIPPJGLXWF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

30 6543 F3 68 8 20 2440089 50.0 N 78.0 E 28 329 0. 0
83.5 357.3 3 45 0.0 3 32 28.8 6543 F3 68/08/20
2440089 50.0 N 078.0 E 0.0
0 83.5 357.3 03-45-00.0 03-32-28

.8 TIPPJGLXWF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

30 6543 F4 68 8 20 2440089 50.0 N 78.0 E 28 329 0. 0
83.5 357.3 3 45 0.0 3 32 28.8 6543 F4 68/08/20
2440089 50.0 N 078.0 E 0.0
0 83.5 357.3 03-45-00.0 03-32-28

.8 TIPPJGLXWF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

31 7165 PM 68 9 20 2440129 49.8 N 78.1 E 28 329 33. 33
83.7 357.2 3 55 26.9 3 42 54.6 7165 PM 68/09/29
2440129 49.8 N 078.1 E 6.1
33 83.7 357.2 03-55-26.9 03-42-54

.6 JGPDROTCL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

31 7165 F1 68 9 20 2440129 49.8 N 78.1 E 28 329 33. 33
83.7 357.2 3 55 26.9 3 42 54.6 7165 F1 68/09/29
2440129 49.8 N 078.1 E 6.1
33 83.7 357.2 03-55-26.9 03-42-54

.6 JGPDROTCL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

31 7165 F2 68 9 20 2440129 49.8 N 78.1 E 28 329 33. 33
83.7 357.2 3 55 26.9 3 42 54.6 7165 F2 68/09/29
2440129 49.8 N 078.1 E 6.1
33 83.7 357.2 03-55-26.9 03-42-54

.6 JGPDROTCL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

31 7165 F3 68 9 20 2440129 49.8 N 78.1 E 28 329 33. 33
83.7 357.2 3 55 26.9 3 42 54.6 7165 F3 68/09/29
2440129 49.8 N 078.1 E 6.1
33 83.7 357.2 03-55-26.9 03-42-54

.6 JGPDROTCL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

31 7165 F4 68 9 20 2440129 49.8 N 78.1 E 28 329 33. 33

83.7 357.2 3 55 26.9 3 42 54.6 7165 F4 68/09/29
 2440129 49.8 N 078.1 E 6.1
 33 83.7 357.2 03-55-26.9 03-42-54
 .6 JGPDROICXL 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

32 7292 BM 68 11 7 2440168 73.4 N 54.9 E 40 648 0. 0
 59.4 6.2 10 12 12.1 10 2 5.1 7292 BM 68/11/07
 2440168 73.4 N 054.9 E 6.0
 0 59.4 6.2 10-12-12.1 10-02-05
 .1 BMXEGLTIRD 40 ARCT
 IC ZONE 648 NOVAYA ZEMLYA

32 7292 F1 68 11 7 2440168 73.4 N 54.9 E 40 648 0. 0
 59.4 6.2 10 12 12.1 10 2 5.1 7292 F1 68/11/07
 2440168 73.4 N 054.9 E 6.0
 0 59.4 6.2 10-12-12.1 10-02-05
 .1 BMXEGLTIRD 40 ARCT
 IC ZONE 648 NOVAYA ZEMLYA

32 7292 F2 68 11 7 2440168 73.4 N 54.9 E 40 648 0. 0
 59.4 6.2 10 12 12.1 10 2 5.1 7292 F2 68/11/07
 2440168 73.4 N 054.9 E 6.0
 0 59.4 6.2 10-12-12.1 10-02-05
 .1 BMXEGLTIRD 40 ARCT
 IC ZONE 648 NOVAYA ZEMLYA

32 7292 F3 68 11 7 2440168 73.4 N 54.9 E 40 648 0. 0
 59.4 6.2 10 12 12.1 10 2 5.1 7292 F3 68/11/07
 2440168 73.4 N 054.9 E 6.0
 0 59.4 6.2 10-12-12.1 10-02-05
 .1 BMXEGLTIRD 40 ARCT
 IC ZONE 648 NOVAYA ZEMLYA

32 7292 F4 68 11 7 2440168 73.4 N 54.9 E 40 648 0. 0
 59.4 6.2 10 12 12.1 10 2 5.1 7292 F4 68/11/07
 2440168 73.4 N 054.9 E 6.0
 0 59.4 6.2 10-12-12.1 10-02-05
 .1 BMXEGLTIRD 40 ARCT
 IC ZONE 648 NOVAYA ZEMLYA

33 7358 BM 68 11 9 2440170 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 3 6 29.9 2 53 57.6 7358 BM 68/11/09
 2440170 49.8 N 078.0 E 4.9
 0 83.7 357.3 03-06-29.9 02-53-57
 .6 ILTHZJOXIG 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

33 7358 F1 68 11 9 2440170 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 3 6 29.9 2 53 57.6 7358 F1 68/11/09
 2440170 49.8 N 078.0 E 4.9
 0 83.7 357.3 03-06-29.9 02-53-57
 .6 ILTHZJOXIG 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

33 7358 F2 68 11 9 2440170 49.8 N 78.0 E 28 329 0. 0
 83.7 357.3 3 6 29.9 2 53 57.6 7358 F2 68/11/09
 2440170 49.8 N 078.0 E 4.9
 0 83.7 357.3 03-06-29.9 02-53-57
 .6 ILTHZJOXIG 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

33 735R F3 6R 11 9 2440170 49.8 N 78.0 E 2R 329 0. 0
 83.7 357.3 3 6 29.9 2 53 57.6 735R F3 68/11/09
 2440170 49.8 N 078.0 E 4.9
 0 83.7 357.3 03-06-29.9 02-53-57
 .6 ILTHZJXIG 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

33 735R F4 6R 11 9 2440170 49.8 N 78.0 E 2R 329 0. 0
 83.7 357.3 3 6 29.9 2 53 57.6 735R F4 68/11/09
 2440170 49.8 N 078.0 E 4.9
 0 83.7 357.3 03-06-29.9 02-53-57
 .6 ILTHZJXIG 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

34 7489 BM 6R 12 1R 2440209 49.7 N 78.1 E 2R 329 0. 0
 83.8 357.2 5 14 29.7 5 1 56.7 7489 BM 68/12/18
 2440209 49.7 N 078.1 E 5.2
 0 83.8 357.2 05-14-29.7 05-01-56
 .7 HMLTXIERID 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

34 7489 F1 6R 12 1R 2440209 49.7 N 78.1 E 2R 329 0. 0
 83.8 357.2 5 14 29.7 5 1 56.7 7489 F1 68/12/18
 2440209 49.7 N 078.1 E 5.2
 0 83.8 357.2 05-14-29.7 05-01-56
 .7 HMLTXIERID 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

34 7489 F2 6R 12 1R 2440209 49.7 N 78.1 E 2R 329 0. 0
 83.8 357.2 5 14 29.7 5 1 56.7 7489 F2 68/12/18
 2440209 49.7 N 078.1 E 5.2
 0 83.8 357.2 05-14-29.7 05-01-56
 .7 HMLTXIERID 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

34 7489 F3 6R 12 1R 2440209 49.7 N 78.1 E 2R 329 0. 0
 83.8 357.2 5 14 29.7 5 1 56.7 7489 F3 68/12/18
 2440209 49.7 N 078.1 E 5.2
 0 83.8 357.2 05-14-29.7 05-01-56
 .7 HMLTXIERID 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

34 7489 F4 6R 12 1R 2440209 49.7 N 78.1 E 2R 329 0. 0
 83.8 357.2 5 14 29.7 5 1 56.7 7489 F4 68/12/18
 2440209 49.7 N 078.1 E 5.2
 0 83.8 357.2 05-14-29.7 05-01-56
 .7 HMLTXIERID 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

35 755R BM 6R 3 7 244028R 49.8 N 78.1 E 2R 329 0. 0
 83.7 357.2 8 39 29.7 8 26 57.4 755R BM 69/03/07
 244028R 49.8 N 078.1 E 5.5
 0 83.7 357.2 08-39-29.7 08-26-57
 .4 YKUSSMLXCM 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

35 755R F1 6R 3 7 244028R 49.8 N 78.1 E 2R 329 0. 0
 83.7 357.2 8 39 29.7 8 26 57.4 755R F1 69/03/07

2440288 49.8 N 078.1 E 5.5
 0 83.7 357.2 08-39-29.7 08-26-57
 .4 YKUSSMLXCM 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

35 7558 F2 69 3 7 2440288 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 8 39 29.7 8 26 57.4 7558 F2 69/03/07
 2440288 49.8 N 078.1 E 5.5
 0 83.7 357.2 08-39-29.7 08-26-57
 .4 YKUSSMLXCM 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

35 7558 F3 69 3 7 2440288 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 8 39 29.7 8 26 57.4 7558 F3 69/03/07
 2440288 49.8 N 078.1 E 5.5
 0 83.7 357.2 08-39-29.7 08-26-57
 .4 YKUSSMLXCM 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

35 7558 F4 69 3 7 2440288 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 8 39 29.7 8 26 57.4 7558 F4 69/03/07
 2440288 49.8 N 078.1 E 5.5
 0 83.7 357.2 08-39-29.7 08-26-57
 .4 YKUSSMLXCM 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

36 1390 RM 69 5 16 2440358 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 4 15 29.3 4 2 57.0 1390 RM 69/05/16
 2440358 49.8 N 078.1 E 5.3
 0 83.7 357.2 04-15-29.3 04-02-57
 .0 LJWTTTRYDD 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

36 1390 F1 69 5 16 2440358 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 4 15 29.3 4 2 57.0 1390 F1 69/05/16
 2440358 49.8 N 078.1 E 5.3
 0 83.7 357.2 04-15-29.3 04-02-57
 .0 LJWTTTRYDD 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

36 1390 F2 69 5 16 2440358 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 4 15 29.3 4 2 57.0 1390 F2 69/05/16
 2440358 49.8 N 078.1 E 5.3
 0 83.7 357.2 04-15-29.3 04-02-57
 .0 LJWTTTRYDD 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

36 1390 F3 69 5 16 2440358 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 4 15 29.3 4 2 57.0 1390 F3 69/05/16
 2440358 49.8 N 078.1 E 5.3
 0 83.7 357.2 04-15-29.3 04-02-57
 .0 LJWTTTRYDD 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

36 1390 F4 69 5 16 2440358 49.8 N 78.1 E 28 329 0. 0
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 0 83.7 357.2 04-15-29.3 04-02-57
 .0 LJWTTTRYDD 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

37 7661 BM 69 5 31 2440373 50.0 N 77.7 E 28 7661 0. 0
83.5 357.5 5 14 27.8 5 1 56.5 7661 BM 69/05/31
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0 83.5 357.5 05-14-27.8 05-01-56
.5 FLCGTXFEBH 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

37 7661 F1 69 5 31 2440373 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 5 14 27.8 5 1 56.5 7661 F1 69/05/31
2440373 50.0 N 077.7 E 5.4
0 83.5 357.5 05-14-27.8 05-01-56
.5 FLCGTXFEBH 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

37 7661 F2 69 5 31 2440373 50.0 N 77.7 E 28 329 0. 0
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2440373 50.0 N 077.7 E 5.4
0 83.5 357.5 05-14-27.8 05-01-56
.5 FLCGTXFEBH 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

37 7661 F2 69 5 31 2440373 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 5 14 27.8 5 1 56.5 7661 F2 69/05/31
2440373 50.0 N 077.7 E 5.4
0 83.5 357.5 05-14-27.8 05-01-56
.5 FLCGTXFEBH 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

37 7661 F3 69 5 31 2440373 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 5 14 27.8 5 1 56.5 7661 F3 69/05/31
2440373 50.0 N 077.7 E 5.4
0 83.5 357.5 05-14-27.8 05-01-56
.5 FLCGTXFEBH 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

38 1502 BM 69 7 4 2440407 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 2 59 29.7 2 46 56.7 1502 BM 69/07/04
2440407 49.7 N 078.2 E 5.3
0 83.8 357.1 02-59-29.7 02-46-56
.7 EHQRXMLYAP 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

38 1502 F1 69 7 4 2440407 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 2 59 29.7 2 46 56.7 1502 F1 69/07/04
2440407 49.7 N 078.2 E 5.3
0 83.8 357.1 02-59-29.7 02-46-56
.7 EHQRXMLYAP 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

38 1502 F2 69 7 4 2440407 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 2 59 29.7 2 46 56.7 1502 F2 69/07/04
2440407 49.7 N 078.2 E 5.3
0 83.8 357.1 02-59-29.7 02-46-56
.7 EHQRXMLYAP 28 ALMA
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38 1502 F3 69 7 4 2440407 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 2 59 29.7 2 46 56.7 1502 F3 69/07/04
2440407 49.7 N 078.2 E 5.3
0 83.8 357.1 02-59-29.7 02-46-56
.7 EHQRXMLYAP 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

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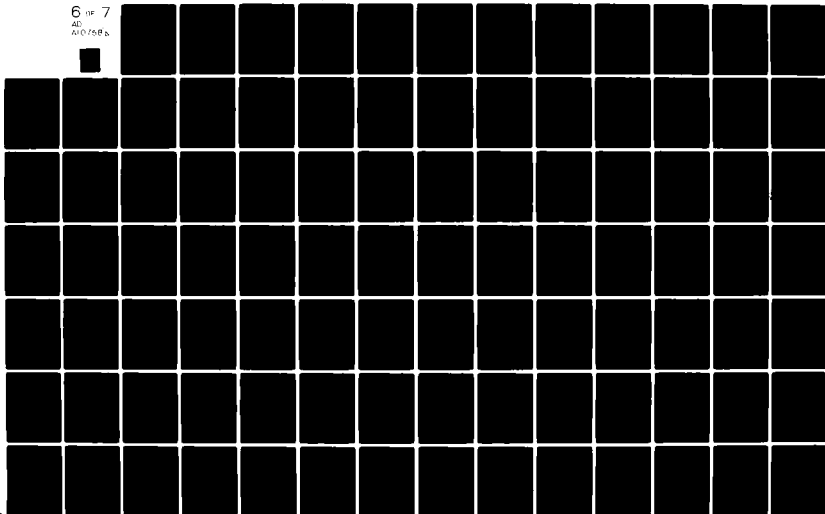
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0 P3.8 357.1 02-59-29.7 02-46-56
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 2440407 49.7 N 078.2 E 5.3

0 P3.8 357.1 02-59-29.7 02-46-56
 .7 EHORXMLYWR 28 ALMA
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3A 1524 RM 69 7 21 2440424 49.8 N 78.1 E 2A 329 33. 33
 83.7 357.2 10 57 2.1 10 44 29.8 1524 RM 69/07/21
 2440424 49.8 N 078.1 E 4.3

33 P3.7 357.2 10-57-02.1 10-44-29
 .8 KCIDFVLFXJ 28 ALMA
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3A 1524 F1 69 7 21 2440424 49.8 N 78.1 E 2A 329 33. 33
 83.7 357.2 10 57 2.1 10 44 29.8 1524 F1 69/07/21
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33 P3.7 357.2 10-57-02.1 10-44-29
 .8 KCIDFVLFXJ 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

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 83.7 357.2 10 57 2.1 10 44 29.8 1524 F2 69/07/21
 2440424 49.8 N 078.1 E 4.3

33 P3.7 357.2 10-57-02.1 10-44-29
 .8 KCIDFVLFXJ 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

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 2440424 49.8 N 078.1 E 4.3

33 P3.7 357.2 10-57-02.1 10-44-29
 .8 KCIDFVLFXJ 28 ALMA
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40 1668 RM 69 9 11 2440476 49.8 N 78.0 E 2A 329 0. 0
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 2440476 49.8 N 078.0 E 5.0

0 P3.7 357.3 04-14-29.8 04-01-57
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40 1668 F1 69 9 11 2440476 49.8 N 78.0 E 2A 329 0. 0
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 2440476 49.8 N 078.0 E 5.0

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 .5 JDGTOSXLGV 28 ALMA
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40 1668 F2 69 9 11 2440476 49.8 N 78.0 E 28 329 0. 0
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2440476 49.8 N 078.0 E 5.0
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40 1668 F3 69 9 11 2440476 49.8 N 78.0 E 28 329 0. 0
83.7 357.3 4 14 29.8 4 1 57.5 1668 F3 69/09/11
2440476 49.8 N 078.0 E 5.0
0 83.7 357.3 04-14-29.8 04-01-57
.5 JDGTOSXLGV 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

40 1668 F4 69 9 11 2440476 49.8 N 78.0 E 28 329 0. 0
83.7 357.3 4 14 29.8 4 1 57.5 1668 F4 69/09/11
2440476 49.8 N 078.0 E 5.0
0 83.7 357.3 04-14-29.8 04-01-57
.5 JDGTOSXLGV 28 ALMA
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41 1695 RM 69 9 26 2440491 45.8 N 42.5 E 30 357 0. 0
83.8 21.4 7 12 27.9 6 59 55.2 1695 RM 69/09/26
2440491 45.8 N 042.5 E 5.6
0 83.8 21.4 07-12-27.9 06-59-55
.2 XLBWHD RSSO 30 MIDD
LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

41 1695 F1 69 9 26 2440491 45.8 N 42.5 E 30 357 0. 0
83.8 21.4 7 12 27.9 6 59 55.2 1695 F1 69/09/26
2440491 45.8 N 042.5 E 5.6
0 83.8 21.4 07-12-27.9 06-59-55
.2 XLBWHD RSSO 30 MIDD
LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

41 1695 F2 69 9 26 2440491 45.8 N 42.5 E 30 357 0. 0
83.8 21.4 7 12 27.9 6 59 55.2 1695 F2 69/09/26
2440491 45.8 N 042.5 E 5.6
0 83.8 21.4 07-12-27.9 06-59-55
.2 XLBWHD RSSO 30 MIDD
LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

41 1695 F3 69 9 26 2440491 45.8 N 42.5 E 30 357 0. 0
83.8 21.4 7 12 27.9 6 59 55.2 1695 F3 69/09/26
2440491 45.8 N 042.5 E 5.6
0 83.8 21.4 07-12-27.9 06-59-55
.2 XLBWHD RSSO 30 MIDD
LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

41 1695 F4 69 9 26 2440491 45.8 N 42.5 E 30 357 0. 0
83.8 21.4 7 12 27.9 6 59 55.2 1695 F4 69/09/26
2440491 45.8 N 042.5 E 5.6
0 83.8 21.4 07-12-27.9 06-59-55
.2 XLBWHD RSSO 30 MIDD
LE EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

42 1741 RM 69 10 1 2440496 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 4 15 29.8 4 2 57.5 1741 RM 69/10/01
2440496 49.8 N 078.1 E 5.3
0 83.7 357.2 04-15-29.8 04-02-57

.5 CBXCVMITVL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

42 1741 F1 69 10 1 2440496 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 4 15 29.8 4 2 57.5 1741 F1 69/10/01
2440496 49.8 N 078.1 E 5.3
0 83.7 357.2 04-15-29.8 04-02-57

.5 CBXCVMITVL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

42 1741 F2 69 10 1 2440496 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 4 15 29.8 4 2 57.5 1741 F2 69/10/01
2440496 49.8 N 078.1 E 5.3
0 83.7 357.2 04-15-29.8 04-02-57

.5 CBXCVMITVL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

42 1741 F3 69 10 1 2440496 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 4 15 29.8 4 2 57.5 1741 F3 69/10/01
2440496 49.8 N 078.1 E 5.3
0 83.7 357.2 04-15-29.8 04-02-57

.5 CRXCVMITVL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

42 1741 F4 69 10 1 2440496 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 4 15 29.8 4 2 57.5 1741 F4 69/10/01
2440496 49.8 N 078.1 E 5.3
0 83.7 357.2 04-15-29.8 04-02-57

.5 CRXCVMITVL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

43 1750 RM 69 10 14 2440509 73.4 N 54.8 E 40 648 0. 0
59.4 6.2 7 10 12.9 7 0 5.9 1750 RM 69/10/14
2440509 73.4 N 054.8 E 6.1
0 59.4 6.2 07-10-12.9 07-00-05

.9 DELRVXWPHH 40 ARCT
IC ZONE 648 NOVAYA ZEMLYA

43 1750 F1 69 10 14 2440509 73.4 N 54.8 E 40 648 0. 0
59.4 6.2 7 10 12.9 7 0 5.9 1750 F1 69/10/14
2440509 73.4 N 054.8 E 6.1
0 59.4 6.2 07-10-12.9 07-00-05

.9 DELRVXWPHH 40 ARCT
IC ZONE 648 NOVAYA ZEMLYA

43 1750 F2 69 10 14 2440509 73.4 N 54.8 E 40 648 0. 0
59.4 6.2 7 10 12.9 7 0 5.9 1750 F2 69/10/14
2440509 73.4 N 054.8 E 6.1
0 59.4 6.2 07-10-12.9 07-00-05

.9 DELRVXWPHH 40 ARCT
IC ZONE 648 NOVAYA ZEMLYA

43 1750 F3 69 10 14 2440509 73.4 N 54.8 E 40 648 0. 0
59.4 6.2 7 10 12.9 7 0 5.9 1750 F3 69/10/14
2440509 73.4 N 054.8 E 6.1
0 59.4 6.2 07-10-12.9 07-00-05

.9 DELRVXWPHH 40 ARCT
IC ZONE 648 NOVAYA ZEMLYA

43 1750 F4 69 10 14 2440509 73.4 N 54.8 E 40 648 0. 0

59.4 6.2 7 10 12.9 7 0 5.9 1750 F4 69/10/14
2440509 73.4 N 054.8 E 6.1
0 59.4 6.2 07-10-12.9 07-00-05
.9 OFLRVXWPHH 40 ARCT
IC ZONE 648 NOVAYA ZEMLYA
44 1774 BM 69 11 30 2440556 49.9 N 79.0 E 28 329 0. 0
83.6 356.6 3 45 28.7 3 32 57.1 1774 BM 69/11/30
2440556 49.9 N 079.0 E 6.0
0 83.6 356.6 03-45-28.7 03-32-57
.1 WXXPHKEFEL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR
44 1774 F1 69 11 30 2440556 49.9 N 79.0 E 28 329 0. 0
83.6 356.6 3 45 28.7 3 32 57.1 1774 F1 69/11/30
2440556 49.9 N 079.0 E 6.0
0 83.6 356.6 03-45-28.7 03-32-57
.1 WXXPHKEFEL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR
44 1774 F2 69 11 30 2440556 49.9 N 79.0 E 28 329 0. 0
83.6 356.6 3 45 28.7 3 32 57.1 1774 F2 69/11/30
2440556 49.9 N 079.0 E 6.0
0 83.6 356.6 03-45-28.7 03-32-57
.1 WXXPHKEFEL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR
44 1774 F3 69 11 30 2440556 49.9 N 79.0 E 28 329 0. 0
83.6 356.6 3 45 28.7 3 32 57.1 1774 F3 69/11/30
2440556 49.9 N 079.0 E 6.0
0 83.6 356.6 03-45-28.7 03-32-57
.1 WXXPHKEFEL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR
44 1774 F4 69 11 30 2440556 49.9 N 79.0 E 28 329 0. 0
83.6 356.6 3 45 28.7 3 32 57.1 1774 F4 69/11/30
2440556 49.9 N 079.0 E 6.0
0 83.6 356.6 03-45-28.7 03-32-57
.1 WXXPHKEFEL 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR
45 2019 BM 69 12 6 2440562 43.8 N 54.8 E 29 336 0. 0
88.3 13.6 7 15 52.0 7 2 57.7 2019 BM 69/12/06
2440562 43.8 N 054.8 E 5.8
0 88.3 13.6 07-15-52.0 07-02-57
.7 RIELEVDTXR 29 WEST
ERN ASIA 336 WESTERN KAZAKH SSR
45 2019 F1 69 12 6 2440562 43.8 N 54.8 E 29 336 0. 0
88.3 13.6 7 15 52.0 7 2 57.7 2019 F1 69/12/06
2440562 43.8 N 054.8 E 5.8
0 88.3 13.6 07-15-52.0 07-02-57
.7 RIELEVDTXR 29 WEST
ERN ASIA 336 WESTERN KAZAKH SSR
45 2019 F2 69 12 6 2440562 43.8 N 54.8 E 29 336 0. 0
88.3 13.6 7 15 52.0 7 2 57.7 2019 F2 69/12/06
2440562 43.8 N 054.8 E 5.8
0 88.3 13.6 07-15-52.0 07-02-57
.7 RIELEVDTXP 29 WEST

ERN ASIA

336 WESTERN KAZAKH SSR

45 2019 F3 69 12 6 2440562 43.8 N 54.8 E 29 336 0. 0
 88.3 13.6 7 15 52.0 7 2 57.7 2019 F3 69/12/06
 2440562 43.8 N 054.8 E 5.8
 0 88.3 13.6 07-15-52.0 07-02-57

.7 RIELEVDTXR

29 WEST

ERN ASIA

336 WESTERN KAZAKH SSR

45 2019 F4 69 12 6 2440562 43.8 N 54.8 E 29 336 0. 0
 88.3 13.6 7 15 52.0 7 2 57.7 2019 F4 69/12/06
 2440562 43.8 N 054.8 E 5.8
 0 88.3 13.6 07-15-52.0 07-02-57

.7 RIELEVDTXR

29 WEST

ERN ASIA

336 WESTERN KAZAKH SSR

46 2267 RM 69 12 28 2440584 50.0 N 77.7 E 28 329 0. 0
 83.5 357.5 3 59 29.2 3 46 57.9 2267 RM 69/12/28
 2440584 50.0 N 077.7 E 5.7
 0 83.5 357.5 03-59-29.2 03-46-57

.9 JCTZLTZDXG

28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

46 2267 F1 69 12 28 2440584 50.0 N 77.7 E 28 329 0. 0
 83.5 357.5 3 59 29.2 3 46 57.9 2267 F1 69/12/28
 2440584 50.0 N 077.7 E 5.7
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.9 JCTZLTZDXG

28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

46 2267 F2 69 12 28 2440584 50.0 N 77.7 E 28 329 0. 0
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 0 83.5 357.5 03-59-29.2 03-46-57

.9 JCTZLTZDXG

28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

46 2267 F3 69 12 28 2440584 50.0 N 77.7 E 28 329 0. 0
 83.5 357.5 3 59 29.2 3 46 57.9 2267 F3 69/12/28
 2440584 50.0 N 077.7 E 5.7
 0 83.5 357.5 03-59-29.2 03-46-57

.9 JCTZLTZDXG

28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

46 2267 F4 69 12 28 2440584 50.0 N 77.7 E 28 329 0. 0
 83.5 357.5 3 59 29.2 3 46 57.9 2267 F4 69/12/28
 2440584 50.0 N 077.7 E 5.7
 0 83.5 357.5 03-59-29.2 03-46-57

.9 JCTZLTZDXG

28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

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.6 WMLWOYXRHE

28 ALMA

-ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

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 83.7 357.2 4 14 30.9 4 1 58.6 2272 F1 69/12/29

2440585 49.8 N 078.1 E 4.6
 0 83.7 357.2 04-14-30.9 04-01-58
 .6 WMLWOYXRHE 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

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 2440585 49.8 N 078.1 E 4.6
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 .6 WMLWOYXRHE 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

47 2272 F3 69 12 29 2440585 49.8 N 78.1 E 28 329 0. 0
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 2440585 49.8 N 078.1 E 4.6
 0 83.7 357.2 04-14-30.9 04-01-58
 .6 WMLWOYXRHE 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

47 2272 F4 69 12 29 2440585 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 4 14 30.9 4 1 58.6 2272 F4 69/12/29
 2440585 49.8 N 078.1 E 4.6
 0 83.7 357.2 04-14-30.9 04-01-58
 .6 WMLWOYXRHE 28 ALMA
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48 2462 RM 70 7 24 2440792 49.8 N 78.1 E 28 329 0. 0
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 0 83.7 357.2 04-09-29.6 03-56-57
 .3 VIJRLFXCFR 28 ALMA
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48 2462 F1 70 7 24 2440792 49.8 N 78.1 E 28 329 0. 0
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 .3 VIJRLFXCFR 28 ALMA
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 .3 VIJRLFXCFR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

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 2440792 49.8 N 078.1 E 5.3
 0 83.7 357.2 04-09-29.6 03-56-57
 .3 VIJRLFXCFR 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

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 83.7 357.2 4 9 29.6 3 56 57.3 2462 F4 70/07/24
 2440792 49.8 N 078.1 E 5.3
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 .3 VIJRLFXCFR 28 ALMA
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2441109 50.0 N 077.7 E 5.5
0 83.5 357.5 04-15-28.8 04-02-57
.5 RMJXLSHGUF 28 ALMA
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49 8817 F1 71 6 6 2441109 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 4 15 28.8 4 2 57.5 8817 F1 71/06/06
2441109 50.0 N 077.7 E 5.5
0 83.5 357.5 04-15-28.8 04-02-57
.5 RMJXLSHGUF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

49 8817 F2 71 6 6 2441109 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 4 15 28.8 4 2 57.5 8817 F2 71/06/06
2441109 50.0 N 077.7 E 5.5
0 83.5 357.5 04-15-28.8 04-02-57
.5 RMJXLSHGUF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

49 8817 F3 71 6 6 2441109 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 4 15 28.8 4 2 57.5 8817 F3 71/06/06
2441109 50.0 N 077.7 E 5.5
0 83.5 357.5 04-15-28.8 04-02-57
.5 RMJXLSHGUF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

49 8817 F4 71 6 6 2441109 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 4 15 28.8 4 2 57.5 8817 F4 71/06/06
2441109 50.0 N 077.7 E 5.5
0 83.5 357.5 04-15-28.8 04-02-57
.5 RMJXLSHGUF 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

50 8835 BM 71 6 30 2441133 49.9 N 79.0 E 28 329 0. 0
83.6 356.6 4 9 28.7 3 56 57.1 8835 BM 71/06/30
2441133 49.9 N 079.0 E 5.4
0 83.6 356.6 04-09-28.7 03-56-57
.1 XGLHEOZZV 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

50 8835 F1 71 6 30 2441133 49.9 N 79.0 E 28 329 0. 0
83.6 356.6 4 9 28.7 3 56 57.1 8835 F1 71/06/30
2441133 49.9 N 079.0 E 5.4
0 83.6 356.6 04-09-28.7 03-56-57
.1 XGLHEOZZV 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

50 8835 F2 71 6 30 2441133 49.9 N 79.0 E 28 329 0. 0
83.6 356.6 4 9 28.7 3 56 57.1 8835 F2 71/06/30
2441133 49.9 N 079.0 E 5.4
0 83.6 356.6 04-09-28.7 03-56-57
.1 XGLHEOZZV 28 ALMA
-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

50 8835 F3 71 6 30 2441133 49.9 N 79.0 E 28 329 0. 0
83.6 356.6 4 9 28.7 3 56 57.1 8835 F3 71/06/30
2441133 49.9 N 079.0 F 5.4

0 83.6 356.6 04-09-28.7 03-56-57
 .1 XGLHE00ZZV 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

50 8835 F4 71 6 30 2441133 49.9 N 79.0 E 28 329 0. 0
 83.6 356.6 4 9 28.7 3 56 57.1 8835 F4 71/06/30
 2441133 49.9 N 079.0 E 5.4
 0 83.6 356.6 04-09-28.7 03-56-57

.1 XGLHE00ZZV 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

51 8837 BM 71 7 2 2441135 67.3 N 63.5 E 29 335 33. 33
 66.0 4.3 17 10 46.5 16 59 56.5 8837 BM 71/07/02
 2441135 67.3 N 063.5 E 4.4
 33 66.0 4.3 17-10-46.5 16-59-56.

5 UDESXLMUOZ 29 WESTE
 RN ASIA 335 URAL MOUNTAINS REGION

51 8837 F1 71 7 2 2441135 67.3 N 63.5 E 29 335 33. 33
 66.0 4.3 17 10 46.5 16 59 56.5 8837 F1 71/07/02
 2441135 67.3 N 063.5 E 4.4
 33 66.0 4.3 17-10-46.5 16-59-56

.5 UDESXLMUOZ 29 WEST
 ERN ASIA 335 URAL MOUNTAINS REGION

51 8837 F2 71 7 2 2441135 67.3 N 63.5 E 29 335 33. 33
 66.0 4.3 17 10 46.5 16 59 56.5 8837 F2 71/07/02
 2441135 67.3 N 063.5 E 4.4
 33 66.0 4.3 17-10-46.5 16-59-56

.5 UDESXLMUOZ 29 WEST
 ERN ASIA 335 URAL MOUNTAINS REGION

51 8837 F3 71 7 2 2441135 67.3 N 63.5 E 29 335 33. 33
 66.0 4.3 17 10 46.5 16 59 56.5 8837 F3 71/07/02
 2441135 67.3 N 063.5 E 4.4
 33 66.0 4.3 17-10-46.5 16-59-56

.5 UDESXLMUOZ 29 WEST
 ERN ASIA 335 URAL MOUNTAINS REGION

51 8837 F4 71 7 2 2441135 67.3 N 63.5 E 29 335 33. 33
 66.0 4.3 17 10 46.5 16 59 56.5 8837 F4 71/07/02
 2441135 67.3 N 063.5 E 4.4
 33 66.0 4.3 17-10-46.5 16-59-56

.5 UDESXLMUOZ 29 WEST
 ERN ASIA 335 URAL MOUNTAINS REGION

52 9218 BM 71 7 10 2441143 64.1 N 55.3 E 29 335 0. 0
 68.5 8.6 17 11 5.6 16 59 59.5 9218 BM 71/07/10
 2441143 64.1 N 055.3 E 5.3
 0 68.5 8.6 17-11-05.6 16-59-59

.5 UVFFVXWBLC 29 WEST
 ERN ASIA 335 URAL MOUNTAINS REGION

52 9218 F1 71 7 10 2441143 64.1 N 55.3 E 29 335 0. 0
 68.5 8.6 17 11 5.6 16 59 59.5 9218 F1 71/07/10
 2441143 64.1 N 055.3 E 5.3
 0 68.5 8.6 17-11-05.6 16-59-59

.5 UVFFVXWBLC 29 WEST
 ERN ASIA 335 URAL MOUNTAINS REGION

52 9218 F2 71 7 10 2441143 64.1 N 55.3 E 29 335 0. 0
 68.5 8.6 17 11 5.6 16 59 59.5 9218 F2 71/07/10
 2441143 64.1 N 055.3 E 5.3
 0 68.5 8.6 17-11-05.6 16-59-59
 .5 UVFFVXWRLC 29 WEST
 FRN ASIA 335 URAL MOUNTAINS REGION

52 9218 F3 71 7 10 2441143 64.1 N 55.3 E 29 335 0. 0
 68.5 8.6 17 11 5.6 16 59 59.5 9218 F3 71/07/10
 2441143 64.1 N 055.3 E 5.3
 0 68.5 8.6 17-11-05.6 16-59-59
 .5 UVFFVXWRLC 29 WEST
 FRN ASIA 335 URAL MOUNTAINS REGION

52 9218 F4 71 7 10 2441143 64.1 N 55.3 E 29 335 0. 0
 68.5 8.6 17 11 5.6 16 59 59.5 9218 F4 71/07/10
 2441143 64.1 N 055.3 E 5.3
 0 68.5 8.6 17-11-05.6 16-59-59
 .5 UVFFVXWRLC 29 WEST
 FRN ASIA 335 URAL MOUNTAINS REGION

53 8713 RM 71 9 19 2441214 57.8 N 41.1 E 49 724 33. 33
 72.3 17.6 11 11 31.6 11 0 2.0 8713 RM 71/09/19
 2441214 57.8 N 041.1 E 4.5
 33 72.3 17.6 11-11-31.6 11-00-02
 .0 FSLMVFXWED 49 NORT
 HERN ASIA 724 WESTERN RUSSIA

53 8713 F1 71 9 19 2441214 57.8 N 41.1 E 49 724 33. 33
 72.3 17.6 11 11 31.6 11 0 2.0 8713 F1 71/09/19
 2441214 57.8 N 041.1 E 4.5
 33 72.3 17.6 11-11-31.6 11-00-02
 .0 FSLMVFXWED 49 NORT
 HERN ASIA 724 WESTERN RUSSIA

53 8713 F2 71 9 19 2441214 57.8 N 41.1 E 49 724 33. 33
 72.3 17.6 11 11 31.6 11 0 2.0 8713 F2 71/09/19
 2441214 57.8 N 041.1 E 4.5
 33 72.3 17.6 11-11-31.6 11-00-02
 .0 FSLMVFXWED 49 NORT
 HERN ASIA 724 WESTERN RUSSIA

53 8713 F3 71 9 19 2441214 57.8 N 41.1 E 49 724 33. 33
 72.3 17.6 11 11 31.6 11 0 2.0 8713 F3 71/09/19
 2441214 57.8 N 041.1 E 4.5
 33 72.3 17.6 11-11-31.6 11-00-02
 .0 FSLMVFXWED 49 NORT
 HERN ASIA 724 WESTERN RUSSIA

53 8713 F4 71 9 19 2441214 57.8 N 41.1 E 49 724 33. 33
 72.3 17.6 11 11 31.6 11 0 2.0 8713 F4 71/09/19
 2441214 57.8 N 041.1 E 4.5
 33 72.3 17.6 11-11-31.6 11-00-02
 .0 FSLMVFXWED 49 NORT
 HERN ASIA 724 WESTERN RUSSIA

54 9136 RM 71 10 4 2441229 61.6 N 47.1 E 49 724 13. 13
 69.9 13.2 10 11 15.0 10 0 .9 9136 RM 71/10/04
 2441229 61.6 N 047.1 E 5.1

13 69.9 13.2 10-11-15.0 10-00-00
 .9 MHSXWUIWDL 49 NORT
 HERN ASIA 724 WESTERN RUSSIA

54 9136 F1 71 10 4 2441229 61.6 N 47.1 E 49 724 13. 13
 69.9 13.2 10 11 15.0 10 0 .9 9136 F1 71/10/04
 2441229 61.6 N 047.1 E 5.1
 13 69.9 13.2 10-11-15.0 10-00-00

.9 MHSXWUIWDL 49 NORT
 HERN ASIA 724 WESTERN RUSSIA

54 9136 F2 71 10 4 2441229 61.6 N 47.1 E 49 724 13. 13
 69.9 13.2 10 11 15.0 10 0 .9 9136 F2 71/10/04
 2441229 61.6 N 047.1 E 5.1
 13 69.9 13.2 10-11-15.0 10-00-00

.9 MHSXWUIWDL 49 NORT
 HERN ASIA 724 WESTERN RUSSIA

54 9136 F3 71 10 4 2441229 61.6 N 47.1 E 49 724 13. 13
 69.9 13.2 10 11 15.0 10 0 .9 9136 F3 71/10/04
 2441229 61.6 N 047.1 E 5.1
 13 69.9 13.2 10-11-15.0 10-00-00

.9 MHSXWUIWDL 49 NORT
 HERN ASIA 724 WESTERN RUSSIA

54 9136 F4 71 10 4 2441229 61.6 N 47.1 E 49 724 13. 13
 69.9 13.2 10 11 15.0 10 0 .9 9136 F4 71/10/04
 2441229 61.6 N 047.1 E 5.1
 13 69.9 13.2 10-11-15.0 10-00-00

.9 MHSXWUIWDL 49 NORT
 HERN ASIA 724 WESTERN RUSSIA

55 9253 RM 71 10 9 2441234 50.0 N 77.0 E 28 329 0. 0
 83.6 357.9 6 15 28.8 6 2 57.4 9253 RM 71/10/09
 2441234 50.0 N 077.0 E 5.4
 0 83.6 357.9 06-15-28.8 06-02-57

.4 IXZKSOUTYL 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

55 9253 F1 71 10 9 2441234 50.0 N 77.0 E 28 329 0. 0
 83.6 357.9 6 15 28.8 6 2 57.4 9253 F1 71/10/09
 2441234 50.0 N 077.0 E 5.4
 0 83.6 357.9 06-15-28.8 06-02-57

.4 IXZKSOUTYL 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

55 9253 F2 71 10 9 2441234 50.0 N 77.0 E 28 329 0. 0
 83.6 357.9 6 15 28.8 6 2 57.4 9253 F2 71/10/09
 2441234 50.0 N 077.0 E 5.4
 0 83.6 357.9 06-15-28.8 06-02-57

.4 IXZKSOUTYL 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

55 9253 F3 71 10 9 2441234 50.0 N 77.0 E 28 329 0. 0
 83.6 357.9 6 15 28.8 6 2 57.4 9253 F3 71/10/09
 2441234 50.0 N 077.0 E 5.4
 0 83.6 357.9 06-15-28.8 06-02-57

.4 IXZKSOUTYL 28 ALMA
 -ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

55 9253 F4 71 10 9 2441234 50.0 N 77.0 E 28 329 0. 0
 83.6 357.9 6 15 28.8 6 2 57.4 9253 F4 71/10/09
 2441234 50.0 N 077.0 E 5.4
 0 83.6 357.9 06-15-28.8 06-02-57
 .4 IXZKSOUTYL 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

56 9222 BM 71 10 21 2441246 50.0 N 77.0 E 28 329 0. 0
 83.6 357.9 6 15 29.0 6 2 57.6 9222 BM 71/10/21
 2441246 50.0 N 077.0 E 5.6
 0 83.6 357.9 06-15-29.0 06-02-57
 .6 ZXGUDBLGDK 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

56 9222 F1 71 10 21 2441246 50.0 N 77.0 E 28 329 0. 0
 83.6 357.9 6 15 29.0 6 2 57.6 9222 F1 71/10/21
 2441246 50.0 N 077.0 E 5.6
 0 83.6 357.9 06-15-29.0 06-02-57
 .6 ZXGUDPLGDK 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

56 9222 F2 71 10 21 2441246 50.0 N 77.0 E 28 329 0. 0
 83.6 357.9 6 15 29.0 6 2 57.6 9222 F2 71/10/21
 2441246 50.0 N 077.0 E 5.6
 0 83.6 357.9 06-15-29.0 06-02-57
 .6 ZXGUDRLGDK 28 ALMA

-ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

56 9222 F3 71 10 21 2441246 50.0 N 77.0 E 28 329 0. 0
 83.6 357.9 6 15 29.0 6 2 57.6 9222 F3 71/10/21
 2441246 50.0 N 077.0 E 5.6
 0 83.6 357.9 06-15-29.0 06-02-57.
 6 ZXGUDRLGDK 28 ALMA-

ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

56 9222 F4 71 10 21 2441246 50.0 N 77.0 E 28 329 0. 0
 83.6 357.9 6 15 29.0 6 2 57.6 9222 F4 71/10/21
 2441246 50.0 N 077.0 E 5.6
 0 83.6 357.9 06-15-29.0 06-02-57.
 6 ZXGUDRLGDK 28 ALMA-

ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

57 9223 BM 71 10 22 2441247 51.5 N 54.5 E 49 724 6. 6
 80.7 12.0 5 12 16.0 4 59 59.4 9223 BM 71/10/22
 2441247 51.5 N 054.5 E 5.3
 6 80.7 12.0 05-12-16.0 04-59-59.
 4 FLXYEHYFYY 49 NORTH

ERN ASIA 724 WESTERN RUSSIA

57 9223 F1 71 10 22 2441247 51.5 N 54.5 E 49 724 6. 6
 80.7 12.0 5 12 16.0 4 59 59.4 9223 F1 71/10/22
 2441247 51.5 N 054.5 E 5.3
 6 80.7 12.0 05-12-16.0 04-59-59.
 4 FLXYEHYFYY 49 NORTH

ERN ASIA 724 WESTERN RUSSIA

57 9223 F2 71 10 22 2441247 51.5 N 54.5 E 49 724 6. 6
 80.7 12.0 5 12 16.0 4 59 59.4 9223 F2 71/10/22
 2441247 51.5 N 054.5 E 5.3
 6 80.7 12.0 05-12-16.0 04-59-59.

4 FLXYEHYFYY 49 NORTH
ERN ASIA 724 WESTERN RUSSIA

57 9223 F3 71 10 22 2441247 51.5 N 54.5 E 49 724 6. 6
80.7 12.0 5 12 16.0 4 59 59.4 9223 F3 71/10/22
2441247 51.5 N 054.5 E 5.3
6 80.7 12.0 05-12-16.0 04-59-59.

4 FLXYEHYFYY 49 NORTH
ERN ASIA 724 WESTERN RUSSIA

57 9223 F4 71 10 22 2441247 51.5 N 54.5 E 49 724 6. 6
80.7 12.0 5 12 16.0 4 59 59.4 9223 F4 71/10/22
2441247 51.5 N 054.5 E 5.3
6 80.7 12.0 05-12-16.0 04-59-59.

4 FLXYEHYFYY 49 NORTH
ERN ASIA 724 WESTERN RUSSIA

58 9226 BM 71 11 29 2441285 49.7 N 78.1 E 28 329 0. 0
83.8 357.2 6 15 29.9 6 2 56.9 9226 BM 71/11/29
2441285 49.7 N 078.1 E 5.5
0 83.8 357.2 06-15-29.9 06-02-56.

0 LXGIPTGIFS 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

58 9226 F1 71 11 29 2441285 49.7 N 78.1 E 28 329 0. 0
83.8 357.2 6 15 29.9 6 2 56.9 9226 F1 71/11/29
2441285 49.7 N 078.1 E 5.5
0 83.8 357.2 06-15-29.9 06-02-56.

0 LXGIPTGIFS 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

58 9226 F2 71 11 29 2441285 49.7 N 78.1 E 28 329 0. 0
83.8 357.2 6 15 29.9 6 2 56.9 9226 F2 71/11/29
2441285 49.7 N 078.1 E 5.5
0 83.8 357.2 06-15-29.9 06-02-56.

0 LXGIPTGIFS 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

58 9226 F3 71 11 29 2441285 49.7 N 78.1 E 28 329 0. 0
83.8 357.2 6 15 29.9 6 2 56.9 9226 F3 71/11/29
2441285 49.7 N 078.1 E 5.5
0 83.8 357.2 06-15-29.9 06-02-56.

0 LXGIPTGIFS 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

58 9226 F4 71 11 29 2441285 49.7 N 78.1 E 28 329 0. 0
83.8 357.2 6 15 29.9 6 2 56.9 9226 F4 71/11/29
2441285 49.7 N 078.1 E 5.5
0 83.8 357.2 06-15-29.9 06-02-56.

0 LXGIPTGIFS 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

59 9336 BM 71 12 22 2441308 47.8 N 48.2 E 29 336 0. 0
83.2 17.0 7 12 25.8 6 59 56.7 9336 BM 71/12/22
2441308 47.8 N 048.2 E 6.0
0 83.2 17.0 07-12-25.8 06-59-56.

7 PXJDTUVILZ 29 WEST
ERN ASIA 336 WESTERN KAZAKH SSR

59 9336 F1 71 12 22 2441308 47.8 N 48.2 E 29 336 0. 0

83.2 17.0 7 12 25.8 6 59 56.7 9336 F1 71/12/22
 2441308 47.8 N 048.2 E 6.0
 0 83.2 17.0 07-12-25.8 06-59-56.
 7 PXJDTUVT LZ 29 WESTE
 RN ASIA 336 WESTERN KAZAKH SSR

59 9336 F2 71 12 22 2441308 47.8 N 48.2 E 29 336 0. 0
 83.2 17.0 7 12 25.8 6 59 56.7 9336 F2 71/12/22
 2441308 47.8 N 048.2 E 6.0
 0 83.2 17.0 07-12-25.8 06-59-56.
 7 PXJDTUVT LZ 29 WESTE
 RN ASIA 336 WESTERN KAZAKH SSR

59 9336 F3 71 12 22 2441308 47.8 N 48.2 E 29 336 0. 0
 83.2 17.0 7 12 25.8 6 59 56.7 9336 F3 71/12/22
 2441308 47.8 N 048.2 E 6.0
 0 83.2 17.0 07-12-25.8 06-59-56.
 7 PXJDTUVT LZ 29 WESTE
 RN ASIA 336 WESTERN KAZAKH SSR

59 9336 F4 71 12 22 2441308 47.8 N 48.2 E 29 336 0. 0
 83.2 17.0 7 12 25.8 6 59 56.7 9336 F4 71/12/22
 2441308 47.8 N 048.2 E 6.0
 0 83.2 17.0 07-12-25.8 06-59-56.
 7 PXJDTUVT LZ 29 WESTE
 RN ASIA 336 WESTERN KAZAKH SSR

60 9339 BM 71 12 30 2441316 47.9 N 78.1 E 28 329 0. 0
 85.6 357.1 6 33 30.6 6 20 48.5 9339 BM 71/12/30
 2441316 47.9 N 078.1 E 5.8
 0 85.6 357.1 06-33-30.6 06-20-48.
 5 EXLKKFEZTR 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

60 9339 F1 71 12 30 2441316 47.9 N 78.1 E 28 329 0. 0
 85.6 357.1 6 33 30.6 6 20 48.5 9339 F1 71/12/30
 2441316 47.9 N 078.1 E 5.8
 0 85.6 357.1 06-33-30.6 06-20-48.
 5 EXLKKFEZTR 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

60 9339 F2 71 12 30 2441316 47.9 N 78.1 E 28 329 0. 0
 85.6 357.1 6 33 30.6 6 20 48.5 9339 F2 71/12/30
 2441316 47.9 N 078.1 E 5.8
 0 85.6 357.1 06-33-30.6 06-20-48.
 5 EXLKKFEZTR 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

60 9339 F3 71 12 30 2441316 47.9 N 78.1 E 28 329 0. 0
 85.6 357.1 6 33 30.6 6 20 48.5 9339 F3 71/12/30
 2441316 47.9 N 078.1 E 5.8
 0 85.6 357.1 06-33-30.6 06-20-48.
 5 EXLKKFEZTR 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

60 9339 F4 71 12 30 2441316 47.9 N 78.1 E 28 329 0. 0
 85.6 357.1 6 33 30.6 6 20 48.5 9339 F4 71/12/30
 2441316 47.9 N 078.1 E 5.8
 0 85.6 357.1 06-33-30.6 06-20-48.
 5 EXLKKFEZTR 28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

61 9788 BM 72 2 10 2441358 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 5 15 28.8 5 2 57.8 9788 BM 72/02/10
 2441358 50.0 N 079.0 E 5.5
 0 83.5 356.6 05-15-28.8 05-02-57.

R GEECLXWCIS

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

61 9788 F1 72 2 10 2441358 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 5 15 28.8 5 2 57.8 9788 F1 72/02/10
 2441358 50.0 N 079.0 F 5.5
 0 83.5 356.6 05-15-28.8 05-02-57.

R GEECLXWCIS

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

61 9788 F2 72 2 10 2441358 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 5 15 28.8 5 2 57.8 9788 F2 72/02/10
 2441358 50.0 N 079.0 F 5.5
 0 83.5 356.6 05-15-28.8 05-02-57.

R GEECLXWCIS

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

61 9788 F3 72 2 10 2441358 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 5 15 28.8 5 2 57.8 9788 F3 72/02/10
 2441358 50.0 N 079.0 E 5.5
 0 83.5 356.6 05-15-28.8 05-02-57.

R GEECLXWCIS

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

61 9788 F4 72 2 10 2441358 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 5 15 28.8 5 2 57.8 9788 F4 72/02/10
 2441358 50.0 N 079.0 F 5.5
 0 83.5 356.6 05-15-28.8 05-02-57.

R GEECLXWCIS

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

62 9791 BM 72 3 10 2441387 50.0 N 78.0 E 28 329 0. 0
 83.5 357.3 5 9 30.2 4 56 59.0 9791 BM 72/03/10
 2441387 50.0 N 078.0 E 5.5
 0 83.5 357.3 05-09-30.2 04-56-59.

R DXLVJJYZMZ

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

62 9791 F1 72 3 10 2441387 50.0 N 78.0 E 28 329 0. 0
 83.5 357.3 5 9 30.2 4 56 59.0 9791 F1 72/03/10
 2441387 50.0 N 078.0 F 5.5
 0 83.5 357.3 05-09-30.2 04-56-59.

R DXLVJJYZMZ

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

62 9791 F2 72 3 10 2441387 50.0 N 78.0 E 28 329 0. 0
 83.5 357.3 5 9 30.2 4 56 59.0 9791 F2 72/03/10
 2441387 50.0 N 078.0 E 5.5
 0 83.5 357.3 05-09-30.2 04-56-59.

R DXLVJJYZMZ

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

62 9791 F3 72 3 10 2441387 50.0 N 78.0 E 28 329 0. 0
 83.5 357.3 5 9 30.2 4 56 59.0 9791 F3 72/03/10

2441387 50.0 N 078.0 E 5.5
 0 83.5 357.3 05-09-30.2 04-56-59.
 0 DXLVJJYZM7 28 ALMA-
 ATA TO LAKE BAIKAL 320 EASTERN KAZAKH SSR

62 9791 F4 72 3 10 2441387 50.0 N 78.0 E 28 320 0. 0
 83.5 357.3 5 9 30.2 4 56 59.0 9791 F4 72/03/10
 2441387 50.0 N 078.0 E 5.5
 0 83.5 357.3 05-09-30.2 04-56-59.
 0 DXLVJJYZM7 28 ALMA-
 ATA TO LAKE BAIKAL 320 EASTERN KAZAKH SSR

63 9792 RM 72 3 28 2441405 49.7 N 78.1 E 28 320 0. 0
 83.8 357.2 4 34 30.2 4 21 57.2 9792 RM 72/03/28
 2441405 49.7 N 078.1 E 5.2
 0 83.8 357.2 04-34-30.2 04-21-57.
 2 VELMSGXWPF 28 ALMA-
 ATA TO LAKE BAIKAL 320 EASTERN KAZAKH SSR

63 9792 F1 72 3 28 2441405 49.7 N 78.1 E 28 320 0. 0
 83.8 357.2 4 34 30.2 4 21 57.2 9792 F1 72/03/28
 2441405 49.7 N 078.1 E 5.2
 0 83.8 357.2 04-34-30.2 04-21-57.
 2 VELMSGXWPF 28 ALMA-
 ATA TO LAKE BAIKAL 320 EASTERN KAZAKH SSR

63 9792 F2 72 3 28 2441405 49.7 N 78.1 E 28 320 0. 0
 83.8 357.2 4 34 30.2 4 21 57.2 9792 F2 72/03/28
 2441405 49.7 N 078.1 E 5.2
 0 83.8 357.2 04-34-30.2 04-21-57.
 2 VELMSGXWPF 28 ALMA-
 ATA TO LAKE BAIKAL 320 EASTERN KAZAKH SSR

63 9792 F3 72 3 28 2441405 49.7 N 78.1 E 28 320 0. 0
 83.8 357.2 4 34 30.2 4 21 57.2 9792 F3 72/03/28
 2441405 49.7 N 078.1 E 5.2
 0 83.8 357.2 04-34-30.2 04-21-57.
 2 VELMSGXWPF 28 ALMA-
 ATA TO LAKE BAIKAL 320 EASTERN KAZAKH SSR

63 9792 F4 72 3 28 2441405 49.7 N 78.1 E 28 320 0. 0
 83.8 357.2 4 34 30.2 4 21 57.2 9792 F4 72/03/28
 2441405 49.7 N 078.1 E 5.2
 0 83.8 357.2 04-34-30.2 04-21-57.
 2 VELMSGXWPF 28 ALMA-
 ATA TO LAKE BAIKAL 320 EASTERN KAZAKH SSR

64 9757 RM 72 4 11 2441419 37.3 N 62.0 E 29 340 33. 33
 95.6 9.4 6 13 28.0 5 50 59.5 9757 RM 72/04/11
 2441419 37.3 N 062.0 E 4.0
 33 95.6 9.4 06-13-28.0 05-59-59.
 5 GQXVKLPJZG 29 WESTF
 RN ASIA 340 TURKMEN SSR

64 9757 F1 72 4 11 2441419 37.3 N 62.0 E 29 340 33. 33
 95.6 9.4 6 13 28.0 5 50 59.5 9757 F1 72/04/11
 2441419 37.3 N 062.0 E 4.0
 33 95.6 9.4 06-13-28.0 05-59-59.
 5 GQXVKLPJZG 29 WESTF
 RN ASIA 340 TURKMEN SSR

64 9757 F2 72 4 11 2441419 37.3 N 62.0 E 29 340 33. 33
 95.6 9.4 6 13 28.0 5 59 59.5 9757 F2 72/04/11
 2441419 37.3 N 062.0 E 4.9
 33 95.6 9.4 06-13-28.0 05-59-59.
 5 GOXVKLDJ7G 29 WESTE
 RN ASIA 340 TURKMEN SSR

64 9757 F3 72 4 11 2441419 37.3 N 62.0 E 29 340 33. 33
 95.6 9.4 6 13 28.0 5 59 59.5 9757 F3 72/04/11
 2441419 37.3 N 062.0 E 4.9
 33 95.6 9.4 06-13-28.0 05-59-59.
 5 GOXVKLDJ7G 29 WESTE
 RN ASIA 340 TURKMEN SSR

64 9757 F4 72 4 11 2441419 37.3 N 62.0 E 29 340 33. 33
 95.6 9.4 6 13 28.0 5 59 59.5 9757 F4 72/04/11
 2441419 37.3 N 062.0 E 4.9
 33 95.6 9.4 06-13-28.0 05-59-59.
 5 GOXVKLDJ7G 29 WESTE
 RN ASIA 340 TURKMEN SSR

65 9950 RM 72 6 7 2441476 49.8 N 78.2 E 28 329 0. 0
 83.7 357.1 1 40 29.9 1 27 57.6 9950 RM 72/06/07
 2441476 49.8 N 078.2 E 5.5
 0 83.7 357.1 01-40-29.9 01-27-57.
 6 VTRGLHWWPX 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

65 9950 F1 72 6 7 2441476 49.8 N 78.2 E 28 329 0. 0
 83.7 357.1 1 40 29.9 1 27 57.6 9950 F1 72/06/07
 2441476 49.8 N 078.2 E 5.5
 0 83.7 357.1 01-40-29.9 01-27-57.
 6 VTRGLHWWPX 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

65 9950 F2 72 6 7 2441476 49.8 N 78.2 E 28 329 0. 0
 83.7 357.1 1 40 29.9 1 27 57.6 9950 F2 72/06/07
 2441476 49.8 N 078.2 E 5.5
 0 83.7 357.1 01-40-29.9 01-27-57.
 6 VTRGLHWWPX 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

65 9950 F3 72 6 7 2441476 49.8 N 78.2 E 28 329 0. 0
 83.7 357.1 1 40 29.9 1 27 57.6 9950 F3 72/06/07
 2441476 49.8 N 078.2 E 5.5
 0 83.7 357.1 01-40-29.9 01-27-57.
 6 VTRGLHWWPX 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

65 9950 F4 72 6 7 2441476 49.8 N 78.2 E 28 329 0. 0
 83.7 357.1 1 40 29.9 1 27 57.6 9950 F4 72/06/07
 2441476 49.8 N 078.2 E 5.5
 0 83.7 357.1 01-40-29.9 01-27-57.
 6 VTRGLHWWPX 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

66 10178 RM 72 7 9 2441508 52.0 N 31.0 E 49 724 33. 33
 75.0 25.7 7 12 4.2 7 0 19.2 10178 RM 72/07/09
 2441508 52.0 N 031.0 E 4.6

33 75.0 25.7 07-12-04.2 07-00-19.
2 IFBVKLCXZP 49 NORTH
ERN ASIA 724 WESTERN RUSSIA

66 10178 F1 72 7 9 2441508 52.0 N 31.0 E 49 724 33. 33
75.0 25.7 7 12 4.2 7 0 19.2 10178 F1 72/07/09
2441508 52.0 N 031.0 F 4.6
33 75.0 25.7 07-12-04.2 07-00-19.

2 IFBVKLCXZP 49 NORTH
ERN ASIA 724 WESTERN RUSSIA

66 10178 F2 72 7 9 2441508 52.0 N 31.0 E 49 724 33. 33
75.0 25.7 7 12 4.2 7 0 19.2 10178 F2 72/07/09
2441508 52.0 N 031.0 F 4.6
33 75.0 25.7 07-12-04.2 07-00-19.

2 IFBVKLCXZP 49 NORTH
ERN ASIA 724 WESTERN RUSSIA

66 10178 F3 72 7 9 2441508 52.0 N 31.0 E 49 724 33. 33
75.0 25.7 7 12 4.2 7 0 19.2 10178 F3 72/07/09
2441508 52.0 N 031.0 F 4.6
33 75.0 25.7 07-12-04.2 07-00-19.

2 IFBVKLCXZP 49 NORTH
ERN ASIA 724 WESTERN RUSSIA

66 10178 F4 72 7 9 2441508 52.0 N 31.0 E 49 724 33. 33
75.0 25.7 7 12 4.2 7 0 19.2 10178 F4 72/07/09
2441508 52.0 N 031.0 F 4.6
33 75.0 25.7 07-12-04.2 07-00-19.

2 IFBVKLCXZP 49 NORTH
ERN ASIA 724 WESTERN RUSSIA

67 10192 BM 72 8 16 2441546 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 3 29 30.0 3 16 57.7 10192 BM 72/08/16
2441546 49.8 N 078.1 F 5.2
0 83.7 357.2 03-29-30.0 03-16-57.

7 GWPVKLXOCM 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

67 10192 F1 72 8 16 2441546 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 3 29 30.0 3 16 57.7 10192 F1 72/08/16
2441546 49.8 N 078.1 E 5.2
0 83.7 357.2 03-29-30.0 03-16-57.

7 GWPVKLXOCM 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

67 10192 F2 72 8 16 2441546 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 3 29 30.0 3 16 57.7 10192 F2 72/08/16
2441546 49.8 N 078.1 F 5.2
0 83.7 357.2 03-29-30.0 03-16-57.

7 GWPVKLXOCM 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

67 10192 F3 72 8 16 2441546 49.8 N 78.1 E 28 329 0. 0
83.7 357.2 3 29 30.0 3 16 57.7 10192 F3 72/08/16
2441546 49.8 N 078.1 E 5.2
0 83.7 357.2 03-29-30.0 03-16-57.

7 GWPVKLXOCM 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

67 10192 F4 72 8 16 2441546 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 3 29 30.0 3 16 57.7 10192 F4 72/08/16
 2441546 49.8 N 078.1 E 5.2
 0 83.7 357.2 03-29-30.0 03-16-57.

7 GNPVKLXOCM 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

68 10195 BM 72 8 20 2441550 49.5 N 48.2 E 29 336 0. 0
 81.6 16.5 3 12 19.5 2 59 58.6 10195 BM 72/08/20
 2441550 49.5 N 048.2 E 5.7
 0 81.6 16.5 03-12-19.5 02-59-58.

6 FCTSXZZGDL 29 WESTE
 RN ASIA 336 WESTERN KAZAKH SSR

68 10195 F1 72 8 20 2441550 49.5 N 48.2 E 29 336 0. 0
 81.6 16.5 3 12 19.5 2 59 58.6 10195 F1 72/08/20
 2441550 49.5 N 048.2 E 5.7
 0 81.6 16.5 03-12-19.5 02-59-58.

6 FCTSXZZGDL 29 WESTE
 RN ASIA 336 WESTERN KAZAKH SSR

68 10195 F2 72 8 20 2441550 49.5 N 48.2 E 29 336 0. 0
 81.6 16.5 3 12 19.5 2 59 58.6 10195 F2 72/08/20
 2441550 49.5 N 048.2 E 5.7
 0 81.6 16.5 03-12-19.5 02-59-58.

6 FCTSXZZGDL 29 WESTE
 RN ASIA 336 WESTERN KAZAKH SSR

68 10195 F3 72 8 20 2441550 49.5 N 48.2 E 29 336 0. 0
 81.6 16.5 3 12 19.5 2 59 58.6 10195 F3 72/08/20
 2441550 49.5 N 048.2 E 5.7
 0 81.6 16.5 03-12-19.5 02-59-58.

6 FCTSXZZGDL 29 WESTE
 RN ASIA 336 WESTERN KAZAKH SSR

68 10195 F4 72 8 20 2441550 49.5 N 48.2 E 29 336 0. 0
 81.6 16.5 3 12 19.5 2 59 58.6 10195 F4 72/08/20
 2441550 49.5 N 048.2 E 5.7
 0 81.6 16.5 03-12-19.5 02-59-58.

6 FCTSXZZGDL 29 WESTE
 RN ASIA 336 WESTERN KAZAKH SSR

69 10197 BM 72 8 28 2441558 73.3 N 55.1 E 40 648 0. 0
 59.5 6.1 6 10 4.3 5 59 56.5 10197 BM 72/08/28
 2441558 73.3 N 055.1 E 6.3
 0 59.5 6.1 06-10-04.3 05-59-56.

5 PBFRIJLFJX 40 ARCTI
 C 70NE 648 NOVAYA ZEMLYA

69 10197 F1 72 8 28 2441558 73.3 N 55.1 E 40 648 0. 0
 59.5 6.1 6 10 4.3 5 59 56.5 10197 F1 72/08/28
 2441558 73.3 N 055.1 E 6.3
 0 59.5 6.1 06-10-04.3 05-59-56.

5 PBFRIJLFJX 40 ARCTI
 C 70NE 648 NOVAYA ZEMLYA

69 10197 F2 72 8 28 2441558 73.3 N 55.1 E 40 648 0. 0
 59.5 6.1 6 10 4.3 5 59 56.5 10197 F2 72/08/28
 2441558 73.3 N 055.1 E 6.3
 0 59.5 6.1 06-10-04.3 05-59-56.

5 PBFRIJLFJX 40 ARCTI
C ZONE 648 NOVAYA ZEMLYA

69 10197 F3 72 8 28 2441558 73.3 N 55.1 E 40 648 0. 0
59.5 6.1 6 10 4.3 5 59 56.5 10197 F3 72/08/28
2441558 73.3 N 055.1 E 6.3
0 59.5 6.1 06-10-04.3 05-59-56.

5 PBFRIJLFJX 40 ARCTI
C ZONE 648 NOVAYA ZEMLYA

69 10197 F4 72 8 28 2441558 73.3 N 55.1 E 40 648 0. 0
59.5 6.1 6 10 4.3 5 59 56.5 10197 F4 72/08/28
2441558 73.3 N 055.1 E 6.3
0 59.5 6.1 06-10-04.3 05-59-56.

5 PBFRIJLFJX 40 ARCTI
C ZONE 648 NOVAYA ZEMLYA

70 10199 BM 72 9 2 2441563 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 9 9 29.5 8 56 58.2 10199 BM 72/09/02
2441563 50.0 N 077.7 E 5.1
0 83.5 357.5 09-09-29.5 08-56-58.

2 SIVZXBOJLB 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

70 10199 F1 72 9 2 2441563 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 9 9 29.5 8 56 58.2 10199 F1 72/09/02
2441563 50.0 N 077.7 E 5.1
0 83.5 357.5 09-09-29.5 08-56-58.

2 SIVZXBOJLB 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

70 10199 F2 72 9 2 2441563 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 9 9 29.5 8 56 58.2 10199 F2 72/09/02
2441563 50.0 N 077.7 E 5.1
0 83.5 357.5 09-09-29.5 08-56-58.

2 SIVZXBOJLB 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

70 10199 F3 72 9 2 2441563 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 9 9 29.5 8 56 58.2 10199 F3 72/09/02
2441563 50.0 N 077.7 E 5.1
0 83.5 357.5 09-09-29.5 08-56-58.

2 SIVZXBOJLB 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

70 10199 F4 72 9 2 2441563 50.0 N 77.7 E 28 329 0. 0
83.5 357.5 9 9 29.5 8 56 58.2 10199 F4 72/09/02
2441563 50.0 N 077.7 E 5.1
0 83.5 357.5 09-09-29.5 08-56-58.

2 SIVZXBOJLB 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

71 10201 BM 72 9 4 2441565 67.7 N 33.4 E 49 724 7. 7
61.9 16.2 7 10 26.6 7 0 3.4 10201 BM 72/09/04
2441565 67.7 N 033.4 E 4.6
7 61.9 16.2 07-10-26.6 07-00-03.

4 LFBUCXEFH 49 NORTH
FRN ASTA 724 WESTERN RUSSIA

71 10201 F1 72 9 4 2441565 67.7 N 33.4 E 49 724 7. 7

61.9 16.2 7 10 26.6 7 0 3.4 10201 F1 72/09/04
 2441565 67.7 N 033.4 E 4.6
 7 61.9 16.2 07-10-26.6 07-00-03.
 4 LFRUCXEFH 49 NORTH
 ERN ASIA 724 WESTERN RUSSIA

71 10201 F2 72 9 4 2441565 67.7 N 33.4 E 49 724 7. 7
 61.9 16.2 7 10 26.6 7 0 3.4 10201 F2 72/09/04
 2441565 67.7 N 033.4 E 4.6
 7 61.9 16.2 07-10-26.6 07-00-03.
 4 LFRUCXEFH 49 NORTH
 ERN ASIA 724 WESTERN RUSSIA

71 10201 F3 72 9 4 2441565 67.7 N 33.4 E 49 724 7. 7
 61.9 16.2 7 10 26.6 7 0 3.4 10201 F3 72/09/04
 2441565 67.7 N 033.4 E 4.6
 7 61.9 16.2 07-10-26.6 07-00-03.
 4 LFRUCXEFH 49 NORTH
 ERN ASIA 724 WESTERN RUSSIA

71 10201 F4 72 9 4 2441565 67.7 N 33.4 E 49 724 7. 7
 61.9 16.2 7 10 26.6 7 0 3.4 10201 F4 72/09/04
 2441565 67.7 N 033.4 E 4.6
 7 61.9 16.2 07-10-26.6 07-00-03.
 4 LFRUCXEFH 49 NORTH
 ERN ASIA 724 WESTERN RUSSIA

72 10613 BM 72 9 21 2441582 52.1 N 52.0 E 49 724 28. 28
 79.7 13.4 9 12 8.5 8 59 57.1 10613 BM 72/09/21
 2441582 52.1 N 052.0 E 5.1
 28 79.7 13.4 09-12-08.5 08-59-57.
 1 ZEMQLWVOUK 49 NORTH
 ERN ASIA 724 WESTERN RUSSIA

72 10613 F1 72 9 21 2441582 52.1 N 52.0 E 49 724 28. 28
 79.7 13.4 9 12 8.5 8 59 57.1 10613 F1 72/09/21
 2441582 52.1 N 052.0 E 5.1
 28 79.7 13.4 09-12-08.5 08-59-57.
 1 ZEMQLWVOUK 49 NORTH
 ERN ASIA 724 WESTERN RUSSIA

72 10613 F2 72 9 21 2441582 52.1 N 52.0 E 49 724 28. 28
 79.7 13.4 9 12 8.5 8 59 57.1 10613 F2 72/09/21
 2441582 52.1 N 052.0 E 5.1
 28 79.7 13.4 09-12-08.5 08-59-57.
 1 ZEMQLWVOUK 49 NORTH
 ERN ASIA 724 WESTERN RUSSIA

72 10613 F3 72 9 21 2441582 52.1 N 52.0 E 49 724 28. 28
 79.7 13.4 9 12 8.5 8 59 57.1 10613 F3 72/09/21
 2441582 52.1 N 052.0 E 5.1
 28 79.7 13.4 09-12-08.5 08-59-57.
 1 ZEMQLWVOUK 49 NORTH
 ERN ASIA 724 WESTERN RUSSIA

72 10613 F4 72 9 21 2441582 52.1 N 52.0 E 49 724 28. 28
 79.7 13.4 9 12 8.5 8 59 57.1 10613 F4 72/09/21
 2441582 52.1 N 052.0 E 5.1
 28 79.7 13.4 09-12-08.5 08-59-57.
 1 ZEMQLWVOUK 49 NORTH

ERN ASIA

724 WESTERN RUSSIA

73 10618 BM 72 10 3 2441594 49.6 N 45.0 E 30 357 0. 0
 80.8 18.4 9 12 28.7 9 0 11.7 10618 BM 72/10/03
 2441594 49.6 N 045.0 E 5.8
 0 80.8 18.4 09-12-28.7 09-00-11.
 7 JNWLDGFFX 30 MIDL
 F EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

73 10618 F1 72 10 3 2441594 49.6 N 45.0 E 30 357 0. 0
 80.8 18.4 9 12 28.7 9 0 11.7 10618 F1 72/10/03
 2441594 49.6 N 045.0 E 5.8
 0 80.8 18.4 09-12-28.7 09-00-11.
 7 JNWLDGFFX 30 MIDL
 F EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

73 10618 F2 72 10 3 2441594 49.6 N 45.0 E 30 357 0. 0
 80.8 18.4 9 12 28.7 9 0 11.7 10618 F2 72/10/03
 2441594 49.6 N 045.0 E 5.8
 0 80.8 18.4 09-12-28.7 09-00-11.
 7 JNWLDGFFX 30 MIDL
 F EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

73 10618 F3 72 10 3 2441594 49.6 N 45.0 E 30 357 0. 0
 80.8 18.4 9 12 28.7 9 0 11.7 10618 F3 72/10/03
 2441594 49.6 N 045.0 E 5.8
 0 80.8 18.4 09-12-28.7 09-00-11.
 7 JNWLDGFFX 30 MIDL
 F EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

73 10618 F4 72 10 3 2441594 49.6 N 45.0 E 30 357 0. 0
 80.8 18.4 9 12 28.7 9 0 11.7 10618 F4 72/10/03
 2441594 49.6 N 045.0 E 5.8
 0 80.8 18.4 09-12-28.7 09-00-11.
 7 JNWLDGFFX 30 MIDL
 E EAST - CRIMEA - BALKANS 357 SOUTHWESTERN RUSSIA

74 10624 BM 72 11 2 2441624 49.9 N 78.8 E 28 329 0. 0
 83.6 356.7 1 39 29.5 1 26 57.9 10624 BM 72/11/02
 2441624 49.9 N 078.8 E 6.2
 0 83.6 356.7 01-39-29.5 01-26-57.
 9 LCDUWIFYFX 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

74 10624 F1 72 11 2 2441624 49.9 N 78.8 E 28 329 0. 0
 83.6 356.7 1 39 29.5 1 26 57.9 10624 F1 72/11/02
 2441624 49.9 N 078.8 E 6.2
 0 83.6 356.7 01-39-29.5 01-26-57.
 9 LCDUWIFYFX 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

74 10624 F2 72 11 2 2441624 49.9 N 78.8 E 28 329 0. 0
 83.6 356.7 1 39 29.5 1 26 57.9 10624 F2 72/11/02
 2441624 49.9 N 078.8 E 6.2
 0 83.6 356.7 01-39-29.5 01-26-57.
 9 LCDUWIFYFX 28 ALMA-
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

74 10624 F3 72 11 2 2441624 49.9 N 78.8 E 28 329 0. 0
 83.6 356.7 1 39 29.5 1 26 57.9 10624 F3 72/11/02

2441624 49.9 N 078.8 E 6.2
0 83.6 356.7 01-39-29.5 01-26-57.
9 LCDUWIFYFX 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

74 10624 F4 72 11 2 2441624 49.9 N 78.8 E 28 329 0. 0
83.6 356.7 1 39 29.5 1 26 57.9 10624 F4 72/11/02
2441624 49.9 N 078.8 E 6.2
0 83.6 356.7 01-39-29.5 01-26-57.
9 LCDUWIFYFX 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

75 10628 BM 72 11 24 2441646 52.8 N 51.1 E 49 724 33. 33
78.9 13.8 9 12 10.4 9 0 3.8 10628 BM 72/11/24
2441646 52.8 N 051.1 E 4.7
33 78.9 13.8 09-12-10.4 09-00-03.
R KGCLSURXCE 49 NORTH
FRN ASIA 724 WESTERN RUSSIA

75 10628 F1 72 11 24 2441646 52.8 N 51.1 E 49 724 33. 33
78.9 13.8 9 12 10.4 9 0 3.8 10628 F1 72/11/24
2441646 52.8 N 051.1 E 4.7
33 78.9 13.8 09-12-10.4 09-00-03.
R KGCLSURXCE 49 NORTH
FRN ASIA 724 WESTERN RUSSIA

75 10628 F2 72 11 24 2441646 52.8 N 51.1 E 49 724 33. 33
78.9 13.8 9 12 10.4 9 0 3.8 10628 F2 72/11/24
2441646 52.8 N 051.1 E 4.7
33 78.9 13.8 09-12-10.4 09-00-03.
R KGCLSURXCE 49 NORTH
FRN ASIA 724 WESTERN RUSSIA

75 10628 F3 72 11 24 2441646 52.8 N 51.1 E 49 724 33. 33
78.9 13.8 9 12 10.4 9 0 3.8 10628 F3 72/11/24
2441646 52.8 N 051.1 E 4.7
33 78.9 13.8 09-12-10.4 09-00-03.
R KGCLSURXCE 49 NORTH
FRN ASIA 724 WESTERN RUSSIA

75 10628 F4 72 11 24 2441646 52.8 N 51.1 E 49 724 33. 33
78.9 13.8 9 12 10.4 9 0 3.8 10628 F4 72/11/24
2441646 52.8 N 051.1 E 4.7
33 78.9 13.8 09-12-10.4 09-00-03.
R KGCLSURXCE 49 NORTH
FRN ASIA 724 WESTERN RUSSIA

76 10630 BM 72 11 24 2441646 51.8 N 64.1 E 29 336 0. 0
81.4 6.0 10 12 18.4 9 59 58.2 10630 BM 72/11/24
2441646 51.8 N 064.1 E 5.2
0 81.4 6.0 10-12-18.4 09-59-58.2
BXJMLVHRHS 29 WESTER
N ASIA 336 WESTERN KAZAKH SSR

76 10630 F1 72 11 24 2441646 51.8 N 64.1 E 29 336 0. 0
81.4 6.0 10 12 18.4 9 59 58.2 10630 F1 72/11/24
2441646 51.8 N 064.1 E 5.2
0 81.4 6.0 10-12-18.4 09-59-58.
2 BXJMLVHRHS 29 WESTE

RN ASIA

336 WESTERN KAZAKH SSR

76 10630 F2 72 11 24 2441646 51.8 N 64.1 E 29 336 0. 0
 81.4 6.0 10 12 18.4 9 59 58.2 10630 F2 72/11/24
 2441646 51.8 N 064.1 E 5.2
 0 81.4 6.0 10-12-18.4 09-59-58.

2 RXJMLVHRHS

29 WESTF

RN ASIA

336 WESTERN KAZAKH SSR

76 10630 F3 72 11 24 2441646 51.8 N 64.1 E 29 336 0. 0
 81.4 6.0 10 12 18.4 9 59 58.2 10630 F3 72/11/24
 2441646 51.8 N 064.1 E 5.2
 0 81.4 6.0 10-12-18.4 09-59-58.

2 RXJMLVHRHS

29 WESTF

RN ASIA

336 WESTERN KAZAKH SSR

76 10630 F4 72 11 24 2441646 51.8 N 64.1 E 29 336 0. 0
 81.4 6.0 10 12 18.4 9 59 58.2 10630 F4 72/11/24
 2441646 51.8 N 064.1 E 5.2
 0 81.4 6.0 10-12-18.4 09-59-58.

2 BXJMLVHRHS

29 WESTF

RN ASIA

336 WESTERN KAZAKH SSR

77 10731 BM 72 12 10 2441662 50.0 N 78.0 E 28 329 0. 0
 83.5 357.3 4 39 30.1 4 26 58.9 10731 BM 72/12/10
 2441662 50.0 N 078.0 E 5.7
 0 83.5 357.3 04-39-30.1 04-26-58.

9 GIDVPYLHFX

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

77 10731 F1 72 12 10 2441662 50.0 N 78.0 E 28 329 0. 0
 83.5 357.3 4 39 30.1 4 26 58.9 10731 F1 72/12/10
 2441662 50.0 N 078.0 E 5.7
 0 83.5 357.3 04-39-30.1 04-26-58.

9 GIDVPYLHFX

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

77 10731 F2 72 12 10 2441662 50.0 N 78.0 E 28 329 0. 0
 83.5 357.3 4 39 30.1 4 26 58.9 10731 F2 72/12/10
 2441662 50.0 N 078.0 E 5.7
 0 83.5 357.3 04-39-30.1 04-26-58.

9 GIDVPYLHFX

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

77 10731 F3 72 12 10 2441662 50.0 N 78.0 E 28 329 0. 0
 83.5 357.3 4 39 30.1 4 26 58.9 10731 F3 72/12/10
 2441662 50.0 N 078.0 E 5.7
 0 83.5 357.3 04-39-30.1 04-26-58.

9 GIDVPYLHFX

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

77 10731 F4 72 12 10 2441662 50.0 N 78.0 E 28 329 0. 0
 83.5 357.3 4 39 30.1 4 26 58.9 10731 F4 72/12/10
 2441662 50.0 N 078.0 E 5.7
 0 83.5 357.3 04-39-30.1 04-26-58.

9 GIDVPYLHFX

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

78 10913 BM 73 4 10 2441792 49.8 N 78.2 E 28 329 0. 0
 83.7 357.1 4 33 0.0 4 20 27.7 10913 BM 73/04/19

2441792 49.8 N 078.2 E 5.4
0 83.7 357.1 04-33-00.0 04-20-27.
7 UMULEMUXZK 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7R 10913 F1 73 4 19 2441792 49.8 N 78.2 E 2R 329 0. 0
83.7 357.1 4 33 0.0 4 20 27.7 10913 F1 73/04/19
2441792 49.8 N 078.2 E 5.4
0 83.7 357.1 04-33-00.0 04-20-27.
7 UMULEMUXZK 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7R 10913 F2 73 4 19 2441792 49.8 N 78.2 E 2R 329 0. 0
83.7 357.1 4 33 0.0 4 20 27.7 10913 F2 73/04/19
2441792 49.8 N 078.2 E 5.4
0 83.7 357.1 04-33-00.0 04-20-27.
7 UMULEMUXZK 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7R 10913 F3 73 4 19 2441792 49.8 N 78.2 E 2R 329 0. 0
83.7 357.1 4 33 0.0 4 20 27.7 10913 F3 73/04/19
2441792 49.8 N 078.2 E 5.4
0 83.7 357.1 04-33-00.0 04-20-27.
7 UMULEMUXZK 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7R 10913 F4 73 4 19 2441792 49.8 N 78.2 E 2R 329 0. 0
83.7 357.1 4 33 0.0 4 20 27.7 10913 F4 73/04/19
2441792 49.8 N 078.2 E 5.4
0 83.7 357.1 04-33-00.0 04-20-27.
7 UMULEMUXZK 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7R 11048 BM 73 7 10 2441874 49.8 N 78.1 E 2R 329 0. 0
83.7 357.2 1 26 57.0 1 14 24.7 11048 BM 73/07/10
2441874 49.8 N 078.1 E 5.4
0 83.7 357.2 01-26-57.0 01-14-24.
7 TPSYXLZIEV 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7R 11048 F1 73 7 10 2441874 49.8 N 78.1 E 2R 329 0. 0
83.7 357.2 1 26 57.0 1 14 24.7 11048 F1 73/07/10
2441874 49.8 N 078.1 E 5.4
0 83.7 357.2 01-26-57.0 01-14-24.
7 TPSYXLZIEV 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7R 11048 F2 73 7 10 2441874 49.8 N 78.1 E 2R 329 0. 0
83.7 357.2 1 26 57.0 1 14 24.7 11048 F2 73/07/10
2441874 49.8 N 078.1 E 5.4
0 83.7 357.2 01-26-57.0 01-14-24.
7 TPSYXLZIEV 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

7R 11048 F3 73 7 10 2441874 49.8 N 78.1 E 2R 329 0. 0
83.7 357.2 1 26 57.0 1 14 24.7 11048 F3 73/07/10
2441874 49.8 N 078.1 E 5.4
0 83.7 357.2 01-26-57.0 01-14-24.
7 TPSYXLZIEV 28 ALMA-
ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

79 11048 F4 73 7 10 2441874 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 1 26 57.0 1 14 24.7 11048 F4 73/07/10
 2441874 49.8 N 078.1 E 5.4
 0 83.7 357.2 01-26-57.0 01-14-24.
 28 ALMA-
 7 TPSYXLZIEV
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

80 11069 BM 73 7 23 2441887 50.0 N 78.9 E 28 329 0. 0
 83.5 356.7 1 22 57.0 1 10 26.0 11069 BM 73/07/23
 2441887 50.0 N 078.9 E 6.3
 0 83.5 356.7 01-22-57.0 01-10-26.
 28 ALMA-
 0 ULIHMISOXR
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

80 11069 F1 73 7 23 2441887 50.0 N 78.9 E 28 329 0. 0
 83.5 356.7 1 22 57.0 1 10 26.0 11069 F1 73/07/23
 2441887 50.0 N 078.9 E 6.3
 0 83.5 356.7 01-22-57.0 01-10-26.
 28 ALMA-
 0 ULIHMISOXR
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

80 11069 F2 73 7 23 2441887 50.0 N 78.9 E 28 329 0. 0
 83.5 356.7 1 22 57.0 1 10 26.0 11069 F2 73/07/23
 2441887 50.0 N 078.9 E 6.3
 0 83.5 356.7 01-22-57.0 01-10-26.
 28 ALMA-
 0 ULIHMISOXR
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

80 11069 F3 73 7 23 2441887 50.0 N 78.9 E 28 329 0. 0
 83.5 356.7 1 22 57.0 1 10 26.0 11069 F3 73/07/23
 2441887 50.0 N 078.9 E 6.3
 0 83.5 356.7 01-22-57.0 01-10-26.
 28 ALMA-
 0 ULIHMISOXR
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

80 11069 F4 73 7 23 2441887 50.0 N 78.9 E 28 329 0. 0
 83.5 356.7 1 22 57.0 1 10 26.0 11069 F4 73/07/23
 2441887 50.0 N 078.9 E 6.3
 0 83.5 356.7 01-22-57.0 01-10-26.
 28 ALMA-
 0 ULIHMISOXR
 ATA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

81 11432 BM 73 8 15 2441910 42.7 N 67.4 E 48 713 0. 0
 90.7 4.7 1 59 57.0 1 46 51.1 11432 BM 73/08/15
 2441910 42.7 N 067.4 E 5.3
 0 90.7 4.7 01-59-57.0 01-46-51.
 48 HINDU
 1 XLGDIDBMIZ
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

81 11432 F1 73 8 15 2441910 42.7 N 67.4 E 48 713 0. 0
 90.7 4.7 1 59 57.0 1 46 51.1 11432 F1 73/08/15
 2441910 42.7 N 067.4 E 5.3
 0 90.7 4.7 01-59-57.0 01-46-51.
 48 HINDU
 1 XLGDIDBMIZ
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

81 11432 F2 73 8 15 2441910 42.7 N 67.4 E 48 713 0. 0
 90.7 4.7 1 59 57.0 1 46 51.1 11432 F2 73/08/15
 2441910 42.7 N 067.4 E 5.3

0 40.7 4.7 01-59-57.0 01-46-51.
 1 XLGDIDRMIZ 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

81 11432 F3 73 8 15 2441910 42.7 N 67.4 E 48 713 0. 0
 90.7 4.7 1 59 57.0 1 46 51.1 11432 F3 73/08/15
 2441910 42.7 N 067.4 E 5.3
 0 90.7 4.7 01-59-57.0 01-46-51.

1 XLGDIDRMIZ 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

81 11432 F4 73 8 15 2441910 42.7 N 67.4 E 48 713 0. 0
 90.7 4.7 1 59 57.0 1 46 51.1 11432 F4 73/08/15
 2441910 42.7 N 067.4 E 5.3
 0 90.7 4.7 01-59-57.0 01-46-51.

1 XLGDIDRMIZ 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

82 11473 BM 73 8 28 2441923 50.6 N 68.4 E 48 713 0. 0
 82.9 3.4 2 59 58.0 2 47 30.6 11473 BM 73/08/28
 2441923 50.6 N 068.4 E 5.3
 0 82.9 3.4 02-59-58.0 02-47-30.

6 EWUYDJXMLW 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

82 11473 F1 73 8 28 2441923 50.6 N 68.4 E 48 713 0. 0
 82.9 3.4 2 59 58.0 2 47 30.6 11473 F1 73/08/28
 2441923 50.6 N 068.4 E 5.3
 0 82.9 3.4 02-59-58.0 02-47-30.

6 EWUYDJXMLW 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

82 11473 F2 73 8 28 2441923 50.6 N 68.4 E 48 713 0. 0
 82.9 3.4 2 59 58.0 2 47 30.6 11473 F2 73/08/28
 2441923 50.6 N 068.4 E 5.3
 0 82.9 3.4 02-59-58.0 02-47-30.

6 EWUYDJXMLW 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

82 11473 F3 73 8 28 2441923 50.6 N 68.4 E 48 713 0. 0
 82.9 3.4 2 59 58.0 2 47 30.6 11473 F3 73/08/28
 2441923 50.6 N 068.4 E 5.3
 0 82.9 3.4 02-59-58.0 02-47-30.

6 EWUYDJXMLW 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

82 11473 F4 73 8 28 2441923 50.6 N 68.4 E 48 713 0. 0
 82.9 3.4 2 59 58.0 2 47 30.6 11473 F4 73/08/28
 2441923 50.6 N 068.4 E 5.3
 0 82.9 3.4 02-59-58.0 02-47-30.

6 EWUYDJXMLW 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

83 11535 BM 73 9 12 2441938 73.3 N 55.2 E 40 648 0. 0
 59.6 6.1 6 59 57.0 6 49 49.1 11535 BM 73/09/12
 2441938 73.3 N 055.2 E 6.8
 0 59.6 6.1 06-59-57.0 06-49-49.

1 MSXMYHGLJI 40 ARCTI
 C ZONE 648 NOVAYA ZEMLYA

83 11535 F1 73 9 12 2441938 73.3 N 55.2 E 40 648 0. 0
 59.6 6.1 6 59 57.0 6 49 49.1 11535 F1 73/09/12
 2441938 73.3 N 055.2 E 6.8
 0 59.6 6.1 06-59-57.0 06-49-49.

1 MSXMYHGLJI 40 ARCTI
 C ZONE 648 NOVAYA ZEMLYA

83 11535 F2 73 9 12 2441938 73.3 N 55.2 E 40 648 0. 0
 59.6 6.1 6 59 57.0 6 49 49.1 11535 F2 73/09/12
 2441938 73.3 N 055.2 E 6.8
 0 59.6 6.1 06-59-57.0 06-49-49.

1 MSXMYHGLJI 40 ARCTI
 C ZONE 648 NOVAYA ZEMLYA

83 11535 F3 73 9 12 2441938 73.3 N 55.2 E 40 648 0. 0
 59.6 6.1 6 59 57.0 6 49 49.1 11535 F3 73/09/12
 2441938 73.3 N 055.2 E 6.8
 0 59.6 6.1 06-59-57.0 06-49-49.

1 MSXMYHGLJI 40 ARCTI
 C ZONE 648 NOVAYA ZEMLYA

83 11535 F4 73 9 12 2441938 73.3 N 55.2 E 40 648 0. 0
 59.6 6.1 6 59 57.0 6 49 49.1 11535 F4 73/09/12
 2441938 73.3 N 055.2 E 6.8
 0 59.6 6.1 06-59-57.0 06-49-49.

1 MSXMYHGLJI 40 ARCTI
 C ZONE 648 NOVAYA ZEMLYA

84 11542 BM 73 9 19 2441945 45.6 N 67.9 E 48 713 0. 0
 87.9 4.1 2 59 57.0 2 47 4.7 11542 BM 73/09/19
 2441945 45.6 N 067.9 E 5.2
 0 87.9 4.1 02-59-57.0 02-47-04.

7 TLMGXSDZWH 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

84 11542 F1 73 9 19 2441945 45.6 N 67.9 E 48 713 0. 0
 87.9 4.1 2 59 57.0 2 47 4.7 11542 F1 73/09/19
 2441945 45.6 N 067.9 E 5.2
 0 87.9 4.1 02-59-57.0 02-47-04.

7 TLMGXSDZWH 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

84 11542 F2 73 9 19 2441945 45.6 N 67.9 E 48 713 0. 0
 87.9 4.1 2 59 57.0 2 47 4.7 11542 F2 73/09/19
 2441945 45.6 N 067.9 E 5.2
 0 87.9 4.1 02-59-57.0 02-47-04.

7 TLMGXSDZWH 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

84 11542 F3 73 9 19 2441945 45.6 N 67.9 E 48 713 0. 0
 87.9 4.1 2 59 57.0 2 47 4.7 11542 F3 73/09/19
 2441945 45.6 N 067.9 E 5.2
 0 87.9 4.1 02-59-57.0 02-47-04.

7 TLMGXSDZWH 48 HINDU
 KUSH AND PAMIR 713 CENTRAL KAZAKH SSR

84 11542 F3 73 9 19 2441945 45.6 N 67.9 E 48 713 0. 0
 87.9 4.1 2 59 57.0 2 47 4.7 11542 F3 73/09/19
 2441945 45.6 N 067.9 E 5.2
 0 87.9 4.1 02-59-57.0 02-47-04.

7 TLMGXSDZHH 48 HINDU
KIUSH AND PAMIP 713 CENTRAL KAZAKH SSR

85 11585 BM 73 9 27 2441953 70.8 N 53.9 E 40 648 0. 0
61.9 7.3 6 59 58.0 6 49 34.8 11585 BM 73/09/27
2441953 70.8 N 053.9 E 6.0
0 61.9 7.3 06-59-58.0 06-49-34.

R XBVRJLVUB 40 ARCTI
C ZONE 648 NOVAYA ZEMLYA

85 11585 F1 73 9 27 2441953 70.8 N 53.9 E 40 648 0. 0
61.9 7.3 6 59 58.0 6 49 34.8 11585 F1 73/09/27
2441953 70.8 N 053.9 E 6.0
0 61.9 7.3 06-59-58.0 06-49-34.

R XBVRJLVUB 40 ARCTI
C ZONE 648 NOVAYA ZEMLYA

85 11585 F2 73 9 27 2441953 70.8 N 53.9 E 40 648 0. 0
61.9 7.3 6 59 58.0 6 49 34.8 11585 F2 73/09/27
2441953 70.8 N 053.9 E 6.0
0 61.9 7.3 06-59-58.0 06-49-34.

R XBVRJLVUB 40 ARCTI
C ZONE 648 NOVAYA ZEMLYA

85 11585 F3 73 9 27 2441953 70.8 N 53.9 E 40 648 0. 0
61.9 7.3 6 59 58.0 6 49 34.8 11585 F3 73/09/27
2441953 70.8 N 053.9 E 6.0
0 61.9 7.3 06-59-58.0 06-49-34.

R XBVRJLVUB 40 ARCTI
C ZONE 648 NOVAYA ZEMLYA

85 11585 F4 73 9 27 2441953 70.8 N 53.9 E 40 648 0. 0
61.9 7.3 6 59 58.0 6 49 34.8 11585 F4 73/09/27
2441953 70.8 N 053.9 E 6.0
0 61.9 7.3 06-59-58.0 06-49-34.

R XBVRJLVUB 40 ARCTI
C ZONE 648 NOVAYA ZEMLYA

86 11589 BM 73 9 30 2441956 51.6 N 54.6 E 49 724 0. 0
80.6 11.9 4 59 0.0 4 46 43.9 11589 BM 73/09/30
2441956 51.6 N 054.6 E 5.2
0 80.6 11.9 04-59-00.0 04-46-43.

O JMXUZHGLI 49 NORTH
FRN ASIA 724 WESTERN RUSSIA

86 11589 F1 73 9 30 2441956 51.6 N 54.6 E 49 724 0. 0
80.6 11.9 4 59 0.0 4 46 43.9 11589 F1 73/09/30
2441956 51.6 N 054.6 E 5.2
0 80.6 11.9 04-59-00.0 04-46-43.

O JMXUZHGLI 49 NORTH
FRN ASIA 724 WESTERN RUSSIA

86 11589 F2 73 9 30 2441956 51.6 N 54.6 E 49 724 0. 0
80.6 11.9 4 59 0.0 4 46 43.9 11589 F2 73/09/30
2441956 51.6 N 054.6 E 5.2
0 80.6 11.9 04-59-00.0 04-46-43.

O JMXUZHGLI 49 NORTH
FRN ASIA 724 WESTERN RUSSIA

86 11589 F3 73 9 30 2441956 51.6 N 54.6 E 49 724 0. 0

80.6 11.9 4 59 0.0 4 46 43.9 11589 F3 73/09/30
 2441956 51.6 N 054.6 E 5.2
 0 80.6 11.9 04-59-00.0 04-46-43.
 49 NORTH
 9 JMXUZHGLI
 ERN ASIA 724 WESTERN RUSSIA

86 11589 F4 73 9 30 2441956 51.6 N 54.6 E 49 724 0. 0
 80.6 11.9 4 59 0.0 4 46 43.9 11589 F4 73/09/30
 2441956 51.6 N 054.6 E 5.2
 0 80.6 11.9 04-59-00.0 04-46-43.
 49 NORTH
 9 JMXUZHGLI
 ERN ASIA 724 WESTERN RUSSIA

87 11662 RM 73 10 26 2441982 53.7 N 55.4 E 29 335 0. 0
 78.7 11.0 5 59 57.0 5 47 51.6 11662 RM 73/10/26
 2441982 53.7 N 055.4 E 4.8
 0 78.7 11.0 05-59-57.0 05-47-51.
 29 WESTE
 6 LZJXPFGUMF
 RN ASIA 335 URAL MOUNTAINS REGION

87 11662 D1 73 10 26 2441982 53.7 N 55.4 E 29 335 0. 0
 78.7 11.0 5 59 57.0 5 47 51.6 11662 D1 73/10/26
 2441982 53.7 N 055.4 E 4.8
 0 78.7 11.0 05-59-57.0 05-47-51.
 29 WESTE
 6 LZJXPFGUMF
 RN ASIA 335 URAL MOUNTAINS REGION

87 11662 D2 73 10 26 2441982 53.7 N 55.4 E 29 335 0. 0
 78.7 11.0 5 59 57.0 5 47 51.6 11662 D2 73/10/26
 2441982 53.7 N 055.4 E 4.8
 0 78.7 11.0 05-59-57.0 05-47-51.
 29 WESTE
 6 LZJXPFGUMF
 RN ASIA 335 URAL MOUNTAINS REGION

87 11662 D3 73 10 26 2441982 53.7 N 55.4 E 29 335 0. 0
 78.7 11.0 5 59 57.0 5 47 51.6 11662 D3 73/10/26
 2441982 53.7 N 055.4 E 4.8
 0 78.7 11.0 05-59-57.0 05-47-51.
 29 WESTE
 6 LZJXPFGUMF
 RN ASIA 335 URAL MOUNTAINS REGION

87 11662 D4 73 10 26 2441982 53.7 N 55.4 E 29 335 0. 0
 78.7 11.0 5 59 57.0 5 47 51.6 11662 D4 73/10/26
 2441982 53.7 N 055.4 E 4.8
 0 78.7 11.0 05-59-57.0 05-47-51.
 29 WESTE
 6 LZJXPFGUMF
 RN ASIA 335 URAL MOUNTAINS REGION

88 11707 RM 73 10 27 2441983 70.8 N 54.2 E 40 648 0. 0
 61.9 7.2 6 59 57.0 6 49 33.6 11707 RM 73/10/27
 2441983 70.8 N 054.2 E 6.9
 0 61.9 7.2 06-59-57.0 06-49-33.
 40 ARCTI
 6 WMMSULDYXZ
 C 70NE 648 NOVAYA ZEMLYA

88 11707 D1 73 10 27 2441983 70.8 N 54.2 E 40 648 0. 0
 61.9 7.2 6 59 57.0 6 49 33.6 11707 D1 73/10/27
 2441983 70.8 N 054.2 E 6.9
 0 61.9 7.2 06-59-57.0 06-49-33.
 40 ARCTI
 6 WMMSULDYXZ

C ZONE

648 NOVAYA ZEML'YA

88 11707 D2 73 10 27 2441983 70.8 N 54.2 E 40 648 0. 0
 61.9 7.2 6 59 57.0 6 49 33.6 11707 D2 73/10/27
 2441983 70.8 N 054.2 E 6.9
 0 61.9 7.2 06-59-57.0 06-49-33.

6 WMMSCULDXZ

40 ARCTI

C ZONE

648 NOVAYA ZEML'YA

88 11707 D3 73 10 27 2441983 70.8 N 54.2 E 40 648 0. 0
 61.9 7.2 6 59 57.0 6 49 33.6 11707 D3 73/10/27
 2441983 70.8 N 054.2 E 6.9
 0 61.9 7.2 06-59-57.0 06-49-33.

6 WMMSCULDXZ

40 ARCTI

C ZONE

648 NOVAYA ZEML'YA

88 11707 D4 73 10 27 2441983 70.8 N 54.2 E 40 648 0. 0
 61.9 7.2 6 59 57.0 6 49 33.6 11707 D4 73/10/27
 2441983 70.8 N 054.2 E 6.9
 0 61.9 7.2 06-59-57.0 06-49-33.

6 WMMSCULDXZ

40 ARCTI

C ZONE

648 NOVAYA ZEML'YA

89 11785 BM 73 12 14 2442031 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 7 46 47.0 7 34 16.0 11785 BM 73/12/14
 2442031 50.0 N 079.0 E 6.0
 0 83.5 356.6 07-46-47.0 07-34-16.

0 WUDYLBXEST

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

89 11785 D1 73 12 14 2442031 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 7 46 47.0 7 34 16.0 11785 D1 73/12/14
 2442031 50.0 N 079.0 E 6.0
 0 83.5 356.6 07-46-47.0 07-34-16.

0 WUDYLBXEST

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

89 11785 D2 73 12 14 2442031 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 7 46 47.0 7 34 16.0 11785 D2 73/12/14
 2442031 50.0 N 079.0 E 6.0
 0 83.5 356.6 07-46-47.0 07-34-16.

0 WUDYLBXEST

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

89 11785 D3 73 12 14 2442031 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 7 46 47.0 7 34 16.0 11785 D3 73/12/14
 2442031 50.0 N 079.0 E 6.0
 0 83.5 356.6 07-46-47.0 07-34-16.

0 WUDYLBXEST

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

89 11785 D4 73 12 14 2442031 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 7 46 47.0 7 34 16.0 11785 D4 73/12/14
 2442031 50.0 N 079.0 E 6.0
 0 83.5 356.6 07-46-47.0 07-34-16.

0 WUDYLBXEST

28 ALMA-

ATA TO LAKE BAIKAL

329 EASTERN KAZAKH SSR

90 1045 BM 65 10 1 2439035 51.2 N 178.9 E 1 6 36. 36
 47.4 304.5 13 23 1.7 13 14 23.7 1045 BM 65/10/01

2439035 51.2 N 178.9 E 4.8
36 47.4 304.5 13-23-01.7 13-14-23.
7 UOEFZ RJKL 1 ALASK
A - ALEUTIAN ARC 6 RAT ISLANDS, ALEUTIAN ISLAND
S
90 1045 F1 65 10 1 2439035 51.2 N 178.9 E 1 6 36. 36
47.4 304.5 13 23 1.7 13 14 23.7 1045 F1 65/10/01
2439035 51.2 N 178.9 E 4.8
36 47.4 304.5 13-23-01.7 13-14-23.
7 UOEFZ RJKL 1 ALASK
A - ALEUTIAN ARC 6 RAT ISLANDS, ALEUTIAN ISLAND
S
90 1045 F2 65 10 1 2439035 51.2 N 178.9 E 1 6 36. 36
47.4 304.5 13 23 1.7 13 14 23.7 1045 F2 65/10/01
2439035 51.2 N 178.9 E 4.8
36 47.4 304.5 13-23-01.7 13-14-23.
7 UOEFZ RJKL 1 ALASK
A - ALEUTIAN ARC 6 RAT ISLANDS, ALEUTIAN ISLAND
S
90 1045 F3 65 10 1 2439035 51.2 N 178.9 E 1 6 36. 36
47.4 304.5 13 23 1.7 13 14 23.7 1045 F3 65/10/01
2439035 51.2 N 178.9 E 4.8
36 47.4 304.5 13-23-01.7 13-14-23.
7 UOEFZ RJKL 1 ALASK
A - ALEUTIAN ARC 6 RAT ISLANDS, ALEUTIAN ISLAND
S
90 1045 F4 65 10 1 2439035 51.2 N 178.9 E 1 6 36. 36
47.4 304.5 13 23 1.7 13 14 23.7 1045 F4 65/10/01
2439035 51.2 N 178.9 E 4.8
36 47.4 304.5 13-23-01.7 13-14-23.
7 UOEFZ RJKL 1 ALASK
A - ALEUTIAN ARC 6 RAT ISLANDS, ALEUTIAN ISLAND
S
91 1052 8M 65 11 11 2439076 51.3 N 174.0 E 1 5 45. 45
50.1 306.5 2 30 .2 2 21 1.5 1052 8M 65/11/11
2439076 51.3 N 174.0 E 5.2
45 50.1 306.5 02-30-00.2 02-21-01.
5 TLIPFFQIDS 1 ALASK
A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLAND
DS
91 1052 F1 65 11 11 2439076 51.3 N 174.0 E 1 5 45. 45
50.1 306.5 2 30 .2 2 21 1.5 1052 F1 65/11/11
2439076 51.3 N 174.0 E 5.2
45 50.1 306.5 02-30-00.2 02-21-01.
5 TLIPFFQIDS 1 ALASK
A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLAND
DS
91 1052 F2 65 11 11 2439076 51.3 N 174.0 E 1 5 45. 45
50.1 306.5 2 30 .2 2 21 1.5 1052 F2 65/11/11
2439076 51.3 N 174.0 E 5.2
45 50.1 306.5 02-30-00.2 02-21-01.
5 TLIPFFQIDS 1 ALASK
A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLAND
DS
91 1052 F3 65 11 11 2439076 51.3 N 174.0 E 1 5 45. 45
50.1 306.5 2 30 .2 2 21 1.5 1052 F3 65/11/11
2439076 51.3 N 174.0 E 5.2
45 50.1 306.5 02-30-00.2 02-21-01.
5 TLIPFFQIDS 1 ALASK
A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLAND

DS

91 1052 F4 65 11 11 2439076 51.3 N 174.0 E 1 5 45. 45
 50.1 306.5 2 30 .2 2 21 1.5 1052 F4 65/11/11
 2439076 51.3 N 174.0 E 5.2
 45 50.1 306.5 02-30-00.2 02-21-01.

5 TLIPEFQIDS

1 ALASK

A - ALEUTIAN ARC

5 NEAR ISLANDS, ALEUTIAN ISLAN

DS

92 1056 BM 65 11 13 2439078 43.8 N 87.7 E 28 332 55. 55
 89.0 350.0 4 46 43.3 4 33 45.5 1056 BM 65/11/13
 2439078 43.8 N 087.7 E 6.4
 55 89.0 350.0 04-46-43.3 04-33-45.

5 CFHDOVJLOQ

28 ALMA-

ATA TO LAKE BAIKAL

332 NORTHERN SINKIANG PROV., CHI

NA

92 1056 F1 65 11 13 2439078 43.8 N 87.7 E 28 332 55. 55
 89.0 350.0 4 46 43.3 4 33 45.5 1056 F1 65/11/13
 2439078 43.8 N 087.7 E 6.4
 55 89.0 350.0 04-46-43.3 04-33-45.

5 CFHDOVJLOQ

28 ALMA-

ATA TO LAKE BAIKAL

332 NORTHERN SINKIANG PROV., CHI

NA

92 1056 F2 65 11 13 2439078 43.8 N 87.7 E 28 332 55. 55
 89.0 350.0 4 46 43.3 4 33 45.5 1056 F2 65/11/13
 2439078 43.8 N 087.7 E 6.4
 55 89.0 350.0 04-46-43.3 04-33-45.

5 CFHDOVJLOQ

28 ALMA-

ATA TO LAKE BAIKAL

332 NORTHERN SINKIANG PROV., CHI

NA

92 1056 F3 65 11 13 2439078 43.8 N 87.7 E 28 332 55. 55
 89.0 350.0 4 46 43.3 4 33 45.5 1056 F3 65/11/13
 2439078 43.8 N 087.7 E 6.4
 55 89.0 350.0 04-46-43.3 04-33-45.

5 CFHDOVJLOQ

28 ALMA-

ATA TO LAKE BAIKAL

332 NORTHERN SINKIANG PROV., CHI

NA

92 1056 F4 65 11 13 2439078 43.8 N 87.7 E 28 332 55. 55
 89.0 350.0 4 46 43.3 4 33 45.5 1056 F4 65/11/13
 2439078 43.8 N 087.7 E 6.4
 55 89.0 350.0 04-46-43.3 04-33-45.

5 CFHDOVJLOQ

28 ALMA-

ATA TO LAKE BAIKAL

332 NORTHERN SINKIANG PROV., CHI

NA

93 1901 BM 66 1 28 2439154 39.3 N 73.1 E 48 719 43. 43
 94.3 .5 9 5 21.3 8 51 58.8 1901 BM 66/01/28
 2439154 39.3 N 073.1 E 5.3
 43 94.3 .5 09-05-21.3 08-51-58.

8 QBOLTKJKWF

48 HINDU

KUSH AND PAMIR

719 TADZHIK-SINKIANG BORDER REGI

ON

93 1901 F1 66 1 28 2439154 39.3 N 73.1 E 48 719 43. 43
 94.3 .5 9 5 21.3 8 51 58.8 1901 F1 66/01/28
 2439154 39.3 N 073.1 E 5.3
 43 94.3 .5 09-05-21.3 08-51-58.

8 QBOLTKJKWF

48 HINDU

KUSH AND PAMIR

719 TADZHIK-SINKIANG BORDER REGI

ON

93 1901 F2 66 1 28 2439154 39.3 N 73.1 E 48 719 43. 43
 94.3 .5 9 5 21.3 8 51 58.8 1901 F2 66/01/28
 2439154 39.3 N 073.1 E 5.3

43 94.3 .5 09-05-21.3 08-51-58.
 R QBOLTKJKWF 4R HINDU
 KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REGI
 ON
 93 1901 F3 06 1 2A 2439154 39.3 N 73.1 E 4R 719 43. 43
 94.3 .5 9 5 21.3 8 51 58.8 1901 F3 66/01/28
 2439154 39.3 N 073.1 E 5.3
 43 94.3 .5 09-05-21.3 08-51-58.
 R QBOLTKJKWF 4R HINDU
 KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REGI
 ON
 93 1901 F4 06 1 2A 2439154 39.3 N 73.1 E 4R 719 43. 43
 94.3 .5 9 5 21.3 8 51 58.8 1901 F4 66/01/28
 2439154 39.3 N 073.1 E 5.3
 43 94.3 .5 09-05-21.3 08-51-58.
 R QBOLTKJKWF 4R HINDU
 KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REGI
 ON
 94 2194 BM 06 2 7 2439164 29.8 N 69.7 E 47 710 33. 33
 103.7 3.6 4 40 13.9 4 26 9.1 2194 BM 66/02/07
 2439164 29.8 N 069.7 E 6.0
 33 103.7 3.6 04-40-13.9 04-26-09.
 1 TLMSPUQVMY 47 BALUC
 HISTAN 710 WEST PAKISTAN
 94 2194 F1 06 2 7 2439164 29.8 N 69.7 E 47 710 33. 33
 103.7 3.6 4 40 13.9 4 26 9.1 2194 F1 66/02/07
 2439164 29.8 N 069.7 E 6.0
 33 103.7 3.6 04-40-13.9 04-26-09.
 1 TLMSPUQVMY 47 BALUC
 HISTAN 710 WEST PAKISTAN
 94 2194 F2 06 2 7 2439164 29.8 N 69.7 E 47 710 33. 33
 103.7 3.6 4 40 13.9 4 26 9.1 2194 F2 66/02/07
 2439164 29.8 N 069.7 E 6.0
 33 103.7 3.6 04-40-13.9 04-26-09.
 1 TLMSPUQVMY 47 BALUC
 HISTAN 710 WEST PAKISTAN
 94 2194 F3 06 2 7 2439164 29.8 N 69.7 E 47 710 33. 33
 103.7 3.6 4 40 13.9 4 26 9.1 2194 F3 66/02/07
 2439164 29.8 N 069.7 E 6.0
 33 103.7 3.6 04-40-13.9 04-26-09.
 1 TLMSPUQVMY 47 BALUC
 HISTAN 710 WEST PAKISTAN
 94 2194 F4 06 2 7 2439164 29.8 N 69.7 E 47 710 33. 33
 103.7 3.6 4 40 13.9 4 26 9.1 2194 F4 66/02/07
 2439164 29.8 N 069.7 E 6.0
 33 103.7 3.6 04-40-13.9 04-26-09.
 1 TLMSPUQVMY 47 BALUC
 HISTAN 710 WEST PAKISTAN
 95 2805 BM 06 5 20 2439266 13.9 N 146.1 E 17 210 66. 66
 91.7 292.3 9 27 50.9 9 14 40.2 2805 BM 66/05/20
 2439266 13.9 N 146.1 E 6.0
 66 91.7 292.3 09-27-50.9 09-14-40.
 2 FRFEGUGLIU 17 CAROL
 THE ISLANDS TO GUAM 210 SOUTH OF MARIANA ISLANDS

95 2805 F1 66 5 20 2439266 13.9 N 146.1 E 17 210 66. 66
 91.7 292.3 9 27 50.9 9 14 40.2 2805 F1 66/05/20
 2439266 13.9 N 146.1 E 6.0
 66 91.7 292.3 09-27-50.9 09-14-40.

2 FRFEGUGLIU 17 CAROL
 INE ISLANDS TO GUAM 210 SOUTH OF MARIANA ISLANDS

95 2805 F2 66 5 20 2439266 13.9 N 146.1 E 17 210 66. 66
 91.7 292.3 9 27 50.9 9 14 40.2 2805 F2 66/05/20
 2439266 13.9 N 146.1 E 6.0
 66 91.7 292.3 09-27-50.9 09-14-40.

2 FRFEGUGLIU 17 CAROL
 INE ISLANDS TO GUAM 210 SOUTH OF MARIANA ISLANDS

95 2805 F3 66 5 20 2439266 13.9 N 146.1 E 17 210 66. 66
 91.7 292.3 9 27 50.9 9 14 40.2 2805 F3 66/05/20
 2439266 13.9 N 146.1 E 6.0
 66 91.7 292.3 09-27-50.9 09-14-40.

2 FRFEGUGLIU 17 CAROL
 INE ISLANDS TO GUAM 210 SOUTH OF MARIANA ISLANDS

95 2805 F4 66 5 20 2439266 13.9 N 146.1 E 17 210 66. 66
 91.7 292.3 9 27 50.9 9 14 40.2 2805 F4 66/05/20
 2439266 13.9 N 146.1 E 6.0
 66 91.7 292.3 09-27-50.9 09-14-40.

2 FRFEGUGLIU 17 CAROL
 INE ISLANDS TO GUAM 210 SOUTH OF MARIANA ISLANDS

96 2806 BM 66 5 20 2439266 55.0 N 165.7 E 1 4 46. 46
 52.7 313.7 11 53 40.6 11 44 22.4 2806 BM 66/05/20
 2439266 55.0 N 165.7 E 5.2
 46 52.7 313.7 11-53-40.6 11-44-22.

4 TYQYELFOFF 1 ALASK
 A - ALEUTIAN ARC 4 KOMANDORSKY ISLANDS REGION

96 2806 F1 66 5 20 2439266 55.0 N 165.7 E 1 4 46. 46
 52.7 313.7 11 53 40.6 11 44 22.4 2806 F1 66/05/20
 2439266 55.0 N 165.7 E 5.2
 46 52.7 313.7 11-53-40.6 11-44-22.

4 TYQYELFOFF 1 ALASK
 A - ALEUTIAN ARC 4 KOMANDORSKY ISLANDS REGION

96 2806 F2 66 5 20 2439266 55.0 N 165.7 E 1 4 46. 46
 52.7 313.7 11 53 40.6 11 44 22.4 2806 F2 66/05/20
 2439266 55.0 N 165.7 E 5.2
 46 52.7 313.7 11-53-40.6 11-44-22.

4 TYQYELFOFF 1 ALASK
 A - ALEUTIAN ARC 4 KOMANDORSKY ISLANDS REGION

96 2806 F3 66 5 20 2439266 55.0 N 165.7 E 1 4 46. 46
 52.7 313.7 11 53 40.6 11 44 22.4 2806 F3 66/05/20
 2439266 55.0 N 165.7 E 5.2
 46 52.7 313.7 11-53-40.6 11-44-22.

4 TYQYELFOFF 1 ALASK
 A - ALEUTIAN ARC 4 KOMANDORSKY ISLANDS REGION

96 2806 F4 66 5 20 2439266 55.0 N 165.7 E 1 4 46. 46
 52.7 313.7 11 53 40.6 11 44 22.4 2806 F4 66/05/20
 2439266 55.0 N 165.7 E 5.2
 46 52.7 313.7 11-53-40.6 11-44-22.

4 TYQYFLFOFF 1 ALASK
A - ALEUTIAN ARC 4 KOMANDORSKY ISLANDS REGION

97 2831 BM 66 5 25 2439271 -6.4 S 131.1 E 24 280 39. 39
116.8 290.6 8 47 39.2 8 32 37.0 2831 BM 66/05/25
2439271 6.4 S 131.1 E 5.8
39 116.8 290.6 08-47-39.2 08-32-37.

0 IPIKMORPHL 24 SUNDA
ARC 280 BANDA SEA

97 2831 F1 66 5 25 2439271 -6.4 S 131.1 E 24 280 39. 39
116.8 290.6 8 47 39.2 8 32 37.0 2831 F1 66/05/25
2439271 6.4 S 131.1 E 5.8
39 116.8 290.6 08-47-39.2 08-32-37.

0 IPIKMORPHL 24 SUNDA
ARC 280 BANDA SEA

97 2831 F2 66 5 25 2439271 -6.4 S 131.1 E 24 280 39. 39
116.8 290.6 8 47 39.2 8 32 37.0 2831 F2 66/05/25
2439271 6.4 S 131.1 E 5.8
39 116.8 290.6 08-47-39.2 08-32-37.

0 IPIKMORPHL 24 SUNDA
ARC 280 BANDA SEA

97 2831 F3 66 5 25 2439271 -6.4 S 131.1 E 24 280 39. 39
116.8 290.6 8 47 39.2 8 32 37.0 2831 F3 66/05/25
2439271 6.4 S 131.1 E 5.8
39 116.8 290.6 08-47-39.2 08-32-37.

0 IPIKMORPHL 24 SUNDA
ARC 280 BANDA SEA

97 2831 F4 66 5 25 2439271 -6.4 S 131.1 E 24 280 39. 39
116.8 290.6 8 47 39.2 8 32 37.0 2831 F4 66/05/25
2439271 6.4 S 131.1 E 5.8
39 116.8 290.6 08-47-39.2 08-32-37.

0 IPIKMORPHL 24 SUNDA
ARC 280 BANDA SEA

98 2883 BM 66 6 4 2439281 34.0 N 77.0 E 26 302207. 207
99.5 357.3 5 25 4.8 5 11 18.6 2883 BM 66/06/04
2439281 34.0 N 077.0 E 5.7
207 99.5 357.3 05-25-04.8 05-11-18.

6 QPMLVHCGSI 26 INDIA
- TIBET - SZECHWAN - YUNAN 302 EASTERN KASHMIR

98 2883 F1 66 6 4 2439281 34.0 N 77.0 E 26 302207. 207
99.5 357.3 5 25 4.8 5 11 18.6 2883 F1 66/06/04
2439281 34.0 N 077.0 E 5.7
207 99.5 357.3 05-25-04.8 05-11-18.

6 QPMLVHCGSI 26 INDIA
- TIBET - SZECHWAN - YUNAN 302 EASTERN KASHMIR

98 2883 F2 66 6 4 2439281 34.0 N 77.0 E 26 302207. 207
99.5 357.3 5 25 4.8 5 11 18.6 2883 F2 66/06/04
2439281 34.0 N 077.0 E 5.7
207 99.5 357.3 05-25-04.8 05-11-18.

6 QPMLVHCGSI 26 INDIA
- TIBET - SZECHWAN - YUNAN 302 EASTERN KASHMIR

98 2883 F3 66 6 4 2439281 34.0 N 77.0 E 26 302207. 207

99.5 357.3 5 25 4.8 5 11 18.6 2883 F3 66/06/04
 2439281 34.0 N 077.0 E 5.7
 207 99.5 357.3 05-25-04.8 05-11-18.
 6 QPMLVHCGSI 26 INDIA
 - TIBET - SZECHWAN - YUNAN 302 EASTERN KASHMIR

99 2883 F4 66 6 4 2439281 34.0 N 77.0 E 26 302207. 207
 99.5 357.3 5 25 4.8 5 11 18.6 2883 F4 66/06/04
 2439281 34.0 N 077.0 E 5.7
 207 99.5 357.3 05-25-04.8 05-11-18.
 6 QPMLVHCGSI 26 INDIA
 - TIBET - SZECHWAN - YUNAN 302 EASTERN KASHMIR

99 2880 BM 66 6 10 2439287 47.0 N 155.0 E 19 222 33. 33
 62.8 310.6 9 21 56.0 9 11 26.5 2880 BM 66/06/10
 2439287 47.0 N 155.0 E 4.5
 33 62.8 310.6 09-21-56.0 09-11-26.
 5 VQSBLUEZHT 19 JAPAN
 - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

99 2880 F1 66 6 10 2439287 47.0 N 155.0 E 19 222 33. 33
 62.8 310.6 9 21 56.0 9 11 26.5 2880 F1 66/06/10
 2439287 47.0 N 155.0 E 4.5
 33 62.8 310.6 09-21-56.0 09-11-26.
 5 VQSBLUEZHT 19 JAPAN
 - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

99 2880 F2 66 6 10 2439287 47.0 N 155.0 E 19 222 33. 33
 62.8 310.6 9 21 56.0 9 11 26.5 2880 F2 66/06/10
 2439287 47.0 N 155.0 E 4.5
 33 62.8 310.6 09-21-56.0 09-11-26.
 5 VQSBLUEZHT 19 JAPAN
 - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

99 2880 F3 66 6 10 2439287 47.0 N 155.0 E 19 222 33. 33
 62.8 310.6 9 21 56.0 9 11 26.5 2880 F3 66/06/10
 2439287 47.0 N 155.0 E 4.5
 33 62.8 310.6 09-21-56.0 09-11-26.
 5 VQSBLUEZHT 19 JAPAN
 - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

99 2880 F4 66 6 10 2439287 47.0 N 155.0 E 19 222 33. 33
 62.8 310.6 9 21 56.0 9 11 26.5 2880 F4 66/06/10
 2439287 47.0 N 155.0 E 4.5
 33 62.8 310.6 09-21-56.0 09-11-26.
 5 VQSBLUEZHT 19 JAPAN
 - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

100 2326 BM 66 6 30 2439307 43.6 N 132.2 E 51 661454. 454
 76.3 320.5 9 10 50.4 8 58 58.1 2326 BM 66/06/30
 2439307 43.6 N 132.2 E 5.4
 454 76.3 320.5 09-10-50.4 08-58-58.
 1 EPLPGUDVTH 51 S REG
 = 19.20 OR 41 AND D GT 300 661 NEAR E. COAST OF EASTERN RUS
 SIA

100 2326 F1 66 6 30 2439307 43.6 N 132.2 E 51 661454. 454
 76.3 320.5 9 10 50.4 8 58 58.1 2326 F1 66/06/30
 2439307 43.6 N 132.2 E 5.4
 454 76.3 320.5 09-10-50.4 08-58-58.

1 EPLPQDDVTH 51 S REG
= 19,20 OR 41 AND D GT 300 661 NEAR E. COAST OF EASTERN RUS
SIA

100 2326 F2 66 6 30 2439307 43.6 N 132.2 E 51 661454. 454
76.3 320.5 9 10 50.4 8 58 58.1 2326 F2 66/06/30
2439307 43.6 N 132.2 E 5.4
454 76.3 320.5 09-10-50.4 08-58-58.

1 EPLPQDDVTH 51 S REG
= 19,20 OR 41 AND D GT 300 661 NEAR E. COAST OF EASTERN RUS
SIA

100 2326 F3 66 6 30 2439307 43.6 N 132.2 E 51 661454. 454
76.3 320.5 9 10 50.4 8 58 58.1 2326 F3 66/06/30
2439307 43.6 N 132.2 E 5.4
454 76.3 320.5 09-10-50.4 08-58-58.

1 EPLPQDDVTH 51 S REG
= 19,20 OR 41 AND D GT 300 661 NEAR E. COAST OF EASTERN RUS
SIA

100 2326 F4 66 6 30 2439307 43.6 N 132.2 E 51 661454. 454
76.3 320.5 9 10 50.4 8 58 58.1 2326 F4 66/06/30
2439307 43.6 N 132.2 E 5.4
454 76.3 320.5 09-10-50.4 08-58-58.

1 EPLPQDDVTH 51 S REG
= 19,20 OR 41 AND D GT 300 661 NEAR E. COAST OF EASTERN RUS
SIA

101 2904 RM 66 7 7 2439314 12.6 N 144.2 E 17 210 40. 40
93.9 292.9 9 59 48.1 9 46 27.4 2904 RM 66/07/07
2439314 12.6 N 144.2 E 5.3
40 93.9 292.9 09-59-48.1 09-46-27.4

ZWTUYWQQZL 17 CAROL
NE ISLANDS TO GUAM 210 SOUTH OF MARIANA ISLANDS

101 2904 F1 66 7 7 2439314 12.6 N 144.2 E 17 210 40. 40
93.9 292.9 9 59 48.1 9 46 27.4 2904 F1 66/07/07
2439314 12.6 N 144.2 E 5.3
40 93.9 292.9 09-59-48.1 09-46-27.

4 ZWTUYWQQZL 17 CAROL
THE ISLANDS TO GUAM 210 SOUTH OF MARIANA ISLANDS

101 2904 F2 66 7 7 2439314 12.6 N 144.2 E 17 210 40. 40
93.9 292.9 9 59 48.1 9 46 27.4 2904 F2 66/07/07
2439314 12.6 N 144.2 E 5.3
40 93.9 292.9 09-59-48.1 09-46-27.

4 ZWTUYWQQZL 17 CAROL
THE ISLANDS TO GUAM 210 SOUTH OF MARIANA ISLANDS

101 2904 F3 66 7 7 2439314 12.6 N 144.2 E 17 210 40. 40
93.9 292.9 9 59 48.1 9 46 27.4 2904 F3 66/07/07
2439314 12.6 N 144.2 E 5.3
40 93.9 292.9 09-59-48.1 09-46-27.

4 ZWTUYWQQZL 17 CAROL
THE ISLANDS TO GUAM 210 SOUTH OF MARIANA ISLANDS

101 2904 F4 66 7 7 2439314 12.6 N 144.2 E 17 210 40. 40
93.9 292.9 9 59 48.1 9 46 27.4 2904 F4 66/07/07
2439314 12.6 N 144.2 E 5.3
40 93.9 292.9 09-59-48.1 09-46-27.

4 ZWTUYWQJ7L 17 CAROL
INE ISLANDS TO GUAM 210 SOUTH OF MARIANA ISLANDS

102 1178 BM 66 8 19 2439357 36.4 N 141.7 E 19 228 28. 28
77.3 310.1 12 58 17.3 12 46 19.7 1178 BM 66/08/19
2439357 36.4 N 141.7 E 5.5
28 77.3 310.1 12-58-17.3 12-46-19.

7 ZROBQJSRLM 19 JAPAN
- KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, J
APAN

102 1178 F1 66 8 19 2439357 36.4 N 141.7 E 19 228 28. 28
77.3 310.1 12 58 17.3 12 46 19.7 1178 F1 66/08/19
2439357 36.4 N 141.7 E 5.5
28 77.3 310.1 12-58-17.3 12-46-19.

7 ZROBQJSRLM 19 JAPAN
- KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, J
APAN

102 1178 F2 66 8 19 2439357 36.4 N 141.7 E 19 228 28. 28
77.3 310.1 12 58 17.3 12 46 19.7 1178 F2 66/08/19
2439357 36.4 N 141.7 E 5.5
28 77.3 310.1 12-58-17.3 12-46-19.

7 ZROBQJSRLM 19 JAPAN
- KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, J
APAN

102 1178 F3 66 8 19 2439357 36.4 N 141.7 E 19 228 28. 28
77.3 310.1 12 58 17.3 12 46 19.7 1178 F3 66/08/19
2439357 36.4 N 141.7 E 5.5
28 77.3 310.1 12-58-17.3 12-46-19.

7 ZROBQJSRLM 19 JAPAN
- KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, J
APAN

102 1178 F4 66 8 19 2439357 36.4 N 141.7 E 19 228 28. 28
77.3 310.1 12 58 17.3 12 46 19.7 1178 F4 66/08/19
2439357 36.4 N 141.7 E 5.5
28 77.3 310.1 12-58-17.3 12-46-19.

7 ZROBQJSRLM 19 JAPAN
- KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, J
APAN

103 2014 BM 66 9 10 2439379 46.6 N 144.1 E 51 663335. 335
68.5 315.9 2 38 16.2 2 27 10.1 2014 BM 66/09/10
2439379 46.6 N 144.1 E 5.2
335 68.5 315.9 02-38-16.2 02-27-10.

1 VESJLQRECZ 51 S REG
= 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK

103 2014 F1 66 9 10 2439379 46.6 N 144.1 E 51 663335. 335
68.5 315.9 2 38 16.2 2 27 10.1 2014 F1 66/09/10
2439379 46.6 N 144.1 E 5.2
335 68.5 315.9 02-38-16.2 02-27-10.

1 VESJLQRECZ 51 S REG
= 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK

103 2014 F2 66 9 10 2439379 46.6 N 144.1 E 51 663335. 335
68.5 315.9 2 38 16.2 2 27 10.1 2014 F2 66/09/10
2439379 46.6 N 144.1 E 5.2
335 68.5 315.9 02-38-16.2 02-27-10.

1 VESJLQRECZ 51 S REG
= 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK

103 2014 F3 66 9 10 2439379 46.6 N 144.1 E 51 663335. 335

68.5 315.9 2 38 16.2 2 27 10.1 2014 F3 66/09/10
 2439379 46.6 N 144.1 E 5.2
 335 68.5 315.9 02-38-16.2 02-27-10.
 1 VESJLQRECZ 51 S REG
 = 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK

103 2014 F4 66 9 10 2439379 46.6 N 144.1 E 51 663335. 335
 68.5 315.9 2 38 16.2 2 27 10.1 2014 F4 66/09/10
 2439379 46.6 N 144.1 E 5.2
 335 68.5 315.9 02-38-16.2 02-27-10.
 1 VESJLQRECZ 51 S REG
 = 19,20 UP 41 AND D GT 300 663 SEA OF OKHOTSK

104 1545 BM 66 10 15 2439414 45.7 N 26.3 E 52 358120. 120
 78.9 31.7 7 11 8.6 6 59 2.0 1545 BM 66/10/15
 2439414 45.7 N 026.3 E 4.8
 120 78.9 31.7 07-11-08.6 06-59-02.
 0 HITLOVRQWJ 52 G REG
 = 358 AND D GT 70 358 RUMANIA

104 1545 F1 66 10 15 2439414 45.7 N 26.3 E 52 358120. 120
 78.9 31.7 7 11 8.6 6 59 2.0 1545 F1 66/10/15
 2439414 45.7 N 026.3 E 4.8
 120 78.9 31.7 07-11-08.6 06-59-02.
 0 HITLOVRQWJ 52 G REG
 = 358 AND D GT 70 358 RUMANIA

104 1545 F2 66 10 15 2439414 45.7 N 26.3 E 52 358120. 120
 78.9 31.7 7 11 8.6 6 59 2.0 1545 F2 66/10/15
 2439414 45.7 N 026.3 E 4.8
 120 78.9 31.7 07-11-08.6 06-59-02.
 0 HITLOVRQWJ 52 G REG
 = 358 AND D GT 70 358 RUMANIA

104 1545 F3 66 10 15 2439414 45.7 N 26.3 E 52 358120. 120
 78.9 31.7 7 11 8.6 6 59 2.0 1545 F3 66/10/15
 2439414 45.7 N 026.3 E 4.8
 120 78.9 31.7 07-11-08.6 06-59-02.
 0 HITLOVRQWJ 52 G REG
 = 358 AND D GT 70 358 RUMANIA

104 1545 F4 66 10 15 2439414 45.7 N 26.3 E 52 358120. 120
 78.9 31.7 7 11 8.6 6 59 2.0 1545 F4 66/10/15
 2439414 45.7 N 026.3 E 4.8
 120 78.9 31.7 07-11-08.6 06-59-02.
 0 HITLOVRQWJ 52 G REG
 = 358 AND D GT 70 358 RUMANIA

105 1660 BM 66 10 29 2439428 39.2 N 21.2 E 30 364 20. 20
 82.4 38.4 2 51 51.7 2 39 26.7 1660 BM 66/10/29
 2439428 39.2 N 021.2 E 5.7
 20 82.4 38.4 02-51-51.7 02-30-26.
 7 CJLFFQVZJI 30 MINDL
 F EAST - CRIMEA - BALKANS 364 GREECE

105 1660 F1 66 10 29 2439428 39.2 N 21.2 E 30 364 20. 20
 82.4 38.4 2 51 51.7 2 39 26.7 1660 F1 66/10/29
 2439428 39.2 N 021.2 E 5.7
 20 82.4 38.4 02-51-51.7 02-30-26.
 7 CJLFFQVZJI 30 MINDL

E EAST - CRIMEA - BALKANS 364 GREECE

105 1660 F2 66 10 29 2439428 39.2 N 21.2 E 30 364 20. 20
 82.4 38.4 2 51 51.7 2 39 26.7 1660 F2 66/10/29
 2439428 39.2 N 021.2 F 5.7
 20 82.4 38.4 02-51-51.7 02-39-26.
 7 CJLFFQVZJI 30 MIDL

F EAST - CRIMEA - BALKANS 364 GREECE

105 1660 F3 66 10 29 2439428 39.2 N 21.2 E 30 364 20. 20
 82.4 38.4 2 51 51.7 2 39 26.7 1660 F3 66/10/29
 2439428 39.2 N 021.2 F 5.7
 20 82.4 38.4 02-51-51.7 02-39-26.
 7 CJLFFQVZJI 30 MIDL

F EAST - CRIMEA - BALKANS 364 GREECE

105 1660 F4 66 10 29 2439428 39.2 N 21.2 E 30 364 20. 20
 82.4 38.4 2 51 51.7 2 39 26.7 1660 F4 66/10/29
 2439428 39.2 N 021.2 F 5.7
 20 82.4 38.4 02-51-51.7 02-39-26.
 7 CJLFFQVZJI 30 MIDL

F EAST - CRIMEA - BALKANS 364 GREECE

106 1714 BM 66 11 8 2439438 52.4 N 173.0 E 1 5 41. 41
 50.1 308.1 11 44 50.2 11 35 51.2 1714 BM 66/11/08
 2439438 52.4 N 173.0 F 4.9
 41 50.1 308.1 11-44-50.2 11-35-51.

2 QHTOWHIYSL 1 ALASK
 A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLAN
 DS

106 1714 F1 66 11 8 2439438 52.4 N 173.0 E 1 5 41. 41
 50.1 308.1 11 44 50.2 11 35 51.2 1714 F1 66/11/08
 2439438 52.4 N 173.0 E 4.9
 41 50.1 308.1 11-44-50.2 11-35-51.

2 QHTOWHIYSL 1 ALASK
 A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLAN
 DS

106 1714 F2 66 11 8 2439438 52.4 N 173.0 E 1 5 41. 41
 50.1 308.1 11 44 50.2 11 35 51.2 1714 F2 66/11/08
 2439438 52.4 N 173.0 E 4.9
 41 50.1 308.1 11-44-50.2 11-35-51.

2 QHTOWHIYSL 1 ALASK
 A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLAN
 DS

106 1714 F3 66 11 8 2439438 52.4 N 173.0 E 1 5 41. 41
 50.1 308.1 11 44 50.2 11 35 51.2 1714 F3 66/11/08
 2439438 52.4 N 173.0 E 4.9
 41 50.1 308.1 11-44-50.2 11-35-51.

2 QHTOWHIYSL 1 ALASK
 A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLAN
 DS

106 1714 F4 66 11 8 2439438 52.4 N 173.0 E 1 5 41. 41
 50.1 308.1 11 44 50.2 11 35 51.2 1714 F4 66/11/08
 2439438 52.4 N 173.0 E 4.9
 41 50.1 308.1 11-44-50.2 11-35-51.

2 QHTOWHIYSL 1 ALASK
 A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLAN
 DS

107 1612 BM 66 11 9 2439439 26.9 N 125.5 E 21 245 39. 39
 93.1 315.5 11 39 36.1 11 26 18.8 1612 BM 66/11/09

2439439 26.9 N 125.5 E 5.4
39 93.1 315.5 11-39-36.1 11-26-18.
R JQSVMLMDIC 21 TAIWA
N 245 NORTHEAST OF TAIWAN

107 1612 F1 66 11 9 2439439 26.9 N 125.5 E 21 245 39. 39
93.1 315.5 11 39 36.1 11 26 18.8 1612 F1 66/11/09
2439439 26.9 N 125.5 E 5.4
39 93.1 315.5 11-39-36.1 11-26-18.
R JQSVMLMDIC 21 TAIWA
N 245 NORTHEAST OF TAIWAN

107 1612 F2 66 11 9 2439439 26.9 N 125.5 E 21 245 39. 39
93.1 315.5 11 39 36.1 11 26 18.8 1612 F2 66/11/09
2439439 26.9 N 125.5 E 5.4
39 93.1 315.5 11-39-36.1 11-26-18.
R JQSVMLMDIC 21 TAIWA
N 245 NORTHEAST OF TAIWAN

107 1612 F3 66 11 9 2439439 26.9 N 125.5 E 21 245 39. 39
93.1 315.5 11 39 36.1 11 26 18.8 1612 F3 66/11/09
2439439 26.9 N 125.5 E 5.4
39 93.1 315.5 11-39-36.1 11-26-18.
R JQSVMLMDIC 21 TAIWA
N 245 NORTHEAST OF TAIWAN

107 1612 F4 66 11 9 2439439 26.9 N 125.5 E 21 245 39. 39
93.1 315.5 11 39 36.1 11 26 18.8 1612 F4 66/11/09
2439439 26.9 N 125.5 E 5.4
39 93.1 315.5 11-39-36.1 11-26-18.
R JQSVMLMDIC 21 TAIWA
N 245 NORTHEAST OF TAIWAN

108 1674 BM 66 11 12 2439442-23.8 S -67.6 W 8 124126. 126
78.5 144.4 12 2 19.7 11 50 15.3 1674 BM 66/11/12
2439442 23.8 S 067.6 W 5.6
126 78.5 144.4 12-02-19.7 11-50-15.
3 UZRCLEBJQFZ 8 ANDEA
N SOUTH AMERICA 124 CHILE-BOLIVIA BORDER REGION

108 1674 F1 66 11 12 2439442-23.8 S -67.6 W 8 124126. 126
78.5 144.4 12 2 19.7 11 50 15.3 1674 F1 66/11/12
2439442 23.8 S 067.6 W 5.6
122 78.5 144.4 12-02-19.7 11-50-15.
3 UZRCLEBJQFZ 8 ANDEA
N SOUTH AMERICA 124 CHILE-BOLIVIA BORDER REGION

108 1674 F2 66 11 12 2439442-23.8 S -67.6 W 8 124126. 126
78.5 144.4 12 2 19.7 11 50 15.3 1674 F2 66/11/12
2439442 23.8 S 067.6 W 5.6
126 78.5 144.4 12-02-19.7 11-50-15.
3 UZRCLEBJQFZ 8 ANDEA
N SOUTH AMERICA 124 CHILE-BOLIVIA BORDER REGION

108 1674 F3 66 11 12 2439442-23.8 S -67.6 W 8 124126. 126
78.5 144.4 12 2 19.7 11 50 15.3 1674 F3 66/11/12
2439442 23.8 S 067.6 W 5.6
126 78.5 144.4 12-02-19.7 11-50-15.
3 UZRCLEBJQFZ 8 ANDEA
N SOUTH AMERICA 124 CHILE-BOLIVIA BORDER REGION

108 1674 F4 66 11 12 2439442 -23.8 S -67.6 W R 124126. 126
 78.5 144.4 12 2 19.7 11 50 15.3 1674 F4 66/11/12
 2439442 23.8 S 067.6 W 5.6
 126 78.5 144.4 12-02-19.7 11-50-15.

3 UZRCLBJQFZ R ANDEA
 N SOUTH AMERICA 124 CHILE-BOLIVIA BORDER REGION

109 1675 BM 66 11 12 2439442 41.8 N 144.1 E 19 224 33. 33
 72.0 312.4 13 1 6.0 12 49 38.0 1675 BM 66/11/12
 2439442 41.8 N 144.1 E 5.8
 33 72.0 312.4 13-01-06.0 12-49-38.

0 HMGVQWLOGJ 19 JAPAN
 - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

109 1675 F1 66 11 12 2439442 41.8 N 144.1 E 19 224 33. 33
 72.0 312.4 13 1 6.0 12 49 38.0 1675 F1 66/11/12
 2439442 41.8 N 144.1 E 5.8
 33 72.0 312.4 13-01-06.0 12-49-38.

0 HMGVQWLOGJ 19 JAPAN
 - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

109 1675 F2 66 11 12 2439442 41.8 N 144.1 E 19 224 33. 33
 72.0 312.4 13 1 6.0 12 49 38.0 1675 F2 66/11/12
 2439442 41.8 N 144.1 E 5.8
 33 72.0 312.4 13-01-06.0 12-49-38.

0 HMGVQWLOGJ 19 JAPAN
 - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

109 1675 F3 66 11 12 2439442 41.8 N 144.1 E 19 224 33. 33
 72.0 312.4 13 1 6.0 12 49 38.0 1675 F3 66/11/12
 2439442 41.8 N 144.1 E 5.8
 33 72.0 312.4 13-01-06.0 12-49-38.

0 HMGVQWLOGJ 19 JAPAN
 - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

109 1675 F4 66 11 12 2439442 41.8 N 144.1 E 19 224 33. 33
 72.0 312.4 13 1 6.0 12 49 38.0 1675 F4 66/11/12
 2439442 41.8 N 144.1 E 5.8
 33 72.0 312.4 13-01-06.0 12-49-38.

0 HMGVQWLOGJ 19 JAPAN
 - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

110 2709 RM 66 11 19 2439449 35.0 N 23.5 E 30 370 33. 33
 86.9 39.1 7 25 22.6 7 12 34.9 2709 RM 66/11/19
 2439449 35.0 N 023.5 E 5.3
 33 86.9 39.1 07-25-22.6 07-12-34.

9 WPLKPGGDR 30 MIDDLE
 E EAST - CRIMEA - BALKANS 370 CRETE

110 2709 F1 66 11 19 2439449 35.0 N 23.5 E 30 370 33. 33
 86.9 39.1 7 25 22.6 7 12 34.9 2709 F1 66/11/19
 2439449 35.0 N 023.5 E 5.3
 33 86.9 39.1 07-25-22.6 07-12-34.

9 WPLKPGGDR 30 MIDDLE
 E EAST - CRIMEA - BALKANS 370 CRETE

110 2709 F2 66 11 19 2439449 35.0 N 23.5 E 30 370 33. 33
 86.9 39.1 7 25 22.6 7 12 34.9 2709 F2 66/11/19
 2439449 35.0 N 023.5 E 5.3

33 86.9 39.1 07-25-22.6 07-12-34.
 9 WPLKPGGGR 30 MIDDLE
 E EAST - CRIMEA - BALKANS 370 CRETE

110 2709 F3 66 11 19 2439449 35.0 N 23.5 E 30 370 33. 33
 86.9 39.1 7 25 22.6 7 12 34.9 2709 F3 66/11/19
 2439449 35.0 N 023.5 E 5.3

33 86.9 39.1 07-25-22.6 07-12-34.
 9 WPLKPGGGR 30 MIDDLE
 F EAST - CRIMEA - BALKANS 370 CRETE

110 2709 F4 66 11 19 2439449 35.0 N 23.5 E 30 370 33. 33
 86.9 39.1 7 25 22.6 7 12 34.9 2709 F4 66/11/19
 2439449 35.0 N 023.5 E 5.3

33 86.9 39.1 07-25-22.6 07-12-34.
 9 WPLKPGGGR 30 MIDDLE
 F EAST - CRIMEA - BALKANS 370 CRETE

111 2716 BM 66 11 19 2439449 40.5 N 142.7 E 19 228 33. 33
 73.7 312.2 7 42 46.3 7 31 9.2 2716 BM 66/11/19
 2439449 40.5 N 142.7 E 4.3

33 73.7 312.2 07-42-46.3 07-31-09.
 2 GILFPSIBOZ 19 JAPAN
 - KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, JAPAN

111 2716 F1 66 11 19 2439449 40.5 N 142.7 E 19 228 33. 33
 73.7 312.2 7 42 46.3 7 31 9.2 2716 F1 66/11/19
 2439449 40.5 N 142.7 E 4.3

33 73.7 312.2 07-42-46.3 07-31-09.
 2 GILFPSIBOZ 19 JAPAN
 - KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, JAPAN

111 2716 F2 66 11 19 2439449 40.5 N 142.7 E 19 228 33. 33
 73.7 312.2 7 42 46.3 7 31 9.2 2716 F2 66/11/19
 2439449 40.5 N 142.7 E 4.3

33 73.7 312.2 07-42-46.3 07-31-09.
 2 GILFPSIBOZ 19 JAPAN
 - KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, JAPAN

111 2716 F3 66 11 19 2439449 40.5 N 142.7 E 19 228 33. 33
 73.7 312.2 7 42 46.3 7 31 9.2 2716 F3 66/11/19
 2439449 40.5 N 142.7 E 4.3

33 73.7 312.2 07-42-46.3 07-31-09.
 2 GILFPSIBOZ 19 JAPAN
 - KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, JAPAN

111 2716 F4 66 11 19 2439449 40.5 N 142.7 E 19 228 33. 33
 73.7 312.2 7 42 46.3 7 31 9.2 2716 F4 66/11/19
 2439449 40.5 N 142.7 E 4.3

33 73.7 312.2 07-42-46.3 07-31-09.
 2 GILFPSIBOZ 19 JAPAN
 - KURILES - KAMCHATKA 228 NEAR EAST COAST OF HONSHU, JAPAN

112 1613 BM 66 11 21 2439451 46.7 N 152.5 E 19 221 40. 40
 64.3 311.6 12 30 .9 12 19 21.1 1613 BM 66/11/21
 2439451 46.7 N 152.5 E 5.6

40 64.3 311.6 12-30-00.8 12-19-21.
 1 VVPTPLGJ 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

112 1613 F1 66 11 21 2439451 46.7 N 152.5 E 19 221 40. 40
 64.3 311.6 12 30 .8 12 19 21.1 1613 F1 66/11/21
 2439451 46.7 N 152.5 E 5.6
 40 64.3 311.6 12-30-00.8 12-19-21.
 1 VVPTEPLQIJ 19 JAPAN

- KURILES - KAMCHATKA 221 KURILE ISLANDS

112 1613 F2 66 11 21 2439451 46.7 N 152.5 E 19 221 40. 40
 64.3 311.6 12 30 .8 12 19 21.1 1613 F2 66/11/21
 2439451 46.7 N 152.5 F 5.6
 40 64.3 311.6 12-30-00.8 12-19-21.
 1 VVPTEPLQIJ 19 JAPAN

- KURILES - KAMCHATKA 221 KURILE ISLANDS

112 1613 F3 66 11 21 2439451 46.7 N 152.5 E 19 221 40. 40
 64.3 311.6 12 30 .8 12 19 21.1 1613 F3 66/11/21
 2439451 46.7 N 152.5 E 5.6
 40 64.3 311.6 12-30-00.8 12-19-21.
 1 VVPTEPLQIJ 19 JAPAN

- KURILES - KAMCHATKA 221 KURILE ISLANDS

112 1613 F4 66 11 21 2439451 46.7 N 152.5 E 19 221 40. 40
 64.3 311.6 12 30 .8 12 19 21.1 1613 F4 66/11/21
 2439451 46.7 N 152.5 F 5.6
 40 64.3 311.6 12-30-00.8 12-19-21.
 1 VVPTEPLQIJ 19 JAPAN

- KURILES - KAMCHATKA 221 KURILE ISLANDS

113 2722 RM 66 11 22 2439452 48.2 N 146.7 E 51 663453. 453
 66.1 315.7 6 39 56.4 6 29 5.4 2722 RM 66/11/22
 2439452 48.2 N 146.7 F 5.6
 453 66.1 315.7 06-39-56.4 06-29-05.
 4 HUVJUCDQCL 51 S REG

= 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK

113 2722 F1 66 11 22 2439452 48.2 N 146.7 E 51 663453. 453
 66.1 315.7 6 39 56.4 6 29 5.4 2722 F1 66/11/22
 2439452 48.2 N 146.7 E 5.6
 453 66.1 315.7 06-39-56.4 06-29-05.
 4 HUVJUCDQCL 51 S REG

= 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK

113 2722 F2 66 11 22 2439452 48.2 N 146.7 E 51 663453. 453
 66.1 315.7 6 39 56.4 6 29 5.4 2722 F2 66/11/22
 2439452 48.2 N 146.7 F 5.6
 453 66.1 315.7 06-39-56.4 06-29-05.
 4 HUVJUCDQCL 51 S REG

= 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK

113 2722 F3 66 11 22 2439452 48.2 N 146.7 E 51 663453. 453
 66.1 315.7 6 39 56.4 6 29 5.4 2722 F3 66/11/22
 2439452 48.2 N 146.7 E 5.6
 453 66.1 315.7 06-39-56.4 06-29-05.
 4 HUVJUCDQCL 51 S REG

= 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK

113 2722 F4 66 11 22 2439452 48.2 N 146.7 E 51 663453. 453
 66.1 315.7 6 39 56.4 6 29 5.4 2722 F4 66/11/22
 2439452 48.2 N 146.7 F 5.6
 453 66.1 315.7 06-39-56.4 06-29-05.

4 HUVJUCDQCL 51 S REG
= 19,20 OR 41 AND D GT 300 663 SEA OF OKHOTSK

114 2956 BM 66 11 29 2439459 55.0 N 154.0 E 41 663 33. 33
58.3 318.2 R 19 13.7 R 9 14.9 2956 BM 66/11/29
2439459 55.0 N 154.0 E 4.3
33 58.3 318.2 08-19-13.7 08-09-14.

9 EQOLVPWWJM 41 FASTE
RN ASIA 663 SEA OF OKHOTSK

114 2956 F1 66 11 29 2439459 55.0 N 154.0 E 41 663 33. 33
58.3 318.2 R 19 13.7 R 9 14.9 2956 F1 66/11/29
2439459 55.0 N 154.0 E 4.3
33 58.3 318.2 08-19-13.7 08-09-14.

9 EQOLVPWWJM 41 FASTE
RN ASIA 663 SEA OF OKHOTSK

114 2956 F2 66 11 29 2439459 55.0 N 154.0 E 41 663 33. 33
58.3 318.2 R 19 13.7 R 9 14.9 2956 F2 66/11/29
2439459 55.0 N 154.0 E 4.3
33 58.3 318.2 08-19-13.7 08-09-14.

9 EQOLVPWWJM 41 FASTE
RN ASIA 663 SEA OF OKHOTSK

114 2956 F3 66 11 29 2439459 55.0 N 154.0 E 41 663 33. 33
58.3 318.2 R 19 13.7 R 9 14.9 2956 F3 66/11/29
2439459 55.0 N 154.0 E 4.3
33 58.3 318.2 08-19-13.7 08-09-14.

9 EQOLVPWWJM 41 FASTE
RN ASIA 663 SEA OF OKHOTSK

114 2956 F4 66 11 29 2439459 55.0 N 154.0 E 41 663 33. 33
58.3 318.2 R 19 13.7 R 9 14.9 2956 F4 66/11/29
2439459 55.0 N 154.0 E 4.3
33 58.3 318.2 08-19-13.7 08-09-14.

9 EQOLVPWWJM 41 FASTE
RN ASIA 663 SEA OF OKHOTSK

115 11295 RM 73 5 5 2441808 37.1 N 176.0 E 39 611 41. 41
56.5 290.5 3 52 26.0 3 42 39.7 11295 RM 73/05/05
2441808 37.1 N 176.0 E 5.4
41 56.5 290.5 03-52-26.0 03-42-39.

7 WSHMPVQVLC 39 PACIF
IC BASIN 611 NORTH PACIFIC OCFAN

115 11295 F1 73 5 5 2441808 37.1 N 176.0 E 39 611 41. 41
56.5 290.5 3 52 26.0 3 42 39.7 11295 F1 73/05/05
2441808 37.1 N 176.0 E 5.4
41 56.5 290.5 03-52-26.0 03-42-39.

7 WSHMPVQVLC 39 PACIF
IC BASIN 611 NORTH PACIFIC OCFAN

115 11295 F2 73 5 5 2441808 37.1 N 176.0 E 39 611 41. 41
56.5 290.5 3 52 26.0 3 42 39.7 11295 F2 73/05/05
2441808 37.1 N 176.0 E 5.4
41 56.5 290.5 03-52-26.0 03-42-39.

7 WSHMPVQVLC 39 PACIF
IC BASIN 611 NORTH PACIFIC OCFAN

115 11295 F3 73 5 5 2441808 37.1 N 176.0 E 39 611 41. 41

56.5 290.5 3 52 26.0 3 42 39.7 11295 F3 73/05/05
 2441808 37.1 N 176.0 E 5.4
 41 56.5 290.5 03-52-26.0 03-42-39.
 7 WSHMPVQVLC 39 PACIF
 IC BASIN 611 NORTH PACIFIC OCEAN

115 11295 F4 73 5 5 2441808 37.1 N 176.0 E 39 611 41. 41
 56.5 290.5 3 52 26.0 3 42 39.7 11295 F4 73/05/05
 2441808 37.1 N 176.0 E 5.4
 41 56.5 290.5 03-52-26.0 03-42-39.
 7 WSHMPVQVLC 39 PACIF
 IC BASIN 611 NORTH PACIFIC OCEAN

116 11300 BM 73 5 8 2441811 45.6 N 149.6 E 19 221 95. 95
 66.5 312.2 7 48 59.0 7 38 5.5 11300 BM 73/05/08
 2441811 45.6 N 149.6 E 5.4
 95 66.5 312.2 07-48-59.0 07-38-05.
 5 QWPLRHEHTG 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

116 11300 F1 73 5 8 2441811 45.6 N 149.6 E 19 221 95. 95
 66.5 312.2 7 48 59.0 7 38 5.5 11300 F1 73/05/08
 2441811 45.6 N 149.6 E 5.4
 95 66.5 312.2 07-48-59.0 07-38-05.
 5 QWPLRHEHTG 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

116 11300 F2 73 5 8 2441811 45.6 N 149.6 E 19 221 95. 95
 66.5 312.2 7 48 59.0 7 38 5.5 11300 F2 73/05/08
 2441811 45.6 N 149.6 E 5.4
 95 66.5 312.2 07-48-59.0 07-38-05.
 5 QWPLRHEHTG 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

116 11300 F3 73 5 8 2441811 45.6 N 149.6 E 19 221 95. 95
 66.5 312.2 7 48 59.0 7 38 5.5 11300 F3 73/05/08
 2441811 45.6 N 149.6 E 5.4
 95 66.5 312.2 07-48-59.0 07-38-05.
 5 QWPLRHEHTG 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

116 11300 F4 73 5 8 2441811 45.6 N 149.6 E 19 221 95. 95
 66.5 312.2 7 48 59.0 7 38 5.5 11300 F4 73/05/08
 2441811 45.6 N 149.6 E 5.4
 95 66.5 312.2 07-48-59.0 07-38-05.
 5 QWPLRHEHTG 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

117 11383 BM 73 5 10 2441813 51.4 N-179.5 W 1 7 61. 61
 46.4 304.2 11 39 31.0 11 31 .9 11383 BM 73/05/10
 2441813 51.4 N 179.5 W 5.3
 61 46.4 304.2 11-39-31.0 11-31-00.
 9 JQZVLSRMSM 1 ALASKA
 A - ALFUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
 IS.

117 11383 F1 73 5 10 2441813 51.4 N-179.5 W 1 7 61. 61
 46.4 304.2 11 39 31.0 11 31 .9 11383 F1 73/05/10
 2441813 51.4 N 179.5 W 5.3
 61 46.4 304.2 11-39-31.0 11-31-00.
 9 JQZVLSRMSM 1 ALASKA

A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
IS.
117 11383 F2 73 5 10 2441813 51.4 N-179.5 W 1 7 61. 61
46.4 304.2 11 39 31.0 11 31 .9 11383 F2 73/05/10
2441813 51.4 N 179.5 W 5.3
61 46.4 304.2 11-39-31.0 11-31-00.
9 JQZVLSBMSM 1 ALASK
A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
IS.
117 11383 F3 73 5 10 2441813 51.4 N-179.5 W 1 7 61. 61
46.4 304.2 11 39 31.0 11 31 .9 11383 F3 73/05/10
2441813 51.4 N 179.5 W 5.3
61 46.4 304.2 11-39-31.0 11-31-00.
9 JQZVLSBMSM 1 ALASK
A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
IS.
117 11383 F4 73 5 10 2441813 51.4 N-179.5 W 1 7 61. 61
46.4 304.2 11 39 31.0 11 31 .9 11383 F4 73/05/10
2441813 51.4 N 179.5 W 5.3
61 46.4 304.2 11-39-31.0 11-31-00.
9 JQZVLSBMSM 1 ALASK
A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
IS.
118 11304 BM 73 5 10 2441813 19.0 N-104.8 W 5 55 33. 33
27.7 177.1 17 50 53.0 17 45 1.4 11304 BM 73/05/10
2441813 19.0 N 104.8 W 5.0
33 27.7 177.1 17-50-53.0 17-45-01.
4 KUTLWQSPOR 5 MEXIC
0 - GUATEMALA AREA 55 NEAR COAST OF JALISCO, MEXIC
0
118 11304 F1 73 5 10 2441813 19.0 N-104.8 W 5 55 33. 33
27.7 177.1 17 50 53.0 17 45 1.4 11304 F1 73/05/10
2441813 19.0 N 104.8 W 5.0
33 27.7 177.1 17-50-53.0 17-45-01.
4 KUTLWQSPOR 5 MEXIC
0 - GUATEMALA AREA 55 NEAR COAST OF JALISCO, MEXIC
0
118 11304 F2 73 5 10 2441813 19.0 N-104.8 W 5 55 33. 33
27.7 177.1 17 50 53.0 17 45 1.4 11304 F2 73/05/10
2441813 19.0 N 104.8 W 5.0
33 27.7 177.1 17-50-53.0 17-45-01.
4 KUTLWQSPOR 5 MEXIC
0 - GUATEMALA AREA 55 NEAR COAST OF JALISCO, MEXIC
0
118 11304 F3 73 5 10 2441813 19.0 N-104.8 W 5 55 33. 33
27.7 177.1 17 50 53.0 17 45 1.4 11304 F3 73/05/10
2441813 19.0 N 104.8 W 5.0
33 27.7 177.1 17-50-53.0 17-45-01.
4 KUTLWQSPOR 5 MEXIC
0 - GUATEMALA AREA 55 NEAR COAST OF JALISCO, MEXIC
0
118 11304 F4 73 5 10 2441813 19.0 N-104.8 W 5 55 33. 33
27.7 177.1 17 50 53.0 17 45 1.4 11304 F4 73/05/10
2441813 19.0 N 104.8 W 5.0
33 27.7 177.1 17-50-53.0 17-45-01.
4 KUTLWQSPOR 5 MEXIC
0 - GUATEMALA AREA 55 NEAR COAST OF JALISCO, MEXIC
0
119 11312 BM 73 5 14 2441817 44.1 N 148.2 E 19 221 64. 64
68.2 311.8 2 19 1.0 2 7 56.5 11312 BM 73/05/14

2441817 44.1 N 148.2 E 5.5
64 68.2 311.8 02-19-01.0 02-07-56.
19 JAPAN
5 DSMBMMQHSL
- KURILES - KAMCHATKA 221 KURILE ISLANDS

119 11312 F1 73 5 14 2441817 44.1 N 148.2 E 19 221 64. 64
68.2 311.8 2 19 1.0 2 7 56.5 11312 F1 73/05/14
2441817 44.1 N 148.2 E 5.5
64 68.2 311.8 02-19-01.0 02-07-56.
19 JAPAN
5 DSMBMMQHSL
- KURILES - KAMCHATKA 221 KURILE ISLANDS

119 11312 F2 73 5 14 2441817 44.1 N 148.2 E 19 221 64. 64
68.2 311.8 2 19 1.0 2 7 56.5 11312 F2 73/05/14
2441817 44.1 N 148.2 E 5.5
64 68.2 311.8 02-19-01.0 02-07-56.
19 JAPAN
5 DSMBMMQHSL
- KURILES - KAMCHATKA 221 KURILE ISLANDS

119 11312 F3 73 5 14 2441817 44.1 N 148.2 E 19 221 64. 64
68.2 311.8 2 19 1.0 2 7 56.5 11312 F3 73/05/14
2441817 44.1 N 148.2 E 5.5
64 68.2 311.8 02-19-01.0 02-07-56.
19 JAPAN
5 DSMBMMQHSL
- KURILES - KAMCHATKA 221 KURILE ISLANDS

119 11312 F4 73 5 14 2441817 44.1 N 148.2 E 19 221 64. 64
68.2 311.8 2 19 1.0 2 7 56.5 11312 F4 73/05/14
2441817 44.1 N 148.2 E 5.5
64 68.2 311.8 02-19-01.0 02-07-56.
19 JAPAN
5 DSMBMMQHSL
- KURILES - KAMCHATKA 221 KURILE ISLANDS

120 11316 BM 73 5 17 2441820 41.0 N 82.2 E 27 321 33. 33
92.3 353.6 9 38 9.0 9 24 55.6 11316 BM 73/05/17
2441820 41.0 N 82.2 E 5.5
33 92.3 353.6 09-38-09.0 09-24-55.
27 SOUTH
6 TQTUDDYEML
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI
NA

120 11316 F1 73 5 17 2441820 41.0 N 82.2 E 27 321 33. 33
92.3 353.6 9 38 9.0 9 24 55.6 11316 F1 73/05/17
2441820 41.0 N 82.2 E 5.5
33 92.3 353.6 09-38-09.0 09-24-55.
27 SOUTH
6 TQTUDDYEML
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI
NA

120 11316 F2 73 5 17 2441820 41.0 N 82.2 E 27 321 33. 33
92.3 353.6 9 38 9.0 9 24 55.6 11316 F2 73/05/17
2441820 41.0 N 82.2 E 5.5
33 92.3 353.6 09-38-09.0 09-24-55.
27 SOUTH
6 TQTUDDYEML
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI
NA

120 11316 F3 73 5 17 2441820 41.0 N 82.2 E 27 321 33. 33
92.3 353.6 9 38 9.0 9 24 55.6 11316 F3 73/05/17
2441820 41.0 N 82.2 E 5.5
33 92.3 353.6 09-38-09.0 09-24-55.
27 SOUTH
6 TQTUDDYEML
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI
NA

NA
 120 11316 F4 73 5 17 2441820 41.0 N 82.2 E 27 321 33. 33
 92.3 353.6 9 38 9.0 9 24 55.6 11316 F4 73/05/17
 2441820 41.0 N 082.2 E 5.5
 33 92.3 353.6 09-38-09.0 09-24-55.
 6 TQTUDDYEML 27 SOUTH
 FRN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI
 NA
 121 11324 BM 73 5 24 2441827 51.6 N-173.4 W 1 7 43. 43
 42.8 302.3 18 47 11.0 18 39 9.6 11324 BM 73/05/24
 2441827 51.6 N 173.4 W 5.4
 43 42.8 302.3 18-47-11.0 18-39-09.
 6 DSPWQBPLFE 1 ALASK
 A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
 IS.
 121 11324 F1 73 5 24 2441827 51.6 N-173.4 W 1 7 43. 43
 42.8 302.3 18 47 11.0 18 39 9.6 11324 F1 73/05/24
 2441827 51.6 N 173.4 W 5.4
 43 42.8 302.3 18-47-11.0 18-39-09.
 6 DSPWQBPLFE 1 ALASK
 A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
 IS.
 121 11324 F2 73 5 24 2441827 51.6 N-173.4 W 1 7 43. 43
 42.8 302.3 18 47 11.0 18 39 9.6 11324 F2 73/05/24
 2441827 51.6 N 173.4 W 5.4
 43 42.8 302.3 18-47-11.0 18-39-09.
 6 DSPWQBPLFE 1 ALASK
 A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
 IS.
 121 11324 F3 73 5 24 2441827 51.6 N-173.4 W 1 7 43. 43
 42.8 302.3 18 47 11.0 18 39 9.6 11324 F3 73/05/24
 2441827 51.6 N 173.4 W 5.4
 43 42.8 302.3 18-47-11.0 18-39-09.
 6 DSPWQBPLFE 1 ALASK
 A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
 IS.
 121 11324 F4 73 5 24 2441827 51.6 N-173.4 W 1 7 43. 43
 42.8 302.3 18 47 11.0 18 39 9.6 11324 F4 73/05/24
 2441827 51.6 N 173.4 W 5.4
 43 42.8 302.3 18-47-11.0 18-39-09.
 6 DSPWQBPLFE 1 ALASK
 A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
 IS.
 122 11330 BM 73 5 29 2441832 73.7 N 9.5 E 40 640 33. 33
 52.2 18.7 4 51 57.0 4 42 42.0 11330 BM 73/05/29
 2441832 73.7 N 0 9.5 E 4.8
 33 52.2 18.7 04-51-57.0 04-42-42.
 0 7KULVQCKOG 40 ARCTI
 C ZONE 640 GREENLAND SEA
 122 11330 F1 73 5 29 2441832 73.7 N 9.5 E 40 640 33. 33
 52.2 18.7 4 51 57.0 4 42 42.0 11330 F1 73/05/29
 2441832 73.7 N 0 9.5 E 4.8
 33 52.2 18.7 04-51-57.0 04-42-42.
 0 7KULVQCKOG 40 ARCTI
 C ZONE 640 GREENLAND SEA
 122 11330 F2 73 5 29 2441832 73.7 N 9.5 E 40 640 33. 33
 52.2 18.7 4 51 57.0 4 42 42.0 11330 F2 73/05/29
 2441832 73.7 N 0 9.5 E 4.8

33 52.2 18.7 04-51-57.0 04-42-42.
 0 ZKULVQCKOG 40 ARCTI
 C ZONE 640 GREENLAND SEA

122 11330 F3 73 5 29 2441832 73.7 N 9.5 E 40 640 33. 33
 52.2 18.7 4 51 57.0 4 42 42.0 11330 F3 73/05/29
 2441832 73.7 N 0 9.5 E 4.8
 33 52.2 18.7 04-51-57.0 04-42-42.
 0 ZKULVQCKOG 40 ARCTI
 C ZONE 640 GREENLAND SEA

122 11330 F4 73 5 29 2441832 73.7 N 9.5 E 40 640 33. 33
 52.2 18.7 4 51 57.0 4 42 42.0 11330 F4 73/05/29
 2441832 73.7 N 0 9.5 E 4.8
 33 52.2 18.7 04-51-57.0 04-42-42.
 0 ZKULVQCKOG 40 ARCTI
 C ZONE 640 GREENLAND SEA

123 11331 BM 73 5 29 2441832 54.0 N-163.8 W 1 10 30. 30
 36.5 303.3 6 14 22.0 6 7 12.7 11331 BM 73/05/29
 2441832 54.0 N 163.8 W 6.0
 30 36.5 303.3 06-14-22.0 06-07-12.
 7 VLRFBQRZCR 1 ALASK
 A - ALEUTIAN ARC 10 UNIMAK ISLAND REGION

123 11331 F1 73 5 29 2441832 54.0 N-163.8 W 1 10 30. 30
 36.5 303.3 6 14 22.0 6 7 12.7 11331 F1 73/05/29
 2441832 54.0 N 163.8 W 6.0
 30 36.5 303.3 06-14-22.0 06-07-12.
 7 VLRFBQRZCR 1 ALASK
 A - ALEUTIAN ARC 10 UNIMAK ISLAND REGION

123 11331 F2 73 5 29 2441832 54.0 N-163.8 W 1 10 30. 30
 36.5 303.3 6 14 22.0 6 7 12.7 11331 F2 73/05/29
 2441832 54.0 N 163.8 W 6.0
 30 36.5 303.3 06-14-22.0 06-07-12.
 7 VLRFBQRZCR 1 ALASK
 A - ALEUTIAN ARC 10 UNIMAK ISLAND REGION

123 11331 F3 73 5 29 2441832 54.0 N-163.8 W 1 10 30. 30
 36.5 303.3 6 14 22.0 6 7 12.7 11331 F3 73/05/29
 2441832 54.0 N 163.8 W 6.0
 30 36.5 303.3 06-14-22.0 06-07-12.
 7 VLRFBQRZCR 1 ALASK
 A - ALEUTIAN ARC 10 UNIMAK ISLAND REGION

123 11331 F4 73 5 29 2441832 54.0 N-163.8 W 1 10 30. 30
 36.5 303.3 6 14 22.0 6 7 12.7 11331 F4 73/05/29
 2441832 54.0 N 163.8 W 6.0
 30 36.5 303.3 06-14-22.0 06-07-12.
 7 VLRFBQRZCR 1 ALASK
 A - ALEUTIAN ARC 10 UNIMAK ISLAND REGION

124 11022 BM 73 6 7 2441841 14.2 N -91.9 W 5 71 70. 70
 34.6 155.0 18 34 46.0 18 27 53.5 11022 BM 73/06/07
 2441841 14.2 N 091.9 W 5.7
 70 34.6 155.0 18-34-46.0 18-27-53.
 5 DUTIQKZEPL 5 MEXIC
 0 - GUATEMALA AREA 71 NEAR COAST OF GUATEMALA

124 11022 F1 73 6 7 2441841 14.2 N -91.9 W 5 71 70. 70
 34.6 155.0 18 34 46.0 18 27 53.5 11022 F1 73/06/07
 2441841 14.2 N 091.9 W 5.7
 70 34.6 155.0 18-34-46.0 18-27-53.

5 DUTIQKZFPL 5 MEXIC
 0 - GUATEMALA AREA 71 NEAR COAST OF GUATEMALA

124 11022 F2 73 6 7 2441841 14.2 N -91.9 W 5 71 70. 70
 34.6 155.0 18 34 46.0 18 27 53.5 11022 F2 73/06/07
 2441841 14.2 N 091.9 W 5.7
 70 34.6 155.0 18-34-46.0 18-27-53.

5 DUTIQKZFPL 5 MEXIC
 0 - GUATEMALA AREA 71 NEAR COAST OF GUATEMALA

124 11022 F3 73 6 7 2441841 14.2 N -91.9 W 5 71 70. 70
 34.6 155.0 18 34 46.0 18 27 53.5 11022 F3 73/06/07
 2441841 14.2 N 091.9 W 5.7
 70 34.6 155.0 18-34-46.0 18-27-53.

5 DUTIQKZFPL 5 MEXIC
 0 - GUATEMALA AREA 71 NEAR COAST OF GUATEMALA

124 11022 F4 73 6 7 2441841 14.2 N -91.9 W 5 71 70. 70
 34.6 155.0 18 34 46.0 18 27 53.5 11022 F4 73/06/07
 2441841 14.2 N 091.9 W 5.7
 70 34.6 155.0 18-34-46.0 18-27-53.

5 DUTIQKZFPL 5 MEXIC
 0 - GUATEMALA AREA 71 NEAR COAST OF GUATEMALA

125 11023 RM 73 6 9 2441843 39.4 N 95.4 E 27 322 33. 33
 92.1 343.4 18 32.0 8 5 19.7 11023 RM 73/06/09
 2441843 39.4 N 095.4 E 5.0
 33 92.1 343.4 08-18-32.0 08-05-19.

7 UTSGLOZEHY 27 SOUTH
 FRN SINKIANG TO KANSU 322 KANSU PROVINCE, CHINA

125 11023 F1 73 6 9 2441843 39.4 N 95.4 E 27 322 33. 33
 92.1 343.4 18 32.0 8 5 19.7 11023 F1 73/06/09
 2441843 39.4 N 095.4 E 5.0
 33 92.1 343.4 08-18-32.0 08-05-19.

7 UTSGLOZEHY 27 SOUTH
 FRN SINKIANG TO KANSU 322 KANSU PROVINCE, CHINA

125 11023 F2 73 6 9 2441843 39.4 N 95.4 E 27 322 33. 33
 92.1 343.4 18 32.0 8 5 19.7 11023 F2 73/06/09
 2441843 39.4 N 095.4 E 5.0
 33 92.1 343.4 08-18-32.0 08-05-19.

7 UTSGLOZEHY 27 SOUTH
 FRN SINKIANG TO KANSU 322 KANSU PROVINCE, CHINA

125 11023 F3 73 6 9 2441843 39.4 N 95.4 E 27 322 33. 33
 92.1 343.4 18 32.0 8 5 19.7 11023 F3 73/06/09
 2441843 39.4 N 095.4 E 5.0
 33 92.1 343.4 08-18-32.0 08-05-19.

7 UTSGLOZEHY 27 SOUTH
 FRN SINKIANG TO KANSU 322 KANSU PROVINCE, CHINA

125 11023 F4 73 6 9 2441843 39.4 N 95.4 E 27 322 33. 33
 92.1 343.4 18 32.0 8 5 19.7 11023 F4 73/06/09
 2441843 39.4 N 095.4 E 5.0
 33 92.1 343.4 08-18-32.0 08-05-19.

7 UTSGLO7EHY 27 SOUTH
ERN SINKIANG TO KANSU 322 KANSU PROVINCE, CHINA

1
126 11089 BM 73 6 10 2441844 39.5 N 74.8 E 27 321 33. 33
94.1 359.2 16 8 42.0 15 55 20.5 11089 BM 73/06/10
2441844 39.5 N 074.8 E 5.2
33 94.1 359.2 16-08-42.0 15-55-20.5

WBKULBTQVF 27 SOUTH
RN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHINA

A
126 11089 F1 73 6 10 2441844 39.5 N 74.8 E 27 321 33. 33
94.1 359.2 16 8 42.0 15 55 20.5 11089 F1 73/06/10
2441844 39.5 N 074.8 E 5.2
33 94.1 359.2 16-08-42.0 15-55-20.

5 WBKULBTQVF 27 SOUTH
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHINA

NA
126 11089 F2 73 6 10 2441844 39.5 N 74.8 E 27 321 33. 33
94.1 359.2 16 8 42.0 15 55 20.5 11089 F2 73/06/10
2441844 39.5 N 074.8 E 5.2
33 94.1 359.2 16-08-42.0 15-55-20.

5 WBKULBTQVF 27 SOUTH
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHINA

NA
126 11089 F3 73 6 10 2441844 39.5 N 74.8 E 27 321 33. 33
94.1 359.2 16 8 42.0 15 55 20.5 11089 F3 73/06/10
2441844 39.5 N 074.8 E 5.2
33 94.1 359.2 16-08-42.0 15-55-20.

5 WBKULBTQVF 27 SOUTH
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHINA

NA
126 11089 F4 73 6 10 2441844 39.5 N 74.8 E 27 321 33. 33
94.1 359.2 16 8 42.0 15 55 20.5 11089 F4 73/06/10
2441844 39.5 N 074.8 E 5.2
33 94.1 359.2 16-08-42.0 15-55-20.

5 WBKULBTQVF 27 SOUTH
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHINA

NA
127 11028 BM 73 6 16 2441850 37.7 N 95.6 E 27 325 33. 33
93.7 342.9 7 22 48.0 7 9 28.4 11028 BM 73/06/16
2441850 37.7 N 095.6 E 5.4
33 93.7 342.9 07-22-48.0 07-09-28.

4 LDTDPWUQCE 27 SOUTH
ERN SINKIANG TO KANSU 325 TSINGHAI PROVINCE, CHINA

127 11028 F1 73 6 16 2441850 37.7 N 95.6 E 27 325 33. 33
93.7 342.9 7 22 48.0 7 9 28.4 11028 F1 73/06/16
2441850 37.7 N 095.6 E 5.4
33 93.7 342.9 07-22-48.0 07-09-28.

4 LDTDPWUQCE 27 SOUTH
ERN SINKIANG TO KANSU 325 TSINGHAI PROVINCE, CHINA

127 11028 F2 73 6 16 2441850 37.7 N 95.6 E 27 325 33. 33
93.7 342.9 7 22 48.0 7 9 28.4 11028 F2 73/06/16
2441850 37.7 N 095.6 E 5.4
33 93.7 342.9 07-22-48.0 07-09-28.

4 LDTDPWUQCE 27 SOUTH
ERN SINKIANG TO KANSU 325 TSINGHAI PROVINCE, CHINA

127 11028 F3 73 6 16 2441850 37.7 N 95.6 E 27 325 33. 33
 93.7 342.9 7 22 48.0 7 9 28.4 11028 F3 73/06/16
 2441850 37.7 N 95.6 E 5.4
 33 93.7 342.9 07-22-48.0 07-09-28.

4 LDTDPWUQCE 27 SOUTH
 ERN SINKIANG TO KANSU 325 TSINGHAI PROVINCE, CHINA

127 11028 F4 73 6 16 2441850 37.7 N 95.6 E 27 325 33. 33
 93.7 342.9 7 22 48.0 7 9 28.4 11028 F4 73/06/16
 2441850 37.7 N 95.6 E 5.4
 33 93.7 342.9 07-22-48.0 07-09-28.

4 LDTDPWUQCE 27 SOUTH
 ERN SINKIANG TO KANSU 325 TSINGHAI PROVINCE, CHINA

128 11032 BM 73 6 17 2441851 43.2 N 145.8 E 19 224 48. 48
 70.1 312.4 3 55 2.0 3 43 46.1 11032 BM 73/06/17
 2441851 43.2 N 145.8 E 6.5
 48 70.1 312.4 03-55-02.0 03-43-46.

1 LMEDJIZCKQ 19 JAPAN
 - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

128 11032 F1 73 6 17 2441851 43.2 N 145.8 E 19 224 48. 48
 70.1 312.4 3 55 2.0 3 43 46.1 11032 F1 73/06/17
 2441851 43.2 N 145.8 E 6.5
 48 70.1 312.4 03-55-02.0 03-43-46.

1 LMEDJIZCKQ 19 JAPAN
 - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

128 11032 F2 73 6 17 2441851 43.2 N 145.8 E 19 224 48. 48
 70.1 312.4 3 55 2.0 3 43 46.1 11032 F2 73/06/17
 2441851 43.2 N 145.8 E 6.5
 48 70.1 312.4 03-55-02.0 03-43-46.

1 LMEDJIZCKQ 19 JAPAN
 - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

128 11032 F3 73 6 17 2441851 43.2 N 145.8 E 19 224 48. 48
 70.1 312.4 3 55 2.0 3 43 46.1 11032 F3 73/06/17
 2441851 43.2 N 145.8 E 6.5
 48 70.1 312.4 03-55-02.0 03-43-46.

1 LMEDJIZCKQ 19 JAPAN
 - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

128 11032 F4 73 6 17 2441851 43.2 N 145.8 E 19 224 48. 48
 70.1 312.4 3 55 2.0 3 43 46.1 11032 F4 73/06/17
 2441851 43.2 N 145.8 E 6.5
 48 70.1 312.4 03-55-02.0 03-43-46.

1 LMEDJIZCKQ 19 JAPAN
 - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

129 11034 BM 73 6 24 2441858 43.3 N 146.4 E 19 221 50. 50
 69.7 312.1 2 43 25.0 2 32 11.6 11034 BM 73/06/24
 2441858 43.3 N 146.4 E 6.3
 50 69.7 312.1 02-43-25.0 02-32-11.

6 LSCBCEKUYH 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

129 11034 F1 73 6 24 2441858 43.3 N 146.4 E 19 221 50. 50
 69.7 312.1 2 43 25.0 2 32 11.6 11034 F1 73/06/24
 2441858 43.3 N 146.4 E 6.3
 50 69.7 312.1 02-43-25.0 02-32-11.

6 LSCBCEKQYH 19 JAPAN
- KURILES - KAMCHATKA 221 KURILE ISLANDS

129 11034 F2 73 6 24 2441858 43.3 N 146.4 E 19 221 50. 50
69.7 312.1 2 43 25.0 2 32 11.6 11034 F2 73/06/24
2441858 43.3 N 146.4 E 6.3
50 69.7 312.1 02-43-25.0 02-32-11.

6 LSCBCEKQYH 19 JAPAN
- KURILES - KAMCHATKA 221 KURILE ISLANDS

129 11034 F3 73 6 24 2441858 43.3 N 146.4 E 19 221 50. 50
69.7 312.1 2 43 25.0 2 32 11.6 11034 F3 73/06/24
2441858 43.3 N 146.4 E 6.3
50 69.7 312.1 02-43-25.0 02-32-11.

6 LSCBCEKQYH 19 JAPAN
- KURILES - KAMCHATKA 221 KURILE ISLANDS

129 11034 F4 73 6 24 2441858 43.3 N 146.4 E 19 221 50. 50
69.7 312.1 2 43 25.0 2 32 11.6 11034 F4 73/06/24
2441858 43.3 N 146.4 E 6.3
50 69.7 312.1 02-43-25.0 02-32-11.

6 LSCBCEKQYH 19 JAPAN
- KURILES - KAMCHATKA 221 KURILE ISLANDS

130 11095 BM 73 6 27 2441861 40.6 N 79.2 E 27 321 33. 33
92.9 355.9 13 11 11.0 12 57 54.7 11095 BM 73/06/27
2441861 40.6 N 79.2 E 5.0
33 92.9 355.9 13-11-11.0 12-57-54.

7 CVFLOMJUSQ 27 SOUTH
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI
NA

130 11095 F1 73 6 27 2441861 40.6 N 79.2 E 27 321 33. 33
92.9 355.9 13 11 11.0 12 57 54.7 11095 F1 73/06/27
2441861 40.6 N 79.2 E 5.0
33 92.9 355.9 13-11-11.0 12-57-54.

7 CVFLOMJUSQ 27 SOUTH
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI
NA

130 11095 F2 73 6 27 2441861 40.6 N 79.2 E 27 321 33. 33
92.9 355.9 13 11 11.0 12 57 54.7 11095 F2 73/06/27
2441861 40.6 N 79.2 E 5.0
33 92.9 355.9 13-11-11.0 12-57-54.

7 CVFLOMJUSQ 27 SOUTH
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI
NA

130 11095 F3 73 6 27 2441861 40.6 N 79.2 E 27 321 33. 33
92.9 355.9 13 11 11.0 12 57 54.7 11095 F3 73/06/27
2441861 40.6 N 79.2 E 5.0
33 92.9 355.9 13-11-11.0 12-57-54.

7 CVFLOMJUSQ 27 SOUTH
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI
NA

130 11095 F4 73 6 27 2441861 40.6 N 79.2 E 27 321 33. 33
92.9 355.9 13 11 11.0 12 57 54.7 11095 F4 73/06/27
2441861 40.6 N 79.2 E 5.0
33 92.9 355.9 13-11-11.0 12-57-54.

7 CVFLOMJUSQ 27 SOUTH
ERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHI
NA

131 11105 BM 73 6 29 2441863 21.1 N 143.1 E 18 215 24. 24

88.1 299.1 2 23 20.0 2 10 26.3 11105 HM 73/06/29
 2441863 21.1 N 143.1 E 5.7
 24 88.1 299.1 02-23-20.0 02-10-26.
 3 QFULSYGTEH 18 GUAM
 TO JAPAN 215 MARIANA ISLANDS REGION

131 11105 F1 73 6 29 2441863 21.1 N 143.1 E 18 215 24. 24
 88.1 299.1 2 23 20.0 2 10 26.3 11105 F1 73/06/29
 2441863 21.1 N 143.1 E 5.7
 24 88.1 299.1 02-23-20.0 02-10-26.
 3 QFULSYGTEH 18 GUAM
 TO JAPAN 215 MARIANA ISLANDS REGION

131 11105 F2 73 6 29 2441863 21.1 N 143.1 E 18 215 24. 24
 88.1 299.1 2 23 20.0 2 10 26.3 11105 F2 73/06/29
 2441863 21.1 N 143.1 E 5.7
 24 88.1 299.1 02-23-20.0 02-10-26.
 3 QFULSYGTEH 18 GUAM
 TO JAPAN 215 MARIANA ISLANDS REGION

131 11105 F3 73 6 29 2441863 21.1 N 143.1 E 18 215 24. 24
 88.1 299.1 2 23 20.0 2 10 26.3 11105 F3 73/06/29
 2441863 21.1 N 143.1 E 5.7
 24 88.1 299.1 02-23-20.0 02-10-26.
 3 QFULSYGTEH 18 GUAM
 TO JAPAN 215 MARIANA ISLANDS REGION

131 11105 F4 73 6 29 2441863 21.1 N 143.1 E 18 215 24. 24
 88.1 299.1 2 23 20.0 2 10 26.3 11105 F4 73/06/29
 2441863 21.1 N 143.1 E 5.7
 24 88.1 299.1 02-23-20.0 02-10-26.
 3 QFULSYGTEH 18 GUAM
 TO JAPAN 215 MARIANA ISLANDS REGION

132 11042 HM 73 7 3 2441867 12.2 N 125.3 E 22 251 33. 33
 105.5 307.5 7 3 43.0 6 49 30.2 11042 HM 73/07/03
 2441867 12.2 N 125.3 E 6.1
 33 105.5 307.5 07-03-43.0 06-49-30.
 2 RZFKVZHQLU 22 PHILI
 PPINES 251 SAMAR, PHILIPPINE ISLANDS

132 11042 F1 73 7 3 2441867 12.2 N 125.3 E 22 251 33. 33
 105.5 307.5 7 3 43.0 6 49 30.2 11042 F1 73/07/03
 2441867 12.2 N 125.3 E 6.1
 33 105.5 307.5 07-03-43.0 06-49-30.
 2 RZFKVZHQLU 22 PHILI
 PPINES 251 SAMAR, PHILIPPINE ISLANDS

132 11042 F2 73 7 3 2441867 12.2 N 125.3 E 22 251 33. 33
 105.5 307.5 7 3 43.0 6 49 30.2 11042 F2 73/07/03
 2441867 12.2 N 125.3 E 6.1
 33 105.5 307.5 07-03-43.0 06-49-30.
 2 RZFKVZHQLU 22 PHILI
 PPINES 251 SAMAR, PHILIPPINE ISLANDS

132 11042 F3 73 7 3 2441867 12.2 N 125.3 E 22 251 33. 33
 105.5 307.5 7 3 43.0 6 49 30.2 11042 F3 73/07/03
 2441867 12.2 N 125.3 E 6.1
 33 105.5 307.5 07-03-43.0 06-49-30.
 2 RZFKVZHQLU 22 PHILI

PPINES

251 SAMAR, PHILIPPINE ISLANDS

132 11042 F4 73 7 3 2441867 12.2 N 125.3 E 22 251 33. 33
 105.5 307.5 7 3 43.0 6 40 30.2 11042 F4 73/07/03
 2441867 12.2 N 125.3 E 6.1
 33 105.5 307.5 07-03-43.0 06-49-30.

2 RZFAVZHGLU

22 PHILI

PPINES

251 SAMAR, PHILIPPINE ISLANDS

133 11038 BM 73 7 1 2441865 57.8 N-137.3 W 2 20 33. 33
 21.8 312.1 13 33 34.0 13 28 38.0 11038 BM 73/07/01
 2441865 57.8 N 137.3 W 6.1
 33 21.8 312.1 13-33-34.0 13-28-38.

0 FYSWULRQUP

2 EASTF

RN ALASKA TO VANCOUVER ISLA 20 OFF COAST OF SOUTHEASTERN ALASKA

133 11038 F1 73 7 1 2441865 57.8 N-137.3 W 2 20 33. 33
 21.8 312.1 13 33 34.0 13 28 38.0 11038 F1 73/07/01
 2441865 57.8 N 137.3 W 6.1
 33 21.8 312.1 13-33-34.0 13-28-38.

0 FYSWULRQUP

2 EASTF

RN ALASKA TO VANCOUVER ISLA 20 OFF COAST OF SOUTHEASTERN ALASKA

133 11038 F2 73 7 1 2441865 57.8 N-137.3 W 2 20 33. 33
 21.8 312.1 13 33 34.0 13 28 38.0 11038 F2 73/07/01
 2441865 57.8 N 137.3 W 6.1
 33 21.8 312.1 13-33-34.0 13-28-38.

0 FYSWULRQUP

2 EASTF

RN ALASKA TO VANCOUVER ISLA 20 OFF COAST OF SOUTHEASTERN ALASKA

133 11038 F3 73 7 1 2441865 57.8 N-137.3 W 2 20 33. 33
 21.8 312.1 13 33 34.0 13 28 38.0 11038 F3 73/07/01
 2441865 57.8 N 137.3 W 6.1
 33 21.8 312.1 13-33-34.0 13-28-38.

0 FYSWULRQUP

2 EASTF

RN ALASKA TO VANCOUVER ISLA 20 OFF COAST OF SOUTHEASTERN ALASKA

133 11038 F4 73 7 1 2441865 57.8 N-137.3 W 2 20 33. 33
 21.8 312.1 13 33 34.0 13 28 38.0 11038 F4 73/07/01
 2441865 57.8 N 137.3 W 6.1
 33 21.8 312.1 13-33-34.0 13-28-38.

0 FYSWULRQUP

2 EASTF

RN ALASKA TO VANCOUVER ISLA 20 OFF COAST OF SOUTHEASTERN ALASKA

134 11039 BM 73 7 2 2441866 49.5 N -28.5 W 32 403 33. 33
 49.8 56.4 1 4 55.0 0 55 58.7 11039 BM 73/07/02
 2441866 49.5 N 028.5 W 5.0
 33 49.8 56.4 01-04-55.0 00-55-58.

7 IEOPLYPRV

32 ATLAN

TIC OCEAN

403 NORTH ATLANTIC RIDGE

134 11039 F1 73 7 2 2441866 49.5 N -28.5 W 32 403 33. 33
 49.8 56.4 1 4 55.0 0 55 58.7 11039 F1 73/07/02
 2441866 49.5 N 028.5 W 5.0
 33 49.8 56.4 01-04-55.0 00-55-58.

7 IEOPLYPRV

32 ATLAN

TIC OCEAN

403 NORTH ATLANTIC RIDGE

134 11039 F2 73 7 2 2441866 49.5 N -28.5 W 32 403 33. 33
 49.8 56.4 1 4 55.0 0 55 58.7 11039 F2 73/07/02

2441866 49.5 N 028.5 W 5.0
33 49.8 56.4 01-04-55.0 00-55-58.
7 IEOPLOYPV 32 ATLAN
TIC OCEAN 403 NORTH ATLANTIC RIDGE

134 11039 F3 73 7 2 2441866 49.5 N -28.5 W 32 403 33. 33
49.8 56.4 1 4 55.0 0 55 58.7 11039 F3 73/07/02
2441866 49.5 N 028.5 W 5.0
33 49.8 56.4 01-04-55.0 00-55-58.
7 IEOPLOYPV 32 ATLAN
TIC OCEAN 403 NORTH ATLANTIC RIDGE

134 11039 F4 73 7 2 2441866 49.5 N -28.5 W 32 403 33. 33
49.8 56.4 1 4 55.0 0 55 58.7 11039 F4 73/07/02
2441866 49.5 N 028.5 W 5.0
33 49.8 56.4 01-04-55.0 00-55-58.
7 IEOPLOYPV 32 ATLAN
TIC OCEAN 403 NORTH ATLANTIC RIDGE

135 11040 BM 73 7 2 2441866 54.0 N 164.1 E 28 326 33. 33
54.0 313.2 5 56 12.0 5 46 44.2 11040 BM 73/07/02
2441866 54.0 N 164.1 E 5.4
33 54.0 313.2 05-56-12.0 05-46-44.
2 DJBOJBLQCZ 28 ALMA-
ATA TO LAKE BAUKAL 326 CENTRAL RUSSIA

135 11040 F1 73 7 2 2441866 54.0 N 164.1 E 28 326 33. 33
54.0 313.2 5 56 12.0 5 46 44.2 11040 F1 73/07/02
2441866 54.0 N 164.1 E 5.4
33 54.0 313.2 05-56-12.0 05-46-44.
2 DJBOJBLQCZ 28 ALMA-
ATA TO LAKE BAUKAL 326 CENTRAL RUSSIA

135 11040 F2 73 7 2 2441866 54.0 N 164.1 E 28 326 33. 33
54.0 313.2 5 56 12.0 5 46 44.2 11040 F2 73/07/02
2441866 54.0 N 164.1 E 5.4
33 54.0 313.2 05-56-12.0 05-46-44.
2 DJBOJBLQCZ 28 ALMA-
ATA TO LAKE BAUKAL 326 CENTRAL RUSSIA

135 11040 F3 73 7 2 2441866 54.0 N 164.1 E 28 326 33. 33
54.0 313.2 5 56 12.0 5 46 44.2 11040 F3 73/07/02
2441866 54.0 N 164.1 E 5.4
33 54.0 313.2 05-56-12.0 05-46-44.
2 DJBOJBLQCZ 28 ALMA-
ATA TO LAKE BAUKAL 326 CENTRAL RUSSIA

135 11040 F4 73 7 2 2441866 54.0 N 164.1 E 28 326 33. 33
54.0 313.2 5 56 12.0 5 46 44.2 11040 F4 73/07/02
2441866 54.0 N 164.1 E 5.4
33 54.0 313.2 05-56-12.0 05-46-44.
2 DJBOJBLQCZ 28 ALMA-
ATA TO LAKE BAUKAL 326 CENTRAL RUSSIA

136 11043 BM 73 7 3 2441867 44.1 N 13.3 E 31 382 47. 47
75.0 40.4 16 10 12.0 15 58 27.2 11043 BM 73/07/03
2441867 44.1 N 013.3 E 5.3
47 75.0 40.4 16-10-12.0 15-58-27.
2 YRITHUPLC 31 WESTE
BN MEDITERRANEAN AREA 382 ADRIATIC SEA

136 11043 F1 73 7 3 2441867 44.1 N 13.3 E 31 382 47. 47
 75.0 40.4 16 10 12.0 15 58 27.2 11043 F1 73/07/03
 2441867 44.1 N 013.3 E 5.3
 47 75.0 40.4 16-10-12.0 15-58-27.

2 YRITUQPLC 31 WESTE
 RN MEDITERRANEAN AREA 382 ADRIATIC SEA

136 11043 F2 73 7 3 2441867 44.1 N 13.3 E 31 382 47. 47
 75.0 40.4 16 10 12.0 15 58 27.2 11043 F2 73/07/03
 2441867 44.1 N 013.3 E 5.3
 47 75.0 40.4 16-10-12.0 15-58-27.

2 YRITUQPLC 31 WESTE
 RN MEDITERRANEAN AREA 382 ADRIATIC SEA

136 11043 F3 73 7 3 2441867 44.1 N 13.3 E 31 382 47. 47
 75.0 40.4 16 10 12.0 15 58 27.2 11043 F3 73/07/03
 2441867 44.1 N 013.3 E 5.3
 47 75.0 40.4 16-10-12.0 15-58-27.

2 YRITUQPLC 31 WESTE
 RN MEDITERRANEAN AREA 382 ADRIATIC SEA

136 11043 F4 73 7 3 2441867 44.1 N 13.3 E 31 382 47. 47
 75.0 40.4 16 10 12.0 15 58 27.2 11043 F4 73/07/03
 2441867 44.1 N 013.3 E 5.3
 47 75.0 40.4 16-10-12.0 15-58-27.

2 YRITUQPLC 31 WESTE
 RN MEDITERRANEAN AREA 382 ADRIATIC SEA

137 11047 BM 73 7 9 2441873 10.7 N 92.6 E 46 703 46. 46
 120.4 338.5 16 19 46.0 16 4 30.5 11047 BM 73/07/09
 2441873 10.7 N 092.6 E 5.7
 46 120.4 338.5 16-19-46.0 16-04-30.

5 KMQHSFTELZ 46 ANDAM
 AN ISLANDS TO SUMATRA 703 ANDAMAN ISLANDS REGION

137 11047 F1 73 7 9 2441873 10.7 N 92.6 E 46 703 46. 46
 120.4 338.5 16 19 46.0 16 4 30.5 11047 F1 73/07/09
 2441873 10.7 N 092.6 E 5.7
 46 120.4 338.5 16-19-46.0 16-04-30.

5 KMQHSFTELZ 46 ANDAM
 AN ISLANDS TO SUMATRA 703 ANDAMAN ISLANDS REGION

137 11047 F2 73 7 9 2441873 10.7 N 92.6 E 46 703 46. 46
 120.4 338.5 16 19 46.0 16 4 30.5 11047 F2 73/07/09
 2441873 10.7 N 092.6 E 5.7
 46 120.4 338.5 16-19-46.0 16-04-30.

5 KMQHSFTELZ 46 ANDAM
 AN ISLANDS TO SUMATRA 703 ANDAMAN ISLANDS REGION

137 11047 F3 73 7 9 2441873 10.7 N 92.6 E 46 703 46. 46
 120.4 338.5 16 19 46.0 16 4 30.5 11047 F3 73/07/09
 2441873 10.7 N 092.6 E 5.7
 46 120.4 338.5 16-19-46.0 16-04-30.

5 KMQHSFTELZ 46 ANDAM
 AN ISLANDS TO SUMATRA 703 ANDAMAN ISLANDS REGION

137 11047 F4 73 7 9 2441873 10.7 N 92.6 E 46 703 46. 46
 120.4 338.5 16 19 46.0 16 4 30.5 11047 F4 73/07/09
 2441873 10.7 N 092.6 E 5.7

46 120.4 338.5 16-19-46.0 16-04-30.
 5 KMQHSFTFLZ 46 ANDAM
 AN ISLANDS TO SUMATRA 703 ANDAMAN ISLANDS REGION

138 11051 RM 73 7 10 2441874 37.5 N 142.5 E 19 229 45. 45
 76.0 310.3 23 25 31.0 23 13 39.9 11051 RM 73/07/10
 2441874 37.5 N 142.5 E 5.2
 45 76.0 310.3 23-25-31.0 23-13-39.

9 ZLSFITQSY 19 JAPAN
 - KURILES - KAMCHATKA 229 OFF EAST COAST OF HONSHU, JA
 PAN

138 11051 F1 73 7 10 2441874 37.5 N 142.5 E 19 229 45. 45
 76.0 310.3 23 25 31.0 23 13 39.9 11051 F1 73/07/10
 2441874 37.5 N 142.5 E 5.2
 45 76.0 310.3 23-25-31.0 23-13-39.

9 ZLSFITQSY 19 JAPAN
 - KURILES - KAMCHATKA 229 OFF EAST COAST OF HONSHU, JA
 PAN

138 11051 F2 73 7 10 2441874 37.5 N 142.5 E 19 229 45. 45
 76.0 310.3 23 25 31.0 23 13 39.9 11051 F2 73/07/10
 2441874 37.5 N 142.5 E 5.2
 45 76.0 310.3 23-25-31.0 23-13-39.

9 ZLSFITQSY 19 JAPAN
 - KURILES - KAMCHATKA 229 OFF EAST COAST OF HONSHU, JA
 PAN

138 11051 F3 73 7 10 2441874 37.5 N 142.5 E 19 229 45. 45
 76.0 310.3 23 25 31.0 23 13 39.9 11051 F3 73/07/10
 2441874 37.5 N 142.5 E 5.2
 45 76.0 310.3 23-25-31.0 23-13-39.

9 ZLSFITQSY 19 JAPAN
 - KURILES - KAMCHATKA 229 OFF EAST COAST OF HONSHU, JA
 PAN

138 11051 F4 73 7 10 2441874 37.5 N 142.5 E 19 229 45. 45
 76.0 310.3 23 25 31.0 23 13 39.9 11051 F4 73/07/10
 2441874 37.5 N 142.5 E 5.2
 45 76.0 310.3 23-25-31.0 23-13-39.

9 ZLSFITQSY 19 JAPAN
 - KURILES - KAMCHATKA 229 OFF EAST COAST OF HONSHU, JA
 PAN

139 11080 RM 73 7 11 2441875 52.0 N-176.1 W 1 7 63. 63
 44.2 303.8 23 23 11.0 23 14 58.3 11080 RM 73/07/11
 2441875 52.0 N 176.1 W 5.1
 63 44.2 303.8 23-23-11.0 23-14-58.

3 HMLCSKKURQ 1 ALASK
 A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
 IS.

139 11080 F1 73 7 11 2441875 52.0 N-176.1 W 1 7 63. 63
 44.2 303.8 23 23 11.0 23 14 58.3 11080 F1 73/07/11
 2441875 52.0 N 176.1 W 5.1
 63 44.2 303.8 23-23-11.0 23-14-58.

3 HMLCSKKURQ 1 ALASK
 A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
 IS.

139 11080 F2 73 7 11 2441875 52.0 N-176.1 W 1 7 63. 63
 44.2 303.8 23 23 11.0 23 14 58.3 11080 F2 73/07/11
 2441875 52.0 N 176.1 W 5.1
 63 44.2 303.8 23-23-11.0 23-14-58.

3 HMLCSKKURQ 1 ALASK
 A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
 IS.

139 11080 F3 73 7 11 2441875 52.0 N-176.1 W 1 7 63. 63
 44.2 303.8 23 23 11.0 23 14 58.3 11080 F3 73/07/11
 2441875 52.0 N 176.1 W 5.1
 63 44.2 303.8 23-23-11.0 23-14-58.

3 HMLCSKKURQ 1 ALASK
 A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
 IS.

139 11080 F4 73 7 11 2441875 52.0 N-176.1 W 1 7 63. 63
 44.2 303.8 23 23 11.0 23 14 58.3 11080 F4 73/07/11
 2441875 52.0 N 176.1 W 5.1
 63 44.2 303.8 23-23-11.0 23-14-58.

3 HMLCSKKURQ 1 ALASK
 A - ALEUTIAN ARC 7 ANDREANOF ISLANDS, ALEUTIAN
 IS.

140 11052 BM 73 7 12 2441876 52.2 N 174.2 E 1 5 47. 47
 49.6 307.4 7 51 7.0 7 42 12.6 11052 BM 73/07/12
 2441876 52.2 N 174.2 E 5.2
 47 49.6 307.4 07-51-07.0 07-42-12.

6 OGGGLUIHRB 1 ALASK
 A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLANDS

140 11052 F1 73 7 12 2441876 52.2 N 174.2 E 1 5 47. 47
 49.6 307.4 7 51 7.0 7 42 12.6 11052 F1 73/07/12
 2441876 52.2 N 174.2 E 5.2
 47 49.6 307.4 07-51-07.0 07-42-12.

6 OGGGLUIHRB 1 ALASK
 A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLANDS

140 11052 F2 73 7 12 2441876 52.2 N 174.2 E 1 5 47. 47
 49.6 307.4 7 51 7.0 7 42 12.6 11052 F2 73/07/12
 2441876 52.2 N 174.2 E 5.2
 47 49.6 307.4 07-51-07.0 07-42-12.

6 OGGGLUIHRB 1 ALASK
 A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLANDS

140 11052 F3 73 7 12 2441876 52.2 N 174.2 E 1 5 47. 47
 49.6 307.4 7 51 7.0 7 42 12.6 11052 F3 73/07/12
 2441876 52.2 N 174.2 E 5.2
 47 49.6 307.4 07-51-07.0 07-42-12.

6 OGGGLUIHRB 1 ALASK
 A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLANDS

140 11052 F4 73 7 12 2441876 52.2 N 174.2 E 1 5 47. 47
 49.6 307.4 7 51 7.0 7 42 12.6 11052 F4 73/07/12
 2441876 52.2 N 174.2 E 5.2
 47 49.6 307.4 07-51-07.0 07-42-12.

6 OGGGLUIHRB 1 ALASK
 A - ALEUTIAN ARC 5 NEAR ISLANDS, ALEUTIAN ISLANDS

141 11056 BM 73 7 14 2441878 35.2 N 86.5 E 26 306 33. 33
 97.6 349.5 4 51 21.0 4 37 43.6 11056 BM 73/07/14
 2441878 35.2 N 86.5 E 6.0
 33 97.6 349.5 04-51-21.0 04-37-43.

6 TQLZWBHJHRM 26 INDIA
 - TIBET - SZECHWAN - YUNAN 306 TIBET

141 11056 F1 73 7 14 2441878 35.2 N 86.5 E 26 306 33. 33
 97.6 349.5 4 51 21.0 4 37 43.6 11056 F1 73/07/14
 2441878 35.2 N 86.5 E 6.0
 33 97.6 349.5 04-51-21.0 04-37-43.

6 IQLZWBJHRM 26 INDIA
 - TIBET - SZECHWAN - YUNAN 306 TIBET

141 11056 F2 73 7 14 2441878 35.2 N 86.5 E 26 306 33. 33
 97.6 349.5 4 51 21.0 4 37 43.6 11056 F2 73/07/14
 2441878 35.2 N 86.5 E 6.0
 33 97.6 349.5 04-51-21.0 04-37-43.

6 IQLZWBJHRM 26 INDIA
 - TIBET - SZECHWAN - YUNAN 306 TIBET

141 11056 F3 73 7 14 2441878 35.2 N 86.5 E 26 306 33. 33
 97.6 349.5 4 51 21.0 4 37 43.6 11056 F3 73/07/14
 2441878 35.2 N 86.5 F 6.0
 33 97.6 349.5 04-51-21.0 04-37-43.

6 IQLZWBJHRM 26 INDIA
 - TIBET - SZECHWAN - YUNAN 306 TIBET

141 11056 F4 73 7 14 2441878 35.2 N 86.5 E 26 306 33. 33
 97.6 349.5 4 51 21.0 4 37 43.6 11056 F4 73/07/14
 2441878 35.2 N 86.5 E 6.0
 33 97.6 349.5 04-51-21.0 04-37-43.

6 IQLZWBJHRM 26 INDIA
 - TIBET - SZECHWAN - YUNAN 306 TIBET

142 11059 BM 73 7 15 2441879 43.4 N 146.5 E 19 221 43. 43
 69.6 312.2 14 6 49.0 13 55 36.2 11059 BM 73/07/15
 2441879 43.4 N 146.5 E 5.4
 43 69.6 312.2 14-06-49.0 13-55-36.

2 ZQRLIOVDPW 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

142 11059 F1 73 7 15 2441879 43.4 N 146.5 E 19 221 43. 43
 69.6 312.2 14 6 49.0 13 55 36.2 11059 F1 73/07/15
 2441879 43.4 N 146.5 E 5.4
 43 69.6 312.2 14-06-49.0 13-55-36.

2 ZQRLIOVDPW 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

142 11059 F2 73 7 15 2441879 43.4 N 146.5 E 19 221 43. 43
 69.6 312.2 14 6 49.0 13 55 36.2 11059 F2 73/07/15
 2441879 43.4 N 146.5 E 5.4
 43 69.6 312.2 14-06-49.0 13-55-36.

2 ZQRLIOVDPW 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

142 11059 F3 73 7 15 2441879 43.4 N 146.5 E 19 221 43. 43
 69.6 312.2 14 6 49.0 13 55 36.2 11059 F3 73/07/15
 2441879 43.4 N 146.5 E 5.4
 43 69.6 312.2 14-06-49.0 13-55-36.

2 ZQRLIOVDPW 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

142 11059 F4 73 7 15 2441879 43.4 N 146.5 E 19 221 43. 43
 69.6 312.2 14 6 49.0 13 55 36.2 11059 F4 73/07/15
 2441879 43.4 N 146.5 E 5.4
 43 69.6 312.2 14-06-49.0 13-55-36.

2 ZQRLIOVDPW 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

143 11061 BM 73 7 16 2441880 17.3 N-100.7 W 5 58 44. 44

29.7 169.3 18 12 57.0 18 6 46.9 11061 BM 73/07/16
 2441880 17.3 N 100.7 W 5.6
 44 29.7 169.3 18-12-57.0 18-06-46.
 9 SBHWCLWMQR 5 MEXIC
 0 - GUATEMALA AREA 58 NEAR COAST OF GUERRERO, MEXI
 CO
 143 11061 F1 73 7 16 2441880 17.3 N-100.7 W 5 58 44. 44
 29.7 169.3 18 12 57.0 18 6 46.9 11061 F1 73/07/16
 2441880 17.3 N 100.7 W 5.6
 44 29.7 169.3 18-12-57.0 18-06-46.
 9 SBHWCLWMQR 5 MEXIC
 0 - GUATEMALA AREA 58 NEAR COAST OF GUERRERO, MEXI
 CO
 143 11061 F2 73 7 16 2441880 17.3 N-100.7 W 5 58 44. 44
 29.7 169.3 18 12 57.0 18 6 46.9 11061 F2 73/07/16
 2441880 17.3 N 100.7 W 5.6
 44 29.7 169.3 18-12-57.0 18-06-46.
 9 SBHWCLWMQR 5 MEXIC
 0 - GUATEMALA AREA 58 NEAR COAST OF GUERRERO, MEXI
 CO
 143 11061 F3 73 7 16 2441880 17.3 N-100.7 W 5 58 44. 44
 29.7 169.3 18 12 57.0 18 6 46.9 11061 F3 73/07/16
 2441880 17.3 N 100.7 W 5.6
 44 29.7 169.3 18-12-57.0 18-06-46.
 9 SBHWCLWMQR 5 MEXIC
 0 - GUATEMALA AREA 58 NEAR COAST OF GUERRERO, MEXI
 CO
 143 11061 F4 73 7 16 2441880 17.3 N-100.7 W 5 58 44. 44
 29.7 169.3 18 12 57.0 18 6 46.9 11061 F4 73/07/16
 2441880 17.3 N 100.7 W 5.6
 44 29.7 169.3 18-12-57.0 18-06-46.9
 SBHWCLWMQR 5 MEXICO
 - GUATEMALA AREA 58 NEAR COAST OF GUERRERO, MEXIC
 0
 144 11067 RM 73 7 20 2441884 80.0 N .2 E 40 641 33. 33
 47.1 13.2 23 27 48.0 23 19 12.2 11067 RM 73/07/20
 2441884 80.0 N 0 .2 E 5.2
 33 47.1 13.2 23-27-48.0 23-19-12.2
 KQERIVLIPE 40 ARCTIC
 ZONE 641 NORTH OF SVALBARD
 144 11067 F1 73 7 20 2441884 80.0 N .2 E 40 641 33. 33
 47.1 13.2 23 27 48.0 23 19 12.2 11067 F1 73/07/20
 2441884 80.0 N 0 .2 E 5.2
 33 47.1 13.2 23-27-48.0 23-19-12.2
 KQERIVLIPE 40 ARCTIC
 ZONE 641 NORTH OF SVALBARD
 144 11067 F2 73 7 20 2441884 80.0 N .2 E 40 641 33. 33
 47.1 13.2 23 27 48.0 23 19 12.2 11067 F2 73/07/20
 2441884 80.0 N 0 .2 E 5.2
 33 47.1 13.2 23-27-48.0 23-19-12.2
 KQERIVLIPE 40 ARCTIC
 ZONE 641 NORTH OF SVALBARD
 144 11067 F3 73 7 20 2441884 80.0 N .2 E 40 641 33. 33
 47.1 13.2 23 27 48.0 23 19 12.2 11067 F3 73/07/20
 2441884 80.0 N 0 .2 E 5.2
 33 47.1 13.2 23-27-48.0 23-19-12.2
 KQERIVLIPE 40 ARCTIC

ZONE 641 NORTH OF SVALBARD

144 11067 F4 73 7 20 2441884 80.0 N .2 E 40 641 33. 33
 47.1 13.2 23 27 48.0 23 19 12.2 11067 F4 73/07/20
 2441884 80.0 N 0 .2 E 5.2
 33 47.1 13.2 23-27-48.0 23-19-12.2
 KQERIVLIPE 40 ARCTIC

ZONE 641 NORTH OF SVALBARD

145 12303 RM 74 1 30 2442078 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 4 57 2.0 4 44 29.7 12303 RM 74/01/30
 2442078 49.8 N 078.1 E 5.5
 0 83.7 357.2 04-57-02.0 04-44-29.7
 ZXHLRUJZYM 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

145 12303 D1 74 1 30 2442078 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 4 57 2.0 4 44 29.7 12303 D1 74/01/30
 2442078 49.8 N 078.1 E 5.5
 0 83.7 357.2 04-57-02.0 04-44-29.7
 ZXHLRUJZYM 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

145 12303 D2 74 1 30 2442078 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 4 57 2.0 4 44 29.7 12303 D2 74/01/30
 2442078 49.8 N 078.1 E 5.5
 0 83.7 357.2 04-57-02.0 04-44-29.7
 ZXHLRUJZYM 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

145 12303 D3 74 1 30 2442078 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 4 57 2.0 4 44 29.7 12303 D3 74/01/30
 2442078 49.8 N 078.1 E 5.5
 0 83.7 357.2 04-57-02.0 04-44-29.7
 ZXHLRUJZYM 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

145 12303 D4 74 1 30 2442078 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 4 57 2.0 4 44 29.7 12303 D4 74/01/30
 2442078 49.8 N 078.1 E 5.5
 0 83.7 357.2 04-57-02.0 04-44-29.7
 ZXHLRUJZYM 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

146 12474 RM 74 4 16 2442154 50.0 N 78.8 E 28 329 0. 0
 83.5 356.8 5 53 1.0 5 40 30.0 12474 RM 74/04/16
 2442154 50.0 N 078.8 E 4.8
 0 83.5 356.8 05-53-01.0 05-40-30.0
 UXJLUODVCF 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

146 12474 D1 74 4 16 2442154 50.0 N 78.8 E 28 329 0. 0
 83.5 356.8 5 53 1.0 5 40 30.0 12474 D1 74/04/16
 2442154 50.0 N 078.8 E 4.8
 0 83.5 356.8 05-53-01.0 05-40-30.0
 UXJLUODVCF 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

146 12474 D2 74 4 16 2442154 50.0 N 78.8 E 28 329 0. 0
 83.5 356.8 5 53 1.0 5 40 30.0 12474 D2 74/04/16

2442154 50.0 N 078.8 E 4.8
0 83.5 356.8 05-53-01.0 05-40-30.0
OXJLOODVCF 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

146 12474 D3 74 4 16 2442154 50.0 N 78.8 E 28 329 0. 0
83.5 356.8 5 53 1.0 5 40 30.0 12474 D3 74/04/16

2442154 50.0 N 078.8 E 4.8
0 83.5 356.8 05-53-01.0 05-40-30.0
OXJLOODVCF 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

146 12474 D4 74 4 16 2442154 50.0 N 78.8 E 28 329 0. 0
83.5 356.8 5 53 1.0 5 40 30.0 12474 D4 74/04/16

2442154 50.0 N 078.8 E 4.8
0 83.5 356.8 05-53-01.0 05-40-30.0
OXJLOODVCF 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

147 12305 RM 74 5 16 2442184 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 3 2 57.0 2 50 24.0 12305 RM 74/05/16

2442184 49.7 N 078.2 E 5.3
0 83.8 357.1 03-02-57.0 02-50-24.0
LXKIBYVPMJ 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

147 12305 D1 74 5 16 2442184 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 3 2 57.0 2 50 24.0 12305 D1 74/05/16

2442184 49.7 N 078.2 E 5.3
0 83.8 357.1 03-02-57.0 02-50-24.0
LXKIBYVPMJ 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

147 12305 D2 74 5 16 2442184 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 3 2 57.0 2 50 24.0 12305 D2 74/05/16

2442184 49.7 N 078.2 E 5.3
0 83.8 357.1 03-02-57.0 02-50-24.0
LXKIBYVPMJ 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

147 12305 D3 74 5 16 2442184 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 3 2 57.0 2 50 24.0 12305 D3 74/05/16

2442184 49.7 N 078.2 E 5.3
0 83.8 357.1 03-02-57.0 02-50-24.0
LXKIBYVPMJ 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

147 12305 D4 74 5 16 2442184 49.7 N 78.2 E 28 329 0. 0
83.8 357.1 3 2 57.0 2 50 24.0 12305 D4 74/05/16

2442184 49.7 N 078.2 E 5.3
0 83.8 357.1 03-02-57.0 02-50-24.0
LXKIBYVPMJ 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

148 12399 RM 74 5 31 2442199 50.0 N 78.8 E 28 329 0. 0
83.5 356.8 3 26 57.0 3 14 26.0 12399 RM 74/05/31

2442199 50.0 N 078.8 E 5.9
0 83.5 356.8 03-26-57.0 03-14-26.0
GRXUUMRTJL 28 ALMA-A

TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

148 12399 D1 74 5 31 2442199 50.0 N 78.8 E 28 329 0. 0
 83.5 356.8 3 26 57.0 3 14 26.0 12399 D1 74/05/31
 2442199 50.0 N 078.8 E 5.9
 0 83.5 356.8 03-26-57.0 03-14-26.0

GRXUUMRTJL 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

148 12399 D2 74 5 31 2442199 50.0 N 78.8 E 28 329 0. 0
 83.5 356.8 3 26 57.0 3 14 26.0 12399 D2 74/05/31
 2442199 50.0 N 078.8 E 5.9
 0 83.5 356.8 03-26-57.0 03-14-26.0

GRXUUMRTJL 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

148 12399 D3 74 5 31 2442199 50.0 N 78.8 E 28 329 0. 0
 83.5 356.8 3 26 57.0 3 14 26.0 12399 D3 74/05/31
 2442199 50.0 N 078.8 E 5.9
 0 83.5 356.8 03-26-57.0 03-14-26.0

GRXUUMRTJL 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

148 12399 D4 74 5 31 2442199 50.0 N 78.8 E 28 329 0. 0
 83.5 356.8 3 26 57.0 3 14 26.0 12399 D4 74/05/31
 2442199 50.0 N 078.8 E 5.9
 0 83.5 356.8 03-26-57.0 03-14-26.0

GRXUUMRTJL 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

149 12309 RM 74 6 25 2442224 49.9 N 78.1 E 28 329 0. 0
 83.6 357.2 3 56 57.0 3 44 25.2 12309 RM 74/06/25
 2442224 49.9 N 078.1 E 4.7
 0 83.6 357.2 03-56-57.0 03-44-25.2

XYULPOSVHY 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

149 12309 D1 74 6 25 2442224 49.9 N 78.1 E 28 329 0. 0
 83.6 357.2 3 56 57.0 3 44 25.2 12309 D1 74/06/25
 2442224 49.9 N 078.1 E 4.7
 0 83.6 357.2 03-56-57.0 03-44-25.2

XYULPOSVHY 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

149 12309 D2 74 6 25 2442224 49.9 N 78.1 E 28 329 0. 0
 83.6 357.2 3 56 57.0 3 44 25.2 12309 D2 74/06/25
 2442224 49.9 N 078.1 E 4.7
 0 83.6 357.2 03-56-57.0 03-44-25.2

XYULPOSVHY 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

149 12309 D3 74 6 25 2442224 49.9 N 78.1 E 28 329 0. 0
 83.6 357.2 3 56 57.0 3 44 25.2 12309 D3 74/06/25
 2442224 49.9 N 078.1 E 4.7
 0 83.6 357.2 03-56-57.0 03-44-25.2

XYULPOSVHY 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

149 12309 D4 74 6 25 2442224 49.9 N 78.1 E 28 329 0. 0
 83.6 357.2 3 56 57.0 3 44 25.2 12309 D4 74/06/25
 2442224 49.9 N 078.1 E 4.7

0 83.6 357.2 03-56-57.0 03-44-25.2
 XYULPOSVBY 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

150 12284 BM 74 7 10 2442239 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 2 56 57.0 2 44 24.7 12284 BM 74/07/10
 2442239 49.8 N 078.1 E 5.3
 0 83.7 357.2 02-56-57.0 02-44-24.7

UXWYESELGT 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

150 12284 D1 74 7 10 2442239 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 2 56 57.0 2 44 24.7 12284 D1 74/07/10
 2442239 49.8 N 078.1 E 5.3
 0 83.7 357.2 02-56-57.0 02-44-24.7

UXWYESELGT 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

150 12284 D2 74 7 10 2442239 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 2 56 57.0 2 44 24.7 12284 D2 74/07/10
 2442239 49.8 N 078.1 E 5.3
 0 83.7 357.2 02-56-57.0 02-44-24.7

UXWYESELGT 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

150 12284 D3 74 7 10 2442239 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 2 56 57.0 2 44 24.7 12284 D3 74/07/10
 2442239 49.8 N 078.1 E 5.3
 0 83.7 357.2 02-56-57.0 02-44-24.7

UXWYESELGT 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

150 12284 D4 74 7 10 2442239 49.8 N 78.1 E 28 329 0. 0
 83.7 357.2 2 56 57.0 2 44 24.7 12284 D4 74/07/10
 2442239 49.8 N 078.1 E 5.3
 0 83.7 357.2 02-56-57.0 02-44-24.7

UXWYESELGT 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

151 12286 BM 74 7 10 2442239 37.8 N-116.0 W 3 40 0. 0
 11.4 222.6 16 0 0.0 15 57 12.2 12286 BM 74/07/10 2
 442239 37.8 N 116.0 W 5.7
 0 11.4 222.6 16-00-00.0 15-57-12.2

HVXLSTSSUJ 3 CALIFOR
 NIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGIO
 N

151 12286 D1 74 7 10 2442239 37.8 N-116.0 W 3 40 0. 0
 11.4 222.6 16 0 0.0 15 57 12.2 12286 D1 74/07/10
 2442239 37.8 N 116.0 W 5.7
 0 11.4 222.6 16-00-00.0 15-57-12.2

HVXLSTSSUJ 3 CALIFOR
 NIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

151 12286 D2 74 7 10 2442239 37.8 N-116.0 W 3 40 0. 0
 11.4 222.6 16 0 0.0 15 57 12.2 12286 D2 74/07/10
 2442239 37.8 N 116.0 W 5.7
 0 11.4 222.6 16-00-00.0 15-57-12.2

HVXLSTSSUJ 3 CALIFOR
 NIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI

ON
 151 12286 D3 74 7 10 2442239 37.8 N-116.0 W 3 40 0. 0
 11.4 222.6 16 0 0.0 15 57 12.2 12286 D3 74/07/10
 2442239 37.8 N 116.0 W 5.7
 0 11.4 222.6 16-00-00.0 15-57-12.2
 HVXLSTSSUJ 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON
 151 12286 D4 74 7 10 2442239 37.8 N-116.0 W 3 40 0. 0
 11.4 222.6 16 0 0.0 15 57 12.2 12286 D4 74/07/10
 2442239 37.8 N 116.0 W 5.7
 0 11.4 222.6 16-00-00.0 15-57-12.2
 HVXLSTSSUJ 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON
 152 12292 RM 74 7 22 2442251 70.7 N 53.5 E 40 648 0. 0
 61.9 7.5 1 32 21.0 1 21 57.5 12292 RM 74/07/22
 2442251 70.7 N 053.5 E 4.4
 0 61.9 7.5 01-32-21.0 01-21-57.5
 IJJRWLSXWV 40 ARCTIC
 ZONE 648 NOVAYA ZEMLYA
 152 12292 D1 74 7 22 2442251 70.7 N 53.5 E 40 648 0. 0
 61.9 7.5 1 32 21.0 1 21 57.5 12292 D1 74/07/22
 2442251 70.7 N 053.5 E 4.4
 0 61.9 7.5 01-32-21.0 01-21-57.5
 IJJRWLSXWV 40 ARCTIC
 ZONE 648 NOVAYA ZEMLYA
 152 12292 D2 74 7 22 2442251 70.7 N 53.5 E 40 648 0. 0
 61.9 7.5 1 32 21.0 1 21 57.5 12292 D2 74/07/22
 2442251 70.7 N 053.5 E 4.4
 0 61.9 7.5 01-32-21.0 01-21-57.5
 IJJRWLSXWV 40 ARCTIC
 ZONE 648 NOVAYA ZEMLYA
 152 12292 D3 74 7 22 2442251 70.7 N 53.5 E 40 648 0. 0
 61.9 7.5 1 32 21.0 1 21 57.5 12292 D3 74/07/22
 2442251 70.7 N 053.5 E 4.4
 0 61.9 7.5 01-32-21.0 01-21-57.5
 IJJRWLSXWV 40 ARCTIC
 ZONE 648 NOVAYA ZEMLYA
 152 12292 D4 74 7 22 2442251 70.7 N 53.5 E 40 648 0. 0
 61.9 7.5 1 32 21.0 1 21 57.5 12292 D4 74/07/22
 2442251 70.7 N 053.5 E 4.4
 0 61.9 7.5 01-32-21.0 01-21-57.5
 IJJRWLSXWV 40 ARCTIC
 ZONE 648 NOVAYA ZEMLYA
 153 12403 RM 74 8 14 2442274 37.0 N-116.7 W 3 40 0. 0
 12.4 222.5 14 0 0.0 13 56 58.9 12403 RM 74/08/14
 2442274 37.0 N 116.7 W 4.6
 0 12.4 222.5 14-00-00.0 13-56-58.9
 MIMWVLXPR 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON
 153 12403 D1 74 8 14 2442274 37.0 N-116.7 W 3 40 0. 0
 12.4 222.5 14 0 0.0 13 56 58.9 12403 D1 74/08/14
 2442274 37.0 N 116.7 W 4.6

0 12.4 222.5 14-00-00.0 13-56-58.9
 MIMWVLKXPR 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

153 12403 D2 74 8 14 2442274 37.0 N-116.7 W 3 40 0. 0
 12.4 222.5 14 0 0.0 13 56 58.9 12403 D2 74/08/14
 2442274 37.0 N 116.7 W 4.6

0 12.4 222.5 14-00-00.0 13-56-58.9
 MIMWVLKXPR 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

153 12403 D3 74 8 14 2442274 37.0 N-116.7 W 3 40 0. 0
 12.4 222.5 14 0 0.0 13 56 58.9 12403 D3 74/08/14
 2442274 37.0 N 116.7 W 4.6

0 12.4 222.5 14-00-00.0 13-56-58.9
 MIMWVLKXPR 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

153 12403 D4 74 8 14 2442274 37.0 N-116.7 W 3 40 0. 0
 12.4 222.5 14 0 0.0 13 56 58.9 12403 D4 74/08/14
 2442274 37.0 N 116.7 W 4.6

0 12.4 222.5 14-00-00.0 13-56-58.9
 MIMWVLKXPR 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

154 12405 RM 74 8 29 2442289 73.4 N 55.1 E 40 648 0. 0
 59.5 6.1 9 59 55.0 9 49 47.8 12405 RM 74/08/29
 2442289 73.4 N 055.1 E 6.4

0 59.5 6.1 09-59-55.0 09-49-47.8
 EXNORJLRSZ 40 ARCTIC
 ZONE 648 NOVAYA ZEMLYA

154 12405 D1 74 8 29 2442289 73.4 N 55.1 E 40 648 0. 0
 59.5 6.1 9 59 55.0 9 49 47.8 12405 D1 74/08/29
 2442289 73.4 N 055.1 E 6.4

0 59.5 6.1 09-59-55.0 09-49-47.8
 EXNORJLBSZ 40 ARCTIC
 ZONE 648 NOVAYA ZEMLYA

154 12405 D2 74 8 29 2442289 73.4 N 55.1 E 40 648 0. 0
 59.5 6.1 9 59 55.0 9 49 47.8 12405 D2 74/08/29
 2442289 73.4 N 055.1 E 6.4

0 59.5 6.1 09-59-55.0 09-49-47.8
 EXNORJLRSZ 40 ARCTIC
 ZONE 648 NOVAYA ZEMLYA

154 12405 D3 74 8 29 2442289 73.4 N 55.1 E 40 648 0. 0
 59.5 6.1 9 59 55.0 9 49 47.8 12405 D3 74/08/29
 2442289 73.4 N 055.1 E 6.4

0 59.5 6.1 09-59-55.0 09-49-47.8
 EXNORJLBSZ 40 ARCTIC
 ZONE 648 NOVAYA ZEMLYA

154 12405 D4 74 8 29 2442289 73.4 N 55.1 E 40 648 0. 0
 59.5 6.1 9 59 55.0 9 49 47.8 12405 D4 74/08/29
 2442289 73.4 N 055.1 E 6.4

0 59.5 6.1 09-59-55.0 09-49-47.8
 EXNORJLRSZ 40 ARCTIC
 ZONE 648 NOVAYA ZEMLYA

155 12427 RM 74 9 26 2442317 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 15 5 0.0 15 2 4.7 12427 RM 74/09/26
 2442317 37.1 N 116.0 W 5.6
 0 12.0 220.6 15-05-00.0 15-02-04.7

XLBIQHPIYF 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

155 12427 D1 74 9 26 2442317 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 15 5 0.0 15 2 4.7 12427 D1 74/09/26
 2442317 37.1 N 116.0 W 5.6
 0 12.0 220.6 15-05-00.0 15-02-04.7

XLBIQHPIYF 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

155 12427 D2 74 9 26 2442317 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 15 5 0.0 15 2 4.7 12427 D2 74/09/26
 2442317 37.1 N 116.0 W 5.6
 0 12.0 220.6 15-05-00.0 15-02-04.7

XLBIQHPIYF 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

155 12427 D3 74 9 26 2442317 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 15 5 0.0 15 2 4.7 12427 D3 74/09/26
 2442317 37.1 N 116.0 W 5.6
 0 12.0 220.6 15-05-00.0 15-02-04.7

XLBIQHPIYF 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

155 12427 D4 74 9 26 2442317 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 15 5 0.0 15 2 4.7 12427 D4 74/09/26
 2442317 37.1 N 116.0 W 5.6
 0 12.0 220.6 15-05-00.0 15-02-04.7

XLBIQHPIYF 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

156 12429 RM 74 10 16 2442337 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 6 32 57.0 6 20 26.0 12429 RM 74/10/16
 2442337 50.0 N 079.0 E 5.5
 0 83.5 356.6 06-32-57.0 06-20-26.0

CZxMSPTLUG 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

156 12429 D1 74 10 16 2442337 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 6 32 57.0 6 20 26.0 12429 D1 74/10/16
 2442337 50.0 N 079.0 E 5.5
 0 83.5 356.6 06-32-57.0 06-20-26.0

CZxMSPTLUG 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

156 12429 D2 74 10 16 2442337 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 6 32 57.0 6 20 26.0 12429 D2 74/10/16
 2442337 50.0 N 079.0 E 5.5
 0 83.5 356.6 06-32-57.0 06-20-26.0

CZxMSPTLUG 28 ALMA-A
 TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

156 12429 D3 74 10 16 2442337 50.0 N 79.0 E 28 329 0. 0
 83.5 356.6 6 32 57.0 6 20 26.0 12429 D3 74/10/16
 2442337 50.0 N 079.0 E 5.5
 0 83.5 356.6 06-32-57.0 06-20-26.0

CZXMSPTLUG 28 ALMA-A
TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

156 12429 D4 74 10 16 2442337 50.0 N 79.0 E 28 329 0. 0
83.5 356.6 6 32 57.0 6 20 26.0 12429 D4 74/10/16
2442337 50.0 N 079.0 E 5.5
0 83.5 356.6 06-32-57.0 06-20-26.0

CZXMSPTLUG 28 ALMA-A
TA TO LAKE BAIKAL 329 EASTERN KAZAKH SSR

157 1047 RM 65 10 29 2439063 51.4 N 179.2 E 1 6 0. 0
47.1 304.6 21 8 35.7 20 59 59.7 1047 RM 65/10/29
2439063 51.4 N 179.2 E 6.1
0 47.1 304.6 21-08-35.7 20-59-59.7

LXGSZSFGKR 1 ALASKA
- ALEUTIAN ARC 6 RAT ISLANDS, ALEUTIAN ISLANDS

157 1047 F1 65 10 29 2439063 51.4 N 179.2 E 1 6 0. 0
47.1 304.6 21 8 35.7 20 59 59.7 1047 F1 65/10/29
2439063 51.4 N 179.2 E 6.1
0 47.1 304.6 21-08-35.7 20-59-59.7

LXGSZSFGKR 1 ALASKA
- ALEUTIAN ARC 6 RAT ISLANDS, ALEUTIAN ISLANDS

157 1047 F2 65 10 29 2439063 51.4 N 179.2 E 1 6 0. 0
47.1 304.6 21 8 35.7 20 59 59.7 1047 F2 65/10/29
2439063 51.4 N 179.2 E 6.1
0 47.1 304.6 21-08-35.7 20-59-59.7

LXGSZSFGKR 1 ALASKA
- ALEUTIAN ARC 6 RAT ISLANDS, ALEUTIAN ISLANDS

157 1047 F3 65 10 29 2439063 51.4 N 179.2 E 1 6 0. 0
47.1 304.6 21 8 35.7 20 59 59.7 1047 F3 65/10/29
2439063 51.4 N 179.2 E 6.1
0 47.1 304.6 21-08-35.7 20-59-59.7

LXGSZSFGKR 1 ALASKA
- ALEUTIAN ARC 6 RAT ISLANDS, ALEUTIAN ISLANDS

157 1047 F4 65 10 29 2439063 51.4 N 179.2 E 1 6 0. 0
47.1 304.6 21 8 35.7 20 59 59.7 1047 F4 65/10/29
2439063 51.4 N 179.2 E 6.1
0 47.1 304.6 21-08-35.7 20-59-59.7

LXGSZSFGKR 1 ALASKA
- ALEUTIAN ARC 6 RAT ISLANDS, ALEUTIAN ISLANDS

158 1069 RM 65 12 1 2439096 24.1 N 5.2 E 37 551 0. 0
86.3 58.4 10 42 43.7 10 29 58.5 1069 RM 65/12/01
2439096 24.1 N 0 5.2 E 5.1
0 86.3 58.4 10-42-43.7 10-29-58.5

FOILYFXHFF 37 AFRICA
551 SOUTHERN ALGERIA

158 1069 F1 65 12 1 2439096 24.1 N 5.2 E 37 551 0. 0
86.3 58.4 10 42 43.7 10 29 58.5 1069 F1 65/12/01
2439096 24.1 N 0 5.2 E 5.1
0 86.3 58.4 10-42-43.7 10-29-58.5

FOILYFXHFF 37 AFRICA
551 SOUTHERN ALGERIA

158 1069 F2 65 12 1 2439096 24.1 N 5.2 E 37 551 0. 0

86.3 58.4 10 42 43.7 10 29 58.5 1069 F2 65/12/01
 2439096 24.1 N 0 5.2 E 5.1
 0 86.3 58.4 10-42-43.7 10-29-58.5
 FOILYFXHFF 37 AFRICA

551 SOUTHERN ALGERIA

158 1069 F3 65 12 1 2439096 24.1 N 5.2 E 37 551 0. 0
 86.3 58.4 10 42 43.7 10 29 58.5 1069 F3 65/12/01
 2439096 24.1 N 0 5.2 E 5.1
 0 86.3 58.4 10-42-43.7 10-29-58.5
 FOILYFXHFF 37 AFRICA

551 SOUTHERN ALGERIA

158 1069 F4 65 12 1 2439096 24.1 N 5.2 E 37 551 0. 0
 86.3 58.4 10 42 43.7 10 29 58.5 1069 F4 65/12/01
 2439096 24.1 N 0 5.2 E 5.1
 0 86.3 58.4 10-42-43.7 10-29-58.5
 FOILYFXHFF 37 AFRICA

551 SOUTHERN ALGERIA

159 3853 RM 67 9 27 2439761 37.1 N-116.0 W 3 40 33. 33
 12.0 220.6 17 2 39.9 16 59 44.6 3853 RM 67/09/27
 2439761 37.1 N 116.0 W 4.6
 33 12.0 220.6 17-02-39.9 16-59-44.6

LHYZMIXVJR

RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

159 3853 F1 67 9 27 2439761 37.1 N-116.0 W 3 40 33. 33
 12.0 220.6 17 2 39.9 16 59 44.6 3853 F1 67/09/27
 2439761 37.1 N 116.0 W 4.6
 33 12.0 220.6 17-02-39.9 16-59-44.6

LHYZMIXVJR

RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

159 3853 F2 67 9 27 2439761 37.1 N-116.0 W 3 40 33. 33
 12.0 220.6 17 2 39.9 16 59 44.6 3853 F2 67/09/27
 2439761 37.1 N 116.0 W 4.6
 33 12.0 220.6 17-02-39.9 16-59-44.6

LHYZMIXVJR

RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

159 3853 F3 67 9 27 2439761 37.1 N-116.0 W 3 40 33. 33
 12.0 220.6 17 2 39.9 16 59 44.6 3853 F3 67/09/27
 2439761 37.1 N 116.0 W 4.6
 33 12.0 220.6 17-02-39.9 16-59-44.6

LHYZMIXVJR

RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

159 3853 F4 67 9 27 2439761 37.1 N-116.0 W 3 40 33. 33
 12.0 220.6 17 2 39.9 16 59 44.6 3853 F4 67/09/27
 2439761 37.1 N 116.0 W 4.6
 33 12.0 220.6 17-02-39.9 16-59-44.6

LHYZMIXVJR

RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

160 2634 RM 67 12 10 2439835 36.7 N-107.2 W 34 496 0. 0
 10.0 184.5 19 32 30.5 19 30 2.3 2634 RM 67/12/10
 2439835 36.7 N 107.2 W 5.1
 0 10.0 184.5 19-32-30.5 19-30-02.3

ILFXADHJHI

34 EASTER

N NORTH AMERICA 496 NEW MEXICO

160 2634 F1 67 12 10 2439835 36.7 N-107.2 W 34 496 0. 0
 10.0 184.5 19 32 30.5 19 30 2.3 2634 F1 67/12/10
 2439835 36.7 N 107.2 W 5.1
 0 10.0 184.5 19-32-30.5 19-30-02.3
 ILFXWDBJBT 34 EASTER

N NORTH AMERICA 496 NEW MEXICO

160 2634 F2 67 12 10 2439835 36.7 N-107.2 W 34 496 0. 0
 10.0 184.5 19 32 30.5 19 30 2.3 2634 F2 67/12/10
 2439835 36.7 N 107.2 W 5.1
 0 10.0 184.5 19-32-30.5 19-30-02.3
 ILFXWDBJBT 34 EASTER

N NORTH AMERICA 496 NEW MEXICO

160 2634 F3 67 12 10 2439835 36.7 N-107.2 W 34 496 0. 0
 10.0 184.5 19 32 30.5 19 30 2.3 2634 F3 67/12/10
 2439835 36.7 N 107.2 W 5.1
 0 10.0 184.5 19-32-30.5 19-30-02.3
 ILFXWDBJBT 34 EASTER

N NORTH AMERICA 496 NEW MEXICO

160 2634 F4 67 12 10 2439835 36.7 N-107.2 W 34 496 0. 0
 10.0 184.5 19 32 30.5 19 30 2.3 2634 F4 67/12/10
 2439835 36.7 N 107.2 W 5.1
 0 10.0 184.5 19-32-30.5 19-30-02.3
 ILFXWDBJBT 34 EASTER

N NORTH AMERICA 496 NEW MEXICO

161 5853 BM 68 4 26 2439973 37.3 N-116.5 W 3 40 0. 0
 12.1 222.7 15 2 56.1 14 59 59.9 5853 BM 68/04/26
 2439973 37.3 N 116.5 W 6.3
 0 12.1 222.7 15-02-56.1 14-59-59.9
 LXEYSVBUIZ 3 CALIF

RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

161 5853 F1 68 4 26 2439973 37.3 N-116.5 W 3 40 0. 0
 12.1 222.7 15 2 56.1 14 59 59.9 5853 F1 68/04/26
 2439973 37.3 N 116.5 W 6.3
 0 12.1 222.7 15-02-56.1 14-59-59.9
 LXEYSVBUIZ 3 CALIF

RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

161 5853 F2 68 4 26 2439973 37.3 N-116.5 W 3 40 0. 0
 12.1 222.7 15 2 56.1 14 59 59.9 5853 F2 68/04/26
 2439973 37.3 N 116.5 W 6.3
 0 12.1 222.7 15-02-56.1 14-59-59.9
 LXEYSVBUIZ 3 CALIF

RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

161 5853 F3 68 4 26 2439973 37.3 N-116.5 W 3 40 0. 0
 12.1 222.7 15 2 56.1 14 59 59.9 5853 F3 68/04/26
 2439973 37.3 N 116.5 W 6.3
 0 12.1 222.7 15-02-56.1 14-59-59.9
 LXEYSVBUIZ 3 CALIF

RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

161 5853 F4 68 4 26 2439973 37.3 N-116.5 W 3 40 0. 0
 12.1 222.7 15 2 56.1 14 59 59.9 5853 F4 68/04/26

2439973 37.3 N 116.5 W 6.3
0 12.1 222.7 15-02-56.1 14-59-59.9
LXEYSVBUUZ 3 CALIFO
RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
ON
162 6661 BM 68 9 6 2440106 37.1 N-116.0 W 3 40 0. 0
12.0 220.6 14 2 55.2 13 59 59.9 6661 BM 68/09/06
2440106 37.1 N 116.0 W 5.6
0 12.0 220.6 14-02-55.2 13-59-59.9
URMIXUWVLH 3 CALIFO
RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
ON
162 6661 F1 68 9 6 2440106 37.1 N-116.0 W 3 40 0. 0
12.0 220.6 14 2 55.2 13 59 59.9 6661 F1 68/09/06
2440106 37.1 N 116.0 W 5.6
0 12.0 220.6 14-02-55.2 13-59-59.9
URMIXUWVLH 3 CALIFO
RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
ON
162 6661 F2 68 9 6 2440106 37.1 N-116.0 W 3 40 0. 0
12.0 220.6 14 2 55.2 13 59 59.9 6661 F2 68/09/06
2440106 37.1 N 116.0 W 5.6
0 12.0 220.6 14-02-55.2 13-59-59.9
URMIXUWVLH 3 CALIFO
RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
ON
162 6661 F3 68 9 6 2440106 37.1 N-116.0 W 3 40 0. 0
12.0 220.6 14 2 55.2 13 59 59.9 6661 F3 68/09/06
2440106 37.1 N 116.0 W 5.6
0 12.0 220.6 14-02-55.2 13-59-59.9
URMIXUWVLH 3 CALIFO
RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
ON
162 6661 F4 68 9 6 2440106 37.1 N-116.0 W 3 40 0. 0
12.0 220.6 14 2 55.2 13 59 59.9 6661 F4 68/09/06
2440106 37.1 N 116.0 W 5.6
0 12.0 220.6 14-02-55.2 13-59-59.9
URMIXUWVLH 3 CALIFO
RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
ON
163 8348 BM 68 12 19 2440210 37.2 N-116.5 W 3 40 0. 0
12.2 222.4 16 32 57.1 16 29 59.6 8348 BM 68/12/19
2440210 37.2 N 116.5 W 6.3
0 12.2 222.4 16-32-57.1 16-29-59.6
EYJKFCXUML 3 CALIFO
RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
ON
163 8348 F1 68 12 19 2440210 37.2 N-116.5 W 3 40 0. 0
12.2 222.4 16 32 57.1 16 29 59.6 8348 F1 68/12/19
2440210 37.2 N 116.5 W 6.3
0 12.2 222.4 16-32-57.1 16-29-59.6
EYJKFCXUML 3 CALIFO
RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
ON
163 8348 F2 68 12 19 2440210 37.2 N-116.5 W 3 40 0. 0
12.2 222.4 16 32 57.1 16 29 59.6 8348 F2 68/12/19
2440210 37.2 N 116.5 W 6.3
0 12.2 222.4 16-32-57.1 16-29-59.6
EYJKFCXUML 3 CALIFO
RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI

ON
 163 8348 F3 68 12 19 2440210 37.2 N-116.5 W 3 40 0. 0
 12.2 222.4 16 32 57.1 16 29 59.6 8348 F3 68/12/19
 2440210 37.2 N 116.5 W 6.3
 0 12.2 222.4 16-32-57.1 16-29-59.6

EYJKFCXUML 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

163 8348 F4 68 12 19 2440210 37.2 N-116.5 W 3 40 0. 0
 12.2 222.4 16 32 57.1 16 29 59.6 8348 F4 68/12/19
 2440210 37.2 N 116.5 W 6.3
 0 12.2 222.4 16-32-57.1 16-29-59.6

EYJKFCXUML 3 CALIFO
 PNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

164 7477 BM 68 12 27 2440218 41.0 N 91.4 E 27 321 33. 33
 91.2 346.8 7 43 10.9 7 30 2.9 7477 BM 68/12/27
 2440218 41.0 N 091.4 E 4.6
 33 91.2 346.8 07-43-10.9 07-30-02.9

CWWTXGHLVF 27 SOUTHE
 RN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHIN
 A

164 7477 F1 68 12 27 2440218 41.0 N 91.4 E 27 321 33. 33
 91.2 346.8 7 43 10.9 7 30 2.9 7477 F1 68/12/27
 2440218 41.0 N 091.4 E 4.6
 33 91.2 346.8 07-43-10.9 07-30-02.9

CWWTXGHLVF 27 SOUTHE
 RN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHIN
 A

164 7477 F2 68 12 27 2440218 41.0 N 91.4 E 27 321 33. 33
 91.2 346.8 7 43 10.9 7 30 2.9 7477 F2 68/12/27
 2440218 41.0 N 091.4 E 4.6
 33 91.2 346.8 07-43-10.9 07-30-02.9

CWWTXGHLVF 27 SOUTHE
 RN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHIN
 A

164 7477 F3 68 12 27 2440218 41.0 N 91.4 E 27 321 33. 33
 91.2 346.8 7 43 10.9 7 30 2.9 7477 F3 68/12/27
 2440218 41.0 N 091.4 E 4.6
 33 91.2 346.8 07-43-10.9 07-30-02.9

CWWTXGHLVF 27 SOUTHE
 RN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHIN
 A

164 7477 F4 68 12 27 2440218 41.0 N 91.4 E 27 321 33. 33
 91.2 346.8 7 43 10.9 7 30 2.9 7477 F4 68/12/27
 2440218 41.0 N 091.4 E 4.6
 33 91.2 346.8 07-43-10.9 07-30-02.9

CWWTXGHLVF 27 SOUTHE
 RN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHIN
 A

165 1150 RM 69 3 21 2440302 37.1 N-116.1 W 3 40 0. 0
 12.1 220.9 14 32 55.7 14 29 59.7 1150 RM 69/03/21
 2440302 37.1 N 116.1 W 4.9
 0 12.1 220.9 14-32-55.7 14-29-59.7

YTCLXCHTYV 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

165 1150 F1 69 3 21 2440302 37.1 N-116.1 W 3 40 0. 0
 12.1 220.9 14 32 55.7 14 29 59.7 1150 F1 69/03/21
 2440302 37.1 N 116.1 W 4.9

0 12.1 220.9 14-32-55.7 14-29-59.7
 YTCLXCRTYV 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON
 165 1150 F2 69 3 21 2440302 37.1 N-116.1 W 3 40 0. 0
 12.1 220.9 14 32 55.7 14 29 59.7 1150 F2 69/03/21
 2440302 37.1 N 116.1 W 4.9
 0 12.1 220.9 14-32-55.7 14-29-59.7
 YTCLXCRTYV 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON
 165 1150 F3 69 3 21 2440302 37.1 N-116.1 W 3 40 0. 0
 12.1 220.9 14 32 55.7 14 29 59.7 1150 F3 69/03/21
 2440302 37.1 N 116.1 W 4.9
 0 12.1 220.9 14-32-55.7 14-29-59.7
 YTCLXCRTYV 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON
 165 1150 F4 69 3 21 2440302 37.1 N-116.1 W 3 40 0. 0
 12.1 220.9 14 32 55.7 14 29 59.7 1150 F4 69/03/21
 2440302 37.1 N 116.1 W 4.9
 0 12.1 220.9 14-32-55.7 14-29-59.7
 YTCLXCRTYV 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON
 166 1157 RM 69 4 30 2440342 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 17 2 55.1 16 59 59.8 1157 RM 69/04/30
 2440342 37.1 N 116.0 W 5.3
 0 12.0 220.6 17-02-55.1 16-59-59.8
 LBDVXMBIFS 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON
 166 1157 F1 69 4 30 2440342 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 17 2 55.1 16 59 59.8 1157 F1 69/04/30
 2440342 37.1 N 116.0 W 5.3
 0 12.0 220.6 17-02-55.1 16-59-59.8
 LBDVXMBIFS 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON
 166 1157 F2 69 4 30 2440342 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 17 2 55.1 16 59 59.8 1157 F2 69/04/30
 2440342 37.1 N 116.0 W 5.3
 0 12.0 220.6 17-02-55.1 16-59-59.8
 LBDVXMBIFS 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON
 166 1157 F3 69 4 30 2440342 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 17 2 55.1 16 59 59.8 1157 F3 69/04/30
 2440342 37.1 N 116.0 W 5.3
 0 12.0 220.6 17-02-55.1 16-59-59.8
 LBDVXMBIFS 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON
 166 1157 F4 69 4 30 2440342 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 17 2 55.1 16 59 59.8 1157 F4 69/04/30
 2440342 37.1 N 116.0 W 5.3
 0 12.0 220.6 17-02-55.1 16-59-59.8
 LBDVXMBIFS 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

167 7656 BM 69 5 7 2440349 37.3 N-116.5 W 3 40 0. 0
 12.1 222.7 13 47 56.0 13 44 59.8 7656 BM 69/05/07
 2440349 37.3 N 116.5 W 5.8
 0 12.1 222.7 13-47-56.0 13-44-59.8

PHGJLHXIID 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

167 7656 F1 69 5 7 2440349 37.3 N-116.5 W 3 40 0. 0
 12.1 222.7 13 47 56.0 13 44 59.8 7656 F1 69/05/07
 2440349 37.3 N 116.5 W 5.8
 0 12.1 222.7 13-47-56.0 13-44-59.8

PHGJLHXIID 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

167 7656 F2 69 5 7 2440349 37.3 N-116.5 W 3 40 0. 0
 12.1 222.7 13 47 56.0 13 44 59.8 7656 F2 69/05/07
 2440349 37.3 N 116.5 W 5.8
 0 12.1 222.7 13-47-56.0 13-44-59.8

PHGJLHXIID 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

167 7656 F3 69 5 7 2440349 37.3 N-116.5 W 3 40 0. 0
 12.1 222.7 13 47 56.0 13 44 59.8 7656 F3 69/05/07
 2440349 37.3 N 116.5 W 5.8
 0 12.1 222.7 13-47-56.0 13-44-59.8

PHGJLHXIID 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

167 7656 F4 69 5 7 2440349 37.3 N-116.5 W 3 40 0. 0
 12.1 222.7 13 47 56.0 13 44 59.8 7656 F4 69/05/07
 2440349 37.3 N 116.5 W 5.8
 0 12.1 222.7 13-47-56.0 13-44-59.8

PHGJLHXIID 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

168 7659 BM 69 5 27 2440369 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 14 17 55.1 14 14 59.8 7659 BM 69/05/27
 2440369 37.1 N 116.0 W 5.0
 0 12.0 220.6 14-17-55.1 14-14-59.8

XDZZLIDVHR 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

168 7659 F1 69 5 27 2440369 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 14 17 55.1 14 14 59.8 7659 F1 69/05/27
 2440369 37.1 N 116.0 W 5.0
 0 12.0 220.6 14-17-55.1 14-14-59.8

XDZZLIDVHR 3 CALIFO
 RNIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGI
 ON

168 7659 F2 69 5 27 2440369 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 14 17 55.1 14 14 59.8 7659 F2 69/05/27 2
 440369 37.1 N 116.0 W 5.0
 0 12.0 220.6 14-17-55.1 14-14-59.8

XDZZLIDVHR 3 CALIFOR
 NIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGIO
 N

168 7659 F3 69 5 27 2440369 37.1 N-116.0 W 3 40 0. 0
 12.0 220.6 14 17 55.1 14 14 59.8 7659 F3 69/05/27 2
 440369 37.1 N 116.0 W 5.0
 0 12.0 220.6 14-17-55.1 14-14-59.8

XOZZLIDVHB 3 CALIFOR
NIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGIO
N

168 7659 F4 69 5 27 2440369 37.1 N-116.0 W 3 40 0. 0
12.0 220.6 14 17 55.1 14 14 59.8 7659 F4 69/05/27 2
440369 37.1 N 116.0 W 5.0
0 12.0 220.6 14-17-55.1 14-14-59.8

XOZZLIDVHB 3 CALIFOR
NIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGIO
N

169 1167 BM 69 7 16 2440419 37.1 N-116.1 W 3 40 0. 0
12.1 220.9 14 57 55.7 14 54 59.7 1167 BM 69/07/16 2
440419 37.1 N 116.1 W 5.6
0 12.1 220.9 14-57-55.7 14-54-59.7

LTRDJSCWXW 3 CALIFOR
NIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGIO
N

169 1167 F1 69 7 16 2440419 37.1 N-116.1 W 3 40 0. 0
12.1 220.9 14 57 55.7 14 54 59.7 1167 F1 69/07/16 2
440419 37.1 N 116.1 W 5.6
0 12.1 220.9 14-57-55.7 14-54-59.7

LTRDJSCWXW 3 CALIFOR
NIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGIO
N

169 1167 F2 69 7 16 2440419 37.1 N-116.1 W 3 40 0. 0
12.1 220.9 14 57 55.7 14 54 59.7 1167 F2 69/07/16 2
440419 37.1 N 116.1 W 5.6
0 12.1 220.9 14-57-55.7 14-54-59.7

LTRDJSCWXW 3 CALIFOR
NIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGIO
N

169 1167 F3 69 7 16 2440419 37.1 N-116.1 W 3 40 0. 0
12.1 220.9 14 57 55.7 14 54 59.7 1167 F3 69/07/16 2
440419 37.1 N 116.1 W 5.6
0 12.1 220.9 14-57-55.7 14-54-59.7

LTRDJSCWXW 3 CALIFOR
NIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGIO
N

169 1167 F4 69 7 16 2440419 37.1 N-116.1 W 3 40 0. 0
12.1 220.9 14 57 55.7 14 54 59.7 1167 F4 69/07/16 2
440419 37.1 N 116.1 W 5.6
0 12.1 220.9 14-57-55.7 14-54-59.7

LTRDJSCWXW 3 CALIFOR
NIA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGIO
N

170 6917 BM 71 5 7 2441079 33.0 N 127.0 E 20 231 33. 33
87.3 317.7 0 52 30.4 0 39 41.0 6917 BM 71/05/07 2
441079 33.0 N 127.0 E 4.5
33 87.3 317.7 00-52-30.4 00-39-41.0

VJERTGGZL 20 SOUTHW
STERN JAPAN AND RYUKYU IS 231 SOUTH KOREA

170 6917 F1 71 5 7 2441079 33.0 N 127.0 E 20 231 33. 33 8
7.3 317.7 0 52 30.4 0 39 41.0 6917 F1 71/05/07 24
41079 33.0 N 127.0 E 4.5
33 87.3 317.7 00-52-30.4 00-39-41.0

VJERTGGZL 20 SOUTHW
TERN JAPAN AND RYUKYU IS 231 SOUTH KOREA

170 6917 F2 71 5 7 2441079 33.0 N 127.0 E 20 231 33. 33 8

7.3 317.7 0 52 30.4 0 39 41.0 6917 F2 71/05/07 24
 41079 33.0 N 127.0 E 4.5
 33 87.3 317.7 00-52-30.4 00-39-41.0
 VJERTOQZL 20 SOUTHWES

TERN JAPAN AND RYUKYU IS 231 SOUTH KOREA

170 6917 F3 71 5 7 2441079 33.0 N 127.0 E 20 231 33. 33 8
 7.3 317.7 0 52 30.4 0 39 41.0 6917 F3 71/05/07 24
 41079 33.0 N 127.0 E 4.5
 33 87.3 317.7 00-52-30.4 00-39-41.0

VJERTOQZL 20 SOUTHWES

TERN JAPAN AND RYUKYU IS 231 SOUTH KOREA

170 6917 F4 71 5 7 2441079 33.0 N 127.0 E 20 231 33. 33 8
 7.3 317.7 0 52 30.4 0 39 41.0 6917 F4 71/05/07 24
 41079 33.0 N 127.0 E 4.5
 33 87.3 317.7 00-52-30.4 00-39-41.0

VJERTOQZL 20 SOUTHWES

TERN JAPAN AND RYUKYU IS 231 SOUTH KOREA

171 8814 RM 71 6 5 2441108 37.9 N 113.7 E 41 658 33. 33 8
 8.4 329.6 10 34 21.0 10 21 25.8 8814 RM 71/06/05 24
 41108 37.9 N 113.7 E 4.7
 33 88.4 329.6 10-34-21.0 10-21-25.8

QWEKILMHUS 41 EASTERN

ASIA 658 NORTHEASTERN CHINA

171 8814 F1 71 6 5 2441108 37.9 N 113.7 E 41 658 33. 33 8
 8.4 329.6 10 34 21.0 10 21 25.8 8814 F1 71/06/05 24
 41108 37.9 N 113.7 E 4.7
 33 88.4 329.6 10-34-21.0 10-21-25.8

QWEKILMHUS 41 EASTERN

ASIA 658 NORTHEASTERN CHINA

171 8814 F2 71 6 5 2441108 37.9 N 113.7 E 41 658 33. 33 8
 8.4 329.6 10 34 21.0 10 21 25.8 8814 F2 71/06/05 24
 41108 37.9 N 113.7 E 4.7
 33 88.4 329.6 10-34-21.0 10-21-25.8

QWEKILMHUS 41 EASTERN

ASIA 658 NORTHEASTERN CHINA

171 8814 F3 71 6 5 2441108 37.9 N 113.7 E 41 658 33. 33 8
 8.4 329.6 10 34 21.0 10 21 25.8 8814 F3 71/06/05 24
 41108 37.9 N 113.7 E 4.7
 33 88.4 329.6 10-34-21.0 10-21-25.8

QWEKILMHUS 41 EASTERN

ASIA 658 NORTHEASTERN CHINA

171 8814 F4 71 6 5 2441108 37.9 N 113.7 E 41 658 33. 33 8
 8.4 329.6 10 34 21.0 10 21 25.8 8814 F4 71/06/05 24
 41108 37.9 N 113.7 E 4.7
 33 88.4 329.6 10-34-21.0 10-21-25.8

QWEKILMHUS 41 EASTERN

ASIA 658 NORTHEASTERN CHINA

172 8816 RM 71 6 6 2441109 53.8 N-171.9 W 1 0272. 272 4
 1.2 305.0 4 7 41.8 3 59 53.9 8816 RM 71/06/06 24
 41109 53.8 N 171.9 W 5.2
 272 41.2 305.0 04-07-41.8 03-59-53.9

MGQWNRDCLD 1 ALASKA -

ALEUTIAN ARC

9 FOX ISLANDS, ALEUTIAN ISLANDS

172 8816 F1 71 6 6 2441109 53.8 N-171.9 W 1 9272. 272 4
 1.2 305.0 4 7 41.8 3 59 53.9 8816 F1 71/06/06 24
 41109 53.8 N 171.9 W 5.2
 272 41.2 305.0 04-07-41.8 03-59-53.9

MGQWWRDCLO

1 ALASKA -

ALEUTIAN ARC

9 FOX ISLANDS, ALEUTIAN ISLANDS

172 8816 F2 71 6 6 2441109 53.8 N-171.9 W 1 9272. 272 4
 1.2 305.0 4 7 41.8 3 59 53.9 8816 F2 71/06/06 24
 41109 53.8 N 171.9 W 5.2
 272 41.2 305.0 04-07-41.8 03-59-53.9

MGQWWRDCLO

1 ALASKA -

ALEUTIAN ARC

9 FOX ISLANDS, ALEUTIAN ISLANDS

172 8816 F3 71 6 6 2441109 53.8 N-171.9 W 1 9272. 272 4
 1.2 305.0 4 7 41.8 3 59 53.9 8816 F3 71/06/06 24
 41109 53.8 N 171.9 W 5.2
 272 41.2 305.0 04-07-41.8 03-59-53.9

MGQWWRDCLO

1 ALASKA -

ALEUTIAN ARC

9 FOX ISLANDS, ALEUTIAN ISLANDS

172 8816 F4 71 6 6 2441109 53.8 N-171.9 W 1 9272. 272 4
 1.2 305.0 4 7 41.8 3 59 53.9 8816 F4 71/06/06 24
 41109 53.8 N 171.9 W 5.2
 272 41.2 305.0 04-07-41.8 03-59-53.9

MGQWWRDCLO

1 ALASKA -

ALEUTIAN ARC

9 FOX ISLANDS, ALEUTIAN ISLANDS

173 8823 RM 71 6 10 2441113 41.1 N 138.4 E 19 223226. 226 7
 5.4 315.2 20 11 12.8 19 59 25.7 8823 RM 71/06/10 24
 41113 41.1 N 138.4 E 5.7
 226 75.4 315.2 20-11-12.8 19-59-25.7

UGRKDEIPLC

19 JAPAN -

KURILES - KAMCHATKA

223 EASTERN SEA OF JAPAN

173 8823 F1 71 6 10 2441113 41.1 N 138.4 E 19 223226. 226 7
 5.4 315.2 20 11 12.8 19 59 25.7 8823 F1 71/06/10 24
 41113 41.1 N 138.4 E 5.7
 226 75.4 315.2 20-11-12.8 19-59-25.7

UGRKDEIPLC

19 JAPAN -

KURILES - KAMCHATKA

223 EASTERN SEA OF JAPAN

173 8823 F2 71 6 10 2441113 41.1 N 138.4 E 19 223226. 226 7
 5.4 315.2 20 11 12.8 19 59 25.7 8823 F2 71/06/10 24
 41113 41.1 N 138.4 E 5.7
 226 75.4 315.2 20-11-12.8 19-59-25.7

UGRKDEIPLC

19 JAPAN -

KURILES - KAMCHATKA

223 EASTERN SEA OF JAPAN

173 8823 F3 71 6 10 2441113 41.1 N 138.4 E 19 223226. 226 7
 5.4 315.2 20 11 12.8 19 59 25.7 8823 F3 71/06/10 24
 41113 41.1 N 138.4 E 5.7
 226 75.4 315.2 20-11-12.8 19-59-25.7

UGRKDEIPLC

19 JAPAN -

KURILES - KAMCHATKA

223 EASTERN SEA OF JAPAN

173 8823 F4 71 6 10 2441113 41.1 N 138.4 E 19 223226. 226 7
 5.4 315.2 20 11 12.8 19 59 25.7 8823 F4 71/06/10 24

41113 41.1 N 138.4 E 5.7
 226 75.4 315.2 20-11-12.8 19-59-25.7
 UQRKDEIPLC 19 JAPAN -
 KURILES - KAMCHATKA 223 EASTERN SEA OF JAPAN

174 8824 RM 71 6 11 2441114 18.0 N -69.8 W 7 88 57. 57 4
 1.5 121.4 13 3 47.1 12 55 57.0 8824 RM 71/06/11 24
 41114 18.0 N 069.8 W 6.1
 57 41.5 121.4 13-03-47.1 12-55-57.0
 FLQKIEPMEZ 7 CARIBBEA
 N LOOP 88 DOMINICAN REPUBLIC REGION

174 8824 F1 71 6 11 2441114 18.0 N -69.8 W 7 88 57. 57 4
 1.5 121.4 13 3 47.1 12 55 57.0 8824 F1 71/06/11 24
 41114 18.0 N 069.8 W 6.1
 57 41.5 121.4 13-03-47.1 12-55-57.0
 FLQKIEPMEZ 7 CARIBBEA
 N LOOP 88 DOMINICAN REPUBLIC REGION

174 8824 F2 71 6 11 2441114 18.0 N -69.8 W 7 88 57. 57 4
 1.5 121.4 13 3 47.1 12 55 57.0 8824 F2 71/06/11 24
 41114 18.0 N 069.8 W 6.1
 57 41.5 121.4 13-03-47.1 12-55-57.0
 FLQKIEPMEZ 7 CARIBBEA
 N LOOP 88 DOMINICAN REPUBLIC REGION

174 8824 F3 71 6 11 2441114 18.0 N -69.8 W 7 88 57. 57 4
 1.5 121.4 13 3 47.1 12 55 57.0 8824 F3 71/06/11 24
 41114 18.0 N 069.8 W 6.1
 57 41.5 121.4 13-03-47.1 12-55-57.0
 FLQKIEPMEZ 7 CARIBBEA
 N LOOP 88 DOMINICAN REPUBLIC REGION

174 8824 F4 71 6 11 2441114 18.0 N -69.8 W 7 88 57. 57 4
 1.5 121.4 13 3 47.1 12 55 57.0 8824 F4 71/06/11 24
 41114 18.0 N 069.8 W 6.1
 57 41.5 121.4 13-03-47.1 12-55-57.0
 FLQKIEPMEZ 7 CARIBBEA
 N LOOP 88 DOMINICAN REPUBLIC REGION

175 9216 RM 71 6 14 2441117 56.2 N 123.6 E 41 656 33. 33 6
 9.2 332.9 14 0 1.9 13 48 51.4 9216 RM 71/06/14 24
 41117 56.2 N 123.6 E 5.6
 33 69.2 332.9 14-00-01.9 13-48-51.4
 MTWUOLICW 41 EASTERN
 ASIA 656 EASTERN RUSSIA

175 9216 F1 71 6 14 2441117 56.2 N 123.6 E 41 656 33. 33 6
 9.2 332.9 14 0 1.9 13 48 51.4 9216 F1 71/06/14 24
 41117 56.2 N 123.6 E 5.6
 33 69.2 332.9 14-00-01.9 13-48-51.4
 MTWUOLICW 41 EASTERN
 ASIA 656 EASTERN RUSSIA

175 9216 F2 71 6 14 2441117 56.2 N 123.6 E 41 656 33. 33 6
 9.2 332.9 14 0 1.9 13 48 51.4 9216 F2 71/06/14 24
 41117 56.2 N 123.6 E 5.6
 33 69.2 332.9 14-00-01.9 13-48-51.4
 MTWUOLICW 41 EASTERN
 ASIA 656 EASTERN RUSSIA

175 9216 F3 71 6 14 2441117 56.2 N 123.6 E 41 656 33. 33 6
 9.2 332.9 14 0 1.9 13 48 51.4 9216 F3 71/06/14 24
 41117 56.2 N 123.6 E 5.6
 33 69.2 332.9 14-00-01.9 13-48-51.4

MTWUOQLICW 41 EASTERN
 ASIA 656 EASTERN RUSSIA

175 9216 F4 71 6 14 2441117 56.2 N 123.6 E 41 656 33. 33 6
 9.2 332.9 14 0 1.9 13 48 51.4 9216 F4 71/06/14 24
 41117 56.2 N 123.6 E 5.6
 33 69.2 332.9 14-00-01.9 13-48-51.4

MTWUOQLICW 41 EASTERN
 ASIA 656 EASTERN RUSSIA

176
 176 8827 RM 71 6 15 2441118 41.4 N 79.4 E 27 320 33. 33 92
 .1 355.8 7 52 44.3 7 39 32.0 8827 RM 71/06/15 244
 1118 41.4 N 079.4 E 5.6
 33 92.1 355.8 07-52-44.3 07-39-32.0

QWWRJLOJRC 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

176 8827 F1 71 6 15 2441118 41.4 N 79.4 E 27 320 33. 33 9
 2.1 355.8 7 52 44.3 7 39 32.0 8827 F1 71/06/15 24
 41118 41.4 N 079.4 E 5.6
 33 92.1 355.8 07-52-44.3 07-39-32.0

QWWRJLOJRC 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

176 8827 F2 71 6 15 2441118 41.4 N 79.4 E 27 320 33. 33 9
 2.1 355.8 7 52 44.3 7 39 32.0 8827 F2 71/06/15 24
 41118 41.4 N 079.4 E 5.6
 33 92.1 355.8 07-52-44.3 07-39-32.0

QWWRJLOJRC 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

176 8827 F3 71 6 15 2441118 41.4 N 79.4 E 27 320 33. 33 9
 2.1 355.8 7 52 44.3 7 39 32.0 8827 F3 71/06/15 24
 41118 41.4 N 079.4 E 5.6
 33 92.1 355.8 07-52-44.3 07-39-32.0

QWWRJLOJRC 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

176 8827 F4 71 6 15 2441118 41.4 N 79.4 E 27 320 33. 33 9
 2.1 355.8 7 52 44.3 7 39 32.0 8827 F4 71/06/15 24
 41118 41.4 N 079.4 E 5.6
 33 92.1 355.8 07-52-44.3 07-39-32.0

QWWRJLOJRC 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

177 8828 RM 71 6 15 2441118 41.5 N 79.3 E 27 320 333 33 9
 2.0 355.9 22 28 57.1 22 15 45.3 8828 RM 71/06/15 24
 41118 41.5 N 079.3 E 5.1
 33 92.0 355.9 22-28-57.1 22-15-4553

LITVAGHEJO 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

177 8828 F1 71 6 15 2441118 41.5 N 79.3 E 27 320 33. 33 9
 2.0 355.9 22 28 57.1 22 15 45.3 8828 F1 71/06/15 24

41118 41.5 N 079.3 E 5.1
 33 92.0 355.9 22-28-57.1 22-15-45.3
 LTQVWGBEJO 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

177 8828 F2 71 6 15 2441118 41.5 N 79.3 E 27 320 33. 33 9
 2.0 355.9 22 28 57.1 22 15 45.3 8828 F2 71/06/15 24
 41118 41.5 N 079.3 E 5.1
 33 92.0 355.9 22-28-57.1 22-15-45.3
 LTQVWGBEJO 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

177 8828 F3 71 6 15 2441118 41.5 N 79.3 E 27 320 33. 33 9
 2.0 355.9 22 28 57.1 22 15 45.3 8828 F3 71/06/15 24
 41118 41.5 N 079.3 E 5.1
 33 92.0 355.9 22-28-57.1 22-15-45.3
 LTQVWGBEJO 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

177 8828 F4 71 6 15 2441118 41.5 N 79.3 E 27 320 33. 33 9
 2.0 355.9 22 28 57.1 22 15 45.3 8828 F4 71/06/15 24
 41118 41.5 N 079.3 E 5.1
 33 92.0 355.9 22-28-57.1 22-15-45.3
 LTQVWGBEJO 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

178 8831 BM 71 6 16 2441119 41.4 N 79.3 E 27 320239. 239 9
 2.1 355.9 11 22 6.7 11 8 54.4 8831 BM 71/06/16 24
 41119 41.4 N 079.3 E 4.3
 239 92.1 355.9 11-22-06.7 11-08-54.4
 LSVEGQHTKM 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

178 8831 F1 71 6 16 2441119 41.4 N 79.3 E 27 320239. 239 9
 2.1 355.9 11 22 6.7 11 8 54.4 8831 F1 71/06/16 24
 41119 41.4 N 079.3 E 4.3
 239 92.1 355.9 11-22-06.7 11-08-54.4
 LSVEGQHTKM 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

178 8831 F2 71 6 16 2441119 41.4 N 79.3 E 27 320239. 239 9
 2.1 355.9 11 22 6.7 11 8 54.4 8831 F2 71/06/16 24
 41119 41.4 N 079.3 E 4.3
 239 92.1 355.9 11-22-06.7 11-08-54.4
 LSVEGQHTKM 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

178 8831 F3 71 6 16 2441119 41.4 N 79.3 E 27 320239. 239 9
 2.1 355.9 11 22 6.7 11 8 54.4 8831 F3 71/06/16 24
 41119 41.4 N 079.3 E 4.3
 239 92.1 355.9 11-22-06.7 11-08-54.4
 LSVEGQHTKM 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

178 8831 F4 71 6 16 2441119 41.4 N 79.3 E 27 320239. 239 9
 2.1 355.9 11 22 6.7 11 8 54.4 8831 F4 71/06/16 24
 41119 41.4 N 079.3 E 4.3
 239 92.1 355.9 11-22-06.7 11-08-54.4
 LSVEGQHTKM 27 SOUTHERN
 SINKIANG TO KANSU 320 KIRGIZ-SINKIANG BORDER REGION

179 8936 RM 71 6 22 2441125 -9.8 S 160.2 E 15 193 20. 20 9
 9.6 265.8 11 36 48.8 11 23 2.4 8936 RM 71/06/22 24
 41125 9.8 S 160.2 E 5.4
 20 99.6 265.8 11-36-48.8 11-23-02.4

LFKGZOKRSY 15 BISMARCK
 AND SOLOMON ISLANDS 193 SOLOMON ISLANDS

179 8936 F1 71 6 22 2441125 -9.8 S 160.2 E 15 193 20. 20 9
 9.6 265.8 11 36 48.8 11 23 2.4 8936 F1 71/06/22 24
 41125 9.8 S 160.2 E 5.4
 20 99.6 265.8 11-36-48.8 11-23-02.4

LFKGZOKRSY 15 BISMARCK
 AND SOLOMON ISLANDS 193 SOLOMON ISLANDS

179 8936 F2 71 6 22 2441125 -9.8 S 160.2 E 15 193 20. 20 9
 9.6 265.8 11 36 48.8 11 23 2.4 8936 F2 71/06/22 24
 41125 9.8 S 160.2 E 5.4
 20 99.6 265.8 11-36-48.8 11-23-02.4

LFKGZOKRSY 15 BISMARCK
 AND SOLOMON ISLANDS 193 SOLOMON ISLANDS

179 8936 F3 71 6 22 2441125 -9.8 S 160.2 E 15 193 20. 20 9
 9.6 265.8 11 36 48.8 11 23 2.4 8936 F3 71/06/22 24
 41125 9.8 S 160.2 E 5.4
 20 99.6 265.8 11-36-48.8 11-23-02.4

LFKGZOKRSY 15 BISMARCK
 AND SOLOMON ISLANDS 193 SOLOMON ISLANDS

179 8936 F4 71 6 22 2441125 -9.8 S 160.2 E 15 193 20. 20 9
 9.6 265.8 11 36 48.8 11 23 2.4 8936 F4 71/06/22 24
 41125 9.8 S 160.2 E 5.4
 20 99.6 265.8 11-36-48.8 11-23-02.4

LFKGZOKRSY 15 BISMARCK
 AND SOLOMON ISLANDS 193 SOLOMON ISLANDS

180 8935 RM 71 6 22 2441125 36.2 N 69.8 E 53 718166. 166 9
 7.3 3.2 6 43 16.0 6 29 39.7 8935 RM 71/06/22 24
 41125 36.2 N 069.8 E 4.9
 166 97.3 3.2 06-43-16.0 06-29-39.7

IFJVCYVLGD 53 G REG =
 718 AND 0 GT 70 718 HINDU KUSH REGION

180 8935 F1 71 6 22 2441125 36.2 N 69.8 E 53 718166. 166 9
 7.3 3.2 6 43 16.0 6 29 39.7 8935 F1 71/06/22 24
 41125 36.2 N 069.8 E 4.9
 166 97.3 3.2 06-43-16.0 06-29-39.7

IFJVCYVLGD 53 G REG =
 718 AND 0 GT 70 718 HINDU KUSH REGION

180 8935 F2 71 6 22 2441125 36.2 N 69.8 E 53 718166. 166 9
 7.3 3.2 6 43 16.0 6 29 39.7 8935 F2 71/06/22 24
 41125 36.2 N 069.8 E 4.9
 166 97.3 3.2 06-43-16.0 06-29-39.7

53 G REG =
 718 HINDU KUSH REGION

180 8935 F3 71 6 22 2441125 36.2 N 69.8 E 53 718166. 166 9
 7.3 3.2 6 43 16.0 6 29 39.7 8935 F3 71/06/22 24

166 97.3 3.2 06-43-16.0 06-29-39.7
 TEIVCYVLQD 53 G RFG =
 718 AND D GT 70 718 HINDU KUSH REGION

181 8935 F4 71 6 22 2441125 36.2 N 69.8 E 53 718166. 166 9
 7.3 3.2 6 43 16.0 6 29 39.7 8935 F4 71/06/22 24
 41125 36.2 N 069.8 E 4.9
 166 97.3 3.2 06-43-16.0 06-29-39.7
 TEIVCYVLQD 53 G REG =
 718 AND D GT 70 718 HINDU KUSH REGION

181 8938 RM 71 6 24 2441127 37.2 N-116.1 W 3 40 5. 5 1
 2.0 221.2 14 7 2.5 14 4 7.5 8938 RM 71/06/24 24
 41127 37.2 N 116.1 W 0.0
 5 12.0 221.2 14-07-02.5 14-04-07.5
 XJSUWYJLH 3 CALIFORN
 IA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGION

181 8938 F1 71 6 24 2441127 37.2 N-116.1 W 3 40 5. 5 1
 2.0 221.2 14 7 2.5 14 4 7.5 8938 F1 71/06/24 24
 41127 37.2 N 116.1 W 0.0
 5 12.0 221.2 14-07-02.5 14-04-07.5
 XJSUWYJLH 3 CALIFORN
 IA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGION

181 8938 F2 71 6 24 2441127 37.2 N-116.1 W 3 40 5. 5 1
 2.0 221.2 14 7 2.5 14 4 7.5 8938 F2 71/06/24 24
 41127 37.2 N 116.1 W 0.0
 5 12.0 221.2 14-07-02.5 14-04-07.5
 XJSUWYJLH 3 CALIFORN
 IA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGION

181 8938 F3 71 6 24 2441127 37.2 N-116.1 W 3 40 5. 5 1
 2.0 221.2 14 7 2.5 14 4 7.5 8938 F3 71/06/24 24
 41127 37.2 N 116.1 W 0.0
 5 12.0 221.2 14-07-02.5 14-04-07.5
 XJSUWYJLH 3 CALIFORN
 IA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGION

181 8938 F4 71 6 24 2441127 37.2 N-116.1 W 3 40 5. 5 1
 2.0 221.2 14 7 2.5 14 4 7.5 8938 F4 71/06/24 24
 41127 37.2 N 116.1 W 0.0
 5 12.0 221.2 14-07-02.5 14-04-07.5
 XJSUWYJLH 3 CALIFORN
 IA - NEVADA REGION 40 CALIFORNIA-NEVADA BORDER REGION

182 8940 RM 71 6 26 2441129 19.0 N -68.0 W 7 89 33. 33 4
 1.8 118.5 15 55 20.0 15 47 27.2 8940 RM 71/06/26 24
 41129 19.0 N 068.0 W 5.3
 33 41.8 118.5 15-55-20.0 15-47-27.2
 DQBFLRWIZD 7 CARIBBEA
 N LOOP 89 MONA PASSAGE

182 8940 F1 71 6 26 2441129 19.0 N -68.0 W 7 89 33. 33 4
 1.8 118.5 15 55 20.0 15 47 27.2 8940 F1 71/06/26 24
 41129 19.0 N 068.0 W 5.3
 33 41.8 118.5 15-55-20.0 15-47-27.2
 DQBFLRWIZD 7 CARIBBEA
 N LOOP 89 MONA PASSAGE

182 8940 F2 71 6 26 2441129 19.0 N -68.0 W 7 89 33. 33 4
 1.8 118.5 15 55 20.0 15 47 27.2 8940 F2 71/06/26 24
 41129 19.0 N 068.0 W 5.3
 33 41.8 118.5 15-55-20.0 15-47-27.2

DOHFLBWIZD 7 CARIBBEA
 N LOOP 89 MONA PASSAGE

182 8940 F3 71 6 26 2441129 19.0 N -68.0 W 7 89 33. 33 4
 1.8 118.5 15 55 20.0 15 47 27.2 8940 F3 71/06/26 24
 41129 19.0 N 068.0 W 5.3
 33 41.8 118.5 15-55-20.0 15-47-27.2

DOHFLBWIZD 7 CARIBBEA
 N LOOP 89 MONA PASSAGE

182 8940 F4 71 6 26 2441129 19.0 N -68.0 W 7 89 33. 33 4
 1.8 118.5 15 55 20.0 15 47 27.2 8940 F4 71/06/26 24
 41129 19.0 N 068.0 W 5.3
 33 41.8 118.5 15-55-20.0 15-47-27.2

DOHFLBWIZD 7 CARIBBEA
 N LOOP 89 MONA PASSAGE

183 8942 RM 71 6 26 2441129 36.3 N 71.4 E 48 717127. 127 9
 7.3 1.9 22 36 49.1 22 23 13.0 8942 RM 71/06/26 24
 41129 36.3 N 071.4 E 5.0
 127 97.3 1.9 22-36-49.1 22-23-13.0

LKUCQUYMSO 48 HINDU KU
 SH AND PAMIR 717 AFGHANISTAN-USSR BORDER REGION

183 8942 F1 71 6 26 2441129 36.3 N 71.4 E 48 717127. 127 9
 7.3 1.9 22 36 49.1 22 23 13.0 8942 F1 71/06/26 24
 41129 36.3 N 071.4 E 5.0
 127 97.3 1.9 22-36-49.1 22-23-13.0

LKUCQUYMSO 48 HINDU KU
 SH AND PAMIR 717 AFGHANISTAN-USSR BORDER REGION

183 8942 F2 71 6 26 2441129 36.3 N 71.4 E 48 717127. 127 9
 7.3 1.9 22 36 49.1 22 23 13.0 8942 F2 71/06/26 24
 41129 36.3 N 071.4 E 5.0
 127 97.3 1.9 22-36-49.1 22-23-13.0

LKUCQUYMSO 48 HINDU KU
 SH AND PAMIR 717 AFGHANISTAN-USSR BORDER REGION

183 8942 F3 71 6 26 2441129 36.3 N 71.4 E 48 717127. 127 9
 7.3 1.9 22 36 49.1 22 23 13.0 8942 F3 71/06/26 24
 41129 36.3 N 071.4 E 5.0
 127 97.3 1.9 22-36-49.1 22-23-13.0

LKUCQUYMSO 48 HINDU KU
 SH AND PAMIR 717 AFGHANISTAN-USSR BORDER REGION

183 8942 F4 71 6 26 2441129 36.3 N 71.4 E 48 717127. 127 9
 7.3 1.9 22 36 49.1 22 23 13.0 8942 F4 71/06/26 24
 41129 36.3 N 071.4 E 5.0
 127 97.3 1.9 22-36-49.1 22-23-13.0

LKUCQUYMSO 48 HINDU KU
 SH AND PAMIR 717 AFGHANISTAN-USSR BORDER REGION

184 8943 RM 71 6 27 2441130 52.0 N -170.4 W 1 9 33. 33 4
 0.9 301.9 18 15 8.8 18 7 23.4 8943 RM 71/06/27 24
 41130 52.0 N 170.4 W 3.0
 33 40.9 301.9 18-15-08.8 18-07-23.4

LZKDWWJVQY 1 ALASKA -
ALEUTIAN ARC 9 FOX ISLANDS, ALEUTIAN ISLANDS

184 8943 F1 71 6 27 2441130 52.0 N-170.4 W 1 9 33. 33 4
0.9 301.9 18 15 8.8 18 7 23.4 8943 F1 71/06/27 24
41130 52.0 N 170.4 W 3.0
33 40.9 301.9 18-15-08.8 18-07-23.4

LZKDWWJVQY 1 ALASKA -
ALEUTIAN ARC 9 FOX ISLANDS, ALEUTIAN ISLANDS

184 8943 F2 71 6 27 2441130 52.0 N-170.4 W 1 9 33. 33 4
0.9 301.9 18 15 8.8 18 7 23.4 8943 F2 71/06/27 24
41130 52.0 N 170.4 W 3.0
33 40.9 301.9 18-15-08.8 18-07-23.4

LZKDWWJVQY 1 ALASKA -
ALEUTIAN ARC 9 FOX ISLANDS, ALEUTIAN ISLANDS

184 8943 F3 71 6 27 2441130 52.0 N-170.4 W 1 9 33. 33 4
0.9 301.9 18 15 8.8 18 7 23.4 8943 F3 71/06/27 24
41130 52.0 N 170.4 W 3.0
33 40.9 301.9 18-15-08.8 18-07-23.4

LZKDWWJVQY 1 ALASKA -
ALEUTIAN ARC 9 FOX ISLANDS, ALEUTIAN ISLANDS

184 8943 F4 71 6 27 2441130 52.0 N-170.4 W 1 9 33. 33 4
0.9 301.9 18 15 8.8 18 7 23.4 8943 F4 71/06/27 24
41130 52.0 N 170.4 W 3.0
33 40.9 301.9 18-15-08.8 18-07-23.4

LZKDWWJVQY 1 ALASKA -
ALEUTIAN ARC 9 FOX ISLANDS, ALEUTIAN ISLANDS

185 8944 RM 71 6 28 2441131 37.9 N 106.2 E 27 323 33. 33 9
0.8 335.0 5 14 50.3 5 1 43.0 8944 RM 71/06/28 24
41131 37.9 N 106.2 E 5.2
33 90.8 335.0 05-14-50.3 05-01-43.0
DUBZOLYRHO 27 SOUTHERN
SINKIANG TO KANSU 323 NORTHERN CHINA

185 8944 F1 71 6 28 2441131 37.9 N 106.2 E 27 323 33. 33 9
0.8 335.0 5 14 50.3 5 1 43.0 8944 F1 71/06/28 24
41131 37.9 N 106.2 E 5.2
33 90.8 335.0 05-14-50.3 05-01-43.0
DUBZOLYRHO 27 SOUTHERN
SINKIANG TO KANSU 323 NORTHERN CHINA

185 8944 F2 71 6 28 2441131 37.9 N 106.2 E 27 323 33. 33 9
0.8 335.0 5 14 50.3 5 1 43.0 8944 F2 71/06/28 24
41131 37.9 N 106.2 E 5.2
33 90.8 335.0 05-14-50.3 05-01-43.0
DUBZOLYRHO 27 SOUTHERN
SINKIANG TO KANSU 323 NORTHERN CHINA

185 8944 F3 71 6 28 2441131 37.9 N 106.2 E 27 323 33. 33 9
0.8 335.0 5 14 50.3 5 1 43.0 8944 F3 71/06/28 24
41131 37.9 N 106.2 E 5.2
33 90.8 335.0 05-14-50.3 05-01-43.0
DUBZOLYRHO 27 SOUTHERN
SINKIANG TO KANSU 323 NORTHERN CHINA

185 8944 F4 71 6 28 2441131 37.9 N 106.2 E 27 323 33. 33 90

.8 335.0 5 14 50.2 5 1 43.9 8944 F4 71/06/28 244
 1131 37.9 N 106.2 E 5.2
 33 90.8 335.0 05-14-50.3 05-01-43.9
 DURZOLYRHO 27 SOUTHERN
 SINKIANG TO KANSU 323 NORTHERN CHINA

186 8954 BM 71 6 29 2441132 37.2 N 36.8 E 30 366 35. 35 90
 .1 28.6 9 21 9.8 9 8 6.5 8954 BM 71/06/29 244
 1132 37.2 N 036.8 E 5.0
 35 90.1 28.6 09-21-09.8 09-08-06.5
 YGLGRJZDKQ 30 MIDDLE EA
 ST - CRIMEA - BALKANS 366 TURKEY

186 8954 F1 71 6 29 2441132 37.2 N 36.8 E 30 366 35. 35 90
 .1 28.6 9 21 9.8 9 8 6.5 8954 F1 71/06/29 244
 1132 37.2 N 036.8 E 5.0
 35 90.1 28.6 09-21-09.8 09-08-06.5
 YGLGRJZDKQ 30 MIDDLE EA
 ST - CRIMEA - BALKANS 366 TURKEY

186 8954 F2 71 6 29 2441132 37.2 N 36.8 E 30 366 35. 35 90
 .1 28.6 9 21 9.8 9 8 6.5 8954 F2 71/06/29 244
 1132 37.2 N 036.8 E 5.0
 35 90.1 28.6 09-21-09.8 09-08-06.5
 YGLGRJZDKQ 30 MIDDLE EA
 ST - CRIMEA - BALKANS 366 TURKEY

186 8954 F3 71 6 29 2441132 37.2 N 36.8 E 30 366 35. 35 90
 .1 28.6 9 21 9.8 9 8 6.5 8954 F3 71/06/29 244
 1132 37.2 N 036.8 E 5.0
 35 90.1 28.6 09-21-09.8 09-08-06.5
 YGLGRJZDKQ 30 MIDDLE EA
 ST - CRIMEA - BALKANS 366 TURKEY

186 8954 F4 71 6 29 2441132 37.2 N 36.8 E 30 366 35. 35 90
 .1 28.6 9 21 9.8 9 8 6.5 8954 F4 71/06/29 244
 1132 37.2 N 036.8 E 5.0
 35 90.1 28.6 09-21-09.8 09-08-06.5
 YGLGRJZDKQ 30 MIDDLE EA
 ST - CRIMEA - BALKANS 366 TURKEY

187 8955 BM 71 6 29 2441132 54.6 N-161.6 W 1 17 24. 24 35
 .1 303.8 14 10 12.9 14 3 15.6 8955 BM 71/06/29 244
 1132 54.6 N 161.6 W 5.2
 24 35.1 303.8 14-10-12.9 14-03-15.6
 TSUFFQLBMP 1 ALASKA -
 ALFUTIAN ARC 17 SOUTH OF ALASKA

187 8955 F1 71 6 29 2441132 54.6 N-161.6 W 1 17 24. 24 35
 .1 303.8 14 10 12.9 14 3 15.6 8955 F1 71/06/29 244
 1132 54.6 N 161.6 W 5.2
 24 35.1 303.8 14-10-12.9 14-03-15.6
 TSUFFQLBMP 1 ALASKA -
 ALFUTIAN ARC 17 SOUTH OF ALASKA

187 8955 F2 71 6 29 2441132 54.6 N-161.6 W 1 17 24. 24 35
 .1 303.8 14 10 12.9 14 3 15.6 8955 F2 71/06/29 244
 1132 54.6 N 161.6 W 5.2
 24 35.1 303.8 14-10-12.9 14-03-15.6
 TSUFFQLBMP 1 ALASKA -

ALEUTIAN ARC 17 SOUTH OF ALASKA

187 8955 F3 71 6 29 2441132 54.6 N-161.6 W 1 17 24. 24 35
 .1 303.8 14 10 12.9 14 3 15.6 8955 F3 71/06/29 244
 1132 54.6 N 161.6 W 5.2
 24 35.1 303.8 14-10-12.9 14-03-15.6
 TSUFFQLBMP 1 ALASKA -

ALEUTIAN ARC 17 SOUTH OF ALASKA

187 8955 F4 71 6 29 2441132 54.6 N-161.6 W 1 17 24. 24 35
 .1 303.8 14 10 12.9 14 3 15.6 8955 F4 71/06/29 244
 1132 54.6 N 161.6 W 5.2
 24 35.1 303.8 14-10-12.9 14-03-15.6
 TSUFFQLBMP 1 ALASKA -

ALEUTIAN ARC 17 SOUTH OF ALASKA

188 6919 BM 71 7 1 2441134 43.0 N -97.3 W 34 463 33. 33 7
 .3 117.0 1 38 50.3 1 38 50.3 6919 BM 71/07/01 244
 1134 43.0 N 097.3 W 4.6
 33 7.3 117.0 01-38-50.3 01-38-50.3
 FELAKRWQMJ 34 EASTERN N

NORTH AMERICA 463 NEBRASKA

188 6919 F1 71 7 1 2441134 43.0 N -97.3 W 34 463 33. 33 7
 .3 117.0 1 38 50.3 1 38 50.3 6919 F1 71/07/01 244
 1134 43.0 N 097.3 W 4.6
 33 7.3 117.0 01-38-50.3 01-38-50.3
 FELAKRWQMJ 34 EASTERN N

NORTH AMERICA 463 NEBRASKA

188 6919 F2 71 7 1 2441134 43.0 N -97.3 W 34 463 33. 33 7
 .3 117.0 1 38 50.3 1 38 50.3 6919 F2 71/07/01 244
 1134 43.0 N 097.3 W 4.6
 33 7.3 117.0 01-38-50.3 01-38-50.3
 FELAKRWQMJ 34 EASTERN N

NORTH AMERICA 463 NEBRASKA

188 6919 F3 71 7 1 2441134 43.0 N -97.3 W 34 463 33. 33 7
 .3 117.0 1 38 50.3 1 38 50.3 6919 F3 71/07/01 244
 1134 43.0 N 097.3 W 4.6
 33 7.3 117.0 01-38-50.3 01-38-50.3
 FELAKRWQMJ 34 EASTERN N

NORTH AMERICA 463 NEBRASKA

188 6919 F4 71 7 1 2441134 43.0 N -97.3 W 34 463 33. 33 7
 .3 117.0 1 38 50.3 1 38 50.3 6919 F4 71/07/01 244
 1134 43.0 N 097.3 W 4.6
 33 7.3 117.0 01-38-50.3 01-38-50.3
 FELAKRWQMJ 34 EASTERN N

NORTH AMERICA 463 NEBRASKA

189 8838 BM 71 7 3 2441136 41.4 N -72.2 W 34 472 17. 17 24
 .9 89.8 4 39 32.3 4 34 6.4 8838 BM 71/07/03 244
 1136 41.4 N 072.2 W 4.9
 17 24.9 89.8 04-39-32.3 04-34-06.4
 AFCCQZEYTL 34 EASTERN N

NORTH AMERICA 472 NEW YORK

189 8838 F1 71 7 3 2441136 41.4 N -72.2 W 34 472 17. 17 24
 .9 89.8 4 39 32.3 4 34 6.4 8838 F1 71/07/03 244

1136 41.4 N 072.2 W 4.9
17 24.9 89.8 04-39-32.3 04-34-06.4
BFCCQZEYIL 34 EASTERN N
ORTH AMERICA 472 NEW YORK

189 8838 F2 71 7 3 2441136 41.4 N -72.2 W 34 472 17. 17 24
.9 89.8 4 39 32.3 4 34 6.4 8838 F2 71/07/03 244
1136 41.4 N 072.2 W 4.9
17 24.9 89.8 04-39-32.3 04-34-06.4
BFCCQZEYIL 34 EASTERN N
ORTH AMERICA 472 NEW YORK

189 8838 F3 71 7 3 2441136 41.4 N -72.2 W 34 472 17. 17 24
.9 89.8 4 39 32.3 4 34 6.4 8838 F3 71/07/03 244
1136 41.4 N 072.2 W 4.9
17 24.9 89.8 04-39-32.3 04-34-06.4
BFCCQZEYIL 34 EASTERN N
ORTH AMERICA 472 NEW YORK

190 8838 F4 71 7 3 2441136 41.4 N -72.2 W 34 472 17. 17 24
.9 89.8 4 39 32.3 4 34 6.4 8838 F4 71/07/03 244
1136 41.4 N 072.2 W 4.9
17 24.9 89.8 04-39-32.3 04-34-06.4
BFCCQZEYIL 34 EASTERN N
ORTH AMERICA 472 NEW YORK

190 8839 BW 71 7 3 2441136 35.0 N -81.0 W 34 511 33. 33 22
.3 112.7 8 15 43.4 8 10 42.9 8839 BW 71/07/03 244
1136 35.0 N 081.0 W 5.0
33 22.3 112.7 08-15-43.4 08-10-42.9
LHZZQBFWVS 34 EASTERN N
ORTH AMERICA 511 SOUTH CAROLINA

190 8839 F1 71 7 3 2441136 35.0 N -81.0 W 34 511 33. 33 22
.3 112.7 8 15 43.4 8 10 42.9 8839 F1 71/07/03 244
1136 35.0 N 081.0 W 5.0
33 22.3 112.7 08-15-43.4 08-10-42.9
LHZZQBFWVS 34 EASTERN N
ORTH AMERICA 511 SOUTH CAROLINA

190 8839 F2 71 7 3 2441136 35.0 N -81.0 W 34 511 33. 33 22
.3 112.7 8 15 43.4 8 10 42.9 8839 F2 71/07/03 244
1136 35.0 N 081.0 W 5.0
33 22.3 112.7 08-15-43.4 08-10-42.9
LHZZQBFWVS 34 EASTERN N
ORTH AMERICA 511 SOUTH CAROLINA

190 8839 F3 71 7 3 2441136 35.0 N -81.0 W 34 511 33. 33 22
.3 112.7 8 15 43.4 8 10 42.9 8839 F3 71/07/03 244
1136 35.0 N 081.0 W 5.0
33 22.3 112.7 08-15-43.4 08-10-42.9
LHZZQBFWVS 34 EASTERN N
ORTH AMERICA 511 SOUTH CAROLINA

190 8839 F4 71 7 3 2441136 35.0 N -81.0 W 34 511 33. 33 22
.3 112.7 8 15 43.4 8 10 42.9 8839 F4 71/07/03 244
1136 35.0 N 081.0 W 5.0
33 22.3 112.7 08-15-43.4 08-10-42.9
LHZZQBFWVS 34 EASTERN N
ORTH AMERICA 511 SOUTH CAROLINA

191 8961 BM 71 7 11 2441144 37.2 N -36.8 W 32 403 9. 9 51
 .0 74.2 20 25 56.8 20 16 51.1 8961 BM 71/07/11 244
 1144 37.2 N 036.8 W 5.2
 0 51.0 74.2 20-25-56.8 20-16-51.1

GRUVOQTVGL 32 ATLANTIC
 OCEAN 403 NORTH ATLANTIC RIDGE

191 8961 F1 71 7 11 2441144 37.2 N -36.8 W 32 403 9. 9 51
 .0 74.2 20 25 56.8 20 16 51.1 8961 F1 71/07/11 244
 1144 37.2 N 036.8 W 5.2
 9 51.0 74.2 20-25-56.8 20-16-51.1

GRUVOQTVGL 32 ATLANTIC
 OCEAN 403 NORTH ATLANTIC RIDGE

191 8961 F2 71 7 11 2441144 37.2 N -36.8 W 32 403 9. 9 51
 .0 74.2 20 25 56.8 20 16 51.1 8961 F2 71/07/11 244
 1144 37.2 N 036.8 W 5.2
 9 51.0 74.2 20-25-56.8 20-16-51.1

GRUVOQTVGL 32 ATLANTIC
 OCEAN 403 NORTH ATLANTIC RIDGE

191 8961 F3 71 7 11 2441144 37.2 N -36.8 W 32 403 9. 9 51
 .0 74.2 20 25 56.8 20 16 51.1 8961 F3 71/07/11 244
 1144 37.2 N 036.8 W 5.2
 9 51.0 74.2 20-25-56.8 20-16-51.1

GRUVOQTVGL 32 ATLANTIC
 OCEAN 403 NORTH ATLANTIC RIDGE

191 8961 F4 71 7 11 2441144 37.2 N -36.8 W 32 403 9. 9 51
 .0 74.2 20 25 56.8 20 16 51.1 8961 F4 71/07/11 244
 1144 37.2 N 036.8 W 5.2
 9 51.0 74.2 20-25-56.8 20-16-51.1

GRUVOQTVGL 32 ATLANTIC
 OCEAN 403 NORTH ATLANTIC RIDGE

192 8964 BM 71 7 15 2441148 44.8 N 10.8 E 36 545 8. 8 73
 .3 41.4 1 44 55.3 1 33 20.6 8964 BM 71/07/15 244
 1148 44.8 N 010.8 E 5.2
 8 73.3 41.4 01-44-55.3 01-33-20.6

QTFLEJEUHCC 36 NORTHWEST
 ERM EUROPE 545 NORTHERN ITALY

192 8964 F1 71 7 15 2441148 44.8 N 10.8 E 36 545 8. 8 73
 .3 41.4 1 44 55.3 1 33 20.6 8964 F1 71/07/15 244
 1148 44.8 N 010.8 E 5.2
 8 73.3 41.4 01-44-55.3 01-33-20.6

QTFLEJEUHCC 36 NORTHWEST
 ERM EUROPE 545 NORTHERN ITALY

192 8964 F2 71 7 15 2441148 44.8 N 10.8 E 36 545 8. 8 73
 .3 41.4 1 44 55.3 1 33 20.6 8964 F2 71/07/15 244
 1148 44.8 N 010.8 E 5.2
 8 73.3 41.4 01-44-55.3 01-33-20.6

QTFLEJEUHCC 36 NORTHWEST
 ERM EUROPE 545 NORTHERN ITALY

192 8964 F3 71 7 15 2441148 44.8 N 10.8 E 36 545 8. 8 73
 .3 41.4 1 44 55.3 1 33 20.6 8964 F3 71/07/15 244
 1148 44.8 N 010.8 E 5.2

8 73.3 41.4 01-44-55.3 01-33-20.6
 QTFLJEUHCC 36 NORTHWEST
 ERN EUROPE 545 NORTHERN ITALY

192 8964 F4 71 7 15 2441148 44.8 N 10.8 E 36 545 8. 8 73
 .3 41.4 1 44 55.3 1 33 20.6 8964 F4 71/07/15 244
 1148 44.8 N 010.8 E 5.2
 8 73.3 41.4 01-44-55.3 01-33-20.6

QTFLJEUHCC 36 NORTHWEST
 ERN EUROPE 545 NORTHERN ITALY

193 8967 BM 71 7 17 2441150 38.3 N 39.8 E 30 366 33. 33 90
 .0 26.0 21 58 21.5 21 45 18.4 8967 BM 71/07/17 244
 1150 38.3 N 039.8 E 4.5
 33 90.0 26.0 21-58-21.5 21-45-18.4

YADLUKYKQR 30 MIDDLE EA
 ST - CRIMEA - BALKANS 366 TURKEY

193 8967 F1 71 7 17 2441150 38.3 N 39.8 E 30 366 33. 33 90
 .0 26.0 21 58 21.5 21 45 18.4 8967 F1 71/07/17 244
 1150 38.3 N 039.8 E 4.5
 33 90.0 26.0 21-58-21.5 21-45-18.4

YADLUKYKQR 30 MIDDLE EA
 ST - CRIMEA - BALKANS 366 TURKEY

193 8967 F2 71 7 17 2441150 38.3 N 39.8 E 30 366 33. 33 90
 .0 26.0 21 58 21.5 21 45 18.4 8967 F2 71/07/17 244
 1150 38.3 N 039.8 E 4.5
 33 90.0 26.0 21-58-21.5 21-45-18.4

YADLUKYKQR 30 MIDDLE EA
 ST - CRIMEA - BALKANS 366 TURKEY

193 8967 F3 71 7 17 2441150 38.3 N 39.8 E 30 366 33. 33 90
 .0 26.0 21 58 21.5 21 45 18.4 8967 F3 71/07/17 244
 1150 38.3 N 039.8 E 4.5
 33 90.0 26.0 21-58-21.5 21-45-18.4

YADLUKYKQR 30 MIDDLE EA
 ST - CRIMEA - BALKANS 366 TURKEY

193 8967 F4 71 7 17 2441150 38.3 N 39.8 E 30 366 33. 33 90
 .0 26.0 21 58 21.5 21 45 18.4 8967 F4 71/07/17 244
 1150 38.3 N 039.8 E 4.5
 33 90.0 26.0 21-58-21.5 21-45-18.4

YADLUKYKQR 30 MIDDLE EA
 ST - CRIMEA - BALKANS 366 TURKEY

194 9137 BM 71 7 24 2441157 39.5 N 70.7 E 48 715 33. 33 94
 .1 2.4 11 56 55.7 11 43 34.4 9137 BM 71/07/24 244
 1157 39.5 N 070.7 E 5.6
 33 94.1 2.4 11-56-55.7 11-43-34.4

OBMMSQIOL 48 HINDU KUS
 H AND PAVIP 715 TADZHIK SSR

194 9137 F1 71 7 24 2441157 39.5 N 70.7 E 48 715 33. 33 94
 .1 2.4 11 56 55.7 11 43 34.4 9137 F1 71/07/24 244
 1157 39.5 N 070.7 E 5.6
 33 94.1 2.4 11-56-55.7 11-43-34.4

OBMMSQIOL 48 HINDU KUS
 H AND PAVIP 715 TADZHIK SSR

194 9137 F2 71 7 24 2441157 39.5 N 70.7 E 48 715 33. 33 94
.1 2.4 11 56 55.7 11 43 34.4 9137 F2 71/07/24 244
1157 39.5 N 070.7 E 5.6
33 94.1 2.4 11-56-55.7 11-43-34.4

OBMMSQIIOL 48 HINDU KUS
H AND PAMIR 715 TADZHIK SSR

194 9137 F3 71 7 24 2441157 39.5 N 70.7 E 48 715 33. 33 94
.1 2.4 11 56 55.7 11 43 34.4 9137 F3 71/07/24 244
1157 39.5 N 070.7 F 5.6
33 94.1 2.4 11-56-55.7 11-43-34.4

OBMMSQIIOL 48 HINDU KUS
H AND PAMIR 715 TADZHIK SSR

194 9137 F4 71 7 24 2441157 39.5 N 70.7 E 48 715 33. 33 94
.1 2.4 11 56 55.7 11 43 34.4 9137 F4 71/07/24 244
1157 39.5 N 070.7 E 5.6
33 94.1 2.4 11-56-55.7 11-43-34.4

OBMMSQIIOL 48 HINDU KUS
H AND PAMIR 715 TADZHIK SSR

195 9138 BM 71 7 25 2441158 36.4 N 70.7 E 53 718213. 213 97
.2 2.5 1 28 43.8 1 15 8.2 9138 BM 71/07/25 244
1158 36.4 N 070.7 E 4.5
213 97.2 2.5 01-28-43.8 01-15-08.2

WQOLOVHROS 53 G REG = 7
18 AND D GT 70 718 HINDU KUSH REGION

195 9138 F1 71 7 25 2441158 36.4 N 70.7 E 53 718213. 213 97
.2 2.5 1 28 43.8 1 15 8.2 9138 F1 71/07/25 244
1158 36.4 N 070.7 F 4.5
213 97.2 2.5 01-28-43.8 01-15-08.2

WQOLOVHROS 53 G REG = 7
18 AND D GT 70 718 HINDU KUSH REGION

195 9138 F2 71 7 25 2441158 36.4 N 70.7 E 53 718213. 213 97
.2 2.5 1 28 43.8 1 15 8.2 9138 F2 71/07/25 244
1158 36.4 N 070.7 F 4.5
213 97.2 2.5 01-28-43.8 01-15-08.2

WQOLOVHROS 53 G REG = 7
18 AND D GT 70 718 HINDU KUSH REGION

195 9138 F3 71 7 25 2441158 36.4 N 70.7 E 53 718213. 213 97
.2 2.5 1 28 43.8 1 15 8.2 9138 F3 71/07/25 244
1158 36.4 N 070.7 F 4.5
213 97.2 2.5 01-28-43.8 01-15-08.2

WQOLOVHROS 53 G REG = 7
18 AND D GT 70 718 HINDU KUSH REGION

195 9138 F4 71 7 25 2441158 36.4 N 70.7 E 53 718213. 213 97
.2 2.5 1 28 43.8 1 15 8.2 9138 F4 71/07/25 244
1158 36.4 N 070.7 F 4.5
213 97.2 2.5 01-28-43.8 01-15-08.2

WQOLOVHROS 53 G REG = 7
18 AND D GT 70 718 HINDU KUSH REGION

196 9362 BM 72 1 2 2441319 41.8 N 84.5 E 27 321 33. 33 91
.3 352.0 10 40 38.8 10 27 30.4 9362 BM 72/01/02 244
1319 41.8 N 084.5 E 5.2
33 91.3 352.0 10-40-38.8 10-27-30.4

QSLIJGGUOO 27 SOUTHERN
SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHINA

196 9362 F1 72 1 2 2441319 41.8 N 84.5 E 27 321 33. 33 91
.3 352.0 10 40 38.8 10 27 30.4 9362 F1 72/01/02 244
1319 41.8 N 084.5 E 5.2
33 91.3 352.0 10-40-38.8 10-27-30.4

QSLIJGGUOO 27 SOUTHERN
SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHINA

196 9362 F2 72 1 2 2441319 41.8 N 84.5 E 27 321 33. 33 91
.3 352.0 10 40 38.8 10 27 30.4 9362 F2 72/01/02 244
1319 41.8 N 084.5 E 5.2
33 91.3 352.0 10-40-38.8 10-27-30.4

QSLIJGGUOO 27 SOUTHERN
SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHINA

196 9362 F3 72 1 2 2441319 41.8 N 84.5 E 27 321 33. 33 91
.3 352.0 10 40 38.8 10 27 30.4 9362 F3 72/01/02 244
1319 41.8 N 084.5 E 5.2
33 91.3 352.0 10-40-38.8 10-27-30.4

QSLIJGGUOO 27 SOUTHERN
SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHINA

196 9362 F4 72 1 2 2441319 41.8 N 84.5 E 27 321 33. 33 91
.3 352.0 10 40 38.8 10 27 30.4 9362 F4 72/01/02 244
1319 41.8 N 084.5 E 5.2
33 91.3 352.0 10-40-38.8 10-27-30.4

QSLIJGGUOO 27 SOUTHERN
SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CHINA

197 9365 BM 72 1 6 2441323 40.7 N 72.4 E 48 716 33. 33 92
.9 1.0 6 43 47.0 6 30 30.5 9365 BM 72/01/06 244
1323 40.7 N 072.4 E 4.7
33 92.9 1.0 06-43-47.0 06-30-30.5

QGZBHOTLFS 48 HINDU KUS
H AND PAMIR 716 KIRGIZ SSR

197 9365 F1 72 1 6 2441323 40.7 N 72.4 E 48 716 33. 33 92
.9 1.0 6 43 47.0 6 30 30.5 9365 F1 72/01/06 244
1323 40.7 N 072.4 E 4.7
33 92.9 1.0 06-43-47.0 06-30-30.5

QGZBHOTLFS 48 HINDU KUS
H AND PAMIR 716 KIRGIZ SSR

197 9365 F2 72 1 6 2441323 40.7 N 72.4 E 48 716 33. 33 92
.9 1.0 6 43 47.0 6 30 30.5 9365 F2 72/01/06 244
1323 40.7 N 072.4 E 4.7
33 92.9 1.0 06-43-47.0 06-30-30.5

QGZBHOTLFS 48 HINDU KUS
H AND PAMIR 716 KIRGIZ SSR

197 9365 F3 72 1 6 2441323 40.7 N 72.4 E 48 716 33. 33 92
.9 1.0 6 43 47.0 6 30 30.5 9365 F3 72/01/06 244
1323 40.7 N 072.4 E 4.7
33 92.9 1.0 06-43-47.0 06-30-30.5

QGZBHOTLFS 48 HINDU KUS
H AND PAMIR 716 KIRGIZ SSR

197 9365 F4 72 1 6 2441323 40.7 N 72.4 E 48 716 33. 33 92

.9 1.0 6 43 47.0 6 30 30.5 9365 F4 72/01/06 244
 1323 40.7 N 072.4 F 4.7
 33 92.9 1.0 06-43-47.0 06-30-30.5
 QGZBHOTLFS 48 HINDU KUS
 H AND PAMIR 716 KIRGIZ SSR

198 9370 RM 72 1 12 2441329 27.5 N 33.7 E 37 553 54. 54 97
 .7 35.2 8 29 16.4 8 15 38.6 9370 RM 72/01/12 244
 1329 27.5 N 033.7 F 5.1
 54 97.7 35.2 08-29-16.4 08-15-38.6
 QSLZIGJZRG 37 AFRICA
 553 UNITED ARAB REPUBLIC

198 9370 F1 72 1 12 2441329 27.5 N 33.7 E 37 553 54. 54 97
 .7 35.2 8 29 16.4 8 15 38.6 9370 F1 72/01/12 244
 1329 27.5 N 033.7 E 5.1
 54 97.7 35.2 08-29-16.4 08-15-38.6
 QSLZIGJZRG 37 AFRICA
 553 UNITED ARAB REPUBLIC

198 9370 F2 72 1 12 2441329 27.5 N 33.7 E 37 553 54. 54 97
 .7 35.2 8 29 16.4 8 15 38.6 9370 F2 72/01/12 244
 1329 27.5 N 033.7 E 5.1
 54 97.7 35.2 08-29-16.4 08-15-38.6
 QSLZIGJZRG 37 AFRICA
 553 UNITED ARAB REPUBLIC

198 9370 F3 72 1 12 2441329 27.5 N 33.7 E 37 553 54. 54 97
 .7 35.2 8 29 16.4 8 15 38.6 9370 F3 72/01/12 244
 1329 27.5 N 033.7 E 5.1
 54 97.7 35.2 08-29-16.4 08-15-38.6
 QSLZIGJZRG 37 AFRICA
 553 UNITED ARAB REPUBLIC

198 9370 F4 72 1 12 2441329 27.5 N 33.7 E 37 553 54. 54 97
 .7 35.2 8 29 16.4 8 15 38.6 9370 F4 72/01/12 244
 1329 27.5 N 033.7 E 5.1
 54 97.7 35.2 08-29-16.4 08-15-38.6
 QSLZIGJZRG 37 AFRICA
 553 UNITED ARAB REPUBLIC

199 9457 RM 72 1 14 2441331 37.2 N 71.5 E 48 717113. 113 96
 .4 1.8 2 16 23.7 2 2 51.8 9457 RM 72/01/14 244
 1331 37.2 N 071.5 F 4.5
 113 96.4 1.8 02-16-23.7 02-02-51.8
 DGLTMJFKZP 48 HINDU KUS
 H AND PAMIR 717 AFGHANISTAN-USSR BORDER REGION

199 9457 F1 72 1 14 2441331 37.2 N 71.5 E 48 717113. 113 96
 .4 1.8 2 16 23.7 2 2 51.8 9457 F1 72/01/14 244
 1331 37.2 N 071.5 E 4.5
 113 96.4 1.8 02-16-23.7 02-02-51.8
 DGLTMJFKZP 48 HINDU KUS
 H AND PAMIR 717 AFGHANISTAN-USSR BORDER REGION

199 9457 F2 72 1 14 2441331 37.2 N 71.5 E 48 717113. 113 96
 .4 1.8 2 16 23.7 2 2 51.8 9457 F2 72/01/14 244
 1331 37.2 N 071.5 E 4.5
 113 96.4 1.8 02-16-23.7 02-02-51.8
 DGLTMJFKZP 48 HINDU KUS

H AND PAMIR

717 AFGHANISTAN-USSR BORDER REGION

199 9457 F3 72 1 14 2441331 37.2 N 71.5 E 48 717113. 113 96
 .4 1.8 2 16 23.7 2 2 51.8 9457 F3 72/01/14 244
 1331 37.2 N 071.5 E 4.5
 113 96.4 1.8 02-16-23.7 02-02-51.8

DQLIMJFKZP

48 HINDU KUS

H AND PAMIR

717 AFGHANISTAN-USSR BORDER REGION

199 9457 F4 72 1 14 2441331 37.2 N 71.5 E 48 717113. 113 96
 .4 1.8 2 16 23.7 2 2 51.8 9457 F4 72/01/14 244
 1331 37.2 N 071.5 E 4.5
 113 96.4 1.8 02-16-23.7 02-02-51.8

DQLIMJFKZP

48 HINDU KUS

H AND PAMIR

717 AFGHANISTAN-USSR BORDER REGION

200 9374 RM 72 1 18 2441335 37.6 N 48.7 E 29 345 33. 33 93
 .0 19.6 21 25 13.8 21 11 56.6 9374 RM 72/01/18 244
 1335 37.6 N 048.7 E 4.9
 33 93.0 19.6 21-25-13.8 21-11-56.6

IDVQBILMGR

29 WESTERN A

SIA

345 NORTHWESTERN IRAN

200 9374 F1 72 1 18 2441335 37.6 N 48.7 E 29 345 33. 33 93
 .0 19.6 21 25 13.8 21 11 56.6 9374 F1 72/01/18 244
 1335 37.6 N 048.7 E 4.9
 33 93.0 19.6 21-25-13.8 21-11-56.6

IDVQBILMGR

29 WESTERN A

SIA

345 NORTHWESTERN IRAN

200 9374 F2 72 1 18 2441335 37.6 N 48.7 E 29 345 33. 33 93
 .0 19.6 21 25 13.8 21 11 56.6 9374 F2 72/01/18 244
 1335 37.6 N 048.7 E 4.9
 33 93.0 19.6 21-25-13.8 21-11-56.6

IDVQBILMGR

29 WESTERN A

SIA

345 NORTHWESTERN IRAN

200 9374 F3 72 1 18 2441335 37.6 N 48.7 E 29 345 33. 33 93
 .0 19.6 21 25 13.8 21 11 56.6 9374 F3 72/01/18 244
 1335 37.6 N 048.7 E 4.9
 33 93.0 19.6 21-25-13.8 21-11-56.6

IDVQBILMGR

29 WESTERN A

SIA

345 NORTHWESTERN IRAN

200 9374 F4 72 1 18 2441335 37.6 N 48.7 E 29 345 33. 33 93
 .0 19.6 21 25 13.8 21 11 56.6 9374 F4 72/01/18 244
 1335 37.6 N 048.7 E 4.9
 33 93.0 19.6 21-25-13.8 21-11-56.6

IDVQBILMGR

29 WESTERN A

SIA

345 NORTHWESTERN IRAN

201
 201 9462 RM 72 1 20 2441337 60.7 N-153.2 W 1 2138. 138
 30.4 314.8 9 30 24.6 9 24 8.5 9462 RM 72/01/20
 2441337 60.7 N 153.2 W 4.6
 138 30.4 314.8 09-30-24.6 09-24-08.

5 LMAFYQWCGA

1 ALASK

A - ALEUTIAN ARC

2 SOUTHERN ALASKA

201 9462 F1 72 1 20 2441337 60.7 N-153.2 W 1 2138. 138

30.4 314.8 9 30 24.6 9 24 8.5 9462 F1 72/01/20
2441337 60.7 N 153.2 W 4.6
138 30.4 314.8 09-30-24.6 09-24-08
.5 LMWIFYQWCGK 1 ALAS
KA - ALEUTIAN ARC 2 SOUTHERN ALASKA

201 9462 F2 72 1 20 2441337 60.7 N-153.2 W 1 2138. 138
30.4 314.8 9 30 24.6 9 24 8.5 9462 F2 72/01/20
2441337 60.7 N 153.2 W 4.6
138 30.4 314.8 09-30-24.6 09-24-08
.5 LMWIFYQWCGK 1 ALAS
KA - ALEUTIAN ARC 2 SOUTHERN ALASKA

201 9462 F3 72 1 20 2441337 60.7 N-153.2 W 1 2138. 138
30.4 314.8 9 30 24.6 9 24 8.5 9462 F3 72/01/20
2441337 60.7 N 153.2 W 4.6
138 30.4 314.8 09-30-24.6 09-24-08
.5 LMWIFYQWCGK 1 ALAS
KA - ALEUTIAN ARC 2 SOUTHERN ALASKA

201 9462 F4 72 1 20 2441337 60.7 N-153.2 W 1 2138. 138
30.4 314.8 9 30 24.6 9 24 8.5 9462 F4 72/01/20
2441337 60.7 N 153.2 W 4.6
138 30.4 314.8 09-30-24.6 09-24-08
.5 LMWIFYQWCGK 1 ALAS
KA - ALEUTIAN ARC 2 SOUTHERN ALASKA

202 9463 RM 72 1 20 2441337 36.4 N 70.7 E 53 718213. 213
97.2 2.5 11 49 38.3 11 36 2.7 9463 RM 72/01/20
2441337 36.4 N 070.7 E 6.0
213 97.2 2.5 11-49-38.3 11-36-02
.7 CCMDRZMQVL 53 G RE
G = 718 AND D GT 70 718 HINDU KUSH REGION

202 9463 F1 72 1 20 2441337 36.4 N 70.7 E 53 718213. 213
97.2 2.5 11 49 38.3 11 36 2.7 9463 F1 72/01/20
2441337 36.4 N 070.7 E 6.0
213 97.2 2.5 11-49-38.3 11-36-02
.7 CCMDRZMQVL 53 G RE
G = 718 AND D GT 70 718 HINDU KUSH REGION

202 9463 F2 72 1 20 2441337 36.4 N 70.7 E 53 718213. 213
97.2 2.5 11 49 38.3 11 36 2.7 9463 F2 72/01/20
2441337 36.4 N 070.7 E 6.0
213 97.2 2.5 11-49-38.3 11-36-02
.7 CCMDRZMQVL 53 G RE
G = 718 AND D GT 70 718 HINDU KUSH REGION

202 9463 F2 72 1 20 2441337 36.4 N 70.7 E 53 718213. 213
97.2 2.5 11 49 38.3 11 36 2.7 9463 F2 72/01/20
2441337 36.4 N 070.7 E 6.0
213 97.2 2.5 11-49-38.3 11-36-02
.7 CCMDRZMQVL 53 G RE
G = 718 AND D GT 70 718 HINDU KUSH REGION

202 9463 F3 72 1 20 2441337 36.4 N 70.7 E 53 718213. 213
97.2 2.5 11 49 38.3 11 36 2.7 9463 F3 72/01/20
2441337 36.4 N 070.7 E 6.0
213 97.2 2.5 11-49-38.3 11-36-02
.7 CCMDRZMQVL 53 G RE

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G = 718 AND 0 GT 70

718 HINDU KUSH REGION

203 9479 BM 72 1 23 2441340 43.5 N-127.0 W 3 30 33. 33
 15.0 265.3 10 44 12.5 10 40 37.4 9479 BM 72/01/23
 2441340 43.5 N 127.0 W 4.8
 33 15.0 265.3 10-44-12.5 10-40-37

.4 QLUPMZDGVH 3 CALI
 FORNIA - NEVADA REGION 30 OFF COAST OF OREGON

203 9479 F1 72 1 23 2441340 43.5 N-127.0 W 3 30 33. 33
 15.0 265.3 10 44 12.5 10 40 37.4 9479 F1 72/01/23
 2441340 43.5 N 127.0 W 4.8
 33 15.0 265.3 10-44-12.5 10-40-37

.4 QLUPMZDGVH 3 CALI
 FORNIA - NEVADA REGION 30 OFF COAST OF OREGON

203 9479 F2 72 1 23 2441340 43.5 N-127.0 W 3 30 33. 33
 15.0 265.3 10 44 12.5 10 40 37.4 9479 F2 72/01/23
 2441340 43.5 N 127.0 W 4.8
 33 15.0 265.3 10-44-12.5 10-40-37

.4 QLUPMZDGVH 3 CALI
 FORNIA - NEVADA REGION 30 OFF COAST OF OREGON

203 9479 F3 72 1 23 2441340 43.5 N-127.0 W 3 30 33. 33
 15.0 265.3 10 44 12.5 10 40 37.4 9479 F3 72/01/23
 2441340 43.5 N 127.0 W 4.8
 33 15.0 265.3 10-44-12.5 10-40-37

.4 QLUPMZDGVH 3 CALI
 FORNIA - NEVADA REGION 30 OFF COAST OF OREGON

203 9479 F4 72 1 23 2441340 43.5 N-127.0 W 3 30 33. 33
 15.0 265.3 10 44 12.5 10 40 37.4 9479 F4 72/01/23
 2441340 43.5 N 127.0 W 4.8
 33 15.0 265.3 10-44-12.5 10-40-37

.4 QLUPMZDGVH 3 CALI
 FORNIA - NEVADA REGION 30 OFF COAST OF OREGON

204 9471 BM 72 1 25 2441342 35.6 N 69.8 E 48 718 33. 33
 97.9 3.3 6 11 13.2 5 57 34.6 9471 BM 72/01/25
 2441342 35.6 N 069.8 E 3.5
 33 97.9 3.3 06-11-13.2 05-57-34

.6 TLQPVROFT 48 HIND
 U KUSH AND PAMIR 718 HINDU KUSH REGION

204 9471 F1 72 1 25 2441342 35.6 N 69.8 E 48 718 33. 33
 97.9 3.3 6 11 13.2 5 57 34.6 9471 F1 72/01/25
 2441342 35.6 N 069.8 E 3.5
 33 97.9 3.3 06-11-13.2 05-57-34

.6 TLQPVROFT 48 HIND
 U KUSH AND PAMIR 718 HINDU KUSH REGION

204 9471 F2 72 1 25 2441342 35.6 N 69.8 E 48 718 33. 33
 97.9 3.3 6 11 13.2 5 57 34.6 9471 F2 72/01/25
 2441342 35.6 N 069.8 E 3.5
 33 97.9 3.3 06-11-13.2 05-57-34

.6 TLQPVROFT 48 HIND
 U KUSH AND PAMIR 718 HINDU KUSH REGION

204 9471 F3 72 1 25 2441342 35.6 N 69.8 E 48 718 33. 33
 97.9 3.3 6 11 13.2 5 57 34.6 9471 F3 72/01/25

2441342 35.6 N 069.8 E 3.5
 33 97.9 3.3 06-11-13.2 05-57-34
 .6 TLQPVRODFI 48 HIND
 U KUSH AND PAMIR 718 HINDU KUSH REGION

204 9471 F4 72 1 25 2441342 35.6 N 69.8 E 48 718 33. 33
 97.9 3.3 6 11 13.2 5 57 34.6 9471 F4 72/01/25
 2441342 35.6 N 069.8 E 3.5
 33 97.9 3.3 06-11-13.2 05-57-34
 .6 TLQPVRODFI 48 HIND
 U KUSH AND PAMIR 718 HINDU KUSH REGION

205 9690 RM 72 2 3 2441351 40.7 N 48.4 E 29 337 33. 33
 90.0 19.0 3 21 11.3 3 8 8.2 9690 RM 72/02/03
 2441351 40.7 N 048.4 E 3.4
 33 90.0 19.0 03-21-11.3 03-08-08
 .2 DQTHUSYMBL 29 WEST
 FRN ASIA 337 EASTERN CAUCASUS

205 9690 F1 72 2 3 2441351 40.7 N 48.4 E 29 337 33. 33
 90.0 19.0 3 21 11.3 3 8 8.2 9690 F1 72/02/03
 2441351 40.7 N 048.4 E 3.4
 33 90.0 19.0 03-21-11.3 03-08-08
 .2 DQTHUSYMBL 29 WEST
 FRN ASIA 337 EASTERN CAUCASUS

205 9690 F2 72 2 3 2441351 40.7 N 48.4 E 29 337 33. 33
 90.0 19.0 3 21 11.3 3 8 8.2 9690 F2 72/02/03
 2441351 40.7 N 048.4 E 3.4
 33 90.0 19.0 03-21-11.3 03-08-08
 .2 DQTHUSYMBL 29 WEST
 FRN ASIA 337 EASTERN CAUCASUS

205 9690 F3 72 2 3 2441351 40.7 N 48.4 E 29 337 33. 33
 90.0 19.0 3 21 11.3 3 8 8.2 9690 F3 72/02/03
 2441351 40.7 N 048.4 E 3.4
 33 90.0 19.0 03-21-11.3 03-08-08
 .2 DQTHUSYMBL 29 WEST
 FRN ASIA 337 EASTERN CAUCASUS

205 9690 F4 72 2 3 2441351 40.7 N 48.4 E 29 337 33. 33
 90.0 19.0 3 21 11.3 3 8 8.2 9690 F4 72/02/03
 2441351 40.7 N 048.4 E 3.4
 33 90.0 19.0 03-21-11.3 03-08-08
 .2 DQTHUSYMBL 29 WEST
 FRN ASIA 337 EASTERN CAUCASUS

206 9706 RM 72 2 22 2441370 36.4 N 70.6 E 53 718 212. 212
 97.2 2.6 1 27 57.0 1 14 21.4 9706 RM 72/02/22
 2441370 36.4 N 070.6 E 5.3
 212 97.2 2.6 01-27-57.0 01-14-21
 .4 DDOYZMZFUL 53 G RE
 G = 718 AND D GT 70 718 HINDU KUSH REGION

206 9706 F1 72 2 22 2441370 36.4 N 70.6 E 53 718 212. 212
 97.2 2.6 1 27 57.0 1 14 21.4 9706 F1 72/02/22
 2441370 36.4 N 070.6 E 5.3
 212 97.2 2.6 01-27-57.0 01-14-21
 .4 DDOYZMZFUL 53 G RF
 G = 718 AND D GT 70 718 HINDU KUSH REGION

206 9706 F2 72 2 22 2441370 36.4 N 70.6 E 53 718212. 212
 97.2 2.6 1 27 57.0 1 14 21.4 9706 F2 72/02/22
 2441370 36.4 N 070.6 E 5.3
 212 97.2 2.6 01-27-57.0 01-14-21
 .4 DOOYZMZFQL 53 G RE

G = 718 AND D GT 70 718 HINDU KUSH REGION

206 9706 F3 72 2 22 2441370 36.4 N 70.6 E 53 718212. 212
 97.2 2.6 1 27 57.0 1 14 21.4 9706 F3 72/02/22
 2441370 36.4 N 070.6 E 5.3
 212 97.2 2.6 01-27-57.0 01-14-21
 .4 DOOYZMZFQL 53 G RF

G = 718 AND D GT 70 718 HINDU KUSH REGION

206 9706 F4 72 2 22 2441370 36.4 N 70.6 E 53 718212. 212
 97.2 2.6 1 27 57.0 1 14 21.4 9706 F4 72/02/22
 2441370 36.4 N 070.6 E 5.3
 212 97.2 2.6 01-27-57.0 01-14-21
 .4 DOOYZMZFQL 53 G RF

G = 718 AND D GT 70 718 HINDU KUSH REGION

207 9712 BM 72 2 26 2441374 50.6 N 97.3 E 28 333 33. 33
 80.9 345.1 23 43 22.4 23 31 4.9 9712 BM 72/02/26
 2441374 50.6 N 097.3 E 5.3
 33 80.9 345.1 23-43-22.4 23-31-04
 .4 GRTLQPEPFR 28 ALMA

-ATA TO LAKE BAIKAL 333 USSR-MONGOLIA BORDER REGION

207 9712 F1 72 2 26 2441374 50.6 N 97.3 E 28 333 33. 33
 80.9 345.1 23 43 22.4 23 31 4.9 9712 F1 72/02/26
 2441374 50.6 N 097.3 E 5.3
 33 80.9 345.1 23-43-22.4 23-31-04
 .9 GRTLQPEPFR 28 ALMA

-ATA TO LAKE BAIKAL 333 USSR-MONGOLIA BORDER REGION

207 9712 F2 72 2 26 2441374 50.6 N 97.3 E 28 333 33. 33
 80.9 345.1 23 43 22.4 23 31 4.9 9712 F2 72/02/26
 2441374 50.6 N 097.3 E 5.3
 33 80.9 345.1 23-43-22.4 23-31-04
 .9 GRTLQPEPFR 28 ALMA

-ATA TO LAKE BAIKAL 333 USSR-MONGOLIA BORDER REGION

207 9712 F3 72 2 26 2441374 50.6 N 97.3 E 28 333 33. 33
 80.9 345.1 23 43 22.4 23 31 4.9 9712 F3 72/02/26
 2441374 50.6 N 097.3 E 5.3
 33 80.9 345.1 23-43-22.4 23-31-04
 .9 GRTLQPEPFR 28 ALMA

-ATA TO LAKE BAIKAL 333 USSR-MONGOLIA BORDER REGION

207 9712 F4 72 2 26 2441374 50.6 N 97.3 E 28 333 33. 33
 80.9 345.1 23 43 22.4 23 31 4.9 9712 F4 72/02/26
 2441374 50.6 N 097.3 E 5.3
 33 80.9 345.1 23-43-22.4 23-31-04
 .9 GRTLQPEPFR 28 ALMA

-ATA TO LAKE BAIKAL 333 USSR-MONGOLIA BORDER REGION

208 9790 RM 72 3 4 2441381 38.3 N 74.0 E 48 719130. 130
 95.3 359.8 18 37 21.8 18 23 54.6 9790 RM 72/03/04
 2441381 38.3 N 074.0 E 5.1

130 95.3 359.8 18-37-21.8 18-23-54
 .6 KLQCRPZUTD 48 HIND
 U KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REG
 TON
 20R 9790 F1 72 3 4 2441381 38.3 N 74.0 E 48 719130. 130
 95.3 359.8 18 37 21.8 18 23 54.6 9790 F1 72/03/04
 2441381 38.3 N 074.0 E 5.1
 130 95.3 359.8 18-37-21.8 18-23-54
 .6 KLQCRPZUTD 48 HIND
 U KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REG
 TON
 20R 9790 F2 72 3 4 2441381 38.3 N 74.0 E 48 719130. 130
 95.3 359.8 18 37 21.8 18 23 54.6 9790 F2 72/03/04
 2441381 38.3 N 074.0 E 5.1
 130 95.3 359.8 18-37-21.8 18-23-54
 .6 KLQCRPZUTD 48 HIND
 U KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REG
 TON
 20R 9790 F3 72 3 4 2441381 38.3 N 74.0 E 48 719130. 130
 95.3 359.8 18 37 21.8 18 23 54.6 9790 F3 72/03/04
 2441381 38.3 N 074.0 E 5.1
 130 95.3 359.8 18-37-21.8 18-23-54
 .6 KLQCRPZUTD 48 HIND
 U KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REG
 TON
 20R 9790 F4 72 3 4 2441381 38.3 N 74.0 E 48 719130. 130
 95.3 359.8 18 37 21.8 18 23 54.6 9790 F4 72/03/04
 2441381 38.3 N 074.0 E 5.1
 130 95.3 359.8 18-37-21.8 18-23-54
 .6 KLQCRPZUTD 48 HIND
 U KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REG
 TON
 20R 9720 RM 72 3 17 2441394 40.1 N 69.7 E 48 715 26. 26
 93.4 3.1 9 30 25.4 9 17 6.7 9720 RM 72/03/17
 2441394 40.1 N 069.7 E 5.2
 26 93.4 3.1 09-30-25.4 09-17-06
 .7 EUPKZQFLSR 48 HIND
 U KUSH AND PAMIR 715 TADZHIK SSR
 20R 9729 F1 72 3 17 2441394 40.1 N 69.7 E 48 715 26. 26
 93.4 3.1 9 30 25.4 9 17 6.7 9729 F1 72/03/17
 2441394 40.1 N 069.7 E 5.2
 26 93.4 3.1 09-30-25.4 09-17-06
 .7 EUPKZQFLSR 48 HIND
 U KUSH AND PAMIR 715 TADZHIK SSR
 20R 9729 F2 72 3 17 2441394 40.1 N 69.7 E 48 715 26. 26
 93.4 3.1 9 30 25.4 9 17 6.7 9729 F2 72/03/17
 2441394 40.1 N 069.7 E 5.2
 26 93.4 3.1 09-30-25.4 09-17-06
 .7 EUPKZQFLSR 48 HIND
 U KUSH AND PAMIR 715 TADZHIK SSR
 20R 9729 F3 72 3 17 2441394 40.1 N 69.7 E 48 715 26. 26
 93.4 3.1 9 30 25.4 9 17 6.7 9729 F3 72/03/17
 2441394 40.1 N 069.7 E 5.2
 26 93.4 3.1 09-30-25.4 09-17-06
 .7 EUPKZQFLSR 48 HIND
 U KUSH AND PAMIR 715 TADZHIK SSR

209 9729 F4 72 3 17 2441394 40.1 N 69.7 E 48 715 26. 26
 93.4 3.1 9 30 25.4 9 17 6.7 9729 F4 72/03/17
 2441394 40.1 N 069.7 E 5.2
 26 93.4 3.1 09-30-25.4 09-17-06
 .7 EUPKZGFLSR 48 HIND

U KUSH AND PAMIR

715 TADZHIK SSR

210 9731 BM 72 3 20 2441397 51.3 N-179.7 W 1 7 46. 46
 46.6 304.1 23 40 11.8 23 31 40.4 9731 BM 72/03/20
 2441397 51.3 N 179.7 W 6.0
 46 46.6 304.1 23-40-11.8 23-31-40

.4 TLCHCRJEQM

KA - ALEUTIAN ARC
 IS.

7 ANDREANOF ISLANDS, ALEUTIAN

210 9731 F1 72 3 20 2441397 51.3 N-179.7 W 1 7 46. 46
 46.6 304.1 23 40 11.8 23 31 40.4 9731 F1 72/03/20
 2441397 51.3 N 179.7 W 6.0
 46 46.6 304.1 23-40-11.8 23-31-40

.4 TLCHCRJEQM

KA - ALEUTIAN ARC
 IS.

7 ANDREANOF ISLANDS, ALEUTIAN

210 9731 F2 72 3 20 2441397 51.3 N-179.7 W 1 7 46. 46
 46.6 304.1 23 40 11.8 23 31 40.4 9731 F2 72/03/20
 2441397 51.3 N 179.7 W 6.0
 46 46.6 304.1 23-40-11.8 23-31-40

.4 TLCHCRJEQM

KA - ALEUTIAN ARC
 IS.

7 ANDREANOF ISLANDS, ALEUTIAN

210 9731 F3 72 3 20 2441397 51.3 N-179.7 W 1 7 46. 46
 46.6 304.1 23 40 11.8 23 31 40.4 9731 F3 72/03/20
 2441397 51.3 N 179.7 W 6.0
 46 46.6 304.1 23-40-11.8 23-31-40

.4 TLCHCRJEQM

KA - ALEUTIAN ARC
 IS.

7 ANDREANOF ISLANDS, ALEUTIAN

210 9731 F4 72 3 20 2441397 51.3 N-179.7 W 1 7 46. 46
 46.6 304.1 23 40 11.8 23 31 40.4 9731 F4 72/03/20
 2441397 51.3 N 179.7 W 6.0
 46 46.6 304.1 23-40-11.8 23-31-40

.4 TLCHCRJEQM

KA - ALEUTIAN ARC
 IS.

7 ANDREANOF ISLANDS, ALEUTIAN

211 9742 BM 72 4 2 2441410 36.1 N 73.6 E 48 720 47. 47
 97.5 .1 3 47 58.2 3 34 21.2 9742 BM 72/04/02
 2441410 36.1 N 073.6 E 5.0
 47 97.5 .1 03-47-58.2 03-34-21

.2 SQGR LHVTSR

U KUSH AND PAMIR

720 NORTHWESTERN KASHMIR

211 9742 F1 72 4 2 2441410 36.1 N 73.6 E 48 720 47. 47
 97.5 .1 3 47 58.2 3 34 21.2 9742 F1 72/04/02
 2441410 36.1 N 073.6 E 5.0
 47 97.5 .1 03-47-58.2 03-34-21

.2 SQGR LHVTSR

U KUSH AND PAMIR

720 NORTHWESTERN KASHMIR

211 9742 F2 72 4 2 2441410 36.1 N 73.6 E 48 720 47. 47
 97.5 .1 3 47 58.2 3 34 21.2 9742 F2 72/04/02
 2441410 36.1 N 073.6 E 5.0
 47 97.5 .1 03-47-58.2 03-34-21

.2 SQGRLHVTSP 48 HIND
U KUSH AND PAMIR 720 NORTHWESTERN KASHMIR

211 9742 F3 72 4 2 2441410 36.1 N 73.6 E 48 720 47. 47
97.5 .1 3 47 58.2 3 34 21.2 9742 F3 72/04/02
2441410 36.1 N 073.6 E 5.0
47 97.5 .1 03-47-58.2 03-34-21

.2 SQGRLHVTSP 48 HIND
U KUSH AND PAMIR 720 NORTHWESTERN KASHMIR

211 9742 F4 72 4 2 2441410 36.1 N 73.6 E 48 720 47. 47
97.5 .1 3 47 58.2 3 34 21.2 9742 F4 72/04/02
2441410 36.1 N 073.6 E 5.0
47 97.5 .1 03-47-58.2 03-34-21

.2 SQGRLHVTSP 48 HIND
U KUSH AND PAMIR 720 NORTHWESTERN KASHMIR

212 9748 BM 72 4 5 2441413 38.4 N 73.5 E 48 719118. 118
95.2 .2 22 51 48.6 22 38 21.8 9748 BM 72/04/05
2441413 38.4 N 073.5 E 5.0
118 95.2 .2 22-51-48.6 22-38-21

.8 SULDYOQROZ 48 HIND
U KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REG
ION

212 9748 F1 72 4 5 2441413 38.4 N 73.5 E 48 719118. 118
95.2 .2 22 51 48.6 22 38 21.8 9748 F1 72/04/05
2441413 38.4 N 073.5 E 5.0
118 95.2 .2 22-51-48.6 22-38-21

.8 SULDYOQROZ 48 HIND
U KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REG
ION

212 9748 F2 72 4 5 2441413 38.4 N 73.5 E 48 719118. 118
95.2 .2 22 51 48.6 22 38 21.8 9748 F2 72/04/05
2441413 38.4 N 073.5 E 5.0
118 95.2 .2 22-51-48.6 22-38-21

.8 SULDYOQROZ 48 HIND
U KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REG
ION

212 9748 F3 72 4 5 2441413 38.4 N 73.5 E 48 719118. 118
95.2 .2 22 51 48.6 22 38 21.8 9748 F3 72/04/05
2441413 38.4 N 073.5 E 5.0
118 95.2 .2 22-51-48.6 22-38-21

.8 SULDYOQROZ 48 HIND
U KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REG
ION

212 9748 F4 72 4 5 2441413 38.4 N 73.5 E 48 719118. 118
95.2 .2 22 51 48.6 22 38 21.8 9748 F4 72/04/05
2441413 38.4 N 073.5 E 5.0
118 95.2 .2 22-51-48.6 22-38-21

.8 SULDYOQROZ 48 HIND
U KUSH AND PAMIR 719 TADZHIK-SINKIANG BORDER REG
ION

213 9754 RM 72 4 9 2441417 42.2 N 84.6 E 28 332 33. 33
90.9 352.0 4 23 52.8 4 10 46.3 9754 RM 72/04/09
2441417 42.2 N 084.6 E 5.9
33 50.9 352.0 04-23-52.8 04-10-46

.3 CRIJSUGULF 28 ALMA
-ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
INA

213 9754 F1 72 4 9 2441417 42.2 N 84.6 E 28 332 33. 33

90.9 352.0 4 23 52.8 4 10 46.3 9754 F1 72/04/09
 2441417 42.2 N 084.6 E 5.9
 33 90.9 352.0 04-23-52.8 04-10-46
 28 ALMA
 .3 CRIJSUQULF
 -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
 INA
 213 9754 F2 72 4 9 2441417 42.2 N 84.6 E 28 332 33. 33
 90.9 352.0 4 23 52.8 4 10 46.3 9754 F2 72/04/09
 2441417 42.2 N 084.6 E 5.9
 33 90.9 352.0 04-23-52.8 04-10-46
 28 ALMA
 .3 CHIJSUQULF
 -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
 INA
 213 9754 F3 72 4 9 2441417 42.2 N 84.6 E 28 332 33. 33
 90.9 352.0 4 23 52.8 4 10 46.3 9754 F3 72/04/09
 2441417 42.2 N 084.6 E 5.9
 33 90.9 352.0 04-23-52.8 04-10-46
 28 ALMA
 .3 CRIJSUQULF
 -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
 INA
 213 9754 F4 72 4 9 2441417 42.2 N 84.6 E 28 332 33. 33
 90.9 352.0 4 23 52.8 4 10 46.3 9754 F4 72/04/09
 2441417 42.2 N 084.6 E 5.9
 33 90.9 352.0 04-23-52.8 04-10-46
 28 ALMA
 .3 CRIJSUQULF
 -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
 INA
 214 9767 BM 72 4 20 2441428 42.0 N 84.6 E 28 332 33. 33
 91.1 352.0 1 14 58.9 1 1 51.5 9767 BM 72/04/20
 2441428 42.0 N 084.6 E 4.3
 33 91.1 352.0 01-14-58.9 01-01-51
 28 ALMA
 .5 SQZMPFTLYH
 -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
 INA
 214 9767 F1 72 4 20 2441428 42.0 N 84.6 E 28 332 33. 33
 91.1 352.0 1 14 58.9 1 1 51.5 9767 F1 72/04/20
 2441428 42.0 N 084.6 E 4.3
 33 91.1 352.0 01-14-58.9 01-01-51
 28 ALMA
 .5 SQZMPFTLYH
 -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
 INA
 214 9767 F2 72 4 20 2441428 42.0 N 84.6 E 28 332 33. 33
 91.1 352.0 1 14 58.9 1 1 51.5 9767 F2 72/04/20
 2441428 42.0 N 084.6 E 4.3
 33 91.1 352.0 01-14-58.9 01-01-51
 28 ALMA
 .5 SQZMPFTLYH
 -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
 INA
 214 9767 F3 72 4 20 2441428 42.0 N 84.6 E 28 332 33. 33
 91.1 352.0 1 14 58.9 1 1 51.5 9767 F3 72/04/20
 2441428 42.0 N 084.6 E 4.3
 33 91.1 352.0 01-14-58.9 01-01-51
 28 ALMA
 .5 SQZMPFTLYH
 -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
 INA
 214 9767 F4 72 4 20 2441428 42.0 N 84.6 E 28 332 33. 33
 91.1 352.0 1 14 58.9 1 1 51.5 9767 F4 72/04/20
 2441428 42.0 N 084.6 E 4.3
 33 91.1 352.0 01-14-58.9 01-01-51
 28 ALMA
 .5 SQZMPFTLYH

-ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
INA

215 9802 RM 72 4 28 2441436 31.3 N 85.0 E 26 306 33. 33
101.6 350.2 2 18 38.6 2 4 43.1 9802 RM 72/04/28
2441436 31.3 N 085.0 E 4.1
33 101.6 350.2 02-18-38.6 02-04-43

.1 ZGGQKTLRYT 26 INDI

A - TIBET - SZECHWAN - YUNAN 306 TIBET

215 9802 F1 72 4 28 2441436 31.3 N 85.0 E 26 306 33. 33
101.6 350.2 2 18 38.6 2 4 43.1 9802 F1 72/04/28
2441436 31.3 N 085.0 E 4.1
33 101.6 350.2 02-18-38.6 02-04-43

.1 ZGGQKTLRYT 26 INDI

A - TIBET - SZECHWAN - YUNAN 306 TIBET

215 9802 F2 72 4 28 2441436 31.3 N 85.0 E 26 306 33. 33
101.6 350.2 2 18 38.6 2 4 43.1 9802 F2 72/04/28
2441436 31.3 N 085.0 E 4.1
33 101.6 350.2 02-18-38.6 02-04-43

.1 ZGGQKTLRYT 26 INDI

A - TIBET - SZECHWAN - YUNAN 306 TIBET

215 9802 F3 72 4 28 2441436 31.3 N 85.0 E 26 306 33. 33
101.6 350.2 2 18 38.6 2 4 43.1 9802 F3 72/04/28
2441436 31.3 N 085.0 E 4.1
33 101.6 350.2 02-18-38.6 02-04-43

.1 ZGGQKTLRYT 26 INDI

A - TIBET - SZECHWAN - YUNAN 306 TIBET

215 9802 F4 72 4 28 2441436 31.3 N 85.0 E 26 306 33. 33
101.6 350.2 2 18 38.6 2 4 43.1 9802 F4 72/04/28
2441436 31.3 N 085.0 E 4.1
33 101.6 350.2 02-18-38.6 02-04-43

.1 ZGGQKTLRYT 26 INDI

A - TIBET - SZECHWAN - YUNAN 306 TIBET

216 2010 RM 66 12 7 2439467 43.6 N 149.6 E 19 222 35. 35
67.9 310.6 17 28 31.0 17 17 28.7 2010 RM 66/12/07
2439467 43.6 N 149.6 E 6.2
35 67.9 310.6 17-28-31.0 17-17-28

.7 DVUZUIMSLQ 19 JAPA

N - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

216 2010 F1 66 12 7 2439467 43.6 N 149.6 E 19 222 35. 35
67.9 310.6 17 28 31.0 17 17 28.7 2010 RM 66/12/07
2439467 43.6 N 149.6 E 6.2
35 67.9 310.6 17-28-31.0 17-17-28

.7 DVUZUIMSLQ 19 JAPA

N - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

216 2010 F2 66 12 7 2439467 43.6 N 149.6 E 19 222 35. 35
67.9 310.6 17 28 31.0 17 17 28.7 2010 RM 66/12/07
2439467 43.6 N 149.6 E 6.2
35 67.9 310.6 17-28-31.0 17-17-28

.7 DVUZUIMSLQ 19 JAPA

N - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

216 2010 F3 66 12 7 2439467 43.6 N 149.6 E 19 222 35. 35
67.9 310.6 17 28 31.0 17 17 28.7 2010 RM 66/12/07

2439467 43.6 N 149.6 E 6.2
 35 67.9 310.6 17-28-31.0 17-17-28
 .7 DVUZUIMSLQ 19 JAPA
 N - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

216 2010 F4 66 12 7 2439467 43.6 N 149.6 E 19 222 35. 35
 67.9 310.6 17 28 31.0 17 17 28.7 2010 RM 66/12/07
 2439467 43.6 N 149.6 E 6.2
 35 67.9 310.6 17-28-31.0 17-17-28
 .7 DVUZUIMSLQ 19 JAPA
 N - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

217 2029 8M 67 10 7 2439771 49.1 N 154.4 E 19 221 33. 33
 61.7 312.7 8 38 12.9 8 27 50.5 2029 RM 67/10/07
 2439771 49.1 N 154.4 E 5.8
 33 61.7 312.7 08-38-12.9 08-27-50
 .5 HDMLHROPBQ 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

217 2029 F1 67 10 7 2439771 49.1 N 154.4 E 19 221 33. 33
 61.7 312.7 8 38 12.9 8 27 50.5 2029 RM 67/10/07
 2439771 49.1 N 154.4 E 5.8
 33 61.7 312.7 08-38-12.9 08-27-50
 .5 HDMLHROPBQ 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

217 2029 F2 67 10 7 2439771 49.1 N 154.4 E 19 221 33. 33
 61.7 312.7 8 38 12.9 8 27 50.5 2029 RM 67/10/07
 2439771 49.1 N 154.4 E 5.8
 33 61.7 312.7 08-38-12.9 08-27-50
 .5 HDMLHROPBQ 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

217 2029 F3 67 10 7 2439771 49.1 N 154.4 E 19 221 33. 33
 61.7 312.7 8 38 12.9 8 27 50.5 2029 RM 67/10/07
 2439771 49.1 N 154.4 E 5.8
 33 61.7 312.7 08-38-12.9 08-27-50
 .5 HDMLHROPBQ 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

217 2029 F4 67 10 7 2439771 49.1 N 154.4 E 19 221 33. 33
 61.7 312.7 8 38 12.9 8 27 50.5 2029 RM 67/10/07
 2439771 49.1 N 154.4 E 5.8
 33 61.7 312.7 08-38-12.9 08-27-50
 .5 HDMLHROPBQ 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

218 2030 RM 67 11 1 2439796 47.8 N 152.2 E 19 221 42. 42
 63.7 312.7 16 41 18.8 16 30 43.0 2030 RM 67/11/01
 2439796 47.8 N 152.2 E 5.8
 42 63.7 312.7 16-41-18.8 16-30-43
 .0 MPPRQUICKLS 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

218 2030 F1 67 11 1 2439796 47.8 N 152.2 E 19 221 42. 42
 63.7 312.7 16 41 18.8 16 30 43.0 2030 RM 67/11/01
 2439796 47.8 N 152.2 E 5.8
 42 63.7 312.7 16-41-18.8 16-30-43
 .0 MPPRQUICKLS 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

218 2030 F2 67 11 1 2439796 47.8 N 152.2 E 19 221 42. 42
 63.7 312.7 16 41 18.8 16 30 43.0 2030 RM 67/11/01
 2439796 47.8 N 152.2 E 5.8
 42 63.7 312.7 16-41-18.8 16-30-43
 .0 MPPRQUCKLS 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

218 2030 F3 67 11 1 2439796 47.8 N 152.2 E 19 221 42. 42
 63.7 312.7 16 41 18.8 16 30 43.0 2030 RM 67/11/01
 2439796 47.8 N 152.2 E 5.8
 42 63.7 312.7 16-41-18.8 16-30-43
 .0 MPPRQUCKLS 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

218 2030 F4 67 11 1 2439796 47.8 N 152.2 E 19 221 42. 42
 63.7 312.7 16 41 18.8 16 30 43.0 2030 RM 67/11/01
 2439796 47.8 N 152.2 E 5.8
 42 63.7 312.7 16-41-18.8 16-30-43
 .0 MPPRQUCKLS 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

219 2031 RM 67 11 30 2439825 41.7 N 21.2 E 31 383 29. 29
 80.3 37.0 7 36 4.8 7 23 50.2 2031 RM 67/11/30
 2439825 41.7 N 021.2 E 6.0
 29 80.3 37.0 07-36-04.8 07-23-50
 .2 JRQPGCHLEY 31 WEST

ERN MEDITERRANEAN AREA 383 YUGOSLAVIA

219 2031 F1 67 11 30 2439825 41.7 N 21.2 E 31 383 29. 29
 80.3 37.0 7 36 4.8 7 23 50.2 2031 RM 67/11/30
 2439825 41.7 N 021.2 E 6.0
 29 80.3 37.0 07-36-04.8 07-23-50
 .2 JRQPGCHLEY 31 WEST

ERN MEDITERRANEAN AREA 383 YUGOSLAVIA

219 2031 F2 67 11 30 2439825 41.7 N 21.2 E 31 383 29. 29
 80.3 37.0 7 36 4.8 7 23 50.2 2031 RM 67/11/30
 2439825 41.7 N 021.2 E 6.0
 29 80.3 37.0 07-36-04.8 07-23-50
 .2 JRQPGCHLEY 31 WEST

ERN MEDITERRANEAN AREA 383 YUGOSLAVIA

219 2031 F3 67 11 30 2439825 41.7 N 21.2 E 31 383 29. 29
 80.3 37.0 7 36 4.8 7 23 50.2 2031 RM 67/11/30
 2439825 41.7 N 021.2 E 6.0
 29 80.3 37.0 07-36-04.8 07-23-50
 .2 JRQPGCHLEY 31 WEST

ERN MEDITERRANEAN AREA 383 YUGOSLAVIA

219 2031 F4 67 11 30 2439825 41.7 N 21.2 E 31 383 29. 29
 80.3 37.0 7 36 4.8 7 23 50.2 2031 RM 67/11/30
 2439825 41.7 N 021.2 E 6.0
 29 80.3 37.0 07-36-04.8 07-23-50
 .2 JRQPGCHLEY 31 WEST

ERN MEDITERRANEAN AREA 383 YUGOSLAVIA

220 2035 RM 67 12 23 2439848 48.2 N 156.7 E 19 222 33. 33
 61.1 310.8 16 14 50.7 16 4 32.0 2035 RM 67/12/23
 2439848 48.2 N 156.7 E 5.7

33 61.1 310.8 16-14-50.7 16-04-32
 .0 KLWIEGZCOS 19 JAPA
 N - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

220 2035 F1 67 12 23 2439848 48.2 N 156.7 E 19 222 33. 33
 61.1 310.8 16 14 50.7 16 4 32.0 2035 RM 67/12/23
 2439848 48.2 N 156.7 E 5.7

33 61.1 310.8 16-14-50.7 16-04-32
 .0 KLWIEGZCOS 19 JAPA
 N - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

220 2035 F2 67 12 23 2439848 48.2 N 156.7 E 19 222 33. 33
 61.1 310.8 16 14 50.7 16 4 32.0 2035 RM 67/12/23
 2439848 48.2 N 156.7 E 5.7

33 61.1 310.8 16-14-50.7 16-04-32
 .0 KLWIEGZCOS 19 JAPA
 N - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

220 2035 F3 67 12 23 2439848 48.2 N 156.7 E 19 222 33. 33
 61.1 310.8 16 14 50.7 16 4 32.0 2035 RM 67/12/23
 2439848 48.2 N 156.7 E 5.7

33 61.1 310.8 16-14-50.7 16-04-32
 .0 KLWIEGZCOS 19 JAPA
 N - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

220 2035 F4 67 12 23 2439848 48.2 N 156.7 E 19 222 33. 33
 61.1 310.8 16 14 50.7 16 4 32.0 2035 RM 67/12/23
 2439848 48.2 N 156.7 E 5.7

33 61.1 310.8 16-14-50.7 16-04-32
 .0 KLWIEGZCOS 19 JAPA
 N - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

221 2024 RM 67 5 25 2439636 45.0 N 141.1 E 51 224325. 325
 71.1 316.3 19 2 53.8 18 51 31.1 2024 RM 67/05/25
 2439636 45.0 N 141.1 E 5.2

325 71.1 316.3 19-02-53.8 18-51-31
 .1 LKKQBQVCCY 51 S RE
 G = 19,20 OR 41 AND D GT 300 224 HOKKAIDO, JAPAN, REGION

221 2024 F1 67 5 25 2439636 45.0 N 141.1 E 51 224325. 325
 71.1 316.3 19 2 53.8 18 51 31.1 2024 RM 67/05/25
 2439636 45.0 N 141.1 E 5.2

325 71.1 316.3 19-02-53.8 18-51-31
 .1 LKKQBQVCCY 51 S RE
 G = 19,20 OR 41 AND D GT 300 224 HOKKAIDO, JAPAN, REGION

221 2024 F2 67 5 25 2439636 45.0 N 141.1 E 51 224325. 325
 71.1 316.3 19 2 53.8 18 51 31.1 2024 RM 67/05/25
 2439636 45.0 N 141.1 E 5.2

325 71.1 316.3 19-02-53.8 18-51-31
 .1 LKKQBQVCCY 51 S RE
 G = 19,20 OR 41 AND D GT 300 224 HOKKAIDO, JAPAN, REGION

221 2024 F3 67 5 25 2439636 45.0 N 141.1 E 51 224325. 325
 71.1 316.3 19 2 53.8 18 51 31.1 2024 RM 67/05/25
 2439636 45.0 N 141.1 E 5.2

325 71.1 316.3 19-02-53.8 18-51-31
 .1 LKKQBQVCCY 51 S RE
 G = 19,20 OR 41 AND D GT 300 224 HOKKAIDO, JAPAN, REGION

221 2024 F4 67 5 25 2439636 45.0 N 141.1 E 51 224325. 325
 71.1 316.3 19 2 53.8 18 51 31.1 2024 RM 67/05/25
 2439636 45.0 N 141.1 E 5.2
 325 71.1 316.3 19-02-53.8 18-51-31
 .1 LKKQHDVCCY 51 S RF
 G = 19,20 OR 41 AND D GT 300 224 HOKKAI DO, JAPAN, REGION

222 2006 BM 66 8 19 2439357 38.8 N 41.7 E 30 366 26. 26
 90.1 24.4 12 35 9.0 12 22 5.6 2006 BM 66/08/19
 2439357 38.8 N 041.7 E 6.5
 26 90.1 24.4 12-35-09.0 12-22-05
 .6 QTETDHLUUV 30 MIDD
 LE EAST - CRIMEA - BALKANS 366 TURKEY

222 2006 F1 66 8 19 2439357 38.8 N 41.7 E 30 366 26. 26
 90.1 24.4 12 35 9.0 12 22 5.6 2006 BM 66/08/19
 2439357 38.8 N 041.7 E 6.5
 26 90.1 24.4 12-35-09.0 12-22-05
 .6 QTETDHLUUV 30 MIDD
 LE EAST - CRIMEA - BALKANS 366 TURKEY

222 2006 F2 66 8 19 2439357 38.8 N 41.7 E 30 366 26. 26
 90.1 24.4 12 35 9.0 12 22 5.6 2006 BM 66/08/19
 2439357 38.8 N 041.7 E 6.5
 26 90.1 24.4 12-35-09.0 12-22-05
 .6 QTETDHLUUV 30 MIDD
 LE EAST - CRIMEA - BALKANS 366 TURKEY

222 2006 F3 66 8 19 2439357 38.8 N 41.7 E 30 366 26. 26
 90.1 24.4 12 35 9.0 12 22 5.6 2006 BM 66/08/19
 2439357 38.8 N 041.7 E 6.5
 26 90.1 24.4 12-35-09.0 12-22-05
 .6 QTETDHLUUV 30 MIDD
 LE EAST - CRIMEA - BALKANS 366 TURKEY

222 2006 F4 66 8 19 2439357 38.8 N 41.7 E 30 366 26. 26
 90.1 24.4 12 35 9.0 12 22 5.6 2006 BM 66/08/19
 2439357 38.8 N 041.7 E 6.5
 26 90.1 24.4 12-35-09.0 12-22-05
 .6 QTETDHLUUV 30 MIDD
 LE EAST - CRIMEA - BALKANS 366 TURKEY

223 2017 BM 67 3 25 2439575 44.8 N 149.0 E 19 221 33. 33
 67.4 311.9 22 58 40.0 22 47 40.9 2017 RM 67/03/25
 2439575 44.8 N 149.0 E 5.6
 33 67.4 311.9 22-58-40.0 22-47-40
 .9 LBVBFIJQFDD 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

223 2017 F1 67 3 25 2439575 44.8 N 149.0 E 19 221 33. 33
 67.4 311.9 22 58 40.0 22 47 40.9 2017 RM 67/03/25
 2439575 44.8 N 149.0 E 5.6
 33 67.4 311.9 22-58-40.0 22-47-40
 .9 LBVBFIJQFDD 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

223 2017 F2 67 3 25 2439575 44.8 N 149.0 E 19 221 33. 33
 67.4 311.9 22 58 40.0 22 47 40.9 2017 RM 67/03/25
 2439575 44.8 N 149.0 E 5.6
 33 67.4 311.9 22-58-40.0 22-47-40

.9 LRVBFJQFDD 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

223 2017 F3 67 3 25 2439575 44.8 N 149.0 E 19 221 33. 33
67.4 311.9 22 58 40.0 22 47 40.9 2017 RM 67/03/25
2439575 44.8 N 149.0 E 5.6
33 67.4 311.9 22-58-40.0 22-47-40

.9 LRVBFJQFDD 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

223 2017 F4 67 3 25 2439575 44.8 N 149.0 E 19 221 33. 33
67.4 311.9 22 58 40.0 22 47 40.9 2017 RM 67/03/25
2439575 44.8 N 149.0 E 5.6
33 67.4 311.9 22-58-40.0 22-47-40

.9 LRVBFJQFDD 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

224 2003 RM 66 5 20 2439266 55.3 N 162.3 E 19 218 33. 33
54.2 315.3 11 53 42.1 11 44 12.9 2003 RM 66/05/20
2439266 55.3 N 162.3 E 5.4
33 54.2 315.3 11-53-42.1 11-44-12

.9 WZVQPCSVUL 19 JAPA
N - KURILES - KAMCHATKA 218 NEAR EAST COAST OF KAMCHATKA

224 2003 F1 66 5 20 2439266 55.3 N 162.3 E 19 218 33. 33
54.2 315.3 11 53 42.1 11 44 12.9 2003 RM 66/05/20
2439266 55.3 N 162.3 E 5.4
33 54.2 315.3 11-53-42.1 11-44-12

.9 WZVQPCSVUL 19 JAPA
N - KURILES - KAMCHATKA 218 NEAR EAST COAST OF KAMCHATKA

224 2003 F2 66 5 20 2439266 55.3 N 162.3 E 19 218 33. 33
54.2 315.3 11 53 42.1 11 44 12.9 2003 RM 66/05/20
2439266 55.3 N 162.3 E 5.4
33 54.2 315.3 11-53-42.1 11-44-12

.9 WZVQPCSVUL 19 JAPA
N - KURILES - KAMCHATKA 218 NEAR EAST COAST OF KAMCHATKA

224 2003 F3 66 5 20 2439266 55.3 N 162.3 E 19 218 33. 33
54.2 315.3 11 53 42.1 11 44 12.9 2003 RM 66/05/20
2439266 55.3 N 162.3 E 5.4
33 54.2 315.3 11-53-42.1 11-44-12

.9 WZVQPCSVUL 19 JAPA
N - KURILES - KAMCHATKA 218 NEAR EAST COAST OF KAMCHATKA

224 2003 F4 66 5 20 2439266 55.3 N 162.3 E 19 218 33. 33
54.2 315.3 11 53 42.1 11 44 12.9 2003 RM 66/05/20
2439266 55.3 N 162.3 E 5.4
33 54.2 315.3 11-53-42.1 11-44-12

.9 WZVQPCSVUL 19 JAPA
N - KURILES - KAMCHATKA 218 NEAR EAST COAST OF KAMCHATKA

225 2012 RM 67 1 5 2439496 32.8 N 73.8 E 47 710 57. 57
100.8 360.0 10 21 20.0 10 7 28.1 2012 RM 67/01/05
2439496 32.8 N 73.8 E 6.0
57 100.8 360.0 10-21-20.0 10-07-28

.1 IRLGWRDWNK 47 BALU
CHISTAN 710 WEST PAKISTAN

225 2012 F1 67 1 5 2439496 32.8 N 73.8 E 47 710 57. 57

100.8 360.0 10 21 20.0 10 7 28.1 2012 RM 67/01/05
 2439496 32.8 N 073.8 E 6.0
 57 100.8 360.0 10-21-20.0 10-07-28
 .1 IRLQWRDQWK 47 BALU
 CHISTAN 710 WEST PAKISTAN

225 2012 F2 67 1 5 2439496 32.8 N 73.8 E 47 710 57. 57
 100.8 360.0 10 21 20.0 10 7 28.1 2012 RM 67/01/05
 2439496 32.8 N 073.8 E 6.0
 57 100.8 360.0 10-21-20.0 10-07-28
 .1 IRLQWRDQWK 47 BALU
 CHISTAN 710 WEST PAKISTAN

225 2012 F3 67 1 5 2439496 32.8 N 73.8 E 47 710 57. 57
 100.8 360.0 10 21 20.0 10 7 28.1 2012 RM 67/01/05
 2439496 32.8 N 073.8 E 6.0
 57 100.8 360.0 10-21-20.0 10-07-28
 .1 IRLQWRDQWK 47 BALU
 CHISTAN 710 WEST PAKISTAN

225 2012 F4 67 1 5 2439496 32.8 N 73.8 E 47 710 57. 57
 100.8 360.0 10 21 20.0 10 7 28.1 2012 RM 67/01/05
 2439496 32.8 N 073.8 E 6.0
 57 100.8 360.0 10-21-20.0 10-07-28
 .1 IRLQWRDQWK 47 BALU
 CHISTAN 710 WEST PAKISTAN

226 2018 RM 67 4 1 2439582 46.1 N 151.9 E 19 221 40. 40
 65.0 311.4 6 7 46.0 5 57 2.2 018 RM 67/04/01
 2439582 46.1 N 151.9 E 5.7
 40 65.0 311.4 06-07-46.0 05-57-02,
 2 VPLQKPGVOR 19 JAPAN
 - KURILES - KAMCHATKA 221 KURILE ISLANDS

226 2018 F1 67 4 1 2439582 46.1 N 151.9 E 19 221 40. 40
 65.0 311.4 6 7 46.0 5 57 2.2 2018 RM 67/04/01
 2439582 46.1 N 151.9 E 5.7
 40 65.0 311.4 06-07-46.0 05-57-02
 .2 VPLQKPGVOR 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

226 2018 F2 67 4 1 2439582 46.1 N 151.9 E 19 221 40. 40
 65.0 311.4 6 7 46.0 5 57 2.2 2018 RM 67/04/01
 2439582 46.1 N 151.9 E 5.7
 40 65.0 311.4 06-07-46.0 05-57-02
 .2 VPLQKPGVOR 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

226 2018 F3 67 4 1 2439582 46.1 N 151.9 E 19 221 40. 40
 65.0 311.4 6 7 46.0 5 57 2.2 2018 RM 67/04/01
 2439582 46.1 N 151.9 E 5.7
 40 65.0 311.4 06-07-46.0 05-57-02
 .2 VPLQKPGVOR 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

226 2018 F4 67 4 1 2439582 46.1 N 151.9 E 19 221 40. 40
 65.0 311.4 6 7 46.0 5 57 2.2 2018 RM 67/04/01
 2439582 46.1 N 151.9 E 5.7
 40 65.0 311.4 06-07-46.0 05-57-02

.2 VPLGKPGVOR 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

227 2016 BM 67 1 20 2439511 45.9 N 104.8 E 28 334 33. 33
83.8 338.8 2 9 42.0 1 57 9.4 2016 BM 67/01/20
2439511 45.9 N 104.8 E 6.3
33 83.8 338.8 02-09-42.0 01-57-09

.4 ZFYPHQWLJM 28 ALMA
-ATA TO LAKE BAIKAL 334 MONGOLIA

227 2016 F1 67 1 20 2439511 45.9 N 104.8 E 28 334 33. 33
83.8 338.8 2 9 42.0 1 57 9.4 2016 BM 67/01/20
2439511 45.9 N 104.8 E 6.3
33 83.8 338.8 02-09-42.0 01-57-09

.4 ZFYPHQWLJM 28 ALMA
-ATA TO LAKE BAIKAL 334 MONGOLIA

227 2016 F2 67 1 20 2439511 45.9 N 104.8 E 28 334 33. 33
83.8 338.8 2 9 42.0 1 57 9.4 2016 BM 67/01/20
2439511 45.9 N 104.8 E 6.3
33 83.8 338.8 02-09-42.0 01-57-09

.4 ZFYPHQWLJM 28 ALMA
-ATA TO LAKE BAIKAL 334 MONGOLIA

227 2016 F3 67 1 20 2439511 45.9 N 104.8 E 28 334 33. 33
83.8 338.8 2 9 42.0 1 57 9.4 2016 BM 67/01/20
2439511 45.9 N 104.8 E 6.3
33 83.8 338.8 02-09-42.0 01-57-09

.4 ZFYPHQWLJM 28 ALMA
-ATA TO LAKE BAIKAL 334 MONGOLIA

227 2016 F4 67 1 20 2439511 45.9 N 104.8 E 28 334 33. 33
83.8 338.8 2 9 42.0 1 57 9.4 2016 BM 67/01/20
2439511 45.9 N 104.8 E 6.3
33 83.8 338.8 02-09-42.0 01-57-09

.4 ZFYPHQWLJM 28 ALMA
-ATA TO LAKE BAIKAL 334 MONGOLIA

228 2008 BM 66 11 21 2439451 45.8 N 148.3 E 19 221 33. 33
67.0 313.0 12 30 2.2 12 19 5.1 2008 BM 66/11/21
2439451 45.8 N 148.3 E 6.2
33 67.0 313.0 12-30-02.2 12-19-05

.1 LOIRKQKKK 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

228 2008 F1 66 11 21 2439451 45.8 N 148.3 E 19 221 33. 33
67.0 313.0 12 30 2.2 12 19 5.1 2008 BM 66/11/21
2439451 45.8 N 148.3 E 6.2
33 67.0 313.0 12-30-02.2 12-19-05

.1 LOIRKQKKK 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

228 2008 F2 66 11 21 2439451 45.8 N 148.3 E 19 221 33. 33
67.0 313.0 12 30 2.2 12 19 5.1 2008 BM 66/11/21
2439451 45.8 N 148.3 E 6.2
33 67.0 313.0 12-30-02.2 12-19-05

.1 LOIRKQKKK 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

228 2008 F3 66 11 21 2439451 45.8 N 148.3 E 19 221 33. 33

67.0 313.0 12 30 2.2 12 19 5.1 2008 AM 66/11/21
 2439451 45.8 N 148.3 E 6.2
 33 67.0 313.0 12-30-02.2 12-19-05
 .1 LOIRKQKCC 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

228 2008 F4 66 11 21 2439451 45.8 N 148.3 E 19 221 33. 33
 67.0 313.0 12 30 2.2 12 19 5.1 2008 AM 66/11/21
 2439451 45.8 N 148.3 E 6.2
 33 67.0 313.0 12-30-02.2 12-19-05

.1 LOIBRKQKCC 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

229 2020 BM 67 4 1 2439582 45.2 N 149.5 E 19 221 33. 33
 66.8 311.9 14 11 16.0 14 0 20.2 2020 AM 67/04/01
 2439582 45.2 N 149.5 E 5.6
 33 66.8 311.9 14-11-16.0 14-00-20

.2 KLFQBTBYFZ 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

220 2020 F1 67 4 1 2439582 45.2 N 149.5 E 19 221 33. 33
 66.8 311.9 14 11 16.0 14 0 20.2 2020 AM 67/04/01
 2439582 45.2 N 149.5 E 5.6
 33 66.8 311.9 14-11-16.0 14-00-20

.2 KLFQBTBYFZ 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

229 2020 F2 67 4 1 2439582 45.2 N 149.5 E 19 221 33. 33
 66.8 311.9 14 11 16.0 14 0 20.2 2020 AM 67/04/01
 2439582 45.2 N 149.5 E 5.6
 33 66.8 311.9 14-11-16.0 14-00-20

.2 KLFQBTBYFZ 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

229 2020 F3 67 4 1 2439582 45.2 N 149.5 E 19 221 33. 33
 66.8 311.9 14 11 16.0 14 0 20.2 2020 AM 67/04/01
 2439582 45.2 N 149.5 E 5.6
 33 66.8 311.9 14-11-16.0 14-00-20

.2 KLFQBTBYFZ 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

229 2020 F4 67 4 1 2439582 45.2 N 149.5 E 19 221 33. 33
 66.8 311.9 14 11 16.0 14 0 20.2 2020 AM 67/04/01
 2439582 45.2 N 149.5 E 5.6
 33 66.8 311.9 14-11-16.0 14-00-20

.2 KLFQBTBYFZ 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

230 2023 BM 67 4 27 2439608 41.9 N 84.8 E 27 321 33. 33
 91.2 351.8 23 28 28.0 23 15 20.2 2023 AM 67/04/27
 2439608 41.9 N 84.8 E 5.3
 33 91.2 351.8 23-28-28.0 23-15-20

.2 LYJPYRQYEP 27 SOUT

HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH

INA

230 2023 F1 67 4 27 2439608 41.9 N 84.8 E 27 321 33. 33
 91.2 351.8 23 28 28.0 23 15 20.2 2023 AM 67/04/27
 2439608 41.9 N 84.8 E 5.3
 33 91.2 351.8 23-28-28.0 23-15-20

.2 LYJPYRQYEP 27 SOUT

HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
INA

230 2023 F2 67 4 27 2439608 41.9 N 84.8 E 27 321 33. 33
91.2 351.8 23 28 28.0 23 15 20.2 2023 BM 67/04/27
2439608 41.9 N 084.8 E 5.3
33 91.2 351.8 23-28-28.0 23-15-20

.2 LYJPYRQYEP 27 SOUT
HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
INA

230 2023 F3 67 4 27 2439608 41.9 N 84.8 E 27 321 33. 33
91.2 351.8 23 28 28.0 23 15 20.2 2023 BM 67/04/27
2439608 41.9 N 084.8 E 5.3
33 91.2 351.8 23-28-28.0 23-15-20

.2 LYJPYRQYEP 27 SOUT
HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
INA

230 2023 F4 67 4 27 2439608 41.9 N 84.8 E 27 321 33. 33
91.2 351.8 23 28 28.0 23 15 20.2 2023 BM 67/04/27
2439608 41.9 N 084.8 E 5.3
33 91.2 351.8 23-28-28.0 23-15-20

.2 LYJPYRQYEP 27 SOUT
HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
INA

231 2025 BM 67 5 27 2439638 39.9 N 77.3 E 27 321 33. 33
93.6 357.3 1 56 3.0 1 42 43.4 2025 BM 67/05/27
2439638 39.9 N 077.3 E 5.1
33 93.6 357.3 01-56-03.0 01-42-43

.4 CLQODPWCK 27 SOUT
HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
INA

231 2025 F1 67 5 27 2439638 39.9 N 77.3 E 27 321 33. 33
93.6 357.3 1 56 3.0 1 42 43.4 2025 BM 67/05/27
2439638 39.9 N 077.3 E 5.1
33 93.6 357.3 01-56-03.0 01-42-43

.4 CLQODPWCK 27 SOUT
HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
INA

231 2025 F2 67 5 27 2439638 39.9 N 77.3 E 27 321 33. 33
93.6 357.3 1 56 3.0 1 42 43.4 2025 BM 67/05/27
2439638 39.9 N 077.3 E 5.1
33 93.6 357.3 01-56-03.0 01-42-43

.4 CLQODPWCK 27 SOUT
HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
INA

231 2025 F3 67 5 27 2439638 39.9 N 77.3 E 27 321 33. 33
93.6 357.3 1 56 3.0 1 42 43.4 2025 BM 67/05/27
2439638 39.9 N 077.3 E 5.1
33 93.6 357.3 01-56-03.0 01-42-43

.4 CLQODPWCK 27 SOUT
HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
INA

231 2025 F4 67 5 27 2439638 39.9 N 77.3 E 27 321 33. 33
93.6 357.3 1 56 3.0 1 42 43.4 2025 BM 67/05/27
2439638 39.9 N 077.3 E 5.1
33 93.6 357.3 01-56-03.0 01-42-43

.4 CLQODPWCK 27 SOUT
HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
INA

232 2026 BM 67 5 27 2439638 37.4 N 79.9 E 27 321 35. 35
96.0 355.1 19 19 21.0 19 5 50.9 026 BM 67/05/27

2439638 37.4 N 079.9 E 5.4
 35 96.0 355.1 19-19-21.0 19-05-50
 .9 RCLKDQPEHI 27 SOUT
 HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
 INA
 232 2026 F1 67 5 27 2439638 37.4 N 79.9 E 27 321 35. 35
 96.0 355.1 19 19 21.0 19 5 50.9 2026 RM 67/05/27
 2439638 37.4 N 079.9 E 5.4
 35 96.0 355.1 19-19-21.0 19-05-50
 .9 RCLKDQPEHI 27 SOUT
 HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
 INA
 232 2026 F2 67 5 27 2439638 37.4 N 79.9 E 27 321 35. 35
 96.0 355.1 19 19 21.0 19 5 50.9 2026 RM 67/05/27
 2439638 37.4 N 079.9 E 5.4
 35 96.0 355.1 19-19-21.0 19-05-50
 .9 RCLKDQPEHI 27 SOUT
 HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
 INA
 232 2026 F3 67 5 27 2439638 37.4 N 79.9 E 27 321 35. 35
 96.0 355.1 19 19 21.0 19 5 50.9 2026 RM 67/05/27
 2439638 37.4 N 079.9 E 5.4
 35 96.0 355.1 19-19-21.0 19-05-50
 .9 RCLKDQPEHI 27 SOUT
 HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
 INA
 232 2026 F4 67 5 27 2439638 37.4 N 79.9 E 27 321 35. 35
 96.0 355.1 19 19 21.0 19 5 50.9 2026 RM 67/05/27
 2439638 37.4 N 079.9 E 5.4
 35 96.0 355.1 19-19-21.0 19-05-50
 .9 RCLKDQPEHI 27 SOUT
 HERN SINKIANG TO KANSU 321 SOUTHERN SINKIANG PROV., CH
 INA
 233 2027 RM 67 6 7 2439649 46.8 N 153.6 E 19 221 35. 35
 63.6 311.1 18 26 54.0 18 16 18.6 2027 RM 67/06/07
 2439649 46.8 N 153.6 E 5.6
 35 63.6 311.1 18-26-54.0 18-16-18
 .6 JFGLTUFPPK 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS
 233 2027 F1 67 6 7 2439649 46.8 N 153.6 E 19 221 35. 35
 63.6 311.1 18 26 54.0 18 16 18.6 2027 RM 67/06/07
 2439649 46.8 N 153.6 E 5.6
 35 63.6 311.1 18-26-54.0 18-16-18
 .6 JFGLTUFPPK 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS
 233 2027 F2 67 6 7 2439649 46.8 N 153.6 E 19 221 35. 35
 63.6 311.1 18 26 54.0 18 16 18.6 2027 RM 67/06/07
 2439649 46.8 N 153.6 E 5.6
 35 63.6 311.1 18-26-54.0 18-16-18
 .6 JFGLTUFPPK 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS
 233 2027 F3 67 6 7 2439649 46.8 N 153.6 E 19 221 35. 35
 63.6 311.1 18 26 54.0 18 16 18.6 2027 RM 67/06/07
 2439649 46.8 N 153.6 E 5.6
 35 63.6 311.1 18-26-54.0 18-16-18
 .6 JFGLTUFPPK 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

233 2027 F4 67 6 7 2439649 46.8 N 153.6 E 19 221 35. 33
 63.6 311.1 18 26 54.0 18 16 18.6 2027 RM 67/06/07
 2439649 46.8 N 153.6 E 5.6
 35 63.6 311.1 18-26-54.0 18-16-18

.6 JFQLTUFPPK 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

234 2028 BM 67 10 5 2439769 44.4 N 149.8 E 19 221 33. 33
 67.2 311.1 16 5 49.1 15 54 50.7 2028 RM 67/10/05
 2439769 44.4 N 149.8 E 5.6
 33 67.2 311.1 16-05-49.1 15-54-50

.7 MHMLOHIKHQ 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

234 2028 F1 67 10 5 2439769 44.4 N 149.8 E 19 221 33. 33
 67.2 311.1 16 5 49.1 15 54 50.7 2028 RM 67/10/05
 2439769 44.4 N 149.8 E 5.6
 33 67.2 311.1 16-05-49.1 15-54-50

.7 MHMLOHIKHQ 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

234 2028 F2 67 10 5 2439769 44.4 N 149.8 E 19 221 33. 33
 67.2 311.1 16 5 49.1 15 54 50.7 2028 RM 67/10/05
 2439769 44.4 N 149.8 E 5.6
 33 67.2 311.1 16-05-49.1 15-54-50

.7 MHMLOHIKHQ 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

234 2028 F3 67 10 5 2439769 44.4 N 149.8 E 19 221 33. 33
 67.2 311.1 16 5 49.1 15 54 50.7 2028 RM 67/10/05
 2439769 44.4 N 149.8 E 5.6
 33 67.2 311.1 16-05-49.1 15-54-50

.7 MHMLOHIKHQ 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

234 2028 F4 67 10 5 2439769 44.4 N 149.8 E 19 221 33. 33
 67.2 311.1 16 5 49.1 15 54 50.7 2028 RM 67/10/05
 2439769 44.4 N 149.8 E 5.6
 33 67.2 311.1 16-05-49.1 15-54-50

.7 MHMLOHIKHQ 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

235 2032 BM 67 12 14 2439839 54.3 N 160.0 E 28 326 33. 33
 55.8 315.1 18 34 53.0 18 25 11.4 2032 RM 67/12/14
 2439839 54.3 N 160.0 E 5.4
 33 55.8 315.1 18-34-53.0 18-25-11

.4 HEQJFTWNSL 28 ALMA
 -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

235 2032 F1 67 12 14 2439839 54.3 N 160.0 E 28 326 33. 33
 55.8 315.1 18 34 53.0 18 25 11.4 2032 RM 67/12/14
 2439839 54.3 N 160.0 E 5.4
 33 55.8 315.1 18-34-53.0 18-25-11

.4 HEQJFTWNSL 28 ALMA
 -ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

235 2032 F2 67 12 14 2439839 54.3 N 160.0 E 28 326 33. 33
 55.8 315.1 18 34 53.0 18 25 11.4 2032 RM 67/12/14
 2439839 54.3 N 160.0 E 5.4

33 55.8 315.1 18-34-53.0 18-25-11
.4 HFOJFTWWSL 28 ALMA
-ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA
235 2032 F3 67 12 14 2439839 54.3 N 160.0 E 28 326 33. 33
55.8 315.1 18 34 53.0 18 25 11.4 2032 RM 67/12/14
2439839 54.3 N 160.0 E 5.4
33 55.8 315.1 18-34-53.0 18-25-11
.4 HEQJFTWWSL 28 ALMA
-ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA
235 2032 F4 67 12 14 2439839 54.3 N 160.0 E 28 326 33. 33
55.8 315.1 18 34 53.0 18 25 11.4 2032 RM 67/12/14
2439839 54.3 N 160.0 E 5.4
33 55.8 315.1 18-34-53.0 18-25-11
.4 HEQJFTWWSL 28 ALMA
-ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA
236 2033 RM 67 12 16 2439841 51.0 N 157.4 E 19 218 45. 45
59.0 313.0 21 3 57.0 20 53 52.7 2033 RM 67/12/16
2439841 51.0 N 157.4 E 5.9
45 59.0 313.0 21-03-57.0 20-53-52
.7 ZRTEVDGLWU 19 JAPA
N - KURILES - KAMCHATKA 218 NEAR EAST COAST OF KAMCHATKA
A
236 2033 F1 67 12 16 2439841 51.0 N 157.4 E 19 218 45. 45
59.0 313.0 21 3 57.0 20 53 52.7 2033 RM 67/12/16
2439841 51.0 N 157.4 E 5.9
45 59.0 313.0 21-03-57.0 20-53-52
.7 ZRTEVDGLWU 19 JAPA
N - KURILES - KAMCHATKA 218 NEAR EAST COAST OF KAMCHATKA
A
236 2033 F2 67 12 16 2439841 51.0 N 157.4 E 19 218 45. 45
59.0 313.0 21 3 57.0 20 53 52.7 2033 RM 67/12/16
2439841 51.0 N 157.4 E 5.9
45 59.0 313.0 21-03-57.0 20-53-52
.7 ZRTEVDGLWU 19 JAPA
N - KURILES - KAMCHATKA 218 NEAR EAST COAST OF KAMCHATKA
A
236 2033 F3 67 12 16 2439841 51.0 N 157.4 E 19 218 45. 45
59.0 313.0 21 3 57.0 20 53 52.7 2033 RM 67/12/16
2439841 51.0 N 157.4 E 5.9
45 59.0 313.0 21-03-57.0 20-53-52
.7 ZRTEVDGLWU 19 JAPA
N - KURILES - KAMCHATKA 218 NEAR EAST COAST OF KAMCHATKA
A
236 2033 F4 67 12 16 2439841 51.0 N 157.4 E 19 218 45. 45
59.0 313.0 21 3 57.0 20 53 52.7 2033 RM 67/12/16
2439841 51.0 N 157.4 E 5.9
45 59.0 313.0 21-03-57.0 20-53-52
.7 ZRTEVDGLWU 19 JAPA
N - KURILES - KAMCHATKA 218 NEAR EAST COAST OF KAMCHATKA
A
237 1009 RM 68 1 3 2439859 54.9 N 161.8 E 28 326 33. 33
54.6 315.0 7 58 33.0 7 49 .6 1009 RM 68/01/03
2439859 54.9 N 161.8 E 5.0
33 54.6 315.0 07-58-33.0 07-49-00
.6 MMLOZSUPPS 28 ALMA
-ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

237 1009 F1 6R 1 3 2439859 54.9 N 161.8 E 2R 326 33. 33
 54.6 315.0 7 5R 33.0 7 49 .6 1009 RM 68/01/03
 2439859 54.9 N 161.8 E 5.0
 33 54.6 315.0 07-5R-33.0 07-49-00
 .6 MMLQZSOPPS 28 ALMA

-ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

237 1009 F2 6R 1 3 2439859 54.9 N 161.8 E 2R 326 33. 33
 54.6 315.0 7 5R 33.0 7 49 .6 1009 RM 68/01/03
 2439859 54.9 N 161.8 E 5.0
 33 54.6 315.0 07-5R-33.0 07-49-00
 .6 MMLQZSOPPS 28 ALMA

-ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

237 1009 F3 6R 1 3 2439859 54.9 N 161.8 E 2R 326 33. 33
 54.6 315.0 7 5R 33.0 7 49 .6 1009 RM 68/01/03
 2439859 54.9 N 161.8 E 5.0
 33 54.6 315.0 07-5R-33.0 07-49-00
 .6 MMLQZSOPPS 28 ALMA

-ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

237 1009 F4 6R 1 3 2439859 54.9 N 161.8 E 2R 326 33. 33
 54.6 315.0 7 5R 33.0 7 49 .6 1009 RM 68/01/03
 2439859 54.9 N 161.8 E 5.0
 33 54.6 315.0 07-5R-33.0 07-49-00
 .6 MMLQZSOPPS 28 ALMA

-ATA TO LAKE BAIKAL 326 CENTRAL RUSSIA

23R 1023 RM 6R 1 6 2439862 45.7 N 25.5 E 52 35R163. 163
 7R.6 32.2 10 35 37.8 10 23 32.7 1023 RM 68/01/06
 2439862 45.7 N 025.5 E 4.8
 163 78.6 32.2 10-35-37.8 10-23-32
 .7 MQYCLJDUJCT 52 G RE

G = 35R AND D GT 70 35R RUMANIA

23R 1023 F1 6R 1 6 2439862 45.7 N 25.5 E 52 35R163. 163
 7R.6 32.2 10 35 37.8 10 23 32.7 1023 RM 68/01/06
 2439862 45.7 N 025.5 E 4.8
 163 78.6 32.2 10-35-37.8 10-23-32
 .7 MQYCLJDUJCT 52 G RE

G = 35R AND D GT 70 35R RUMANIA

23R 1023 F2 6R 1 6 2439862 45.7 N 25.5 E 52 35R163. 163
 7R.6 32.2 10 35 37.8 10 23 32.7 1023 RM 68/01/06
 2439862 45.7 N 025.5 E 4.8
 163 78.6 32.2 10-35-37.8 10-23-32
 .7 MQYCLJDUJCT 52 G RE

G = 35R AND D GT 70 35R RUMANIA

23R 1023 F3 6R 1 6 2439862 45.7 N 25.5 E 52 35R163. 163
 7R.6 32.2 10 35 37.8 10 23 32.7 1023 RM 68/01/06
 2439862 45.7 N 025.5 E 4.8
 163 78.6 32.2 10-35-37.8 10-23-32
 .7 MQYCLJDUJCT 52 G RE

G = 35R AND D GT 70 35R RUMANIA

23R 1023 F4 6R 1 6 2439862 45.7 N 25.5 E 52 35R163. 163
 7R.6 32.2 10 35 37.8 10 23 32.7 1023 RM 68/01/06
 2439862 45.7 N 025.5 E 4.8
 163 78.6 32.2 10-35-37.8 10-23-32

.7 MGYCLJDJCT 52 G RE
G = 35R AND D GT 70 35R RUMANTIA

239 1029 RM 6R 1 9 2439R65 50.0 N 155.5 E 19 221 48. 4R
60.6 313.0 5 5R 4.7 5 47 49.4 1029 RM 68/01/09
2439R65 50.0 N 155.5 E 4.1
48 60.6 313.0 05-5R-04.7 05-47-49
19 JAPA

.4 IPYKKTQLP
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

239 1029 F1 6R 1 9 2439R65 50.0 N 155.5 E 19 221 48. 4R
60.6 313.0 5 5R 4.7 5 47 49.4 1029 RM 68/01/09
2439R65 50.0 N 155.5 E 4.1
48 60.6 313.0 05-5R-04.7 05-47-49
19 JAPA

.4 IPYKKTQLP
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

239 1029 F2 6R 1 9 2439R65 50.0 N 155.5 E 19 221 48. 4R
60.6 313.0 5 5R 4.7 5 47 49.4 1029 RM 68/01/09
2439R65 50.0 N 155.5 E 4.1
48 60.6 313.0 05-5R-04.7 05-47-49
19 JAPA

.4 IPYKKTQLP
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

239 1029 F3 6R 1 9 2439R65 50.0 N 155.5 E 19 221 48. 4R
60.6 313.0 5 5R 4.7 5 47 49.4 1029 RM 68/01/09
2439R65 50.0 N 155.5 E 4.1
48 60.6 313.0 05-5R-04.7 05-47-49
19 JAPA

.4 IPYKKTQLP
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

239 1029 F4 6R 1 9 2439R65 50.0 N 155.5 E 19 221 48. 4R
60.6 313.0 5 5R 4.7 5 47 49.4 1029 RM 68/01/09
2439R65 50.0 N 155.5 E 4.1
48 60.6 313.0 05-5R-04.7 05-47-49
19 JAPA

.4 IPYKKTQLP
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

240 1036 RM 6R 1 12 2439R6R 49.3 N 156.3 E 19 221 54. 54
60.6 312.0 15 21 16.6 15 11 1.1 1036 RM 68/01/12
2439R6R 49.3 N 156.3 E 4.6
54 60.6 312.0 15-21-16.6 15-11-01
19 JAPA

.1 MLITYQCEMM
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

240 1036 F1 6R 1 12 2439R6R 49.3 N 156.3 E 19 221 54. 54
60.6 312.0 15 21 16.6 15 11 1.1 1036 RM 68/01/12
2439R6R 49.3 N 156.3 E 4.6
54 60.6 312.0 15-21-16.6 15-11-01
19 JAPA

.1 MLITYQCEMM
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

240 1036 F2 6R 1 12 2439R6R 49.3 N 156.3 E 19 221 54. 54
60.6 312.0 15 21 16.6 15 11 1.1 1036 RM 68/01/12
2439R6R 49.3 N 156.3 E 4.6
54 60.6 312.0 15-21-16.6 15-11-01
19 JAPA

.1 MLITYQCEMM
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

240 1036 F3 6R 1 12 2439R6R 49.3 N 156.3 E 19 221 54. 54

60.6 312.0 15 21 16.6 15 11 1.1 1036 BM 68/01/12
 2439868 49.3 N 156.3 E 4.6
 54 60.6 312.0 15-21-16.6 15-11-01
 .1 MLITYOCCEMM 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

240 1036 F4 68 1 12 2439868 49.3 N 156.3 E 19 221 54. 54
 60.6 312.0 15 21 16.6 15 11 1.1 1036 BM 68/01/12
 2439868 49.3 N 156.3 E 4.6
 54 60.6 312.0 15-21-16.6 15-11-01
 .1 MLITYOCCEMM 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

241 1059 BM 68 1 17 2439873 41.2 N 102.2 E 27 323 33. 33
 88.8 339.0 3 13 11.0 3 0 13.9 1059 BM 68/01/17
 2439873 41.2 N 102.2 E 4.6
 33 88.8 339.0 03-13-11.0 03-00-13
 .9 UKOWGLQPTF 27 SOUT
 HERN SINKIANG TO KANSU 323 NORTHERN CHINA

241 1059 F1 68 1 17 2439873 41.2 N 102.2 E 27 323 33. 33
 88.8 339.0 3 13 11.0 3 0 13.9 1059 BM 68/01/17
 2439873 41.2 N 102.2 E 4.6
 33 88.8 339.0 03-13-11.0 03-00-13
 .9 UKOWGLQPTF 27 SOUT
 HERN SINKIANG TO KANSU 323 NORTHERN CHINA

241 1059 F2 68 1 17 2439873 41.2 N 102.2 E 27 323 33. 33
 88.8 339.0 3 13 11.0 3 0 13.9 1059 BM 68/01/17
 2439873 41.2 N 102.2 E 4.6
 33 88.8 339.0 03-13-11.0 03-00-13
 .9 UKOWGLQPTF 27 SOUT
 HERN SINKIANG TO KANSU 323 NORTHERN CHINA

241 1059 F3 68 1 17 2439873 41.2 N 102.2 E 27 323 33. 33
 88.8 339.0 3 13 11.0 3 0 13.9 1059 BM 68/01/17
 2439873 41.2 N 102.2 E 4.6
 33 88.8 339.0 03-13-11.0 03-00-13
 .9 UKOWGLQPTF 27 SOUT
 HERN SINKIANG TO KANSU 323 NORTHERN CHINA

241 1059 F4 68 1 17 2439873 41.2 N 102.2 E 27 323 33. 33
 88.8 339.0 3 13 11.0 3 0 13.9 1059 BM 68/01/17
 2439873 41.2 N 102.2 E 4.6
 33 88.8 339.0 03-13-11.0 03-00-13
 .9 UKOWGLQPTF 27 SOUT
 HERN SINKIANG TO KANSU 323 NORTHERN CHINA

242 1070 BM 68 1 19 2439875 79.6 N 132.0 E 40 654 24. 24
 49.6 348.3 7 8 36.0 6 59 41.3 1070 BM 68/01/19
 2439875 79.6 N 132.0 E 4.5
 24 49.6 348.3 07-08-36.0 06-59-41
 .3 ZJVKSDJQEL 40 APCT
 IC ZONE 654 EAST OF SEVERNAYA ZEMLYA

242 1070 F1 68 1 19 2439875 79.6 N 132.0 E 40 654 24. 24
 49.6 348.3 7 8 36.0 6 59 41.3 1070 BM 68/01/19
 2439875 79.6 N 132.0 E 4.5
 24 49.6 348.3 07-08-36.0 06-59-41
 .3 ZJVKSDJQEL 40 APCT

IC ZONE 654 EAST OF SEVERNAYA ZEMLYA

242 1070 F2 68 1 19 2439875 79.6 N 132.0 E 40 654 24. 24
 49.6 348.3 7 8 36.0 6 59 41.3 1070 RM 68/01/19
 2439875 79.6 N 132.0 E 4.5
 24 49.6 348.3 07-08-36.0 06-59-41
 .3 ZJVKSJQEL 40 ARCT

IC ZONE 654 EAST OF SEVERNAYA ZEMLYA

242 1070 F3 68 1 19 2439875 79.6 N 132.0 E 40 654 24. 24
 49.6 348.3 7 8 36.0 6 59 41.3 1070 RM 68/01/19
 2439875 79.6 N 132.0 E 4.5
 24 49.6 348.3 07-08-36.0 06-59-41
 .3 ZJVKSJQEL 40 ARCT

IC ZONE 654 EAST OF SEVERNAYA ZEMLYA

242 1070 F4 68 1 19 2439875 79.6 N 132.0 E 40 654 24. 24
 49.6 348.3 7 8 36.0 6 59 41.3 1070 RM 68/01/19
 2439875 79.6 N 132.0 E 4.5
 24 49.6 348.3 07-08-36.0 06-59-41
 .3 ZJVKSJQEL 40 ARCT

IC ZONE 654 EAST OF SEVERNAYA ZEMLYA

243 1073 RM 68 1 19 2439875 44.8 N 148.4 E 19 221 33. 33
 67.7 312.2 16 15 58.0 16 4 57.1 1073 RM 68/01/19
 2439875 44.8 N 148.4 E 4.7
 33 67.7 312.2 16-15-58.0 16-04-57
 .1 BRSPVFLQ 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

243 1073 F1 68 1 19 2439875 44.8 N 148.4 E 19 221 33. 33
 67.7 312.2 16 15 58.0 16 4 57.1 1073 RM 68/01/19
 2439875 44.8 N 148.4 E 4.7
 33 67.7 312.2 16-15-58.0 16-04-57
 .1 BRSPVFLQ 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

243 1073 F2 68 1 19 2439875 44.8 N 148.4 E 19 221 33. 33
 67.7 312.2 16 15 58.0 16 4 57.1 1073 RM 68/01/19
 2439875 44.8 N 148.4 E 4.7
 33 67.7 312.2 16-15-58.0 16-04-57
 .1 BRSPVFLQ 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

243 1073 F3 68 1 19 2439875 44.8 N 148.4 E 19 221 33. 33
 67.7 312.2 16 15 58.0 16 4 57.1 1073 RM 68/01/19
 2439875 44.8 N 148.4 E 4.7
 33 67.7 312.2 16-15-58.0 16-04-57
 .1 BRSPVFLQ 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

243 1073 F4 68 1 19 2439875 44.8 N 148.4 E 19 221 33. 33
 67.7 312.2 16 15 58.0 16 4 57.1 1073 RM 68/01/19
 2439875 44.8 N 148.4 E 4.7
 33 67.7 312.2 16-15-58.0 16-04-57
 .1 BRSPVFLQ 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

244 1088 HM 68 1 22 2439878 36.6 N 47.3 E 29 345 33. 33
 93.7 21.0 20 47 38.4 20 34 18.7 1088 RM 68/01/22

2439878 36.6 N 047.3 E 4.8
33 93.7 21.0 20-47-38.4 20-34-18
.7 FRUQSJIGYL 29 WEST
ERN ASIA 345 NORTHWESTERN IRAN

244 1088 F1 68 1 22 2439878 36.6 N 47.3 E 29 345 33. 33
93.7 21.0 20 47 38.4 20 34 18.7 1088 RM 68/01/22
2439878 36.6 N 047.3 E 4.8
33 93.7 21.0 20-47-38.4 20-34-18
.7 FRUQSJIGYL 29 WEST
ERN ASIA 345 NORTHWESTERN IRAN

244 1088 F2 68 1 22 2439878 36.6 N 47.3 E 29 345 33. 33
93.7 21.0 20 47 38.4 20 34 18.7 1088 RM 68/01/22
2439878 36.6 N 047.3 E 4.8
33 93.7 21.0 20-47-38.4 20-34-18
.7 FRUQSJIGYL 29 WEST
ERN ASIA 345 NORTHWESTERN IRAN

244 1088 F3 68 1 22 2439878 36.6 N 47.3 E 29 345 33. 33
93.7 21.0 20 47 38.4 20 34 18.7 1088 RM 68/01/22
2439878 36.6 N 047.3 E 4.8
33 93.7 21.0 20-47-38.4 20-34-18
.7 FRUQSJIGYL 29 WEST
ERN ASIA 345 NORTHWESTERN IRAN

244 1088 F4 68 1 22 2439878 36.6 N 47.3 E 29 345 33. 33
93.7 21.0 20 47 38.4 20 34 18.7 1088 RM 68/01/22
2439878 36.6 N 047.3 E 4.8
33 93.7 21.0 20-47-38.4 20-34-18
.7 FRUQSJIGYL 29 WEST
ERN ASIA 345 NORTHWESTERN IRAN

245 1111 BM 68 1 29 2439885 38.8 N 71.2 E 48 717225. 225
94.8 2.0 5 13 20.4 4 59 55.6 1111 RM 68/01/29
2439885 38.8 N 071.2 E 5.7
225 94.8 2.0 05-13-20.4 04-59-55
.6 IQKTGSJTLH 48 HIND
U KUSH AND PAMIR 717 AFGHANISTAN-USSR BORDER REG
ION

245 1111 F1 68 1 29 2439885 38.8 N 71.2 E 48 717225. 225
94.8 2.0 5 13 20.4 4 59 55.6 1111 RM 68/01/29
2439885 38.8 N 071.2 E 5.7
225 94.8 2.0 05-13-20.4 04-59-55
.6 IQKTGSJTLH 48 HIND
U KUSH AND PAMIR 717 AFGHANISTAN-USSR BORDER REG
ION

245 1111 F2 68 1 29 2439885 38.8 N 71.2 E 48 717225. 225
94.8 2.0 5 13 20.4 4 59 55.6 1111 RM 68/01/29
2439885 38.8 N 071.2 E 5.7
225 94.8 2.0 05-13-20.4 04-59-55
.6 IQKTGSJTLH 48 HIND
U KUSH AND PAMIR 717 AFGHANISTAN-USSR BORDER REG
ION

245 1111 F3 68 1 29 2439885 38.8 N 71.2 E 48 717225. 225
94.8 2.0 5 13 20.4 4 59 55.6 1111 RM 68/01/29
2439885 38.8 N 071.2 E 5.7
225 94.8 2.0 05-13-20.4 04-59-55
.6 IQKTGSJTLH 48 HIND
U KUSH AND PAMIR 717 AFGHANISTAN-USSR BORDER REG

TUN
245 1111 F4 6R 1 29 2439885 38.8 N 71.2 E 4R 717225. 225
94.8 2.0 5 13 20.4 4 59 55.6 1111 RM 68/01/29
2439885 38.8 N 071.2 E 5.7
225 94.8 2.0 05-13-20.4 04-59-55
.6 IQKTGSJILH 48 HIND
U KUSH AND PAMTR 717 AFGHANISTAN-USSR BORDER REG
ION
246 1113 RM 6R 1 29 2439885 43.3 N 145.2 E 19 224 40. 40
70.3 312.8 10 30 11.0 10 18 53.6 1113 RM 68/01/29
2439885 43.3 N 145.2 E 6.3
40 70.3 312.8 10-30-11.0 10-18-53
.6 TVPLZCKQCD 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION
246 1113 F1 6R 1 29 2439885 43.3 N 145.2 E 19 224 40. 40
70.3 312.8 10 30 11.0 10 18 53.6 1113 RM 68/01/29
2439885 43.3 N 145.2 E 6.3
40 70.3 312.8 10-30-11.0 10-18-53
.6 TVPLZCKQCD 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION
246 1113 F2 6R 1 29 2439885 43.3 N 145.2 E 19 224 40. 40
70.3 312.8 10 30 11.0 10 18 53.6 1113 RM 68/01/29
2439885 43.3 N 145.2 E 6.3
40 70.3 312.8 10-30-11.0 10-18-53
.6 TVPLZCKQCD 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION
246 1113 F3 6R 1 29 2439885 43.3 N 145.2 E 19 224 40. 40
70.3 312.8 10 30 11.0 10 18 53.6 1113 RM 68/01/29
2439885 43.3 N 145.2 E 6.3
40 70.3 312.8 10-30-11.0 10-18-53
.6 TVPLZCKQCD 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION
246 1113 F4 6R 1 29 2439885 43.3 N 145.2 E 19 224 40. 40
70.3 312.8 10 30 11.0 10 18 53.6 1113 RM 68/01/29
2439885 43.3 N 145.2 E 6.3
40 70.3 312.8 10-30-11.0 10-18-53
.6 TVPLZCKQCD 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION
247 1201 RM 6R 2 6 2439893 55.8 N 160.6 E 19 217 33. 33
54.7 316.4 6 55 10.6 6 45 37.6 1201 RM 68/02/06
2439893 55.8 N 160.6 E 4.8
33 54.7 316.4 06-55-10.6 06-45-37
.6 CWYELQKIOT 19 JAPA
N - KURILES - KAMCHATKA 217 KAMCHATKA
247 1201 F1 6R 2 6 2439893 55.8 N 160.6 E 19 217 33. 33
54.7 316.4 6 55 10.6 6 45 37.6 1201 RM 68/02/06
2439893 55.8 N 160.6 E 4.8
33 54.7 316.4 06-55-10.6 06-45-37
.6 CWYELQKIOT 19 JAPA
N - KURILES - KAMCHATKA 217 KAMCHATKA
247 1201 F2 6R 2 6 2439893 55.8 N 160.6 E 19 217 33. 33
54.7 316.4 6 55 10.6 6 45 37.6 1201 RM 68/02/06
2439893 55.8 N 160.6 E 4.8

33 54.7 316.4 06-55-10.6 06-45-37
 .6 CWYELQKIDT 19 JAPA
 N - KURILES - KAMCHATKA 217 KAMCHATKA

247 1201 F3 68 2 6 2439893 55.8 N 160.6 E 19 217 33. 33
 54.7 316.4 6 55 10.6 6 45 37.6 1201 RM 68/02/06
 2439893 55.8 N 160.6 E 4.8
 33 54.7 316.4 06-55-10.6 06-45-37
 .6 CWYELQKIDT 19 JAPA
 N - KURILES - KAMCHATKA 217 KAMCHATKA

247 1201 F4 68 2 6 2439893 55.8 N 160.6 E 19 217 33. 33
 54.7 316.4 6 55 10.6 6 45 37.6 1201 RM 68/02/06
 2439893 55.8 N 160.6 E 4.8
 33 54.7 316.4 06-55-10.6 06-45-37
 .6 CWYELQKIDT 19 JAPA
 N - KURILES - KAMCHATKA 217 KAMCHATKA

248 1104 RM 68 1 27 2439883 41.7 N 71.7 E 48 716 15. 15
 91.9 1.6 2 35 10.6 2 21 59.2 1104 RM 68/01/27
 2439883 41.7 N 071.7 E 4.8
 15 91.9 1.6 02-35-10.6 02-21-50
 .2 IDBHHQLYMC 48 HIND
 U KUSH AND PAMIR 716 KIRGIZ SSR

248 1104 F1 68 1 27 2439883 41.7 N 71.7 E 48 716 15. 15
 91.9 1.6 2 35 10.6 2 21 59.2 1104 RM 68/01/27
 2439883 41.7 N 071.7 E 4.8
 15 91.9 1.6 02-35-10.6 02-21-50
 .2 IDBHHQLYMC 48 HIND
 U KUSH AND PAMIR 716 KIRGIZ SSR

248 1104 F2 68 1 27 2439883 41.7 N 71.7 E 48 716 15. 15
 91.9 1.6 2 35 10.6 2 21 59.2 1104 RM 68/01/27
 2439883 41.7 N 071.7 E 4.8
 15 91.9 1.6 02-35-10.6 02-21-50
 .2 IDBHHQLYMC 48 HIND
 U KUSH AND PAMIR 716 KIRGIZ SSR

248 1104 F3 68 1 27 2439883 41.7 N 71.7 E 48 716 15. 15
 91.9 1.6 2 35 10.6 2 21 59.2 1104 RM 68/01/27
 2439883 41.7 N 071.7 E 4.8
 15 91.9 1.6 02-35-10.6 02-21-50
 .2 IDBHHQLYMC 48 HIND
 U KUSH AND PAMIR 716 KIRGIZ SSR

248 1104 F4 68 1 27 2439883 41.7 N 71.7 E 48 716 15. 15
 91.9 1.6 2 35 10.6 2 21 59.2 1104 RM 68/01/27
 2439883 41.7 N 071.7 E 4.8
 15 91.9 1.6 02-35-10.6 02-21-50
 .2 IDBHHQLYMC 48 HIND
 U KUSH AND PAMIR 716 KIRGIZ SSR

249 1114 RM 68 1 29 2439885 41.8 N 144.9 E 19 224 33. 33
 71.6 311.9 10 53 14.0 10 41 48.5 1114 RM 68/01/29
 2439885 41.8 N 144.9 E 5.2
 33 71.6 311.9 10-53-14.0 10-41-48
 .5 VBHFASQIYW 19 JAPA
 N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

249 1114 F1 6R 1 29 2439885 41.8 N 144.9 E 19 224 33. 33
 71.6 311.9 10 53 14.0 10 41 48.5 1114 RM 68/01/29
 2439885 41.8 N 144.9 E 5.2
 33 71.6 311.9 10-53-14.0 10-41-48

.5 VBHFKSQLYW 19 JAPA
 N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

249 1114 F2 6R 1 29 2439885 41.8 N 144.9 E 19 224 33. 33
 71.6 311.9 10 53 14.0 10 41 48.5 1114 RM 68/01/29
 2439885 41.8 N 144.9 E 5.2
 33 71.6 311.9 10-53-14.0 10-41-48

.5 VBHFKSQLYW 19 JAPA
 N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

249 1114 F3 6R 1 29 2439885 41.8 N 144.9 E 19 224 33. 33
 71.6 311.9 10 53 14.0 10 41 48.5 1114 RM 68/01/29
 2439885 41.8 N 144.9 E 5.2
 33 71.6 311.9 10-53-14.0 10-41-48

.5 VBHFKSQLYW 19 JAPA
 N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

249 1114 F4 6R 1 29 2439885 41.8 N 144.9 E 19 224 33. 33
 71.6 311.9 10 53 14.0 10 41 48.5 1114 RM 68/01/29
 2439885 41.8 N 144.9 E 5.2
 33 71.6 311.9 10-53-14.0 10-41-48

.5 VBHFKSQLYW 19 JAPA
 N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

250 1117 RM 6R 1 29 2439885 44.3 N 146.7 E 19 221 33. 33
 68.9 312.7 11 47 41.9 11 36 33.7 1117 RM 68/01/29
 2439885 44.3 N 146.7 E 4.6
 33 68.9 312.7 11-47-41.9 11-36-33

.7 QBSGHLDPUG 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

250 1117 F1 6R 1 29 2439885 44.3 N 146.7 E 19 221 33. 33
 68.9 312.7 11 47 41.9 11 36 33.7 1117 RM 68/01/29
 2439885 44.3 N 146.7 E 4.6
 33 68.9 312.7 11-47-41.9 11-36-33

.7 QBSGHLDPUG 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

250 1117 F2 6R 1 29 2439885 44.3 N 146.7 E 19 221 33. 33
 68.9 312.7 11 47 41.9 11 36 33.7 1117 RM 68/01/29
 2439885 44.3 N 146.7 E 4.6
 33 68.9 312.7 11-47-41.9 11-36-33

.7 QBSGHLDPUG 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

250 1117 F3 6R 1 29 2439885 44.3 N 146.7 E 19 221 33. 33
 68.9 312.7 11 47 41.9 11 36 33.7 1117 RM 68/01/29
 2439885 44.3 N 146.7 E 4.6
 33 68.9 312.7 11-47-41.9 11-36-33

.7 QBSGHLDPUG 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

250 1117 F4 6R 1 29 2439885 44.3 N 146.7 E 19 221 33. 33
 68.9 312.7 11 47 41.9 11 36 33.7 1117 RM 68/01/29
 2439885 44.3 N 146.7 E 4.6
 33 68.9 312.7 11-47-41.9 11-36-33

.7 ORSGHLDPOG 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

251 1118 BM 68 1 29 2439885 44.0 N 146.2 E 19 221 33. 33
69.3 312.8 11 55 4.0 11 43 52.9 1118 BM 68/01/29
2439885 44.0 N 146.2 E 5.5
33 69.3 312.8 11-55-04.0 11-43-52.
9 DEHC7SHLDQ 19 JAPAN
- KURILES - KAMCHATKA 221 KURILE ISLANDS

251 1118 F1 68 1 29 2439885 44.0 N 146.2 E 19 221 33. 33
69.3 312.8 11 55 4.0 11 43 52.9 1118 BM 68/01/29
2439885 44.0 N 146.2 E 5.5
33 69.3 312.8 11-55-04.0 11-43-52
.9 DEHCZSHLDQ 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

251 1118 F2 68 1 29 2439885 44.0 N 146.2 E 19 221 33. 33
69.3 312.8 11 55 4.0 11 43 52.9 1118 BM 68/01/29
2439885 44.0 N 146.2 E 5.5
33 69.3 312.8 11-55-04.0 11-43-52
.9 DEHCZSHLDQ 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

251 1118 F3 68 1 29 2439885 44.0 N 146.2 E 19 221 33. 33
69.3 312.8 11 55 4.0 11 43 52.9 1118 BM 68/01/29
2439885 44.0 N 146.2 E 5.5
33 69.3 312.8 11-55-04.0 11-43-52
.9 DEHCZSHLDQ 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

251 1118 F4 68 1 29 2439885 44.0 N 146.2 E 19 221 33. 33
69.3 312.8 11 55 4.0 11 43 52.9 1118 BM 68/01/29
2439885 44.0 N 146.2 E 5.5
33 69.3 312.8 11-55-04.0 11-43-52
.9 DEHCZSHLDQ 19 JAPA
N - KURILES - KAMCHATKA 221 KURILE ISLANDS

252 1119 BM 68 1 29 2439885 42.6 N 147.3 E 19 225 33. 33
69.8 311.1 12 18 14.0 12 7 .3 1119 BM 68/01/29
2439885 42.6 N 147.3 E 4.9
33 69.8 311.1 12-18-14.0 12-07-00
.3 RICIIVMORL 19 JAPA
N - KURILES - KAMCHATKA 225 OFF COAST OF HOKKAIDO, JAPA
N

252 1119 F1 68 1 29 2439885 42.6 N 147.3 E 19 225 33. 33
69.8 311.1 12 18 14.0 12 7 .3 1119 BM 68/01/29
2439885 42.6 N 147.3 E 4.9
33 69.8 311.1 12-18-14.0 12-07-00
.3 RICIIVMORL 19 JAPA
N - KURILES - KAMCHATKA 225 OFF COAST OF HOKKAIDO, JAPA
N

252 1119 F2 68 1 29 2439885 42.6 N 147.3 E 19 225 33. 33
69.8 311.1 12 18 14.0 12 7 .3 1119 BM 68/01/29
2439885 42.6 N 147.3 E 4.9
33 69.8 311.1 12-18-14.0 12-07-00
.3 RICIIVMORL 19 JAPA
N - KURILES - KAMCHATKA 225 OFF COAST OF HOKKAIDO, JAPA
N

252 1119 F3 6A 1 29 2439885 42.6 N 147.3 E 19 225 33. 33
69.8 311.1 12 18 14.0 12 7 .3 1119 BM 68/01/29
2439885 42.6 N 147.3 E 4.9
33 69.8 311.1 12-18-14.0 12-07-00
.3 RICIIVMORI 19 JAPA
N - KURILES - KAMCHATKA 225 OFF COAST OF HOKKAIDO, JAPA
N
252 1119 F4 6A 1 29 2439885 42.6 N 147.3 E 19 225 33. 33
69.8 311.1 12 18 14.0 12 7 .3 1119 BM 68/01/29
2439885 42.6 N 147.3 E 4.9
33 69.8 311.1 12-18-14.0 12-07-00
.3 RICIIVMORI 19 JAPA
N - KURILES - KAMCHATKA 225 OFF COAST OF HOKKAIDO, JAPA
N
253 1132 RM 6A 1 29 2439885 43.3 N 145.2 E 19 224 33. 33
70.3 312.8 17 25 11.0 17 13 53.6 1132 BM 68/01/29
2439885 43.3 N 145.2 E 4.7
33 70.3 312.8 17-25-11.0 17-13-53
.6 DQURJKRUJL 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION
253 1132 F1 6A 1 29 2439885 43.3 N 145.2 E 19 224 33. 33
70.3 312.8 17 25 11.0 17 13 53.6 1132 BM 68/01/29
2439885 43.3 N 145.2 E 4.7
33 70.3 312.8 17-25-11.0 17-13-53
.6 DQURJKRUJL 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION
253 1132 F2 6A 1 29 2439885 43.3 N 145.2 E 19 224 33. 33
70.3 312.8 17 25 11.0 17 13 53.6 1132 BM 68/01/29
2439885 43.3 N 145.2 E 4.7
33 70.3 312.8 17-25-11.0 17-13-53
.6 DQURJKRUJL 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION
253 1132 F3 6A 1 29 2439885 43.3 N 145.2 E 19 224 33. 33
70.3 312.8 17 25 11.0 17 13 53.6 1132 BM 68/01/29
2439885 43.3 N 145.2 E 4.7
33 70.3 312.8 17-25-11.0 17-13-53
.6 DQURJKRUJL 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION
253 1132 F4 6A 1 29 2439885 43.3 N 145.2 E 19 224 33. 33
70.3 312.8 17 25 11.0 17 13 53.6 1132 BM 68/01/29
2439885 43.3 N 145.2 E 4.7
33 70.3 312.8 17-25-11.0 17-13-53
.6 DQURJKRUJL 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION
254 1131 RM 6A 1 29 2439885 42.7 N 145.8 E 19 224 33. 33
70.5 312.0 16 53 55.0 16 42 36.6 1131 BM 68/01/29
2439885 42.7 N 145.8 E 6.0
33 70.5 312.0 16-53-55.0 16-42-36
.6 EGOQMLTROW 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION
254 1131 F1 6A 1 29 2439885 42.7 N 145.8 E 19 224 33. 33
70.5 312.0 16 53 55.0 16 42 36.6 1131 BM 68/01/29
2439885 42.7 N 145.8 E 6.0
33 70.5 312.0 16-53-55.0 16-42-36

.6 EGOQMLTRDW 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

254 1131 F2 68 1 29 2439885 42.7 N 145.8 E 19 224 33. 33
70.5 312.0 16 53 55.0 16 42 36.6 1131 RM 68/01/29
2439885 42.7 N 145.8 E 6.0
33 70.5 312.0 16-53-55.0 16-42-36

.6 EGOQMLTRDW 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

254 1131 F3 68 1 29 2439885 42.7 N 145.8 E 19 224 33. 33
70.5 312.0 16 53 55.0 16 42 36.6 1131 RM 68/01/29
2439885 42.7 N 145.8 E 6.0
33 70.5 312.0 16-53-55.0 16-42-36

.6 EGOQMLTRDW 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

254 1131 F4 68 1 29 2439885 42.7 N 145.8 E 19 224 33. 33
70.5 312.0 16 53 55.0 16 42 36.6 1131 RM 68/01/29
2439885 42.7 N 145.8 E 6.0
33 70.5 312.0 16-53-55.0 16-42-36

.6 EGOQMLTRDW 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

255 1130 RM 68 1 29 2439885 44.3 N 145.4 E 19 224 33. 33
69.5 313.4 16 15 19.0 16 4 6.8 1130 RM 68/01/29
2439885 44.3 N 145.4 E 4.6
33 69.5 313.4 16-15-19.0 16-04-06

.8 VCKRKJZQLV 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

255 1130 F1 68 1 29 2439885 44.3 N 145.4 E 19 224 33. 33
69.5 313.4 16 15 19.0 16 4 6.8 1130 RM 68/01/29
2439885 44.3 N 145.4 E 4.6
33 69.5 313.4 16-15-19.0 16-04-06

.8 VCKRKJZQLV 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

255 1130 F2 68 1 29 2439885 44.3 N 145.4 E 19 224 33. 33
69.5 313.4 16 15 19.0 16 4 6.8 1130 RM 68/01/29
2439885 44.3 N 145.4 E 4.6
33 69.5 313.4 16-15-19.0 16-04-06

.8 VCKRKJZQLV 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

255 1130 F3 68 1 29 2439885 44.3 N 145.4 E 19 224 33. 33
69.5 313.4 16 15 19.0 16 4 6.8 1130 RM 68/01/29
2439885 44.3 N 145.4 E 4.6
33 69.5 313.4 16-15-19.0 16-04-06

.8 VCKRKJZQLV 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

255 1130 F4 68 1 29 2439885 44.3 N 145.4 E 19 224 33. 33
69.5 313.4 16 15 19.0 16 4 6.8 1130 RM 68/01/29
2439885 44.3 N 145.4 E 4.6
33 69.5 313.4 16-15-19.0 16-04-06

.8 VCKRKJZQLV 19 JAPA
N - KURILES - KAMCHATKA 224 HOKKAIDO, JAPAN, REGION

256 1159 RM 68 1 30 2439886 36.0 N 70.6 E 53 718205. 205

97.6 2.6 8 30 45.1 9 17 7.9 1159 AM 68/01/30
 2439886 36.0 N 070.6 E 5.4
 205 97.6 2.6 08-30-45.1 08-17-07
 .9 IZLQRI8CEF 53 G RE
 G = 718 AND D GT 70 718 HINDU KUSH REGION

256 1159 F1 68 1 30 2439886 36.0 N 70.6 E 53 718205. 205
 97.6 2.6 8 30 45.1 9 17 7.9 1159 AM 68/01/30
 2439886 36.0 N 070.6 E 5.4
 205 97.6 2.6 08-30-45.1 08-17-07
 .9 IZLQRI8CEF 53 G RE
 G = 718 AND D GT 70 718 HINDU KUSH REGION

256 1159 F2 68 1 30 2439886 36.0 N 70.6 E 53 718205. 205
 97.6 2.6 8 30 45.1 9 17 7.9 1159 AM 68/01/30
 2439886 36.0 N 070.6 E 5.4
 205 97.6 2.6 08-30-45.1 08-17-07
 .9 IZLQRI8CEF 53 G RE
 G = 718 AND D GT 70 718 HINDU KUSH REGION

256 1159 F3 68 1 30 2439886 36.0 N 70.6 E 53 718205. 205
 97.6 2.6 8 30 45.1 9 17 7.9 1159 AM 68/01/30
 2439886 36.0 N 070.6 E 5.4
 205 97.6 2.6 08-30-45.1 08-17-07
 .9 IZLQRI8CEF 53 G RE
 G = 718 AND D GT 70 718 HINDU KUSH REGION

256 1159 F4 68 1 30 2439886 36.0 N 70.6 E 53 718205. 205
 97.6 2.6 8 30 45.1 9 17 7.9 1159 AM 68/01/30
 2439886 36.0 N 070.6 E 5.4
 205 97.6 2.6 08-30-45.1 08-17-07
 .9 IZLQRI8CEF 53 G RE
 G = 718 AND D GT 70 718 HINDU KUSH REGION

257 1141 BM 68 1 30 2439886 44.1 N 147.7 E 19 221 33. 33
 68.5 312.0 1 41 23.0 1 30 17.0 1141 AM 68/01/30
 2439886 44.1 N 147.7 E 5.0
 33 68.5 312.0 01-41-23.0 01-30-17
 .0 RZBILQFSSS 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

257 1141 F1 68 1 30 2439886 44.1 N 147.7 E 19 221 33. 33
 68.5 312.0 1 41 23.0 1 30 17.0 1141 AM 68/01/30
 2439886 44.1 N 147.7 E 5.0
 33 68.5 312.0 01-41-23.0 01-30-17
 .0 RZBILQFSSS 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

257 1141 F2 68 1 30 2439886 44.1 N 147.7 E 19 221 33. 33
 68.5 312.0 1 41 23.0 1 30 17.0 1141 AM 68/01/30
 2439886 44.1 N 147.7 E 5.0
 33 68.5 312.0 01-41-23.0 01-30-17
 .0 RZBILQFSSS 19 JAPA
 N - KURILES - KAMCHATKA 221 KURILE ISLANDS

257 1141 F3 68 1 30 2439886 44.1 N 147.7 E 19 221 33. 33
 68.5 312.0 1 41 23.0 1 30 17.0 1141 AM 68/01/30
 2439886 44.1 N 147.7 E 5.0
 33 68.5 312.0 01-41-23.0 01-30-17
 .0 RZBILQFSSS 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

257 1141 F4 6A 1 30 2439A86 44.1 N 147.7 E 19 221 33. 33
68.5 312.0 1 41 23.0 1 30 17.0 1141 BM 68/01/30
2439A86 44.1 N 147.7 E 5.0
33 68.5 312.0 01-41-23.0 01-30-17
.0 RZBILGFSSS 19 JAPA

N - KURILES - KAMCHATKA 221 KURILE ISLANDS

258 1205 BM 6A 2 6 2439A93 55.8 N 160.6 E 19 217 33. 33
54.7 316.4 10 40 .3 10 30 27.3 1205 BM 68/02/06
2439A93 55.8 N 160.6 E 4.2
33 54.7 316.4 10-40-00.3 10-30-27
.3 MGDKGCLQRZ 19 JAPA

N - KURILES - KAMCHATKA 217 KAMCHATKA

258 1205 F1 6A 2 6 2439A93 55.8 N 160.6 E 19 217 33. 33
54.7 316.4 10 40 .3 10 30 27.3 1205 BM 68/02/06
2439A93 55.8 N 160.6 E 4.2
33 54.7 316.4 10-40-00.3 10-30-27
.3 MGDKGCLQRZ 19 JAPA

N - KURILES - KAMCHATKA 217 KAMCHATKA

258 1205 F2 6A 2 6 2439A93 55.8 N 160.6 E 19 217 33. 33
54.7 316.4 10 40 .3 10 30 27.3 1205 BM 68/02/06
2439A93 55.8 N 160.6 E 4.2
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.3 MGDKGCLQRZ 19 JAPA

N - KURILES - KAMCHATKA 217 KAMCHATKA

258 1205 F3 6A 2 6 2439A93 55.8 N 160.6 E 19 217 33. 33
54.7 316.4 10 40 .3 10 30 27.3 1205 BM 68/02/06
2439A93 55.8 N 160.6 E 4.2
33 54.7 316.4 10-40-00.3 10-30-27
.3 MGDKGCLQRZ 19 JAPA

N - KURILES - KAMCHATKA 217 KAMCHATKA

258 1205 F4 6A 2 6 2439A93 55.8 N 160.6 E 19 217 33. 33
54.7 316.4 10 40 .3 10 30 27.3 1205 BM 68/02/06
2439A93 55.8 N 160.6 E 4.2
33 54.7 316.4 10-40-00.3 10-30-27
.3 MGDKGCLQRZ 19 JAPA

N - KURILES - KAMCHATKA 217 KAMCHATKA

259 1207 BM 6A 2 7 2439A94 43.3 N 85.8 E 28 332 33. 33
89.7 351.3 1 35 56.2 1 22 54.9 1207 BM 68/02/07
2439A94 43.3 N 85.8 E 4.2
33 89.7 351.3 01-35-56.2 01-22-54
.9 KIJOILIQZP 28 ALMA

-ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
INA

259 1207 F1 6A 2 7 2439A94 43.3 N 85.8 E 28 332 33. 33
89.7 351.3 1 35 56.2 1 22 54.9 1207 BM 68/02/07
2439A94 43.3 N 85.8 E 4.2
33 89.7 351.3 01-35-56.2 01-22-54
.9 KIJOILIQZP 28 ALMA

-ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
INA

259 1207 F2 6A 2 7 2439A94 43.3 N 85.8 E 28 332 33. 33
89.7 351.3 1 35 56.2 1 22 54.9 1207 BM 68/02/07

2439894 43.3 N 085.8 E 4.2
 33 89.7 351.3 01-35-56.2 01-22-54
 .9 KIJOLIQZR 28 ALMA
 -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
 INA
 259 1207 F3 68 2 7 2439894 43.3 N 85.8 E 28 332 33. 33
 89.7 351.3 1 35 56.2 1 22 54.9 1207 BM 68/02/07
 2439894 43.3 N 085.8 E 4.2
 33 89.7 351.3 01-35-56.2 01-22-54
 .9 KIJOLIQZR 28 ALMA
 -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
 INA
 259 1207 F4 68 2 7 2439894 43.3 N 85.8 E 28 332 33. 33
 89.7 351.3 1 35 56.2 1 22 54.9 1207 BM 68/02/07
 2439894 43.3 N 085.8 E 4.2
 33 89.7 351.3 01-35-56.2 01-22-54
 .9 KIJOLIQZR 28 ALMA
 -ATA TO LAKE BAIKAL 332 NORTHERN SINKIANG PROV., CH
 INA
 260 1209 BM 68 2 7 2439894 36.5 N 28.3 E 30 369158. 158
 87.6 35.0 22 34 48.9 22 21 57.8 1209 BM 68/02/07
 2439894 36.5 N 028.3 E 5.5
 158 87.6 35.0 22-34-48.9 22-21-57
 .8 QMPYLYVDPP 30 MIDD
 LE EAST - CRIMEA - BALKANS 369 DODECANESE ISLANDS
 260 1209 F1 68 2 7 2439894 36.5 N 28.3 E 30 369158. 158
 87.6 35.0 22 34 48.9 22 21 57.8 1209 BM 68/02/07
 2439894 36.5 N 028.3 E 5.5
 158 87.6 35.0 22-34-48.9 22-21-57
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 .8 QMPYLYVDPP 30 MIDD
 LE EAST - CRIMEA - BALKANS 369 DODECANESE ISLANDS
 260 1209 F4 68 2 7 2439894 36.5 N 28.3 E 30 369158. 158
 87.6 35.0 22 34 48.9 22 21 57.8 1209 BM 68/02/07
 2439894 36.5 N 028.3 E 5.5
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 .8 QMPYLYVDPP 30 MIDD
 LE EAST - CRIMEA - BALKANS 369 DODECANESE ISLANDS
 261 1250 BM 68 3 17 2439933 78.0 N 140.0 E 42 667 30. 30
 49.3 345.4 17 55 52.1 17 46 59.6 1250 BM 68/03/17
 2439933 78.0 N 140.0 E 4.4
 30 49.3 345.4 17-55-52.1 17-46-59
 .6 MSUJZVTSQL 42 NORT
 HEASTERN ASIA, NORTHERN ALAS 667 NORTH OF NEW SIBERIAN ISLAN

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261 1250 F1 68 3 17 2439933 78.0 N 140.0 E 42 667 30. 30
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.6 MSUJZVTSQL

HEASTERN ASIA, NORTHERN ALAS 667 NORTH OF NEW SIBERIAN ISLAN

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262 1224 RM 68 2 22 2439909 41.0 N 20.4 E 31 391 33. 33
80.6 37.9 12 46 22.9 12 34 7.1 1224 RM 68/02/22
2439909 41.0 N 020.4 E 4.1
33 80.6 37.9 12-46-22.9 12-34-07

.1 MVMHMRQWLJ

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391 ALBANIA

31 WEST

262 1224 F1 68 2 22 2439909 41.0 N 20.4 E 31 391 33. 33
80.6 37.9 12 46 22.9 12 34 7.1 1224 RM 68/02/22
2439909 41.0 N 020.4 E 4.1
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2439909 41.0 N 020.4 E 4.1

33 80.0 37.9 12-46-22.9 12-34-07
 .1 MYMHMRQWLJ 31 WEST
 ERN MEDITERRANEAN AREA 391 ALBANIA

263 1223 RM 68 2 22 2439909 40.7 N 20.6 E 31 392 33. 33
 80.9 38.0 12 34 58.2 12 22 40.7 1223 RM 68/02/22
 2439909 40.7 N 020.6 E 4.4
 33 80.9 38.0 12-34-58.2 12-22-40

.7 LKEZQEBVBHJ 31 WEST
 ERN MEDITERRANEAN AREA 392 GREECE-ALBANIA BORDER REGION

263 1223 F1 68 2 22 2439909 40.7 N 20.6 E 31 392 33. 33
 80.9 38.0 12 34 58.2 12 22 40.7 1223 RM 68/02/22
 2439909 40.7 N 020.6 E 4.4
 33 80.9 38.0 12-34-58.2 12-22-40

.7 LKEZQEBVBHJ 31 WEST
 ERN MEDITERRANEAN AREA 392 GREECE-ALBANIA BORDER REGION

263 1223 F2 68 2 22 2439909 40.7 N 20.6 E 31 392 33. 33
 80.9 38.0 12 34 58.2 12 22 40.7 1223 RM 68/02/22
 2439909 40.7 N 020.6 E 4.4
 33 80.9 38.0 12-34-58.2 12-22-40

.7 LKEZQEBVBHJ 31 WEST
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263 1223 F3 68 2 22 2439909 40.7 N 20.6 E 31 392 33. 33
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 2439909 40.7 N 020.6 E 4.4
 33 80.9 38.0 12-34-58.2 12-22-40

.7 LKEZQEBVBHJ 31 WEST
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263 1223 F4 68 2 22 2439909 40.7 N 20.6 E 31 392 33. 33
 80.9 38.0 12 34 58.2 12 22 40.7 1223 RM 68/02/22
 2439909 40.7 N 020.6 E 4.4
 33 80.9 38.0 12-34-58.2 12-22-40

.7 LKEZQEBVBHJ 31 WEST
 ERN MEDITERRANEAN AREA 392 GREECE-ALBANIA BORDER REGION

264 1035 RM 68 1 11 2439867 45.8 N 152.5 E 19 222 56. 56
 64.9 310.8 18 19 9.0 18 8 25.8 1035 RM 68/01/11
 2439867 45.8 N 152.5 E 5.0
 56 64.9 310.8 18-19-09.0 18-08-25

.8 ORWELDIYQW 19 JAPA
 N - KURILES - KAMCHATKA 222 KURILE ISLANDS REGION

264 1035 F1 68 1 11 2439867 45.8 N 152.5 E 19 222 56. 56
 64.9 310.8 18 19 9.0 18 8 25.8 1035 RM 68/01/11
 2439867 45.8 N 152.5 E 5.0
 56 64.9 310.8 18-19-09.0 18-08-25

.8 ORWELDIYQW 19 JAPA
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