UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Earthquake Data Archiving and Retrieval System: Archived Data Sets in the Standardized Library -- SL000001 to SL000100

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Menlo Park, California 94025

INTRODUCTION

The USGS Earthquake Data Archiving and Retrieval System has been implemented using the computing facility of the Stanford Linear Accelerator Center (SLAC). The design and implementation of the system are described in Lee, Scharre and Crane (1983), and Crane, Lee, and Newberry (1984). Readers who are interested in using this system to query and retrieve earthquake data are referred to the Users' Manual (Crane, Lee and O'Neill, 1985).

The purpose of this report is to complement the above mentioned references in giving the readers a quick guide to what earthquake data sets are available in the system's Standardized Library as of April 30, 1985. It is the first of a series of reports devoted to this purpose.

EARTHQUAKE DATA ARCHIVING AND RETRIEVAL SYSTEM

The USGS Earthquake Data Archiving and Retrieval System is designed to archive any existing earthquake related data. Because numerous formats exist for these data, it is not practical to force everyone to adopt a uniform format. Therefore, we have set up three distict libraries for storing, querying, and retrieving of earthquake data: (1) A General Library for data sets with arbitrary data structures and formats, (2) a Standardized Library for data sets using a standardized structure and recommended formats, and (3) two Waveform Libraries to handle the extremely large volume of seismic waveform data.

Figure 1 on page 3 briefly illustrates how the System works. The data sets are provided by contributors in the form of magnetic tapes or punched cards with description of contents and formats. These input data sets are first read onto a disk for editing with the "Edit System". An archivist then uses the "Archive System" to place the edited data sets onto a "Staging Disk" and then archival tapes. In the archiving process, data sets are copied, verified, and indexed in a "Database". Subsequently, the "Backup System" is used to backup the archived data sets independently via the SLAC Archive System. From the users' point of view, they may use the "Query System" to search the "Database" for the desired data sets. The result of a search is a list of pointers to the desired data sets on the archival tapes. The pointers are then used to display or retrieve specific datasets.

Because of the vast amounts of earthquake-related data, it is not economical or necessary to have all the data online. However, we do keep a sample of all the archived data sets online.

DATA SAMPLES

This document is essentially a catalog in a tabular form of the first 100 datasets archived as of April 30, 1985 from the Standardized Library (SL). Each table is a separate dataset sample showing all of the dataset's explanatory material plus a short sampling of the data. To save space we have replaced large blocks of duplicate explanatory format material with a reference to a previous dataset sample. Data sets were archived in the order of

our processing. As a result, the data set names were assigned sequentially without regards to topics. To aid readers in quickly finding out what are archived in the first 100 data sets of the Standardized Library, a major breakdown by topics is as follows:

1. Hypocenter data files of the California Institute of Technology (1932-1975): SL000001 to SL000010.

2. Kanamori explosion experiment--phase and summary data (1974-1980): SL000011.

3. University of Southern California--summary and phase data (1973-1980): SL000012.

4. Station list for the California Institute of Technology (1982): SL000013.

5. Station list for the University of Southern California (1982): SL000014.

6. Hypocenters and phase data for Southern California earthquakes compiled by the California Institute of Tehcnology (1960-1976): SL000015 to SL000025, and SL000054 to SL000060.

7. Hypocenter data files of the International Seismological Centre (1904-1980): SL000026 to SL000053.

8. Summary and phase data files for California earthquakes from the International Seismological Centre (1971-1980): SL000061 to SL000071.

9. NEIS Station Master File (1983): SL000072.

10. Summary data from the USGS/CUSP Processing System (1984): SL000073 to SL000079.

11. Edited digital waveform data, spectral estimates, and coda Q results for Mammoth Lake earthquakes (1984): SL000080 to SL000100.

Two indexes are provided at the end of this document, one by title and the other by persons who are involved in preparing the datasets.

Because of the large volume of data involved, some errors are unavoidable. We will appreciate readers informing us about any errors they discover. We will also welcome any suggestions for improvements.

REFERENCES

Lee, W.H.K, Scharre, D.C., and Crane, G.R. (1983). A computer-based system for Organizing Earthquake-Related Data. U.S. Geological Survey Open-File Report 83-518, 28 pp.

Crane, G.R., Lee, W.H.K., and Newberry, J.T. (1984). USGS Earthquake Data Archiving and Retrieval System: Reference Manual, U.S.Geological Survey Open-File Report 84-840, 159 pp.

Crane, G.R., Lee, W.H.K., and O'Neill, M. (1985). USGS Earthquake Data Archiving and Retrieval System: User's Manual, U.S.Geological Survey Open-File Report 85-365, 254 pp.

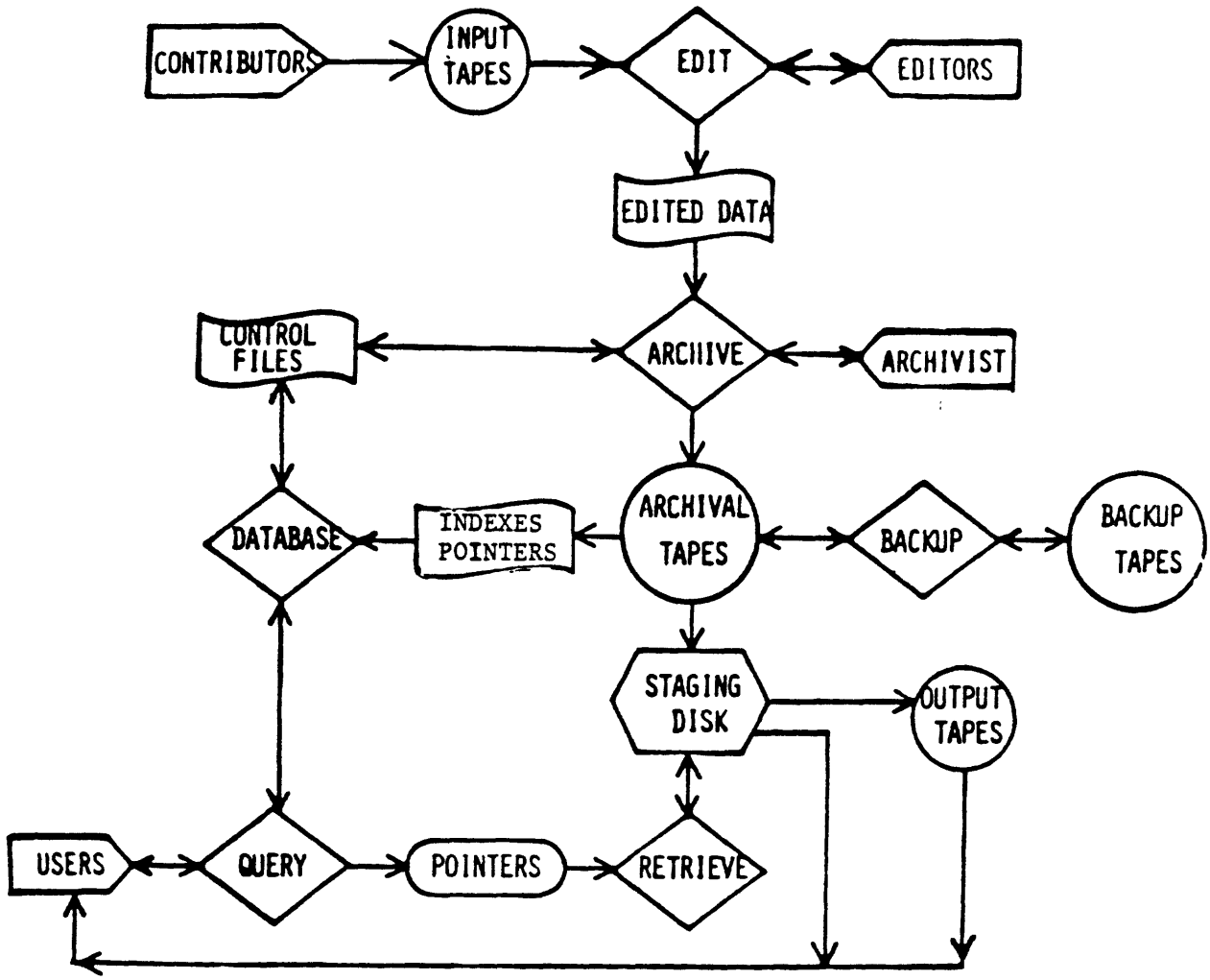

FIGURE 1: Overall scheme for organizing earthquake-related data.

```
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C*DATE: 19770322; 0; SUM38;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: C. R. ALLEN; M. E. FRIEDMAN; J. A. HILEMAN; J. M. NORDQUIST; J. H.
C*PERSN: WHITCOMB; J. T. NEWBERRY;
C*ALPHA: 19300102; 19391231; 28.000N; 39.0833N; 126.000W; 113.8000W; ; S001;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE CALIFORNIA
C*       INSTITUTE OF TECHNOLOGY (CIT) FOR THE YEARS FROM 1932 TO 1939
C*AUTHOR: C. R. ALLEN, M. E. FRIEDMAN, J. A. HILEMAN, J. M. NORDQUIST, AND J. H.
C*        WHITCOMB
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000038 FROM THE CIT
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000137
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*            HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:  1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
C*                           then DATCOD=* and the last data card must be
C*                           blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
C*                           in this case, 'SUM'
C*  25       (A1)    blank   A blank space for easy reading.
C*  26-30    (F5.2)  ORTIME  Origin time; normally the seconds
```

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C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  63        (A1)     MAXINT         1-character code for maximum inten-
C*                                    sity. PDE notation is used: 1 to 9
C*                                    for I to IX, X for X, E for XI, and
C*                                    T for XII.
C*  64        (A1)     blank
C*  65-67     (I3)     NUMPHA         Total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN or        Minimum station distance in km (I3)
C*            or       MS             for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS            RMS residual in seconds (F3.1) for
C*                     OR M           a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
C*                                    specified by MCODE in column 80).
C*  80        (A1)     HYQUAL         HYP071 quality code for a local quake,
C*                     or MCODE       or code for specifying M in columns
C*                                    77-79, e.g., U=unspecified, W=moment
C*                                    magnitude, etc.
```

```
C*END-------------------------------------------------------------------------
S001 1932  1 2 1642  SUM 42.00 33.8833N 117.6333W    .   2.5R
S001 1932  1 3 1757  SUM 58.00 32.0333N 115.8333W    .   3.0R
S001 1932  1 3 2323  SUM 52.00 37.4500N 119.0000W    .   2.0R
S001 1932  1 4  2 2  SUM 53.00 37.4500N 119.0000W    .   2.0R
S001 1932  1 4 2130  SUM  2.00 33.9000N 117.6500W    .   2.0R
S001 1932  1 5  237  SUM 34.00 33.8667N 118.2833W    .   1.5R
S001 1932  1 6  8 8  SUM 39.00 33.8833N 117.6333W    .   2.0R
S001 1932  1 7  229  SUM 20.40 33.9000N 118.2000W    .   1.0R
S001 1932  1 7  539  SUM 20.00 34.1833N 117.2833W    .   1.0R
S001 1932  1 7 1455  SUM 30.00 32.0333N 115.8333W    .   3.0R
********** 3193 data cards not shown here **********
C$FINIS DSN=SL000001
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Table SL000002

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C#DSN=SL000002;SIZE=003629;DATE=030584;ARCH=JN;TAPE=SM9302;FILE=001;STRT=003315;
C*DATE: 19770322; 0; SUM39;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: C. R. ALLEN; M. E. FRIEDMAN; J. A. HILEMAN; J. M. NORDQUIST; J. H.
C*PERSN: WHITCOMB; J. T. NEWBERRY;
C*ALPHA: 19400101; 19491231; 28.066N; 38.8667N; 124.667W; 113.000W; ; S002;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE CALIFORNIA
C*       INSTITUTE OF TECHNOLOGY (CIT) FOR THE YEARS FROM 1940 TO 1949
C*AUTHOR: C. R. ALLEN, M. E. FRIEDMAN, J. A. HILEMAN, J. M. NORDQUIST, AND J. H.
C*        WHITCOMB
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000039 FROM THE CIT
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000137
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:  1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
            See previous format from dataset SL000001 for details
                        ****************************

C*END-------------------------------------------------------------------------
S002 1940  1 1 1249  SUM 29.00 32.5333N 116.1833W        3.5R
S002 1940  1 1 1842  SUM 29.00 33.4167N 115.8000W        3.5R
S002 1940  1 4  715  SUM 32.00 34.0167N 117.2667W        2.5R
S002 1940  1 4  8 7  SUM 11.00 33.3000N 116.3000W        4.0R
S002 1940  1 5  620  SUM 52.00 33.1500N 119.4500W        4.0R
S002 1940  1 5  842  SUM 55.00 33.1667N 116.4167W        3.0R
S002 1940  1 7  5 3  SUM  6.00 33.3833N 115.6000W        3.5R
S002 1940  1 7  712  SUM 41.00 33.3833N 115.6000W        3.5R
S002 1940  111  340  SUM 21.00 33.7833N 118.1333W        3.5R
S002 1940  112 16 0  SUM 43.00 33.6667N 117.2167W        3.0R
***************** 3508 data cards not shown here *****************
C#FINIS DSN=SL000002
```

Table SL000003

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C$DSN=SL000003;SIZE=004316;DATE=030584;ARCH=JN;TAPE=SM9302;FILE=001;STRT=006944;
C*DATE: 19770322; 0; SUM40;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: C. R. ALLEN; M. E. FRIEDMAN; J. A. HILEMAN; J. M. NORDQUIST; J. H.
C*PERSN: WHITCOMB; J. T. NEWBERRY;
C*ALPHA: 19500103; 19591231; 30.000N; 40.500N; 125.500W; 112.000W; ; S003;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE CALIFORNIA
C*       INSTITUTE OF TECHNOLOGY (CIT) FOR THE YEARS FROM 1950 TO 1959
C*AUTHOR: C. R. ALLEN, M. E. FRIEDMAN, J. A. HILEMAN, J. M. NORDQUIST, AND J. H.
C*        WHITCOMB
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000040 FROM THE CIT
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000137
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:  1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
            See previous format from dataset SL000001 for details
                        ****************************

C*END-------------------------------------------------------------------------
S003 1950  1 3 1127  SUM 28.00 33.8667N 115.8333W        1.0R
S003 1950  1 3 1726  SUM 38.00 34.0500N 117.3000W        2.8R
S003 1950  1 4 1638  SUM 46.36 34.1390N 117.7383W   3.6  2.4R
S003 1950  1 5  724  SUM  9.00 33.8333N 115.8000W        2.9R
S003 1950  1 5 1251  SUM 30.00 34.2667N 117.0000W        2.4R
S003 1950  1 5 1346  SUM 49.00 33.6833N 119.1833W        3.2R
S003 1950  1 7  937  SUM 35.00 32.1000N 116.6000W        4.0R
S003 1950  1 9 1324  SUM 57.03 34.1142N 116.8895W   3.0  3.9R
S003 1950  1 9 1329  SUM 30.00 35.1167N 116.8500W        2.4R
S003 1950  1 9 2140  SUM 36.00 33.8333N 116.1333W        3.1R
**************** 4195 data cards not shown here ****************
C$FINIS DSN=SL000003
```

```
C#DSN=SL000004;SIZE=003782;DATE=030584;ARCH=JN;TAPE=SM9302;FILE=002;STRT=000001;
C*DATE: 19770322; 0; SUM41;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: C. R. ALLEN; M. E. FRIEDMAN; J. A. HILEMAN; J. M. NORDQUIST; J. H.
C*PERSN: WHITCOMB; J. T. NEWBERRY;
C*ALPHA: 19600102; 19691231; 29.000N; 41.800N; 127.500W; 111.000W; ; S004;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE CALIFORNIA
C*       INSTITUTE OF TECHNOLOGY (CIT) FOR THE YEARS FROM 1960 TO 1969
C*AUTHOR: C. R. ALLEN, M. E. FRIEDMAN, J. A. HILEMAN, J. M. NORDQUIST, AND J. H.
C*        WHITCOMB
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000041 FROM THE CIT
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000137
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*            HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:  1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD
C*
C*  COLUMNS   FORMAT  ITEM    EXPLANATION
C*  01-04     (A4)    REFNUM  Reference number to the data source
C*                            to be supplied by the archivist.
C*  05        (A1)    blank   Space for overflow if year of the
C*                            quake is B.C.
C*  06-09     (I4)    EVYEAR  4 digits for the year of the quake;
C*                            If year is B.C., use "-" in column 5.
C*  10        (A1)    blank
C*  11-12     (I2)    EVMON   2 digits for the month of the quake.
C*  13-14     (I2)    EVDAY   2 digits for the day of the  quake.
C*  15        (A1)    blank
C*  16-17     (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19     (I2)    EVMIN   2 digits for the minute of the quake.
C*  20        (A1)    EVINDX  Event index if there are more than one
C*                            quake within the same minute.
C*  21        (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                            are used for a data record, then DATCOD=k
C*                            where k is the card sequence number with-
C*                            in the data record, e.g., 1, 2, ..., 9,
C*                            A, B, ..., Z, up to 35 cards.  If any
C*                            data record exceeds 35 cards (2800 bytes),
C*                            then DATCOD=* and the last data card must be
C*                            blank, except "END" in columns 22-24.
C*  22-24     (A3)    DATKEY  3-letter code serving as a data key
C*                            to the kind of data that follows,
C*                            in this case, 'SUM'
C*  25        (A1)    blank   A blank space for easy reading.
C*  26-30     (F5.2)  ORTIME  Origin time; normally the seconds
```

```
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  63        (A1)     MAXINT         1-character code for maximum inten-
C*                                    sity. PDE notation is used: 1 to 9
C*                                    for I to IX, X for X, E for XI, and
C*                                    T for XII.
C*  64        (A1)     blank
C*  65-67     (I3)     NUMPHA         Total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN or        Minimum station distance in km (I3)
C*            or       MS             for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS            RMS residual in seconds (F3.1) for
C*                     OR M           a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
C*                                    specified by MCODE in column 80).
C*  80        (A1)     HYQUAL         HYPO71 quality code for a local quake,
C*                     or MCODE       or code for specifying M in columns
C*                                    77-79, e.g., U=unspecified, W=moment
C*                                    magnitude, etc.
```

```
C*
C*NOTES:  ONE LINE OF THE ORIGINAL DATA FILE APPEARS TO HAVE
C*        A TYPOGRAPHIC ERROR IN THE REPORT FOR 1968 1115.
C*        IT APPEARS THAT '006' WAS ENTERED INSTEAD OF '116'.
C*        THIS VALUE WAS NOT CHANGED DURING CONVERSION.
C*END---------------------------------------------------------------------------
S004 1960  1 2  711  SUM 19.00 33.7667N 118.5833W        2.4R
S004 1960  1 2 2251  SUM 48.00 35.4000N 121.2000W        4.0R
S004 1960  1 3 2051  SUM 12.00 32.1000N 115.6000W        4.0R
S004 1960  1 3 21 8  SUM 12.00 31.5000N 115.5000W        4.0R
S004 1960  1 4 1218  SUM 20.00 36.2000N 120.7000W        3.2R
S004 1960  1 5 18 7  SUM 43.00 34.0333N 117.7333W        3.0R
S004 1960  1 6 2052  SUM 15.00 35.0167N 118.5000W        2.8R
S004 1960  1 7 1751  SUM 30.00 32.3000N 115.6000W        4.1R
S004 1960  1 8  651  SUM 22.00 33.4667N 116.4500W        3.1R
S004 1960  1 8 1443  SUM  4.00 33.8500N 118.3667W        2.4R
****************** 3656 data cards not shown here ******************
C*FINIS DSN=SL000004
```

```
C#DSN=SL000005;SIZE=000589;DATE=030584;ARCH=JN;TAPE=SM9302;FILE=002;STRT=003783;
C*DATE: 19770322; 0; SUM42;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: C. R. ALLEN; M. E. FRIEDMAN; J. A. HILEMAN; J. M. NORDQUIST; J. H.
C*PERSN: WHITCOMB; J. T. NEWBERRY;
C*ALPHA: 19700101; 19701231; 30.783N; 39.044N; 122.192W; 114.901W; ; S005;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE CALIFORNIA
C*       INSTITUTE OF TECHNOLOGY (CIT) FOR THE YEAR 1970
C*AUTHOR: C. R. ALLEN, M. E. FRIEDMAN, J. A. HILEMAN, J. M. NORDQUIST, AND J. H.
C*        WHITCOMB
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000042 FROM THE CIT
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000137
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*            HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:  1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD
C*
C*  COLUMNS   FORMAT   ITEM     EXPLANATION
C*  01-04     (A4)     REFNUM   Reference number to the data source
C*                              to be supplied by the archivist.
C*  05        (A1)     blank    Space for overflow if year of the
C*                              quake is B.C.
C*  06-09     (I4)     EVYEAR   4 digits for the year of the quake;
C*                              If year is B.C., use "-" in column 5.
C*  10        (A1)     blank
C*  11-12     (I2)     EVMON    2 digits for the month of the quake.
C*  13-14     (I2)     EVDAY    2 digits for the day of the  quake.
C*  15        (A1)     blank
C*  16-17     (I2)     EVHOUR   2 digits for the hour of the quake.
C*  18-19     (I2)     EVMIN    2 digits for the minute of the quake.
C*  20        (A1)     EVINDX   Event index if there are more than one
C*                              quake within the same minute.
C*  21        (A1)     DATCOD   Normally a blank.  If more than 80 bytes
C*                              are used for a data record, then DATCOD=k
C*                              where k is the card sequence number with-
C*                              in the data record, e.g., 1, 2, ..., 9,
C*                              A, B, ..., Z, up to 35 cards.  If any
C*                              data record exceeds 35 cards (2800 bytes),
C*                              then DATCOD=* and the last data card must be
C*                              blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY   3-letter code serving as a data key
C*                              to the kind of data that follows,
C*                              in this case, 'SUM'
C*  25        (A1)     blank    A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME   Origin time; normally the seconds
```

```
C*                                    portion only.
C*  31        (A1)     TMUNIT     1-character code for the time unit;
C*                                  For some old quakes, the ORTIME may
C*                                  differ from the identification date
C*                                  and time.  Use Y for year, N for
C*                                  month, D for day, H for hour, M
C*                                  for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT      Hypocenter latitude in degrees.
C*  39        (A1)     HYNS       N for the northern hemisphere or S
C*                                  for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON      Hypocenter longitude in degrees.
C*  49        (A1)     HYEW       E for the eastern hemisphere or W
C*                                  for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP      Focal depth in km; decimal places
C*            or F5.2)            depends on teleseismic event (F5.1)
C*                                  or local quake (F5.2).
C*  56        (A1)     HYDEPC     1-character code for how focal depth
C*                                  is determined; A=assigned, D=re-
C*                                  strained by pP, H=held at fixed
C*                                  depth, etc.
C*  57        (A1)     blank      May be used for negative magnitude.
C*  58-60     (F3.1)   ML         Local magnitude.
C*  61        (A1)     MLCODE     1-character code for the type of
C*                                  local magnitude; R=Richter scale
C*                                  using Wood-Anderson seismograms
C*                                  was assumed for this data set, due
C*                                  to the institution involved and time period
C*                                  considered.
C*  62        (A1)     blank
C*  63        (A1)     MAXINT     1-character code for maximum inten-
C*                                  sity. PDE notation is used: 1 to 9
C*                                  for I to IX, X for X, E for XI, and
C*                                  T for XII.
C*  64        (A1)     blank
C*  65-67     (I3)     NUMPHA     Total number of phase readings for
C*                                  locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or     Maximum station gap in degrees (I3)
C*            or       MB         for a local quake, or body-wave mag-
C*            F3.1)               nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN or    Minimum station distance in km (I3)
C*            or       MS         for a local quake, or surface-wave
C*            F3.1)               magnitude (F3.1) for a teleseismic
C*                                  event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS        RMS residual in seconds (F3.1) for
C*                     OR M       a local quake, or any magnitude
C*                                  (F3.1) for a teleseismic event (to be
C*                                  specified by MCODE in column 80).
C*  80        (A1)     HYQUAL     HYPO71 quality code for a local quake,
C*                   or MCODE     or code for specifying M in columns
C*                                  77-79, e.g., U=unspecified, W=moment
C*                                  magnitude, etc.
```

```
C*
C*END-------------------------------------------------------------------------
S005 1970   1 1 1513   SUM 21.80 32.8010N 115.4443W  10.0  2.6R
S005 1970   1 1 1949   SUM 26.28 37.3425N 118.7632W   8.0  3.8R
S005 1970   1 1 2057   SUM 45.57 36.5867N 121.5943W   8.0  3.3R
S005 1970   1 2 1045   SUM 20.66 34.1678N 119.6702W  10.0  3.1R
S005 1970   1 2 2147   SUM 56.04 35.7437N 117.8487W  10.0  2.6R
S005 1970   1 3  251   SUM 58.32 37.2505N 122.1540W  08.0  3.9R
S005 1970   1 3 1948   SUM 40.80 33.9623N 116.8438W  10.0  3.2R
S005 1970   1 4  227   SUM 15.76 34.3053N 116.8450W   8.0  2.7R
S005 1970   1 5 12 4   SUM 36.65 33.1787N 116.0598W  10.0  3.1R
S005 1970   1 6  229   SUM  7.45 36.5717N 121.0812W   8.0  4.0R
****************** 467 data cards not shown here ******************
C*FINIS DSN=SL000005
```

Table SL000006

```
C$DSN=SL000006;SIZE=000956;DATE=030584;ARCH=JN;TAPE=SM9302;FILE=002;STRT=004372;
C*DATE: 19770322; 0; SUM43;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: C. R. ALLEN; M. E. FRIEDMAN; J. A. HILEMAN; J. M. NORDQUIST; J. H.
C*PERSN: WHITCOMB; J. T. NEWBERRY;
C*ALPHA: 19710101; 19711231; 31.233N; 39.234N; 122.362W; 114.898W; ; S006;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE CALIFORNIA
C*       INSTITUTE OF TECHNOLOGY (CIT) FOR THE YEAR 1971
C*AUTHOR: C. R. ALLEN, M. E. FRIEDMAN, J. A. HILEMAN, J. M. NORDQUIST, AND J. H.
C*        WHITCOMB
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000043 FROM THE CIT
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000137
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:  1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
            See previous format from dataset SL000005 for details
                        ****************************

C*END-------------------------------------------------------------------------
S006 1971  1 1 2036  SUM 18.44 33.9653N 119.3968W   8.0  3.0R
S006 1971  1 2  219  SUM 13.08 35.7633N 117.5717W   8.0  2.8R
S006 1971  1 2  237  SUM 50.32 35.8143N 117.5503W   8.0  3.0R
S006 1971  1 2  627  SUM 37.12 35.9332N 120.4423W   8.0  3.3R
S006 1971  1 2  759  SUM  8.02 35.7012N 117.5593W   8.0  2.8R
S006 1971  1 2 1119  SUM 28.78 35.8487N 117.4992W   8.0  3.0R
S006 1971  1 4  537  SUM 56.42 35.8903N 117.5212W   8.0  3.0R
S006 1971  1 5  614  SUM 45.04 34.0360N 117.9365W   8.0  3.6R
S006 1971  1 6 2253  SUM  1.02 35.0783N 118.3368W   8.0  2.8R
S006 1971  1 8 2323  SUM 14.62 34.8165N 116.2653W   8.0  3.0R
**************** 834 data cards not shown here ****************
C$FINIS DSN=SL000006
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Table SL000007

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C#DSN=SL000007;SIZE=000860;DATE=030584;ARCH=JN;TAPE=SM9302;FILE=002;STRT=005328;
C*DATE: 19770322; 0; SUM44;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: C. R. ALLEN; M. E. FRIEDMAN; J. A. HILEMAN; J. M. NORDQUIST; J. H.
C*PERSN: WHITCOMB; J. T. NEWBERRY;
C*ALPHA: 19720101; 19721231; 30.414N; 37.790N; 121.687W; 115.000W; ; S007;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE CALIFORNIA
C*       INSTITUTE OF TECHNOLOGY (CIT) FOR THE YEAR 1972
C*AUTHOR: C. R. ALLEN, M. E. FRIEDMAN, J. A. HILEMAN, J. M. NORDQUIST, AND J. H.
C*        WHITCOMB
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000044 FROM THE CIT
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000137
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:  1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                          ****************************
            See previous format from dataset SL000005 for details
                          ****************************

C*END-------------------------------------------------------------------------
S007 1972  1 1 1437  SUM 30.03 34.3015N 118.3448W  9.73  1.7R
S007 1972  1 2  447  SUM 10.90 34.1603N 116.7180W  08.0  2.8R
S007 1972  1 6  259  SUM 33.59 34.3252N 118.2995W  0.07  2.5R
S007 1972  1 6  8 4  SUM  1.07 34.3398N 118.4190W  4.79  1.7R
S007 1972  1 6 1010  SUM 35.26 35.7065N 118.3217W  08.0  3.6R
S007 1972  1 6 1032  SUM 59.95 34.3452N 118.3925W  3.38  1.7R
S007 1972  1 6 1626  SUM 52.89 34.1692N 117.4105W  08.0  2.8R
S007 1972  1 7  4 8  SUM 25.27 33.2627N 116.8380W  11.7  3.4R
S007 1972  1 9  425  SUM 24.25 31.8958N 116.1150W  08.0  3.6R
S007 1972  110  053  SUM  7.41 34.3917N 118.4017W  5.00  1.7R
***************** 738 data cards not shown here *****************
C#FINIS DSN=SL000007
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Table SL000008

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C#DSN=SL000008;SIZE=001365;DATE=030584;ARCH=JN;TAPE=SM9302;FILE=002;STRT=006188;
C*DATE: 19770322; 0; SUM45;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: C. R. ALLEN; M. E. FRIEDMAN; J. A. HILEMAN; J. M. NORDQUIST; J. H.
C*PERSN: WHITCOMB; J. T. NEWBERRY;
C*ALPHA: 19730101; 19731231; 31.367N; 37.875N; 121.632W; 111.001W; ; S008;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE CALIFORNIA
C*       INSTITUTE OF TECHNOLOGY (CIT) FOR THE YEAR 1973
C*AUTHOR: C. R. ALLEN, M. E. FRIEDMAN, J. A. HILEMAN, J. M. NORDQUIST, AND J. H.
C*        WHITCOMB
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000045 FROM THE CIT
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000137
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:  1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
            See previous format from dataset SL000005 for details
                        ****************************

C*END-------------------------------------------------------------------------
S008 1973  1 1  055  SUM 55.17 34.1725N 117.5457W   5.0  1.7R
S008 1973  1 2  245  SUM 48.57 33.6235N 117.3187W  08.0  3.1R
S008 1973  1 3  059  SUM 38.19 34.8175N 116.3222W  08.0  2.6R
S008 1973  1 3  321  SUM 53.90 31.5745N 115.7162W  08.0  3.7R
S008 1973  1 3  630  SUM 44.27 32.6075N 115.2693W  08.0  2.3R
S008 1973  1 3 2247  SUM 23.36 34.3780N 118.4048W  8.74  1.7R
S008 1973  1 3 2252  SUM 49.73 34.4287N 118.4017W 13.12  1.7R
S008 1973  1 4  337  SUM 47.98 33.9990N 117.2145W  7.33  1.7R
S008 1973  1 4 2031  SUM  8.81 34.1590N 119.5903W  08.0  2.6R
S008 1973  1 4 2055  SUM 18.81 34.2180N 118.2193W  4.37  1.7R
****************** 1243 data cards not shown here ******************
C#FINIS DSN=SL000008
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Table SL000009

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C$DSN=SL000009;SIZE=001364;DATE=030584;ARCH=JN;TAPE=SM9302;FILE=002;STRT=007553;
C*DATE: 19770322; 0; SUM46;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: C. R. ALLEN; M. E. FRIEDMAN; J. A. HILEMAN; J. M. NORDQUIST; J. H.
C*PERSN: WHITCOMB; J. T. NEWBERRY;
C*ALPHA: 19740101; 19741231; 28.215N; 38.820N; 121.607W; 112.961W; ; S009;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE CALIFORNIA
C*       INSTITUTE OF TECHNOLOGY (CIT) FOR THE YEAR 1974
C*AUTHOR: C. R. ALLEN, M. E. FRIEDMAN, J. A. HILEMAN, J. M. NORDQUIST, AND J. H.
C*        WHITCOMB
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000046 FROM THE CIT
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000137
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:  1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                         ****************************
            See previous format from dataset SL000005 for details
                         ****************************

C*END-------------------------------------------------------------------------
S009 1974  1 1  322  SUM 53.36 35.9350N 118.1220W  3.58  2.4R
S009 1974  1 2  850  SUM 30.03 34.3288N 118.3947W  1.18  1.1R
S009 1974  1 2 1027  SUM 53.89 34.4315N 118.4128W 12.92  1.7R
S009 1974  1 2 1132  SUM 13.26 34.2783N 118.4322W  5.00  1.8R
S009 1974  1 2 13 4  SUM 13.96 34.3163N 117.6405W  5.59  1.6R
S009 1974  1 2 1349  SUM 55.95 35.5515N 117.2637W  6.50  4.2R
S009 1974  1 3  020  SUM 30.45 34.3267N 118.2783W  7.98  1.2R
S009 1974  1 3  549  SUM 21.99 33.0998N 115.6285W  14.8  2.7R
S009 1974  1 4  2 0  SUM 31.19 31.7118N 115.9993W  5.13  2.7R
S009 1974  1 4  239  SUM 44.77 34.3503N 118.4200W  5.41  2.0R
****************** 1242 data cards not shown here ******************
C$FINIS DSN=SL000009
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Table SL000010

```
C$DSN=SL000010;SIZE=002998;DATE=030584;ARCH=JN;TAPE=SM9302;FILE=002;STRT=008917;
C*DATE: 19770322; 0; SUM47;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: C. R. ALLEN; M. E. FRIEDMAN; J. A. HILEMAN; J. M. NORDQUIST; J. H.
C*PERSN: WHITCOMB; J. T. NEWBERRY;
C*ALPHA: 19750101; 19751231; 28.741N; 37.826N; 121.500W; 111.595W; ; S00A;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE CALIFORNIA
C*       INSTITUTE OF TECHNOLOGY (CIT) FOR THE YEAR 1975
C*AUTHOR: C. R. ALLEN, M. E. FRIEDMAN, J. A. HILEMAN, J. M. NORDQUIST, AND J. H.
C*        WHITCOMB
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000047 FROM THE CIT
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000137
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:  1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
            See previous format from dataset SL000005 for details
                        ****************************

C*END-------------------------------------------------------------------------
S00A 1975  1 1  316  SUM 29.41 35.2587N 118.5300W  6.14  2.1R
S00A 1975  1 1  751  SUM 38.76 34.2188N 117.4425W  8.00  2.9R
S00A 1975  1 1 1315  SUM 30.04 34.3823N 118.4337W  8.00  2.1R
S00A 1975  1 1 1957  SUM 28.52 35.1155N 116.5718W  8.00  2.4R
S00A 1975  1 1 2028  SUM 29.67 35.3630N 118.4908W  5.44  2.4R
S00A 1975  1 2  938  SUM 59.45 30.7858N 116.3078W  8.00  3.1R
S00A 1975  1 2 1934  SUM 22.28 30.7982N 116.0603W  8.00  3.8R
S00A 1975  1 2 2031  SUM 33.78 33.8960N 115.5383W  0.18  2.6R
S00A 1975  1 3  555  SUM 31.71 33.5370N 117.6523W  3.95  3.8R
S00A 1975  1 3  6 0  SUM 53.14 33.5363N 117.6542W  3.78  3.4R
**************** 2876 data cards not shown here ****************
C$FINIS DSN=SL000010
```

```
C$DSN=SL000011;SIZE=001627;DATE=031584;ARCH=JN;TAPE=SM9302;FILE=003;STRT=000001;
C*DATE: 19821004; 0; KANEXP;
C*CLASS: EXPLOSION; SUMMARY; PHASE;
C*PERSN: K. PIPER;
C*ALPHA: 19740123; 19800425; 33.0149N; 35.0390N; 118.7635W; 115.0091W; ; S00B;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: KANAMORI EXPLOSION EXPERIMENT PHASE AND SUMMARY DATA READ BY THE
C*       CALIFORNIA INSTITUTE OF TECHNOLOGY FROM 1974 TO 1980.
C*AUTHOR: H. KANAMORI
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET WAS EXTRACTED FROM A TAPE SENT BY KEN PIPER IN 1982.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS
C*
C*         THE FILE IS ARRANGED SUCH THAT AN EXPLOSION SUMMARY
C*         CARD IS FOLLOWED BY THE RELEVENT PHASE CARDS.
C*
C*  THE EXPLOSION SUMMARY CARD APPEARS AS FOLLOWS:
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank
C*  06-09    (I4)    EVYEAR  4 digits for the year of the blast.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the blast.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  blast.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the blast.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the blast.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           blast within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
C*                           then DATCOD=* and the last data card must be
C*                           blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
C*                           in this case, 'EXP'
C*  25       (A1)    blank   A blank space for easy reading.
C*  26-30    (F5.2)  ORTIME  Origin time; normally the seconds
C*                           portion only.
C*  31       (A1)    blank
C*  32-38    (F7.4)  HYLAT   Hypocenter latitude in degrees.
C*  39       (A1)    HYNS    N for the northern hemisphere or S
C*                           for the southern hemisphere.
C*  40       (A1)    blank
C*  41-48    (F8.4)  HYLON   Hypocenter longitude in degrees.
C*  49       (A1)    HYEW    E for the eastern hemisphere or W
```

```
C*                                  for the western hemisphere.
C*  50-80     (A1)     blank
C*
C*  THE PHASE CARD APPEARS AS FOLLOWS:
C*
C*  COLUMNS   FORMAT   ITEM     EXPLANATION
C*  01-04     (I4)     REFNUM   Reference number to the data source
C*                                to be supplied by the archivist.
C*  05        (A1)     blank
C*  06-09     (I4)     EVYEAR   4 digits for the year of the blast.
C*  10        (A1)     blank
C*  11-12     (I2)     EVMON    2 digits for the month of the blast.
C*  13-14     (I2)     EVDAY    2 digits for the day of the  blast.
C*  15        (A1)     blank
C*  16-17     (I2)     EVHOUR   2 digits for the hour of the blast.
C*  18-19     (I2)     EVMIN    2 digits for the minute of the blast.
C*  20        (A1)     EVINDX   Event index if there is more than one
C*                                blast within the same minute.
C*  21        (A1)     DATCOD   Normally a blank.  If more than 80 bytes
C*                                are used for a data record, then DATCOD=k
C*                                where k is the card sequence number with-
C*                                in the data record, e.g., 1, 2, ..., 9,
C*                                A, B, ..., Z, up to 35 cards.  If any
C*                                data record exceeds 35 cards (2800 bytes),
C*                                then DATCOD=* and the last data card must be
C*                                blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY   3-letter code serving as a data key
C*                                to the kind of data that follows,
C*                                in this case, 'PHA'.
C*  25        (A1)     blank    A blank space for easy reading.
C*  26-29     (A4)     PHAGCY   4-character code for the agency
C*                                operating the station.  Normally a 3-
C*                                character code plus 1 blank is used.
C*  30-33     (A4)              4-character code for the station
C*                                name;  the last character usually
C*                                denotes the component of the
C*                                instrument.
C*  34        (A1)     blank    May be used to denote the component
C*                                of a 4-character code station.
C*  35-38     (A4)     PHPRMK   4-character code for the P-phase
C*                                remark.
C*  39        (A1)     blank
C*  40-44     (F5.2)   PHPARR   P-phase arrival time in seconds.
C*  45        (A1)     blank
C*  46-49     (A4)     PHSRMK   4-character code for the S-phase
C*                                remark.
C*  50        (A1)     blank
C*  51-55     (F5.2)   PHSARR   S-phase arrival time in seconds.
C*  56        (A1)     blank
C*  57-60     (I4)     PHFMP    Signal duration in seconds.
C*  61        (A1)     blank
C*  62-64     (A3)     PHRMK    General remark.
C*  65        (A1)     blank
C*  66-69     (F4.1)   AMPX     Maximum trace amplitude (peak-
C*                                to peak) in mm.
C*  70        (A1)     blank
```

```
C*  71-74    (F4.2)  PRX     Period in seconds associated
C*                           with the maximum trace amplitude.
C*  75-80    (F6.2)  DT      Clock correction in seconds to
C*                           be added to the arrival times.
C*END---------------------------------------------------------------------------
S00B 1974  123 2151  EXP  3.17 35.0390N 118.3203W
S00B 1974  123 2151  PHA CIT IRC  IPU  16.00        .
S00B 1974  123 2151  PHA CIT PYR  IPU  14.89  S
S00B 1974  123 2151  PHA CIT PASZ EP   21.35 ES   34.00   28
S00B 1974  123 2151  PHA CIT GSC  EPU  22.00 ES   45.50   41
S00B 1974  123 2151  PHA CIT ISA  IPU  15.30 IS   24.00   44
S00B 1974  123 2151  PHA CIT MWC  IPU  19.50 IS   31.20   38
S00B 1974  123 2151  PHA CIT PLM  EP   41.00 ES   70.40   30
S00B 1974  123 2151  PHA CIT RVRZ IPD  28.50 ES   46.60   45
S00B 1974  123 2151  PHA CIT SYP  EP   32.10  S           45
****************** 1502 data cards not shown here ******************
C$FINIS DSN=SL000011
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```
C$DSN=SL000012;SIZE=007372;DATE=031584;ARCH=JN;TAPE=SM9302;FILE=003;STRT=001628;
C*DATE: 19821004; 0; USCDATA;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER;
C*ALPHA: 19730206; 19801230; 33.182N; 34.596N; 119.212W; 117.173W; ; S00C;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: U.S.C. SUMMARY AND PHASE DATA FOR THE YEARS 1973 THROUGH 1980
C*AUTHOR: UNIV. OF SOUTHERN CALIFORNIA
C*INSTITUTION: UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, 90007
C*ABSTRACT: THIS DATA SET WAS EXTRACTED FROM A TAPE SENT BY KEN PIPER IN 1982.
C*          SEVERAL FILES WERE MERGED TO PRODUCE A DATA SET CONTAINING BOTH
C*          SUMMARY AND PHASE DATA.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS
C*
C*         THE FILE IS ARRANGED SUCH THAT AN EVENT SUMMARY
C*         CARD IS FOLLOWED BY THE RELEVENT PHASE CARDS.
C*         IF NO SUMMARY INFORMATION WAS GIVEN, A BLANK CARD
C*         APPEARS IN ITS PLACE, PRECEDING THE PHASE CARDS.
C*
C*  THE SUMMARY CARD APPEARS AS FOLLOWS:
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
C*                           then DATCOD=* and the last data card must be
C*                           blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
C*                           in this case, 'SUM'
C*  25       (A1)    blank   A blank space for easy reading.
C*  26-30    (F5.2)  ORTIME  Origin time; normally the seconds
C*                           portion only.
C*  31       (A1)    TMUNIT  1-character code for the time unit;
C*                           For some old quakes, the ORTIME may
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C*                                  differ from the identification date
C*                                  and time.  Use Y for year, N for
C*                                  month, D for day, H for hour, M
C*                                  for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT        Hypocenter latitude in degrees.
C*  39        (A1)     HYNS         N for the northern hemisphere or S
C*                                  for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON        Hypocenter longitude in degrees.
C*  49        (A1)     HYEW         E for the eastern hemisphere or W
C*                                  for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP        Focal depth in km; decimal places
C*            or F5.2)              depends on teleseismic event (F5.1)
C*                                  or local quake (F5.2).
C*  56        (A1)     HYDEPC       1-character code for how focal depth
C*                                  is determined; A=assigned, D=re-
C*                                  strained by pP, H=held at fixed
C*                                  depth, etc.
C*  57        (A1)     blank        May be used for negative magnitude.
C*  58-60     (F3.1)   ML           Local magnitude.
C*  61        (A1)     MLCODE       1-character code for the type of
C*                                  local magnitude; R=Richter scale
C*                                  using Wood-Anderson seismograms
C*                                  was assumed for this data set, due
C*                                  to the institution involved and time period
C*                                  considered.
C*  62        (A1)     blank
C*  63        (A1)     MAXINT       1-character code for maximum inten-
C*                                  sity. PDE notation is used: 1 to 9
C*                                  for I to IX, X for X, E for XI, and
C*                                  T for XII.
C*  64        (A1)     blank
C*  65-67     (I3)     NUMPHA       Total number of phase readings for
C*                                  locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or       Maximum station gap in degrees (I3)
C*            or       MB           for a local quake, or body-wave mag-
C*            F3.1)                 nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN or      Minimum station distance in km (I3)
C*            or       MS           for a local quake, or surface-wave
C*            F3.1)                 magnitude (F3.1) for a teleseismic
C*                                  event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS          RMS residual in seconds (F3.1) for
C*                     OR M         a local quake, or any magnitude
C*                                  (F3.1) for a teleseismic event (to be
C*                                  specified by MCODE in column 80).
C*  80        (A1)     HYQUAL       HYP071 quality code for a local quake,
C*                   or MCODE       or code for specifying M in columns
C*                                  77-79, e.g., U=unspecified, W=moment
C*                                  magnitude, etc.
C*
C*  THE PHASE CARD APPEARS AS FOLLOWS:
C*
```

```
C*  COLUMNS   FORMAT   ITEM     EXPLANATION
C*  01-04     (I4)     REFNUM   Reference number to the data source
C*                                to be supplied by the archivist.
C*  05        (A1)     blank    Space for overflow if year of the
C*                                quake is B.C.
C*  06-09     (I4)     EVYEAR   4 digits for the year of the quake;
C*                                If year is B.C., use "-" in column 5.
C*  10        (A1)     blank
C*  11-12     (I2)     EVMON    2 digits for the month of the quake.
C*  13-14     (I2)     EVDAY    2 digits for the day of the  quake.
C*  15        (A1)     blank
C*  16-17     (I2)     EVHOUR   2 digits for the hour of the quake.
C*  18-19     (I2)     EVMIN    2 digits for the minute of the quake.
C*  20        (A1)     EVINDX   Event index if there are more than one
C*                                quake within the same minute.
C*  21        (A1)     DATCOD   Normally a blank.  If more than 80 bytes
C*                                are used for a data record, then DATCOD=k
C*                                where k is the card sequence number with-
C*                                in the data record, e.g., 1, 2, ..., 9,
C*                                A, B, ..., Z, up to 35 cards.  If any
C*                                data record exceeds 35 cards (2800 bytes),
C*                                then DATCOD=* and the last data card must be
C*                                blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY   3-letter code serving as a data key
C*                                to the kind of data that follows,
C*                                in this case, 'PHA'.
C*  25        (A1)     blank    A blank space for easy reading.
C*  26-29     (A4)     PHAGCY   4-character code for the agency
C*                                operating the station.  Normally a 3-
C*                                character code plus 1 blank is used.
C*  30-33     (A4)              4-character code for the station
C*                                name;  the last character usually
C*                                denotes the component of the
C*                                instrument.
C*  34        (A1)     blank    May be used to denote the component
C*                                of a 4-character code station.
C*  35-38     (A4)     PHPRMK   4-character code for the P-phase
C*                                remark.
C*  39        (A1)     blank
C*  40-44     (F5.2)   PHPARR   P-phase arrival time in seconds.
C*  45        (A1)     blank
C*  46-49     (A4)     PHSRMK   4-character code for the S-phase
C*                                remark.
C*  50        (A1)     blank
C*  51-55     (F5.2)   PHSARR   S-phase arrival time in seconds.
C*  56        (A1)     blank
C*  57-60     (I4)     PHFMP    Signal duration in seconds.
C*  61        (A1)     blank
C*  62-64     (A3)     PHRMK    General remark.
C*  65        (A1)     blank
C*  66-69     (F4.1)   AMPX     Maximum trace amplitude (peak-
C*                                to peak) in mm.
C*  70        (A1)     blank
C*  71-74     (F4.2)   PRX      Period in seconds associated
C*                                with the maximum trace amplitude.
C*  75-80     (F6.2)   DT       Clock correction in seconds to
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```
C*                          be added to the arrival times.
C*
C*NOTES:      ************WARNING **************
C*
C*  SOME UNUSUAL LINES APPEAR IN THIS DATA SET.
C*    THEY CAN BE DETECTED BY LOOKING FOR '*****' AS PART
C*    OF THE LATITUDE AND/OR LONGITUDE VALUES ON SOME OF
C*    THE SUMMARY CARDS.
C*
C*  BELOW ARE LISTED THE UNUSABLE LINES WHICH WERE EDITED OUT
C*    OF THE DATA SET:  (EDITOR: JN)
C*
C*   19 7 4033  011  SUM  0.0  34.8333N 118*****W  0.0   2.4D     0   0   0 0.0
C*   19 7 4040  1 4  SUM  0.0  34.1667N 118*****W  0.0   2.8D     0   0   0 0.0
C*   19 7 4040  013  SUM  0.0  34.5000N 118*****W  0.0   2.9D     0   0   0 0.0
C*   19 7 4051  062  SUM  0.0  33*****N 118*****W  0.0   2.1D     0   0   0 0.0
C*   19 7 4051  062  SUM  0.0  33*****N 118*****W  0.0   2.1D     0   0   0 0.0
C*   19 0  0 0  0 0  SUM  0.0   0.0   N   0.0   W  0.0   0.0D     0   0   0 0.0
C*   19 0  0 0  0 0  SUM  0.0   0.0   N   0.0   W  0.0   0.0D     0   0   0 0.0
C*   19 9  0 2  115  PHA USC  --  I-C  23.94              45
C*END-------------------------------------------------------------------------
S00C
S00C 1973  1 8 20 0  PHA USC BHR  EPC  23.43
S00C 1973  1 8 20 0  PHA CIT SPH  IPC  21.44
S00C 1973  1 8 20 0  PHA CIT SCR  IPD  23.96             100
S00C 1973  1 8 20 0  PHA CIT SJR  IPC  15.58
S00C 1973  1 8 20 0  PHA CIT VPD  IPC  12.91             120
S00C 1973  1 8 20 0  PHA CIT TCN  IPD  17.63             100
S00C
S00C 1973  2 4  230  PHA CIT TCN  IPD0 58.73
S00C 1973  2 4  230  PHA USC LCM  EP+0 59.25
****************** 7175 data cards not shown here ******************
C*FINIS DSN=SL000012
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```
C#DSN=SL000013;SIZE=000323;DATE=031584;ARCH=JN;TAPE=SM9302;FILE=003;STRT=009000;
C*DATE: 19821004; 0; CITSTNS;
C*CLASS: EARTHQUAKE; STATION;
C*PERSN: K. PIPER;
C*ALPHA: ; 19820201; 30.816N; 37.055N; 120.511W; 114.022W; ; S00D;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STATION LIST FOR THE CALIFORNIA INSTITUTE OF TECHNOLOGY, AS OF
C*       FEBRUARY, 1982
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS LIST WAS EXTRACTED FROM A TAPE SENT BY KEN PIPER IN 1982
C*REFERENCE:
C*FORMAT:  THIS DATA SET CONTAINS ONE TYPE OF CARD
C*
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank
C*  06-09    (I4)    ONYEAR  4 digits for the year the station
C*                           began operation.
C*  10       (A1)    blank
C*  11-12    (I2)    ONMON   2 digits for the month of station
C*                           beginning.
C*  13-14    (I2)    ONDAY   2 digits for the day of the station
C*                           beginning.
C*  15       (A1)    blank
C*  16-17    (I2)    ONHOUR  2 digits for the hour of station
C*                           beginning.
C*  18-19    (I2)    ONMIN   2 digits for the minute of the
C*                           station beginning.
C*  20       (A1)    blank
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
C*                           then DATCOD=* and the last data card must be
C*                           blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
C*                           in this case, 'STA'.
C*  25       (A1)    STWT    Station weight (normally blank).
C*  26-29    (A4)    STAGCY  4-character code for the agency
C*                           operating the station.  Normally a 3-
C*                           character code plus 1 blank is used.
C*  30-33    (A4)    STNAME  4-character code for the station
C*                           name;  the last character usually
C*                           denotes the component of the
C*                           instrument.
C*  34       (A1)    blank   May be used to denote the component
C*                           of a 4-character code station.
```

```
C*  35-41    (f7.4)  STLAT   Station latitude in degrees.
C*  42       (A1)    STNS    N for the northern hemisphere or S
C*                           for the southern hemisphere.
C*  43       (A1)    blank
C*  44-51    (F8.4)  STLON   Station longitude in degrees.
C*  52       (A1)    STEW    E for the eastern hemisphere or W
C*                           for the western hemisphere.
C*  53-57    (I5)    STELEV  Station elevation in meters.
C*  58-59    (I2)    STPMOD  P model number for the station.
C*  60-64    (F5.2)  STPDLY  Station P-delay in seconds.
C*  65-66    (I2)    STINCL  Instrument class number for the
C*                           station.
C*  67-69    (I3)    STATTN  Station attenuation setting in dB.
C*  70-74    (F5.2)  STDT    Station clock correction in seconds.
C*  75-80    (3I2)   OFFDAT  Station off date (year,month,day).
C*END---------------------------------------------------------------------------
S00D                 STA CIT CNTR 34.0   N 118.0   W    0   0.0  0
S00D                 STA CIT  ABL 34.8508N 119.2208W 1981   0.0  1
S00D                 STA CIT  ADL 34.5563N 117.4170W  900  +0.30 1
S00D                 STA CIT  AMS 33.1413N 115.2542W  140   0.0  1
S00D                 STA CIT  BAR 32.6800N 116.6717W  549   0.0  1
S00D                 STA CIT BARZ 32.6800N 116.6717W  549   0.0  4
S00D                 STA CIT BARN 32.6800N 116.6717W  549   0.0  5
S00D                 STA CIT  BAT 33.4590N 115.8410W  -18   0.0  1
S00D                 STA CIT  BCH 35.1850N 120.0842W 1140   0.0  1
S00D                 STA CIT  BC2 33.6570N 115.4612W 1185   0.0  1
****************** 243 data cards not shown here ******************
C*FINIS DSN=SL000013
```

Table SL000014

```
C#DSN=SL000014;SIZE=000117;DATE=031584;ARCH=JN;TAPE=SM9302;FILE=003;STRT=009323;
C*DATE: 19821004; 0; USCSTNS;
C*CLASS: EARTHQUAKE; STATION;
C*PERSN: K. PIPER;
C*ALPHA: ; 19820901; 33.407N; 34.560N; 120.400W; 117.762W; ; S00E;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: STATION LIST USED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA AS OF
C*       SEPTEMBER, 1982
C*AUTHOR: UNIV. OF SOUTHERN CALIFORNIA
C*INSTITUTION: UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, 90007
C*ABSTRACT: THIS LIST WAS EXTRACTED FROM A TAPE SENT BY KEN PIPER IN 1982
C*REFERENCE:
C*FORMAT:  THIS DATA SET CONTAINS ONE TYPE OF CARD

                         ****************************
            See previous format from dataset SL000013 for details
                         ****************************

C*END-------------------------------------------------------------------------
S00E                  STA USC DTI  33.7628N 118.2208W
S00E                  STA USC FMA  33.7125N 118.2912W
S00E                  STA USC LNA  33.7892N 118.0545W
S00E                  STA USC RCP  33.7777N 118.1333W
S00E                  STA USC LCL  33.8333N 118.2068W
S00E                  STA USC GFP  34.1293N 118.3098W
S00E                  STA USC LCM  34.0178N 118.2870W
S00E                  STA USC HCM  33.9940N 118.3830W
S00E                  STA USC IPC  33.9707N 118.3345W
S00E                  STA USC DHB  34.0175N 118.3855W
****************** 37 data cards not shown here ******************
C#FINIS DSN=SL000014
```

```
C*DSN=SL000015;SIZE=001147;DATE=032184;ARCH=JN;TAPE=SM9302;FILE=004;STRT=000001;
C*DATE: 19820518; 0; CPLCT60;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. T. NEWBERRY
C*ALPHA: 19600102; 19601231; 29.000N; 39.300N; 121.433W; 114.000W; ; S00F;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1960 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR:
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000070 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
```

```
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
C*                                    specified by MCODE in column 80)
```

```
C*  80        (A1)     HYQUAL  HYP071 quality code for a local quake,
C*                     or      or code for specifying M in columns
C*                     MCODE   77-79, e.g., U=unspecified, W=moment
C*                             magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80           NUMCRD of condensed phase list cards
C*                             which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM    EXPLANATION
C*  1-2       (I2)     NUMSEQ  Sequence number for the condensed
C*                             phase list cards.
C*  3-6       (A4)     PHNAME  4-character code for the station name.
C*  7-10      (4A1)    PHRMKS  An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME  The meaning of PHTIME depends on
C*                             what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))  5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTES:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*   THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*   THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*   DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
C 1960 01 02  07 11 19.00  33 46.00 118 35.00 C 2.4 H04       8
C  FTCIP   600131055522.10       51.10IS
C 1960 04 14  20 45 23.00  32 52.00 115 29.00 B 3.3 Q02       8
```

```
C  ECC P   6004142019  .         43.30IS
C*END-------------------------------------------------------------------------
S00F 1960  1 2  711  CPL 19.00 33.7667N 118.5833W        2.4R  2
 1 PASIP   2730 PASIS   3500 FTCEP   3890 FTCES   5650 ISAIP   5320 ISAIS   7560
 2 PLMEP   4670 PLMES   6450 RVRIP   3730 RVRIS   4900
S00F 1960  1 2 14 5  CPL                                      2
 1 PASIP   5100 PASIS   8750 BARIP   1610 BARIS   3060 CLCEP   7440 CLCIS  12870
 2 ISAIP   7690 ISAIS  13150 PLMEP   2610 PLMIS   5000 RVRIP   4080 RVRIS   7200
S00F 1960  1 2 2251  CPL 48.00 35.4000N 121.2000W        4.0R  4
 1 PASIP   9380 PASIS  12810 CLCEP   9420 CLCIS  12660 BARIP  12000 BARIS  17350
 2 HAIIP   9260 HAIIS  12430 ISAIPU  8340 ISAIS  11050 KRCIPU  7000 KRCIS   8770
 3 PLMIP  11250 PLMIS  16130 RVRIP  10240 RVRIS  14310 SBCIP   8420 SBCIS  11010
****************** 969 data cards not shown here ******************
C$FINIS DSN=SL000015
```

```
C$DSN=SL000016;SIZE=001717;DATE=032184;ARCH=JN;TAPE=SM9302;FILE=004;STRT=001148;
C*DATE: 19820518; 0; CPLCT61;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. T. NEWBERRY
C*ALPHA: 19610101; 19611231; 29.800N; 40.600N; 127.500W; 112.500W; ; S00G;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1961 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR:
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000071 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
```

```
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
C*                                    specified by MCODE in column 80)
```

```
C*  80        (A1)     HYQUAL  HYP071 quality code for a local quake,
C*                     or      or code for specifying M in columns
C*                     MCODE   77-79, e.g., U=unspecified, W=moment
C*                             magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80           NUMCRD of condensed phase list cards
C*                             which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM    EXPLANATION
C*  1-2       (I2)     NUMSEQ  Sequence number for the condensed
C*                             phase list cards.
C*  3-6       (A4)     PHNAME  4-character code for the station name.
C*  7-10      (4A1)    PHRMKS  An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME  The meaning of PHTIME depends on
C*                             what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))  5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTES:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*    THE FIRST DIGIT OF THE SUMMARY LINES WAS CHANGED TO A 'C'.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
C961 03 12  07 36 32.00  33 30.00 119 02.00 C 3.5 G04       8
C MWCIPD  610312070653.20          .
```

```
C961 03 27  09 15 06.00  36 36.00 116 18.00 D 3.6 N10       8
C CLCEP   610321091506.00       49.30IS
C961 03 27  09 15 06.00  36 36.00 116 18.00 D 3.6 N10       8
C TINIP   610321091510.10       116.1IS
C961 03 27  09 15 06.00  36 36.00 116 18.00 D 3.6 N10       8
C WDYIP   610321091520.90         .
C961 08 12  16 34 19.42  36 13.41 118 22.34 A 3.1 J 9  -2.0 1C 0.11 0.8 0.6  2.3
C PLMIP   610812160511.10       63.20IS
C961 09 16  17 02 05.00  32 21.00 115 45.00 D 3.9 P01       8
C CLC     6109011704            10.10IS
C961 09 16  19 49 39.37  32 53.67 116  7.13 C 4.4 N 2  18.5 1C 0.93 6.6 8.7  7.0
C PASIP   610916200946.20       71.00IS
C961 09 16  19 49 39.37  32 53.67 116  7.13 C 4.4 N 2  18.5 1C 0.93 6.6 8.7  7.0
C BARIPU  610916200920.20       27.10IS
C961 09 16  19 49 39.37  32 53.67 116  7.13 C 4.4 N 2  18.5 1C 0.93 6.6 8.7  7.0
C CLCEP   610916201006.60       45.30ES
C961 09 16  19 49 39.37  32 53.67 116  7.13 C 4.4 N 2  18.5 1C 0.93 6.6 8.7  7.0
C ISAEP   610916201007.40       52.70IS
C961 09 16  19 49 39.37  32 53.67 116  7.13 C 4.4 N 2  18.5 1C 0.93 6.6 8.7  7.0
C HAYIP   610916200926.30       38.10IS
C961 09 16  19 49 39.37  32 53.67 116  7.13 C 4.4 N 2  18.5 1C 0.93 6.6 8.7  7.0
C MWCIP   610916200945.80       71.60IS
C961 09 16  19 49 39.37  32 53.67 116  7.13 C 4.4 N 2  18.5 1C 0.93 6.6 8.7  7.0
C PVREP   610916200947.50       73.00IS
C961 09 16  19 49 39.37  32 53.67 116  7.13 C 4.4 N 2  18.5 1C 0.93 6.6 8.7  7.0
C RVRIP   610916200935.40       52.80IS
C961 09 16  19 49 39.37  32 53.67 116  7.13 C 4.4 N 2  18.5 1C 0.93 6.6 8.7  7.0
C WDYEP   610916201007.60       52.40IS
C961 10 04  22 14 04.92  35 06.98 118 34.00 B 3.0 H07  05.5 1A  .13 1.1 0.8 02.1
C MWCIP   611004224423.10       36.70IS
C961 10 31  12 38 04.28  35 14.06 118 35.41 B 3.1 H07  -1.0 1A  .18 1.3 1.0 03.1
CI 6112
C961 11 12  04 20 00.00  36 58.00 121 40.00 D 3.7           8
C PASIP   611111041539.70       91.40IS
C961 11 12  04 20 00.00  36 58.00 121 40.00 D 3.7           8
C BARIP   611111041457.20         .
C961 11 12  04 20 00.00  36 58.00 121 40.00 D 3.7           8
C FTCEP   611111041558.90       104.8IS
C961 11 12  04 20 00.00  36 58.00 121 40.00 D 3.7           8
C GSC P   6111110417  .         07.70IS
C961 11 12  04 20 00.00  36 58.00 121 40.00 D 3.7           8
C HAYIP   611111041504.40       64.10IS
C961 11 12  04 20 00.00  36 58.00 121 40.00 D 3.7           8
C MWCEP   611111041537.70       95.40IS
C*END-------------------------------------------------------------------------
S00G 1961  1 1 1427  CPL 26.00 35.7167N 118.0000W        3.1R  4
 1 PASIP   5720 PASIS   7720 BAREP   8040 BARES  12520 CLCIPU  3390 FTCIP   4780
 2 FTCIS   6150 HAIIP   3390 HAIIS   3970 ISAIP   3310 KRCIP   5280 KRCIS   7240
 3 MWCIPU  5450 MWCIS   7390 RVREP   5750 RVRIS   8360 TINIPU  5090 TINIS   6870
 4 WDYIP   3800
S00G 1961  1 2  633A CPL 24.00 34.2500N 117.1667W        3.0R  3
 1 PASIP   3320 PASIS   4620 BARIPU  4930 BARIS   7350 ISAIP   5330 ISAIS   8030
 2 MWCIP   3150 PLMIPU  3830 PLMIS   5400 RVRIP   2550 RVRIS   2940 TINEP   7790
 3 TINIS  12030 WDYIP   6160 WDYIS   8410
S00G 1961  1 3 1331  CPL                                   3
****************** 1496 data cards not shown here ******************
```

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C$FINIS DSN=SL000016
```

```
C$DSN=SL000017;SIZE=001663;DATE=032184;ARCH=JN;TAPE=SM9302;FILE=004;STRT=002865;
C*DATE: 19820518; 0; CPLCT62;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. T. NEWBERRY
C*ALPHA: 19620101; 19621231; 29.100N; 41.800N; 124.267W; 112.000W; ; S00H;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1962 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR:
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000072 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*            HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*            WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*              EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*              BULL. SEISM. SOC. AM., 68,523-525.
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
```

```
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY  3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank   A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME  Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT  1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT   Hypocenter latitude in degrees.
C*  39        (A1)     HYNS    N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON   Hypocenter longitude in degrees.
C*  49        (A1)     HYEW    E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP   Focal depth in km; decimal places
C*            or F5.2)         depends on teleseismic event (F5.1)
C*                             or local quake (F5.2).
C*  56        (A1)     HYDEPC  1-character code for how focal depth
C*                             is determined; A=assigned, D=re-
C*                             strained by pP, H=held at fixed
C*                             depth, etc.
C*  57        (A1)     blank   May be used for negative magnitude.
C*  58-60     (F3.1)   ML      Local magnitude.
C*  61        (A1)     MLCODE  1-character code for the type of
C*                             local magnitude; R=Richter scale
C*                             using Wood-Anderson seismograms
C*                             was assumed for this data set, due
C*                             to the institution involved and time period
C*                             considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD  total number of condensed phase
C*                             list cards to be followed.
C*  65-67     (I3)     NUMPHA  total number of phase readings for
C*                             locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or  Maximum station gap in degrees (I3)
C*            or       MB      for a local quake, or body-wave mag-
C*            F3.1)            nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN    Minimum station distance in km (I3)
C*             or      or MS   for a local quake, or surface-wave
C*            F3.1)            magnitude (F3.1) for a teleseismic
C*                             event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or  rms residual in seconds (F3.1) for
C*                     M       a local quake, or any magnitude
C*                             (F3.1) for a teleseismic event (to be
C*                             specified by MCODE in column 80)
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C*  80        (A1)     HYQUAL  HYP071 quality code for a local quake,
C*                     or      or code for specifying M in columns
C*                     MCODE   77-79, e.g., U=unspecified, W=moment
C*                             magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80           NUMCRD of condensed phase list cards
C*                             which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM    EXPLANATION
C*  1-2       (I2)     NUMSEQ  Sequence number for the condensed
C*                             phase list cards.
C*  3-6       (A4)     PHNAME  4-character code for the station name.
C*  7-10      (4A1)    PHRMKS  An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME  The meaning of PHTIME depends on
C*                             what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))  5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTES:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*    THE FIRST DIGIT OF THE SUMMARY LINES WAS CHANGED TO A 'C'.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
C962  1 28  11 49 12.00  30 48.00 114 36.00   4.5 R 0       8
C RVRIP   620128085027.30       83.20IS
```

```
C962 08 01  02 56 42.00  37 42.00 118 18.00 D 3.2 J12       8
C ISAIP   620801022718.50        44.40IS
C962 08 14  23 57 30.00  31 36.00 114 48.00 D 4.0 R00       8
C GSCEP   620814233843.00        104.0IS
C962 08 25  00 34 59.00  33 12.00 119 35.00 C 2.3 F03       8
C MWCIP   620825033527.50        48.40IS
C962 08 25  00 34 59.00  33 12.00 119 35.00 C 2.3 F03       8
C PVRIP   620825033523.60        37.50IS
C962 08 25  00 34 59.00  33 12.00 119 35.00 C 2.3 F03       8
C SNCIPU  620825033502.10          .
C962 11 04  12 05 20.00  33 02.00 116 14.00 C 3.3 N03       8
C CLCIP   6211041251  .          114.1IS
C962 11  6  11 57 17.00  37 30.00 119 00.00   4.1 G12       7
C MWCIP   621106114311.50        58.60IS
C962 12 31   3 15  4.72  33 13.48 116 12.65 B 3.0 N 3  -2.0 1B 0.25 2.0 1.9  6.5
C PASIP   621224131719.00          .
C962 12 31   3 15  4.72  33 13.48 116 12.65 B 3.0 N 3  -2.0 1B 0.25 2.0 1.9  6.5
C BARIP   621224131632.80          .
C962 12 31   3 15  4.72  33 13.48 116 12.65 B 3.0 N 3  -2.0 1B 0.25 2.0 1.9  6.5
C PLMEP   621224131653.20        114.5IS
C962 12 31   3 15  4.72  33 13.48 116 12.65 B 3.0 N 3  -2.0 1B 0.25 2.0 1.9  6.5
C WDYEP   621224131736.00          .
C*END-------------------------------------------------------------------------
S00H 1962  1 1 1521  CPL 38.82 35.3710N 118.5978W  12.4  2.9R  4
 1 PASIPU  6170 PASIS   7770 BARIP   8610 CLCIP   5580 FTCES   5620 ISAIP   4480
 2 KRCIP   5770 MWCIP   6050 MWCIS   7810 PLMIP   7800 PLMES  11550 RVRIP   6670
 3 RVRIS   9070 SBCIP   6370 SBCIS   8220 TINIP   7100 TINIS   9450 WDYIP   4600
 4 WDYIS   5180
S00H 1962  1 5  915  CPL                                       2
 1 PASIP   7600 PASIS  13100 BARIP   3400 BARES   7700 ISAES   9600 MWCIP   7200
 2 MWCIS  12900 PLMIP  10500 RVREP   7000 WDYEP   8300
S00H 1962  1 7 23 1  CPL 31.49 33.2538N 118.6425W  08.2  2.8R  4
 1 PASIP   4920 PASIS   6250 BARIP   5830 BARES   8370 CLCIP   7920 CLCES  11610
****************** 1464 data cards not shown here ******************
C*FINIS DSN=SL000017
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C*DSN=SL000018;SIZE=001809;DATE=032184;ARCH=JN;TAPE=SM9302;FILE=004;STRT=004528;
C*DATE: 19820518; 0; CPLCT63;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. T. NEWBERRY
C*ALPHA: 19630101; 19631231; 30.000N; 39.000N; 122.800W; 111.000W; ; S00I;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1963 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR:
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000073 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*              EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*              BULL. SEISM. SOC. AM., 68,523-525.
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
```

```
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
C*                                    specified by MCODE in column 80)
```

```
C*  80        (A1)     HYQUAL  HYPO71 quality code for a local quake,
C*                     or      or code for specifying M in columns
C*                     MCODE   77-79, e.g., U=unspecified, W=moment
C*                             magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80           NUMCRD of condensed phase list cards
C*                             which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM    EXPLANATION
C*  1-2       (I2)     NUMSEQ  Sequence number for the condensed
C*                             phase list cards.
C*  3-6       (A4)     PHNAME  4-character code for the station name.
C*  7-10      (4A1)    PHRMKS  An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME  The meaning of PHTIME depends on
C*                             what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))  5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTES:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*    THE FIRST DIGIT OF THE SUMMARY LINES WAS CHANGED TO A 'C'.
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
C PASIP   630222015316.70       39.40IS
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
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C MWCIP   630222015315.20        32.90IS
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
C HAYIP   630222015246.60        59.10IS
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
C RVRIP   630222015312.10        28.10IS
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
C PLM P   6302220153  .          18.10IS
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
C BARIP   630222015303.60        15.90IS
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
C CLCIP   630222015338.00        86.90IS
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
C FTCIP   630222015331.90        55.00IS
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
C GSCIP   630222015332.90        69.60IS
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
C ISAIP   630222015343.40           .
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
C SNCIP   630222015320.30        41.20IS
C963 02 21  11 44 42.00  31 42.00 115 54.00 D 3.8 P00       8
C WDYIP   630222015338.20        95.00IS
C963 05 04  14 17 37.12  34 24.70 118 33.09 B 3.2 H 5  11.1 1B 0.12 0.7 0.6  1.1
C ISAIP   630504144757.10        75.60IS
C963 08 15  21 02 33.80  36 06.00 121 06.00   4.2        .  7
C WDYIP   630815213512.00           .
C963 08 24  10 49  6.89  36  7.68 117 41.26 B 3.4 K 9   8.1 1C 0.14 1.1 1.0  1.7
C FTCIP   630824101935.60        59.30IS
C963  9 14  20 28 11.20  36 55.00 121 39.30   4.6           6
C ISAIP   630914205857.00           .
C963 09 30  09 17 42.00  38 00.00 111 00.00   4.5           7
C GSCIP   630724105026.20        45.40IS
C963 12 06  13 54 22.12  36 26.92 117 54.62 C 3.8      -2.0 1A
C CLCIP   631206133435.40           .
C*END-------------------------------------------------------------------------
S00I 1963  1 1 1837  CPL 49.52 36.0732N 117.9628W   5.1  2.9R  4
 1 PASIP   8200 PASIS  10850 BARIS  15670 CLCIP   5720 CLCIS   6040 FTCIP   7460
 2 HAIIP   5030 HAIIS   5190 HAYIP  10630 HAYIS  14430 ISAIP   6020 ISAIS   6630
 3 MWCIP   8320 MWCIS  10800 PLMIS  13930 RVRIP   8800 RVRIS  11480 SBCIP   8750
 4 SBCIS  12070 TINIP   6770 TINIS   8180 WDYIP   6430 WDYIS   7560
S00I 1963  1 1 1850  CPL  6.61 33.9717N 118.3795W   5.3  2.0R  2
 1 PASIP   1140 PASIS   1460 BARIS   6001 CLCEP   4280 ISAIS   6001 MWCIP   1320
 2 MWCIS   1850 PLMIS   5970 RVRIP   2180 RVRIS   3330 WDYIP   3700 WDYIS   6060
S00I 1963  1 9  6 4  CPL  3.83 34.9218N 119.1028W   8.7  4.0R  4
 1 PASIPU  2430 PASIS   3810 BARIP   5070 CLCIP   2990 CLCIS   5160 FTCIP    790
****************** 1599 data cards not shown here ******************
C*FINIS DSN=SL000018
```

```
C$DSN=SL000019;SIZE=001428;DATE=032184;ARCH=JN;TAPE=SM9302;FILE=004;STRT=006337;
C*DATE: 19820518; 0; CPLCT64;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. T. NEWBERRY
C*ALPHA: 19640101; 19641231; 30.700N; 38.700N; 121.692W; 113.200W; ; S00J;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1964 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR:
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000074 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
```

```
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
C*                                    specified by MCODE in column 80)
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C*  80        (A1)     HYQUAL  HYP071 quality code for a local quake,
C*                     or      or code for specifying M in columns
C*                     MCODE   77-79, e.g., U=unspecified, W=moment
C*                             magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80           NUMCRD of condensed phase list cards
C*                             which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM    EXPLANATION
C*  1-2       (I2)     NUMSEQ  Sequence number for the condensed
C*                             phase list cards.
C*  3-6       (A4)     PHNAME  4-character code for the station name.
C*  7-10      (4A1)    PHRMKS  An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME  The meaning of PHTIME depends on
C*                             what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))  5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTES:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*   THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*   THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*   DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*   THE FIRST DIGIT OF THE SUMMARY LINES WAS CHANGED TO A 'C'.
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
C964 05 15  19 40 35.00  31 30.00 113 42.00   5.0           7
C ISAIP   640515192717.80       81.30IS
C964 11 29  14 25 26.45  32 59.41 115 40.94 B 4.2      13.8 1A
```

```
C BARIP   641129144542.80       55.00IS
C*END-------------------------------------------------------------------------
S00J 1964  1 2 1231  CPL 29.18 32.8845N 115.5847W  -2.0  2.9R  3
 1 PASIP   1560 PASIS   4940 BARIP   4690 BARIS   5900 ECCIS   3290 GSCEP   7800
 2 GSCIS  12000 HAYIP   4420 MWCIP   7460 MWCIS  10920 PLMIP   4940 PLMIS   6670
 3 RVRIP  12290 RVRIS  14830
S00J 1964  1 2 1521  CPL                                        1
 1 CLCIP   4370 CLCIS   5480 GSCIP   3100
S00J 1964  1 2  480  CPL                                        6
 1 PASIP    900 PASIS   6600 BARIP   1700 BARIS   6600 CLCEP   3000 CLCIS  10600
 2 GSCEP   1900 MWCIS    700 PLMEP   4000 PLMIS   8600 RVREP   5100 RVRIS  10900
 3 WDYIP   3900 WDYIS  11400 1964    4096 PASIPD   460 PASIS   2230 BARIPD  3000
****************** 1250 data cards not shown here ******************
C*FINIS DSN=SL000019
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C$DSN=SL000020;SIZE=001630;DATE=032184;ARCH=JN;TAPE=SM9302;FILE=004;STRT=007765;
C*DATE: 19820518; 0; CPLCT65;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. T. NEWBERRY
C*ALPHA: 19650101; 19651231; 30.100N; 38.900N; 122.500W; 113.700W; ; S00K;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1965 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR:
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000075 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    RENUM   Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
```

```
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
C*                                    specified by MCODE in column 80)
```

```
C*  80        (A1)     HYQUAL  HYP071 quality code for a local quake,
C*                     or      or code for specifying M in columns
C*                     MCODE   77-79, e.g., U=unspecified, W=moment
C*                             magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80           NUMCRD of condensed phase list cards
C*                             which have the following format:
C*
C*
C*  COLUMNS  FORMAT   ITEM     EXPLANATION
C*  1-2      (I2)     NUMSEQ   Sequence number for the condensed
C*                             phase list cards.
C*  3-6      (A4)     PHNAME   4-character code for the station name.
C*  7-10     (4A1)    PHRMKS   An array of 4 1-character elements.
C*  11-15    (I5)     PHTIME   The meaning of PHTIME depends on
C*                             what is coded in PHRMKS.
C*  16-80    (5(A4,4A1,I5))   5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTES:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*    THE FIRST DIGIT OF THE SUMMARY LINES WAS CHANGED TO A 'C'.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
C965  4 11  23 59 24.55  32 51.75 115 53.26 C 3.4      -2.0 1A
C PASIP   650412000004.40       37.30IS
```

```
C965  4 11  23 59 24.55  32 51.75 115 53.26 C 3.4      -2.0 1A
C CLCEP   650412000025.00       71.10IS
C965  4 11  23 59 24.55  32 51.75 115 53.26 C 3.4      -2.0 1A
C GSCEP   650412000007.80       47.50IS
C965  4 11  23 59 24.55  32 51.75 115 53.26 C 3.4      -2.0 1A
C ISAIP   650412000032.40         .
C965  4 11  23 59 24.55  32 51.75 115 53.26 C 3.4      -2.0 1A
C MWCIP   650412000004.50       35.70IS
C965  4 11  23 59 24.55  32 51.75 115 53.26 C 3.4      -2.0 1A
C WDYIP   650412000031.40       80.90IS
C*END-------------------------------------------------------------------------
S00K 1965  1 1  639  CPL 53.90 34.1377N 117.4828W   8.5  1.8R  2
 1 PASIP   6470 PASIS   7200 BAREP   8180 BARIS  10230 GSCIP   7720 GSCIS   9410
 2 RVRIP   5730 RVRIS   5980
S00K 1965  1 1  741  CPL                                       1
 1 PASIP   2360 PASIS   3150 GSCEP   3670 GSCIS   5360 RVRIP   1640 RVRIS   1920
S00K 1965  1 1  741  CPL 32.88 34.1228N 117.5227W   7.5  3.9R  4
 1 PASIP   4310 PASIS   5130 BARIP   6080 BARIS   8170 CLCIPD  6170 FTCIP   5670
 2 GSCIP   5640 GSCIS   7310 HAIIP   6740 HAIIS   9620 ISAIPD  6240 ISAIS   8280
 3 KRCIP   7010 KRCIS  10060 RVRIP   3610 RVRIS   3910 SBCIPU  6630 SBCIS   9110
 4 SNCIP   6650 SNCIS   9060 TINIP   8540 TINIS  12610 WDYIPD  6480 WDYES   8950
********** 1443 data cards not shown here **********
C*FINIS DSN=SL000020
```

```
C*DSN=SL000021;SIZE=001686;DATE=032284;ARCH=JN;TAPE=SM9302;FILE=005;STRT=000001;
C*DATE: 19790508; 0; CPLCT66;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. H. WHITCOMB; J. T. NEWBERRY
C*ALPHA: 19660101; 19661231; 30.500N; 38.000N; 121.750W; 113.338W; ; S00L;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1966 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000076 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT, USING GL000060
C*          AS A REFERENCE TO MINIMIZE ERRORS, CONVERTED BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
```

```
C*                                    A, B, ..., Z, up to 35 cards.  If any
C*                                    data record exceeds 35 cards (2800 bytes),
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
```

```
C*                                  (F3.1) for a teleseismic event (to be
C*                                  specified by MCODE in column 80)
C*  80        (A1)     HYQUAL       HYPO71 quality code for a local quake,
C*                     or           or code for specifying M in columns
C*                     MCODE        77-79, e.g., U=unspecified, W=moment
C*                                  magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80                NUMCRD of condensed phase list cards
C*                                  which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM         EXPLANATION
C*  1-2       (I2)     NUMSEQ       Sequence number for the condensed
C*                                  phase list cards.
C*  3-6       (A4)     PHNAME       4-character code for the station name.
C*  7-10      (4A1)    PHRMKS       An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME       The meaning of PHTIME depends on
C*                                  what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))       5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1966  8 07  17 03 24.08  35 54.37 120 28.26 C 3.5       2.8 1A
```

```
 RVREP   660807173713.90          .
1966 10 01  01 07 11.56  33 57.57 118 48.17 C 2.3      -2.0 1A
 TINIP   661002051324.30        70.30IS
1966 10 01  01 07 11.56  33 57.57 118 48.17 C 2.3      -2.0 1A
 WDYIPD  661002051305.00        24.70IS
C*ENDNOTE
C*END-------------------------------------------------------------------------
S00L 1966  1 7 1159  CPL 58.33 33.9295N 117.9423W  10.6  2.3R  2
 1 PASIPD  6370 PASIS   6820 BARIP   8650 BARIS  10720 GSCEP   8720 GSCIS  10890
 2 RVRIP   6720 RVRIS   7370 WDYIP   9310 WDYIS  11400
S00L 1966  1 7 1910  CPL 23.04 33.2788N 116.2487W  -1.7  4.0R  4
 1 PASIP   5520 PASIS   7970 BARIPD  3560 BARIS   4320 CLCEP   6740 CLCIS  11080
 2 CWCIS  13330 ECCEP   3450 ECCIS   5010 FTCIP   7100 FTCIS  10750 GSCIP   5820
 3 HAYIPU  3680 HAYIS   4430 PLMIP   3400 RVRIP   4540 RVRIS   6060 SBCIP   7900
 4 SBCIS  12060 TINIP   9500 TINIS  15200 WDYIP   7450 WDYIS  11850
S00L 1966  1 8  529  CPL 52.00 30.5000N 113.9000W    .   3.3R  1
****************** 1504 data cards not shown here ******************
C*FINIS DSN=SL000021
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```
C#DSN=SL000022;SIZE=002056;DATE=032284;ARCH=JN;TAPE=SM9302;FILE=005;STRT=001687;
C*DATE: 19790508; 0; CPLCT67;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. H. WHITCOMB; J. T. NEWBERRY
C*ALPHA: 19670101; 19671231; 31.426N; 37.808N; 121.788W; 114.693W; ; 500M;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1967 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000061 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT, USING GL000077
C*          AS A REFERENCE TO MINIMIZE ERRORS, CONVERTED BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
```

C*				A, B, ..., Z, up to 35 cards. If any
C*				data record exceeds 35 cards (2800 bytes),
C*				then DATCOD=* and the last data card must be
C*				blank, except "END" in columns 22-24.
C*	22-24	(A3)	DATKEY	3-letter code serving as a data key
C*				to the kind of data that follows,
C*				IN THIS CASE, 'CPL'.
C*	25	(A1)	blank	A blank space for easy reading.
C*	26-30	(F5.2)	ORTIME	Origin time; normally the seconds
C*				portion only.
C*	31	(A1)	TMUNIT	1-character code for the time unit;
C*				For some old quakes, the ORTIME may
C*				differ from the identification date
C*				and time. Use Y for year, N for
C*				month, D for day, H for hour, M
C*				for minute, and blank for second.
C*	32-38	(F7.4)	HYLAT	Hypocenter latitude in degrees.
C*	39	(A1)	HYNS	N for the northern hemisphere or S
C*				for the southern hemisphere.
C*	40	(A1)	blank	
C*	41-48	(F8.4)	HYLON	Hypocenter longitude in degrees.
C*	49	(A1)	HYEW	E for the eastern hemisphere or W
C*				for the western hemisphere.
C*	50	(A1)	blank	
C*	51-55	(F5.1,	HYDEP	Focal depth in km; decimal places
C*		or F5.2)		depends on teleseismic event (F5.1)
C*				or local quake (F5.2).
C*	56	(A1)	HYDEPC	1-character code for how focal depth
C*				is determined; A=assigned, D=re-
C*				strained by pP, H=held at fixed
C*				depth, etc.
C*	57	(A1)	blank	May be used for negative magnitude.
C*	58-60	(F3.1)	ML	Local magnitude.
C*	61	(A1)	MLCODE	1-character code for the type of
C*				local magnitude; R=Richter scale
C*				using Wood-Anderson seismograms
C*				was assumed for this data set, due
C*				to the institution involved and time period
C*				considered.
C*	62	(A1)	blank	
C*	62-64	(I3)	NUMCRD	total number of condensed phase
C*				list cards to be followed.
C*	65-67	(I3)	NUMPHA	total number of phase readings for
C*				locating the quake.
C*	68	(A1)	blank	
C*	69-71	(I3,	GAP or	Maximum station gap in degrees (I3)
C*		or	MB	for a local quake, or body-wave mag-
C*		F3.1)		nitude (F3.1) for a teleseismic event.
C*	72	(A1)	blank	
C*	73-75	(I3,	DMIN	Minimum station distance in km (I3)
C*		or	or MS	for a local quake, or surface-wave
C*		F3.1)		magnitude (F3.1) for a teleseismic
C*				event.
C*	76	(A1)	blank	
C*	77-79	(F3.1)	RMS or	rms residual in seconds (F3.1) for
C*			M	a local quake, or any magnitude

```
C*                                  (F3.1) for a teleseismic event (to be
C*                                  specified by MCODE in column 80)
C*  80        (A1)     HYQUAL       HYPO71 quality code for a local quake,
C*                     or           or code for specifying M in columns
C*                     MCODE        77-79, e.g., U=unspecified, W=moment
C*                                  magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80                NUMCRD of condensed phase list cards
C*                                  which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM         EXPLANATION
C*  1-2       (I2)     NUMSEQ       Sequence number for the condensed
C*                                  phase list cards.
C*  3-6       (A4)     PHNAME       4-character code for the station name.
C*  7-10      (4A1)    PHRMKS       An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME       The meaning of PHTIME depends on
C*                                  what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))        5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1967  2 18  23 07 47.89  34 44.88 116 23.08 B 3.0       5.3 1A
```

```
 HAYIP   670218233809.70       26.70IS
C*ENDNOTE
C*END-------------------------------------------------------------------------
S00M 1967  1 2  911  CPL                                                5
 1 PASEP   7160 PASIS  14430 BARIP   7730 CLCIP   5030 CLCIS   9780 CWCEP   4200
 2 CWCIS  10540 GLAIP   6580 GLAIS  13530 GSCIP   4750 GSCIS   9730 HAYIP   5940
 3 HAYIS  12240 ISAIP   7190 ISAIS  12510 MWCIP   7000 MWCIS  14020 PLMIP   6990
 4 PLMIS  14330 RVRIP   6620 RVRIS  13170 TINEP   5420 TINIS  10550 WDYIP   6440
 5 WDYIS  13240
S00M 1967  1 2 1158  CPL 24.22 33.5785N 118.2617W  -1.1  2.7R  3
 1 PASIPD  3500 PASIS   4250 BARIP   5090 BARIS   7440 CLCIP   6630 CLCIS   9640
 2 FTCIP  10700 FTCIS  12470 MWCIP   3660 MWCIS   4520 PLMIP   4530 PLMIS   6270
********** 1878 data cards not shown here **********
C$FINIS DSN=SL000022
```

```
C*DSN=SL000023;SIZE=003096;DATE=032284;ARCH=JN;TAPE=SM9302;FILE=005;STRT=003743;
C*DATE: 19790508; 0; CPLCT68;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. H. WHITCOMB; J. T. NEWBERRY
C*ALPHA: 19680101; 19681231; 31.430N; 38.148N; 121.745W; 114.774W; ; S00N;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1968 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000062 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT, USING GL000078
C*          AS A REFERENCE TO MINIMIZE ERRORS, CONVERTED BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
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C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
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C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*              EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*              BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
```

```
C*                                    A, B, ..., Z, up to 35 cards.  If any
C*                                    data record exceeds 35 cards (2800 bytes),
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
```

```
C*                                (F3.1) for a teleseismic event (to be
C*                                specified by MCODE in column 80)
C*  80        (A1)     HYQUAL     HYP071 quality code for a local quake,
C*                     or         or code for specifying M in columns
C*                     MCODE      77-79, e.g., U=unspecified, W=moment
C*                                magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80              NUMCRD of condensed phase list cards
C*                                which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM       EXPLANATION
C*  1-2       (I2)     NUMSEQ     Sequence number for the condensed
C*                                phase list cards.
C*  3-6       (A4)     PHNAME     4-character code for the station name.
C*  7-10      (4A1)    PHRMKS     An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME     The meaning of PHTIME depends on
C*                                what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))     5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*   THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*   THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*   DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1968  2 01  00 15 20.95  31 48.76 115 58.48 C 3.3      10.0 1R
```

```
 SCIIP   680201150059.30       91.00IS
1968  3 04  07 40 51.16  32 34.56 115 16.74 C 2.6      10.0 1R
 PASIP   680305232543.50       59.00IS
1968  3 04  07 40 51.16  32 34.56 115 16.74 C 2.6      10.0 1R
 CLCIP   680305232541.90       56.50IS
1968  3 04  07 40 51.16  32 34.56 115 16.74 C 2.6      10.0 1R
 CWCIP   680305232546.70       64.50IS
1968  3 04  07 40 51.16  32 34.56 115 16.74 C 2.6      10.0 1R
 GSCIP   680305232547.80       66.70IS
1968  3 04  07 40 51.16  32 34.56 115 16.74 C 2.6      10.0 1R
 ISAIP   680305232532.50       39.90IS
1968  3 04  07 40 51.16  32 34.56 115 16.74 C 2.6      10.0 1R
 MWCIP   680305232541.50       57.00IS
1968  3 04  07 40 51.16  32 34.56 115 16.74 C 2.6      10.0 1R
 RVRIP   680305232550.50       69.20IS
1968  3 04  07 40 51.16  32 34.56 115 16.74 C 2.6      10.0 1R
 SYPEP   680305232551.50       73.70IS
1968  3 04  07 40 51.16  32 34.56 115 16.74 C 2.6      10.0 1R
 SWMIPU  680305232531.90       39.10IS
1968  3 04  07 40 51.16  32 34.56 115 16.74 C 2.6      10.0 1R
 WDYIPU  680305232535.00       44.50IS
1968  3 20  22 37 45.08  32 48.99 117 03.34 B 2.9      -1.4 1A
 BARIP   680321223751.60       56.20IS
1968  3 20  22 37 45.08  32 48.99 117 03.34 B 2.9      -1.4 1A
 GSCIP   680321223830.00       63.00IS
1968  3 20  22 37 45.08  32 48.99 117 03.34 B 2.9      -1.4 1A
 MWCIP   680321223814.20       36.30IS
1968  3 20  22 37 45.08  32 48.99 117 03.34 B 2.9      -1.4 1A
 PLMIPU  680321223755.30       63.00IS
1968  3 20  22 37 45.08  32 48.99 117 03.34 B 2.9      -1.4 1A
 RVR P   6803212238   .        22.10IS
1968  5 29  05 12 55.15  35 18.88 118 30.47 B 3.6       6.5 1A
 PASEP   680529114223.00       102.0IS
1968  5 29  05 12 55.15  35 18.88 118 30.47 B 3.6       6.5 1A
 CLCIPD  680529114158.30       110.3IS
1968  5 29  05 12 55.15  35 18.88 118 30.47 B 3.6       6.5 1A
 CWCIP   680529114149.60       88.20IS
1968  5 29  05 12 55.15  35 18.88 118 30.47 B 3.6       6.5 1A
 GLAEP   680529114244.90       153.4IS
1968  5 29  05 12 55.15  35 18.88 118 30.47 B 3.6       6.5 1A
 GSCIP   680529114205.60       53.70IS
1968  5 29  05 12 55.15  35 18.88 118 30.47 B 3.6       6.5 1A
 ISAIP   680529114203.00       51.50IS
1968  5 29  05 12 55.15  35 18.88 118 30.47 B 3.6       6.5 1A
 PLMEP   680529114234.50       130.5IS
1968  5 29  05 12 55.15  35 18.88 118 30.47 B 3.6       6.5 1A
 RVRIP   680529114225.00       107.1IS
1968  5 29  05 12 55.15  35 18.88 118 30.47 B 3.6       6.5 1A
 TINIPD  680529114141.00       70.70IS
1968  5 29  05 12 55.15  35 18.88 118 30.47 B 3.6       6.5 1A
 WDYIP   680529114201.30       52.30IS
C*ENDNOTE
C*END-------------------------------------------------------------------------
S00N 1968  1 1  750  CPL 50.71 32.9402N 115.8437W   9.6  3.1R  4
 1 PASEP   8850 PASIS  11910 BARIP   6450 BARIS   7410 CLCIP  10920 CLCIS  15150
 2 GLAIP   6670 GLAIS   7800 GSCEP   9260 GSCIS  13030 HAYIPD  6510 HAYIS   7530
```

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 3 ISAEP  11350 ISAIS  15750 MWCIP   9080 MWCIS  11730 PLMIP   6730 PLMIS   7940
 4 RVRIP   8040 RVRIS   9840 WDYEP  11440 WDYES  16260
SOON 1968  1 1  928  CPL                                    2
 1 CLCIP   4410 CLCES   7200 CWCIP   3430 CWCIS   5900 GSCIP   5410 GSCIS  10170
 2 ISAIP   4820 ISAIS   7900 TINIP   2360 TINIS   3490
SOON 1968  1 1 1134  CPL                                    2
****************** 2868 data cards not shown here ******************
C$FINIS DSN=SL000023
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C$DSN=SL000024;SIZE=003750;DATE=032284;ARCH=JN;TAPE=SM9302;FILE=005;STRT=006839;
C*DATE: 19790508; 0; CPLCT69;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. H. WHITCOMB; J. T. NEWBERRY
C*ALPHA: 19690101; 19691231; 30.800N; 38.468N; 122.700W; 113.900W; ; S000;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1969 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000063 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT, USING GL000079
C*          AS A REFERENCE TO MINIMIZE ERRORS, CONVERTED BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*          HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*          WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
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C*                                      A, B, ..., Z, up to 35 cards.  If any
C*                                      data record exceeds 35 cards (2800 bytes),
C*                                      then DATCOD=* and the last data card must be
C*                                      blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY   3-letter code serving as a data key
C*                                      to the kind of data that follows,
C*                                      IN THIS CASE, 'CPL'.
C*  25        (A1)     blank    A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME   Origin time; normally the seconds
C*                                      portion only.
C*  31        (A1)     TMUNIT   1-character code for the time unit;
C*                                      For some old quakes, the ORTIME may
C*                                      differ from the identification date
C*                                      and time.  Use Y for year, N for
C*                                      month, D for day, H for hour, M
C*                                      for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT    Hypocenter latitude in degrees.
C*  39        (A1)     HYNS     N for the northern hemisphere or S
C*                                      for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON    Hypocenter longitude in degrees.
C*  49        (A1)     HYEW     E for the eastern hemisphere or W
C*                                      for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP    Focal depth in km; decimal places
C*            or F5.2)                  depends on teleseismic event (F5.1)
C*                                      or local quake (F5.2).
C*  56        (A1)     HYDEPC   1-character code for how focal depth
C*                                      is determined; A=assigned, D=re-
C*                                      strained by pP, H=held at fixed
C*                                      depth, etc.
C*  57        (A1)     blank    May be used for negative magnitude.
C*  58-60     (F3.1)   ML       Local magnitude.
C*  61        (A1)     MLCODE   1-character code for the type of
C*                                      local magnitude; R=Richter scale
C*                                      using Wood-Anderson seismograms
C*                                      was assumed for this data set, due
C*                                      to the institution involved and time period
C*                                      considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD   total number of condensed phase
C*                                      list cards to be followed.
C*  65-67     (I3)     NUMPHA   total number of phase readings for
C*                                      locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or   Maximum station gap in degrees (I3)
C*            or       MB       for a local quake, or body-wave mag-
C*            F3.1)             nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN     Minimum station distance in km (I3)
C*             or      or MS    for a local quake, or surface-wave
C*            F3.1)             magnitude (F3.1) for a teleseismic
C*                                      event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or   rms residual in seconds (F3.1) for
C*                     M        a local quake, or any magnitude
```

```
C*                                  (F3.1) for a teleseismic event (to be
C*                                  specified by MCODE in column 80)
C*  80        (A1)     HYQUAL       HYPO71 quality code for a local quake,
C*                     or           or code for specifying M in columns
C*                     MCODE        77-79, e.g., U=unspecified, W=moment
C*                                  magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80                NUMCRD of condensed phase list cards
C*                                  which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM         EXPLANATION
C*  1-2       (I2)     NUMSEQ       Sequence number for the condensed
C*                                  phase list cards.
C*  3-6       (A4)     PHNAME       4-character code for the station name.
C*  7-10      (4A1)    PHRMKS       An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME       The meaning of PHTIME depends on
C*                                  what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))       5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*   THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*   THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*   DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1969  3 21  05 14 23.50  31 06.00 114 30.00 C 4.9          7
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 ISAIP   690321054144.70          .
1969  3 21  05 14 23.50  31 06.00 114 30.00 C 4.9           7
 PLMIP   690321054054.00          .
1969  3 21  12 24 00.10  31 12.00 114 16.00 C 5.3           7
 HAYIP   690321125441.20          .
1969  3 21  12 24 00.10  31 12.00 114 16.00 C 5.3           7
 FTCIP   690321125534.0L          .
1969  4 13  07 45 41.54  36 08.58 118 00.25 B 3.0      -2.0 1A
 FTCIP   690413070608.60       28.00IS
1969  5 20  12 27 58.11  32 36.13 115 15.04 B 2.5      10.0 1R
 BARIP   690520112819.80       35.60IS
1969  5 20  12 27 58.11  32 36.13 115 15.04 B 2.5      10.0 1R
 GLAIPD  690520112809.40       16.10IS
1969  5 20  12 27 58.11  32 36.13 115 15.04 B 2.5      10.0 1R
 RHMIP   690520112806.60       20.70IS
1969  9 23  21 57 57.54  36 18.48 118 26.32 C 2.4      10.0 1R
 TINEP   690923212811.00       22.50IS
1969 11 13  15 15 02.18  37 09.78 116 05.31 C 3.5      10.0 1R
 CLCIP   691113150024.10       48.20IS
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 PASEP   691225125047.50          .
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 BARIP   691225125027.10       47.80IS
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 CLCIPD  691225125042.60       65.20IS
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 FTCEP   691225125053.00          .
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 GLAIPU  691225125004.50          .
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 GSCIP   691225125031.90       51.60IS
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 ISAIP   691225125051.10       76.70IS
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 MWCIP   691225125042.70       69.20IS
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 PLMIP   691225125029.00       49.00IS
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 RVRIPU  691225125034.00       59.50IS
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 SWMIP   691225125048.40       61.10IS
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 TIN P   6912251251           24.60IS
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 WDYIP   691225125055.80          .
1969 12 26  12 49 10.16  36 16.85 118 22.05 A 2.7      10.0 1R
 RHMIP   691225125012.50          .
C*ENDNOTE
C*END-------------------------------------------------------------------------
S000 1969  1 1  825  CPL 15.24 35.4707N 120.0723W   3.4  2.2R  2
 1 FTCIP   3560 FTCIS   5140 ISAIP   3920 ISAIS   5740 SBCIP   3530 SBCIS   4940
 2 SYPEP   3250 SYPIS   4500 SWMIP   4100 SWMIS   6310 WDYIPD  3360 WDYIS   4800
S000 1969  1 6  634  CPL                                      5
 1 PASIP   6920 PASIS  12270 BARIP   8600 BARIS   9660 CLCIPD  4450 MWCIP   6770
 2 MWCIS  11840 FTCIP   6490 FTCIS  11210 GLAIP   8320 GLAIS  15430 GSCIPD  4860
 3 HAYIP   7300 HAYIS  12830 ISAIPD  5270 PLMIPD  7680 PLMIS  14070 RVRIP   6830
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 4 RVRIS   11910 SBCIP    7630 SBCIS   13750 SYPIP    7830 TINIPD   4090 TINIS    6010
 5 SWMIP    6470 SWMIS   11220 WDYIPD   5530 WDYIS    8490
***************** 3526 data cards not shown here *****************
C$FINIS DSN=SL000024
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C$DSN=SL000025;SIZE=003007;DATE=032284;ARCH=JN;TAPE=SM9302;FILE=006;STRT=000001;
C*DATE: 19790508; 0; CPLCT70;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. H. WHITCOMB; J. T. NEWBERRY
C*ALPHA: 19700101; 19701231; 30.783N; 39.044N; 122.192W; 114.901W; ; S00P;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1970 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000064 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT, USING GL000080
C*          AS A REFERENCE TO MINIMIZE ERRORS, CONVERTED BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*            HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*            WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*              EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*              BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
```

```
C*                                      A, B, ..., Z, up to 35 cards.  If any
C*                                      data record exceeds 35 cards (2800 bytes),
C*                                      then DATCOD=* and the last data card must be
C*                                      blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY           3-letter code serving as a data key
C*                                      to the kind of data that follows,
C*                                      IN THIS CASE, 'CPL'.
C*  25        (A1)     blank            A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME           Origin time; normally the seconds
C*                                      portion only.
C*  31        (A1)     TMUNIT           1-character code for the time unit;
C*                                      For some old quakes, the ORTIME may
C*                                      differ from the identification date
C*                                      and time.  Use Y for year, N for
C*                                      month, D for day, H for hour, M
C*                                      for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT            Hypocenter latitude in degrees.
C*  39        (A1)     HYNS             N for the northern hemisphere or S
C*                                      for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON            Hypocenter longitude in degrees.
C*  49        (A1)     HYEW             E for the eastern hemisphere or W
C*                                      for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP            Focal depth in km; decimal places
C*            or F5.2)                  depends on teleseismic event (F5.1)
C*                                      or local quake (F5.2).
C*  56        (A1)     HYDEPC           1-character code for how focal depth
C*                                      is determined; A=assigned, D=re-
C*                                      strained by pP, H=held at fixed
C*                                      depth, etc.
C*  57        (A1)     blank            May be used for negative magnitude.
C*  58-60     (F3.1)   ML               Local magnitude.
C*  61        (A1)     MLCODE           1-character code for the type of
C*                                      local magnitude; R=Richter scale
C*                                      using Wood-Anderson seismograms
C*                                      was assumed for this data set, due
C*                                      to the institution involved and time period
C*                                      considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD           total number of condensed phase
C*                                      list cards to be followed.
C*  65-67     (I3)     NUMPHA           total number of phase readings for
C*                                      locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or           Maximum station gap in degrees (I3)
C*            or       MB               for a local quake, or body-wave mag-
C*            F3.1)                     nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN             Minimum station distance in km (I3)
C*             or      or MS            for a local quake, or surface-wave
C*            F3.1)                     magnitude (F3.1) for a teleseismic
C*                                      event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or           rms residual in seconds (F3.1) for
C*                     M                a local quake, or any magnitude
```

```
C*                                (F3.1) for a teleseismic event (to be
C*                                specified by MCODE in column 80)
C*  80        (A1)     HYQUAL     HYPO71 quality code for a local quake,
C*                     or         or code for specifying M in columns
C*                     MCODE      77-79, e.g., U=unspecified, W=moment
C*                                magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80              NUMCRD of condensed phase list cards
C*                                which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM       EXPLANATION
C*  1-2       (I2)     NUMSEQ     Sequence number for the condensed
C*                                phase list cards.
C*  3-6       (A4)     PHNAME     4-character code for the station name.
C*  7-10      (4A1)    PHRMKS     An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME     The meaning of PHTIME depends on
C*                                what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))     5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*         The originally supplied data files often contained
C*         blank summary cards.  In the converted data set
C*         that follows, the seconds portion of the origin
C*         time information, the hypocentral information, and
C*         the magnitude determination were left blank when
C*         when a blank summary card was found in the original
C*         data set.  The year, month, hour and minute of the
C*         event were inferred from the subsequent phase
C*         cards.
C*
C*         The condensed phase lists consist of P-arrival
C*         times and some S-arrival times.  The PHRMKS
C*         array consists of:  onset code (usually 'e', 'i',
C*         or ' ', the phase code ('p' or 's'), the first
C*         motion ('+','-','u','d','c', or 'd'), and the
C*         weighting factor, which is blank, since no first
C*         motion quality information was given in the orig-
C*         inal data set.
C*
C*         PHTIME represents time (in seconds * 100) relative
C*         to the minute of the origin time given on the CPL
C*         summary card.  For events where no summary information
C*         was given in the original data set, PHTIME is relative
C*         to the minimum minute of the P-arrival data from the
C*         phase list.
C*
C*   THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*   THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*   DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1970  2 14  05 19 44.74  34 03.84 116 11.03 A 2.4      10.0 1R
```

```
 SAOEP   700214053202.80
1970  2 14  05 19 44.74  34 03.84 116 11.03 A 2.4      10.0 1R
 MHCEP   700214053208.60
1970  2 14  05 19 44.74  34 03.84 116 11.03 A 2.4      10.0 1R
 PRIEP   700214053219.10
1970  2 14  05 19 44.74  34 03.84 116 11.03 A 2.4      10.0 1R
 BKSEP   700214053220.30
1970  2 14  05 19 44.74  34 03.84 116 11.03 A 2.4      10.0 1R
 JASEP   700214053223.60
1970  2 14  05 19 44.74  34 03.84 116 11.03 A 2.4      10.0 1R
 FREEP   700214053225.90
1970  6 05  14 59 39.35  33 14.42 119 28.59 C 3.2      08.0 1R 0.61 3.6 3.4   .
 WKRIP   700605155011.50
1970  6 18  15 14 31.45  35 47.90 118 06.38 A 2.5      08.0 1R 0.12 0.7 0.9   .
 CWCIP   700617151442.90       52.30IS
1970  6 18  15 14 31.45  35 47.90 118 06.38 A 2.5      08.0 1R 0.12 0.7 0.9   .
 GLAEP   700617151542.90       87.70IS
1970  6 18  15 14 31.45  35 47.90 118 06.38 A 2.5      08.0 1R 0.12 0.7 0.9   .
 CLCIP   700617151437.30       44.80IS
1970  6 18  15 14 31.45  35 47.90 118 06.38 A 2.5      08.0 1R 0.12 0.7 0.9   .
 FTCIP   700617151453.30       66.10IS
1970  6 18  15 14 31.45  35 47.90 118 06.38 A 2.5      08.0 1R 0.12 0.7 0.9   .
 GSCIP   700617151450.10       65.30IS
1970  6 18  15 14 31.45  35 47.90 118 06.38 A 2.5      08.0 1R 0.12 0.7 0.9   .
 ISAIP   700617151437.10
1970  6 18  15 14 31.45  35 47.90 118 06.38 A 2.5      08.0 1R 0.12 0.7 0.9   .
 MWCIP   700617151459.20       79.60IS
1970  6 18  15 14 31.45  35 47.90 118 06.38 A 2.5      08.0 1R 0.12 0.7 0.9   .
 PLMEP   700617151518.20       52.50ES
1970  6 18  15 14 31.45  35 47.90 118 06.38 A 2.5      08.0 1R 0.12 0.7 0.9   .
 SYPEP   700617151507.90       34.70ES
1970  6 18  15 14 31.45  35 47.90 118 06.38 A 2.5      08.0 1R 0.12 0.7 0.9   .
 WDYIPU  700617151442.70       51.00IS
1970  6 21  09 43 45.76  34 12.83 116 43.30 B 2.7       8.0 1R 0.29 1.5 1.1   .
 PASIP   700621064407.50       22.50IS
1970  6 21  09 43 45.76  34 12.83 116 43.30 B 2.7       8.0 1R 0.29 1.5 1.1   .
 BARIP   700621064422.70       43.50IS
1970  6 21  09 43 45.76  34 12.83 116 43.30 B 2.7       8.0 1R 0.29 1.5 1.1   .
 CLCIP   700621064415.70       38.20IS
1970  6 21  09 43 45.76  34 12.83 116 43.30 B 2.7       8.0 1R 0.29 1.5 1.1   .
 GLAIP   700621064420.10       47.50IS
1970  6 21  09 43 45.76  34 12.83 116 43.30 B 2.7       8.0 1R 0.29 1.5 1.1   .
 GSCIP   700621064402.80       17.50IS
1970  6 21  09 43 45.76  34 12.83 116 43.30 B 2.7       8.0 1R 0.29 1.5 1.1   .
 HAYIP   700621064404.50       17.80IS
1970  6 21  09 43 45.76  34 12.83 116 43.30 B 2.7       8.0 1R 0.29 1.5 1.1   .
 ISAIP   700621064420.60       46.50IS
1970  6 21  09 43 45.76  34 12.83 116 43.30 B 2.7       8.0 1R 0.29 1.5 1.1   .
 MWCIP   700621064404.40       21.20IS
1970  6 21  09 43 45.76  34 12.83 116 43.30 B 2.7       8.0 1R 0.29 1.5 1.1   .
 PLMIP   700621064401.00       14.00IS
1970  6 21  09 43 45.76  34 12.83 116 43.30 B 2.7       8.0 1R 0.29 1.5 1.1   .
 RVRIP   700621064354.70       64.50IS
1970  6 21  09 43 45.76  34 12.83 116 43.30 B 2.7       8.0 1R 0.29 1.5 1.1   .
 SWMIP   700621064413.40       35.40IS
1970  7 18  04 07 57.26  35 45.82 118 03.47 B 2.5       8.0 1R 0.20 1.1 1.30  .
```

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 CWCIP   700717040809.80        18.80IS
1970  7 18  04 07 57.26  35 45.82 118 03.47 B 2.5       8.0 1R 0.20 1.1 1.30  .
 GSCIP   700717040817.70        32.70IS
1970  7 18  04 07 57.26  35 45.82 118 03.47 B 2.5       8.0 1R 0.20 1.1 1.30  .
 ISAIP   700717040804.20
1970  7 18  04 07 57.26  35 45.82 118 03.47 B 2.5       8.0 1R 0.20 1.1 1.30  .
 SWMIP   700717040829.10        42.40IS
1970  7 18  04 07 57.26  35 45.82 118 03.47 B 2.5       8.0 1R 0.20 1.1 1.30  .
 WDYIP   700717040808.90        17.50IS
6
 BARIP   700720082313.20        30.00IS
6
 GLAIP   700720082304.80        13.70IS
6
 HAYIP   700720082317.60        37.10IS
1970  8 26  16 59 02.28  35 54.37 118 00.09 C 2.7      08.0 1R 0.60 4.0 3.1
 CWCIP   700828165912.40        19.20IS
1970  8 26  16 59 02.28  35 54.37 118 00.09 C 2.7      08.0 1R 0.60 4.0 3.1
 GSCIP   700828165923.50        38.10IS
1970  8 26  16 59 02.28  35 54.37 118 00.09 C 2.7      08.0 1R 0.60 4.0 3.1
 ISAIPU  700828165911.40        16.40IS
1970  8 26  16 59 02.28  35 54.37 118 00.09 C 2.7      08.0 1R 0.60 4.0 3.1
 SWMIP   700828165926.90        45.00IS
1970  9 05  16 15 36.06  33 15.74 116 25.38 A 2.6       8.0 1R 0.29 1.6 1.4   .
 PRIIP   700905162920.40
1970  9 05  16 15 36.06  33 15.74 116 25.38 A 2.6       8.0 1R 0.29 1.6 1.4   .
 SAOIP   700905162933.00
1970  9 05  16 15 36.06  33 15.74 116 25.38 A 2.6       8.0 1R 0.29 1.6 1.4   .
 JASIP   700905162941.50
1970  9 05  16 15 36.06  33 15.74 116 25.38 A 2.6       8.0 1R 0.29 1.6 1.4   .
 ISAIP   700905162934.00        51.60IS
1970  9 13  04 47 48.63  34 16.86 117 33.10 A 4.4       8.0 1R 0.13 0.8 0.9   .
 TINIP   700913040334.90        76.90IS
C*ENDNOTE
C*END-------------------------------------------------------------------------
S00P 1970  1 1 1513  CPL 21.80 32.8010N 115.4443W  10.0  2.6R  2
 1 BARIP   4030 BARIS   5390 GLAIPU  3300 GLAIS   4000 HAYEP   3880 PLMIP   4500
 2 PLMIS   6430
S00P 1970  1 1 1949  CPL 26.28 37.3425N 118.7632W   8.0  3.8R  5
 1 PASEP   8150 PASIS  12950 CLCIP   5640 GSCEP   6740 GSCIS  11400 ISAIPD  5660
 2 ISAIS   7700 PLMIP  10300 PLMES  16580 SYPEP   7570 SYPIS  11300 RVREP   8990
 3 RVRES  14610 SWMIP   7300 SWMIS  10930 TINIP   3430 TINIS   4290 WDYIP   5530
 4 WDYIS   7630 BKSEP   6970 SAOEP   6180 PRIEP   5940 JASEP   4780 MHCEP   6290
 5 FREEP   4320
****************** 2741 data cards not shown here ******************
C*FINIS DSN=SL000025
```

```
C#DSN=SL000026;SIZE=000192;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=007;STRT=000001;
C*DATE: 19780101; 0; ISC0409S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19040101; 19091231; 90.0S; 90.0N; 180.0W; 180.0E; ; S00Q;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEARS FROM 1904 TO 1909.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000001 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
C*                           then DATCOD=* and the last data card must be
C*                           blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
C*                           in this case, 'SUM'
C*  25       (A1)    blank   A blank space for easy reading.
C*  26-30    (F5.2)  ORTIME  Origin time; normally the seconds
C*                           portion only.
C*  31       (A1)    TMUNIT  1-character code for the time unit;
C*                           For some old quakes, the ORTIME may
C*                           differ from the identification date
C*                           and time.  Use Y for year, N for
C*                           month, D for day, H for hour, M
C*                           for minute, and blank for second.
C*  32-38    (F7.4)  HYLAT   Hypocenter latitude in degrees.
```

```
C*  39       (A1)     HYNS     N for the northern hemisphere or S
C*                             for the southern hemisphere.
C*  40       (A1)     blank
C*  41-48    (F8.4)   HYLON    Hypocenter longitude in degrees.
C*  49       (A1)     HYEW     E for the eastern hemisphere or W
C*                             for the western hemisphere.
C*  50       (A1)     blank
C*  51-55    (F5.1,   HYDEP    Focal depth in km; decimal places
C*           or F5.2)          depends on teleseismic event (F5.1)
C*                             or local quake (F5.2)
C*  56       (A1)     HYDEPC   1-character code for how focal depth
C*                             is determined; A=assigned, D=re-
C*                             strained by pP, H=held at fixed
C*                             depth, etc.
C*  57       (A1)     blank    May be used for negative magnitude.
C*  58-60    (F3.1)   ML       Local magnitude.
C*  61       (A1)     MLCODE   1-character code for the type of
C*                             local magnitude; R=Richter scale
C*                             using Wood-Anderson seismograms
C*                             was assumed for this data set, due
C*                             to the institution involved and time period
C*                             considered.
C*  62       (A1)     blank
C*  63       (A1)     MAXINT   1-character code for maximum inten-
C*                             sity. PDE notation is used: 1 to 9
C*                             for I to IX, X for X, E for XI, and
C*                             T for XII.
C*  64       (A1)     blank
C*  65-67    (I3)     NUMPHA   Total number of phase readings for
C*                             locating the quake.
C*  68       (A1)     blank
C*  69-71    (I3,     GAP or   Maximum station gap in degrees (I3)
C*           or       MB       for a local quake, or body-wave mag-
C*           F3.1)             nitude (F3.1) for a teleseismic event.
C*  72       (A1)     blank
C*  73-75    (I3,     DMIN or  Minimum station distance in km (I3)
C*           or       MS       for a local quake, or surface-wave
C*           F3.1)             magnitude (F3.1) for a teleseismic
C*                             event.
C*  76       (A1)     blank
C*  77-79    (F3.1)   RMS      RMS residual in seconds (F3.1) for
C*                    OR M     a local quake, or any magnitude
C*                             (F3.1) for a teleseismic event (to be
C*                             specified by MCODE in column 80).
C*  80       (A1)     HYQUAL   HYP071 quality code for a local quake,
C*                  or MCODE   or code for specifying M in columns
C*                             77-79, e.g., U=unspecified, W=moment
C*                             magnitude, etc.
C*END-------------------------------------------------------------------------
S00Q 1904  120 1452  SUM  6.00  7.0000N  79.0000W                          7.8U
S00Q 1904  4 4 1026  SUM  0.00 41.7500N  23.2500E                          7.5U
S00Q 1904  6 7  817  SUM 54.00 40.0000N 134.0000E 350.0                   7.5U
S00Q 1904  625 1445  SUM 36.00 52.0000N 159.0000E                          8.0U
S00Q 1904  625 21 0  SUM 30.00 52.0000N 159.0000E                          8.1U
S00Q 1904  627  0 9  SUM  0.00 52.0000N 159.0000E                          7.9U
S00Q 1904  824 2059  SUM 54.00 30.0000N 130.0000E                          7.8U
```

```
S00Q 1904  827 2156  SUM  6.00 64.0000N 151.0000W                          7.8U
S00Q 1904 10 3  3 5  SUM  0.00 12.0000N  58.0000E                          7.0U
S00Q 1904 1220  544  SUM 18.00  8.5000N  83.0000W                          7.8U
****************** 79 data cards not shown here ******************
C*FINIS DSN=SL000026
```

Table SL000027

```
C*DSN=SL000027;SIZE=000400;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=007;STRT=000193;
C*DATE: 19780101; 0; ISC1019S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19100101; 19191231; 90.0S; 90.0N; 180.0W; 180.0E; ; S00R;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEARS FROM 1910 TO 1919.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000002 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                         ****************************
            See previous format from dataset SL000026 for details
                         ****************************

C*END-------------------------------------------------------------------------
S00R 1910  1 1 11 2  SUM  0.00 16.5000N  84.0000W  60.0                    7.1U
S00R 1910  1 8 1449  SUM 30.00 35.0000N 122.0000E                          6.8U
S00R 1910  122  848  SUM 30.00 67.5000N  17.0000W                          7.1U
S00R 1910  123 1849  SUM 42.00 12.0000N  60.5000W 100.0                    7.2U
S00R 1910  212 1810  SUM  6.00 32.5000N 138.0000E 330.0                    7.4U
S00R 1910  218  5 9  SUM 18.00 36.0000N  24.5000E 150.0                    7.0U
S00R 1910  330 1655  SUM 48.00 21.0000S 170.0000E  80.0                    7.3U
S00R 1910  412  022  SUM 13.00 25.5000N 122.5000E 200.0                    7.8U
S00R 1910  420 2222  SUM  0.00 20.0000S 177.0000W 330.0                    7.0U
S00R 1910  5 1 1830  SUM 36.00 20.0000S 169.0000E  80.0                    7.1U
****************** 287 data cards not shown here ******************
C*FINIS DSN=SL000027
```

Table SL000028

```
C$DSN=SL000028;SIZE=000944;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=007;STRT=000593;
C*DATE: 19780101; 0; ISC2029S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19200101; 19291231; 90.0S; 90.0N; 180.0W; 180.0E; ; S00S;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEARS FROM 1920 TO 1929.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000003 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S00S 1920  112 1339  SUM 58.00 23.5000N 144.0000E                          6.0U
S00S 1920  130 1826  SUM 45.00  3.0000N  77.5000W                          6.0U
S00S 1920  2 2 1122  SUM 18.00  4.0000S 152.5000E                          7.7U
S00S 1920  2 8  524  SUM 30.00 35.0000S 111.0000E                          6.3U
S00S 1920  210 22 7  SUM 15.00 18.0000N  67.5000W                          6.5U
S00S 1920  222 1735  SUM 50.00 47.5000N 146.0000E 340.0                    7.0U
S00S 1920  225 1756  SUM 23.00 35.0000N   9.5000E                          5.6U
S00S 1920  320 1831  SUM 25.00 35.0000S 110.0000W                          7.0U
S00S 1920  329  5 7  SUM 53.00 51.0000N 129.0000W                          6.4U
S00S 1920  419 21 6  SUM 36.00 19.0000N  97.0000W 110.0                    6.8U
***************** 831 data cards not shown here *****************
C$FINIS DSN=SL000028
```

Table SL000029

```
C*DSN=SL000029;SIZE=005095;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=007;STRT=001537;
C*DATE: 19780101; 0; ISC3039S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19300101; 19391231; 90.0S; 90.0N; 180.0W; 180.0E; ; S00T;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEARS FROM 1930 TO 1939.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000004 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-----------------------------------------------------------------------
S00T 1930  1 5  119  SUM 48.00 49.0000N 154.0000E 140.0                   6.9U
S00T 1930  1 6 2350  SUM  0.00 55.0000S 131.0000W                         6.0U
S00T 1930  111 2121  SUM  0.00 30.0000N 139.0000E 500.0                   5.0U
S00T 1930  114 22 1  SUM 19.00 16.0000S 171.0000W  30.0                   6.3U
S00T 1930  116  024  SUM 34.00 34.2000N 116.9000W                         5.3U
S00T 1930  117 1110  SUM 19.00 33.0000S  59.0000E                         6.0U
S00T 1930  117 1654  SUM 30.00  8.0000N 105.0000W                         5.6U
S00T 1930  126 1220  SUM 30.00 18.5000N 146.5000E 190.0                   6.3U
S00T 1930  214 1838  SUM 20.00 35.7500N  24.7500E 130.0                   6.8U
S00T 1930  214 2041  SUM 10.00 21.0000S 175.0000W  50.0                   6.5U
***************** 4982 data cards not shown here *****************
C*FINIS DSN=SL000029
```

Table SL000030

```
C$DSN=SL000030;SIZE=008194;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=008;STRT=000001;
C*DATE: 19780101; 0; ISC4049S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19400101; 19491231; 90.0S; 90.0N; 180.0W; 180.0E; ; S00U;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEARS FROM 1940 TO 1949.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000005 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-----------------------------------------------------------------------
S00U 1940  1 1 1215A SUM  9.00 17.8000S 178.8000W 477.0
S00U 1940  1 1 1215B SUM 12.00 17.2000S 178.7000W 550.0
S00U 1940  1 1 1215C SUM 13.00 18.0000S 178.5000W 570.0                    6.3U
S00U 1940  1 2  0 7  SUM  8.00 30.3000N  22.0000E
S00U 1940  1 2 11 7A SUM 14.00 28.5000S 113.0000W                          6.3U
S00U 1940  1 2 11 7B SUM 18.00 28.6000S 113.8000W
S00U 1940  1 2 11 7C SUM 18.00 28.5000S 113.5000W
S00U 1940  1 3 14 9  SUM 56.00 36.5000N 141.6000E
S00U 1940  1 4  110  SUM 18.00 34.0000S 162.0000W
S00U 1940  1 4  8 7  SUM 12.00 38.3000N 116.3000W
****************** 8081 data cards not shown here ******************
C$FINIS DSN=SL000030
```

Table SL000031

```
C#DSN=SL000031;SIZE=011410;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=009;STRT=000001;
C*DATE: 19780101; 0; ISC5054S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19500101; 19541231; 90.0S; 90.0N; 180.0W; 180.0E; ; S00V;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEARS FROM 1950 TO 1954.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000006 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S00V 1950  1 1  251  SUM 21.00 26.0000N 110.0000W
S00V 1950  1 1  252A SUM 16.00 25.1000N 109.7000W
S00V 1950  1 1  252B SUM 21.00 25.0000N 110.0000W
S00V 1950  1 1 10 3  SUM 30.00 41.2000N  14.8000E             6
S00V 1950  1 1 16 4  SUM 29.00 17.0000N 121.5000E
S00V 1950  1 2  042A SUM 26.00 19.0000N  67.5000W
S00V 1950  1 2  042B SUM 29.80 19.0300N  67.7200W  37.0          42          4.7U
S00V 1950  1 2  042C SUM 30.00 19.0000N  67.5000W  60.0
S00V 1950  1 2  042D SUM 34.00 19.1000N  67.1000W  64.0
S00V 1950  1 2  115A SUM 28.00  7.1000N  34.6000W
****************** 11297 data cards not shown here ******************
C#FINIS DSN=SL000031
```

Table SL000032

```
C*DSN=SL000032;SIZE=015348;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=010;STRT=000001;
C*DATE: 19780101; 0; ISC5559S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19550101; 19591231; 90.0S; 90.0N; 180.0W; 180.0E; ; S00W;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEARS FROM 1955 TO 1959.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000007 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S00W 1955  1 1 1034A SUM 41.00 28.5000N  44.0000W
S00W 1955  1 1 1034B SUM 42.00 28.1000N  44.4000W
S00W 1955  1 1 1049A SUM 32.00 28.5000N  44.0000W
S00W 1955  1 1 1049B SUM 33.00 28.1000N  44.4000W
S00W 1955  1 1 1049C SUM 35.00 28.7500N  44.2500W
S00W 1955  1 1 1650  SUM 54.00 26.0000S 175.0000W
S00W 1955  1 1 1651  SUM  6.00 27.0000S 177.0000W
S00W 1955  1 1 18 3  SUM  8.00 51.0000N 178.5000W
S00W 1955  1 1 1837  SUM 41.00 51.5000N 178.5000W  60.0
S00W 1955  1 2  2 9  SUM 52.00  3.5000S 134.2500E
****************** 15235 data cards not shown here ******************
C*FINIS DSN=SL000032
```

Table SL000033

```
C*DSN=SL000033;SIZE=005613;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=011;STRT=000001;
C*DATE: 19780101; 0; ISC1960S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19600101; 19601231; 90.0S; 90.0N; 180.0W; 180.0E; ; S00X;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1960.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000008 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S00X 1960  1 1  234  SUM 48.00 15.9500N 100.1330W                          5.1U
S00X 1960  1 1  411  SUM 40.00 49.0000N 153.5000E
S00X 1960  1 1  417  SUM 32.00 27.5000N 142.0000E
S00X 1960  1 1  557  SUM 26.00 18.5000N 147.0000E
S00X 1960  1 1 1058  SUM  5.00  7.0000N  76.5000W
S00X 1960  1 1 21 4  SUM 11.00  6.5000S 147.5000E
S00X 1960  1 1 2312A SUM 31.00 56.0900N 163.0200E
S00X 1960  1 1 2312B SUM 33.00 56.0000N 162.5000E
S00X 1960  1 1 2312C SUM 36.00 56.0000N 164.0000E                          5.4U
S00X 1960  1 2  152  SUM 18.00 54.0000N 157.5000E
****************** 5500 data cards not shown here ******************
C*FINIS DSN=SL000033
```

Table SL000034

```
C#DSN=SL000034;SIZE=003202;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=011;STRT=005614;
C*DATE: 19780101; 0; ISC1961S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19610101; 19611231; 90.0S; 90.0N; 180.0W; 180.0E; ; S00Y;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1961.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000009 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S00Y 1961  1 1 11 2  SUM 29.00 16.4000N  98.6500W
S00Y 1961  1 1 1314  SUM 45.00 31.5000S 178.5000E
S00Y 1961  1 1 1638A SUM 23.00 18.3100S 178.1300W 551.0
S00Y 1961  1 1 1638B SUM 24.10 18.3700S 178.0400W 563.0          18
S00Y 1961  1 1 1845  SUM 45.40 86.4400N  70.0600E                 8
S00Y 1961  1 1 1933  SUM 26.00 55.8000S   8.0000E
S00Y 1961  1 1 2211  SUM 21.50 29.3200S 177.0400W 147.0           9
S00Y 1961  1 2 1011A SUM 40.00 12.4000S 166.4000E                                6.8U
S00Y 1961  1 2 1011B SUM 55.00 12.5000S 166.5400E 106.0
S00Y 1961  1 2 1246  SUM 34.00 16.0830N  97.5500W
****************** 3089 data cards not shown here ******************
C#FINIS DSN=SL000034
```

Table SL000035

```
C#DSN=SL000035;SIZE=003384;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=012;STRT=000001;
C*DATE: 19780101; 0; ISC1962S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19620101; 19621231; 90.0S; 90.0N; 180.0W; 180.0E; ; S00Z;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1962.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000010 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S00Z 1962  1 1  241A SUM  3.00 52.0500N 177.8300E
S00Z 1962  1 1  241B SUM  4.00 52.0000N 178.5000E                          6.0U
S00Z 1962  1 1  241C SUM  6.00 52.0000N 178.5000E                          6.0U
S00Z 1962  1 1  241D SUM 10.00 52.0000N 177.0000E                          4.8U
S00Z 1962  1 1  517  SUM 37.20 38.2330N 141.9000E
S00Z 1962  1 1 1215  SUM 47.00 27.2400S 175.1800W                 18
S00Z 1962  1 1 1324A SUM 30.00  6.9000N  73.0000W 176 0
S00Z 1962  1 1 1324B SUM 42.70  6.7100N  73.3700W 170.0           11
S00Z 1962  1 1 1531  SUM 13.00 22.5000S 171.0000E
S00Z 1962  1 1 18 5  SUM 45.00 61.8000N   5.5000E
****************** 3271 data cards not shown here ******************
C#FINIS DSN=SL000035
```

Table SL000036

```
C#DSN=SL000036;SIZE=003680;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=012;STRT=003385;
C*DATE: 19780101; 0; ISC1963S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19630101; 19631231; 90.0S; 90.0N; 180.0W; 180.0E; ; S010;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1963.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000011 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S010 1963  1 1 1543  SUM  7.00 43.2000N  13.3000E                          4.5U
S010 1963  1 1 1927  SUM 32.00 35.4000N  58.8000E                          5.8U
S010 1963  1 1 2339A SUM  5.00 57.0000N 160.0000W                          6.8U
S010 1963  1 1 2339B SUM  6.00 56.5700N 157.5600W  51.0
S010 1963  1 1 2339C SUM  8.00 54.5000N 155.5000W                          6.5U
S010 1963  1 1 2339D SUM 10.00 55.0000N 155.0000W                          4.0U
S010 1963  1 2  053  SUM 44.50 17.6600N  82.1900W  17.0          18         4.0U
S010 1963  1 2 1146  SUM 36.00 40.5000N  80.0000E                          5.3U
S010 1963  1 2 1455A SUM 54.00  4.0000S 136.0000E                          5.5U
****************** 3567 data cards not shown here ******************
C#FINIS DSN=SL000036
```

Table SL000037

```
C#DSN=SL000037;SIZE=010181;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=013;STRT=000001;
C*DATE: 19780101; 0; ISC1964S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19640101; 19641231; 90.0S; 90.0N; 180.0W; 180.0E; ; S011;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1964.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000012 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S011 1964  1 1  3 0  SUM 55.40 32.9700N 130.8400E                   6
S011 1964  1 1  422  SUM 13.90 43.7000N 126.3000W  33.0             6          3.7U
S011 1964  1 1  5 2  SUM 59.00 25.1000N 122.2000E  33.0             6
S011 1964  1 1  514  SUM 25.50 37.3100N 142.9800E  27.0            48          4.4U
S011 1964  1 1  8 2  SUM 12.00 38.3000N 111.8000W                   3
S011 1964  1 1  854  SUM 42.60 46.4000N 154.1000E  33.0             6          4.6U
S011 1964  1 1  914  SUM  1.80 19.1000S 169.5500E 249.0            10
S011 1964  1 1  943  SUM 59.10 18.1000N 105.8700W  33.0            19          4.3U
S011 1964  1 1  945  SUM 28.70 23.9000S  67.4000W 200.0             6          4.1U
S011 1964  1 1  958  SUM 37.80 41.4200S 176.7000E  33.0             8
****************** 10068 data cards not shown here ******************
C#FINIS DSN=SL000037
```

Table SL000038

```
C#DSN=SL000038;SIZE=010195;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=014;STRT=000001;
C*DATE: 19780101; 0; ISC1965S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19650101; 19651231; 90.0S; 90.0N; 180.0W; 180.0E; ; S012;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1965.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000013 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S012 1965  1 1  052  SUM 44.00 50.2300N  18.9600E                3         2.0U
S012 1965  1 1  124  SUM 35.00 38.6000S 175.8000E  12.0          8
S012 1965  1 1  256  SUM 44.10 18.7000N 107.9000W  33.0          7         3.6U
S012 1965  1 1  344  SUM 17.40  5.4500S 154.2500E 142.0         15
S012 1965  1 1  414  SUM 40.10 35.3600N 136.8800E               14
S012 1965  1 1  453  SUM  1.00 38.9000S 175.9000E  12.0          8
S012 1965  1 1  454  SUM 19.60 38.6000S 175.9000E  12.0          9
S012 1965  1 1  639  SUM 53.90 34.1400N 117.4800W   9.0          0         1.8U
S012 1965  1 1  741  SUM 30.70 33.9700N 117.5200W   8.0         20         4.4U
S012 1965  1 1  8 4  SUM 15.70 33.9500N 117.6100W   6.0         33         4.5U
****************** 10082 data cards not shown here ******************
C#FINIS DSN=SL000038
```

Table SL000039

```
C#DSN=SL000039;SIZE=011215;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=015;STRT=000001;
C*DATE: 19780101; 0; ISC1966S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19660101; 19661231; 90.0S; 90.0N; 180.0W; 180.0E; ; S013;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1966.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000014 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S013 1966  1 1  159  SUM 53.00 16.3000S  73.4000W  33.0           6
S013 1966  1 1  615  SUM  7.00 35.8000S 180.0000W  33.0          10
S013 1966  1 1  619  SUM 15.00 10.6200S 166.2600E  61.0           7
S013 1966  1 1  636  SUM 27.90 16.6700N  97.6900W  95.0          16          3.9U
S013 1966  1 1  841  SUM 54.60 57.5100N 153.7000W  42.0           8          4.2U
S013 1966  1 1  9 0  SUM  0.90 16.8900S  72.3500W  23.0           7
S013 1966  1 1  958  SUM 29.00 31.0000N 131.4000E  53.0           8
S013 1966  1 1 1113  SUM 27.00 14.7700N 119.5000E  35.0          11
S013 1966  1 1 1129  SUM 20.10 42.8500N  78.2800W   5.0           0          3.0U
S013 1966  1 1 12 8  SUM 17.00 15.7000N  98.7500W                 3
****************** 11102 data cards not shown here ******************
C#FINIS DSN=SL000039
```

Table SL000040

```
C#DSN=SL000040;SIZE=012456;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=016;STRT=000001;
C*DATE: 19780101; 0; ISC1967S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19670101; 19671231; 90.0S; 90.0N; 180.0W; 180.0E; ; S014;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1967.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000015 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S014 1967  1 1  0 4  SUM 17.00 13.2000S 165.8000E 119.0           9
S014 1967  1 1  013  SUM 11.00 11.4200S 165.7100E                 8
S014 1967  1 1  021  SUM  8.00 12.0200S 166.0800E  34.0         133          5.1U
S014 1967  1 1  045  SUM 16.00 12.2000S 166.0000E  22.0           9
S014 1967  1 1  1 5  SUM 45.00  0.0200S 125.9700E  18.0          36          4.8U
S014 1967  1 1  219  SUM 48.80 18.9000S 173.4000W  33.0          13          4.3U
S014 1967  1 1  259  SUM 39.60 10.9500N  93.1700E 108.0          59          4.6U
S014 1967  1 1  313A SUM 18.00 27.0000S  66.0000W                 7          4.1U
S014 1967  1 1  313B SUM 19.70 11.9900S 166.1300E  43.0          40          4.8U
S014 1967  1 1  335  SUM 44.40  7.5000N  94.5000E  34.0          19          4.4U
****************** 12343 data cards not shown here ******************
C#FINIS DSN=SL000040
```

Table SL000041

```
C#DSN=SL000041;SIZE=014313;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=017;STRT=000001;
C*DATE: 19780101; 0; ISC1968S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19680101; 19681231; 90.0S; 90.0N; 180.0W; 180.0E; ; S015;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1968.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000016 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY LEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S015 1968  1 1  1 2  SUM 58.00  9.1000S  80.4000W  33.0          10          4.1U
S015 1968  1 1  121  SUM 26.00  7.0000N  74.0000W                 1          4.7U
S015 1968  1 1  212  SUM 13.00 22.5000S 171.2500E                 4          3.7U
S015 1968  1 1  239  SUM 10.00 29.0000S  63.0000W                 1          4.6U
S015 1968  1 1  241  SUM 25.00  2.3600N  79.6900W  35.0          39          4.4U
S015 1968  1 1  4 3  SUM 45.00  2.9200N 101.0200W 157.0          38          4.3U
S015 1968  1 1  412  SUM 48.40 62.4300N 149.5700W  33.0           7
S015 1968  1 1  610  SUM 53.20 62.2100N 149.6000W  44.0           8
S015 1968  1 1  611  SUM  2.50 46.4000N 150.5000E 189.0          11          3.8U
S015 1968  1 1  656  SUM 25.00 22.4000S 173.9000W  33.0          11          4.5U
****************** 14200 data cards not shown here ******************
C#FINIS DSN=SL000041
```

Table SL000042

```
C#DSN=SL000042;SIZE=013294;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=018;STRT=000001;
C*DATE: 19780101; 0; ISC1969S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19690101; 19691231; 90.0S; 90.0N; 180.0W; 180.0E; ; S016;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1969.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000017 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S016 1969  1 1  1 2  SUM 42.00 36.7000N  29.3000E                  4
S016 1969  1 1  225  SUM  9.00 65.6400N 149.9800W  10.0           6
S016 1969  1 1  453  SUM 38.00 52.0700N 170.0900W  38.0          66          4.7U
S016 1969  1 1  555  SUM 36.40 21.3100S  67.1700W 203.0           8          3.8U
S016 1969  1 1  634  SUM  1.00 19.8000S 168.6000E                 3          3.4U
S016 1969  1 1  653  SUM 30.00 60.3300S 150.4000E  38.0          42
S016 1969  1 1  713  SUM 23.00 20.3000N  99.0000W  30.0           7
S016 1969  1 1  728  SUM 29.70 36.5900N 138.1300E                23
S016 1969  1 1  734  SUM 24.30 36.4500N 138.1300E                16          4.0U
S016 1969  1 1  8 4  SUM 34.10  6.0900S  77.2000W 100.0          14          4.3U
****************** 13181 data cards not shown here ******************
C#FINIS DSN=SL000042
```

Table SL000043

```
C$DSN=SL000043;SIZE=011881;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=019;STRT=000001;
C*DATE: 19780101; 0; ISC1970S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19700101; 19701231; 90.0S; 90.0N; 180.0W; 180.0E; ; S017;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1970.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000018 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S017 1970  1 1  117  SUM 11.30 17.6000N  61.4000W  89.0           3
S017 1970  1 1  119  SUM 30.00 15.9000N  60.8000W  88.0          14
S017 1970  1 1  136  SUM 17.00 19.2500S 169.0000E                5          3.5U
S017 1970  1 1  143  SUM 48.00  8.5400N  83.3500W  33.0         141          5.3U
S017 1970  1 1  149  SUM 56.80 28.5300N 129.3900E  49.0         107          5.1U
S017 1970  1 1  329  SUM 30.00  4.9000S 102.8300E 170.0          31          4.9U
S017 1970  1 1  331  SUM 30.30 16.2000S 177.0200E  33.0          26          4.9U
S017 1970  1 1  444  SUM 42.00 29.4000S  90.6000W  33.0           7
S017 1970  1 1  526  SUM 51.20 16.1700N  59.6900W  29.0           8
S017 1970  1 1  533  SUM  2.00 43.1000N 145.7000E  45.0           2          3.8U
****************** 11768 data cards not shown here ******************
C$FINIS DSN=SL000043
```

Table SL000044

```
C$DSN=SL000044;SIZE=011483;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=020;STRT=000001;
C*DATE: 19780101; 0; ISC1971S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19710101; 19711231; 90.0S; 90.0N; 180.0W; 180.0E; ; S018;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1971.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000019 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S018 1971  1 1  1 6  SUM 10.00 30.8000N  75.6000E  33.0           0          4.9U
S018 1971  1 1  137  SUM 22.40 44.7070S 166.8710E  12.0           9
S018 1971  1 1  141  SUM 10.00 50.3300N  18.8700E                  0          2.6U
S018 1971  1 1  210  SUM 10.00 59.0650S  26.1490W  33.0          13          4.8U
S018 1971  1 1  312  SUM 49.40 38.0430N  20.4510E                 12
S018 1971  1 1  445  SUM 29.60 59.6240N 144.6490W                109          5.1U
S018 1971  1 1  453  SUM 49.70 16.6170S 168.0040E  33.0           6
S018 1971  1 1  556  SUM  5.70 36.0840N 139.9580E  57.0          34
S018 1971  1 1  650  SUM 52.90 47.7780N 128.6100W  33.0          11
S018 1971  1 1  714  SUM 55.00 19.6900N 101.6000W  33.0           0          4.6U
****************** 11370 data cards not shown here ******************
C$FINIS DSN=SL000044
```

Table SL000045

```
C*DSN=SL000045;SIZE=012010;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=021;STRT=000001;
C*DATE: 19780101; 0; ISC1972S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19720101; 19721231; 90.0S; 90.0N; 180.0W; 180.0E; ; S019;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1972.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000020 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-----------------------------------------------------------------------
S019 1972  1 1  046  SUM 45.60 38.4420S 175.9190E   3.0          8
S019 1972  1 1  144  SUM 13.20  5.4840S 153.0980E  58.0         27
S019 1972  1 1  254  SUM 13.10 18.1600S 167.7180E  38.0         35
S019 1972  1 1  741  SUM 30.60 26.3220S  27.3700E                5
S019 1972  1 1 1015  SUM 48.50  4.6280S 155.2370E 510.0        146          5.2U
S019 1972  1 1 1127  SUM 36.50 66.5850N 144.8710W  33.0         27          3.7U
S019 1972  1 1 13 1  SUM 19.20 64.0400N  22.1660W  33.0         35          4.3U
S019 1972  1 1 14 4  SUM 42.90  5.0700S 153.2530E  40.0         35
S019 1972  1 1 1441  SUM 53.10 64.1600N  22.2760W  33.0         21          4.3U
S019 1972  1 1 1520  SUM 40.80 10.6050S 113.5060E  49.0         28
********** 11897 data cards not shown here **********
C*FINIS DSN=SL000045
```

Table SL000046

```
C*DSN=SL000046;SIZE=012374;DATE=032684;ARCH=JN;TAPE=SM9302;FILE=022;STRT=000001;
C*DATE: 19780101; 0; ISC1973S;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM;
C*ALPHA: 19730101; 19731231; 90.0S; 90.0N; 180.0W; 180.0E; ; S01A;
C*KEYWD:  ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1973.
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET WAS DERIVED FROM GL000021 BY USING A COMPUTER PROGRAM
C*          WRITTEN BY DEAN TOTTINGHAM, ARCHIVED AS GL000139
C*REFERENCE: DATA TAPE FROM THE INTERNATIONAL SEISMOLOGICAL CENTRE, JAN. 10,
C*           1978.
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S01A 1973  1 1  346  SUM  9.20  9.2940S 150.7290E  41.0          57
S01A 1973  1 1  522  SUM 29.70 15.0810S 173.9160W  33.0          57         4.9U
S01A 1973  1 1  647  SUM  9.70 43.0000N  47.3000E                  0
S01A 1973  1 1  757  SUM 36.70 36.9980N 121.7490W   8.0           7
S01A 1973  1 1  816  SUM 35.90 16.5360S  28.1080E                  5
S01A 1973  1 1  855  SUM 40.50 43.4000N  45.1000E                  0
S01A 1973  1 1  929  SUM  1.80 22.3890S  66.1280W 249.0          39         4.5U
S01A 1973  1 1 1142  SUM 36.10 35.5600S  15.5940W                130         5.3U
S01A 1973  1 1 1220  SUM 50.70 38.4480N  21.5380E                  8
S01A 1973  1 1 1320  SUM 53.60 16.4950S  28.3300E                  6
****************** 12261 data cards not shown here ******************
C*FINIS DSN=SL000046
```

```
C*DSN=SL000047;SIZE=013549;DATE=032884;ARCH=JN;TAPE=SM9302;FILE=023;STRT=000001;
C*DATE: 19770322; 0; ISC74NWS;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19740101; 19741231; 90.0S; 90.0N; 180.0W; 180.0E; ; S01B;
C*KEYWD: ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1974 CONVERTED FROM THE NEIS
C*       FORMAT TO THE ISC FORMAT, THEN TO THE USGS FORMAT.
C*AUTHOR: D.M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000031 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          (GL000139) WRITTEN BY D. M. TOTTINGHAM. GL000031 WAS DERIVED FROM
C*          GL000023 USING THE PROGRAM ISCCONV1. BECAUSE THE DATA FILE IN THE
C*          NEIS FORMAT WAS INCOMPLETE AND ROUNDED OFF, IT IS NOT POSSIBLE TO
C*          RECOVER THE ORIGINAL DATA IN THE ISC FORMAT COMPLETELY.
C*REFERENCE: SEE DSN=GL000023 AND PROGRAM ISCCONV1 (DSN=GL000030).
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-------------------------------------------------------------------------
S01B 1974  1 1  3 3  SUM  9.80  6.7230S 148.1640E                  4
S01B 1974  1 1  322  SUM 53.40 35.9300N 118.1190W   4.0  2.4      0
S01B 1974  1 1  547  SUM 26.30 20.1100S 173.8100W  33.0           36 4.4
S01B 1974  1 1  554  SUM 43.10 18.6990S 168.8630E 118.0           6
S01B 1974  1 1  652  SUM  4.30 19.9500S 170.4140E  33.0          23
S01B 1974  1 1  7 0  SUM 21.60 20.0810S 170.1620E  33.0           9
S01B 1974  1 1  742  SUM 26.90 19.9880S 170.1060E  33.0           9
S01B 1974  1 1  757  SUM  4.60 21.5510N 142.8940E 333.0         127 4.9
S01B 1974  1 1  928  SUM 44.90 22.0530S 176.8380W 212.0          55 4.6
S01B 1974  1 1  936  SUM 56.10 14.5990S 166.3930E  46.0          17 4.7
****************** 13432 data cards not shown here ******************
C*FINIS DSN=SL000047
```

Table SL000048

```
C*DSN=SL000048;SIZE=013992;DATE=032884;ARCH=JN;TAPE=SM9302;FILE=024;STRT=000001;
C*DATE: 19770322; 0; ISC75NWS;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19750101; 19751231; 90.0S; 90.0N; 180.0W; 180.0E; ; S01C;
C*KEYWD: ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1975 CONVERTED FROM THE NEIS
C*       FORMAT TO THE ISC FORMAT, THEN TO THE USGS FORMAT.
C*AUTHOR: D.M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000032 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          (GL000139) WRITTEN BY D. M. TOTTINGHAM. GL000032 WAS DERIVED FROM
C*          GL000024 USING THE PROGRAM ISCCONV1. BECAUSE THE DATA FILE IN THE
C*          NEIS FORMAT WAS INCOMPLETE AND ROUNDED OFF, IT IS NOT POSSIBLE TO
C*          RECOVER THE ORIGINAL DATA IN THE ISC FORMAT COMPLETELY.
C*REFERENCE: SEE DSN=GL000023 AND PROGRAM ISCCONV1 (DSN=GL000030).
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
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C*END-----------------------------------------------------------------------
S01C 1975  1 1  030  SUM  1.30 36.6660N  36.4850E  35.0          145 4.8
S01C 1975  1 1  046  SUM 16.10 62.3660N 151.2230W 107.0           13
S01C 1975  1 1  128  SUM 58.90 19.2700N 155.3460W  40.0           15
S01C 1975  1 1  2 5  SUM  5.90  5.6180S 154.4750E 107.0           12
S01C 1975  1 1  212  SUM 46.10 13.4440N  91.7440W  35.0            9 4.3
S01C 1975  1 1  223  SUM 54.30 20.9240S 176.0600W 196.0           18 4.6
S01C 1975  1 1  331  SUM 36.10  8.2550S 130.6290E 248.0           12
S01C 1975  1 1  355  SUM 11.80 61.9170N 149.7240W  58.0          350 5.9
S01C 1975  1 1  458  SUM 55.70 32.8040S  72.3610W  33.0            8
S01C 1975  1 1  546  SUM 34.30 41.8720N 142.0180E  33.0            4
***************** 13875 data cards not shown here *****************
C*FINIS DSN=SL000048
```

Table SL000049

```
C#DSN=SL000049;SIZE=015760;DATE=032884;ARCH=JN;TAPE=SM9302;FILE=025;STRT=000001;
C*DATE: 19770322; 0; ISC76NWS;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19760101; 19761231; 90.0S; 90.0N; 180.0W; 180.0E; ; S01D;
C*KEYWD: ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1976 CONVERTED FROM THE NEIS
C*       FORMAT TO THE ISC FORMAT, THEN TO THE USGS FORMAT.
C*AUTHOR: D.M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000033 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          (GL000139) WRITTEN BY D. M. TOTTINGHAM. GL000033 WAS DERIVED FROM
C*          GL000025 USING THE PROGRAM ISCCONV1. BECAUSE THE DATA FILE IN THE
C*          NEIS FORMAT WAS INCOMPLETE AND ROUNDED OFF, IT IS NOT POSSIBLE TO
C*          RECOVER THE ORIGINAL DATA IN THE ISC FORMAT COMPLETELY.
C*REFERENCE: SEE DSN=GL000023 AND PROGRAM ISCCONV1 (DSN=GL000030).
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

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            See previous format from dataset SL000026 for details
                         ****************************

C*END-------------------------------------------------------------------------
S01D 1976  1 1  0 4  SUM  5.60 38.4240N  21.7190E  18.0          122 4.6
S01D 1976  1 1  015  SUM 17.00 38.3870N  21.8160E                 10
S01D 1976  1 1  032  SUM 40.80 66.1240N  16.7840W  10.0           58 4.8
S01D 1976  1 1  121  SUM 21.60 38.4410N  21.7810E                  7
S01D 1976  1 1  129  SUM 35.20 28.7800S 177.3930W  23.0          431 6.2
S01D 1976  1 1  140  SUM 54.40 38.6080N  21.7070E                  7
S01D 1976  1 1  145  SUM 35.30 29.6010S 177.6180W 191.0           44
S01D 1976  1 1  147  SUM 53.00 33.4710N 116.5830W  11.0           7
S01D 1976  1 1  149  SUM 34.80 28.9540S 177.3980W 150.0           22
S01D 1976  1 1  159  SUM 10.60 29.4720S 176.9270W  33.0           37
****************** 15643 data cards not shown here ******************
C#FINIS DSN=SL000049
```

Table SL000050

```
C#DSN=SL000050;SIZE=015689;DATE=032884;ARCH=JN;TAPE=SM9302;FILE=026;STRT=000001;
C*DATE: 19770322; 0; ISC77NWS;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19770101; 19771231; 90.0S; 90.0N; 180.0W; 180.0E; ; S01E;
C*KEYWD: ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1977 CONVERTED FROM THE NEIS
C*       FORMAT TO THE ISC FORMAT, THEN TO THE USGS FORMAT.
C*AUTHOR: D.M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000034 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          (GL000139) WRITTEN BY D. M. TOTTINGHAM. GL000034 WAS DERIVED FROM
C*          GL000026 USING THE PROGRAM ISCCONV1. BECAUSE THE DATA FILE IN THE
C*          NEIS FORMAT WAS INCOMPLETE AND ROUNDED OFF, IT IS NOT POSSIBLE TO
C*          RECOVER THE ORIGINAL DATA IN THE ISC FORMAT COMPLETELY.
C*REFERENCE: SEE DSN=GL000023 AND PROGRAM ISCCONV1 (DSN=GL000030).
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
           See previous format from dataset SL000026 for details
                        ****************************

C*END-----------------.-----------------------------------------------------------
S01E 1977  1 1  016  SUM 22.20  5.1450N  77.9560W  61.0          16 4.7
S01E 1977  1 1  049  SUM 41.70 34.0990S  70.3790W   5.0           8
S01E 1977  1 1  218  SUM 17.00  8.1850S 107.7010E  53.0          15
S01E 1977  1 1  3 1  SUM 41.40 14.5600N  96.7800W  33.0           0
S01E 1977  1 1  310  SUM 55.80 43.8000N 147.5330E 150.0           6
S01E 1977  1 1  623  SUM 45.60 28.1330N 130.8470E  33.0          60 5.1
S01E 1977  1 1  7 3  SUM 31.00 43.6000N 146.6990E  70.0           0
S01E 1977  1 1  716  SUM 39.30 44.8240N  10.3340E  33.0           9
S01E 1977  1 1  720  SUM 51.00 40.4000N 127.1990W   2.0  3.8      0
S01E 1977  1 1  810  SUM 39.30  7.3860N  78.0910W  63.0          38 4.4
****************** 15572 data cards not shown here ******************
C#FINIS DSN=SL000050
```

Table SL000051

```
C*DSN=SL000051;SIZE=016715;DATE=032884;ARCH=JN;TAPE=SM9302;FILE=027;STRT=000001;
C*DATE: 19770322; 0; ISC78NWS;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19780101; 19781231; 90.0S; 90.0N; 180.0W; 180.0E; ; S01F;
C*KEYWD: ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1978 CONVERTED FROM THE NEIS
C*       FORMAT TO THE ISC FORMAT, THEN TO THE USGS FORMAT.
C*AUTHOR: D.M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000035 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          (GL000139) WRITTEN BY D. M. TOTTINGHAM. GL000035 WAS DERIVED FROM
C*          GL000027 USING THE PROGRAM ISCCONV1. BECAUSE THE DATA FILE IN THE
C*          NEIS FORMAT WAS INCOMPLETE AND ROUNDED OFF, IT IS NOT POSSIBLE TO
C*          RECOVER THE ORIGINAL DATA IN THE ISC FORMAT COMPLETELY.
C*REFERENCE: SEE DSN=GL000023 AND PROGRAM ISCCONV1 (DSN=GL000030).
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                         ***************************
            See previous format from dataset SL000026 for details
                         ***************************

C*END-----------------------------------------------------------------------
S01F 1978  1 1  030  SUM 26.30 21.5810S 169.2940E  75.0          29 4.2
S01F 1978  1 1  046  SUM 33.50 44.9930S 167.2000E  33.0           7
S01F 1978  1 1  223  SUM 30.90 41.7640S 175.2540E  25.0          15
S01F 1978  1 1  250  SUM 35.10 31.4060S  67.6860W 140.0           8
S01F 1978  1 1  258  SUM  9.00 31.3460S  67.9150W 107.0          13
S01F 1978  1 1  3 8  SUM 42.60  8.6680S 157.1870E  48.0          11 4.7
S01F 1978  1 1  3 9  SUM 35.40 53.0210N 159.9850E  33.0          31 4.5
S01F 1978  1 1  338  SUM 41.30 66.1680N 136.3950W                15
S01F 1978  1 1  352  SUM  8.00 41.7500N  19.5100E  17 0           0
S01F 1978  1 1  359  SUM 59.20 11.0320S 119.7100E  33.0           5
***************** 16598 data cards not shown here *****************
C*FINIS DSN=SL000051
```

Table SL000052

```
C$DSN=SL000052;SIZE=018179;DATE=032884;ARCH=JN;TAPE=SM9302;FILE=028;STRT=000001;
C*DATE: 19770322; 0; ISC79NWS;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19790101; 19791231; 90.0S; 90.0N; 180.0W; 180.0E; ; S01G;
C*KEYWD: ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1979 CONVERTED FROM THE NEIS
C*       FORMAT TO THE ISC FORMAT, THEN TO THE USGS FORMAT.
C*AUTHOR: D.M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000036 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          (GL000139) WRITTEN BY D. M. TOTTINGHAM. GL000036 WAS DERIVED FROM
C*          GL000028 USING THE PROGRAM ISCCONV1. BECAUSE THE DATA FILE IN THE
C*          NEIS FORMAT WAS INCOMPLETE AND ROUNDED OFF, IT IS NOT POSSIBLE TO
C*          RECOVER THE ORIGINAL DATA IN THE ISC FORMAT COMPLETELY.
C*REFERENCE: SEE DSN=GL000023 AND PROGRAM ISCCONV1 (DSN=GL000030).
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                         ****************************
            See previous format from dataset SL000026 for details
                         ****************************

C*END-------------------------------------------------------------------------
S01G 1979  1 1  0 5  SUM 26.10 35.5370N 140.2080E  60.0           5
S01G 1979  1 1  021  SUM 15.60 32.4030N 141.7830E  12.0         131     4.7
S01G 1979  1 1  1 2  SUM 24.00 32.3100S 138.1490E  20.0  1.4      0
S01G 1979  1 1  2 8  SUM 33.00 10.1950S 161.6040E  84.0          70 5.1
S01G 1979  1 1  219  SUM 42.10 40.4870N 126.5040W   5.0          17 4.2
S01G 1979  1 1  243  SUM 10.10 35.3170S 178.4910E 235.0          17 4.4
S01G 1979  1 1  3 1  SUM 10.90 23.6910N 121.3410E  33.0           8
S01G 1979  1 1  3 8  SUM 30.50  5.5530S 152.8380E  51.0          21 4.9
S01G 1979  1 1  337  SUM  4.80 47.4000N   1.5000W  25.0  2.9      0
S01G 1979  1 1  425  SUM 39.40 37.6380N  50.1760E  33.0           6 4.0
****************** 18062 data cards not shown here ******************
C$FINIS DSN=SL000052
```

Table SL000053

```
C#DSN=SL000053;SIZE=020053;DATE=032884;ARCH=JN;TAPE=SM9302;FILE=029;STRT=000001;
C*DATE: 19770322; 0; ISC80NWS;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19800101; 19801231; 90.0S; 90.0N; 180.0W; 180.0E; ; S01H;
C*KEYWD: ;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1980 CONVERTED FROM THE NEIS
C*       FORMAT TO THE ISC FORMAT, THEN TO THE USGS FORMAT.
C*AUTHOR: D.M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000037 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          (GL000139) WRITTEN BY D. M. TOTTINGHAM. GL000037 WAS DERIVED FROM
C*          GL000029 USING THE PROGRAM ISCCONV1. BECAUSE THE DATA FILE IN THE
C*          NEIS FORMAT WAS INCOMPLETE AND ROUNDED OFF, IT IS NOT POSSIBLE TO
C*          RECOVER THE ORIGINAL DATA IN THE ISC FORMAT COMPLETELY.
C*REFERENCE: SEE DSN=GL000023 AND PROGRAM ISCCONV1 (DSN=GL000030).
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                         ****************************
            See previous format from dataset SL000026 for details
                         ****************************

C*END-------------------------------------------------------------------------
S01H 1980  1 1  025  SUM 22.60 73.8190N  10.4110W  33.0           7
S01H 1980  1 1  124  SUM 37.10 12.3570N  95.1800E  19.0         173     4.9
S01H 1980  1 1  2 9  SUM 25.10 36.2030N 120.8330W  14.0          10
S01H 1980  1 1  245  SUM 55.20 27.3350N  60.3870E  40.0         235 5.3
S01H 1980  1 1  3 8  SUM 15.70 42.8100N  13.0300E  28.0           0
S01H 1980  1 1  353  SUM 42.30  7.1030S 129.7580E 123.0          12
S01H 1980  1 1  428  SUM 40.60 32.9340N 115.5220W   5.0           4
S01H 1980  1 1  430  SUM 45.90 39.2020S  74.6260W  33.0          12
S01H 1980  1 1  456  SUM  3.90 38.5960N  69.4450E  33.0           9 4.1
S01H 1980  1 1  5 5  SUM 44.20 54.9270N   2.7410W   3.0          41
***************** 19936 data cards not shown here *****************
C#FINIS DSN=SL000053
```

```
C#DSN=SL000054;SIZE=004005;DATE=040484;ARCH=JN;TAPE=SM9302;FILE=030;STRT=000001;
C*DATE: 19790508; 0; CPLCT71;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. H. WHITCOMB; J. T. NEWBERRY
C*ALPHA: 19710101; 19711231; 31.233N; 39.234N; 122.362W; 114.898W; ; S01I;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1971 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000065 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT, USING GL000081
C*          AS A REFERENCE TO MINIMIZE ERRORS, CONVERTED BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*          HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*          WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
```

```
C*                                    A, B, ..., Z, up to 35 cards.  If any
C*                                    data record exceeds 35 cards (2800 bytes),
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
```

```
C*                                  (F3.1) for a teleseismic event (to be
C*                                  specified by MCODE in column 80)
C*  80        (A1)     HYQUAL       HYPO71 quality code for a local quake,
C*                     or           or code for specifying M in columns
C*                     MCODE        77-79, e.g., U=unspecified, W=moment
C*                                  magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80                NUMCRD of condensed phase list cards
C*                                  which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM     EXPLANATION
C*  1-2       (I2)     NUMSEQ   Sequence number for the condensed
C*                                  phase list cards.
C*  3-6       (A4)     PHNAME   4-character code for the station name.
C*  7-10      (4A1)    PHRMKS   An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME   The meaning of PHTIME depends on
C*                                  what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))   5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1971  4 24  04 28 13.87  32 55.43 115 32.17 C 2.9      08.0 1R  .    .   .    .
```

```
 PASEP   710424040433.00        50.50IS
1971  4 24  04 28 13.87  32 55.43 115 32.17 C 2.9      08.0 1R  .    .    .    .
 CSPIPU  710424040430.30        41.40IS
1971  4 24  04 28 13.87  32 55.43 115 32.17 C 2.9      08.0 1R  .    .    .    .
 CLCIP   710424040429.60        41.50IS
1971  4 24  04 28 13.87  32 55.43 115 32.17 C 2.9      08.0 1R  .    .    .    .
 CWCIP   710424040441.30        62.80IS
1971  4 24  04 28 13.87  32 55.43 115 32.17 C 2.9      08.0 1R  .    .    .    .
 GLAEP   710424040512.90        60.30ES
1971  4 24  04 28 13.87  32 55.43 115 32.17 C 2.9      08.0 1R  .    .    .    .
 GSCIPU  710424040429.90        41.50IS
1971  4 24  04 28 13.87  32 55.43 115 32.17 C 2.9      08.0 1R  .    .    .    .
 ISAIP   710424040432.00        46.50IS
1971  4 24  04 28 13.87  32 55.43 115 32.17 C 2.9      08.0 1R  .    .    .    .
 MWCEP   710424040431.20
1971  4 24  04 28 13.87  32 55.43 115 32.17 C 2.9      08.0 1R  .    .    .    .
 PLMEP   710424040447.20        72.00ES
1971  4 24  04 28 13.87  32 55.43 115 32.17 C 2.9      08.0 1R  .    .    .    .
 PYRIP   710424040434.00
1971  4 24  04 28 13.87  32 55.43 115 32.17 C 2.9      08.0 1R  .    .    .    .
 RVREP   710424040435.00        50.30ES
1971  4 28  03 53 19.80  33 57.46 117 52.63 A 3.2       5.6 1A 0.08 0.6 0.8 01.4
 SJQIP   710911185456.80        77.00IS
1971  9 29  23 07 26.44  32 47.53 118 17.84 B 3.0       8.0 1R 0.30 1.9 2.2   .
 SCYIP   710928035328.80
1971  9 30  18 10 46.62  32 46.17 118 17.80 B 3.1       8.0 1R 0.32 2.1 2.0   .
 SCYIP   710929230749.70
1971 10 07  09 44 14.77  33 00.54 115 49.69 B 2.6      08.0 1R 0.15 1.1 1.2   .
 RHMIP   711007092645.90        59.40IS
1971 12 31  16 58 56.07  33 41.76 116 02.40 B 3.6      08.0 1R 0.16 1.3 1.8   .
 CWCIP   711231162951.90        93.50IS
C*
C*   ON THE CPL CARD FOR 1971 06 22 09 53 THE LATITUDE IS GIVEN
C*   AS 4.4507N.  IT WAS NOT CHANGED EVEN THOUGH IT APPEARS TO
C*   TO BE IN ERROR.
C*
C*ENDNOTE
C*END---------------------------------------------------------------------------
S01I 1971  1 1 2036  CPL 18.44 33.9653N 119.3968W   8.0  3.0R  3
 1 PASIP   3750 PASIS   5100 CLCEP   5670 CWCEP   6160 CWCIS   9540 GSCEP   6050
 2 GSCIS   9700 ISAIP   4800 ISAIS   5650 MWCIP   3950 PLMEP   6580 PLMIS   9150
 3 SBCIPU  2800 SBCIS   3700 SYPIPU  3200 SYPIS   4200 TINIP   7260 TINIS  11310
S01I 1971  1 2  219  CPL 13.08 35.7633N 117.5717W   8.0  2.8R  3
 1 PASEP   4450 PASIS   6700 CLCIP   1460 CWCIP   2800 CWCIS   3820 GSCIPU  2750
 2 GSCIS   3770 ISAIPU  2660 ISAIS   3480 PLMEP   5950 PLMES   9250 TINEP   3900
 3 TINES   5870
S01I 1971  1 2  237  CPL 50.32 35.8143N 117.5503W   8.0  3.0R  4
****************** 3792 data cards not shown here ******************
C*FINIS DSN=SL000054
```

```
C$DSN=SL000055;SIZE=003575;DATE=040484;ARCH=JN;TAPE=SM9302;FILE=030;STRT=004006;
C*DATE: 19820518; 0; CPLCT72;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. H. WHITCOMB; J. T. NEWBERRY
C*ALPHA: 19720101; 19721231; 30.414N; 37.790N; 121.687W; 115.000W; ; S01J;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1972 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000082 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT, USING GL000066
C*          AS A REFERENCE TO MINIMIZE ERRORS, CONVERTED BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*          HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*          WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
```

```
C*                                    A, B, ..., Z, up to 35 cards.  If any
C*                                    data record exceeds 35 cards (2800 bytes),
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
```

```
C*                                  (F3.1) for a teleseismic event (to be
C*                                  specified by MCODE in column 80)
C*  80        (A1)     HYQUAL       HYPO71 quality code for a local quake,
C*                     or           or code for specifying M in columns
C*                     MCODE        77-79, e.g., U=unspecified, W=moment
C*                                  magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80                NUMCRD of condensed phase list cards
C*                                  which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM         EXPLANATION
C*  1-2       (I2)     NUMSEQ       Sequence number for the condensed
C*                                  phase list cards.
C*  3-6       (A4)     PHNAME       4-character code for the station name.
C*  7-10      (4A1)    PHRMKS       An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME       The meaning of PHTIME depends on
C*                                  what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))       5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1972
```

```
 CSPIP   720826165416.10       27.70ES
1972
 CLCIP   720826165315.60       27.40IS
1972
 CWCIP   720826165334.80       38.80IS
1972
 GSCIP   720826165328.20       47.50IS
1972
 ISAIP   720826165305.00       09.50IS
1972
 MWCEP   720826165322.10       40.80ES
1972
 PLMIP   720826165427.10       46.80ES
1972  9 30  17  1 29.11  33 54.05 117 39.66 D 2.5      5.91 1A 0.694.172.3599.00
I 7210
1972 10 31  21 58 32.14  32 52.85 115 29.23 B 2.5      08.0 1R 0.21 1.0 2.3   .
I 7211
C*ENDNOTE
C*END-------------------------------------------------------------------------
S01J 1972  1 1 1437  CPL 30.03 34.3015N 118.3448W  9.73  1.7R  1
 1 SCRIPU  3550 SCRISU  3900 IRCIPU  3326 MWC P   3587
S01J 1972  1 2  447  CPL 10.90 34.1603N 116.7180W  08.0  2.8R  5
 1 PASEP   3290 PASES   4940 BAREP   3650 BARIS   5680 CSPIP   2060 CSPIS   2920
 2 CLCEP   4200 CLCIS   6430 GLAEP   4450 GLAES   7140 GSCEP   2950 GSCES   4480
 3 HAYIP   2790 HAYIS   4040 ISAEP   4740 ISAES   7420 LSMEP   5590 LSMIS   8900
 4 MWCEP   3090 MWCIS   4750 PLMIP   2610 PLMIS   3900 PYREP   4200 RVRIPU  2100
 5 RVRIS   2930
S01J 1972  1 3  236  CPL                                        1
****************** 3381 data cards not shown here ******************
C*FINIS DSN=SL000055
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```
C$DSN=SL000056;SIZE=005854;DATE=040484;ARCH=JN;TAPE=SM9302;FILE=031;STRT=000001;
C*DATE: 19820518; 0; CPLCT73;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. H. WHITCOMB; J. T. NEWBERRY
C*ALPHA: 19730101; 19731231; 31.367N; 37.848N; 121.562W; 111.001W; ; S01K;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1973 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000083 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT, USING GL000067
C*          AS A REFERENCE TO MINIMIZE ERRORS, CONVERTED BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*          HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*          WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
```

```
C*                                    A, B, ..., Z, up to 35 cards.  If any
C*                                    data record exceeds 35 cards (2800 bytes),
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
```

```
C*                                  (F3.1) for a teleseismic event (to be
C*                                  specified by MCODE in column 80)
C*  80        (A1)     HYQUAL       HYP071 quality code for a local quake,
C*                     or           or code for specifying M in columns
C*                     MCODE        77-79, e.g., U=unspecified, W=moment
C*                                  magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80                NUMCRD of condensed phase list cards
C*                                  which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM         EXPLANATION
C*  1-2       (I2)     NUMSEQ       Sequence number for the condensed
C*                                  phase list cards.
C*  3-6       (A4)     PHNAME       4-character code for the station name.
C*  7-10      (4A1)    PHRMKS       An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME       The meaning of PHTIME depends on
C*                                  what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))       5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1973 01 31  16 43 49.83  34 22.11 118 21.93 D 1.7
```

```
I 73 2
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 PASEP   730513022936.40       42.70ES
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 BAREP   730513022958.00       80.10ES
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 GSCEP   730513022952.50       69.70ES
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 MWCIP   730513022935.30       40.50IS
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 PLMEP   730513022947.60       62.00ES
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 RVREP   730513022933.40       37.30IS
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 TPCEP   730513022952.80       70.50ES
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 TCNIPU3 730513022936.07       42.21ISD3
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 VPDIPD3 730513022936.41       43.19ISU3
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 SJRIPD3 730513022940.26            S
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 CISEP 4 730513022947.80            S
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 IRCIPU3 730513022940.77       49.89ISU3
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 MWCIPU3 730513022935.34       40.96ISD3
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 PASIPU3 730513022936.80       43.38ISU3
1973  5 13  01 52 34.98  33 59.87 118 20.92 A 2.5      08.0 1R 0.11 0.9 0.7   .
 CSPIPU3 730513022933.33       37.20ISD3
1973  6  4  1  36 53.04  32 49.72 115 28.26 B 1.4 131 10.05  6  5 0.04  0.6  0.5
 COKEPD2 730604113658.18                                              007.
1973  6  4  1  36 53.04  32 49.72 115 28.26 B 1.4 131 10.05  6  5 0.04  0.6  0.5
 SGLIP+1 730604113658.50                                              018.
1973  6  4  1  36 53.04  32 49.72 115 28.26 B 1.4 131 10.05  6  5 0.04  0.6  0.5
 AMSIPU0 730604113659.95                                              012.
1973  6  4  1  36 53.04  32 49.72 115 28.26 B 1.4 131 10.05  6  5 0.04  0.6  0.5
 COAEP 2 730604113659.40                                              021.
1973  6  4  1  36 53.04  32 49.72 115 28.26 B 1.4 131 10.05  6  5 0.04  0.6  0.5
 PLTIPD0 730604113664.50
1973  6  4  1  36 53.04  32 49.72 115 28.26 B 1.4 131 10.05  6  5 0.04  0.6  0.5
 SNRIPU0 730604113655.45                                              012.
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6   .
 PASIP   730707115054.80       74.80IS
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6   .
 BARIP   730707115049.00       04.50IS
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6   .
 CLCEP   730707115119.20            S
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6   .
 CPEIP   730707115045.00       57.60IS
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6   .
 GLAEP   730707115112.50       36.00IS
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6   .
 GSCIP   730707115115.50            S
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6   .
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 HAYEP   730707115110.90       42.50ES
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6    .
 IKPIP   730707115056.30       78.00IS
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6    .
 ISAIP   730707115117.50       55.00IS
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6    .
 MWCIP   730707115056.00       70.10IS
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6    .
 PLMIP   730707115050.90       69.20IS
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6    .
 RVRIP   730707115054.40       72.30IS
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6    .
 SYPEP   730707115106.50       44.30IS
1973  8 07  11 50 27.40  32 32.83 118 05.84 B 3.3      08.0 1R 0.30 1.4 2.6    .
 TPCEP   730707115107.80       42.00ES
1973 12 26  06 18 25.52  35 25.40 114 51.08 D 3.1       8.0 1R
 TWLIPU  731225170035.62             S                                    59
1973 12 26  06 18 25.52  35 25.40 114 51.08 D 3.1       8.0 1R
 SCYIP   731225170039.18             S                                    58
1973 12 26  06 18 25.52  35 25.40 114 51.08 D 3.1       8.0 1R
 IRCEP   731225170039.45             S                                    60
1973 12 26  06 18 25.52  35 25.40 114 51.08 D 3.1       8.0 1R
PASZEP   731225170042.17       47.72ISU    11.20                           58
1973 12 26  06 18 25.52  35 25.40 114 51.08 D 3.1       8.0 1R
 PYREP   731225170042.88       49.52ISU    40.30                           54
1973 12 26  06 18 25.52  35 25.40 114 51.08 D 3.1       8.0 1R
 TWLIPU0 731225170035.62             S                                    59
1973 12 26  06 18 25.52  35 25.40 114 51.08 D 3.1       8.0 1R
 SCYIP 1 731225170039.18             S                                    58
1973 12 26  06 18 25.52  35 25.40 114 51.08 D 3.1       8.0 1R
 IRCEP 1 731225170039.45             S                                    60
1973 12 26  06 18 25.52  35 25.40 114 51.08 D 3.1       8.0 1R
 PASEP 3 731225170042.17       47.72ISU3     11.20                         58
1973 12 26  06 18 25.52  35 25.40 114 51.08 D 3.1       8.0 1R
 PYREP 3 731225170042.88       49.52ISU3     40.30                         54
1973 12 25  20 16 22.61  34 15.34 118 35.77 C 1.4      4.17 1A 0.080.0 0.0  0.0
 TWLIPD0 731226102353.93       55.40ES 3                                    50
1973 12 25  20 16 22.61  34 15.34 118 35.77 C 1.4      4.17 1A 0.080.0 0.0  0.0
 SCYIPD1 731226102357.45             S                                    57
1973 12 25  20 16 22.61  34 15.34 118 35.77 C 1.4      4.17 1A 0.080.0 0.0  0.0
 IRCIPU1 731226102353.88             S                                    50
1973 12 25  20 16 22.61  34 15.34 118 35.77 C 1.4      4.17 1A 0.080.0 0.0  0.0
 PYREP 3 731226102355.20             S                                    56
1973 12 25  20 16 22.61  34 15.34 118 35.77 C 1.4      4.17 1A 0.080.0 0.0  0.0
 PECEP   731226061804.42             S
C*
C*   A LINE CONSISTING OF ONLY THE CHARACTER '1' WAS REMOVED
C*   FROM THE DATA SET SO IT COULD BE PROCESSED.
C*
C*ENDNOTE
C*END----------------------------------------------------------------------------
S01K 1973  1 1  055  CPL 55.17 34.1725N 117.5457W   5.0  1.7R  1
 1 TCNIPD2 6384 VPDIPD2 6389 CSPIPD2 6029 CSPISU1 6390 PECEP 3 6450 PECISU2 7121
S01K 1973  1 2  245  CPL 48.57 33.6235N 117.3187W  08.0  3.1R  5
 1 PASIP   6410 PASIS   7500 BARIP   6800 BARIS   8220 CPEIP   6250 CPEIS   7280
 2 CLCEP   8430 CLCES  11620 GSCIP   7850 GSCIS  10050 HAYIP   7390 HAYIS   9240
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 3 IKPEP   7450 IKPES   9220 ISAEP   8560 ISAES  11600 MWCIP   6400 MWCIS   7520
 4 PLMIP   5760 PLMIS   6280 RVRIP   5530 RVRIS   5980 TPCIP   6990 TPCIS   8510
 5 SPHIPD2 6492 TCNIPD2 6168 VPDIPU1 5631 CSPIPU1 6074 PECIPD1 5427 PEC S 3 5794
S01K 1973  1 3  059  CPL 38.19 34.8175N 116.3222W  08.0  2.6R  4
***************** 5572 data cards not shown here *****************
C#FINIS DSN=SL000056
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```
C*DSN=SL000057;SIZE=006487;DATE=051684;ARCH=JN;TAPE=SM9302;FILE=032;STRT=000001;
C*DATE: 19820518; 0; CPLCT74;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. T. NEWBERRY
C*ALPHA: 19740101; 19741231; 28.215N; 38.820N; 121.607W; 105.826W; ; S01L;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR THE YEAR 1974 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000084 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
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C*                                    data record exceeds 35 cards (2800 bytes),
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24    (A3)     DATKEY  3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25       (A1)     blank   A blank space for easy reading.
C*  26-30    (F5.2)   ORTIME  Origin time; normally the seconds
C*                                    portion only.
C*  31       (A1)     TMUNIT  1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38    (F7.4)   HYLAT   Hypocenter latitude in degrees.
C*  39       (A1)     HYNS    N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40       (A1)     blank
C*  41-48    (F8.4)   HYLON   Hypocenter longitude in degrees.
C*  49       (A1)     HYEW    E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50       (A1)     blank
C*  51-55    (F5.1,   HYDEP   Focal depth in km; decimal places
C*           or F5.2)         depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56       (A1)     HYDEPC  1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57       (A1)     blank   May be used for negative magnitude.
C*  58-60    (F3.1)   ML      Local magnitude.
C*  61       (A1)     MLCODE  1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62       (A1)     blank
C*  62-64    (I3)     NUMCRD  total number of condensed phase
C*                                    list cards to be followed.
C*  65-67    (I3)     NUMPHA  total number of phase readings for
C*                                    locating the quake.
C*  68       (A1)     blank
C*  69-71    (I3,     GAP or  Maximum station gap in degrees (I3)
C*           or       MB      for a local quake, or body-wave mag-
C*           F3.1)            nitude (F3.1) for a teleseismic event.
C*  72       (A1)     blank
C*  73-75    (I3,     DMIN    Minimum station distance in km (I3)
C*            or      or MS   for a local quake, or surface-wave
C*           F3.1)            magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76       (A1)     blank
C*  77-79    (F3.1)   RMS or  rms residual in seconds (F3.1) for
C*                    M       a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
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C*                                  specified by MCODE in column 80)
C*  80        (A1)     HYQUAL       HYPO71 quality code for a local quake,
C*                     or           or code for specifying M in columns
C*                     MCODE        77-79, e.g., U=unspecified, W=moment
C*                                  magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80                NUMCRD of condensed phase list cards
C*                                  which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM         EXPLANATION
C*  1-2       (I2)     NUMSEQ       Sequence number for the condensed
C*                                  phase list cards.
C*  3-6       (A4)     PHNAME       4-character code for the station name.
C*  7-10      (4A1)    PHRMKS       An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME       The meaning of PHTIME depends on
C*                                  what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))        5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1974  1 19   5 36 36.54  32 50.01 115 41.42 B 2.5 131  8.73 12  4 0.12  0.7  1.2
 PLMIPD  740118053657.27             S
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1974  1 19   5 36 36.54  32 50.01 115 41.42 B 2.5 131  8.73 12  4 0.12  0.7  1.2
 IKPIPU  740118053644.12       49.42IS
1974  3  4   3 23 29.26  34 12.19 117 29.82 C 2.0      6.58 1A 0.352.141.8451.83
GLAZIPD  740304080317.90       29.90IS     28.10                          48
1974  3 22  08 59 06.32  32 21.29 115 03.32 D 2.5      3.19
 CPEEP   740322092002.70       20.50ES       0.70                         25
1974  3 22  08 59 06.32  32 21.29 115 03.32 D 2.5      3.19
 ING P   740322091935.70       45.50ES       .
1974  3 22  08 59 06.32  32 21.29 115 03.32 D 2.5      3.19
GLAZIPD  740322091936.80       47.50IS      29.50                          99
1974  3 22  08 59 06.32  32 21.29 115 03.32 D 2.5      3.19
 PLMEP   740322092001.60       20.10ES       2.70                         70
1974  3 22  08 59 06.32  32 21.29 115 03.32 D 2.5      3.19
BARZEP   740322091949.00       68.50ES       1.60                         50
1974  3 22  08 59 06.32  32 21.29 115 03.32 D 2.5      3.19
 PLTEP   740322091931.60       38.40ES
1974  3 22  08 59 06.32  32 21.29 115 03.32 D 2.5      3.19
 COAIPD  740322091933.80       43.40ES
1974  3 29   7 35 16.56  32 43.29 115 24.16 D 0.8*166  2.78  5 16 0.12  3.5 16.8
 WELIP-  740330073520.35
1974  3 29   7 35 16.56  32 43.29 115 24.16 D 0.8*166  2.78  5 16 0.12  3.5 16.8
 HOSEPU2 740330073520.50
1974  3 29   7 35 16.56  32 43.29 115 24.16 D 0.8*166  2.78  5 16 0.12  3.5 16.8
 CEMIPU  740330073519.51
1974  3 29   7 35 16.56  32 43.29 115 24.16 D 0.8*166  2.78  5 16 0.12  3.5 16.8
 KUBIPU  740330073520.91                                                 007
1974 05 02  02 21 40.19  34 26.01 118 19.14 B 1.8      1.57 1R
 PLMIPU  740506041263.56             S
1974  8  1   9  4  5.97  34 38.14 116 20.30 A 3.4 104  5.83 13 15 0.15  0.7  1.1
SBCN P                                 0.1
1974  8  1   9  4  5.97  34 38.14 116 20.30 A 3.4 104  5.83 13 15 0.15  0.7  1.1
SBCE P                                 0.2
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 MWCEP   740809022832.00       51.10ES       4.2                          85
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 SBBIP   740809022827.10       44.00IS     25.5                           76
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 CLCEP   740809022834.00       54.60 S       4.0                          85
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 HAYIPD  740809022826.70       42.60 S       2.2                          70
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 CSPIPU  740809022821.73       33.80ES                                    104
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 PLMEP   740809022830.38                                                 110
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 PECIPD  740809022823.55                                                 112
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 GSCEP   740809022819.47
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
PASZEP   740809022834.10       54.00ES       1.1                          57
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
RVRZEP   740809022824.50       38.50ES       2.2                          33
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
BARZEP   740809022840.20       66.50 S       1.5                          60
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 GSCEP   740809022819.50       31.30IS     12.3                           55
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1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 PLMIPD  740809022830.30        48.90IS       8.9                            80
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 SBBEP   740809022827.40        43.30ES                                      90
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 SPMIP 0 740809022820.15
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 GRPIP+1 740809022816.95
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 PIUEP 2 740809022824.00                                          NOI
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 HIDIP 0 740809022809.45                                                   78
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
BHMHIP 0 740809022813.10                                                   79
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 INSEP-2 740809022818.40                                                   58
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 SHHIP+1 740809022818.70                                                   48
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 CPMIP 0 740809022814.65                                                   66
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 CSPIP+1 740809022821.80                                                   33
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 PECIP+1 740809022823.60                                          REV      40
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 GSCEP-3 740809022819.50
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
 SBBEP+3 740809022827.20
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
LAV5IPU0 740809022806.46                                          REV      42
1974  8  8  22 36  2.85  34 39.16 116 21.08 A 2.0 109  5.16  8  4 0.04  0.3  0.8
FOR7IPU0 740809022807.66
1974  8 12  02 30 16.22  32 47.09 115 28.66 B 2.5       15.3
BARZEP   740812021344.10        57.50 S       0.9                            70
1974  8 14  15 26 47.16  34 17.39 116 35.75 A 2.1 129  8.44  8  2 0.08  0.6  0.6
 PLMEP 2  74081415264.90
1974  8 14  15 26 47.16  34 17.39 116 35.75 A 2.1 129  8.44  8  2 0.08  0.6  0.6
LAV5IP-1  74081415256.00                                          REV
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4       5.11
BARZEP   741012064301.80        21.50ES       1.3                            48
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4       5.11
 CLCEP   741012064308.00        31.90IS       2.3                            47
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4       5.11
 HAYEP   741012064252.20        64.00ES       2.5                            45
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4       5.11
 RVRIPU  741012064247.89        57.50 S                                      70
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4       5.11
 SBBIPU  741012064255.78                                                   90
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4       5.11
 PECIPU  741012064245.80        52.38ES                                    90
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4       5.11
 TPCIPU  741012064243.25        49.65ES                                    75
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4       5.11
 PLMIPD  741012064251.40                                                   90
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4       5.11
 CSPIPU  741012064247.10        56.09ISU                                   94
```

```
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4      5.11
 SBBIP   741012064255.50       70.10IS     30.6                          59
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4      5.11
 TPCIPU  741012064243.00       48.60IS     16.5                          43
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4      5.11
RVRZIPU  741012064247.90       57.50IS      3.1                          27
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4      5.11
 PLMIPD  741012064251.40       67.50IS     32.0                          60
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4      5.11
 MWCEP   741012064257.50       74.10ES      1.8                          30
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4      5.11
 ISAEP   741012064314.50       42.10ES      2.0                          42
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4      5.11
 GSCEP   741012064255.50       71.50ES      1.8                          40
1974 12 12  06 42 34.97  34 12.35 116 34.73 B 2.4      5.11
PASZEP   741012064259.10       78.50ES      0.8                          37
C*ENDNOTE
C*END-------------------------------------------------------------------------
S01L 1974  1 1  322  CPL                                              3
 1 &SCEP   7600 &SCES   9370 ISAIP   6100 MWCEP   8890 TPCEP  10010 CLCIPU  6130
 2 CLCISD  6800CWCZIPU  6330CWCZIS   7000CWCNEP   6350CWCNIS   7000CWCEEP   6350
 3CWCE S   7000
S01L 1974  1 2  850  CPL                                              1
 1 TWLIPD2 3510 TWLES 3 3940 SCYEP 2 3618 IRCIP 1 3250
S01L 1974  1 2 1027  CPL                                              2
 1 TWLEP 3 5928 TWLESD3 6332 SCYEP 2 6090 IRCIP 0 5680 PASIPD1 6166 PYRIP 1 6078
 2 PYRIS 3 6630
********** 6182 data cards not shown here **********
C*FINIS DSN=SL000057
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C*DSN=SL000058;SIZE=008380;DATE=051684;ARCH=JN;TAPE=SM9302;FILE=033;STRT=000001;
C*DATE: 19820518; 0; CPLCT75A;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. T. NEWBERRY
C*ALPHA: 19750101; 19750630; 30.085N; 37.826N; 121.500W; 111.595W; ; S01M;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR JAN/JUN 1975 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000085 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*              EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*              BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
```

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C*                                    data record exceeds 35 cards (2800 bytes),
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
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C*                                  specified by MCODE in column 80)
C*  80        (A1)     HYQUAL       HYP071 quality code for a local quake,
C*                     or           or code for specifying M in columns
C*                     MCODE        77-79, e.g., U=unspecified, W=moment
C*                                  magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80                NUMCRD of condensed phase list cards
C*                                  which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM     EXPLANATION
C*  1-2       (I2)     NUMSEQ   Sequence number for the condensed
C*                                  phase list cards.
C*  3-6       (A4)     PHNAME   4-character code for the station name.
C*  7-10      (4A1)    PHRMKS   An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME   The meaning of PHTIME depends on
C*                                  what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))   5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1975  1 25  1  16 58.85  32 54.93 115 30.52 A 2.0  88  9.20 11  9 0.08  0.5  1.1
GLAZIPU  750125111809.50       19.50IS      6.1                            80
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1975  1 25  1  16 58.85  32 54.93 115 30.52 A 2.0  88  9.20 11  9 0.08  0.5  1.1
 SUPIPU  750125111763.72          .          .
1975  1 25  1  16 58.85  32 54.93 115 30.52 A 2.0  88  9.20 11  9 0.08  0.5  1.1
 COKIPU  750125111763.08          .          .
1975  1 25  1  16 58.85  32 54.93 115 30.52 A 2.0  88  9.20 11  9 0.08  0.5  1.1
 INGIPU  750125111762.82          .          .
1975  1 25  1  16 58.85  32 54.93 115 30.52 A 2.0  88  9.20 11  9 0.08  0.5  1.1
 SGLIPD  750125111764.90          .          .
1975  1 25  1  16 58.85  32 54.93 115 30.52 A 2.0  88  9.20 11  9 0.08  0.5  1.1
 RUNIPU  750125111767.22          .          .
1975  1 25  1  16 58.85  32 54.93 115 30.52 A 2.0  88  9.20 11  9 0.08  0.5  1.1
 PLTIP   750125111771.00          .          .
1975  1 25  1  16 58.85  32 54.93 115 30.52 A 2.0  88  9.20 11  9 0.08  0.5  1.1
 COAIP   750125111765.60          .          .
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
PLMZIPD  750307101644.20       53.90IS     12.2                              68
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
RVRZIPU  750307101635.90       39.60IS     13.6                              19
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
SBBZIPD  750307101647.40       58.80IS     34.4                              63
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
TPCZIPU  750307101646.50       58.00IS     10.2                              50
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
CISZIP   750307101653.70       71.00IS     12.2                              34
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
 SNSIP   750307101644.50       52.00IS     20.2                              32
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
 CPTIPD  750307101644.60       54.50IS     36.7                              43
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
BARZIPD  750307101655.50       74.00IS      2.2                              44
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
 HAYEP   750307101654.00       71.00ES      1.7                              45
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
RVRNIP   750307101635.70          .          .
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
RVREIP   750307101635.80       39.70IS      2.0                              10
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
 PECIPD  750307101634.70          .          .
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
 RVRIPU  750307101635.96       39.60ISD    .
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
 HIDIPU0 750307101645.05                                                    42
1975  3  8   7 13  9.14  33 41.36 116 43.59 A 2.6  77 14.25 21  8 0.18  0.7  0.7
 CPMIPU0 750307101644.95                                                    45
1975  3 13   9 18 39.30  33 53.64 116 36.53 A 2.0  50  7.84 17 11 0.24  0.9  1.6
GLAZEP   750313100906.90       52.00IS      7.5                             197
1975  3 13   9 18 39.30  33 53.64 116 36.53 A 2.0  50  7.84 17 11 0.24  0.9  1.6
PLMZEP   750313100931.00       74.90ES      4.7                             125
1975  5 22  13 00 26.47  36 09.28 120 50.76 B 3.1 165  14.8 11 16 0.31  2.2  1.4
 PRI      750522130030.3
1975  5 31   5 33 47.71  34  7.50 116 25.55 C 2.5 100  5.00 29 16 1.93  5.9 11.0
IKPZ P   75053105    .          .          8.2                               66
THE FOLLOWING LINE WAS DELETED FROM THE ORIGINAL DATAFILE:
BARZEP   750314 60552.10       70.80ES      6.1                               60
IT SHOULD PROBABLY HAVE A "1" INSERTED BETWEEN "4" AND "6".
C*ENDNOTE
```

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C*END-----------------------------------------------------------------------
S01M 1975  1 1  316  CPL 29.41 35.2587N 118.5300W  6.14  2.1R  3
 1PASZEP   5100PASZES   6700 GSCEP   5600 GSCES   7830 ISAIPD  3700 ISAIS   4290
 2 SYPIS   7400 SBBIPU  4450 SBBIS   5500 ISAIPD  3704 ISAISU  4240 PYRIPD  4231
 3 SBBIPU  4442
S01M 1975  1 1  751  CPL 38.64 34.2252N 117.4512W  6.82  2.9R  9
 1PASZIPU  4980PASZ S   5810 CPEEP   6200 CPEIS   7950 GSCIPD  6040 GSCIS   7650
 2 ISAIPU  6890 ISAIS   8950 MWCIPU  4780 MWCIS   5550 PLMIP   5670 PLMIS   6920
 3RVRZIPD  4360RVRZIS   4770 SYPEP   7560 SYPES  10240 TPCIPU  6001 TPCIS   7560
 4 SBBIPU  4880 SBBIS   5640 CLCEP   6760 CLCIS   8850 HAYEP   6760 HAYES   8950
****************** 8148 data cards not shown here ******************
C*FINIS DSN=SL000058
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C$DSN=SL000059;SIZE=006017;DATE=051684;ARCH=JN;TAPE=SM9302;FILE=034;STRT=000001;
C*DATE: 19820518; 0; CPLCT75B;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. T. NEWBERRY
C*ALPHA: 19750701; 19751231; 28.741N; 37.632N; 121.062W; 112.647W; ; S01N;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR JUL/DEC 1975 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000086 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*             (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*             1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*             CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*             SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*             TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*             INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*           WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*             EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*             BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
```

```
C*                                    data record exceeds 35 cards (2800 bytes),
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY         3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYEW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD         total number of condensed phase
C*                                    list cards to be followed.
C*  65-67     (I3)     NUMPHA         total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN           Minimum station distance in km (I3)
C*             or      or MS          for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or         rms residual in seconds (F3.1) for
C*                     M              a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
```

```
C*                                  specified by MCODE in column 80)
C*  80        (A1)     HYQUAL       HYPO71 quality code for a local quake,
C*                     or           or code for specifying M in columns
C*                     MCODE        77-79, e.g., U=unspecified, W=moment
C*                                  magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80                NUMCRD of condensed phase list cards
C*                                  which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM     EXPLANATION
C*  1-2       (I2)     NUMSEQ   Sequence number for the condensed
C*                                  phase list cards.
C*  3-6       (A4)     PHNAME   4-character code for the station name.
C*  7-10      (4A1)    PHRMKS   An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME   The meaning of PHTIME depends on
C*                                  what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))   5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*          The originally supplied data files often contained
C*          blank summary cards.  In the converted data set
C*          that follows, the seconds portion of the origin
C*          time information, the hypocentral information, and
C*          the magnitude determination were left blank when
C*          when a blank summary card was found in the original
C*          data set.  The year, month, hour and minute of the
C*          event were inferred from the subsequent phase
C*          cards.
C*
C*          The condensed phase lists consist of P-arrival
C*          times and some S-arrival times.  The PHRMKS
C*          array consists of:  onset code (usually 'e', 'i',
C*          or ' ', the phase code ('p' or 's'), the first
C*          motion ('+','-','u','d','c', or 'd'), and the
C*          weighting factor, which is blank, since no first
C*          motion quality information was given in the orig-
C*          inal data set.
C*
C*          PHTIME represents time (in seconds * 100) relative
C*          to the minute of the origin time given on the CPL
C*          summary card.  For events where no summary information
C*          was given in the original data set, PHTIME is relative
C*          to the minimum minute of the P-arrival data from the
C*          phase list.
C*
C*    THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*    THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*    DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1975  7 28  11 46 09.72  34 59.20 118 41.16 B 3.0 128  8.00 28 31 0.70  1.7  4.6
 CSPEP   750728092514.90         .           .
```

```
1975  7 28  11 46 09.72  34 59.20 118 41.16 B 3.0 128  8.00 28 31 0.70  1.7  4.6
 PECEP   750728092507.76       16.15ES       .
1976  7 3   18  4  3.34  34 3 .90 118 46.20 B 1.3 332  5.00  3 54 5.75  0.0  0.0
 RYSIP 1 760731181406.85                                                 11
1976  7 3   18  4  3.34  34 3 .90 118 46.20 B 1.3 332  5.00  3 54 5.75  0.0  0.0
 ABLIP-1 760731181410.80                                    WEK          8
1976  7 3   18  4  3.34  34 3 .90 118 46.20 B 1.3 332  5.00  3 54 5.75  0.0  0.0
 PKMIP-1 760731181428.90
1975  8 13  03 00 50.27  35 16.31 118 34.49 B 2.3 135  5.84 15 44 0.55  2.1  5.8
PASZEP   750813135808.60       27.20IS      8.6                         90
1975  8 17   5 37 36.90  33 31.62 116 33.77 B 2.2 153 11.77 18 29 0.14  0.8  1.0
 CLCEP   750817002501.30         .            .
1975 10 01
 RMRIP 0 751001101320.10                                    NOI          37
1975 10 01
 HDGIP+1 751001101323.00
1975 10 01
 CPMEP-3 751001101325.90
1975 10 01
 INSIPD0 751001101328.10                                                 20
1975 10 01
 PNMEP 3 751001101333.05
1975 10 01
 LEDIPU0 751001101328.70                                                 41
1975 10 01
 GRPEP+2 751001101334.75
1975 10 01
 IRNEP+2 751001101339.20
1975 10 01
 CO2EP 2 751001101339.05
1975 10 01
 BC2EP 3 751001101340.50
1975 10 01
 SDWIP 1 751001101310.72
1975 10 01
 DVLEP 2 751001101323.85
1975 10 01
 CKCIP+1 751001101322.59
1975 10 01
 CPTEP 2 751001101323.40
1975 10 01
 MLLIP+1 751001101320.93
1975 10 01
 MDAEP 2 751001101324.90
1975 10 01
 WWREP 2 751001101322.95
1975 10 01
 SMEEP+2 751001101328.50
1975 10 01
 DB2EP 2 751001101327.93                                                 32
1975 10 01
 CSPIP+1 751001101323.70
1975 10 01
 TPCEP 3 751001101328.20
1975 10 01
 PECIP+1 751001101325.90                                    REV
```

```
1975 10 11  17 39 21.16  34 32.64 116 25.80 C 1.6 152  8.38 12 17 0.20  1.3  4.8
GSCZIPU  751010173921.90       36.60IS      5.5                          67
1975 10 11  17 39 21.16  34 32.64 116 25.80 C 1.6 152  8.38 12 17 0.20  1.3  4.8
ISAZIPU  751010173920.70       31.90IS      7.3                          85
1975 10 11  17 39 21.16  34 32.64 116 25.80 C 1.6 152  8.38 12 17 0.20  1.3  4.8
MWCZEP   751010173937.50       61.20IS      2.3                          49
1975 10 11  17 39 21.16  34 32.64 116 25.80 C 1.6 152  8.38 12 17 0.20  1.3  4.8
SBBZIPD  751010173927.60       42.90IS     14.5                          54
1975 10 11  17 39 21.16  34 32.64 116 25.80 C 1.6 152  8.38 12 17 0.20  1.3  4.8
CLCZIPU  751010173907.90             .            .                      99
1975 10 11  17 39 21.16  34 32.64 116 25.80 C 1.6 152  8.38 12 17 0.20  1.3  4.8
 IRCEP   751010173936.30             .            .
1975 10 11  17 39 21.16  34 32.64 116 25.80 C 1.6 152  8.38 12 17 0.20  1.3  4.8
 CSPEP   751010173934.19             .            .
1975 12 06  16 43 51.01  33 57.51 116 35.26 A 1.5  75  9.11 16  7 0.09  0.4  1.1
 RAYEP-2 751506164355.20                                                 60
1975 12  8  22 53 44.80  34 18.26 116 19.89 A 1.5  94  7.49 11 14 0.12  0.7  3.1
GLAZIPD  751209041141.5        69.0 ES     09.9                          73
1975 12  8  22 53 44.80  34 18.26 116 19.89 A 1.5  94  7.49 11 14 0.12  0.7  3.1
PLMZEP   751209041204.4        49.4 ES     01.5                          71
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 LTCEP 3 751214110063.30                                                 24
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 DAHEP-2 751214110053.10
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 PICEP-2 751214110057.50                                                 21
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 LGAEP 3 751214110058.40
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 FTMEP 3 751214110059.80
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 YMDEP 3 751214110056.70                                                 18
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 CRREP+2 751214110058.80
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 SGLIPU0 751214110054.10
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 INGEP 3 751214110055.15
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 SNREP-2 751214110053.95
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 COAIPD0 751214110053.20
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 BONIP 0 751214110050.30
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 BSCEP 2 751214110051.50
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 PLTIP+1 751214110054.70
1975 12 14  10 20 30.54  33 36.45 116 35.95 C 1.5 276  8.00  6  6 0.31  4.6  2.4
 SLUEP-2 751214110053.90
C*ENDNOTE
C*END--------------------------------------------------------------------------
S01N 1975  7 1  1 7  CPL 10.31 34.2353N 116.6720W  7.37  1.7R  3
 1 RMRIP 0 1240 HIDIPU0 1710 CPMIP-1 1810 INSEP 3 2010 LEDEP+2 2230 GRPEP 3 2930
 2 BLUEP 3 2698 SDWIP-1 1970 SDWES 2 2659 MLLIP 1 1539 MDAEP+2 1842 WWRIP 1 1498
 3 DB2EP 3 2137 KEEEP 3 2122 CSPEP 3 2120 PLMEP 3 2870 PECIP+1 2025
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S01N 1975  7 1  450  CPL 31.13 37.3248N 116.1353W  12.0  4.1R  6
 1PASZEP   8950PASZIS  14350CPEZEP  10550CPEZIS  17120GLAZEP  10000GLAZIS  17610
 2GSCZIPD  6660GSCZIS   9310ISAZIPD  7190ISAZIS  10300MWCZEP   8790MWCZIS  14000
 3PLMZIP   9460PLMZIS  15800RVRZEP   8660RVRZIS  13900SBBZIP   7820SBBZIS  11650
 4TPCZIPU  8400TPCZIS  13560CLCZIPD  6320CLCZIS   8860 CPTEP   9680 CPTIS  15990
****************** 5734 data cards not shown here ******************
C#FINIS DSN=SL000059
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C#DSN=SL000060;SIZE=008302;DATE=051684;ARCH=JN;TAPE=SM9302;FILE=035;STRT=000001;
C*DATE: 19820518; 0; CPLCT76A;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: K. PIPER; J. T. NEWBERRY
C*ALPHA: 19760101; 19706301; 30.973N; 38.577N; 120.544W; 112.496W; ; S010;
C*KEYWD: SOUTHERN CALIFORNIA;
C*TITLE: HYPOCENTERS AND PHASE DATA FOR SOUTHERN CALIFORNIA EARTHQUAKES
C*       FOR JAN/JUN 1976 COMPILED BY THE CALIFORNIA INSTITUTE OF TECHNOLOGY,
C*       CONVERTED TO USGS STANDARDIZED FORMAT.
C*AUTHOR: CALIFORNIA INSTITUTE OF TECHNOLOGY
C*INSTITUTION: CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CA 91125
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000087 FROM
C*          THE CIT FORMAT TO THE USGS STANDARDIZED FORMAT BY A COMPUTER
C*          PROGRAM WRITTEN BY J. T. NEWBERRY, ARCHIVED AS GL000138.
C*REFERENCE: FRIEDMAN, M. E., WHITCOMB, J. H., ALLEN, C. R., AND HILEMAN, J. A.
C*              (1976).  SEISMICITY OF THE SOUTHERN CALIFORNIA REGION:
C*              1 JANUARY 1972 TO 31 DECEMBER 1974, SEISMOLOGICAL LABORATORY,
C*              CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*            HILEMAN, J. A., ALLEN, C. R., AND NORDQUIST, J. M. (1973).
C*              SEISMICITY OF THE SOUTHERN CALIFORNIA REGION: 1 JANUARY 1932
C*              TO 31 DECEMBER 1972, SEISMOLOGICAL LABORATORY, CALIFORNIA
C*              INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.
C*            WHITCOMB, J. H. (1978). P- AND S-PHASE DATA FROM LOCAL
C*              EARTHQUAKES IN SOUTHERN CALIFORNIA FOR 1966 TO 1975,
C*              BULL. SEISM. SOC. AM., 68,523-525.
C*
C*FORMAT:  Two types of records are included in this file.
C*         1. Event Summary Card
C*         2. Condensed Phase Data Card
C*
C*
C*  EVENT SUMMARY CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
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C*                                    data record exceeds 35 cards (2800 bytes),
C*                                    then DATCOD=* and the last data card must be
C*                                    blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY  3-letter code serving as a data key
C*                                    to the kind of data that follows,
C*                                    IN THIS CASE, 'CPL'.
C*  25        (A1)     blank   A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME  Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT  1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT   Hypocenter latitude in degrees.
C*  39        (A1)     HYNS    N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-48     (F8.4)   HYLON   Hypocenter longitude in degrees.
C*  49        (A1)     HYEW    E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP   Focal depth in km; decimal places
C*            or F5.2)         depends on teleseismic event (F5.1)
C*                             or local quake (F5.2).
C*  56        (A1)     HYDEPC  1-character code for how focal depth
C*                             is determined; A=assigned, D=re-
C*                             strained by pP, H=held at fixed
C*                             depth, etc.
C*  57        (A1)     blank   May be used for negative magnitude.
C*  58-60     (F3.1)   ML      Local magnitude.
C*  61        (A1)     MLCODE  1-character code for the type of
C*                             local magnitude; R=Richter scale
C*                             using Wood-Anderson seismograms
C*                             was assumed for this data set, due
C*                             to the institution involved and time period
C*                             considered.
C*  62        (A1)     blank
C*  62-64     (I3)     NUMCRD  total number of condensed phase
C*                             list cards to be followed.
C*  65-67     (I3)     NUMPHA  total number of phase readings for
C*                             locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or  Maximum station gap in degrees (I3)
C*            or       MB      for a local quake, or body-wave mag-
C*            F3.1)            nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN    Minimum station distance in km (I3)
C*             or      or MS   for a local quake, or surface-wave
C*            F3.1)            magnitude (F3.1) for a teleseismic
C*                             event.
C*  76        (A1)     blank
C*  77-79     (F3.1)   RMS or  rms residual in seconds (F3.1) for
C*                      M      a local quake, or any magnitude
C*                             (F3.1) for a teleseismic event (to be
```

```
C*                                specified by MCODE in column 80)
C*  80        (A1)     HYQUAL     HYPO71 quality code for a local quake,
C*                     or         or code for specifying M in columns
C*                     MCODE      77-79, e.g., U=unspecified, W=moment
C*                                magnitude, etc.
C*
C*  CONDENSED PHASE CARDS
C*
C*  81-(NUMCRD+1)*80              NUMCRD of condensed phase list cards
C*                                which have the following format:
C*
C*
C*  COLUMNS   FORMAT   ITEM       EXPLANATION
C*  1-2       (I2)     NUMSEQ     Sequence number for the condensed
C*                                phase list cards.
C*  3-6       (A4)     PHNAME     4-character code for the station name.
C*  7-10      (4A1)    PHRMKS     An array of 4 1-character elements.
C*  11-15     (I5)     PHTIME     The meaning of PHTIME depends on
C*                                what is coded in PHRMKS.
C*  16-80     (5(A4,4A1,I5))     5 repeats of (PHNAME,PHRMKS,PHTIME).
C*
C*
C*NOTE:
C*         The originally supplied data files often contained
C*         blank summary cards.  In the converted data set
C*         that follows, the seconds portion of the origin
C*         time information, the hypocentral information, and
C*         the magnitude determination were left blank when
C*         when a blank summary card was found in the original
C*         data set.  The year, month, hour and minute of the
C*         event were inferred from the subsequent phase
C*         cards.
C*
C*         The condensed phase lists consist of P-arrival
C*         times and some S-arrival times.  The PHRMKS
C*         array consists of:  onset code (usually 'e', 'i',
C*         or ' ', the phase code ('p' or 's'), the first
C*         motion ('+','-','u','d','c', or 'd'), and the
C*         weighting factor, which is blank, since no first
C*         motion quality information was given in the orig-
C*         inal data set.
C*
C*         PHTIME represents time (in seconds * 100) relative
C*         to the minute of the origin time given on the CPL
C*         summary card.  For events where no summary information
C*         was given in the original data set, PHTIME is relative
C*         to the minimum minute of the P-arrival data from the
C*         phase list.
C*
C*   THE FOLLOWING IS A LIST OF DATA CARDS WHICH WERE REMOVED FROM
C*   THE DATA SET DUE TO INCOMPATABILITY WITH THE GIVEN SUMMARY
C*   DATA, OR WERE FOR SOME OTHER REASON DEEMED UNPROCESSABLE.
C*
C*UNPROCESSABLE PHASE DATA AND CORRESPONDING SUMMARY CARD
1976  1 27  12 30 13.42  31 49.99 115 51.34 C 2.9 254  7.77 17 91 0.59 12.9  5.8
 THREP-2 760127150426.17
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1976  1 27  12 30 13.42  31 49.99 115 51.34 C 2.9 254  7.77 17 91 0.59 12.9  5.8
 BLUEP 3 760127150428.20
1976  1 27  12 30 13.42  31 49.99 115 51.34 C 2.9 254  7.77 17 91 0.59 12.9  5.8
 SSKEP 2 760127150431.52
1976  2 04  20 04        35 03.   117 38.   Q                              BORON
 CO2IPD0 760205051443.80
1976  3 20  02 37 30.01  33 42.19 116 49.75 A 2.8  72  14.1 24 15 0.22  0.8  0.9
VSTEP-3 760320023741.40
1976  3 21  10 10 27.76  33 23.56 116 27.39 A 2.9  57  12.1 18 33 0.19  0.9  1.7
 INSIP 0 60321101038.50                                                  34
1976  3 23  10 42 28.39  35 41.98 118 20.20 P 2.1      3.11
 DAHIP 1 760323110708.95
1976  3 23  10 42 28.39  35 41.98 118 20.20 P 2.1      3.11
 YMDIPU0 760323110713.80
1976  3 23  10 42 28.39  35 41.98 118 20.20 P 2.1      3.11
 SUPEP+2 760323110713.55
1976  3 23  10 42 28.39  35 41.98 118 20.20 P 2.1      3.11
 SGLIPD0 760323110707.70                                                 33
1976  3 23  10 42 28.39  35 41.98 118 20.20 P 2.1      3.11
 COAEP 2 760323110712.35
1976  3 23  10 42 28.39  35 41.98 118 20.20 P 2.1      3.11
 RUNIP-1 760323110713.75
1976  3 23  10 42 28.39  35 41.98 118 20.20 P 2.1      3.11
 BONEP 3 760323110709.2L                                    IP0
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
CPEZIP   760328190706.00       24.00IS      16.6                          42
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
GLAZIPU  760328190704.60       25.00IS       9.8                          90
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
PLMZIPD  760328190710.00       31.40ISU     21.7                          57
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
CPTZEP   760328190712.50       36.00ES       2.9                          48
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
BARZIPD  760328190659.00       72.20IS      21.6                          60
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
BARNIP   760328190659.00       72.20IS       1.4                          20
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 LTCEP+2 760328190669.00
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 IKPIP-1 760328190654.80
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 GLAEP+2 760328190664.60
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 DAHEP 2 760328190656.90
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 PICEP 2 760328190664.60
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 LGAEP 2 760328190664.50
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 FTMEP 2 760328190664.55
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 SUPIP-1 760328190659.90                                                 55
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 CRRIPD0 760328190658.60
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 COKEP 3 760328190658.70                                    NOI
```

```
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 SGLIPD0 760328190654.40                                                  65
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 COAEP 2 760328190661.60
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 RUNIP+1 760328190662.45
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 MDAEP 3 760328190680.58
1976  3 28  16 49 36.10  34 26.52 116 29.70 B 2.4 135  8.35 24 18 0.16  0.5  1.5
 VGREP 3 760328190678.01
1976  4 02 23 04         35 03.   117 38.   Q                                BORON
 THRIPU0 760402230445.01
1976  4 02 23 04         35 03.   117 38.   Q                                BORON
 SDWIP-1 760402230448.22
1976  4 02 23 04         35 03.   117 38.   Q                                BORON
 SWMIP-1 760402230451.07                                  REV         60
1976  4 02 23 04         35 03.   117 38.   Q                                BORON
 SBBIPU0 760402230442.95
1976  4 02 23 04         35 03.   117 38.   Q                                BORON
 PECIPD0 760402230458.50                                  REV
1976  4  9  23 52  7.48  33 56.58 115 57.72 B 1.8 143  8.82 12 15 0.12  0.7  1.1
 INGIPD0 760414040341.75
1976  4  9  23 52  7.48  33 56.58 115 57.72 B 1.8 143  8.82 12 15 0.12  0.7  1.1
 SNRIPU0 760414040338.20                                                  25
1976  4  9  23 52  7.48  33 56.58 115 57.72 B 1.8 143  8.82 12 15 0.12  0.7  1.1
 COAEP 3 760414040342.90                                  NOI
1976  4  9  23 52  7.48  33 56.58 115 57.72 B 1.8 143  8.82 12 15 0.12  0.7  1.1
 RUNIP 0 760414040344.70
1976  4  9  23 52  7.48  33 56.58 115 57.72 B 1.8 143  8.82 12 15 0.12  0.7  1.1
 BONEP 3 760414040342.40                                  NOI
1976  4 21  15 11         34 04.   117 21.   Q                              SLOVER
 SMEIP-1 760420151128.64       31.86ES 3
1976  4 21  15 11         34 04.   117 21.   Q                              SLOVER
 VPDIP-1 760420151132.75
1976  5 23  13 30 20.40  33 40.11 116 47.81 A 3.3  24  16.7 58 14 0.43  0.8  2.2
 MLLEP 2 760223133028.80
1976  6 17  18 16 08.91  34 21.98 118 39.98 A 2.2  73  11.6 10 12 0.15  0.8  2.0
 KYPIP-1 760618181614.92       20.00IS-1                                  30
1976  6 17  18 16 08.91  34 21.98 118 39.98 A 2.2  73  11.6 10 12 0.15  0.8  2.0
 ECFIP+1 760618181616.05                                                  40
1976  6 17  18 16 08.91  34 21.98 118 39.98 A 2.2  73  11.6 10 12 0.15  0.8  2.0
 PTDIPD0 760618181616.04                                                  30
1976  6 17  18 16 08.91  34 21.98 118 39.98 A 2.2  73  11.6 10 12 0.15  0.8  2.0
 CISEP-2 760618181626.21
1976  6 17  18 16 08.91  34 21.98 118 39.98 A 2.2  73  11.6 10 12 0.15  0.8  2.0
 MWCEP+2 760618181618.96
1976  6 17  18 16 08.91  34 21.98 118 39.98 A 2.2  73  11.6 10 12 0.15  0.8  2.0
 SCYIPU0 760618181615.12
1976  6 17  18 16 08.91  34 21.98 118 39.98 A 2.2  73  11.6 10 12 0.15  0.8  2.0
 TWLIPU0 760618181612.11       15.12IS-1                                  50
1976  6 17  18 16 08.91  34 21.98 118 39.98 A 2.2  73  11.6 10 12 0.15  0.8  2.0
 IRCIPU0 760618181613.49       17.58ES 2                                  50
1976  6 17  18 16 08.91  34 21.98 118 39.98 A 2.2  73  11.6 10 12 0.15  0.8  2.0
 PYRIPD0 760618181613.35                                                  50
1976  6 17  18 16 08.91  34 21.98 118 39.98 A 2.2  73  11.6 10 12 0.15  0.8  2.0
 SWMIP-1 760618181615.55                                  REV         50
```

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1976  6 17  21 35 45.02  34 23.48 116 22.77 A 2.7 116  0.41 23 26 0.16  0.5  3.2
1676  6 17  21 37        35 02.   118 19.   Q                              MOJAVE
1976  6 30  21 58  7.30  33 53.25 115 30.96 B 2.6  79  1.31 15  5 0.67  3.0710.6
 PICEP 3 760616215629.15
THE FOLLOWING LINES WERE ALSO DELETED:
 LTMEP+2 760127013055.#0
 PSPEP 2 760127013053.#6
C*ENDNOTE
C*END-----------------------------------------------------------------------------
S01O 1976  1 1  132  CPL 51.95 32.9153N 115.6403W 13.98  1.4R  1
 1 SUPIP 0 5560 CRRIPU0 5780 COKIPU0 5505 SGLIPD0 5755
S01O 1976  1 1  147  CPL 54.86 33.5168N 116.5880W  8.00  3.3R 15
 1PASZIP   8100PASZIS  10050CPEZIPD  6860CPEZIS   7910GLAZIPD  8100GLAZIS   9960
 2GSCZIP   8570GSCZIS  10950ISAZIP  10250ISAZIS  13800MWCZIP   8000MWCZIS   9900
 3PLMZIPU  6050RVRZIPU  6960RVRZIS   7900SBBZIP   8500SBBZIS  10420SCIZIP   8470
 4SCIZIS  10750TPCZIPD  6850TPCZIS   7600CISZIPD  8110CISZIS   9990CLCZIP   9340
 5CLCZIS  13050PLMNIP   6060PLMNIS   6490CPTZIPU  6700CPTZIS   7550BARZIPD  6990
 6BARZIS   8080BARNIPD  7000BARNIS   8100 RMRIP 0 6765 HDGIP 0 7190 CPMIP 0 6790
****************** 8006 data cards not shown here ******************
C*FINIS DSN=SL000060
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```
C$DSN=SL000061;SIZE=008124;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=036;STRT=000001;
C*DATE: 19831017;99; ICALP71S;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19710101;19711231;30.0N;43.0N;135.0W;114.0W; ; ;
C*KEYWD: CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF SUMMARY AND PHASE DATA FILE OF THE
C*       INTERNATIONAL SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1971
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY,
C*             RG13 1LX, BERKSHIRE, UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000049 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY D. M. TOTTINGHAM.  GL000049 IS A DATA
C*          SET THAT WAS EXTRACTED FROM A TAPE SENT BY RAY BULAND,
C*          U. S. GEOLOGICAL SURVEY, DENVER, IN 1983.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS
C*
C*         THE FILE IS ARRANGED SUCH THAT AN EVENT SUMMARY
C*         CARD IS FOLLOWED BY THE RELEVENT PHASE CARDS.
C*         IF NO SUMMARY INFORMATION WAS GIVEN, A BLANK CARD
C*         APPEARS IN ITS PLACE, PRECEDING THE PHASE CARDS.
C*
C*  THE SUMMARY CARD APPEARS AS FOLLOWS:
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
C*                           then DATCOD=* and the last data card must be
C*                           blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
C*                           in this case, 'SUM'
C*  25       (A1)    blank   A blank space for easy reading.
```

```
C*  26-30     (F5.2)  ORTIME  Origin time; normally the seconds
C*                            portion only.
C*  31        (A1)    TMUNIT  1-character code for the time unit;
C*                            For some old quakes, the ORTIME may
C*                            differ from the identification date
C*                            and time.  Use Y for year, N for
C*                            month, D for day, H for hour, M
C*                            for minute, and blank for second.
C*  32-38     (F7.4)  HYLAT   Hypocenter latitude in degrees.
C*  39        (A1)    HYNS    N for the northern hemisphere or S
C*                            for the southern hemisphere.
C*  40        (A1)    blank
C*  41-48     (F8.4)  HYLON   Hypocenter longitude in degrees.
C*  49        (A1)    HYEW    E for the eastern hemisphere or W
C*                            for the western hemisphere.
C*  50        (A1)    blank
C*  51-55     (F5.1,  HYDEP   Focal depth in km; decimal places
C*            or F5.2)        depends on teleseismic event (F5.1)
C*                            or local quake (F5.2).
C*  56        (A1)    HYDEPC  1-character code for how focal depth
C*                            is determined; A=assigned, D=re-
C*                            strained by pP, H=held at fixed
C*                            depth, etc.
C*  57        (A1)    blank   May be used for negative magnitude.
C*  58-60     (F3.1)  ML      Local magnitude.
C*  61        (A1)    MLCODE  1-character code for the type of
C*                            local magnitude; R=Richter scale
C*                            using Wood-Anderson seismograms
C*                            was assumed for this data set, due
C*                            to the institution involved and time period
C*                            considered.
C*  62        (A1)    blank
C*  63        (A1)    MAXINT  1-character code for maximum inten-
C*                            sity. PDE notation is used: 1 to 9
C*                            for I to IX, X for X, E for XI, and
C*                            T for XII.
C*  64        (A1)    blank
C*  65-67     (I3)    NUMPHA  Total number of phase readings for
C*                            locating the quake.
C*  68        (A1)    blank
C*  69-71     (I3,    GAP or  Maximum station gap in degrees (I3)
C*            or      MB      for a local quake, or body-wave mag-
C*            F3.1)           nitude (F3.1) for a teleseismic event.
C*  72        (A1)    blank
C*  73-75     (I3,    DMIN or Minimum station distance in km (I3)
C*            or      MS      for a local quake, or surface-wave
C*            F3.1)           magnitude (F3.1) for a teleseismic
C*                            event.
C*  76        (A1)    blank
C*  77-79     (F3.1)  RMS     RMS residual in seconds (F3.1) for
C*                    OR M    a local quake, or any magnitude
C*                            (F3.1) for a teleseismic event (to be
C*                            specified by MCODE in column 80).
C*  80        (A1)     HYQUAL HYP071 quality code for a local quake,
C*                  or MCODE  or code for specifying M in columns
C*                            77-79, e.g., U=unspecified, W=moment
```

```
C*                          magnitude, etc.
C*
C*  THE PHASE CARD APPEARS AS FOLLOWS:
C*
C*  COLUMNS   FORMAT   ITEM     EXPLANATION
C*  01-04     (I4)     REFNUM   Reference number to the data source
C*                               to be supplied by the archivist.
C*  05        (A1)     blank    Space for overflow if year of the
C*                               quake is B.C.
C*  06-09     (I4)     EVYEAR   4 digits for the year of the quake;
C*                               If year is B.C., use "-" in column 5.
C*  10        (A1)     blank
C*  11-12     (I2)     EVMON    2 digits for the month of the quake.
C*  13-14     (I2)     EVDAY    2 digits for the day of the  quake.
C*  15        (A1)     blank
C*  16-17     (I2)     EVHOUR   2 digits for the hour of the quake.
C*  18-19     (I2)     EVMIN    2 digits for the minute of the quake.
C*  20        (A1)     EVINDX   Event index if there are more than one
C*                               quake within the same minute.
C*  21        (A1)     DATCOD   Normally a blank.  If more than 80 bytes
C*                               are used for a data record, then DATCOD=k
C*                               where k is the card sequence number with-
C*                               in the data record, e.g., 1, 2, ..., 9,
C*                               A, B, ..., Z, up to 35 cards.  If any
C*                               data record exceeds 35 cards (2800 bytes),
C*                               then DATCOD=* and the last data card must be
C*                               blank, except "END" in columns 22-24.
C*  22-24     (A3)     DATKEY   3-letter code serving as a data key
C*                               to the kind of data that follows,
C*                               in this case, 'PH1'.
C*  25        (A1)     blank    A blank space for easy reading.
C*  26-29     (A4)     PHAGCY   4-character code for the agency
C*                               operating the station.  Normally a 3-
C*                               character code plus 1 blank is used.
C*  30-33     (A4)              4-character code for the station
C*                               name;  the last character usually
C*                               denotes the component of the
C*                               instrument.
C*  34        (A1)     blank    May be used to denote the component
C*                               of a 4-character code station.
C*  35-38     (A4)     PHPRMK   4-character code for the P-phase
C*                               remark.
C*  39        (A1)     blank
C*  40-44     (F5.2)   PHPARR   P-phase arrival time in seconds.
C*  45        (A1)     blank
C*  46-49     (A4)     PHSRMK   4-character code for the S-phase
C*                               remark.
C*  50-55     (F6.2)   PHSARR   S-phase arrival time in seconds.
C*  56        (A1)     blank
C*  57-60     (I4)     PHFMP    Signal duration in seconds.
C*  61        (A1)     blank
C*  62-64     (A3)     PHRMK    General remark.
C*  65-69     (F5.1)   AMPX     Maximum trace amplitude (peak-
C*                               to peak) in mm.
C*  70        (A1)     LETR     Amplitude measurement scale ('M' for
C*                               micrometer, blank for nm).
```

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C*  71-74    (F4.2)  PRX     Period in seconds associated
C*                           with the maximum trace amplitude.
C*  75-80    (F6.2)  DT      Clock correction in seconds to
C*                           be added to the arrival times.
C*END---------------------------------------------------------------------------
S01P 1971   1 1 2036  SUM 18.40 33.9700N 119.4000W   8.0
S01P 1971   1 1 2036  PH1 ISC BCN  IP   36.50
S01P 1971   1 2  219  SUM 13.10 35.7700N 117.5700W   8.0
S01P 1971   1 2  219  PH1 ISC BCN  IP   54.10
S01P 1971   1 2  219  PH1 ISC EUR  IP   26.00                  SZP  1.0 0.60
S01P 1971   1 2  237  SUM 50.30 35.8200N 117.5500W   8.0
S01P 1971   1 2  237  PH1 ISC BCN  IP   30.50
S01P 1971   1 2  237  PH1 ISC EUR  IP    2.60                  SZP  2.9 0.60
S01P 1971   1 2  627  SUM 37.48 35.9670N 120.8320W   8.0
S01P 1971   1 2  627  PH1 ISC PRI  IPc  42.40
****************** 7943 data cards not shown here ******************
C*FINIS DSN=SL000061
```

Table SL000062

```
C#DSN=SL000062;SIZE=006093;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=037;STRT=000001;
C*DATE: 19831017;99; ICALP72S;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19720101;19721231;30.0N;43.0N;135.0W;114.0W; ; ;
C*KEYWD: CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF SUMMARY AND PHASE DATA FILE OF THE
C*       INTERNATIONAL SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1972
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY,
C*             RG13 1LX, BERKSHIRE, UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000050 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY D. M. TOTTINGHAM.  GL000050 IS A DATA
C*          SET THAT WAS EXTRACTED FROM A TAPE SENT BY RAY BULAND,
C*          U. S. GEOLOGICAL SURVEY, DENVER, IN 1983.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS

                        ****************************
            See previous format from dataset SL000061 for details
                        ****************************

C*END-------------------------------------------------------------------------
S01Q 1972  1 2 1525  SUM 46.70 40.4650N 124.7420W   8.0
S01Q 1972  1 2 1525  PH1 ISC FHC  IPc   2.20
S01Q 1972  1 2 1525  PH1 ISC MIN  IPd  26.30
S01Q 1972  1 2 1525  PH1 ISC BKS  IPc  38.30
S01Q 1972  1 2 1525  PH1 ISC JAS   P   53.00
S01Q 1972  1 3  415  SUM 11.80 41.4610N 126.0210W   8.0
S01Q 1972  1 3  415  PH1 ISC FHC  IPc  40.80  S    20.2
S01Q 1972  1 3  415  PH1 ISC MIN  IPc   7.00  S    41.0
S01Q 1972  1 3  415  PH1 ISC BKS  EP 2 23.00
S01Q 1972  1 3  415  PH1 ISC JAS   P   36.00
****************** 5912 data cards not shown here ******************
C#FINIS DSN=SL000062
```

Table SL000063

```
C$DSN=SL000063;SIZE=006725;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=038;STRT=000001;
C*DATE: 19831017;99; ICALP73S;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19730101;19731231;30.0N;43.0N;135.0W;114.0W; ; ;
C*KEYWD: CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF SUMMARY AND PHASE DATA FILE OF THE
C*       INTERNATIONAL SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1973
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY,
C*             RG13 1LX, BERKSHIRE, UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000051 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY D. M. TOTTINGHAM.  GL000051 IS A DATA
C*          SET THAT WAS EXTRACTED FROM A TAPE SENT BY RAY BULAND,
C*          U. S. GEOLOGICAL SURVEY, DENVER, IN 1983.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS

                        ****************************
            See previous format from dataset SL000061 for details
                        ****************************

C*END-----------------------------------------------------------------------
S01R 1973  1 1  757  SUM 36.69 36.9980N 121.7490W   8.0
S01R 1973  1 1  757  PH1 ISC SAO  IPd  46.40
S01R 1973  1 1  757  PH1 ISC MHC  IPd  45.10  S     4.9
S01R 1973  1 1  757  PH1 ISC BKS  IPc  57.30  S    13.7
S01R 1973  1 1  757  PH1 ISC PRI  IPc   0.70  S    20.3
S01R 1973  1 1  757  PH1 ISC JAS  IPc   0.60  S    15.4
S01R 1973  1 1  757  PH1 ISC FRI  IPc   4.30  S    17.7
S01R 1973  1 1  757  PH1 ISC EUR  EP 2  3.20                SZP  0.6 0.20
S01R 1973  1 2  245  SUM 48.60 33.6200N 117.3200W   8.0  3.1      4            U
S01R 1973  1 2  245  PH1 ISC PLM  IP   57.60 IS     5.2
****************** 6544 data cards not shown here ******************
C$FINIS DSN=SL000063
```

Table SL000064

```
C#DSN=SL000064;SIZE=005625;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=039;STRT=000001;
C*DATE: 19831017;99; ICALP74S;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19740101;19741231;30.0N;43.0N;135.0W;114.0W; ; ;
C*KEYWD: CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF SUMMARY AND PHASE DATA FILE OF THE
C*       INTERNATIONAL SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1974
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY,
C*             RG13 1LX, BERKSHIRE, UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000052 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY D. M. TOTTINGHAM.  GL000052 IS A DATA
C*          SET THAT WAS EXTRACTED FROM A TAPE SENT BY RAY BULAND,
C*          U. S. GEOLOGICAL SURVEY, DENVER, IN 1983.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS

                        ****************************
            See previous format from dataset SL000061 for details
                        ****************************

C*END-------------------------------------------------------------------------
S01S 1974  1 1 1828  SUM 20.37 42.0010N 126.6800W  33.0          23 4.4        U
S01S 1974  1 1 1828  PH1 ISC FHC  EPc2 56.00
S01S 1974  1 1 1828  PH1 ISC WDC  IPc  12.30
S01S 1974  1 1 1828  PH1 ISC COR  IPd  15.80
S01S 1974  1 1 1828  PH1 ISC LON  IPd  48.20
S01S 1974  1 1 1828  PH1 ISC BMO  IP    7.50
S01S 1974  1 1 1828  PH1 ISC EUR  IP   24.00                  SZP  5.6 0.50
S01S 1974  1 1 1828  PH1 ISC NEW  EP 2 33.00
S01S 1974  1 1 1828  PH1 ISC NTI  EP 2 36.00
S01S 1974  1 1 1828  PH1 ISC DUG  EP 2 49.80                  SZP 12.5 1.30
****************** 5444 data cards not shown here ******************
C#FINIS DSN=SL000064
```

Table SL000065

```
C$DSN=SL000065;SIZE=009862;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=040;STRT=000001;
C*DATE: 19831017;99; ICALP75S;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19750101;19751231;30.0N;43.0N;135.0W;114.0W; ; ;
C*KEYWD: CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF SUMMARY AND PHASE DATA FILE OF THE
C*       INTERNATIONAL SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1975
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY,
C*             RG13 1LX, BERKSHIRE, UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000053 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY D. M. TOTTINGHAM.  GL000053 IS A DATA
C*          SET THAT WAS EXTRACTED FROM A TAPE SENT BY RAY BULAND,
C*          U. S. GEOLOGICAL SURVEY, DENVER, IN 1983.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS

                        ****************************
            See previous format from dataset SL000061 for details
                        ****************************

C*END-------------------------------------------------------------------------
S01T 1975  1 1  715  SUM 25.78 40.5170N 125.3580W   3.0  3.5      6            U
S01T 1975  1 1  715  PH1 ISC FHC  IPc  47.40  S    12.6
S01T 1975  1 1  715  PH1 ISC WDC  IPc   3.20
S01T 1975  1 1  715  PH1 ISC MIN  IPd  13.20
S01T 1975  1 1  715  PH1 ISC JAS  IP   38.10
S01T 1975  1 1  715  PH1 ISC FRI  IP   52.40
S01T 1975  1 1  715  PH1 ISC BMO  EP 2 16.60                  SZP  1.7 0.60
S01T 1975  1 3  555  SUM 29.48 33.5070N 117.7170W   5.0           9 4.3        U
S01T 1975  1 3  555  PH1 ISC RVR  IP   41.50 IS     6.6
S01T 1975  1 3  555  PH1 ISC CIS  IP   43.50
**************** 9681 data cards not shown here ****************
C$FINIS DSN=SL000065
```

```
C#DSN=SL000066;SIZE=009139;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=041;STRT=000001;
C*DATE: 19831017;99; ICALP76S;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19760101;19761231;30.0N;43.0N;135.0W;114.0W; ; ;
C*KEYWD: CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF SUMMARY AND PHASE DATA FILE OF THE
C*       INTERNATIONAL SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1976
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY,
C*             RG13 1LX, BERKSHIRE, UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000054 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY D. M. TOTTINGHAM.  GL000054 IS A DATA
C*          SET THAT WAS EXTRACTED FROM A TAPE SENT BY RAY BULAND,
C*          U. S. GEOLOGICAL SURVEY, DENVER, IN 1983.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS

                        ****************************
           See previous format from dataset SL000061 for details
                        ****************************

C*END-------------------------------------------------------------------------
S01U 1976  1 1  147  SUM 52.99 33.4720N 116.5830W  11.0
S01U 1976  1 1  147  PH1 ISC PLM  IP    0.50
S01U 1976  1 1  147  PH1 ISC TPC  IP    8.50 IS     7.5
S01U 1976  1 1  147  PH1 ISC SND  IP   10.40 ES 2  10.6
S01U 1976  1 1  147  PH1 ISC RVR  IP    9.60 IS     9.4
S01U 1976  1 1  147  PH1 ISC MWC  IP   20.00 IS    19.0
S01U 1976  1 1  147  PH1 ISC PAS  IP   21.00 IS    19.5
S01U 1976  1 1  147  PH1 ISC GLA  IP   21.00 IS    18.6
S01U 1976  1 1 1720  SUM 10.73 33.8720N 117.9870W   8.0          27 4.1        U
S01U 1976  1 1 1720  PH1 ISC PAS  IP   18.50 IS     4.0
***************** 8958 data cards not shown here *****************
C#FINIS DSN=SL000066
```

Table SL000067

```
C#DSN=SL000067;SIZE=007460;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=042;STRT=000001;
C*DATE: 19831017;99; ICALP77S;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19770101;19771231;30.0N;43.0N;135.0W;114.0W; ; ;
C*KEYWD: CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF SUMMARY AND PHASE DATA FILE OF THE
C*       INTERNATIONAL SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1977
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY,
C*             RG13 1LX, BERKSHIRE, UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000055 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY D. M. TOTTINGHAM.  GL000055 IS A DATA
C*          SET THAT WAS EXTRACTED FROM A TAPE SENT BY RAY BULAND,
C*          U. S. GEOLOGICAL SURVEY, DENVER, IN 1983.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS

                        ****************************
            See previous format from dataset SL000061 for details
                        ****************************

C*END-------------------------------------------------------------------------
S01V 1977  1 1  720  SUM 51.00 40.4000N 127.2000W   2.0  3.8     10            U
S01V 1977  1 1  720  PH1 ISC WKC  EP 2 29.50 ES 2  28.0
S01V 1977  1 1  720  PH1 ISC FHC  IP   32.50  S    29.5
S01V 1977  1 1  720  PH1 ISC MIN   P   58.00
S01V 1977  1 1  720  PH1 ISC ORV  EP 2  1.00
S01V 1977  1 1  720  PH1 ISC KPK  IP    4.40
S01V 1977  1 1  720  PH1 ISC BKS  IP    2.30  S    53.7
S01V 1977  1 1  720  PH1 ISC MHC  IP   12.00
S01V 1977  1 1  720  PH1 ISC ARN  IP   13.50
S01V 1977  1 1  720  PH1 ISC SAO  IP   18.00
****************** 7279 data cards not shown here ******************
C#FINIS DSN=SL000067
```

Table SL000068

```
C$DSN=SL000068;SIZE=009972;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=043;STRT=000001;
C*DATE: 19831017;99; ICALP78S;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19780101;19781231;30.0N;43.0N;135.0W;114.0W; ; ;
C*KEYWD: CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF SUMMARY AND PHASE DATA FILE OF THE
C*       INTERNATIONAL SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1978
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY,
C*             RG13 1LX, BERKSHIRE, UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000056 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY D. M. TOTTINGHAM.  GL000056 IS A DATA
C*          SET THAT WAS EXTRACTED FROM A TAPE SENT BY RAY BULAND,
C*          U. S. GEOLOGICAL SURVEY, DENVER, IN 1983.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS

                        ****************************
           See previous format from dataset SL000061 for details
                        ****************************

C*END-------------------------------------------------------------------------
S01W 1978  1 2  639  SUM 18.08 40.8540N 125.3260W  32.0  4.0     21            U
S01W 1978  1 2  639  PH1 ISC WKC  IPc  34.80
S01W 1978  1 2  639  PH1 ISC FHC  IPc  36.10  S    12.9
S01W 1978  1 2  639  PH1 ISC WDC  IPc  52.00  S    23.0
S01W 1978  1 2  639  PH1 ISC MIN  IPc   2.40
S01W 1978  1 2  639  PH1 ISC ORV  IPc   6.70
S01W 1978  1 2  639  PH1 ISC BKS  IP   16.00
S01W 1978  1 2  639  PH1 ISC MHC  IP   26.30
S01W 1978  1 2  639  PH1 ISC WCN  EP 2 26.50
S01W 1978  1 2  639  PH1 ISC ARN  EP 2 27.00
****************** 9791 data cards not shown here ******************
C$FINIS DSN=SL000068
```

Table SL000069

```
C#DSN=SL000069;SIZE=011935;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=044;STRT=000001;
C*DATE: 19831017;99; ICALP79S;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19790101;19791231;30.0N;43.0N;135.0W;114.0W; ; ;
C*KEYWD: CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF SUMMARY AND PHASE DATA FILE OF THE
C*       INTERNATIONAL SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1979
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY,
C*             RG13 1LX, BERKSHIRE, UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000057 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY D. M. TOTTINGHAM.  GL000057 IS A DATA
C*          SET THAT WAS EXTRACTED FROM A TAPE SENT BY RAY BULAND,
C*          U. S. GEOLOGICAL SURVEY, DENVER, IN 1983.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS

                        ****************************
           See previous format from dataset SL000061 for details
                        ****************************

C*END-------------------------------------------------------------------------
S01X 1979  1 1  219  PH1 ISC FHC  IPc  15.20  S    23.8
S01X 1979  1 1  219  PH1 ISC WDC  IPc  30.60
S01X 1979  1 1  219  PH1 ISC MIN  IPc  40.80
S01X 1979  1 1  219  PH1 ISC KPK  IP   46.80
S01X 1979  1 1  219  PH1 ISC BKS  IPc  48.30  S    48.7
S01X 1979  1 1  219  PH1 ISC MHC  IPd  57.80
S01X 1979  1 1  219  PH1 ISC ARN  EP 2 58.90
S01X 1979  1 1  219  PH1 ISC JAS  IP    5.70
S01X 1979  1 1  219  PH1 ISC WKR  EP 2 21.00
S01X 1979  1 1  219  PH1 ISC BMN  EP 2 26.50                  SZP 13.7 1.00
***************** 11754 data cards not shown here *****************
C#FINIS DSN=SL000069
```

Table SL000070

```
C#DSN=SL000070;SIZE=021847;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=045;STRT=000001;
C*DATE: 19831017;99; ICALP80S;
C*CLASS: EARTHQUAKE; SUMMARY; PHASE;
C*PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: 19800101;19801231;30.0N;43.0N;135.0W;114.0W; ; ;
C*KEYWD: CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF SUMMARY AND PHASE DATA FILE OF THE
C*       INTERNATIONAL SEISMOLOGICAL CENTRE (ISC) FOR THE YEAR 1980
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY,
C*             RG13 1LX, BERKSHIRE, UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000058 FROM THE ISC
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER
C*          PROGRAM WRITTEN BY D. M. TOTTINGHAM.  GL000058 IS A DATA
C*          SET THAT WAS EXTRACTED FROM A TAPE SENT BY RAY BULAND,
C*          U. S. GEOLOGICAL SURVEY, DENVER, IN 1983.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS TWO TYPES OF CARDS

                        ****************************
            See previous format from dataset SL000061 for details
                        ****************************

C*END-------------------------------------------------------------------------
S01Y 1980  1 1  2 9  SUM 25.11 36.2030N 120.8340W  14.0  3.2     10            U
S01Y 1980  1 1  2 9  PH1 ISC PRI  IPd  29.00
S01Y 1980  1 1  2 9  PH1 ISC LLA  IPd  34.00
S01Y 1980  1 1  2 9  PH1 ISC PRS  IPc  34.50
S01Y 1980  1 1  2 9  PH1 ISC SAO  IP   39.00
S01Y 1980  1 1  2 9  PH1 ISC FRI  IP   47.10  S    15.9
S01Y 1980  1 1  2 9  PH1 ISC GCC  IPd  48.00
S01Y 1980  1 1  2 9  PH1 ISC MHC  IP   49.20  S    16.8
S01Y 1980  1 1  2 9  PH1 ISC JAS  IPd  55.40  S    22.6
S01Y 1980  1 1  2 9  PH1 ISC PCC  IP   55.50
***************** 21666 data cards not shown here *****************
C#FINIS DSN=SL000070
```

```
C#DSN=SL000071;SIZE=009200;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=046;STRT=000001;
C$DATE: 19831019;99; ICA7180S;
C$CLASS: EARTHQUAKE; SUMMARY;
C$PERSN: D. M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C$ALPHA: 19710101; 19801231; 30.0N; 43.0N; 135.0W; 114.0W; ; ;
C$KEYWD: CALIFORNIA;
C*TITLE: STANDARDIZED VERSION OF HYPOCENTER DATA FILE OF THE INTERNATIONAL
C*       SEISMOLOGICAL CENTRE (ISC) FOR CALIFORNIA EVENTS IN THE YEARS
C*       1971 THROUGH 1980 AS REFORMATTED BY NEIS.
C*AUTHOR: D.M. TOTTINGHAM
C*INSTITUTION: INTERNATIONAL SEISMOLOGICAL CENTRE, NEWBURY RG13 1LX, BERKSHIRE,
C*             UNITED KINGDOM
C*ABSTRACT: THIS DATA SET IS THE RESULT OF CONVERSION OF GL000059 FROM THE NEIS
C*          FORMAT TO THE USGS STANDARDIZED FORMAT USING A COMPUTER PROGRAM
C*          WRITTEN BY D. M. TOTTINGHM. GL000059 WAS DERIVED FROM A TAPE SENT
C*          BY RAY BULAND, U. S. GEOLOGICAL SURVEY, BOX 25046, M.S. 967,
C*          DENVER FEDERAL CENTER, DENVER, COLORADO, ON JUNE 24, 1983.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-04    (A4)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  05       (A1)    blank   Space for overflow if year of the
C*                           quake is B.C.
C*  06-09    (I4)    EVYEAR  4 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
C*                           then DATCOD=* and the last data card must be
C*                           blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
C*                           in this case, 'SUM'
C*  25       (A1)    blank   A blank space for easy reading.
C*  26-30    (F5.2)  ORTIME  Origin time; normally the seconds
C*                           portion only.
C*  31       (A1)    TMUNIT  1-character code for the time unit;
C*                           For some old quakes, the ORTIME may
C*                           differ from the identification date
C*                           and time.  Use Y for year, N for
```

```
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)  HYLAT    Hypocenter latitude in degrees.
C*  39        (A1)    HYNS     N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)    blank
C*  41-48     (F8.4)  HYLON    Hypocenter longitude in degrees.
C*  49        (A1)    HYEW     E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)    blank
C*  51-55     (F5.1,  HYDEP    Focal depth in km; decimal places
C*            or F5.2)         depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)    HYDEPC   1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)    blank    May be used for negative magnitude.
C*  58-60     (F3.1)  ML       Local magnitude.
C*  61        (A1)    MLCODE   1-character code for the type of
C*                                    local magnitude; R=Richter scale
C*                                    using Wood-Anderson seismograms
C*                                    was assumed for this data set, due
C*                                    to the institution involved and time period
C*                                    considered.
C*  62        (A1)    blank
C*  63        (A1)    MAXINT   1-character code for maximum inten-
C*                                    sity. PDE notation is used: 1 to 9
C*                                    for I to IX, X for X, E for XI, and
C*                                    T for XII.
C*  64        (A1)    blank
C*  65-67     (I3)    NUMPHA   Total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)    blank
C*  69-71     (I3,    GAP or   Maximum station gap in degrees (I3)
C*            or      MB       for a local quake, or body-wave mag-
C*            F3.1)            nitude (F3.1) for a teleseismic event.
C*  72        (A1)    blank
C*  73-75     (I3,    DMIN or  Minimum station distance in km (I3)
C*            or      MS       for a local quake, or surface-wave
C*            F3.1)            magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)    blank
C*  77-79     (F3.1)  RMS      RMS residual in seconds (F3.1) for
C*                    OR M     a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
C*                                    specified by MCODE in column 80).
C*  80        (A1)    HYQUAL   HYP071 quality code for a local quake,
C*                  or MCODE   or code for specifying M in columns
C*                                    77-79, e.g., U=unspecified, W=moment
C*                                    magnitude, etc.
C*END-----------------------------------------------------------------------
S01Z 1971  1 1 2036  SUM 18.40 33.9700N 119.3990W   8.0A    R                3.0U
S01Z 1971  1 2  219  SUM 13.10 35.7700N 117.5690W   8.0A    R                2.8U
S01Z 1971  1 2  237  SUM 50.30 35.8200N 117.5490W   8.0A    R                3.0U
S01Z 1971  1 2  627  SUM 37.48 35.9670N 120.8310W   8.0A    R     7
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```
S01Z 1971  1 2  759  SUM  8.00 35.7000N 117.5590W   8.0A    R                2.8U
S01Z 1971  1 2 1119  SUM 28.80 35.8500N 117.5000W   8.0A    R                3.0U
S01Z 1971  1 4  537  SUM 56.40 35.8900N 117.5190W   8.0A    R                3.0U
S01Z 1971  1 5  614  SUM 44.22 34.0400N 118.0240W   8.0A    R     9
S01Z 1971  1 6 2253  SUM  1.00 35.0800N 118.3290W   8.0A    R                2.8U
S01Z 1971  1 7 2322  SUM 44.00 34.5800N 117.1690W   8.0A    R                2.8U
****************** 9084 data cards not shown here ******************
C$FINIS DSN=SL000071
```

```
C$DSN=SL000072;SIZE=005016;DATE=062584;ARCH=DT;TAPE=SM9302;FILE=047;STRT=000001;
C*DATE: 19830906; 0; NEISTATS;
C*CLASS: EARTHQUAKE; STATION;
C*PERSN: D.M. TOTTINGHAM; W. H. K. LEE; R. BULAND;
C*ALPHA: ; ; 90.0 S; 90.0 N; 180.0 W; 180.0 E; ; ;
C*KEYWD: ;
C*TITLE: STANDARDIZED VERSION OF THE NEIS STATION MASTER FILE
C*AUTHOR: D. M. TOTTINGHAM
C*INSTITUTION: NATIONAL EARTHQUAKE INFORMATION SERVICE
C*             U. S. GEOLOGICAL SURVEY
C*             BOX 25046, M.S. 967
C*             DENVER FEDERAL CENTER
C*             DENVER, CO 80225
C*ABSTRACT: THIS STATION LIST IS THE RESULT OF CONVERSION OF GL000048 FROM THE
C*          NEIS STATION FORMAT TO THE USGS STANDARDIZED FORMAT USING A
C*          A COMPUTER PROGRAM WRITTEN BY D. M. TOTTINGHAM.
C*REFERENCE:
C*FORMAT:  THIS DATA SET CONTAINS ONE TYPE OF CARD
C*
C*
C*  COLUMNS  FORMAT  ITEM     EXPLANATION
C*  01-04    (A4)    REFNUM   Reference number to the data source
C*                            to be supplied by the archivist.
C*  05       (A1)    blank
C*  06-09    (I4)    ONYEAR   4 digits for the year the station
C*                            began operation.
C*  10       (A1)    blank
C*  11-12    (I2)    ONMON    2 digits for the month of station
C*                            beginning.
C*  13-14    (I2)    ONDAY    2 digits for the day of the station
C*                            beginning.
C*  15       (A1)    blank
C*  16-17    (I2)    ONHOUR   2 digits for the hour of station
C*                            beginning.
C*  18-19    (I2)    ONMIN    2 digits for the minute of the
C*                            station beginning.
C*  20       (A1)    blank
C*  21       (A1)    DATCOD   Normally a blank.  If more than 80 bytes
C*                            are used for a data record, then DATCOD=k
C*                            where k is the card sequence number with-
C*                            in the data record, e.g., 1, 2, ..., 9,
C*                            A, B, ..., Z, up to 35 cards.  If any
C*                            data record exceeds 35 cards (2800 bytes),
C*                            then DATCOD=* and the last data card must be
C*                            blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY   3-letter code serving as a data key
C*                            to the kind of data that follows,
C*                            in this case, 'STA'.
C*  25       (A1)    STWT     Station weight (normally blank).
C*  26-29    (A4)    STAGCY   4-character code for the agency
C*                            operating the station.  Normally a 3-
C*                            character code plus 1 blank is used.
C*  30-33    (A4)    STNAME   4-character code for the station
```

```
C*                              name;  the last character usually
C*                              denotes the component of the
C*                              instrument.
C*  34        (A1)     blank    May be used to denote the component
C*                              of a 4-character code station.
C*  35-41     (f7.4)   STLAT    Station latitude in degrees.
C*  42        (A1)     STNS     N for the northern hemisphere or S
C*                              for the southern hemisphere.
C*  43        (A1)     blank
C*  44-51     (F8.4)   STLON    Station longitude in degrees.
C*  52        (A1)     STEW     E for the eastern hemisphere or W
C*                              for the western hemisphere.
C*  53-57     (I5)     STELEV   Station elevation in meters.
C*  58-59     (A2)     FLAG     BLANK means the following.
C*  60-69     (A10)    STRNAM   Real station name.
C*  60-64     (F5.2)   STPDLY   P model number for the station.
C*  65-66     (I2)     STINCL   Instrument class number for the
C*                              station.
C*  67-69     (I3)     STATTN   Station attenuation setting in dB.
C*  70-74     (F5.2)   STDT     Station clock correction in seconds.
C*  75-80     (3I2)    OFFDAT   Station off date (year,month,day).
C*END---------------------------------------------------------------------------
S020                   STA -A0M      46.6886N 106.2222W 8970  Subarray A      830906
S020                   STA A10       10.4611N  84.7155W 8300  Crater
S020                   STA AA-I      52.2117N 174.2036W   60  Atka            830906
S020                   STA AAA       43.2717N  76.9466E 8000  Alma-Ata
S020                   STA AAB       43.2667N  77.3833E 8500  (Alternate
S020                   STA AAC       50.7833N   6.0833E 1790  Aachen          830906
S020                   STA AAE        9.0292N  38.7655E24420  Addis Abab
S020                   STA AAI        3.6667S 128.1667E  800  Ambon
S020                   STA AAM       42.2997N  83.6561W 2490  Ann Arbor
S020                   STA AAR       46.1333N  25.8950E11010  Sfinta Ana
********** 4930 data cards not shown here **********
C*FINIS DSN=SL000072
```

```
C$DSN=SL000073;SIZE=001937;DATE=042585;ARCH=JN;TAPE=SM9302;FILE=048;STRT=000001;
C*DATE: 19850429; 0; CUSPAPR;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: J. NEWBERRY;
C*ALPHA: 19840401; 19840431; 32.0N; 42.0N; 126.0W; 114.0W; ; S021;
C*KEYWD: SUMMARY, CALIFORNIA;
C*TITLE: SUMMARY DATA FOR APRIL, 1984 FROM USGS CUSP PROCESSING SYSTEM
C*AUTHOR: S. STEWART, J. NEWBERRY
C*INSTITUTION: U. S. GEOLOGICAL SURVEY
C*ABSTRACT: THIS SUMMARY DATA WAS DERIVED FROM CUSP MEM TAPES AND TRANSLATED TO
           STANDARDIZED FORMAT BY J. NEWBERRY.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD
C*
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-05    (A5)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  06-07    (A2)    blank
C*
C*  08-09    (I2)    EVYEAR  2 digits for the year of the quake;
C*
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
C*                           then DATCOD=* and the last data card must be
C*                           blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
C*                           in this case, 'SUC'
C*  25       (A1)    blank   A blank space for easy reading.
C*  26-30    (F5.2)  ORTIME  Origin time; normally the seconds
C*                           portion only.
C*  31       (A1)    TMUNIT  1-character code for the time unit;
C*                           For some old quakes, the ORTIME may
C*                           differ from the identification date
C*                           and time.  Use Y for year, N for
C*                           month, D for day, H for hour, M
C*                           for minute, and blank for second.
C*  32-38    (F7.4)  HYLAT   Hypocenter latitude in degrees.
C*  39       (A1)    HYNS    N for the northern hemisphere or S
C*                           for the southern hemisphere.
C*  40       (A1)    blank
```

```
C*  41-48     (F8.4)  HYLON    Hypocenter longitude in degrees.
C*  49        (A1)    HYEW     E for the eastern hemisphere or W
C*                             for the western hemisphere.
C*  50        (A1)    blank
C*  51-55     (F5.1,  HYDEP    Focal depth in km; decimal places
C*            or F5.2)         depends on teleseismic event (F5.1)
C*                             or local quake (F5.2).
C*  56        (A1)    HYDEPC   1-character code for how focal depth
C*                             is determined; A=assigned, D=re-
C*                             strained by pP, H=held at fixed
C*                             depth, etc.
C*  57        (A1)    blank    May be used for negative magnitude.
C*  58-60     (F3.1)  ML       Local magnitude.
C*  61        (A1)    MLCODE   1-character code for the type of
C*                             local magnitude; D=Coda duration
C*                             was used for this data set.
C*  62        (A1)    blank
C*  63        (A1)    MAXINT   1-character code for maximum inten-
C*                             sity. PDE notation is used: 1 to 9
C*                             for I to IX, X for X, E for XI, and
C*                             T for XII.
C*  64        (A1)    blank
C*  65-67     (I3)    NUMPHA   Total number of phase readings for
C*                             locating the quake.
C*  68        (A1)    blank
C*  69-71     (I3,    GAP or   Maximum station gap in degrees (I3)
C*            or      MB       for a local quake, or body-wave mag-
C*            F3.1)            nitude (F3.1) for a teleseismic event.
C*  72        (A1)    blank
C*  73-75     (I3,    DMIN or  Minimum station distance in km (I3)
C*            or      MS       for a local quake, or surface-wave
C*            F3.1)            magnitude (F3.1) for a teleseismic
C*                             event.
C*  76        (A1)    blank
C*  77-79     (F3.2)  RMS      RMS residual in seconds (F3.2) for
C*                    OR M     a local quake, or any magnitude
C*                             (F3.1) for a teleseismic event (to be
C*                             specified by MCODE in column 80).
C*  80        (A1)    HYQUAL   HYP071 quality code for a local quake,
C*                  or MCODE   or code for specifying M in columns
C*                             77-79, e.g., U=unspecified, W=moment
C*                             magnitude, etc.
C*
C*END-----------------------------------------------------------------------
S021   84 04 1  033  SUC 16.11 36.3538N 121.8752W 11.05A 0.8D    11 206  14 .06
S021   84 04 1  1 2  SUC 49.58 37.6304N 118.9253W  3.51A 0.6D    10  91   0 .07
S021   84 04 1  1 5  SUC 54.20 38.7953N 122.7963W  4.09A 0.9D    10  71   1 .10
S021   84 04 1  238  SUC 53.35 37.4689N 118.8374W  7.66A 2.1D    32 117   6 .11
S021   84 04 1  239  SUC 51.67 37.4680N 118.8347W  3.55A 1.1D    20 181   6 .09
S021   84 04 1  4 6  SUC 52.91 38.7843N 122.7741W  2.11A 1.4D    15  68   1 .13
S021   84 04 1  423  SUC 12.75 37.4926N 118.7206W  6.58A 0.7D    17 103   0 .10
S021   84 04 1  425  SUC 44.21 37.4757N 118.8338W  6.99A 0.8D    17 179   5 .07
S021   84 04 1  513  SUC  0.30 36.2504N 120.4081W  4.26A 1.1D     6 108   5 .17
S021   84 04 1  6 8  SUC 55.89 38.8123N 122.8066W  3.41A 0.6D     9  85   1 .07
********** 1829 data cards not shown here **********
C*FINIS DSN=SL000073
```

Table SL000074

```
C#DSN=SL000074;SIZE=001830;DATE=042585;ARCH=JN;TAPE=SM9302;FILE=048;STRT=001938;
C*DATE: 19840429; 0; CUSPMAY;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: J. NEWBERRY;
C*ALPHA: 19840501; 19840531; 32.0N; 42.0N; 126.0W; 114.0W; ; S022;
C*KEYWD: SUMMARY, CALIFORNIA;
C*TITLE: SUMMARY DATA FOR MAY, 1984 FROM USGS CUSP PROCESSING SYSTEM
C*AUTHOR: S. STEWART, J. NEWBERRY
C*INSTITUTION: U. S. GEOLOGICAL SURVEY
C*ABSTRACT: THIS SUMMARY DATA WAS DERIVED FROM CUSP MEM TAPES AND TRANSLATED TO
           STANDARDIZED FORMAT BY J. NEWBERRY.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
           See previous format from dataset SL000073 for details
                        ****************************

C*END-----------------------------------------------------------------------
S022   84 05 1  133  SUC  4.78 36.1806N 120.3110W  2.04A 1.0D    11 142   8 .29
S022   84 05 1  144  SUC 49.25 37.3287N 121.6588W 13.26A 0.7D     9 119   7 .13
S022   84 05 1  148  SUC 36.36 36.7265N 121.3475W 12.75A 1.1D    18  64   1 .09
S022   84 05 1  215  SUC 42.08 36.6908N 122.0527W 15.00A 1.4D    15 218  15 .18
S022   84 05 1  220  SUC  2.85 37.2598N 121.6256W  7.70A 2.3D    44  31   4 .18
S022   84 05 1  230  SUC 52.51 40.5075N 122.1993W 16.90A 2.3D    15 101  26 .18
S022   84 05 1  234  SUC 46.58 37.6265N 118.8942W  1.70A 0.8D     7 151   0 .05
S022   84 05 1  236  SUC  6.25 37.6198N 118.8844W  5.96A 1.9D    26  70   1 .17
S022   84 05 1  3 4  SUC 54.37 37.6161N 118.8712W  3.27A 1.2D     8  85   0 .06
S022   84 05 1  3 9  SUC 59.46 37.6246N 118.8831W  5.96A 1.6D    17  98   1 .13
****************** 1722 data cards not shown here ******************
C#FINIS DSN=SL000074
```

Table SL000075

```
C$DSN=SL000075;SIZE=001625;DATE=042585;ARCH=JN;TAPE=SM9302;FILE=048;STRT=003768;
C*DATE: 19850429; 0; CUSPJUN;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: J. NEWBERRY;
C*ALPHA: 19840601; 19840631; 32.0N; 42.0N; 126.0W; 114.0W; ; S023;
C*KEYWD: SUMMARY, CALIFORNIA;
C*TITLE: SUMMARY DATA FOR JUNE, 1984 FROM USGS CUSP PROCESSING SYSTEM
C*AUTHOR: S. STEWART, J. NEWBERRY
C*INSTITUTION: U. S. GEOLOGICAL SURVEY
C*ABSTRACT: THIS SUMMARY DATA WAS DERIVED FROM CUSP MEM TAPES AND TRANSLATED TO
           STANDARDIZED FORMAT BY J. NEWBERRY.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
           See previous format from dataset SL000073 for details
                        ****************************

C*END-------------------------------------------------------------------------
S023   84 06 1  030  SUC 21.63 40.9564N 121.2901W  5.97A 1.9D     7 178  43 .17
S023   84 06 1  154  SUC  8.68 37.1149N 121.5477W  5.41A 1.0D    11  86   2 .16
S023   84 06 1  2 6  SUC 40.07 37.5620N 118.8363W  8.34A 1.4D    18 109   3 .09
S023   84 06 1  218  SUC 57.56 38.8185N 122.7974W  3.04A 0.5D     6 194   1 .03
S023   84 06 1  235  SUC 34.71 37.5810N 121.8130W  6.12A 0.0      6 114   5 .14
S023   84 06 1  240  SUC 52.72 36.6961N 120.8741W  0.00A 1.1D    10 116   8 .17
S023   84 06 1  3 5  SUC 45.47 37.6115N 118.8993W  4.20A 0.8D     8 155   1 .05
S023   84 06 1  327  SUC 26.84 37.2912N 121.6524W  8.18A 1.3D    25  70   4 .11
S023   84 06 1  332  SUC  4.22 34.4928N 118.5863W 32.92A 0.0      6 299  70 .77
S023   84 06 1  356  SUC 52.88 37.2612N 121.6249W  5.42A 0.8D    11 109   4 .13
********** 1517 data cards not shown here **********
C$FINIS DSN=SL000075
```

Table SL000076

```
C#DSN=SL000076;SIZE=002090;DATE=042585;ARCH=JN;TAPE=SM9302;FILE=048;STRT=005393;
C*DATE: 19850429; 0; CUSPJUL;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: J. NEWBERRY;
C*ALPHA: 19840701; 19840731; 32.0N; 42.0N; 126.0W; 114.0W; ; S024;
C*KEYWD: SUMMARY, CALIFORNIA;
C*TITLE: SUMMARY DATA FOR JULY, 1984 FROM USGS CUSP PROCESSING SYSTEM
C*AUTHOR: S. STEWART, J. NEWBERRY
C*INSTITUTION: U. S. GEOLOGICAL SURVEY
C*ABSTRACT: THIS SUMMARY DATA WAS DERIVED FROM CUSP MEM TAPES AND TRANSLATED TO
           STANDARDIZED FORMAT BY J. NEWBERRY.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
           See previous format from dataset SL000073 for details
                        ****************************

C*END-------------------------------------------------------------------------
S024   84 07 1  136  SUC 59.76 36.5848N 121.1465W 10.48A 0.9D    14  61   3 .16
S024   84 07 1  147  SUC  5.58 37.6060N 118.8643W  8.20A 1.2D    13 136   3 .04
S024   84 07 1  2 4  SUC 19.11 37.3166N 121.6453W  3.57A 1.2D    19  74   6 .14
S024   84 07 1  349  SUC 47.35 37.2357N 121.6459W  8.77A 0.5D    11 100   3 .13
S024   84 07 1  353  SUC 59.55 37.1290N 121.5431W  9.41A 0.7D     9 111   2 .14
S024   84 07 1  420  SUC 32.08  0.0000N   0.0000W  0.00A 0.0      0 111   2 .00
S024   84 07 1  447  SUC  5.52 37.1783N 121.5710W  5.00A 0.8D    12 119   5 .05
S024   84 07 1  529  SUC 33.82 37.6463N 118.9194W  6.97A 0.0      5 151   1 .00
S024   84 07 1  725  SUC 24.25 37.2466N 121.6164W  7.07A 0.8D    16 104   5 .14
S024   84 07 1  8 1  SUC 15.74 37.1776N 121.5683W  3.57A 1.1D    18 109   5 .14
***************** 1982 data cards not shown here *****************
C#FINIS DSN=SL000076
```

Table SL000077

```
C$DSN=SL000077;SIZE=001424;DATE=042585;ARCH=JN;TAPE=SM9302;FILE=048;STRT=007483;
C*DATE: 19850429; 0; CUSPAUG;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: J. NEWBERRY;
C*ALPHA: 19840801; 19840831; 32.0N; 42.0N; 126.0W; 114.0W; ; S025;
C*KEYWD: SUMMARY, CALIFORNIA;
C*TITLE: SUMMARY DATA FOR AUGUST, 1984 FROM USGS CUSP PROCESSING SYSTEM
C*AUTHOR: S. STEWART, J. NEWBERRY
C*INSTITUTION: U. S. GEOLOGICAL SURVEY
C*ABSTRACT: THIS SUMMARY DATA WAS DERIVED FROM CUSP MEM TAPES AND TRANSLATED TO
           STANDARDIZED FORMAT BY J. NEWBERRY.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
            See previous format from dataset SL000073 for details
                        ****************************

C*END-------------------------------------------------------------------------
S025   84 08 1  043  SUC 57.31 36.3284N 120.9262W  3.62A 1.0D     9  62   1 .21
S025   84 08 1  051  SUC 37.55 36.6487N 121.1468W 15.00A 1.2D    16  72   3 .19
S025   84 08 1  112  SUC 12.76 36.2024N 120.4025W  3.61A 2.0D    12  74   7 .18
S025   84 08 1  128  SUC 52.60 35.9927N 120.5770W  3.63A 1.2D     9 107   7 .18
S025   84 08 1  140  SUC  2.90 36.2328N 120.8266W  4.91A 0.7D     8  96   3 .08
S025   84 08 1  238  SUC 25.51 37.2609N 121.6466W  8.96A 2.2D    33  54   2 .18
S025   84 08 1  244  SUC 40.08 35.9927N 120.5792W  2.43A 2.0D    12 116   7 .20
S025   84 08 1  3 4  SUC 46.40 36.6485N 121.1651W 12.87A 1.9D    22  54   1 .23
S025   84 08 1  4 2  SUC 39.74 36.6503N 121.1560W 11.50A 0.7D    15  91   2 .21
S025   84 08 1  4 6  SUC  9.28 36.1329N 118.2967W  1.75A 0.0      7 134  34 .08
***************** 1316 data cards not shown here *****************
C$FINIS DSN=SL000077
```

Table SL000078

```
C$DSN=SL000078;SIZE=001158;DATE=042585;ARCH=JN;TAPE=SM9302;FILE=048;STRT=008907;
C*DATE: 19850429; 0; CUSPSEP;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: J. NEWBERRY;
C*ALPHA: 19840901; 19840931; 32.0N; 42.0N; 126.0W; 114.0W; ; S026;
C*KEYWD: SUMMARY, CALIFORNIA;
C*TITLE: SUMMARY DATA FOR SEPTEMBER,1984 FROM USGS CUSP PROCESSING SYSTEM
C*AUTHOR: S. STEWART, J. NEWBERRY
C*INSTITUTION: U. S. GEOLOGICAL SURVEY
C*ABSTRACT: THIS SUMMARY DATA WAS DERIVED FROM CUSP MEM TAPES AND TRANSLATED TO
           STANDARDIZED FORMAT BY J. NEWBERRY.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
           See previous format from dataset SL000073 for details
                        ****************************

C*END-------------------------------------------------------------------------
S026   84 09 1  111  SUC 54.83 37.6764N 118.7561W 10.31A 1.0D    18 163   5 .08
S026   84 09 1  153  SUC 26.41 37.1548N 121.5842W  4.21A 0.8D    12 106   3 .18
S026   84 09 1  3 4  SUC 45.02 36.9758N 121.6437W  3.50A 1.0D    16  43   4 .19
S026   84 09 1  319  SUC 48.79 36.1648N 120.2682W  2.00A 1.9D    22 117  11 .20
S026   84 09 1  448  SUC  6.86 37.2550N 121.6226W  5.31A 2.3D    46  32   4 .18
S026   84 09 1  726  SUC 29.37 37.5211N 118.8590W 10.25A 0.7D    14 189   7 .07
S026   84 09 1  9 5  SUC 33.73 36.5283N 121.1453W  8.78A 1.0D    17  72   4 .15
S026   84 09 1 1055  SUC 43.34 36.5230N 121.1693W  8.65A 1.0D    14  86   3 .18
S026   84 09 1 1210  SUC  0.98 37.5248N 118.8335W  6.79A 0.7D    22 155   7 .06
S026   84 09 1 1225  SUC 18.49 37.8482N 122.0190W  2.92A 1.0D    16  53   5 .27
****************** 1050 data cards not shown here ******************
C$FINIS DSN=SL000078
```

Table SL000079

```
C$DSN=SL000079;SIZE=001136;DATE=042585;ARCH=JN;TAPE=SM9302;FILE=048;STRT=010065;
C*DATE: 19850429; 0; CUSPOCT;
C*CLASS: EARTHQUAKE; SUMMARY;
C*PERSN: J. NEWBERRY;
C*ALPHA: 19841001; 19841031; 32.0N; 42.0N; 126.0W; 114.0W; ; S027;
C*KEYWD: SUMMARY, CALIFORNIA;
C*TITLE: SUMMARY DATA FOR OCTOBER, 1984 FROM USGS CUSP PROCESSING SYSTEM
C*AUTHOR: S. STEWART, J. NEWBERRY
C*INSTITUTION: U. S. GEOLOGICAL SURVEY
C*ABSTRACT: THIS SUMMARY DATA WAS DERIVED FROM CUSP MEM TAPES AND TRANSLATED TO
           STANDARDIZED FORMAT BY J. NEWBERRY.
C*REFERENCE:
C*FORMAT:  THIS FILE CONTAINS ONE TYPE OF CARD

                        ****************************
           See previous format from dataset SL000073 for details
                        ****************************

C*END-------------------------------------------------------------------------
S027   84 10 1  415  SUC 15.73 37.6180N 118.9528W  6.29A 2.2D    23  92   0 .10
S027   84 10 1  627  SUC 40.68 37.1749N 121.5749W  4.92A 0.7D    11 116   4 .17
S027   84 10 1  652  SUC 35.43 36.2552N 120.3758W  5.97A 1.2D     8  93   3 .21
S027   84 10 1  741  SUC 21.79 37.2262N 121.6457W 11.04A 0.0      7 100   4 .08
S027   84 10 1  913  SUC 37.71 37.4657N 121.8378W  0.94A 1.1D    14  70   3 .18
S027   84 10 1  929  SUC 22.81 36.7462N 121.3631W 10.85A 0.6D    10 106   3 .09
S027   84 10 1 1042  SUC 15.35 37.3543N 121.6768W  7.55A 0.0     10  93   7 .11
S027   84 10 1 1051  SUC 26.59 37.0696N 121.4791W  9.06A 1.3D    23  52   4 .17
S027   84 10 1 1328  SUC 17.06 37.3303N 121.6708W 13.66A 0.6D    11 100   8 .11
S027   84 10 1 1414  SUC 14.74 37.2755N 121.6305W  8.27A 0.0      9 103   4 .12
****************** 1028 data cards not shown here ******************
C$FINIS DSN=SL000079
```

```
C*DSN=SL000080;SIZE=009355;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=049;STRT=000001;
C*DATE:  19850430; 0; 840407A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840407; 19840407; 37.447N; 37.447N; 118.630W; 118.630W; ;  3274;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840407 AT 01:08
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
C*
C* REFERENCE NOTE:
C*      THE 'REFNUM' ITEM FOR THESE DATA REFER TO THE ORIGINAL
C*      ARCHIVE ID NUMBER ASSIGNED BY THE CUSP PROCESSING SYSTEM.
C*
C*************************************************************************
C*
C*  THE SUMMARY CARD APPEARS AS FOLLOWS:
C*
C*************************************************************************
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-05    (A5)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  06-07    (A2)    blank
C*
C*  08-09    (I2)    EVYEAR  2 digits for the year of the quake;
C*
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
C*                           then DATCOD=* and the last data card must be
C*                           blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
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C*                                    in this case, 'SUC'
C*  25        (A1)     blank          A blank space for easy reading.
C*  26-30     (F5.2)   ORTIME         Origin time; normally the seconds
C*                                    portion only.
C*  31        (A1)     TMUNIT         1-character code for the time unit;
C*                                    For some old quakes, the ORTIME may
C*                                    differ from the identification date
C*                                    and time.  Use Y for year, N for
C*                                    month, D for day, H for hour, M
C*                                    for minute, and blank for second.
C*  32-38     (F7.4)   HYLAT          Hypocenter latitude in degrees.
C*  39        (A1)     HYNS           N for the northern hemisphere or S
C*                                    for the southern hemisphere.
C*  40        (A1)     blank
C*  41-43     (F8.4)   HYLON          Hypocenter longitude in degrees.
C*  49        (A1)     HYLW           E for the eastern hemisphere or W
C*                                    for the western hemisphere.
C*  50        (A1)     blank
C*  51-55     (F5.1,   HYDEP          Focal depth in km; decimal places
C*            or F5.2)                depends on teleseismic event (F5.1)
C*                                    or local quake (F5.2).
C*  56        (A1)     HYDEPC         1-character code for how focal depth
C*                                    is determined; A=assigned, D=re-
C*                                    strained by pP, H=held at fixed
C*                                    depth, etc.
C*  57        (A1)     blank          May be used for negative magnitude.
C*  58-60     (F3.1)   ML             Local magnitude.
C*  61        (A1)     MLCODE         1-character code for the type of
C*                                    local magnitude; D=Coda wave
C*                                    duration was used for these
C*                                    magnitude calculations.
C*  62        (A1)     blank
C*  63        (A1)     MAXINT         1-character code for maximum inten-
C*                                    sity. PDE notation is used: 1 to 9
C*                                    for I to IX, X for X, E for XI, and
C*                                    T for XII.
C*  64        (A1)     blank
C*  65-67     (I3)     NUMPHA         Total number of phase readings for
C*                                    locating the quake.
C*  68        (A1)     blank
C*  69-71     (I3,     GAP or         Maximum station gap in degrees (I3)
C*            or       MB             for a local quake, or body-wave mag-
C*            F3.1)                   nitude (F3.1) for a teleseismic event.
C*  72        (A1)     blank
C*  73-75     (I3,     DMIN or        Minimum station distance in km (I3)
C*            or       MS             for a local quake, or surface-wave
C*            F3.1)                   magnitude (F3.1) for a teleseismic
C*                                    event.
C*  76        (A1)     blank
C*  77-79     (F3.2)   RMS            RMS residual in seconds (F3.2) for
C*                     OR M           a local quake, or any magnitude
C*                                    (F3.1) for a teleseismic event (to be
C*                                    specified by MCODE in column 80).
C*  80        (A1)     HYQUAL         HYPO71 quality code for a local quake,
C*                     or MCODE       or code for specifying M in columns
C*                                    77-79, e.g., U=unspecified, W=moment
```

```
C*                              magnitude, etc.
C*****************************************************************************
C*
C*  THE PHASE CARD APPEARS AS FOLLOWS:
C*
C*****************************************************************************
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-05    (I5)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  06-07    (A2)    blank
C*
C*  08-09    (I2)    EVYEAR  2 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
C*                           then DATCOD=* and the last data card must be
C*                           blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
C*                           in this case, 'PHC'.
C*  25       (A1)    blank   A blank space for easy reading.
C*  26-29    (A4)    PHAGCY  4-character code for the agency
C*                           operating the station.  Normally a 3-
C*                           character code plus 1 blank is used.
C*  30-33    (A4)    STNAME  4-character code for the station
C*                           name;  the last character usually
C*                           denotes the component of the
C*                           instrument.
C*  34       (A1)    blank   May be used to denote the component
C*                           of a 4-character code station.
C*  35-38    (A4)    PHPRMK  4-character code for the P-phase
C*                           remark.
C*  39       (A1)    blank
C*  40-44    (F5.2)  PHPARR  P-phase arrival time in seconds.
C*  45       (A1)    blank
C*  46-49    (A4)    PHSRMK  4-character code for the S-phase
C*                           remark.
C*  50       (A1)    blank
C*  51-55    (F5.2)  PHSARR  S-phase arrival time in seconds.
C*  56       (A1)    blank
C*  57-60    (I4)    PHFMP   Signal duration in seconds.
C*  61       (A1)    blank
C*  62-64    (A3)    PHRMK   General remark.
C*  65       (A1)    blank
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C*  66-69    (F4.1)  AMPX    Maximum trace amplitude (peak-
C*                           to peak) in mm.
C*  70       (A1)    blank
C*  71-74    (F4.2)  PRX     Period in seconds associated
C*                           with the maximum trace amplitude.
C*  75-80    (F6.2)  DT      Clock correction in seconds to
C*                           be added to the arrival times.
C*************************************************************************
C*
C*  THE WAVEFORM CARDS APPEAR AS FOLLOWS:
C*
C*************************************************************************
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-05    (I5)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  06-07    (A2)    blank
C*
C*  08-09    (I2)    EVYEAR  2 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    DATCOD  Normally a blank.  If more than 80 bytes
C*                           are used for a data record, then DATCOD=k
C*                           where k is the card sequence number with-
C*                           in the data record, e.g., 1, 2, ..., 9,
C*                           A, B, ..., Z, up to 35 cards.  If any
C*                           data record exceeds 35 cards (2800 bytes),
C*                           then DATCOD=* and the last data card must be
C*                           blank, except "END" in columns 22-24.
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
C*                           in this case, 'WFC'.
C*  25       (A1)    blank
C*  26-29    (A4)    STAGCY  4-character code for the agency
C*                           operating the station.  Normally a 3-
C*                           character code plus 1 blank is used.
C*  30-33    (A4)    STNAME  4-character code for the station
C*                           name;  the last character usually
C*                           denotes the component of the
C*                           instrument.
C*  34       (A1)    blank   May be used to denote the component
C*                           of a 4-character code station.
C*  35-41    (f7.4)  STLAT   Station latitude in degrees.
C*  42       (A1)    STNS    N for the northern hemisphere or S
C*                           for the southern hemisphere.
C*  43       (A1)    blank
C*  44-51    (F8.4)  STLON   Station longitude in degrees.
C*  52       (A1)    STEW    E for the eastern hemisphere or W
C*                           for the western hemisphere.
C*  53-57    (I5)    STELEV  Station elevation in meters.
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C*  58        (A1)     blank
C*  59-60     (I2)     DGHOUR  Hour of the digitization start time.
C*  61        (A1)     blank
C*  62-63     (I2)     DGMIN   Minute of the digitization start time.
C*  64        (A1)     blank
C*  65-69     (F5.2)   DGSEC   Second of the digitization start time.
C*  70        (A1)     blank
C*  71-73     (I3)     NUMSAM  Number of samples per second in
C*                             digitization.
C*  74        (A1)     blank
C*  75-77     (I3)     DGDUR   Duration of digitization in seconds.
C*  78        (A1)     blank
C*  79-80     (I2)     NUMIPC  Number of integers per card (or per
C*                             80 bytes) for the waveform data to
C*                             follow.
C*
C*  81-(N+1)*80        Total number of samples for the waveform data
C*                     is given by TOTSAM=NUMSAM*DGDUR.  Waveform data
C*                     is given in integers, i.e., in Ik format, where
C*                     k=80/NUMIPC.  If TOTSAM is divisible by NUMIPC
C*                     then the number of waveform data cards is given
C*                     by  N=TOTSAM/NUMIPC;  otherwise, N=TOTSAM/NUMIPC+1
C*                     with trailing blanks.
C*
C* NOTE ON WAVEFORM CARDS:
C*
C*  TWO CARDS ARE USED TO DELIMIT THE DIGITAL TRACE DATA.  THESE CARDS
C*  ARE RECOGNIZED BY DATKEYS OF 'SRT' AND 'END' AND ARE OTHERWISE
C*  IDENTICAL TO THE 'WFC' CARDS. THE 'WFC' CARDS APPEAR AT THE
C*  BEGINNING OF THE DATA SET AS A GROUP BY THEMSELVES, SO IT WAS
C*  JUDGED UNNECESSARY TO REPEAT THEM EXACTLY.
C*
C*************************************************************************
C*
C*  THE SATURATION CARDS APPEAR AS FOLLOWS:
C*
C*************************************************************************
C*  COLUMNS   FORMAT   ITEM    EXPLANATION
C*  01-05     (I5)     REFNUM  Reference number to the data source
C*                             to be supplied by the archivist.
C*  06-07     (A2)     blank
C*
C*  08-09     (I2)     EVYEAR  2 digits for the year of the quake;
C*                             If year is B.C., use "-" in column 5.
C*  10        (A1)     blank
C*  11-12     (I2)     EVMON   2 digits for the month of the quake.
C*  13-14     (I2)     EVDAY   2 digits for the day of the  quake.
C*  15        (A1)     blank
C*  16-17     (I2)     EVHOUR  2 digits for the hour of the quake.
C*  18-19     (I2)     EVMIN   2 digits for the minute of the quake.
C*  20        (A1)     EVINDX  Event index if there are more than one
C*                             quake within the same minute.
C*  21        (A1)     blank
C*  22-24     (A3)     DATKEY  3-letter code serving as a data key
C*                             to the kind of data that follows,
C*                             in this case, 'SAT'.
```

```
C*  25        (A1)     blank
C*  26-29     (A4)     STAGCY  4-character code for the agency
C*                             operating the station.  Normally a 3-
C*                             character code plus 1 blank is used.
C*  30-33     (A4)     STNAME  4-character code for the station
C*                             name;  the last character usually
C*                             denotes the component of the
C*                             instrument.
C*  34        (A1)     blank   May be used to denote the component
C*                             of a 4-character code station.
C*  35-41     (F7.4)   STLAT   Station latitude in degrees.
C*  42        (A1)     STNS    N for the northern hemisphere or S
C*                             for the southern hemisphere.
C*  43        (A1)     blank
C*  44-51     (F8.4)   STLON   Station longitude in degrees.
C*  52        (A1)     STEW    E for the eastern hemisphere or W
C*                             for the western hemisphere.
C*  53-57     (I5)     STELEV  Station elevation in meters.
C*  58-63     (F6.2)   DGORIG  Seconds part of original
C*                             digitization start time.
C*  64-67     (I4)     NUMSAM  Number of digital samples per
C*                             second.
C*
C*  68-70     (I3)     NUMWIN  Number of sliding windows for this
C*                             digital station trace. Each window
C*                             follows the previous one with a
C*                             delay of 1/2(WINSZE).
C*  71-74     (I4)     WINSZE  Size of the windows in units of
C*                             sample points.
C*  75-76     (A2)     blank
C*  77-80     (I4)     SATLIM  Absolute value of number of
C*                             digital counts used to define
C*                             amplitude saturation. A value of
C*                             1300 is used for the present
C*                             USGS CALNET stations.
C*  01-80  N(80I4)     NUMSAT  Number of digital samples in each
C*                             window whose absolute value exceeds
C*                             SATLIM. "N" is given by (NUMWIN/20)+1,
C*                             with the last record being filled
C*                             with blanks.
C*************************************************************************
C*
C*  THE SPECTRAL ESTIMATE CARDS APPEAR AS FOLLOWS:
C*
C*************************************************************************
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-05    (I5)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  06-07    (A2)    blank
C*
C*  08-09    (I2)    EVYEAR  2 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
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C*  16-17     (I2)     EVHOUR  2 digits for the hour of the quake.
C*  18-19     (I2)     EVMIN   2 digits for the minute of the quake.
C*  20        (A1)     EVINDX  Event index if there are more than one
C*                             quake within the same minute.
C*  21        (A1)     blank
C*  22-24     (A3)     DATKEY  3-letter code serving as a data key
C*                             to the kind of data that follows,
C*                             in this case, 'SPC'.
C*  25        (A1)     blank
C*  26-29     (A4)     STAGCY  4-character code for the agency
C*                             operating the station.  Normally a 3-
C*                             character code plus 1 blank is used.
C*  30-33     (A4)     STNAME  4-character code for the station
C*                             name;  the last character usually
C*                             denotes the component of the
C*                             instrument.
C*  34        (A1)     blank   May be used to denote the component
C*                             of a 4-character code station.
C*  35-41     (F7.4)   STLAT   Station latitude in degrees.
C*  42        (A1)     STNS    N for the northern hemisphere or S
C*                             for the southern hemisphere.
C*  43        (A1)     blank
C*  44-51     (F8.4)   STLON   Station longitude in degrees.
C*  52        (A1)     STEW    E for the eastern hemisphere or W
C*                             for the western hemisphere.
C*  53-57     (I5)     STELEV  Station elevation in meters.
C*  58-63     (F6.2)   DGORIG  Seconds part of original
C*                             digitization start time.
C*  64-67     (I4)     NUMSAM  Number of digital samples per
C*                             second.
C*
C*  68-70     (I3)     NUMSPC  Number of spectral estimates.
C*  71-74     (I4)     WINSZE  Size of the windows in units of
C*                             sample points.
C*  75        (A1)     blank
C*  76-77     (I2)     LOBAND  Lower limit of the frequency
C*                             band in Hz.
C*  78        (A1)     blank
C*  79-80     (I2)     HIBAND  Upper limit of the frequency
C*                             band in Hz.
C*  (NUMSPC/4) cards to follow with the following format:
C*
C*  4 Repeats of the following:
C*          [(A1)     blank
C*           (E9.3)   CWTIME  Time in seconds past the origin
C*                             time of the earthquake, rounded
C*                             to the nearest .1 second, of the
C*                             center of the moving time window.
C*                             Since only accurate to .1, this
C*                             number is primarily for plotting
C*                             purposes.  An accurate value can
C*                             be determined from the DGORIG and
C*                             WINSZE parameters on the SPC card.
C*           (E9.3)] SPECAMP A number representing LOG [SPECTRAL
C*                             AMPLITUDE].  The spectral amplitude
C*                             appears in digital counts, corrected
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C*                              for instrument response, with an
C*                              assumed maginification of 100000.
C*
C*****************************************************************************
C*
C*  THE FIT CODA Q CARDS APPEAR AS FOLLOWS:
C*
C*****************************************************************************
C*  COLUMNS   FORMAT   ITEM     EXPLANATION
C*  01-05     (I5)     REFNUM   Reference number to the data source
C*                              to be supplied by the archivist.
C*  06-07     (A2)     blank
C*
C*  08-09     (I2)     EVYEAR   2 digits for the year of the quake;
C*                              If year is B.C., use "-" in column 5.
C*  10        (A1)     blank
C*  11-12     (I2)     EVMON    2 digits for the month of the quake.
C*  13-14     (I2)     EVDAY    2 digits for the day of the  quake.
C*  15        (A1)     blank
C*  16-17     (I2)     EVHOUR   2 digits for the hour of the quake.
C*  18-19     (I2)     EVMIN    2 digits for the minute of the quake.
C*  20        (A1)     EVINDX   Event index if there are more than one
C*                              quake within the same minute.
C*  21        (A1)     blank
C*  22-24     (A3)     DATKEY   3-letter code serving as a data key
C*                              to the kind of data that follows,
C*                              in this case, 'QCA'.
C*  25        (A1)     blank
C*  26-29     (A4)     STAGCY   4-character code for the agency
C*                              operating the station.  Normally a 3-
C*                              character code plus 1 blank is used.
C*  30-33     (A4)     STNAME   4-character code for the station
C*                              name;  the last character usually
C*                              denotes the component of the
C*                              instrument.
C*  34        (A1)     blank    May be used to denote the component
C*                              of a 4-character code station.
C*  35-41     (F7.4)   STLAT    Station latitude in degrees.
C*  42        (A1)     STNS     N for the northern hemisphere or S
C*                              for the southern hemisphere.
C*  43        (A1)     blank
C*  44-51     (F8.4)   STLON    Station longitude in degrees.
C*  52        (A1)     STEW     E for the eastern hemisphere or W
C*                              for the western hemisphere.
C*  53-57     (I5)     STELEV   Station elevation in meters.
C*  58        (A1)     blank
C*  59-63     (F5.2)   LOCODA   Beginning time of coda time
C*                              window in seconds past origin.
C*  64        (A1)     blank
C*  65-69     (F5.2)   HICODA   Ending time of coda time
C*                              window in seconds past origin.
C*  70        (A1)     blank
C*  71-73     (I3)     NUMSAM   Number of samples per second.
C*  74-77     (I4)     WINSZE   Size of the windows in samples.
C*
C*    FIVE CODA FIT DATA CARDS APPEAR AS FOLLOWS:
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C*  01       (A1)    blank
C*  02-10    (F9.6)  BANDCF  Center frequency of the band
C*                           being considered in Hz.
C*  11       (A1)    blank
C*  12-20    (F9.6)  QINV    1/Q
C*  21       (A1)    blank
C*  22-30    (F9.6)  QERR    Error of 1/Q
C*  31       (A1)    blank
C*  32-40    (F9.6)  YINT    Y-intercept of fit coda line.
C*  41       (A1)    blank
C*  42-50    (F9.6)  ERRINT  Error in the Y-intercept.
C*  51       (A1)    blank
C*  52-60    (F9.6)  FITRMS  RMS value of the fit.
C*  61       (A1)    blank
C*  62-70    (F9.6)  CC      Correlation coefficient
C*  72       (A1)    blank
C*  73-75    (I3)    NPTS    Number of data points used
C*                           to fit straight line.
C*************************************************************************
C*
C*  THE STATION DISTANCE-AZIMUTH CARDS APPEAR AS FOLLOWS:
C*
C*************************************************************************
C*  COLUMNS  FORMAT  ITEM    EXPLANATION
C*  01-05    (I5)    REFNUM  Reference number to the data source
C*                           to be supplied by the archivist.
C*  06-07    (A2)    blank
C*
C*  08-09    (I2)    EVYEAR  2 digits for the year of the quake;
C*                           If year is B.C., use "-" in column 5.
C*  10       (A1)    blank
C*  11-12    (I2)    EVMON   2 digits for the month of the quake.
C*  13-14    (I2)    EVDAY   2 digits for the day of the  quake.
C*  15       (A1)    blank
C*  16-17    (I2)    EVHOUR  2 digits for the hour of the quake.
C*  18-19    (I2)    EVMIN   2 digits for the minute of the quake.
C*  20       (A1)    EVINDX  Event index if there are more than one
C*                           quake within the same minute.
C*  21       (A1)    blank
C*  22-24    (A3)    DATKEY  3-letter code serving as a data key
C*                           to the kind of data that follows,
C*                           in this case, 'STD'.
C*  25       (A1)    blank
C*  26-28    (I3)    NUMSTN  Number of station cards to follow.
C*
C*  THE STATION DISTANCE-AZIMUTH DATA CARDS HAVE THE FOLLOWING FORMAT:
C*
C*  01       (A1)    blank
C*  02-05    (A4)    STNAME  Station code.
C*  06       (A1)    blank
C*  07-13    (F7.4)  STLAT   Station latitude in decimal degrees.
C*  14       (A1)    STNS    N for the northern hemisphere or S
C*                           for the southern hemisphere.
C*  15       (A1)    blank
C*  16-23    (F8.4)  STLON   Station longitude in degrees.
C*  24       (A1)    STEW    E for the eastern hemisphere or
```

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C*                                  W for the western hemisphere.
C*  25        (A1)     blank
C*  26-30     (I5)     STELEV  Station elevation in meters.
C*  31        (A1)     blank
C*  32-41     (F10.4)  DELTA   Station distance in kilometers.
C*  42-44     (A3)     blank
C*  45-52     (F8.4)   PHI     Station azimuth in degrees from north.
C*  53-54     (A2)     blank
C*  55-60     (I6)     SLINE   Line number of the start of the digital
C*                              trace in the original data set.
C*  61        (A1)     blank
C*  62-67     (I6)     ELINE   Line number of the end of the digital
C*                              trace in the original data set.
C*
C* ORIGINAL STATION CARDS
CWMDR 37.4435N 118.6370W  1683     0.9054   240.7570    1425   1897
CSCHR 37.3658N 118.6870W  2365    11.0525   215.1181    7018   7483
CRCCR 37.4877N 118.7217W  2804    11.1467   293.5181   10896  11219
CCASR 37.5748N 118.5515W  2107    16.5668    31.7994    2622   2989
CORCR 37.6353N 118.6560W  2301    20.9729   352.0337    6461   7017
CCLK  37.5902N 118.8242W  2630    26.7785   306.1143    1898   2245
CCLKR 37.5902N 118.8242W  2630    26.7785   306.1143    3437   3993
CRSM  37.5107N 118.8822W  3680    28.9485   283.9761    7898   8454
CBENR 37.7155N 118.5733W  2463    30.2994    12.0017    3994   4302
CDOE  37.6387N 118.8355W  2220    31.1625   312.7339    8891   9337
CCVM  37.6098N 118.8733W  2260    32.5057   303.5215   11777  12223
CCSR  37.6777N 118.8183W  2122    32.9859   320.5161   12224  12632
CLLK  37.5788N 118.9050W  3030    33.8970   295.3687    2990   3436
CGRP  37.6265N 118.9013W  2208    36.1241   303.2319   14328  14771
CLCCR 37.6105N 118.9158W  2550    36.5817   299.5273    9895  10338
CLCC  37.6105N 118.9158W  2550    36.5817   299.5273    4741   5184
CMDW  37.6313N 118.9162W  2350    37.8050   302.5286   13526  13892
CCHS  37.6550N 118.9045W  2420    38.2258   306.8940   13190  13525
CYMC  37.6255N 118.9362W  2340    39.3764   299.9985   14772  15212
CCSW  37.6442N 118.9282W  2280    39.7015   303.2258   15213  15568
CBNY  37.6408N 118.9358W  2325    40.2106   302.1167   15569  16125
CSHLR 37.6167N 118.9550W  2530    40.7462   297.3406    9338   9894
CSHL  37.6167N 118.9550W  2530    40.7462   297.3406    7484   7897
CMGNR 37.8133N 118.6955W  2472    41.1017   349.7659    5617   6173
CEMH  37.6663N 118.9392W  2495    42.0862   305.0979    4303   4740
CMLK  37.6643N 118.9750W  2670    45.2888   301.9673    8455   8890
CLMC  37.7288N 118.9465W  2540    47.0109   311.4309    5185   5616
CMMP  37.6100N 119.0280W  2870    47.8274   292.0735   13893  14327
CSKI  37.6530N 119.0238W  2660    49.3931   297.3958   12633  13189
CDMP  37.7080N 119.0458W  2550    54.5319   301.8879   11220  11776
CLULR 38.0523N 119.1803W  2243    90.7001   317.5034   10339  10895
CMMCR 38.3608N 119.1283W  2548   115.2612   331.2209    6174   6460
CMNP  37.4150N 119.7283W  1000   122.3583   268.3157    2246   2621
CWWVB  0.0000    0.0000      0 13840.8477   107.4094     311    867
CIRG1  0.0000    0.0000      0 13840.8477   107.4094     868   1424
C*
C* ORIGINAL WAVEFORM CARDS
C3274  84 04 7  1 8  WFC USGSWWVB                              1  7 54.10 100  88 16
C3274  84 04 7  1 8  WFC USGSIRG1                              1  7 54.10 100  88 16
C3274  84 04 7  1 8  WFC USGSWMDR 37.4435N 118.6370W 1683  1  8  7.55 100  75 16
C3274  84 04 7  1 8  WFC USGSCLK  37.5902N 118.8242W 2630  1  8 10.97 100  55 16
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C3274  84 04 7  1 8  WFC USGSMNP  37.4150N 119.7283W 1000  1  8 23.15 100  59 16
C3274  84 04 7  1 8  WFC USGSCASR 37.5748N 118.5515W 2107  1  8  9.69 100  58 16
C3274  84 04 7  1 8  WFC USGSLLK  37.5788N 118.9050W 3030  1  8 11.81 100  71 16
C3274  84 04 7  1 8  WFC USGSCLKR 37.5902N 118.8242W 2630  1  7 54.10 100  88 16
C3274  84 04 7  1 8  WFC USGSBENR 37.7155N 118.5733W 2463  1  8 12.11 100  49 16
C3274  84 04 7  1 8  WFC USGSEMH  37.6663N 118.9392W 2495  1  8 13.21 100  69 16
C3274  84 04 7  1 8  WFC USGSLCC  37.6105N 118.9158W 2550  1  8 12.27 100  70 16
C3274  84 04 7  1 8  WFC USGSLMC  37.7288N 118.9465W 2540  1  8 14.11 100  68 16
C3274  84 04 7  1 8  WFC USGSMGNR 37.8133N 118.6955W 2472  1  7 54.10 100  88 16
C3274  84 04 7  1 8  WFC USGSMMCR 38.3608N 119.1283W 2548  1  8 24.85 100  45 16
C3274  84 04 7  1 8  WFC USGSORCR 37.6353N 118.6560W 2301  1  7 54.10 100  88 16
C3274  84 04 7  1 8  WFC USGSSCHR 37.3658N 118.6870W 2365  1  8  8.79 100  74 16
C3274  84 04 7  1 8  WFC USGSSHL  37.6167N 118.9550W 2530  1  8 12.83 100  65 16
C3274  84 04 7  1 8  WFC USGSRSM  37.5107N 118.8822W 3680  1  7 54.10 100  88 16
C3274  84 04 7  1 8  WFC USGSMLK  37.6643N 118.9750W 2670  1  8 13.59 100  69 16
C3274  84 04 7  1 8  WFC USGSDOE  37.6387N 118.8355W 2220  1  8 11.75 100  71 16
C3274  84 04 7  1 8  WFC USGSSHLR 37.6167N 118.9550W 2530  1  7 54.10 100  88 16
C3274  84 04 7  1 8  WFC USGSLCCR 37.6105N 118.9158W 2550  1  8 12.27 100  70 16
C3274  84 04 7  1 8  WFC USGSLULR 38.0523N 119.1803W 2243  1  7 54.10 100  88 16
C3274  84 04 7  1 8  WFC USGSRCCR 37.4877N 118.7217W 2804  1  8  8.59 100  51 16
C3274  84 04 7  1 8  WFC USGSDMP  37.7080N 119.0458W 2550  1  7 54.10 100  88 16
C3274  84 04 7  1 8  WFC USGSCVM  37.6098N 118.8733W 2260  1  8 11.77 100  71 16
C3274  84 04 7  1 8  WFC USGSCSR  37.6777N 118.8183W 2122  1  8 12.17 100  65 16
C3274  84 04 7  1 8  WFC USGSSKI  37.6530N 119.0238W 2660  1  7 54.10 100  88 16
C3274  84 04 7  1 8  WFC USGSCHS  37.6550N 118.9045W 2420  1  8 12.67 100  53 16
C3274  84 04 7  1 8  WFC USGSMDW  37.6313N 118.9162W 2350  1  8 12.51 100  58 16
C3274  84 04 7  1 8  WFC USGSMMP  37.6100N 119.0280W 2870  1  8 13.71 100  69 16
C3274  84 04 7  1 8  WFC USGSGRP  37.6265N 118.9013W 2208  1  8 12.29 100  70 16
C3274  84 04 7  1 8  WFC USGSYMC  37.6255N 118.9362W 2340  1  8 12.69 100  70 16
C3274  84 04 7  1 8  WFC USGSCSW  37.6442N 118.9282W 2280  1  8 12.81 100  56 16
C3274  84 04 7  1 8  WFC USGSBNY  37.6408N 118.9358W 2325  1  7 54.10 100  88 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
C*
C*     PHC               634        656
C*     STA               657        681
C*     SAT               682        748
C*     SPC               749       1668
C*     CQ1              1669       1686
C*     CQ2              1687       1728
C*     CQ3              1729       1770
C*     WFC              1771       1794
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                          LINES
C*     STATION         START        END
C*
C*     WMDR             1795       2109
C*     SCHR             2110       2424
C*     RCCR             2425       2739
C*     CASR             2740       3054
C*     ORCR             3055       3369
```

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C*      CLK             3370        3684
C*      RSM             3685        3999
C*      BENR            4000        4314
C*      DOE             4315        4629
C*      CVM             4630        4944
C*      CSR             4945        5259
C*      LLK             5260        5574
C*      GRP             5575        5889
C*      LCC             5890        6204
C*      MDW             6205        6519
C*      CHS             6520        6834
C*      YMC             6835        7149
C*      CSW             7150        7464
C*      SHL             7465        7779
C*      MGNR            7780        8094
C*      EMH             8095        8409
C*      MLK             8410        8724
C*      LMC             8725        9039
C*      MMP             9040        9354
C*END---------------------------------------------------------------------------
 3274  84 04 7  1 8  SUC 16.35 37.4475N 118.6299W  5.36A 1.8D    23 183   0 .11
 3274  84 04 7  1 8  PHC USGSWMDR IPU0 17.50
 3274  84 04 7  1 8  PHC USGSCLK  IPD1 20.93
 3274  84 04 7  1 8  PHC USGSMNP  IPU0 32.92
 3274  84 04 7  1 8  PHC USGSCASR IPD0 19.80
 3274  84 04 7  1 8  PHC USGSLLK  EPD1 21.65
 3274  84 04 7  1 8  PHC USGSCLKR IPD0 20.97
 3274  84 04 7  1 8  PHC USGSBENR IPU0 21.91
 3274  84 04 7  1 8  PHC USGSEMH  EPD2 23.27
 3274  84 04 7  1 8  PHC USGSMGNR IPD0 24.04
****************** 8711 data cards not shown here ******************
C$FINIS DSN=SL000080
```

Table SL000081

```
C#DSN=SL000081;SIZE=024374;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=050;STRT=000001;
C*DATE:  19850430; 0; 840410A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840410; 19840410; 37.550N; 37.550N; 118.826W; 118.826W; ;  3433;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840410 AT 07:19
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
```

****
See previous format from dataset SL000080 for details
****

C* ORIGINAL STATION CARDS

CCLK	37.5902N	118.8242W	2630	4.4154	2.0283	23823	24701
CCLKR	37.5902N	118.8242W	2630	4.4154	2.0283	74198	75076
CRSM	37.5107N	118.8822W	3680	7.6733	235.1989	82431	83309
CCVM	37.6098N	118.8733W	2260	8.4561	321.0991	96271	97149
CLLK	37.5788N	118.9050W	3030	9.3838	289.6282	73419	74197
CDOE	37.6387N	118.8355W	2220	9.8381	353.5759	85068	85946
CGRP	37.6265N	118.9013W	2208	11.9175	314.9976	102092	102970
CLCCR	37.6105N	118.9158W	2550	12.0482	303.5488	89463	90341
CLCC	37.6105N	118.9158W	2550	12.0482	303.5488	76604	77379
CRCCR	37.4877N	118.7217W	2804	13.4821	120.8962	90342	91116
CMDW	37.6313N	118.9162W	2350	13.4892	311.6128	100446	101324
CCSR	37.6777N	118.8183W	2122	14.1121	3.3052	97150	98028
CCHS	37.6550N	118.9045W	2420	14.5321	322.8191	98794	99566
CYMC	37.6255N	118.9362W	2340	14.8581	304.0391	102971	103743
CCSW	37.6442N	118.9282W	2280	15.4365	312.2739	103744	104515
CBNY	37.6408N	118.9358W	2325	15.8321	309.2053	104516	105287
CSHLN	37.6167N	118.9550W	2530	16.1689	297.0115	99567	100445
CSHLR	37.6167N	118.9550W	2530	16.1689	297.0115	88584	89462
CSHL	37.6167N	118.9550W	2530	16.1689	297.0115	81658	82430
CTAC	37.6317N	118.9650W	2398	17.9397	300.1184	83310	84188
CEMH	37.6663N	118.9392W	2495	18.0129	315.4134	75834	76603
CMLK	37.6643N	118.9750W	2670	20.8701	307.1631	84189	85067
CORCR	37.6353N	118.6560W	2301	21.0916	63.5330	80017	80895
CMMP	37.6100N	119.0280W	2870	23.4793	286.3328	101325	102091
CLMC	37.7288N	118.9465W	2540	23.8902	325.7124	77380	78258
CWMDR	37.4435N	118.6370W	1683	24.0943	119.3594	23058	23822
CSKI	37.6530N	119.0238W	2660	24.8157	297.2363	98029	98793
CSCHR	37.3658N	118.6870W	2365	25.5890	142.9058	80896	81657
CDMP	37.7080N	119.0458W	2550	30.0828	305.4258	95512	96270

CCASR	37.5748N	118.5515W	2107	30.6363	84.9248	72658	73418
CMGNR	37.8133N	118.6955W	2472	32.4872	26.4773	78259	79137
CBENR	37.7155N	118.5733W	2463	33.5052	56.9607	75077	75833
CMMCR	38.3608N	119.1283W	2548	95.7986	339.4016	79138	80016
CMNPN	37.4150N	119.7283W	1000	101.6136	261.5298	66700	67578
CFRI	36.9917N	119.7083W	119	116.1674	237.8185	71974	72657
CMAT	37.8733N	119.8667W	1353	121.2747	287.1274	63378	64062
CMHD	37.1235N	119.8923W	180	127.8486	248.3106	21501	22178
CMYL	37.3780N	120.4197W	84	178.5096	263.8706	22179	23057
CMST	37.9045N	120.4048W	366	180.1088	282.5591	69337	70215
CMCH	38.0187N	120.5095W	475	194.4835	285.4456	64063	64941
CMOY	37.9000N	120.5673W	176	197.7076	281.2781	67579	68457
CPWM	36.4328N	120.2110W	72	198.1211	231.2194	91996	92874
CWKT	35.7940N	118.4425W	890	200.2595	167.6729	86826	87704
CPHB	36.2488N	120.0827W	100	201.4409	224.1004	92875	93753
CWCH	35.8830N	118.0747W	2475	203.6849	155.7095	85947	86825
CMRF	38.2453N	120.5207W	799	203.7834	292.1631	68458	69336
CMCU	37.9727N	120.6170W	336	204.8209	283.1816	64942	65820
CPDR	36.3357N	120.3687W	488	218.6586	231.8932	93754	94632
CPKE	36.0615N	120.1090W	288	218.9300	220.8381	94633	95511
CWOF	35.5357N	118.7125W	1341	225.0120	176.7827	87705	88583
CMNH	38.1458N	120.8137W	219	230.9257	286.5703	65821	66699
CBMS	36.6630N	120.7918W	811	240.1996	245.8117	8316	9194
CHSL	37.0193N	121.0855W	520	258.4912	256.8496	43161	44039
CBAVV	36.6458N	121.0298W	604	265.3420	247.7820	9195	10073
CHCP	37.1945N	121.1847W	513	265.6443	261.4746	29097	29975
CBBG	36.5783N	121.0385W	1097	269.1895	246.3796	7437	8315
CBEM	36.6613N	121.0960W	488	271.5479	248.7074	15348	16226
CBRV	36.4248N	121.0183W	541	274.5459	242.9196	4800	5678
CBBN	36.5100N	121.0755W	448	276.0969	245.2764	6558	7436
CHQRV	36.8337N	121.2127W	536	277.5549	253.3722	10953	11831
CBEH	36.6647N	121.1742W	342	279.5505	249.4283	16227	17105
CBVL	36.5752N	121.1890W	510	284.7693	247.6684	11832	12710
CHLT	36.8845N	121.3082W	183	286.2383	255.0638	38766	39644
CBHR	36.7278N	121.2638W	213	286.5828	251.4432	20622	21500
CBPI	36.4900N	121.1735W	329	286.9705	245.7848	5679	6557
CHJS	36.8165N	121.2987W	215	287.2903	253.5540	37008	37886
CBLR	36.6660N	121.2727W	232	289.8047	250.2176	17106	17984
CHFE	36.9833N	121.4015W	323	293.7168	257.6536	31734	32612
CBSL	36.7755N	121.3493W	155	294.0178	253.0136	17985	18863
CBCG	36.7092N	121.3433W	305	295.6499	251.6098	19743	20621
CBJO	36.6108N	121.3135W	1052	296.2183	249.3974	12711	13589
CHGS	37.0958N	121.4472W	778	296.2791	260.2209	34371	35249
CHPH	36.8563N	121.4062W	122	297.6069	255.0229	40524	41402
CHKR	36.9017N	121.4260W	66	298.4646	256.0671	37887	38765
CBSGV	36.4138N	121.2537W	192	298.6726	245.0024	3921	4799
CBVY	36.7493N	121.4133W	585	301.7002	252.8804	18864	19742
CHCA	37.0253N	121.4837W	332	301.7192	258.8894	26460	27338
CHSP	37.1152N	121.5157W	850	303.4438	260.8660	44040	44918
CHFH	36.8882N	121.4688W	101	303.4590	256.0093	32613	33491
CHOR	36.9172N	121.5077W	98	306.9028	256.7881	39645	40523
CBJC	36.5470N	121.3922W	207	306.9783	248.7327	14469	15347
CHSF	36.8120N	121.4995W	340	308.9453	254.6397	42282	43160
CHFP	36.7537N	121.4905W	705	309.7891	253.4350	33492	34370
CHBT	36.8502N	121.5507W	98	313.3555	255.6642	25581	26459
CHCR	36.9577N	121.5835W	241	314.1414	257.9380	29976	30854

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CBSRV 36.6665N 121.5187W   395   315.7200   251.9112   10074  10952
CHAZ  36.8847N 121.5908W   122   316.7566   256.5354   24702  25580
CHJG  36.7980N 121.5738W   171   317.3477   254.7650   36129  37007
CHGW  37.0170N 121.6503W   133   320.1191   259.3677   35250  36128
CJCB  37.1118N 121.6888W   192   322.5496   261.3433   47556  48434
CHCB  36.9313N 121.6605W   219   323.1555   257.7480   27339  28217
CBPP  36.1687N 121.3780W  1591   323.4785   241.6464    2163   3041
CHDL  36.8353N 121.6440W   204   323.8435   255.8358   30855  31733
CHPR  36.9532N 121.6950W    94   326.4016   258.3079   41403  42281
CCVA  37.6183N 121.7582W   201   326.5620   271.3196   91117  91995
CJRR  37.0545N 121.7268W   408   327.7610   260.3569   55467  56345
CHCO  36.8885N 121.7057W   129   329.1223   257.1257   28218  29096
CBHS  36.3558N 121.5398W   646   330.4338   246.3235    3042   3920
CBPC  36.5720N 121.6260W   183   330.4604   250.8218   13590  14468
CJST  37.2068N 121.7973W   149   333.1023   263.4463   60741  61619
CJEC  37.0507N 121.8093W   438   336.8926   260.5481   48435  49313
CJHL  37.1093N 121.8325W   908   338.4214   261.7048   49314  50192
CJBZ  37.0178N 121.8192W   213   338.6106   259.9700   46677  47555
CJPL  36.9770N 121.8322W   158   340.8684   259.2632   51951  52829
CJTG  37.0285N 121.8763W   253   344.6694   260.3481   61620  62498
CBPR  36.4070N 121.7295W   741   347.7537   248.5848  105288 106166
CJSS  37.1695N 121.9307W   946   348.3533   263.0498   59862  60740
CJLX  37.2018N 121.9862W   244   354.0710   263.7456   51072  51950
CJRG  37.0370N 121.9643W   213   354.1797   260.7644   54588  55466
CORA  39.4688N 121.4133W   585   358.8296   306.4644   70216  71094
CJBC  37.1603N 122.0262W   660   359.0378   263.0937   44919  45797
CJSG  37.2827N 122.0500W   198   360.2590   265.2852   57225  58103
CJUC  37.0012N 122.0485W   177   364.0977   260.3845   62499  63377
CJSJ  37.3338N 122.0913W   122   364.4099   266.2310   58104  58982
CJSC  37.2845N 122.1237W   357   368.4219   265.4209   56346  57224
CJBM  37.3182N 122.1527W   820   371.3525   266.0347   45798  46676
CJSM  37.2123N 122.1677W   262   374.0454   264.2600   58983  59861
CJLT  37.3537N 122.2042W   270   376.8147   266.6909   50193  51071
CJPP  37.2635N 122.2130W   186   378.5293   265.1904   52830  53708
CJPS  37.1990N 122.3483W    84   394.2095   264.3396   53709  54587
CSRT   0.0000    0.0000      0 13864.4766   107.4263   71095  71973
CWWVB  0.0000    0.0000      0 13864.4766   107.4263     405   1283
CIRG1  0.0000    0.0000      0 13864.4766   107.4263    1284   2162
C*
C* ORIGINAL WAVEFORM CARDS
C3433  84 0410  719  WFC USGSWWVB                                  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSIRG1                                  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSBPP  36.1687N 121.3780W 1591  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSBHS  36.3558N 121.5398W  646  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSBSGV 36.4138N 121.2537W  192  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSBRV  36.4248N 121.0183W  541  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSBPI  36.4900N 121.1735W  329  7 19  5.74 100 140 16
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C3433  84 0410  719  WFC USGSBMS  36.6630N 120.7918W  811  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSBAVV 36.6458N 121.0298W  604  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSBSRV 36.6665N 121.5187W  395  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSHQRV 36.8337N 121.2127W  536  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSBVL  36.5752N 121.1890W  510  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSBJO  36.6108N 121.3135W 1052  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSBPC  36.5720N 121.6260W  183  7 19  5.74 100 140 16
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C3433	84	0410	719	WFC	USGSBJC	36.5470N	121.3922W	207	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSBEM	36.6613N	121.0963W	488	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSBEH	36.6647N	121.1742W	342	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSBLR	36.6660N	121.2727W	232	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSBSL	36.7755N	121.3493W	155	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSBVY	36.7493N	121.4133W	585	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSBCG	36.7092N	121.3433W	305	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSBHR	36.7278N	121.2638W	213	7	19	5.74	100	140	16
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C3433	84	0410	719	WFC	USGSMYL	37.3780N	120.4197W	84	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSWMDR	37.4435N	118.6370W	1683	7	19	23.96	100	122	16
C3433	84	0410	719	WFC	USGSCLK	37.5902N	118.8242W	2630	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHAZ	36.8847N	121.5908W	122	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHBT	36.8502N	121.5507W	98	7	19	5.74	100	140	16
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C3433	84	0410	719	WFC	USGSHCB	36.9313N	121.6605W	219	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHCO	36.8885N	121.7057W	129	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHCP	37.1945N	121.1847W	513	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHCR	36.9577N	121.5835W	241	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHDL	36.8353N	121.6440W	204	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHFE	36.9833N	121.4015W	323	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHFH	36.8882N	121.4688W	101	7	19	5.74	100	140	16
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C3433	84	0410	719	WFC	USGSHGW	37.0170N	121.6503W	133	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHJG	36.7980N	121.5738W	171	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHJS	36.8165N	121.2987W	215	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHKR	36.9017N	121.4260W	66	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHLT	36.8845N	121.3082W	183	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHOR	36.9172N	121.5077W	98	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHPH	36.8563N	121.4062W	122	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHPR	36.9532N	121.6950W	94	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHSF	36.8120N	121.4995W	340	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHSL	37.0193N	121.0855W	520	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSHSP	37.1152N	121.5157W	850	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJBC	37.1603N	122.0262W	660	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJBM	37.3182N	122.1527W	820	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJBZ	37.0178N	121.8192W	213	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJCB	37.1118N	121.6888W	192	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJEC	37.0507N	121.8093W	438	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJHL	37.1093N	121.8325W	908	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJLT	37.3537N	122.2042W	270	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJLX	37.2018N	121.9862W	244	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJPL	36.9770N	121.8322W	158	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJPP	37.2635N	122.2130W	186	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJPS	37.1990N	122.3483W	84	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJRG	37.0370N	121.9643W	213	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJRR	37.0545N	121.7268W	408	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJSC	37.2845N	122.1237W	357	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJSG	37.2827N	122.0500W	198	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJSJ	37.3338N	122.0913W	122	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJSM	37.2123N	122.1677W	262	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJSS	37.1695N	121.9307W	946	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJST	37.2068N	121.7973W	149	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJTG	37.0285N	121.8763W	253	7	19	5.74	100	140	16
C3433	84	0410	719	WFC	USGSJUC	37.0012N	122.0485W	177	7	19	5.74	100	140	16

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C3433  84 0410  719  WFC USGSFRI  36.9917N 119.7083W  119  7 19 37.04 100 109 16
C3433  84 0410  719  WFC USGSCASR 37.5748N 118.5515W 2107  7 19 24.63 100 121 16
C3433  84 0410  719  WFC USGSLLK  37.5788N 118.9050W 3030  7 19 21.84 100 124 16
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C3433  84 0410  719  WFC USGSLCC  37.6105N 118.9158W 2550  7 19 22.28 100 123 16
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C3433  84 0410  719  WFC USGSMLK  37.6643N 118.9750W 2670  7 19  5.74 100 140 16
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C3433  84 0410  719  WFC USGSWCH  35.8830N 118.0747W 2475  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSWKT  35.7940N 118.4425W  890  7 19  5.74 100 140 16
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C3433  84 0410  719  WFC USGSCVA  37.6183N 121.7582W  201  7 19  5.74 100 140 16
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C3433  84 0410  719  WFC USGSPDR  36.3357N 120.3687W  488  7 19  5.74 100 140 16
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C3433  84 0410  719  WFC USGSDMP  37.7080N 119.0458W 2550  7 19 24.93 100 121 16
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C3433  84 0410  719  WFC USGSCSR  37.6777N 118.8183W 2122  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSSKI  37.6530N 119.0238W 2660  7 19 24.04 100 122 16
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C3433  84 0410  719  WFC USGSMDW  37.6313N 118.9162W 2350  7 19  5.74 100 140 16
C3433  84 0410  719  WFC USGSMMP  37.6100N 119.0280W 2870  7 19 23.73 100 122 16
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C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
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C*      PHC                813         841
C*      STA                842         869
C*      SAT                870         977
C*      SPC                978        2842
C*      CQ1               2843        2890
C*      CQ2               2891        3022
C*      CQ3               3023        3178
C*      WFC               3179        3205
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                             LINES
C*      STATION          START         END
C*
C*      CLKR              3206        3989
C*      CVM               3990        4773
C*      LLK               4774        5557
C*      DOE               5558        6341
C*      GRP               6342        7125
C*      LCC               7126        7909
C*      RCCR              7910        8693
C*      MDW               8694        9477
C*      CSR               9478       10261
C*      CHS              10262       11045
C*      YMC              11046       11829
C*      CSW              11830       12613
C*      BNY              12614       13397
C*      SHL              13398       14181
C*      TAC              14182       14965
C*      EMH              14966       15749
C*      MLK              15750       16533
C*      ORCR             16534       17317
C*      MMP              17318       18101
C*      LMC              18102       18885
C*      WMDR             18886       19669
C*      SKI              19670       20453
C*      SCHR             20454       21237
C*      DMP              21238       22021
C*      CASR             22022       22805
C*      MGNR             22806       23589
C*      BENR             23590       24373
C*END-------------------------------------------------------------------------
 3433  84 0410  719  SUC 29.84 37.5503N 118.8256W  5.14A 3.1D    28  82   7 .11
 3433  84 0410  719  PHC USGSMHD  EPU2 48.09
 3433  84 0410  719  PHC USGSWMDR IPU0 33.94
 3433  84 0410  719  PHC USGSMAT  IPU1 46.52
 3433  84 0410  719  PHC USGSFRI  EPD2 46.98
 3433  84 0410  719  PHC USGSCASR IPD0 34.75
 3433  84 0410  719  PHC USGSLLK  IPU0 31.80
 3433  84 0410  719  PHC USGSBENR IPD0 35.11
 3433  84 0410  719  PHC USGSEMH  IPD0 33.30
 3433  84 0410  719  PHC USGSLCC  IPD0 32.22
****************** 23551 data cards not shown here ******************
C*FINIS DSN=SL000081
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Table SL000082

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C#DSN=SL000082;SIZE=017843;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=051;STRT=000001;
C*DATE:  19850430; 0; 840412A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840412; 19840412; 37.550N; 37.550N; 118.844W; 118.844W; ;  3550;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840412 AT 18:02
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
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****
See previous format from dataset SL000080 for details
****

C* ORIGINAL STATION CARDS

CCLK	37.5902N	118.8242W	2630	4.9673	25.6331	45135	45812
CCLKR	37.5902N	118.8242W	2630	4.9673	25.6331	62693	63479
CRSM	37.5107N	118.8822W	3680	6.0965	224.9641	69539	70325
CCVM	37.6098N	118.8733W	2260	7.4286	333.4741	80084	80760
CLLK	37.5788N	118.9050W	3030	7.5645	295.1700	62016	62692
CDOE	37.6387N	118.8355W	2220	9.8825	5.1775	71781	72455
CLCC	37.6105N	118.9158W	2550	10.4878	309.8772	64760	65434
CLCCR	37.6105N	118.9158W	2550	10.4878	309.8772	75604	76390
CGRP	37.6265N	118.9013W	2208	10.6549	322.8486	85133	85807
CMDW	37.6313N	118.9162W	2350	12.1211	318.1143	83678	84464
CYMC	37.6255N	118.9362W	2340	13.2953	309.0872	85808	86480
CCHS	37.6550N	118.9045W	2420	13.4790	329.7534	82219	82890
CCSW	37.6442N	118.9282W	2280	14.0751	317.9375	86481	87267
CBNY	37.6408N	118.9358W	2325	14.3894	314.4309	87268	87939
CCSR	37.6777N	118.8183W	2122	14.4300	11.2136	80761	81431
CSHL	37.6167N	118.9550W	2530	14.4557	300.8337	68866	69538
CSHLN	37.6167N	118.9550W	2530	14.4557	300.8337	82891	83677
CSHLR	37.6167N	118.9550W	2530	14.4557	300.8337	74817	75603
CRCCR	37.4877N	118.7217W	2804	15.1967	116.8220	77178	77849
CTAC	37.6317N	118.9650W	2398	16.2835	303.8394	70326	71112
CEMH	37.6663N	118.9392W	2495	16.7253	320.4382	64090	64759
CMLK	37.6643N	118.9750W	2670	19.3628	310.8826	71113	71780
CMMP	37.6100N	119.0280W	2870	21.5946	287.9873	84465	85132
CLMC	37.7288N	118.9465W	2540	22.8840	329.9307	65435	66098
CORCR	37.6353N	118.6560W	2301	22.9197	65.6062	67539	68204
CSKI	37.6530N	119.0238W	2660	23.0946	299.6445	81432	82218
CWMDR	37.4435N	118.6370W	1683	25.8197	117.0632	44471	45134
CSCHR	37.3658N	118.6870W	2365	26.7881	139.4187	68205	68865
CDMP	37.7080N	119.0458W	2550	28.5229	307.8542	79424	80083

CCASR	37.5748N	118.5515W	2107	32.6272	85.1194	61356	62015
CMGNR	37.8133N	118.6955W	2472	33.4804	29.4807	66099	66751
CBENR	37.7155N	118.5733W	2463	35.2266	58.6382	63480	64089
CLULR	38.0523N	119.1803W	2243	67.0428	325.9961	76391	77177
CMMCR	38.3608N	119.1283W	2548	95.1778	340.5386	66752	67538
CMNP	37.4150N	119.7283W	1000	99.6332	261.3984	55847	56633
CMNPN	37.4150N	119.7283W	1000	99.6332	261.3984	56634	57420
CFRI	36.9917N	119.7083W	119	114.4495	237.3148	60569	61355
CMAT	37.8733N	119.8667W	1353	119.3917	287.4392	52896	53485
CMHD	37.1235N	119.8923W	180	125.9740	248.0034	27944	28730
CMYL	37.3780N	120.4197W	84	176.5213	263.8228	28731	29517
CMST	37.9045N	120.4048W	366	178.1790	282.7190	58995	59781
CMCH	38.0187N	120.5095W	475	192.5813	285.6223	53486	54272
CMOY	37.9000N	120.5673W	176	195.7670	281.4111	57421	58207
CPWM	36.4328N	120.2110W	72	196.5282	230.8700	77850	78636
CWKT	35.7940N	118.4425W	890	200.6313	167.1116	73243	74029
CMRF	38.2453N	120.5207W	799	201.9642	292.3936	58208	58994
CMCU	37.9727N	120.6170W	336	202.8965	283.3279	54273	55059
CWCH	35.8830N	118.0747W	2475	204.4549	155.1917	72456	73242
CPDR	36.3357N	120.3687W	488	217.0511	231.5817	78637	79423
CPAR	36.2492N	120.3420W	485	220.9485	229.1400	5908	6694
CWOF	35.5357N	118.7125W	1341	225.0673	176.2739	74030	74816
CMNH	38.1458N	120.8137W	219	229.0355	286.7283	55060	55846
CBRM	36.8450N	120.8237W	372	234.0282	250.5051	33453	34239
CBMS	36.6630N	120.7918W	811	238.3545	245.6296	16139	16925
CPCR	36.0938N	120.4347W	296	240.2701	227.6215	5121	5907
CSRT	35.6918N	117.7493W	698	240.3902	149.4658	59782	60568
CAOD	38.6148N	120.7285W	520	240.7978	299.3252	31879	32665
CADW	38.4392N	120.8482W	251	243.9702	293.7952	29518	30304
CPRC	36.2562N	120.6200W	623	244.7734	234.0315	7482	8268
CPPF	35.8818N	120.4135W	469	255.3082	223.3280	4334	5120
CPHR	36.3730N	120.8183W	732	256.0486	239.3048	8269	9055
CHSL	37.0193N	121.0855W	520	256.5354	256.7627	50535	51321
CPHGV	35.8760N	120.4835W	792	261.1956	224.4769	3547	4333
CBAVZ	36.6458N	121.0298W	604	263.4717	247.6312	17713	18499
CBAVV	36.6458N	121.0298W	604	263.4717	247.6312	16926	17712
CHCP	37.1945N	121.1847W	513	263.6636	261.4246	45813	46599
CBBG	36.5783N	121.0385W	1097	267.3364	246.2213	15352	16138
CPWK	35.8145N	120.5112W	503	268.3120	223.9175	2760	3546
CBEM	36.6613N	121.0960W	488	269.6665	248.5665	24009	24795
CPBW	36.3150N	120.9292W	381	270.0110	239.4637	9053	9842
CBRV	36.4248N	121.0183W	541	272.7407	242.7411	13778	14564
CBBN	36.5100N	121.0755W	448	274.2585	245.1146	14565	15351
CCMP	37.3577N	121.3085W	799	275.2837	265.5742	41323	42109
CHQRV	36.8337N	121.2127W	536	275.6260	253.2667	19287	20073
CBEH	36.6647N	121.1742W	342	277.6609	249.2964	24796	25582
CHPLE	37.0522N	121.2900W	152	277.9995	258.5698	20861	21647
CHPLV	37.0522N	121.2900W	152	277.9995	258.5698	20074	20860
CAGI	38.8447N	120.9813W	305	278.0659	301.0730	31092	31878
CPSH	35.5908N	120.4153W	390	280.1523	218.7780	1973	2759
CCOS	37.5085N	121.3740W	1020	281.7627	269.0732	42110	42896
CBVL	36.5752N	121.1890W	510	282.9001	247.5272	21648	22434
CAFD	38.9480N	120.9723W	549	283.3743	303.1689	30305	31091
CPSA	36.0253N	120.8883W	184	284.2688	233.3656	6695	7481
CHLT	36.8845N	121.3082W	183	284.2954	254.9731	49748	50534
CBHR	36.7278N	121.2638W	213	284.6716	251.3280	27157	27943

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CPLO  36.2465N 121.0425W   308   284.8088   239.4303    9843  10629
CHJS  36.8165N 121.2987W   215   285.3601   253.4533   48174  48960
CBSCV 36.6417N 121.2598W   323   287.5015   249.4913   18500  19286
CBLR  36.6660N 121.2727W   232   287.9065   250.0956   25583  26369
CHFE  36.9833N 121.4015W   323   291.7556   257.5825   46600  47386
CBSL  36.7755N 121.3493W   155   292.0918   252.9117   26370  27156
CHGS  37.0958N 121.4472W   778   294.3040   260.1677   47387  48173
CBJO  36.6108N 121.3135W  1052   294.3286   249.2727   22435  23221
CCMM  37.4557N 121.4937W  1117   295.2451   267.9817   40536  41322
CCST  37.6392N 121.4982W   205   295.7019   271.9182   43684  44470
CHKR  36.9017N 121.4260W    66   296.5142   255.9868   48961  49747
CBSGE 36.4138N 121.2537W   192   296.8376   244.8512   12991  13777
CBSGV 36.4138N 121.2537W   192   296.8376   244.8512   12204  12990
CCAOV 37.3493N 121.5327W   628   300.2473   265.7651   36601  37387
CHSP  37.1152N 121.5157W   850   301.4658   260.8181   51322  52108
CAPR  38.8770N 121.2172W   133   302.6265   299.0872   32666  33452
CBJC  36.5470N 121.3922W   207   305.0964   248.6083   23222  24008
CCML  37.4773N 121.6515W  1076   312.7302   268.5325   39749  40535
CCAD  37.1638N 121.6258W   207   312.7783   262.1504   35027  35813
CCCO  37.2577N 121.6725W   366   316.6721   264.1433   37388  38174
CJCB  37.1118N 121.6888W   192   320.5693   261.3013   52109  52895
CBPP  36.1687N 121.3780W  1591   321.6921   241.4878   10630  11416
CCMH  37.3595N 121.7563W   518   325.0039   266.2876   38175  38961
CCSC  37.2852N 121.7725W   128   327.4575   264.8721   42897  43683
CCAC  37.9762N 121.7603W    74   328.1140   278.2637   34240  35026
CBHS  36.3558N 121.5398W   646   328.5811   246.1943   11417  12203
CCALV 37.4512N 121.7992W   265   329.2563   268.1035   35814  36600
CCMJ  37.5208N 121.8705W   498   337.0161   269.4565   38962  39748
CBPR  36.4070N 121.7295W   741   345.8730   248.4743   87940  88726
CIRG1  0.0000    0.0000      0 13866.3555   107.4233    1186   1972
CWWVB  0.0000    0.0000      0 13866.3555   107.4233     399   1185
C*
C* ORIGINAL WAVEFORM CARDS
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C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
C*
C*     PHC               800        829
C*     STA               830        858
C*     SAT               859        949
C*     SPC               950       2544
C*     CQ1              2545       2586
C*     CQ2              2587       2712
C*     CQ3              2713       2862
C*     WFC              2863       2890
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                          LINES
C*     STATION         START        END
```

```
C*
C*      CLK              2891       3424
C*      CLKR             3425       3958
C*      RSM              3959       4492
C*      CVM              4493       5026
C*      LLK              5027       5560
C*      DOE              5561       6094
C*      LCC              6095       6628
C*      GRP              6629       7162
C*      MDW              7163       7696
C*      YMC              7697       8230
C*      CHS              8231       8764
C*      CSW              8765       9298
C*      BNY              9299       9832
C*      CSR              9833      10366
C*      SHL             10367      10900
C*      RCCR            10901      11434
C*      EMH             11435      11968
C*      MLK             11969      12502
C*      MMP             12503      13036
C*      LMC             13037      13570
C*      ORCR            13571      14104
C*      SKI             14105      14638
C*      WMDR            14639      15172
C*      SCHR            15173      15706
C*      DMP             15707      16240
C*      CASR            16241      16774
C*      MGNR            16775      17308
C*      BENR            17309      17842
C*END-------------------------------------------------------------------------
 3550  84 0412 18 2  SUC  4.92 37.5497N 118.8435W  9.93A 2.6D    29  72   4 .12
 3550  84 0412 18 2  PHC USGSMHD  IPU1 22.69
 3550  84 0412 18 2  PHC USGSWMDR IPU0  9.31
 3550  84 0412 18 2  PHC USGSCLK  IPU0  7.07
 3550  84 0412 18 2  PHC USGSMAT  IPD  21.22
 3550  84 0412 18 2  PHC USGSCASR EPU2 10.22
 3550  84 0412 18 2  PHC USGSLLK  IPU0  7.21
 3550  84 0412 18 2  PHC USGSBENR IPD0 10.57
 3550  84 0412 18 2  PHC USGSEMH  IPD0  8.46
 3550  84 0412 18 2  PHC USGSLCC  IPU0  7.52
****************** 17033 data cards not shown here ******************
C$FINIS DSN=SL000082
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Table SL000083

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C*DSN=SL000083;SIZE=010244;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=052;STRT=000001;
C*DATE:  19850430; 0; 840421A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840421; 19840421; 37.398N; 37.398N; 118.597W; 118.597W; ;  3877;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840421 AT 19:04
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
```

****
See previous format from dataset SL000080 for details
****

C* ORIGINAL STATION CARDS

CWMDR	37.4435N	118.6370W	1683	6.7208	318.3652	3403	4019
CSCHR	37.3658N	118.6870W	2365	10.6517	250.3881	15894	16507
CRCCR	37.4877N	118.7217W	2804	17.0698	305.5034	23523	24130
CCASR	37.5748N	118.5515W	2107	20.1888	14.4980	9889	10442
CORCR	37.6353N	118.6560W	2301	27.0482	345.9175	15197	15893
CCLK	37.5902N	118.8242W	2630	33.0453	310.0161	4020	4716
CCLKR	37.5902N	118.8242W	2630	33.0453	310.0161	11140	11732
CRSM	37.5107N	118.8822W	3680	34.1225	291.4114	17205	17901
CBENR	37.7155N	118.5733W	2463	35.1995	4.2788	11733	12154
CDOE	37.6387N	118.8355W	2220	37.6011	315.0505	18644	19340
CCVM	37.6098N	118.8733W	2260	38.6705	307.2673	24828	25524
CCSR	37.6777N	118.8183W	2122	39.5454	321.4409	25525	26044
CLLK	37.5788N	118.9050W	3030	39.7024	300.2280	10443	11139
CGRP	37.6265N	118.9013W	2208	42.2708	306.6997	29069	29653
CLCC	37.6105N	118.9158W	2550	42.5751	303.4919	12734	13227
CLCCR	37.6105N	118.9158W	2550	42.5751	303.4919	22129	22825
CMDW	37.6313N	118.9162W	2350	43.9213	305.9629	27908	28491
CCHS	37.6550N	118.9045W	2420	44.4985	309.6814	26742	27210
CYMC	37.6255N	118.9362W	2340	45.3844	303.6560	29654	30183
CCSW	37.6442N	118.9282W	2280	45.8418	306.4238	30184	30765
CBNY	37.6408N	118.9358W	2325	46.3063	305.4277	30766	31033
CSHL	37.6167N	118.9550W	2530	46.6289	301.2341	16508	17204
CSHLN	37.6167N	118.9550W	2530	46.6289	301.2341	27211	27907
CSHLR	37.6167N	118.9550W	2530	46.6289	301.2341	21432	22128
CMGNR	37.8133N	118.6955W	2472	47.2051	346.5535	13925	14499
CEMH	37.6663N	118.9392W	2495	48.2929	307.8962	12155	12733
CTAC	37.6317N	118.9650W	2398	48.4472	302.2290	17902	18115
CMLK	37.6643N	118.9750W	2670	51.3705	304.9690	18116	18643
CLMC	37.7288N	118.9465W	2540	53.4080	313.2173	13228	13924

```
CMMP  37.6100N 119.0280W  2870    53.4147   296.0271   28492  29068
CSKI  37.6530N 119.0238W  2660    55.2615   300.6743   26045  26741
CDMP  37.7080N 119.0458W  2550    60.5994   304.4399   24131  24827
CLULR 38.0523N 119.1803W  2243    97.2127   318.0808   22826  23522
CMMCR 38.3608N 119.1283W  2548   121.8108   330.9417   14500  15196
CMNP  37.4150N 119.7283W  1000   125.9999   270.8499    6808   7329
CFRI  36.9917N 119.7083W   119   131.7593   250.0103    9192   9888
CMHD  37.1235N 119.8923W   180   147.4666   258.0962    2422   2928
CWCH  35.8830N 118.0747W  2475   178.6000   160.9543   19341  20037
CWKT  35.7940N 118.4425W   890   179.6351   174.4946   20038  20734
CMYL  37.3780N 120.4197W    84   202.9940   269.3721    2929   3402
CWOF  35.5357N 118.7125W  1341   208.1967   183.5545   20735  21431
CMST  37.9045N 120.4048W   366   208.9049   285.5469    8724   9191
CMCH  38.0187N 120.5095W   475   223.7001   287.8633    4717   5413
CMOY  37.9000N 120.5673W   176   226.2631   284.1975    7330   8026
CMCU  37.9727N 120.6170W   336   233.6850   285.7756    5414   6110
CMRF  38.2453N 120.5207W   799   233.7682   293.6265    8027   8723
CMNH  38.1458N 120.8137W   219   260.2646   288.5215    6111   6807
CBAVV 36.6458N 121.0298W   604   283.7637   252.8840    1725   2421
CIRG1  0.0000    0.0000      0 13836.0820   107.3931    1028   1724
CWWVB  0.0000    0.0000      0 13836.0820   107.3931     331   1027
C*
C* ORIGINAL WAVEFORM CARDS
C3877  84 0421 19 4  WFC USGSWWVB                              19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSIRG1                              19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSBAVV 36.6458N 121.0298W  604 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSMHD  37.1235N 119.8923W  180 19  4 23.14 100  80 16
C3877  84 0421 19 4  WFC USGSMYL  37.3780N 120.4197W   84 19  4 28.30 100  75 16
C3877  84 0421 19 4  WFC USGSWMDR 37.4435N 118.6370W 1683 19  4  5.53 100  98 16
C3877  84 0421 19 4  WFC USGSCLK  37.5902N 118.8242W 2630 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSMCH  38.0187N 120.5095W  475 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSMCU  37.9727N 120.6170W  336 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSMNH  38.1458N 120.8137W  219 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSMNP  37.4150N 119.7283W 1000 19  4 20.69 100  83 16
C3877  84 0421 19 4  WFC USGSMOY  37.9000N 120.5673W  176 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSMRF  38.2453N 120.5207W  799 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSMST  37.9045N 120.4048W  366 19  4 29.26 100  74 16
C3877  84 0421 19 4  WFC USGSFRI  36.9917N 119.7083W  119 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSCASR 37.5748N 118.5515W 2107 19  4  7.72 100  88 16
C3877  84 0421 19 4  WFC USGSLLK  37.5788N 118.9050W 3030 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSCLKR 37.5902N 118.8242W 2630 19  4  9.28 100  94 16
C3877  84 0421 19 4  WFC USGSBENR 37.7155N 118.5733W 2463 19  4 10.28 100  67 16
C3877  84 0421 19 4  WFC USGSEMH  37.6663N 118.9392W 2495 19  4 11.49 100  92 16
C3877  84 0421 19 4  WFC USGSLCC  37.6105N 118.9158W 2550 19  4 10.53 100  78 16
C3877  84 0421 19 4  WFC USGSLMC  37.7288N 118.9465W 2540 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSMGNR 37.8133N 118.6955W 2472 19  4 12.25 100  91 16
C3877  84 0421 19 4  WFC USGSMMCR 38.3608N 119.1283W 2548 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSORCR 37.6353N 118.6560W 2301 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSSCHR 37.3658N 118.6870W 2365 19  4  5.90 100  97 16
C3877  84 0421 19 4  WFC USGSSHL  37.6167N 118.9550W 2530 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSRSM  37.5107N 118.8822W 3680 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSTAC  37.6317N 118.9650W 2398 19  4 11.35 100  33 16
C3877  84 0421 19 4  WFC USGSMLK  37.6643N 118.9750W 2670 19  4 11.86 100  84 16
C3877  84 0421 19 4  WFC USGSDOE  37.6387N 118.8355W 2220 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSWCH  35.8830N 118.0747W 2475 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSWKT  35.7940N 118.4425W  890 19  3 52.71 100 111 16
```

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C3877  84 0421 19 4  WFC USGSWOF  35.5357N 118.7125W 1341 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSSHLR 37.6167N 118.9550W 2530 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSLCCR 37.6105N 118.9158W 2550 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSLULR 38.0523N 119.1803W 2243 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSRCCR 37.4877N 118.7217W 2804 19  4  6.85 100  96 16
C3877  84 0421 19 4  WFC USGSDMP  37.7080N 119.0458W 2550 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSCVM  37.6098N 118.8733W 2260 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSCSR  37.6777N 118.8183W 2122 19  4 10.52 100  82 16
C3877  84 0421 19 4  WFC USGSSKI  37.6530N 119.0238W 2660 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSCHS  37.6550N 118.9045W 2420 19  4 10.98 100  74 16
C3877  84 0421 19 4  WFC USGSSHLN 37.6167N 118.9550W 2530 19  3 52.71 100 111 16
C3877  84 0421 19 4  WFC USGSMDW  37.6313N 118.9162W 2350 19  4 10.79 100  93 16
C3877  84 0421 19 4  WFC USGSMMP  37.6100N 119.0280W 2870 19  4 11.89 100  91 16
C3877  84 0421 19 4  WFC USGSGRP  37.6265N 118.9013W 2208 19  4 10.57 100  93 16
C3877  84 0421 19 4  WFC USGSYMC  37.6255N 118.9362W 2340 19  4 10.94 100  84 16
C3877  84 0421 19 4  WFC USGSCSW  37.6442N 118.9282W 2280 19  4 11.09 100  92 16
C3877  84 0421 19 4  WFC USGSBNY  37.6408N 118.9358W 2325 19  4 11.13 100  42 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
C*
C*     PHC               662        689
C*     STA               690        712
C*     SAT               713        779
C*     SPC               780       1819
C*     CQ1              1820       1831
C*     CQ2              1832       1861
C*     CQ3              1862       1927
C*     WFC              1928       1949
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                          LINES
C*     STATION         START        END
C*
C*     WMDR             1950       2326
C*     SCHR             2327       2703
C*     RCCR             2704       3080
C*     CASR             3081       3457
C*     ORCR             3458       3834
C*     CLK              3835       4211
C*     CLKR             4212       4588
C*     BENR             4589       4965
C*     CSR              4966       5342
C*     GRP              5343       5719
C*     LCC              5720       6096
C*     MDW              6097       6473
C*     CHS              6474       6850
C*     YMC              6851       7227
C*     CSW              7228       7604
C*     BNY              7605       7981
C*     MGNR             7982       8358
C*     EMH              8359       8735
C*     TAC              8736       9112
```

```
C*      MLK              9113       9489
C*      LMC              9490       9866
C*      MMP              9867      10243
C*END-------------------------------------------------------------------------
 3877  84 0421 19 4  SUC 13.64 37.3981N 118.5969W  6.77A 2.2D    26 234   6 .16
 3877  84 0421 19 4  PHC USGSMHD  IPU1 33.54
 3877  84 0421 19 4  PHC USGSMYL  EPU2 40.40
 3877  84 0421 19 4  PHC USGSWMDR IPD0 15.62
 3877  84 0421 19 4  PHC USGSMNP  IPU0 30.49
 3877  84 0421 19 4  PHC USGSMST  EP4  41.12
 3877  84 0421 19 4  PHC USGSCASR IPU0 17.78
 3877  84 0421 19 4  PHC USGSCLKR IPU0 19.24
 3877  84 0421 19 4  PHC USGSBENR IPU0 20.04
 3877  84 0421 19 4  PHC USGSEMH  IPU0 21.52
********** 9572 data cards not shown here **********
C*FINIS DSN=SL000083
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Table SL000084

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C$DSN=SL000084;SIZE=017822;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=053;STRT=000001;
C*DATE:  19850430; 0; 840422A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840422; 19840422; 37.535N; 37.535N; 118.849W; 118.849W; ;  3910;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840422 AT 08:29
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
```

****
See previous format from dataset SL000080 for details
****

```
C* ORIGINAL STATION CARDS
CRSM  37.5107N 118.8822W  3680     4.5466   234.6158  101254 102065
CCLK  37.5902N 118.8242W  2630     6.7454    24.0620   62658  63469
CCLKR 37.5902N 118.8242W  2630     6.7454    24.0620   94037  94748
CLLK  37.5788N 118.9050W  3030     7.9368   308.1133   93225  94036
CCVM  37.6098N 118.8733W  2260     8.7592   341.9343  114323 115032
CLCCR 37.6105N 118.9158W  2550    11.2297   318.4575  108153 108861
CLCC  37.6105N 118.9158W  2550    11.2297   318.4575   96141  96849
CDOE  37.6387N 118.8355W  2220    11.6193     7.3833  103385 104092
CGRP  37.6265N 118.9013W  2208    11.7270   330.1697  119364 120071
CMDW  37.6313N 118.9162W  2350    13.0656   325.0149  117955 118661
CYMC  37.6255N 118.9362W  2340    13.9901   315.9995  120072 120778
CCHS  37.6550N 118.9045W  2420    14.6917   335.0886  116437 117142
CSHLN 37.6167N 118.9550W  2530    14.9041   307.5820  117143 117954
CSHLR 37.6167N 118.9550W  2530    14.9041   307.5820  107341 108152
CSHL  37.6167N 118.9550W  2530    14.9041   307.5820  100442 101253
CCSW  37.6442N 118.9282W  2280    15.0027   323.9536  120779 121484
CRCCR 37.4877N 118.7217W  2804    15.0795   110.0759  109674 110380
CBNY  37.6408N 118.9358W  2325    15.2233   320.5439  121485 122190
CCSR  37.6777N 118.8183W  2122    16.1977    12.1440  115033 115736
CTAC  37.6317N 118.9650W  2398    16.8094   309.7498  102066 102682
CEMH  37.6663N 118.9392W  2495    17.7047   325.4089   95438  96140
CMLK  37.6643N 118.9750W  2670    20.0774   315.6375  102683 103384
CMMP  37.6100N 119.0280W  2870    21.6156   292.7222  118662 119363
CSKI  37.6530N 119.0238W  2660    23.4693   303.9407  115737 116436
CLMC  37.7288N 118.9465W  2540    24.0759   333.1748   96850  97546
CORCR 37 6353N 118.6560W  2301    24.1956    62.5681   99045  99744
CW1DR 37.4435N 118.6370W  1683    25.6519   113.1057   61959  62657
CSCHR 37.3658N 118.6870W  2365    25.9494   135.9937   99745 100441
CDMP  37.7080N 119.0458W  2550    29.1289   311.1921  113629 114322
```

CCASR	37.5748N	118.5515W	2107	33.4090	82.3340	92531	93224
CMGNR	37.8133N	118.6955W	2472	35.2406	28.9871	97547	98232
CBENR	37.7155N	118.5733W	2463	36.6320	56.8828	94749	95437
CLULR	38.0523N	119.1803W	2243	68.1141	327.2058	108862	109673
CMMCR	38.3608N	119.1283W	2548	96.5660	341.2070	98233	99044
CMNP	37.4150N	119.7283W	1000	98.8007	262.3101	87018	87658
CMNPN	37.4150N	119.7283W	1000	98.8007	262.3101	87659	88470
CFRI	36.9917N	119.7083W	119	113.0428	237.8673	91719	92530
CMAT	37.8733N	119.8667W	1353	119.3349	288.2954	83770	84581
CMHD	37.1235N	119.8923W	180	124.7958	248.6155	45911	46530
CMYL	37.3780N	120.4197W	84	175.7519	264.3464	46531	47342
CMST	37.9045N	120.4048W	366	177.9709	283.2893	90095	90906
CMCH	38.0187N	120.5095W	475	192.4621	286.1521	84582	85393
CPWM	36.4328N	120.2110W	72	195.0072	231.1416	110381	111192
CMOY	37.9000N	120.5673W	176	195.5177	281.9287	88471	89282
CPHB	36.2488N	120.0827W	100	198.3841	223.9128	111193	112004
CWKT	35.7940N	118.4425W	890	199.1309	166.8342	104905	105716
CMRF	38.2453N	120.5207W	799	202.0538	292.8989	89283	90094
CMCU	37.9727N	120.6170W	336	202.7059	283.8293	85394	86205
CWCH	35.8830N	118.0747W	2475	203.1883	154.8381	104093	104904
CPDR	36.3357N	120.3687W	488	215.5419	231.8325	112005	112816
CPKE	36.0615N	120.1090W	288	215.9147	220.6197	112817	113628
CPAR	36.2492N	120.3420W	485	219.4001	229.3693	17491	18302
CWOF	35.5357N	118.7125W	1341	223.4292	176.0916	106529	107340
CWHV	35.5100N	118.5178W	1006	228.8039	170.7024	105717	106528
CMNH	38.1458N	120.8137W	219	228.9483	287.1743	86206	87017
CBRM	36.8450N	120.8237W	372	232.9091	250.8455	59523	60334
CBMS	36.6630N	120.7918W	811	237.1217	245.9396	31295	32106
CPCR	36.0938N	120.4347W	296	238.6985	227.8224	16679	17490
CSRT	35.6918N	117.7493W	698	239.2543	149.1362	90907	91718
CAOD	38.6148N	120.7285W	520	241.0975	299.7429	53839	54650
CPRC	36.2562N	120.6200W	623	243.3064	234.2687	20739	21550
CPCA	35.9317N	120.3370W	1189	243.7434	222.9377	14243	15054
CADW	38.4392N	120.8482W	251	244.1003	294.2129	48155	48966
CPMR	35.7848N	120.2357W	512	248.9007	218.4489	8559	9370
CPGH	35.8310N	120.3528W	433	253.3159	221.4924	10183	10994
CPPF	35.8818N	120.4135W	469	253.6770	223.4899	13431	14242
CPSM	36.0697N	120.5947W	988	253.9402	230.0765	18303	19114
CPAG	35.7320N	120.2493W	482	254.5081	217.8884	7747	8558
CPHRN	36.3730N	120.8183W	732	254.6815	239.5609	23175	23986
CPHR	36.3730N	120.8183W	732	254.6815	239.5609	22363	23174
CHSL	37.0193N	121.0855W	520	255.5741	257.0986	78898	79709
CPHA	35.8360N	120.3985W	455	256.3074	222.4294	10995	11806
CPST	35.9288N	120.5083W	573	257.3704	226.0049	15055	15866
CPTR	35.6547N	120.2112W	643	258.9041	215.9683	6935	7746
CPHGV	35.8760N	120.4835W	792	259.5791	224.6423	12619	13430
CALA	38.5667N	120.9562W	293	261.0222	295.9612	52215	53026
CPMP	36.2152N	120.7948W	784	261.9346	235.9464	21551	22362
CPPT	36.1083N	120.7212W	506	262.2686	232.7789	19927	20738
CBAVZ	36.6458N	121.0298W	604	262.2849	247.9208	32919	33730
CBAVV	36.6458N	121.0298W	604	262.2849	247.9208	32107	32918
CHCP	37.1945N	121.1847W	513	262.8271	261.7673	65906	66717
CPMCV	35.7247N	120.3705W	488	263.6597	220.0999	9371	10182
CBBG	36.5783N	121.0385W	1097	266.1174	246.5002	30483	31294
CPWK	35.8145N	120.5112W	503	266.6880	224.0751	11807	12618
CARJ	38.6865N	120.9563W	460	267.1575	298.5254	56275	57086

CBEM	36.6613N	121.0960W	488	268.5015	248.8535	40227	41038
CPBW	36.3150N	120.9292W	381	268.6470	239.7073	23987	24798
CTBM	35.1358N	118.5968W	1237	269.2959	173.9983	2063	2874
CBRV	36.4248N	121.0183W	541	271.4451	242.9984	28047	28858
CBBN	36.5100N	121.0755W	448	273.0146	245.3815	29671	30482
CPIV	35.9065N	120.6823W	497	273.3306	228.4560	15867	16678
CTCG	35.2422N	119.7233W	1204	273.8767	200.8878	2875	3686
CHQRV	36.8337N	121.2127W	536	274.5757	253.5664	35355	36166
CBEH	36.6647N	121.1742W	342	276.5137	249.5782	41039	41850
CHPLV	37.0522N	121.2900W	152	277.0859	258.8857	36167	36978
CHPLE	37.0522N	121.2900W	152	277.0859	258.8857	36979	37790
CAGI	38.8447N	120.9813W	305	278.4163	301.4326	50591	51402
CBVL	36.5752N	121.1890W	510	281.7112	247.7963	37791	38602
CPSA	36.0253N	120.8883W	184	282.7898	233.5663	19115	19926
CHLT	36.8845N	121.3082W	183	283.2881	255.2699	74838	75649
CPLO	36.2465N	121.0425W	308	283.4446	239.6611	24799	25610
CBHR	36.7278N	121.2638W	213	283.5735	251.6109	45099	45910
CAFD	38.9480N	120.9723W	549	283.7871	303.5190	48967	49778
CBPI	36.4900N	121.1735W	329	283.8928	245.8914	28859	29670
CHJS	36.8165N	121.2987W	215	284.3145	253.7435	73214	74025
CBSCV	36.6417N	121.2598W	323	286.3589	249.7642	33731	34542
CBLR	36.6660N	121.2727W	232	286.7783	250.3705	41851	42662
CAHR	38.8543N	121.0705W	354	287.4880	300.5813	51403	52214
CHFE	36.9833N	121.4015W	323	290.8164	257.8804	68342	69153
CBSL	36.7755N	121.3493W	155	291.0327	253.1932	42663	43474
CARR	38.7653N	121.1718W	127	292.4817	297.7869	57087	57898
CBCG	36.7092N	121.3433W	305	292.6431	251.7740	44287	45098
CBJO	36.6108N	121.3135W	1052	293.1812	249.5384	38603	39414
CHGS	37.0958N	121.4472W	778	293.4331	260.4709	70778	71589
CHPH	36.8563N	121.4062W	122	294.6562	255.2206	76462	77273
CCST	37.6392N	121.4982W	205	295.1636	272.2480	61147	61958
CHKR	36.9017N	121.4260W	66	295.5332	256.2747	74026	74837
CBSGV	36.4138N	121.2537W	192	295.5884	245.0966	27235	28046
CBVY	36.7493N	121.4133W	585	298.7134	253.0541	43475	44286
CHCA	37.0253N	121.4837W	332	298.8442	259.1221	65094	65905
CPMG	35.4298N	120.5203W	529	299.9355	218.4766	3687	4498
CHFH	36.8882N	121.4688W	101	300.5266	256.2126	69154	69965
CHSP	37.1152N	121.5157W	850	300.6130	261.1160	79710	80521
CPAN	35.7797N	120.9073W	451	301.6541	229.6010	4499	5310
CARW	38.9563N	121.1622W	320	302.1384	301.4490	57899	58710
CAPR	38.8770N	121.2172W	133	302.9148	299.4197	55463	56274
CPJLV	36.0898N	121.1555W	290	303.3684	238.0096	6123	6934
CBJC	36.5470N	121.3922W	207	303.9329	248.8620	39415	40226
CHOR	36.9172N	121.5077W	98	303.9854	256.9968	75650	76461
CHSF	36.8120N	121.4995W	340	305.9878	254.8264	78086	78897
CHFP	36.7537N	121.4905W	705	306.8113	253.6095	69966	70777
CHBT	36.8502N	121.5507W	98	310.4167	255.8580	64282	65093
CHCR	36.9577N	121.5835W	241	311.2468	258.1526	66718	67529
CAFR	38.7923N	121.3485W	31	311.3733	296.5867	49779	50590
CALN	38.9297N	121.2878W	54	312.6741	299.6479	53027	53838
CBSRV	36.6665N	121.5187W	395	312.7180	252.0678	34543	35354
CHAZ	36.8847N	121.5908W	122	313.8345	256.7354	63470	64281
CPBY	35.8150N	121.0815W	335	314.2681	232.4482	5311	6122
CHJG	36.7980N	121.5738W	171	314.3928	254.9479	72402	73213
CAVR	39.0245N	121.2708W	114	316.4575	301.4792	58711	59522
CHGW	37.0170N	121.6503W	133	317.2549	259.5913	71590	72401

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CJCB  37.1118N 121.6888W   192   319.7300   261.5828   80522  81333
CBPP  36.1687N 121.3780W  1591   320.3701   241.7008   25611  26422
CHDL  36.8353N 121.6440W   204   320.9082   256.0247   67530  68341
CHPR  36.9532N 121.6950W    94   323.5149   258.5178   77274  78085
CJRR  37.0545N 121.7268W   408   324.9187   260.5840   82146  82957
CCSC  37.2852N 121.7725W   128   326.7168   265.1562   60335  61146
CBHS  36.3558N 121.5398W   646   327.3623   246.4210   26423  27234
CAOH  39.3753N 121.2560W   457   337.4275   307.3077   54651  55462
CJPL  36.9770N 121.8322W   158   338.0022   259.4722   81334  82145
CJTG  37.0285N 121.8763W   253   341.8274   260.5640   82958  83769
CABR  39.1352N 121.4868W    24   343.4954   301.1379   47343  48154
CBPR  36.4070N 121.7295W   741   344.7075   248.6975  122191 123002
CWWVB  0.0000    0.0000      0 13866.4961   107.4163     439   1250
CIRG1  0.0000    0.0000      0 13866.4961   107.4163    1251   2062
C*
C* ORIGINAL WAVEFORM CARDS
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C3910  84 0422  829  WFC USGSIRG1                                  8 28 42.63 100 129 16
C3910  84 0422  829  WFC USGSTBM  35.1358N 118.5968W 1237  8 28 42.63 100 129 16
C3910  84 0422  829  WFC USGSTCG  35.2422N 119.7233W 1204  8 28 42.63 100 129 16
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C3910  84 0422  829  WFC USGSBAVV 36.6458N 121.0298W  604  8 28 42.63 100 129 16
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C3910	84	0422	829	WFC	USGSBAVZ	36.6458N	121.0298W	604	8	28	42.63	100	129	16
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C3910	84	0422	829	WFC	USGSHPLV	37.0522N	121.2900W	152	8	28	42.63	100	129	16
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C3910	84	0422	829	WFC	USGSBVL	36.5752N	121.1890W	510	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSBJO	36.6108N	121.3135W	1052	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSBJC	36.5470N	121.3922W	207	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSBEM	36.6613N	121.0960W	488	8	28	42.63	100	129	16
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C3910	84	0422	829	WFC	USGSBCG	36.7092N	121.3433W	305	8	28	42.63	100	129	16
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C3910	84	0422	829	WFC	USGSMHD	37.1235N	119.8923W	180	8	29	13.35	100	98	16
C3910	84	0422	829	WFC	USGSMYL	37.3780N	120.4197W	84	8	28	42.63	100	129	16
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C3910	84	0422	829	WFC	USGSAFD	38.9480N	120.9723W	549	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSAFR	38.7923N	121.3485W	31	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSAGI	38.8447N	120.9813W	305	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSAHR	38.8543N	121.0705W	354	8	28	42.63	100	129	16
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C3910	84	0422	829	WFC	USGSAOH	39.3753N	121.2560W	457	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSAPR	38.8770N	121.2172W	133	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSARJ	38.6865N	120.9563W	460	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSARR	38.7653N	121.1718W	127	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSARW	38.9563N	121.1622W	320	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSAVR	39.0245N	121.2708W	114	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSBRM	36.8450N	120.8237W	372	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSCSC	37.2852N	121.7725W	128	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSCST	37.6392N	121.4982W	205	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSWMDR	37.4435N	118.6370W	1683	8	29	0.68	100	111	16
C3910	84	0422	829	WFC	USGSCLK	37.5902N	118.8242W	2630	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHAZ	36.8847N	121.5908W	122	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHBT	36.8502N	121.5507W	98	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHCA	37.0253N	121.4837W	332	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHCP	37.1945N	121.1847W	513	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHCR	36.9577N	121.5835W	241	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHDL	36.8353N	121.6440W	204	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHFE	36.9833N	121.4015W	323	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHFH	36.8882N	121.4688W	101	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHFP	36.7537N	121.4905W	705	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHGS	37.0958N	121.4472W	778	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHGW	37.0170N	121.6503W	133	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHJG	36.7980N	121.5738W	171	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHJS	36.8165N	121.2987W	215	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHKR	36.9017N	121.4260W	66	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHLT	36.8845N	121.3082W	183	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHOR	36.9172N	121.5077W	98	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHPH	36.8563N	121.4062W	122	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHPR	36.9532N	121.6950W	94	8	28	42.63	100	129	16

C3910	84	0422	829	WFC	USGSHSF	36.8120N	121.4995W	340	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHSL	37.0193N	121.0855W	520	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSHSP	37.1152N	121.5157W	850	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSJCB	37.1118N	121.6888W	192	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSJPL	36.9770N	121.8322W	158	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSJRR	37.0545N	121.7268W	408	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSJTG	37.0285N	121.8763W	253	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSMAT	37.8733N	119.8667W	1353	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSMCH	38.0187N	120.5095W	475	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSMCU	37.9727N	120.6170W	336	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSMNH	38.1458N	120.8137W	219	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSMNP	37.4150N	119.7283W	1000	8	29	9.89	100	102	16
C3910	84	0422	829	WFC	USGSMNPN	37.4150N	119.7283W	1000	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSMOY	37.9000N	120.5673W	176	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSMRF	38.2453N	120.5207W	799	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSMST	37.9045N	120.4048W	366	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSSRT	35.6918N	117.7493W	698	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSFRI	36.9917N	119.7083W	119	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSCASR	37.5748N	118.5515W	2107	8	29	1.55	100	110	16
C3910	84	0422	829	WFC	USGSLLK	37.5788N	118.9050W	3030	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSCLKR	37.5902N	118.8242W	2630	8	28	58.62	100	113	16
C3910	84	0422	829	WFC	USGSBENR	37.7155N	118.5733W	2463	8	29	2.35	100	109	16
C3910	84	0422	829	WFC	USGSEMH	37.6663N	118.9392W	2495	8	28	59.96	100	112	16
C3910	84	0422	829	WFC	USGSLCC	37.6105N	118.9158W	2550	8	28	59.05	100	113	16
C3910	84	0422	829	WFC	USGSLMC	37.7288N	118.9465W	2540	8	29	0.99	100	111	16
C3910	84	0422	829	WFC	USGSMGNR	37.8133N	118.6955W	2472	8	29	2.72	100	109	16
C3910	84	0422	829	WFC	USGSMMCR	38.3608N	119.1283W	2548	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSORCR	37.6353N	118.6560W	2301	8	29	0.54	100	111	16
C3910	84	0422	829	WFC	USGSSCHR	37.3658N	118.6870W	2365	8	29	1.05	100	111	16
C3910	84	0422	829	WFC	USGSSHL	37.6167N	118.9550W	2530	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSRSM	37.5107N	118.8822W	3680	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSTAC	37.6317N	118.9650W	2398	8	28	59.69	100	98	16
C3910	84	0422	829	WFC	USGSMLK	37.6643N	118.9750W	2670	8	29	0.20	100	111	16
C3910	84	0422	829	WFC	USGSDOE	37.6387N	118.8355W	2220	8	28	59.23	100	112	16
C3910	84	0422	829	WFC	USGSWCH	35.8830N	118.0747W	2475	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSWKT	35.7940N	118.4425W	890	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSWHV	35.5100N	118.5178W	1006	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSWOF	35.5357N	118.7125W	1341	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSSHLR	37.6167N	118.9550W	2530	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSLCCR	37.6105N	118.9158W	2550	8	28	59.05	100	113	16
C3910	84	0422	829	WFC	USGSLULR	38.0523N	119.1803W	2243	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSRCCR	37.4877N	118.7217W	2804	8	28	59.36	100	112	16
C3910	84	0422	829	WFC	USGSPWM	36.4328N	120.2110W	72	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSPHB	36.2488N	120.0827W	100	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSPDR	36.3357N	120.3687W	488	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSPKE	36.0615N	120.1090W	288	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSDMP	37.7080N	119.0458W	2550	8	29	1.43	100	110	16
C3910	84	0422	829	WFC	USGSCVM	37.6098N	118.8733W	2260	8	28	58.85	100	113	16
C3910	84	0422	829	WFC	USGSCSR	37.6777N	118.8183W	2122	8	28	59.88	100	112	16
C3910	84	0422	829	WFC	USGSSKI	37.6530N	119.0238W	2660	8	29	0.53	100	111	16
C3910	84	0422	829	WFC	USGSCHS	37.6550N	118.9045W	2420	8	28	59.60	100	112	16
C3910	84	0422	829	WFC	USGSSHLN	37.6167N	118.9550W	2530	8	28	42.63	100	129	16
C3910	84	0422	829	WFC	USGSMDW	37.6313N	118.9162W	2350	8	28	59.32	100	112	16
C3910	84	0422	829	WFC	USGSMMP	37.6100N	119.0280W	2870	8	29	0.15	100	111	16
C3910	84	0422	829	WFC	USGSGRP	37.6265N	118.9013W	2208	8	28	59.17	100	112	16
C3910	84	0422	829	WFC	USGSYMC	37.6255N	118.9362W	2340	8	28	59.38	100	112	16

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C3910  84 0422  829  WFC USGSCSW  37.6442N 118.9282W 2280  8 28 59.57 100 112 16
C3910  84 0422  829  WFC USGSBNY  37.6408N 118.9358W 2325  8 28 59.58 100 112 16
C3910  84 0422  829  WFC USGSBPR  36.4070N 121.7295W  741  8 28 42.63 100 129 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM           START        END
C*
C*     PHC              874        904
C*     STA              905        929
C*     SAT              930       1025
C*     SPC             1026       2485
C*     CQ1             2486       2497
C*     CQ2             2498       2611
C*     CQ3             2612       2749
C*     WFC             2750       2773
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                          LINES
C*     STATION        START        END
C*
C*     RSM              2774       3400
C*     CLK              3401       4027
C*     CVM              4028       4654
C*     LCC              4655       5281
C*     DOE              5282       5908
C*     GRP              5909       6535
C*     MDW              6536       7162
C*     YMC              7163       7789
C*     CSW              7790       8416
C*     RCCR             8417       9043
C*     BNY              9044       9670
C*     CSR              9671      10297
C*     EMH             10298      10924
C*     MLK             10925      11551
C*     MMP             11552      12178
C*     SKI             12179      12805
C*     LMC             12806      13432
C*     ORCR            13433      14059
C*     WMDR            14060      14686
C*     SCHR            14687      15313
C*     DMP             15314      15940
C*     CASR            15941      16567
C*     MGNR            16568      17194
C*     BENR            17195      17821
C*END-------------------------------------------------------------------------
 3910  84 0422  829  SUC  6.22 37.5345N 118.8489W 10.37A 2.9D    31 101   6 .10
 3910  84 0422  829  PHC USGSMHD  IPU0 23.84
 3910  84 0422  829  PHC USGSWMDR IPU0 10.62
 3910  84 0422  829  PHC USGSCLK  IP0U  8.62
 3910  84 0422  829  PHC USGSMAT  IPU1 22.57
 3910  84 0422  829  PHC USGSMNP  IPU0 19.77
 3910  84 0422  829  PHC USGSCASR IPD0 11.63
 3910  84 0422  829  PHC USGSCLKR IPU0  8.64
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 3910  84 0422  829  PHC USGSBENR IPD0 12.09
 3910  84 0422  829  PHC USGSEMH  IPD0  9.98
***************** 16938 data cards not shown here *****************
C$FINIS DSN=SL000084
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Table SL000085

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C#DSN=SL000085;SIZE=011438;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=054;STRT=000001;
C*DATE:  19850430; 0; 840427A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840427; 19840427; 37.451N; 37.451N; 118.633W; 118.633W; ;  4311;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840427 AT 17:26
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
```

****
See previous format from dataset SL000080 for details
****

C* ORIGINAL STATION CARDS

CWMDR	37.4435N	118.6370W	1683	0.9478	210.2458	15132	15826
CRCCR	37.4877N	118.7217W	2804	10.7121	292.3389	41872	42560
CSCHR	37.3658N	118.6870W	2365	11.1905	212.6992	33545	34231
CCASR	37.5748N	118.5515W	2107	16.4180	33.4141	26682	27363
CORCR	37.6353N	118.6560W	2301	20.5584	352.7510	32756	33544
CCLK	37.5902N	118.8242W	2630	26.3044	305.8533	15827	16615
CCLKR	37.5902N	118.8242W	2630	26.3044	305.8533	28153	28826
CRSM	37.5107N	118.8822W	3680	28.5556	283.3945	35021	35809
CBENR	37.7155N	118.5733W	2463	29.9986	12.7351	28827	29384
CDOE	37.6387N	118.8355W	2220	30.6775	312.6135	37257	37926
CCVM	37.6098N	118.8733W	2260	32.0375	303.2690	44000	44668
CCSR	37.6777N	118.8183W	2122	32.4966	320.5195	44669	45457
CLLK	37.5788N	118.9050W	3030	33.4538	295.0154	27364	28152
CGRP	37.6265N	118.9013W	2208	35.6566	303.0012	49014	49679
CLCC	37.6105N	118.9158W	2550	36.1246	299.2522	30045	30710
CLCCR	37.6105N	118.9158W	2550	36.1246	299.2522	40294	41082
CMDW	37.6313N	118.9162W	2350	37.3393	302.2996	47692	48356
CCHS	37.6550N	118.9045W	2420	37.7500	306.7222	46247	46902
CYMC	37.6255N	118.9362W	2340	38.9178	299.7488	49680	50343
CCSW	37.6442N	118.9282W	2280	39.2340	303.0161	50344	51006
CBNY	37.6408N	118.9358W	2325	39.7460	301.8967	51007	51795
CSHLN	37.6167N	118.9550W	2530	40.2961	297.0693	46903	47691
CSHL	37.6167N	118.9550W	2530	40.2961	297.0693	34232	35020
CMGNR	37.8133N	118.6955W	2472	40.6765	350.1047	31311	31966
CEMH	37.6663N	118.9392W	2495	41.6142	304.9211	29385	30044
CTAC	37.6317N	118.9650W	2398	42.0525	298.3918	35810	36598
CMLK	37.6643N	118.9750W	2670	44.8245	301.7708	36599	37256
CLMC	37.7288N	118.9465W	2540	46.5275	311.3381	30711	31310
CMMP	37.6100N	119.0280W	2870	47.3967	291.7937	48357	49013

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CSKI   37.6530N 119.0238W  2660     48.9426   297.1729   45458  46246
CDMP   37.7080N 119.0458W  2550     54.0678   301.7244   43350  43999
CLULR  38.0523N 119.1803W  2243     90.2117   317.4883   41083  41871
CMMCR  38.3608N 119.1283W  2548    114.7815   331.2673   31967  32755
CMNP   37.4150N 119.7283W  1000    122.0571   268.1348   22139  22736
CMNPN  37.4150N 119.7283W  1000    122.0571   268.1348   22737  23525
CFRI   36.9917N 119.7083W   119    130.1785   246.9917   25893  26681
CMHD   37.1235N 119.8923W   180    144.9064   255.5095   12184  12764
CMAT   37.8733N 119.8667W  1353    145.0940   288.7778   18983  19771
CWCH   35.8830N 118.0747W  2475    185.4344   160.3774   37927  38715
CWKT   35.7940N 118.4425W   890    185.8671   173.4414   38716  39504
CMYL   37.3780N 120.4197W    84    199.1474   267.6785   12765  13553
CMST   37.9045N 120.4048W   366    203.5489   284.2644   25104  25892
CWOF   35.5357N 118.7125W  1341    213.8352   182.3877   39505  40293
CMCH   38.0187N 120.5095W   475    218.1591   286.7253   19772  20560
CMOY   37.9000N 120.5673W   176    221.0143   282.9836   23526  24314
CMRF   38.2453N 120.5207W   799    227.8137   292.6838   24315  25103
CMCU   37.9727N 120.6170W   336    228.3064   284.6379   20561  21349
CPDR   36.3357N 120.3687W   488    229.8811   237.3682   42561  43349
CPCR   36.0938N 120.4347W   296    251.4481   233.0836    3505   4293
CBRM   36.8450N 120.8237W   372    253.2068   254.6142   14343  15131
CPCA   35.9317N 120.3370W  1189    254.5590   228.3417    2716   3504
CMNH   38.1458N 120.8137W   219    254.6704   287.5615   21350  22138
CPSR   35.8578N 120.2802W   552    255.5595   226.0109    1927   2715
CBMS   36.6630N 120.7918W   811    256.0381   250.0321    7450   8238
CADW   38.4392N 120.8482W   251    269.8293   293.9048   13554  14342
CPHR   36.3730N 120.8183W   732    271.5669   243.8252    4294   5082
CHSL   37.0193N 121.0855W   520    277.3870   260.0732   18194  18982
CBAVV  36.6458N 121.0298W   604    281.7258   251.5089    8239   9027
CBBG   36.5783N 121.0385W  1097    285.1411   250.1386    6661   7449
CPBW   36.3150N 120.9292W   381    285.5479   243.7546    5083   5871
CHCP   37.1945N 121.1847W   513    285.6357   264.2961   16616  17404
CBEM   36.6613N 121.0960W   488    288.1956   252.2993   10606  11394
CBBN   36.5100N 121.0755W   448    291.6951   249.0085    5872   6660
CHQRV  36.8337N 121.2127W   536    295.5161   256.6094    9028   9816
CBEH   36.6647N 121.1742W   342    296.3977   252.8813   11395  12183
CHPLV  37.0522N 121.2900W   152    299.2788   261.5132    9817  10605
CHLT   36.8845N 121.3082W   183    304.6406   258.1055   17405  18193
CIRG1   0.0000    0.0000     0  13841.2344   107.4104    1138   1926
CWWVB   0.0000    0.0000     0  13841.2344   107.4104     349   1137
C*
C* ORIGINAL WAVEFORM CARDS
C4311  84 0427 1726  WFC USGSWWVB                                  17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSIRG1                                  17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSPSR  35.8578N 120.2802W  552 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSPCA  35.9317N 120.3370W 1189 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSPCR  36.0938N 120.4347W  296 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSPHR  36.3730N 120.8183W  732 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSPBW  36.3150N 120.9292W  381 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSBBN  36.5100N 121.0755W  448 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSBBG  36.5783N 121.0385W 1097 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSBMS  36.6630N 120.7918W  811 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSBAVV 36.6458N 121.0298W  604 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSHQRV 36.8337N 121.2127W  536 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSHPLV 37.0522N 121.2900W  152 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSBEM  36.6613N 121.0960W  488 17 25 56.66 100 125 16
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C4311  84 0427 1726  WFC USGSBEH  36.6647N 121.1742W  342 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSMHD  37.1235N 119.8923W  180 17 26 29.89 100  92 16
C4311  84 0427 1726  WFC USGSMYL  37.3780N 120.4197W   84 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSADW  38.4392N 120.8482W  251 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSBRM  36.8450N 120.8237W  372 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSWMDR 37.4435N 118.6370W 1683 17 26 11.66 100 110 16
C4311  84 0427 1726  WFC USGSCLK  37.5902N 118.8242W 2630 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSHCP  37.1945N 121.1847W  513 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSHLT  36.8845N 121.3082W  183 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSHSL  37.0193N 121.0855W  520 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSMAT  37.8733N 119.8667W 1353 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSMCH  38.0187N 120.5095W  475 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSMCU  37.9727N 120.6170W  336 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSMNH  38.1458N 120.8137W  219 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSMNP  37.4150N 119.7283W 1000 17 26 27.16 100  95 16
C4311  84 0427 1726  WFC USGSMNPN 37.4150N 119.7283W 1000 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSMOY  37.9000N 120.5673W  176 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSMRF  38.2453N 120.5207W  799 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSMST  37.9045N 120.4048W  366 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSFRI  36.9917N 119.7083W  119 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSCASR 37.5748N 118.5515W 2107 17 26 13.72 100 108 16
C4311  84 0427 1726  WFC USGSLLK  37.5788N 118.9050W 3030 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSCLKR 37.5902N 118.8242W 2630 17 26 14.96 100 107 16
C4311  84 0427 1726  WFC USGSBENR 37.7155N 118.5733W 2463 17 26 16.13 100  88 16
C4311  84 0427 1726  WFC USGSEMH  37.6663N 118.9392W 2495 17 26 17.20 100 105 16
C4311  84 0427 1726  WFC USGSLCC  37.6105N 118.9158W 2550 17 26 16.27 100 106 16
C4311  84 0427 1726  WFC USGSLMC  37.7288N 118.9465W 2540 17 26 18.10 100  95 16
C4311  84 0427 1726  WFC USGSMGNR 37.8133N 118.6955W 2472 17 26 17.95 100 104 16
C4311  84 0427 1726  WFC USGSMMCR 38.3608N 119.1283W 2548 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSORCR 37.6353N 118.6560W 2301 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSSCHR 37.3658N 118.6870W 2365 17 26 12.91 100 109 16
C4311  84 0427 1726  WFC USGSSHL  37.6167N 118.9550W 2530 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSRSM  37.5107N 118.8822W 3680 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSTAC  37.6317N 118.9650W 2398 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSMLK  37.6643N 118.9750W 2670 17 26 17.58 100 104 16
C4311  84 0427 1726  WFC USGSDOE  37.6387N 118.8355W 2220 17 26 15.74 100 106 16
C4311  84 0427 1726  WFC USGSWCH  35.8830N 118.0747W 2475 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSWKT  35.7940N 118.4425W  890 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSWOF  35.5357N 118.7125W 1341 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSLCCR 37.6105N 118.9158W 2550 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSLULR 38.0523N 119.1803W 2243 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSRCCR 37.4877N 118.7217W 2804 17 26 12.60 100 109 16
C4311  84 0427 1726  WFC USGSPDR  36.3357N 120.3687W  488 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSDMP  37.7080N 119.0458W 2550 17 26 18.92 100 103 16
C4311  84 0427 1726  WFC USGSCVM  37.6098N 118.8733W 2260 17 26 15.76 100 106 16
C4311  84 0427 1726  WFC USGSCSR  37.6777N 118.8183W 2122 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSSKI  37.6530N 119.0238W 2660 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSCHS  37.6550N 118.9045W 2420 17 26 16.67 100 104 16
C4311  84 0427 1726  WFC USGSSHLN 37.6167N 118.9550W 2530 17 25 56.66 100 125 16
C4311  84 0427 1726  WFC USGSMDW  37.6313N 118.9162W 2350 17 26 16.51 100 105 16
C4311  84 0427 1726  WFC USGSMMP  37.6100N 119.0280W 2870 17 26 17.71 100 104 16
C4311  84 0427 1726  WFC USGSGRP  37.6265N 118.9013W 2208 17 26 16.28 100 106 16
C4311  84 0427 1726  WFC USGSYMC  37.6255N 118.9362W 2340 17 26 16.68 100 105 16
C4311  84 0427 1726  WFC USGSCSW  37.6442N 118.9282W 2280 17 26 16.80 100 105 16
C4311  84 0427 1726  WFC USGSBNY  37.6408N 118.9358W 2325 17 25 56.66 100 125 16
C*
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C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                              LINES
C*      ITEM            START         END
C*
C*      PHC               702         728
C*      STA               729         753
C*      SAT               754         833
C*      SPC               834        2203
C*      CQ1              2204        2221
C*      CQ2              2222        2257
C*      CQ3              2258        2365
C*      WFC              2366        2389
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                              LINES
C*      STATION         START         END
C*
C*      WMDR             2390        2766
C*      RCCR             2767        3143
C*      SCHR             3144        3520
C*      CASR             3521        3897
C*      ORCR             3898        4274
C*      CLKR             4275        4651
C*      RSM              4652        5028
C*      BENR             5029        5405
C*      DOE              5406        5782
C*      CVM              5783        6159
C*      CSR              6160        6536
C*      GRP              6537        6913
C*      LCC              6914        7290
C*      MDW              7291        7667
C*      CHS              7668        8044
C*      YMC              8045        8421
C*      CSW              8422        8798
C*      BNY              8799        9175
C*      MGNR             9176        9552
C*      EMH              9553        9929
C*      MLK              9930       10306
C*      LMC             10307       10683
C*      MMP             10684       11060
C*      DMP             11061       11437
C*END-----------------------------------------------------------------------
 4311  84 0427 1726  SUC 20.43 37.4509N 118.6327W  5.55A 2.4D    26 177    0 .12
 4311  84 0427 1726  PHC USGSMHD   P3  40.24
 4311  84 0427 1726  PHC USGSWMDR IPD0 21.65
 4311  84 0427 1726  PHC USGSMNP  EP3  36.94
 4311  84 0427 1726  PHC USGSCASR IPD0 23.80
 4311  84 0427 1726  PHC USGSCLKR IPD0 24.93
 4311  84 0427 1726  PHC USGSBENR IPD1 25.93
 4311  84 0427 1726  PHC USGSEMH  IPD1 27.26
 4311  84 0427 1726  PHC USGSLCC  IPD0 26.16
 4311  84 0427 1726  PHC USGSLMC  EP3  28.37
********** 10726 data cards not shown here **********
C*FINIS DSN=SL000085
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Table SL000086

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C*DSN=SL000086;SIZE=004718;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=055;STRT=000001;
C*DATE:  19850430; 0; 840427B ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840427; 19840427; 37.452N; 37.452N; 118.632W; 118.632W; ;  4312;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840427 AT 17:31
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
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****
See previous format from dataset SL000080 for details
****

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C* ORIGINAL STATION CARDS
CWMDR 37.4435N 118.6370W  1683     1.0432   210.7576    2057   2574
CRCCR 37.4877N 118.7217W  2804    10.7349   291.8418   13692  14139
CSCHR 37.3658N 118.6870W  2365    11.2862   212.7257    8045   8554
CCASR 37.5748N 118.5515W  2107    16.3224    33.3999    3157   3518
CORCR 37.6353N 118.6560W  2301    20.4885   352.5681    7545   8044
CCLKR 37.5902N 118.8242W  2630    26.3045   305.6448    4101   4522
CCLK  37.5902N 118.8242W  2630    26.3045   305.6448    2575   3156
CRSM  37.5107N 118.8822W  3680    28.5923   283.2170    9137   9718
CBENR 37.7155N 118.5733W  2463    29.9106    12.6631    4523   4836
CDOE  37.6387N 118.8355W  2220    30.6664   312.4360   10782  11363
CCVM  37.6098N 118.8733W  2260    32.0419   303.0979   14722  15303
CCSR  37.6777N 118.8183W  2122    32.4724   320.3560   15304  15885
CLLK  37.5788N 118.9050W  3030    33.4719   294.8545    3519   4100
CGRP  37.6265N 118.9013W  2208    35.6614   302.8474   17212  17700
CLCCR 37.6105N 118.9158W  2550    36.1356   299.1013   12528  13109
CLCC  37.6105N 118.9158W  2550    36.1356   299.1013    5320   5901
CMDW  37.6313N 118.9162W  2350    37.3453   302.1528   16468  16836
CCHS  37.6550N 118.9045W  2420    37.7486   306.5767   15886  16467
CYMC  37.6255N 118.9362W  2340    38.9281   299.6086   17701  18101
CCSW  37.6442N 118.9282W  2280    39.2388   302.8765   18102  18431
CBNY  37.6408N 118.9358W  2325    39.7526   301.7590   18432  19013
CSHLR 37.6167N 118.9550W  2530    40.3108   296.9348   11946  12527
CSHL  37.6167N 118.9550W  2530    40.3108   296.9348    8555   9136
CMGNR 37.8133N 118.6955W  2472    40.6097   350.0081    6484   6962
CEMH  37.6663N 118.9392W  2495    41.6158   304.7893    4837   5319
CTAC  37.6317N 118.9650W  2398    42.0650   298.2625    9719  10300
CMLK  37.6643N 118.9750W  2670    44.8314   301.6487   10301  10781
CLMC  37.7288N 118.9465W  2540    46.5184   311.2209    5902   6483
CMMP  37.6100N 119.0280W  2870    47.4200   291.6814   16837  17211
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```
CDMP  37.7080N 119.0458W  2550    54.0748   301.6230   14140  14721
CLULR 38.0523N 119.1803W  2243    90.1924   317.4287   13110  13691
CMMCR 38.3608N 119.1283W  2548   114.7405   331.2241    6963   7544
CMHD  37.1235N 119.8923W   180   144.9800   255.4853    1475   2056
CWKT  35.7940N 118.4425W   890   185.9379   173.4614   11364  11945
CIRG1  0.0000    0.0000      0 13841.1992   107.4109     893   1474
CWWVB  0.0000    0.0000      0 13841.1992   107.4109     311    892
C*
C* ORIGINAL WAVEFORM CARDS
C4312  84 0427 1731  WFC USGSWWVB                          17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSIRG1                          17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSMHD  37.1235N 119.8923W  180 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSWMDR 37.4435N 118.6370W 1683 17 31 15.99 100  82 16
C4312  84 0427 1731  WFC USGSCLK  37.5902N 118.8242W 2630 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSCASR 37.5748N 118.5515W 2107 17 31 18.04 100  57 16
C4312  84 0427 1731  WFC USGSLLK  37.5788N 118.9050W 3030 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSCLKR 37.5902N 118.8242W 2630 17 31 19.30 100  67 16
C4312  84 0427 1731  WFC USGSBENR 37.7155N 118.5733W 2463 17 31 20.46 100  49 16
C4312  84 0427 1731  WFC USGSEMH  37.6663N 118.9392W 2495 17 31 21.53 100  76 16
C4312  84 0427 1731  WFC USGSLCC  37.6105N 118.9158W 2550 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSLMC  37.7288N 118.9465W 2540 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSMGNR 37.8133N 118.6955W 2472 17 31 22.28 100  76 16
C4312  84 0427 1731  WFC USGSMMCR 38.3608N 119.1283W 2548 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSORCR 37.6353N 118.6560W 2301 17 31 18.89 100  79 16
C4312  84 0427 1731  WFC USGSSCHR 37.3658N 118.6870W 2365 17 31 17.26 100  81 16
C4312  84 0427 1731  WFC USGSSHL  37.6167N 118.9550W 2530 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSRSM  37.5107N 118.8822W 3680 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSTAC  37.6317N 118.9650W 2398 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSMLK  37.6643N 118.9750W 2670 17 31 21.92 100  76 16
C4312  84 0427 1731  WFC USGSDOE  37.6387N 118.8355W 2220 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSWKT  35.7940N 118.4425W  890 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSSHLR 37.6167N 118.9550W 2530 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSLCCR 37.6105N 118.9158W 2550 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSLULR 38.0523N 119.1803W 2243 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSRCCR 37.4877N 118.7217W 2804 17 31 16.94 100  71 16
C4312  84 0427 1731  WFC USGSDMP  37.7080N 119.0458W 2550 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSCVM  37.6098N 118.8733W 2260 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSCSR  37.6777N 118.8183W 2122 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSCHS  37.6550N 118.9045W 2420 17 31  5.78 100  92 16
C4312  84 0427 1731  WFC USGSMDW  37.6313N 118.9162W 2350 17 31 20.85 100  58 16
C4312  84 0427 1731  WFC USGSMMP  37.6100N 119.0280W 2870 17 31 22.05 100  59 16
C4312  84 0427 1731  WFC USGSGRP  37.6265N 118.9013W 2208 17 31 20.62 100  77 16
C4312  84 0427 1731  WFC USGSYMC  37.6255N 118.9362W 2340 17 31 21.02 100  63 16
C4312  84 0427 1731  WFC USGSCSW  37.6442N 118.9282W 2280 17 31 21.14 100  52 16
C4312  84 0427 1731  WFC USGSBNY  37.6408N 118.9358W 2325 17 31  5.78 100  92 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
C*
C*     PHC               623        644
C*     STA               645        656
C*     SAT               657        688
C*     SPC               689       1133
C*     CQ1              1134       1151
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C*      CQ2              1152        1181
C*      CQ3              1182        1241
C*      WFC              1242        1252
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                            LINES
C*      STATION          START         END
C*
C*      WMDR              1253        1567
C*      RCCR              1568        1882
C*      SCHR              1883        2197
C*      CASR              2198        2512
C*      ORCR              2513        2827
C*      CLKR              2828        3142
C*      BENR              3143        3457
C*      GRP               3458        3772
C*      LCCR              3773        4087
C*      MDW               4088        4402
C*      YMC               4403        4717
C*END-------------------------------------------------------------------------
 4312  84 0427 1731  SUC 24.77 37.4516N 118.6322W  5.48A 1.6D    21 177    0 .11
 4312  84 0427 1731  PHC USGSWMDR IPD0 25.98
 4312  84 0427 1731  PHC USGSCLK  IPD0 29.27
 4312  84 0427 1731  PHC USGSCASR IPD0 28.14
 4312  84 0427 1731  PHC USGSCLKR IPD1 29.27
 4312  84 0427 1731  PHC USGSBENR EPU2 30.25
 4312  84 0427 1731  PHC USGSEMH  EPD3 31.61
 4312  84 0427 1731  PHC USGSLCC  IP0D 30.49
 4312  84 0427 1731  PHC USGSMGNR IPD1 32.38
 4312  84 0427 1731  PHC USGSORCR IPD0 28.85
****************** 4085 data cards not shown here ******************
C$FINIS DSN=SL000086
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C#DSN=SL000087;SIZE=017972;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=056;STRT=000001;
C*DATE:  19850430; 0; 840501A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840501; 19840501; 37.463N; 37.463N; 118.828W; 118.828W; ;  4651;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840501 AT 09:50
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
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****
See previous format from dataset SL000080 for details
****

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C* ORIGINAL STATION CARDS
CRSM   37.5107N 118.8822W  3680     8.0315   311.1641  117728 118608
CRCCR  37.4877N 118.7217W  2804    12.1385    76.9397  125290 126078
CCLKR  37.5902N 118.8242W  2630    14.0843     1.6726  109641 110425
CCLK   37.5902N 118.8242W  2630    14.0843     1.6726   75042  75922
CLLK   37.5788N 118.9050W  3030    15.4268   326.1897  108760 109640
CCVM   37.6098N 118.8733W  2260    17.0148   342.7146  130368 131149
CSCHR  37.3658N 118.6870W  2365    19.0164   124.4067  115966 116846
CLCCR  37.6105N 118.9158W  2550    19.0330   329.0559  124409 125289
CLCC   37.6105N 118.9158W  2550    19.0330   329.0559  111962 112741
CDOE   37.6387N 118.8355W  2220    19.4602   357.5083  120106 120884
CGRP   37.6265N 118.9013W  2208    19.8525   335.6897  135024 135904
CMDW   37.6313N 118.9162W  2350    21.0590   332.1719  133472 134249
CWMDR  37.4435N 118.6370W  1683    21.3641    95.7686   74260  75041
CYMC   37.6255N 118.9362W  2340    21.6509   326.1567  135905 136682
CSHLR  37.6167N 118.9550W  2530    22.1259   320.2407  123528 124408
CSHL   37.6167N 118.9550W  2530    22.1259   320.2407  116847 117727
CCHS   37.6550N 118.9045W  2420    22.8913   338.1282  132696 133471
CCSW   37.6442N 118.9282W  2280    22.9496   330.8816  136683 137458
CBNY   37.6408N 118.9358W  2325    23.0511   328.5889  137459 138235
CCSR   37.6777N 118.8183W  2122    23.7778     2.5754  131150 131924
CTAC   37.6317N 118.9650W  2398    24.1132   320.7288  118609 119224
CEMH   37.6663N 118.9392W  2495    25.6806   331.1519  111188 111961
CORCR  37.6353N 118.6560W  2301    27.0131    45.1052  115085 115965
CMMP   37.6100N 119.0280W  2870    27.5856   306.1384  134250 135023
CMLK   37.6643N 118.9750W  2670    27.6459   323.6721  119225 120105
CSKI   37.6530N 119.0238W  2660    30.2925   313.9465  131925 132695
CLMC   37.7288N 118.9465W  2540    32.2319   335.8167  112742 113508
CCASR  37.5748N 118.5515W  2107    33.1678    68.0913  107989 108759
CDMP   37.7080N 119.0458W  2550    36.3738   318.1682  129603 130367
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CBENR	37.7155N	118.5733W	2463	39.7937	45.4180	110426	111187
CMGNR	37.8133N	118.6955W	2472	41.4522	20.8284	113509	114389
CMNPN	37.4150N	119.7283W	1000	100.3974	266.9731	102882	103762
CMNP	37.4150N	119.7283W	1000	100.3974	266.9731	102167	102881
CMMCR	38.3608N	119.1283W	2548	104.8031	341.3894	114390	115084
CFRI	36.9917N	119.7083W	119	111.1076	241.9718	107287	107988
CMAT	37.8733N	119.8667W	1353	124.2263	291.4248	98829	99523
CMHD	37.1235N	119.8923W	180	124.3699	252.4092	46254	46948
CMYL	37.3780N	120.4197W	84	177.4960	266.9658	46949	47829
CMST	37.9045N	120.4048W	366	182.2079	285.5435	105525	106405
CWKT	35.7940N	118.4425W	890	190.8891	166.9771	121766	122646
CPWM	36.4328N	120.2110W	72	192.0356	233.4218	126079	126959
CPHB	36.2488N	120.0827W	100	194.4560	226.0305	126960	127840
CWCH	35.8830N	118.0747W	2475	195.0357	154.4707	120885	121765
CMCH	38.0187N	120.5095W	475	197.0305	288.1741	99524	100404
CMOY	37.9000N	120.5673W	176	199.5746	284.0137	103763	104643
CMCU	37.9727N	120.6170W	336	206.9900	285.8022	100405	101285
CMRF	38.2453N	120.5207W	799	207.3769	294.6614	104644	105524
CPKE	36.0615N	120.1090W	288	211.5608	222.5001	128722	129602
CPDR	36.3357N	120.3687W	488	212.6515	233.9019	127841	128721
CWOF	35.5357N	118.7125W	1341	215.3661	176.5701	122647	123527
CPAR	36.2492N	120.3420W	485	216.1752	231.3686	18062	18942
CSRT	35.6918N	117.7493W	698	231.2668	148.6257	106406	107286
CBRM	36.8450N	120.8237W	372	232.6924	252.8776	61045	61925
CMNH	38.1458N	120.8137W	219	233.6139	288.8594	101286	102166
CPCR	36.0938N	120.4347W	296	235.2578	229.6371	17181	18061
CBMS	36.6630N	120.7918W	811	236.1994	247.9264	30396	31276
CPCA	35.9317N	120.3370W	1189	239.6656	224.6403	14538	15418
CPSR	35.8578N	120.2802W	552	241.3437	222.1889	9252	10132
CPMR	35.7848N	120.2357W	512	244.2621	220.0378	7490	8370
CAOD	38.6148N	120.7285W	520	247.0981	301.0657	55759	56639
CPGH	35.8310N	120.3528W	433	249.0507	223.1064	10133	11013
CADW	38.4392N	120.8482W	251	249.5407	295.6487	49592	50472
CPPF	35.8818N	120.4135W	469	249.6646	225.1337	13657	14537
CPAG	35.7320N	120.2493W	482	249.7985	219.4315	6609	7489
CPSM	36.0697N	120.5947W	988	250.7934	231.8098	18943	19823
CPHA	35.8360N	120.3985W	455	252.1585	224.0395	11014	11894
CPHR	36.3730N	120.8183W	732	252.8449	241.3784	21586	22466
CPST	35.9288N	120.5083W	573	253.6815	227.6620	15419	16299
CPTR	35.6547N	120.2112W	643	253.9626	217.4492	5728	6608
CPHGV	35.8760N	120.4835W	792	255.7121	226.2657	12776	13656
CHSL	37.0193N	121.0855W	520	256.2439	258.9424	94424	95304
CPMCV	35.7247N	120.3705W	488	259.2151	221.6271	8371	9251
CPPT	36.1083N	120.7212W	506	259.4854	234.4864	19824	20704
CPMP	36.2152N	120.7948W	784	259.5886	237.6859	20705	21585
CTBM	35.1358N	118.5968W	1237	261.1399	174.3276	2204	3084
CBAVZ	36.6458N	121.0298W	604	261.6367	249.7215	32158	33038
CBAVV	36.6458N	121.0298W	604	261.6367	249.7215	31277	32157
CPWK	35.8145N	120.5112W	503	262.7441	225.6466	11895	12775
CHCP	37.1945N	121.1847W	513	264.1558	263.5408	80328	81208
CBBG	36.5783N	121.0385W	1097	265.2642	248.2716	29515	30395
CALA	38.5667N	120.9562W	293	266.6370	297.2688	53997	54877
CPBW	36.3150N	120.9292W	381	266.8259	241.4309	22467	23347
CBEM	36.6613N	121.0960W	488	267.9851	250.6142	40087	40967
CPIV	35.9065N	120.6823W	497	269.9580	230.0466	16300	17180
CBRV	36.4248N	121.0183W	541	270.0898	244.7220	26872	27752

CBBN	36.5100N	121.0755W	448	271.9990	247.1046	28634	29514
CARJ	38.6865N	120.9563W	460	273.0276	299.7485	57521	58401
CPSH	35.5908N	120.4153W	390	273.8657	220.3245	4847	5727
CHQRV	36.8337N	121.2127W	536	274.7334	255.2894	34801	35681
CBEH	36.6647N	121.1742W	342	276.0986	251.2887	40968	41848
CCMP	37.3577N	121.3085W	799	276.4666	267.5862	70736	71616
CHPLV	37.0522N	121.2900W	152	278.0027	260.5811	35682	36562
CAFH	39.0418N	120.7913W	1064	280.1970	308.6670	51354	52234
CBVL	36.5752N	121.1890W	510	281.0391	249.4725	36563	37443
CPLO	36.2465N	121.0425W	308	281.6118	241.2941	23348	24228
CBPI	36.4900N	121.1735W	329	282.9473	247.5499	27753	28633
CBHR	36.7278N	121.2638W	213	283.4482	253.2800	45373	46253
CCOS	37.5085N	121.3740W	1020	283.5239	271.0193	71617	72497
CHLT	36.8845N	121.3082W	183	283.6875	256.9375	90019	90899
CHJS	36.8165N	121.2987W	215	284.4949	255.4073	88257	89137
CBSCV	36.6417N	121.2598W	323	285.9678	251.4160	33039	33919
CBLR	36.6660N	121.2727W	232	286.4744	252.0205	41849	42729
CAFD	38.9480N	120.9723W	549	290.1208	304.5649	50473	51353
CBSL	36.7755N	121.3493W	155	291.1326	254.8191	42730	43610
CHFE	36.9833N	121.4015W	323	291.5859	259.4990	82971	83851
CBCG	36.7092N	121.3433W	305	292.5393	253.3914	44492	45372
CBJO	36.6108N	121.3135W	1052	292.7559	251.1516	37444	38324
CAHR	38.8543N	121.0705W	354	293.5491	301.6768	53116	53996
CBSGV	36.4138N	121.2537W	192	294.5254	246.6870	25991	26871
CHGS	37.0958N	121.4472W	778	294.5698	262.0659	85614	86494
CHPH	36.8563N	121.4062W	122	295.0457	256.8242	91781	92661
CHKR	36.9017N	121.4260W	66	296.0728	257.8716	89138	90018
CCMM	37.4557N	121.4937W	1117	296.8196	269.8459	69855	70735
CCST	37.6392N	121.4982W	205	297.9238	273.7522	73379	74259
CARR	38.7653N	121.1718W	127	298.2681	298.9207	58402	59282
CPAN	35.7797N	120.9073W	451	298.4226	231.0537	3085	3965
CBVY	36.7493N	121.4133W	585	298.7915	254.6383	43611	44491
CHCA	37.0253N	121.4837W	332	299.7886	260.6934	77685	78565
CHFH	36.8882N	121.4688W	101	301.0562	257.7832	83852	84732
CPJLV	36.0898N	121.1555W	290	301.2969	239.5248	3966	4846
CCAOV	37.3493N	121.5327W	628	301.4509	267.6096	63688	64568
CHSP	37.1152N	121.5157W	850	301.8386	262.6704	95305	96185
CBJC	36.5470N	121.3922W	207	303.4084	250.4172	39206	40086
CHOR	36.9172N	121.5077W	98	304.6260	258.5479	90900	91780
CHSF	36.8120N	121.4995W	340	306.3184	256.3711	93543	94423
CHFP	36.7537N	121.4905W	705	306.9675	255.1516	84733	85613
CARW	38.9563N	121.1622W	320	308.2754	302.4749	59283	60163
CAPR	38.8770N	121.2172W	133	308.8584	300.4836	56640	57520
CHBT	36.8502N	121.5507W	98	310.8938	257.3792	76804	77684
CHCR	36.9577N	121.5835W	241	312.0505	259.6646	81209	82089
CBSRV	36.6665N	121.5187W	395	312.6519	253.5814	33920	34800
CCAD	37.1638N	121.6258W	207	313.3713	263.9331	61926	62806
CCML	37.4773N	121.6515W	1076	314.3882	270.2900	68974	69854
CHAZ	36.8847N	121.5908W	122	314.4358	258.2383	75923	76803
CHJG	36.7980N	121.5738W	171	314.7388	256.4512	87376	88256
CAFR	38.7923N	121.3485W	31	317.0310	297.6748	52235	53115
CAAR	39.2762N	121.0255W	930	317.0491	309.4094	47830	48710
CCCO	37.2577N	121.6725W	366	317.5984	265.8987	64569	65449
CHGW	37.0170N	121.6503W	133	318.2617	261.0701	86495	87375
CALN	38.9297N	121.2878W	54	318.6357	300.6746	54878	55758
CBPP	36.1687N	121.3780W	1591	318.8167	243.1550	24229	25109

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CHCB  36.9313N 121.6605W   219   321.0312   259.4248   78566  79446
CCMN  37.6275N 121.7083W   245   321.1934   273.2488   65450  66330
CHDL  36.8353N 121.6440W   204   321.4070   257.4958   82090  82970
CAVR  39.0245N 121.2708W   114   322.5930   302.4590   60164  61044
CHPR  36.9532N 121.6950W    94   324.3684   259.9714   92662  93542
CJRR  37.0545N 121.7268W   408   326.0642   262.0247   97067  97947
CCMH  37.3595N 121.7563W   518   326.2852   267.9900   67212  68092
CBHS  36.3558N 121.5398W   646   326.4822   247.8603   25110  25990
CHCO  36.8885N 121.7057W   129   326.8948   258.7681   79447  80327
CBPC  36.5720N 121.6260W   183   327.2153   252.4066   38325  39205
CCSC  37.2852N 121.7725W   128   328.5017   266.5671   72498  73378
CCALV 37.4512N 121.7992W   265   330.8372   269.7756   62807  63687
CCVL  37.6263N 121.8357W   245   335.3474   273.0889   66331  67211
CCMJ  37.5208N 121.8705W   498   338.8171   271.0830   68093  68973
CJPL  36.9770N 121.8322W   158   338.9883   260.8608   96186  97066
CJTG  37.0285N 121.8763W   253   342.9673   261.9336   97948  98828
CABR  39.1352N 121.4868W    24   349.5896   302.0479   48711  49591
CIRG1  0.0000    0.0000      0 13862.2891   107.3887    1323   2203
CWWVB  0.0000    0.0000      0 13862.2891   107.3887     442   1322
C*
C* ORIGINAL WAVEFORM CARDS
C4651  84 05 1  950  WFC USGSWWVB                                  9 50  4.16 100 140 16
C4651  84 05 1  950  WFC USGSIRG1                                  9 50  4.16 100 140 16
C4651  84 05 1  950  WFC USGSTBM  35.1358N 118.5968W 1237  9 50  4.16 100 140 16
C4651  84 05 1  950  WFC USGSPAN  35.7797N 120.9073W  451  9 50  4.16 100 140 16
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C4651  84 05 1  950  WFC USGSPSH  35.5908N 120.4153W  390  9 50  4.16 100 140 16
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C4651  84 05 1  950  WFC USGSPMCV 35.7247N 120.3705W  488  9 50  4.16 100 140 16
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C4651  84 05 1  950  WFC USGSPPF  35.8818N 120.4135W  469  9 50  4.16 100 140 16
C4651  84 05 1  950  WFC USGSPCA  35.9317N 120.3370W 1189  9 50  4.16 100 140 16
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C4651  84 05 1  950  WFC USGSBMS  36.6630N 120.7918W  811  9 50  4.16 100 140 16
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C4651	84	05	1	950	WFC	USGSBAVV	36.6458N	121.0298W	604	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBAVZ	36.6458N	121.0298W	604	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBSCV	36.6417N	121.2598W	323	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBSRV	36.6665N	121.5187W	395	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHQRV	36.8337N	121.2127W	536	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHPLV	37.0522N	121.2900W	152	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBVL	36.5752N	121.1890W	510	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBJO	36.6108N	121.3135W	1052	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBPC	36.5720N	121.6260W	183	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBJC	36.5470N	121.3922W	207	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBEM	36.6613N	121.0960W	488	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBEH	36.6647N	121.1742W	342	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBLR	36.6660N	121.2727W	232	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBSL	36.7755N	121.3493W	155	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBVY	36.7493N	121.4133W	585	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBCG	36.7092N	121.3433W	305	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBHR	36.7278N	121.2638W	213	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSMHD	37.1235N	119.8923W	180	9	50	33.88	100	110	16
C4651	84	05	1	950	WFC	USGSMYL	37.3780N	120.4197W	84	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSAAR	39.2762N	121.0255W	930	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSABR	39.1352N	121.4868W	24	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSADW	38.4392N	120.8482W	251	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSAFD	38.9480N	120.9723W	549	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSAFH	39.0418N	120.7913W	1064	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSAFR	38.7923N	121.3485W	31	9	50	4.16	100	140	16
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C4651	84	05	1	950	WFC	USGSALA	38.5667N	120.9562W	293	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSALN	38.9297N	121.2878W	54	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSAOD	38.6148N	120.7285W	520	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSAPR	38.8770N	121.2172W	133	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSARJ	38.6865N	120.9563W	460	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSARR	38.7653N	121.1718W	127	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSARW	38.9563N	121.1622W	320	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSAVR	39.0245N	121.2708W	114	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSBRM	36.8450N	120.8237W	372	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCAD	37.1638N	121.6258W	207	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCALV	37.4512N	121.7992W	265	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCAOV	37.3493N	121.5327W	628	9	50	4.16	100	140	16
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C4651	84	05	1	950	WFC	USGSCMN	37.6275N	121.7083W	245	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCVL	37.6263N	121.8357W	245	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCMH	37.3595N	121.7563W	518	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCMJ	37.5208N	121.8705W	498	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCML	37.4773N	121.6515W	1076	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCMM	37.4557N	121.4937W	1117	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCMP	37.3577N	121.3085W	799	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCOS	37.5085N	121.3740W	1020	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCSC	37.2852N	121.7725W	128	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCST	37.6392N	121.4982W	205	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSWMDR	37.4435N	118.6370W	1683	9	50	20.04	100	124	16
C4651	84	05	1	950	WFC	USGSCLK	37.5902N	118.8242W	2630	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHAZ	36.8847N	121.5908W	122	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHBT	36.8502N	121.5507W	98	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHCA	37.0253N	121.4837W	332	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHCB	36.9313N	121.6605W	219	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHCO	36.8885N	121.7057W	129	9	50	4.16	100	140	16

C4651	84	05	1	950	WFC	USGSHCP	37.1945N	121.1847W	513	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHCR	36.9577N	121.5835W	241	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHDL	36.8353N	121.6440W	204	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHFE	36.9833N	121.4015W	323	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHFH	36.8882N	121.4688W	101	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHFP	36.7537N	121.4905W	705	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHGS	37.0958N	121.4472W	778	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHGW	37.0170N	121.6503W	133	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHJG	36.7980N	121.5738W	171	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHJS	36.8165N	121.2987W	215	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHKR	36.9017N	121.4260W	66	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHLT	36.8845N	121.3082W	183	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHOR	36.9172N	121.5077W	98	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHPH	36.8563N	121.4062W	122	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHPR	36.9532N	121.6950W	94	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHSF	36.8120N	121.4995W	340	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHSL	37.0193N	121.0855W	520	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSHSP	37.1152N	121.5157W	850	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSJPL	36.9770N	121.8322W	158	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSJRR	37.0545N	121.7268W	408	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSJTG	37.0285N	121.8763W	253	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSMAT	37.8733N	119.8667W	1353	9	50	33.84	100	110	16
C4651	84	05	1	950	WFC	USGSMCH	38.0187N	120.5095W	475	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSMCU	37.9727N	120.6170W	336	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSMNH	38.1458N	120.8137W	219	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSMNP	37.4150N	119.7283W	1000	9	50	30.64	100	114	16
C4651	84	05	1	950	WFC	USGSMNPN	37.4150N	119.7283W	1000	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSMOY	37.9000N	120.5673W	176	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSMRF	38.2453N	120.5207W	799	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSMST	37.9045N	120.4048W	366	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSSRT	35.6918N	117.7493W	698	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSFRI	36.9917N	119.7083W	119	9	50	32.72	100	111	16
C4651	84	05	1	950	WFC	USGSCASR	37.5748N	118.5515W	2107	9	50	21.76	100	122	16
C4651	84	05	1	950	WFC	USGSLLK	37.5788N	118.9050W	3030	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSCLKR	37.5902N	118.8242W	2630	9	50	19.56	100	125	16
C4651	84	05	1	950	WFC	USGSBENR	37.7155N	118.5733W	2463	9	50	23.20	100	121	16
C4651	84	05	1	950	WFC	USGSEMH	37.6663N	118.9392W	2495	9	50	21.32	100	123	16
C4651	84	05	1	950	WFC	USGSLCC	37.6105N	118.9158W	2550	9	50	20.24	100	124	16
C4651	84	05	1	950	WFC	USGSLMC	37.7288N	118.9465W	2540	9	50	22.44	100	122	16
C4651	84	05	1	950	WFC	USGSMGNR	37.8133N	118.6955W	2472	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSMMCR	38.3608N	119.1283W	2548	9	50	33.88	100	110	16
C4651	84	05	1	950	WFC	USGSORCR	37.6353N	118.6560W	2301	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSSCHR	37.3658N	118.6870W	2365	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSSHL	37.6167N	118.9550W	2530	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSRSM	37.5107N	118.8822W	3680	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSTAC	37.6317N	118.9650W	2398	9	50	20.92	100	98	16
C4651	84	05	1	950	WFC	USGSMLK	37.6643N	118.9750W	2670	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSDOE	37.6387N	118.8355W	2220	9	50	20.44	100	124	16
C4651	84	05	1	950	WFC	USGSWCH	35.8830N	118.0747W	2475	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSWKT	35.7940N	118.4425W	890	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSWOF	35.5357N	118.7125W	1341	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSSHLR	37.6167N	118.9550W	2530	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSLCCR	37.6105N	118.9158W	2550	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSRCCR	37.4877N	118.7217W	2804	9	50	18.88	100	125	16
C4651	84	05	1	950	WFC	USGSPWM	36.4328N	120.2110W	72	9	50	4.16	100	140	16
C4651	84	05	1	950	WFC	USGSPHB	36.2488N	120.0827W	100	9	50	4.16	100	140	16

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C4651  84 05 1  950  WFC USGSPDR  36.3357N 120.3687W  488  9 50  4.16 100 140 16
C4651  84 05 1  950  WFC USGSPKE  36.0615N 120.1090W  288  9 50  4.16 100 140 16
C4651  84 05 1  950  WFC USGSDMP  37.7080N 119.0458W 2550  9 50 22.76 100 121 16
C4651  84 05 1  950  WFC USGSCVM  37.6098N 118.8733W 2260  9 50 20.00 100 124 16
C4651  84 05 1  950  WFC USGSCSR  37.6777N 118.8183W 2122  9 50 21.16 100 123 16
C4651  84 05 1  950  WFC USGSSKI  37.6530N 119.0238W 2660  9 50 21.76 100 122 16
C4651  84 05 1  950  WFC USGSCHS  37.6550N 118.9045W 2420  9 50 20.92 100 123 16
C4651  84 05 1  950  WFC USGSMDW  37.6313N 118.9162W 2350  9 50 20.56 100 124 16
C4651  84 05 1  950  WFC USGSMMP  37.6100N 119.0280W 2870  9 50 21.24 100 123 16
C4651  84 05 1  950  WFC USGSGRP  37.6265N 118.9013W 2208  9 50  4.16 100 140 16
C4651  84 05 1  950  WFC USGSYMC  37.6255N 118.9362W 2340  9 50 20.60 100 124 16
C4651  84 05 1  950  WFC USGSCSW  37.6442N 118.9282W 2280  9 50 20.88 100 123 16
C4651  84 05 1  950  WFC USGSBNY  37.6408N 118.9358W 2325  9 50 20.84 100 123 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM           START        END
C*
C*     PHC              883        911
C*     STA              912        935
C*     SAT              936       1026
C*     SPC             1027       2551
C*     CQ1             2552       2557
C*     CQ2             2558       2659
C*     CQ3             2660       2791
C*     WFC             2792       2814
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                          LINES
C*     STATION        START        END
C*
C*     RCCR            2815       3473
C*     CLK             3474       4132
C*     CVM             4133       4791
C*     SCHR            4792       5450
C*     LCC             5451       6109
C*     DOE             6110       6768
C*     MDW             6769       7427
C*     WMDR            7428       8086
C*     YMC             8087       8745
C*     SHL             8746       9404
C*     CHS             9405      10063
C*     CSW            10064      10722
C*     BNY            10723      11381
C*     CSR            11382      12040
C*     TAC            12041      12699
C*     EMH            12700      13358
C*     MMP            13359      14017
C*     MLK            14018      14676
C*     SKI            14677      15335
C*     LMC            15336      15994
C*     CASR           15995      16653
C*     DMP            16654      17312
C*     BENR           17313      17971
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C*END-------------------------------------------------------------------------
 4651  84 05 1  950  SUC 26.40 37.4629N 118.8279W  7.81A 3.0D    28 105   9 .12
 4651  84 05 1  950  PHC USGSMHD  EPU3 43.78
 4651  84 05 1  950  PHC USGSWMDR IPD0 29.97
 4651  84 05 1  950  PHC USGSCLK  IPD0 29.55
 4651  84 05 1  950  PHC USGSMAT  EPU3 43.60
 4651  84 05 1  950  PHC USGSMNP  EPU3 40.14
 4651  84 05 1  950  PHC USGSFRI  EPD3 42.44
 4651  84 05 1  950  PHC USGSCASR IPD0 31.74
 4651  84 05 1  950  PHC USGSCLKR IPD0 29.56
 4651  84 05 1  950  PHC USGSBENR IPD1 32.89
****************** 17079 data cards not shown here ******************
C#FINIS DSN=SL000087
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Table SL000088

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C$DSN=SL000088;SIZE=018800;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=057;STRT=000001;
C*DATE:  19850430; 0; 840505A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840505; 19840505; 37.488N; 37.488N; 118.802W; 118.802W; ;  4932;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840505 AT 07:19
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
```

****
See previous format from dataset SL000080 for details
****

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C* ORIGINAL STATION CARDS
CRSM  37.5107N 118.8822W  3680     9.3092   285.4355  128182 129131
CCLK  37.5902N 118.8242W  2630    11.5470   347.4153   82804  83753
CCLKR 37.5902N 118.8242W  2630    11.5470   347.4153  119223 120172
CLLK  37.5788N 118.9050W  3030    15.2541   311.0078  118273 119222
CCVM  37.6098N 118.8733W  2260    15.6299   329.2881  143055 143905
CDOE  37.6387N 118.8355W  2220    17.0557   347.2197  130923 131771
CLCC  37.6105N 118.9158W  2550    18.5553   316.7507  121848 122696
CLCCR 37.6105N 118.9158W  2550    18.5553   316.7507  135572 136521
CSCHR 37.3658N 118.6870W  2365    18.6166   136.7253  126383 127231
CGRP  37.6265N 118.9013W  2208    18.8888   324.0110  149073 149920
CWMDR 37.4435N 118.6370W  1683    18.9865   105.1313   81954  82803
CMDW  37.6313N 118.9162W  2350    20.3192   321.1074  147385 148231
CCSR  37.6777N 118.8183W  2122    21.0276   354.9294  143906 144750
CYMC  37.6255N 118.9362W  2340    21.3257   315.3591  149921 150766
CCHS  37.6550N 118.9045W  2420    21.7038   328.1453  145590 146434
CSHLR 37.6167N 118.9550W  2530    22.2103   309.7441  134622 135571
CSHL  37.6167N 118.9550W  2530    22.2103   309.7441  127232 128181
CSHLN 37.6167N 118.9550W  2530    22.2103   309.7441  146435 147384
CCSW  37.6442N 118.9282W  2280    22.2686   320.7334  150767 151210
CBNY  37.6408N 118.9358W  2325    22.5305   318.4617  151211 152055
CORCR 37.6353N 118.6560W  2301    22.9572    44.9160  125433 126382
CTAC  37.6317N 118.9650W  2398    24.1327   311.0830  129132 130081
CEMH  37.6663N 118.9392W  2495    24.9424   322.1128  121006 121847
CMLK  37.6643N 118.9750W  2670    27.4136   315.2361  130082 130922
CMMP  37.6100N 119.0280W  2870    28.5733   298.1030  148232 149072
CCASR 37.5748N 118.5515W  2107    29.4427    71.0378  117432 118272
CSKI  37.6530N 119.0238W  2660    30.7191   306.3645  144751 145589
CLMC  37.7288N 118.9465W  2540    31.1045   328.7617  122697 123532
CBENR 37.7155N 118.5733W  2463    35.7376    45.3308  120173 121005
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CDMP	37.7080N	119.0458W	2550	36.4591	311.7847	142222	143054
CMGNR	37.8133N	118.6955W	2472	37.8269	18.1963	123533	124482
CLULR	38.0523N	119.1803W	2243	75.2771	325.9419	136522	137471
CMMCR	38.3608N	119.1283W	2548	103.1460	339.3506	124483	125432
CMNPN	37.4150N	119.7283W	1000	103.5008	265.5059	111900	112681
CMNP	37.4150N	119.7283W	1000	103.5008	265.5059	111118	111899
CFRI	36.9917N	119.7083W	119	115.0144	241.4220	116482	117431
CMAT	37.8733N	119.8667W	1353	125.9789	289.7498	107504	108267
CMHD	37.1235N	119.8923W	180	128.0190	251.6068	47942	48703
CMYL	37.3780N	120.4197W	84	180.5835	266.1250	48704	49653
CMST	37.9045N	120.4048W	366	184.3082	284.4585	114582	115531
CWKT	35.7940N	118.4425W	890	192.9956	168.0142	132722	133671
CPWM	36.4328N	120.2110W	72	196.0567	233.2726	138422	139371
CWCH	35.8830N	118.0747W	2475	196.3416	155.5972	131772	132721
CPHB	36.2488N	120.0827W	100	198.5099	226.0341	139372	140321
CMCH	38.0187N	120.5095W	475	198.9687	287.1433	108268	109217
CMOY	37.9000N	120.5673W	176	201.7634	283.0391	112682	113631
CMRF	38.2453N	120.5207W	799	208.9031	293.6270	113632	114581
CMCU	37.9727N	120.6170W	336	209.0714	284.8435	109218	110167
CPKE	36.0615N	120.1090W	288	215.6076	222.5697	141272	142221
CPDR	36.3357N	120.3687W	488	216.6680	233.7581	140322	141271
CWOF	35.5357N	118.7125W	1341	218.0203	177.3843	133672	134621
CPAR	36.2492N	120.3420W	485	220.2119	231.2734	17542	18491
CSRT	35.6918N	117.7493W	698	232.1701	149.6062	115532	116481
CMNH	38.1458N	120.8137W	219	235.5063	287.9829	110168	111117
CBRM	36.8450N	120.8237W	372	236.3172	252.4357	63904	64853
CPCR	36.0938N	120.4347W	296	239.3044	229.5788	16592	17541
CBMS	36.6630N	120.7918W	811	239.9655	247.5676	28942	29891
CPCA	35.9317N	120.3370W	1189	243.7199	224.6662	13742	14691
CPSR	35.8578N	120.2802W	552	245.3907	222.2551	8042	8991
CAOD	38.6148N	120.7285W	520	248.1969	300.1624	58204	59153
CPMR	35.7848N	120.2357W	512	248.2969	220.1382	6142	7091
CADW	38.4392N	120.8482W	251	250.9996	294.7822	50604	51553
CPGH	35.8310N	120.3528W	433	253.1017	223.1559	8992	9941
CPPF	35.8818N	120.4135W	469	253.7200	225.1507	12792	13741
CPAG	35.7320N	120.2493W	482	253.8293	219.5394	5192	6141
CPSM	36.0697N	120.5947W	988	254.8277	231.7205	18492	19441
CPHA	35.8360N	120.3985W	455	256.2124	224.0736	9942	10891
CPHR	36.3730N	120.8183W	732	256.7556	241.1412	22292	23241
CPST	35.9288N	120.5083W	573	257.7354	227.6389	14692	15641
CPTR	35.6547N	120.2112W	643	257.9763	217.5862	4242	5191
CHSL	37.0193N	121.0855W	520	259.6572	258.4578	102754	103703
CPHGV	35.8760N	120.4835W	792	259.7676	226.2645	11842	12791
CPMCV	35.7247N	120.3705W	488	263.2610	221.6973	7092	8041
CPPT	36.1083N	120.7212W	506	263.4958	234.3591	20392	21341
CPMP	36.2152N	120.7948W	784	263.5601	237.5101	21342	22291
CTBM	35.1358N	118.5968W	1237	263.6787	175.0232	2342	3291
CBAVZ	36.6458N	121.0298W	604	265.3533	249.3717	30842	31791
CBAVV	36.6458N	121.0298W	604	265.3533	249.3717	29892	30841
CPWK	35.8145N	120.5112W	503	266.8005	225.6548	10892	11841
CHCP	37.1945N	121.1847W	513	267.3853	263.0132	87554	88503
CALA	38.5667N	120.9562W	293	267.9890	296.4490	56304	57253
CBBG	36.5783N	121.0385W	1097	269.0200	247.9467	27992	28941
CPBW	36.3150N	120.9292W	381	270.7356	241.2051	23242	24191
CBEM	36.6613N	121.0960W	488	271.6758	250.2603	41292	42241
CPIV	35.9065N	120.6823W	497	274.0039	229.9894	15642	16591

CARJ	38.6865N	120.9563W	460	274.2146	298.9363	60104	61053
CBBN	36.5100N	121.0755W	448	275.7847	246.8037	27042	27991
CPSH	35.5908N	120.4153W	390	277.9055	220.4099	3292	4241
CHQRV	36.8337N	121.2127W	536	278.2766	254.8830	34642	35591
CHQRE	36.8337N	121.2127W	536	278.2766	254.8830	35592	36541
CCMP	37.3577N	121.3085W	799	279.5164	267.0364	77204	78153
CBEH	36.6647N	121.1742W	342	279.7693	250.9362	42242	43191
CAFH	39.0418N	120.7913W	1064	280.7734	307.8469	52504	53453
CHPLE	37.0522N	121.2900W	152	281.3516	260.1143	37492	38441
CHPLV	37.0522N	121.2900W	152	281.3516	260.1143	36542	37491
CPSA	36.0253N	120.8883W	184	284.1104	235.0289	19442	20391
CBVL	36.5752N	121.1890W	510	284.7615	249.1498	38442	39391
CPLO	36.2465N	121.0425W	308	285.5239	241.0818	24192	25141
CAGI	38.8447N	120.9813W	305	285.5591	301.7544	54404	55353
CCOS	37.5085N	121.3740W	1020	286.4099	270.4470	79104	80053
CBPI	36.4900N	121.1735W	329	286.7209	247.2545	26092	27041
CBHR	36.7278N	121.2638W	213	287.0571	252.9111	46992	47941
CHLT	36.8845N	121.3082W	183	287.1726	256.5237	98004	98953
CHJS	36.8165N	121.2987W	215	288.0334	255.0132	96104	97053
CBSCN	36.6417N	121.2598W	323	289.6340	251.0739	32742	33691
CBSCV	36.6417N	121.2598W	323	289.6340	251.0739	31792	32741
CBLR	36.6660N	121.2727W	232	290.1223	251.6713	43192	44141
CAFD	38.9480N	120.9723W	549	290.9810	303.7832	51554	52503
CAHR	38.8543N	121.0705W	354	294.6060	300.9138	55354	56303
CBSL	36.7755N	121.3493W	155	294.6907	254.4411	44142	45091
CHFE	36.9833N	121.4015W	323	294.9761	259.0662	90404	91353
CBCG	36.7092N	121.3433W	305	296.1440	253.0325	46042	46991
CBJO	36.6108N	121.3135W	1052	296.4297	250.8205	39392	40341
CHGS	37.0958N	121.4472W	778	297.8582	261.6084	93254	94203
CBSGV	36.4138N	121.2537W	192	298.3208	246.4140	25142	26091
CHPH	36.8563N	121.4062W	122	298.5342	256.4272	99904	100853
CARR	38.7653N	121.1718W	127	299.5105	298.1804	61054	62003
CHKR	36.9017N	121.4260W	66	299.5234	257.4639	97054	98003
CCMM	37.4557N	121.4937W	1117	299.7620	269.3105	75304	76253
CCST	37.6392N	121.4982W	205	300.6716	273.1819	81004	81953
CBVY	36.7493N	121.4133W	585	302.3552	254.2719	45092	46041
CHCA	37.0253N	121.4837W	332	303.1316	260.2588	85654	86603
CCAOV	37.3493N	121.5327W	628	304.4976	267.1047	66754	67703
CHFH	36.8882N	121.4688W	101	304.5098	257.3833	91354	92303
CHSP	37.1152N	121.5157W	850	305.1016	262.2173	103704	104653
CBJC	36.5470N	121.3922W	207	307.1030	250.1065	40342	41291
CHOR	36.9172N	121.5077W	98	308.0510	258.1438	98954	99903
CARW	38.9563N	121.1622W	320	309.2786	301.7456	62004	62953
CHSF	36.8120N	121.4995W	340	309.8220	255.9939	101804	102753
CAPR	38.8770N	121.2172W	133	309.9961	299.7625	59154	60103
CHFP	36.7537N	121.4905W	705	310.5134	254.7890	92304	93253
CHBT	36.8502N	121.5507W	98	314.3616	256.9961	84704	85653
CHCR	36.9577N	121.5835W	241	315.4331	259.2578	88504	89453
CCMR	37.5947N	121.6370W	500	315.8862	272.1348	78154	79103
CBSRV	36.6665N	121.5187W	395	316.2495	253.2431	33692	34641
CCAD	37.1638N	121.6258W	207	316.5803	263.4836	64854	65803
CCML	37.4773N	121.6515W	1076	317.3079	269.7800	74354	75303
CAAR	39.2762N	121.0255W	930	317.5737	308.6831	49654	50603
CHAZ	36.8847N	121.5908W	122	317.8718	257.8501	83754	84703
CCBS	37.8177N	121.6405W	58	318.1255	276.5742	67704	68653
CHJG	36.7980N	121.5738W	171	318.2393	256.0830	95154	96103

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CAFR  38.7923N 121.3485W    31   318.3564   296.9834   53454  54403
CALN  38.9297N 121.2878W    54   319.7610   299.9751   57254  58203
CCDVV 37.5663N 121.6802W   250   320.5989   271.5420   70554  71503
CCCO  37.2577N 121.6725W   366   320.7214   265.4355   68654  69603
CHGW  37.0170N 121.6503W   133   321.5886   260.6565   94204  95153
CAVR  37.0245N 121.2708W   114   323.5972   301.7622   62954  63903
CCSA  37.6737N 121.7042W   215   323.7864   273.6306   71504  72453
CJCB  37.1118N 121.6888W   192   324.2632   262.6125  104654 105603
CHCB  36.9313N 121.6605W   219   324.4221   259.0320   86604  87553
CHDL  36.8353N 121.6440W   204   324.8699   257.1240   89454  90403
CHPR  36.9532N 121.6950W    94   327.7378   259.5769  100854 101803
CCMH  37.3595N 121.7563W   518   329.3130   267.5195   73404  74353
CJRR  37.0545N 121.7268W   408   329.3518   261.6113  105604 106553
CCVA  37.6183N 121.7582W   201   329.4702   272.5010  137472 138421
CCSC  37.2852N 121.7725W   128   331.5947   266.1130   80054  81003
CCALV 37.4512N 121.7992W   265   333.7808   269.2954   65804  66753
CJST  37.2068N 121.7973W   149   335.0723   264.6636  106554 107503
CCMO  37.8113N 121.8025W   792   335.9722   276.1021   76254  77203
CCVL  37.6263N 121.8357W   245   338.1277   272.5869   72454  73403
CCDO  37.7300N 121.8353W   198   338.7812   274.5247   69604  70553
CWWVB  0.0000    0.0000      0 13860.1797   107.4031     442   1391
CIRG1  0.0000    0.0000      0 13860.1797   107.4031    1392   2341
C*
C* ORIGINAL WAVEFORM CARDS
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C4932	84	05	5	719	WFC	USGSHCA	37.0253N	121.4837W	332	7	18	40.33	100	151	16
C4932	84	05	5	719	WFC	USGSHCB	36.9313N	121.6605W	219	7	18	40.33	100	151	16
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C4932	84	05	5	719	WFC	USGSHCR	36.9577N	121.5835W	241	7	18	40.33	100	151	16
C4932	84	05	5	719	WFC	USGSHDL	36.8353N	121.6440W	204	7	18	40.33	100	151	16
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C4932	84	05	5	719	WFC	USGSHGS	37.0958N	121.4472W	778	7	18	40.33	100	151	16
C4932	84	05	5	719	WFC	USGSHGW	37.0170N	121.6503W	133	7	18	40.33	100	151	16
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C4932	84	05	5	719	WFC	USGSHKR	36.9017N	121.4260W	66	7	18	40.33	100	151	16
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C4932	84	05	5	719	WFC	USGSHPR	36.9532N	121.6950W	94	7	18	40.33	100	151	16
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C4932	84	05	5	719	WFC	USGSHSP	37.1152N	121.5157W	850	7	18	40.33	100	151	16
C4932	84	05	5	719	WFC	USGSJCB	37.1118N	121.6888W	192	7	18	40.33	100	151	16
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C4932	84	05	5	719	WFC	USGSMAT	37.8733N	119.8667W	1353	7	19	10.01	100	121	16
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C4932	84	05	5	719	WFC	USGSBENR	37.7155N	118.5733W	2463	7	18	59.03	100	132	16
C4932	84	05	5	719	WFC	USGSEMH	37.6663N	118.9392W	2495	7	18	57.53	100	134	16
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C4932	84	05	5	719	WFC	USGSSCHR	37.3658N	118.6870W	2365	7	18	56.51	100	135	16
C4932	84	05	5	719	WFC	USGSSHL	37.6167N	118.9550W	2530	7	18	40.33	100	151	16
C4932	84	05	5	719	WFC	USGSRSM	37.5107N	118.8822W	3680	7	18	40.33	100	151	16
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C4932	84	05	5	719	WFC	USGSWKT	35.7940N	118.4425W	890	7	18	40.33	100	151	16
C4932	84	05	5	719	WFC	USGSWOF	35.5357N	118.7125W	1341	7	18	40.33	100	151	16
C4932	84	05	5	719	WFC	USGSSHLR	37.6167N	118.9550W	2530	7	18	40.33	100	151	16

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C4932  84 05 5  719  WFC USGSCVA  37.6183N 121.7582W  201  7 18 40.33 100 151 16
C4932  84 05 5  719  WFC USGSPWM  36.4328N 120.2110W   72  7 18 40.33 100 151 16
C4932  84 05 5  719  WFC USGSPHB  36.2488N 120.0827W  100  7 18 40.33 100 151 16
C4932  84 05 5  719  WFC USGSPDR  36.3357N 120.3687W  488  7 18 40.33 100 151 16
C4932  84 05 5  719  WFC USGSPKE  36.0615N 120.1090W  288  7 18 40.33 100 151 16
C4932  84 05 5  719  WFC USGSDMP  37.7080N 119.0458W 2550  7 18 59.07 100 132 16
C4932  84 05 5  719  WFC USGSCVM  37.6098N 118.8733W 2260  7 18 56.19 100 135 16
C4932  84 05 5  719  WFC USGSCSR  37.6777N 118.8183W 2122  7 18 57.17 100 134 16
C4932  84 05 5  719  WFC USGSSKI  37.6530N 119.0238W 2660  7 18 58.13 100 133 16
C4932  84 05 5  719  WFC USGSCHS  37.6550N 118.9045W 2420  7 18 57.11 100 134 16
C4932  84 05 5  719  WFC USGSSHLN 37.6167N 118.9550W 2530  7 18 40.33 100 151 16
C4932  84 05 5  719  WFC USGSMDW  37.6313N 118.9162W 2350  7 18 56.81 100 135 16
C4932  84 05 5  719  WFC USGSMMP  37.6100N 119.0280W 2870  7 18 57.67 100 134 16
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C4932  84 05 5  719  WFC USGSYMC  37.6255N 118.9362W 2340  7 18 56.89 100 135 16
C4932  84 05 5  719  WFC USGSCSW  37.6442N 118.9282W 2280  7 18 57.11 100  70 16
C4932  84 05 5  719  WFC USGSBNY  37.6408N 118.9358W 2325  7 18 57.11 100 134 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM           START        END
C*
C*     PHC              889        914
C*     STA              915        938
C*     SAT              939       1030
C*     SPC             1031       2690
C*     CQ1             2691       2696
C*     CQ2             2697       2786
C*     CQ3             2787       2906
C*     WFC             2907       2929
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                          LINES
C*     STATION        START        END
C*
C*     CLKR            2930       3619
C*     LLK             3620       4309
C*     CVM             4310       4999
C*     DOE             5000       5689
C*     LCCR            5690       6379
C*     SCHR            6380       7069
C*     GRP             7070       7759
C*     WMDR            7760       8449
C*     MDW             8450       9139
C*     CSR             9140       9829
C*     YMC             9830      10519
C*     CHS            10520      11209
C*     SHL            11210      11899
C*     BNY            11900      12589
C*     TAC            12590      13279
C*     EMH            13280      13969
C*     MLK            13970      14659
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C*      MMP              14660       15349
C*      CASR             15350       16039
C*      SKI              16040       16729
C*      LMC              16730       17419
C*      BENR             17420       18109
C*      DMP              18110       18799
C*END-----------------------------------------------------------------------
 4932  84 05 5  719  SUC  2.82 37.4883N 118.8016W  8.87A 3.1D    25 104  11 .14
 4932  84 05 5  719  PHC USGSMHD  IPU1 20.72
 4932  84 05 5  719  PHC USGSWMDR IPD0  6.20
 4932  84 05 5  719  PHC USGSCLK  IPD0  5.58
 4932  84 05 5  719  PHC USGSMAT  IPU0 20.15
 4932  84 05 5  719  PHC USGSMNP  IPU0 16.96
 4932  84 05 5  719  PHC USGSMNPN IPU0 17.02
 4932  84 05 5  719  PHC USGSCASR IPD0  7.73
 4932  84 05 5  719  PHC USGSBENR IPU0  8.79
 4932  84 05 5  719  PHC USGSEMH  IPD0  7.53
****************** 17901 data cards not shown here ******************
C*FINIS DSN=SL000088
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Table SL000089

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C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840509; 19840509; 37.471N; 37.471N; 118.617W; 118.617W; ;  5385;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840509 AT 17:13
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
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****
See previous format from dataset SL000080 for details
****

C* ORIGINAL STATION CARDS

CWMDR	37.4435N	118.6370W	1683	3.7637	216.8965	41138	42076
CCASR	37.5748N	118.5515W	2107	13.6106	32.2310	59023	59954
CSCHR	37.3658N	118.6870W	2365	14.0007	213.9928	67982	68912
CORCR	37.6353N	118.6560W	2301	18.7217	346.4824	67556	67981
CCLK	37.5902N	118.8242W	2630	26.6150	299.7722	42077	43095
CCLKR	37.5902N	118.8242W	2630	26.6150	299.7722	60974	61895
CBENR	37.7155N	118.5733W	2463	27.4976	10.1189	61896	62812
CRSM	37.5107N	118.8822W	3680	29.8898	278.5115	69932	70950
CDOE	37.6387N	118.8355W	2220	30.6353	307.3342	72264	73282
CCSR	37.6777N	118.8183W	2122	32.0582	315.5657	83293	84311
CCVM	37.6098N	118.8733W	2260	32.4471	298.3020	82274	83292
CLLK	37.5788N	118.9050W	3030	34.2515	290.4290	59955	60973
CGRP	37.6265N	118.9013W	2208	36.0669	298.5361	88436	89454
CLCC	37.6105N	118.9158W	2550	36.7139	294.9060	63722	64740
CLCCR	37.6105N	118.9158W	2550	36.7139	294.9060	77110	77299
CMDW	37.6313N	118.9162W	2350	37.7787	298.0430	86643	87555
CCHS	37.6550N	118.9045W	2420	37.9730	302.4609	85331	86242
CMGNR	37.8133N	118.6955W	2472	38.8833	346.9619	65518	66536
CYMC	37.6255N	118.9362W	2340	39.4760	295.7014	89455	90366
CCSW	37.6442N	118.9282W	2280	39.6337	298.9534	90367	91385
CBNY	37.6408N	118.9358W	2325	40.1987	297.9004	91386	92296
CSHLR	37.6167N	118.9550W	2530	40.9787	293.2048	76091	77109
CSHLN	37.6167N	118.9550W	2530	40.9787	293.2048	86243	86642
CSHL	37.6167N	118.9550W	2530	40.9787	293.2048	68913	69931
CEMH	37.6663N	118.9392W	2495	41.9156	301.0686	62813	63721
CTAC	37.6317N	118.9650W	2398	42.6684	294.6633	70951	71244
CMLK	37.6643N	118.9750W	2670	45.2723	298.2239	71245	72263
CLMC	37.7288N	118.9465W	2540	46.5039	307.8596	64741	65517
CMMP	37.6100N	119.0280W	2870	48.3127	288.59??	87556	88435

CSKI	37.6530N	119.0238W	2660	49.6040	293.9802	84312	85330
CDMP	37.7080N	119.0458W	2550	54.5032	298.7793	81376	82273
CLULR	38.0523N	119.1803W	2243	89.8456	315.7070	77300	78318
CMMCR	38.3608N	119.1283W	2548	113.7511	329.9502	66537	67555
CMNPN	37.4150N	119.7283W	1000	123.9260	267.1489	53928	54946
CMNP	37.4150N	119.7283W	1000	123.9260	267.1489	53080	53927
CFRI	36.9917N	119.7083W	119	132.6795	246.4216	58004	59022
CMAT	37.8733N	119.8667W	1353	146.0996	287.7395	49210	50022
CMHD	37.1235N	119.8923W	180	147.1868	254.8572	29929	30947
CWCH	35.8830N	118.0747W	2475	186.9128	161.1191	73283	74301
CWKT	35.7940N	118.4425W	890	187.8510	174.0593	74302	75071
CMYL	37.3780N	120.4197W	84	201.0245	267.0752	30948	31966
CMST	37.9045N	120.4048W	366	204.7520	283.5476	56985	58003
CPWM	36.4328N	120.2110W	72	211.8775	237.0314	78319	79337
CWOF	35.5357N	118.7125W	1341	216.1091	182.8368	75072	76090
CMCH	38.0187N	120.5095W	475	219.2515	286.0432	50023	51041
CMOY	37.9000N	120.5673W	176	222.2728	282.3303	54947	55965
CMRF	38.2453N	120.5207W	799	228.6320	292.0056	55966	56984
CPKE	36.0615N	120.1090W	288	228.7305	226.7092	80357	81375
CMCU	37.9727N	120.6170W	336	229.4917	283.9963	51042	52060
CPDR	36.3357N	120.3687W	488	232.5608	237.1504	79338	80356
CPAR	36.2492N	120.3420W	485	235.5303	234.7838	8530	9548
CBRM	36.8450N	120.8237W	372	255.5056	254.2464	36043	37061
CMNH	38.1458N	120.8137W	219	255.7241	286.9734	52061	53079
CPCA	35.9317N	120.3370W	1189	257.3452	228.2409	6492	7510
CPSR	35.8578N	120.2802W	552	258.3625	225.9356	4454	5472
CBMS	36.6630N	120.7918W	811	258.4592	249.7104	19739	20757
CPMR	35.7848N	120.2357W	512	260.6726	223.8852	3435	4453
CPRC	36.2562N	120.6200W	623	261.0659	238.8512	10568	11586
CPAG	35.7320N	120.2493W	482	266.0239	223.2377	2416	3434
CAOD	38.6148N	120.7285W	520	267.1128	298.3030	32986	34004
CPHR	36.3730N	120.8183W	732	274.1294	243.5785	12606	13624
CPPT	36.1083N	120.7212W	506	279.4631	237.1492	9549	10567
CHSL	37.0193N	121.0855W	520	279.5200	259.6936	48191	49209
CPMP	36.2152N	120.7948W	784	280.2063	240.1122	11587	12605
CPWK	35.8145N	120.5112W	503	280.6487	228.8863	5473	6491
CBAVV	36.6458N	121.0298W	604	284.1077	251.2037	20758	21776
CBAVZ	36.6458N	121.0298W	604	284.1077	251.2037	21777	22795
CALA	38.5667N	120.9562W	293	287.3813	294.9670	31967	32985
CBBG	36.5783N	121.0385W	1097	287.5586	249.8486	18720	19738
CPBW	36.3150N	120.9292W	381	288.1113	243.5204	13625	14643
CPIV	35.9065N	120.6823W	497	288.9392	232.9176	7511	8529
CBEM	36.6613N	121.0960W	488	290.5564	251.9945	27891	28909
CARJ	38.6865N	120.9563W	460	293.2878	297.3218	34005	35023
CBBN	36.5100N	121.0755W	448	294.1399	248.7343	17701	18719
CHQRV	36.8337N	121.2127W	536	297.7546	256.2786	23815	24833
CBEH	36.6647N	121.1742W	342	298.7424	252.5803	28910	29928
CHPLV	37.0522N	121.2900W	152	301.3638	261.1511	24834	25852
CPLO	36.2465N	121.0425W	308	302.8669	243.2915	14644	15662
CBVL	36.5752N	121.1890W	510	303.4768	250.8786	25853	26871
CBPI	36.4900N	121.1735W	329	305.1440	249.0886	16682	17700
CHLT	36.8845N	121.3082W	183	306.8337	257.7737	46153	47171
CHJS	36.8165N	121.2987W	215	307.5249	256.3562	45134	46152
CBSCV	36.6417N	121.2598W	323	308.6238	252.6570	22796	23814
CHFE	36.9833N	121.4015W	323	314.8921	260.1248	43096	44114
CBJO	36.6108N	121.3135W	1052	315.3826	252.3849	26872	27890

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CBSGV 36.4138N 121.2537W   192   316.6040   248.2302   15663  16681
CHGS  37.0958N 121.4472W   778   317.9937   262.4971   44115  45133
CARR  38.7653N 121.1718W   127   318.6760   296.7393   35024  36042
CCST  37.6392N 121.4982W   205   321.3372   273.3245   40119  41137
CCAOV 37.3493N 121.5327W   628   324.9814   267.6306   37062  38080
CHOR  36.9172N 121.5077W    98   327.8774   259.2163   47172  48190
CCMR  37.5947N 121.6370W   500   336.5354   272.3354   39100  40118
CCDVV 37.5663N 121.6802W   250   341.2363   271.7756   38081  39099
CWWVB  0.0000    0.0000      0 13840.0586   107.4211     378   1396
CIRG1  0.0000    0.0000      0 13840.0586   107.4211    1397   2415
C*
C* ORIGINAL WAVEFORM CARDS
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C5385  84 05 9 1713  WFC USGSIRG1                                17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPAG  35.7320N 120.2493W  482 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPMR  35.7848N 120.2357W  512 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPSR  35.8578N 120.2802W  552 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPWK  35.8145N 120.5112W  503 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPCA  35.9317N 120.3370W 1189 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPIV  35.9065N 120.6823W  497 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPAR  36.2492N 120.3420W  485 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPPT  36.1083N 120.7212W  506 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPRC  36.2562N 120.6200W  623 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPMP  36.2152N 120.7948W  784 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPHR  36.3730N 120.8183W  732 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPBW  36.3150N 120.9292W  381 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPLO  36.2465N 121.0425W  308 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSBSGV 36.4138N 121.2537W  192 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSBPI  36.4900N 121.1735W  329 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSBBN  36.5100N 121.0755W  448 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSBBG  36.5783N 121.0385W 1097 17 13 14.32 100 162 16
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C5385  84 05 9 1713  WFC USGSBAVV 36.6458N 121.0298W  604 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSBAVZ 36.6458N 121.0298W  604 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSBSCV 36.6417N 121.2598W  323 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSHQRV 36.8337N 121.2127W  536 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSHPLV 37.0522N 121.2900W  152 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSBVL  36.5752N 121.1890W  510 17 13 14.32 100 162 16
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C5385  84 05 9 1713  WFC USGSMHD  37.1235N 119.8923W  180 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSMYL  37.3780N 120.4197W   84 17 13 14.32 100 162 16
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C5385  84 05 9 1713  WFC USGSAOD  38.6148N 120.7285W  520 17 13 14.32 100 162 16
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C5385  84 05 9 1713  WFC USGSARR  38.7653N 121.1718W  127 17 13 14.32 100 162 16
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C5385  84 05 9 1713  WFC USGSWMDR 37.4435N 118.6370W 1683 17 13 27.16 100 149 16
C5385  84 05 9 1713  WFC USGSCLK  37.5902N 118.8242W 2630 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSHFE  36.9833N 121.4015W  323 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSHGS  37.0958N 121.4472W  778 17 13 14.32 100 162 16
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C5385  84 05 9 1713  WFC USGSHJS  36.8165N 121.2987W  215 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSHLT  36.8845N 121.3082W  183 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSHOR  36.9172N 121.5077W   98 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSHSL  37.0193N 121.0855W  520 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSMAT  37.8733N 119.8667W 1353 17 13 44.17 100 129 16
C5385  84 05 9 1713  WFC USGSMCH  38.0187N 120.5095W  475 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSMCU  37.9727N 120.6170W  336 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSMNH  38.1458N 120.8137W  219 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSMNP  37.4150N 119.7283W 1000 17 13 41.64 100 135 16
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C5385  84 05 9 1713  WFC USGSMST  37.9045N 120.4048W  366 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSFRI  36.9917N 119.7083W  119 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSCASR 37.5748N 118.5515W 2107 17 13 28.24 100 148 16
C5385  84 05 9 1713  WFC USGSLLK  37.5788N 118.9050W 3030 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSCLKR 37.5902N 118.8242W 2630 17 13 29.76 100 147 16
C5385  84 05 9 1713  WFC USGSBENR 37.7155N 118.5733W 2463 17 13 30.55 100 146 16
C5385  84 05 9 1713  WFC USGSEMH  37.6663N 118.9392W 2495 17 13 31.93 100 145 16
C5385  84 05 9 1713  WFC USGSLCC  37.6105N 118.9158W 2550 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSLMC  37.7288N 118.9465W 2540 17 13 32.77 100 123 16
C5385  84 05 9 1713  WFC USGSMGNR 37.8133N 118.6955W 2472 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSMMCR 38.3608N 119.1283W 2548 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSORCR 37.6353N 118.6560W 2301 17 13 29.11 100  67 16
C5385  84 05 9 1713  WFC USGSSCHR 37.3658N 118.6870W 2365 17 13 28.29 100 148 16
C5385  84 05 9 1713  WFC USGSSHL  37.6167N 118.9550W 2530 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSRSM  37.5107N 118.8822W 3680 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSTAC  37.6317N 118.9650W 2398 17 13 31.89 100  46 16
C5385  84 05 9 1713  WFC USGSMLK  37.6643N 118.9750W 2670 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSDOE  37.6387N 118.8355W 2220 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSWCH  35.8830N 118.0747W 2475 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSWKT  35.7940N 118.4425W  890 17 13 52.59 100 122 16
C5385  84 05 9 1713  WFC USGSWOF  35.5357N 118.7125W 1341 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSSHLR 37.6167N 118.9550W 2530 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSLCCR 37.6105N 118.9158W 2550 17 13 31.08 100  30 16
C5385  84 05 9 1713  WFC USGSLULR 38.0523N 119.1803W 2243 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPWM  36.4328N 120.2110W   72 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPDR  36.3357N 120.3687W  488 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSPKE  36.0615N 120.1090W  288 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSDMP  37.7080N 119.0458W 2550 17 13 33.66 100 143 16
C5385  84 05 9 1713  WFC USGSCVM  37.6098N 118.8733W 2260 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSCSR  37.6777N 118.8183W 2122 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSSKI  37.6530N 119.0238W 2660 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSCHS  37.6550N 118.9045W 2420 17 13 31.40 100 145 16
C5385  84 05 9 1713  WFC USGSSHLN 37.6167N 118.9550W 2530 17 13 31.63 100  63 16
C5385  84 05 9 1713  WFC USGSMDW  37.6313N 118.9162W 2350 17 13 31.28 100 145 16
C5385  84 05 9 1713  WFC USGSMMP  37.6100N 119.0280W 2870 17 13 32.55 100 140 16
C5385  84 05 9 1713  WFC USGSGRP  37.6265N 118.9013W 2208 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSYMC  37.6255N 118.9362W 2340 17 13 31.47 100 145 16
C5385  84 05 9 1713  WFC USGSCSW  37.6442N 118.9282W 2280 17 13 14.32 100 162 16
C5385  84 05 9 1713  WFC USGSBNY  37.6408N 118.9358W 2325 17 13 31.62 100 145 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
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C*      PHC              750        779
C*      STA              780        800
C*      SAT              801        887
C*      SPC              888       2452
C*      CQ1             2453       2458
C*      CQ2             2459       2488
C*      CQ3             2489       2542
C*      WFC             2543       2562
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                           LINES
C*      STATION         START        END
C*
C*      WMDR             2563       3064
C*      CASR             3065       3566
C*      SCHR             3567       4068
C*      CLK              4069       4570
C*      CLKR             4571       5072
C*      BENR             5073       5574
C*      DOE              5575       6076
C*      CSR              6077       6578
C*      CVM              6579       7080
C*      LLK              7081       7582
C*      MDW              7583       8084
C*      CHS              8085       8586
C*      YMC              8587       9088
C*      BNY              9089       9590
C*      EMH              9591      10092
C*      MLK             10093      10594
C*      LMC             10595      11096
C*      MMP             11097      11598
C*      SKI             11599      12100
C*      DMP             12101      12602
C*END----------------------------------------------------------------------
 5385  84 05 9 1713  SUC 35.12 37.4707N 118.6167W  9.68A 2.8D    25 148   3 .22
 5385  84 05 9 1713  PHC USGSMHD  IPU1 54.71
 5385  84 05 9 1713  PHC USGSWMDR IPU0 37.34
 5385  84 05 9 1713  PHC USGSMAT  IPU0 54.80
 5385  84 05 9 1713  PHC USGSMNP  IPU0 51.42
 5385  84 05 9 1713  PHC USGSMNPN  P4  51.92
 5385  84 05 9 1713  PHC USGSCASR IPU0 38.30
 5385  84 05 9 1713  PHC USGSLLK  EPU4 38.30
 5385  84 05 9 1713  PHC USGSCLKR IPU0 39.93
 5385  84 05 9 1713  PHC USGSBENR IPU0 40.24
****************** 11843 data cards not shown here ******************
C*FINIS DSN=SL000089
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Table SL000090

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C*DATE:  19850430; 0; 840517A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840517; 19840517; 37.464N; 37.464N; 118.840W; 118.840W; ;  5777;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840517 AT 03:57
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
```

****
See previous format from dataset SL000080 for details
****

C* ORIGINAL STATION CARDS

CRSM	37.5107N	118.8822W	3680	7.0457	317.8145	61470	62304
CCLKR	37.5902N	118.8242W	2630	14.1184	7.0220	53790	54624
CCLK	37.5902N	118.8242W	2630	14.1184	7.0220	39531	40089
CLLK	37.5788N	118.9050W	3030	14.6785	330.3149	52955	53789
CCVM	37.6098N	118.8733W	2260	16.6074	346.9827	72255	72994
CLCC	37.6105N	118.9158W	2550	18.3331	332.4768	55927	56665
CLCCR	37.6105N	118.9158W	2550	18.3331	332.4768	66522	67356
CGRP	37.6265N	118.9013W	2208	19.2868	339.1711	77329	78066
CDOE	37.6387N	118.8355W	2220	19.3817	1.3860	63346	64016
CSCHR	37.3658N	118.6870W	2365	20.1504	122.4480	59896	60634
CMDW	37.6313N	118.9162W	2350	20.4184	335.3501	75859	76595
CYMC	37.6255N	118.9362W	2340	20.8907	329.0525	78067	78901
CSHL	37.6167N	118.9550W	2530	21.2564	322.8528	60635	61469
CSHLR	37.6167N	118.9550W	2530	21.2564	322.8528	65687	66521
CSHLN	37.6167N	118.9550W	2530	21.2564	322.8528	75024	75858
CCSW	37.6442N	118.9282W	2280	22.2803	333.7544	78902	79736
CBNY	37.6408N	118.9358W	2325	22.3362	331.3804	79737	80056
CCHS	37.6550N	118.9045W	2420	22.3724	341.1917	74290	75023
CWMDR	37.4435N	118.6370W	1683	22.6792	95.6001	38793	39530
CTAC	37.6317N	118.9650W	2398	23.2504	323.1353	62305	62614
CCSR	37.6777N	118.8183W	2122	23.8076	5.7451	72995	73829
CEMH	37.6663N	118.9392W	2495	25.0136	333.7178	55195	55926
CMMP	37.6100N	119.0280W	2870	26.4947	307.7007	76596	77328
CMLK	37.6643N	118.9750W	2670	26.8334	325.8511	62615	63345
CORCR	37.6353N	118.6560W	2301	27.9151	47.1072	59061	59895
CSKI	37.6530N	119.0238W	2660	29.3129	315.6375	73830	74289
CLMC	37.7288N	118.9465W	2540	31.6550	337.9392	56666	57390
CCASR	37.5748N	118.5515W	2107	34.3676	69.0110	52227	52954
CDMP	37.7080N	119.0458W	2550	35.4602	319.6804	71532	72254

CBENR	37.7155N	118.5733W	2463	40.6954	46.7834	54625	55194
CMGNR	37.8133N	118.6955W	2472	41.8769	22.5420	57391	58225
CLULR	38.0523N	119.1803W	2243	75.3415	329.7844	67357	68191
CMNP	37.4150N	119.7283W	1000	99.0877	266.8950	47376	48051
CMMCR	38.3608N	119.1283W	2548	104.3284	342.0623	58226	59060
CFRI	36.9917N	119.7083W	119	109.9791	241.6194	51392	52226
CMAT	37.8733N	119.8667W	1353	122.9792	291.6201	44265	44870
CMHD	37.1235N	119.8923W	180	123.1367	252.1950	23763	24597
CMYL	37.3780N	120.4197W	84	176.1862	266.9219	24598	25432
CMST	37.9045N	120.4048W	366	180.9238	285.6348	49722	50556
CPWM	36.4328N	120.2110W	72	191.0190	233.1705	68192	69026
CWKT	35.7940N	118.4425W	890	191.2545	166.5967	64017	64851
CPHB	36.2488N	120.0827W	100	193.5560	225.7458	69027	69861
CMCH	38.0187N	120.5095W	475	195.7611	288.2759	44871	45705
CMOY	37.9000N	120.5673W	176	198.2831	284.0874	48052	48886
CMCU	37.9727N	120.6170W	336	205.7072	285.8845	45706	46540
CMRF	38.2453N	120.5207W	799	206.1552	294.7971	48887	49721
CPKE	36.0615N	120.1090W	288	210.7214	222.2238	70697	71531
CPDR	36.3357N	120.3687W	488	211.6275	233.6774	69862	70696
CPAR	36.2492N	120.3420W	485	215.1888	231.1359	5393	6227
CWOF	35.5357N	118.7125W	1341	215.5148	176.2212	64852	65686
CBRM	36.8450N	120.8237W	372	231.4544	252.7662	36288	37122
CSRT	35.6918N	117.7493W	698	232.0119	148.3564	50557	51391
CMNH	38.1458N	120.8137W	219	232.3488	288.9487	46541	47375
CPCR	36.0938N	120.4347W	296	234.2982	229.4161	4558	5392
CBMS	36.6630N	120.7918W	811	235.0047	247.7909	13743	14577
CPCA	35.9317N	120.3370W	1189	238.7885	224.4041	3723	4557
CPRC	36.2562N	120.6200W	623	239.6801	235.9375	6228	7062
CAOD	38.6148N	120.7285W	520	245.9385	301.2107	31278	32112
CPGH	35.8310N	120.3528W	433	248.2000	222.8738	2053	2887
CADW	38.4392N	120.8482W	251	248.3275	295.7664	26268	27102
CPHR	36.3730N	120.8183W	732	251.7211	241.2217	7898	8732
CHSL	37.0193N	121.0855W	520	254.9651	258.8711	43430	44264
CPMP	36.2152N	120.7948W	784	258.5115	237.5175	7063	7897
CBAVV	36.6458N	121.0298W	604	260.4250	249.6076	14578	15412
CBAVZ	36.6458N	121.0298W	604	260.4250	249.6076	15413	16247
CPWK	35.8145N	120.5112W	503	261.8494	225.4347	2888	3722
CHCP	37.1945N	121.1847W	513	262.8562	263.4941	40090	40924
CBOG	36.5783N	121.0385W	1097	264.0659	248.1526	12908	13742
CALA	38.5667N	120.9562W	293	265.4385	297.3862	29608	30442
CPBW	36.3150N	120.9292W	381	265.7014	241.2826	8733	9567
CBEM	36.6613N	121.0960W	488	266.7654	250.5070	20423	21257
CBBN	36.5100N	121.0755W	448	270.8120	246.9834	12073	12907
CARJ	38.6865N	120.9563W	460	271.8540	299.8740	32948	33782
CHQRV	36.8337N	121.2127W	536	273.4773	255.2061	17083	17917
CBEH	36.6647N	121.1742W	342	274.8730	251.1876	21258	22092
CHPLV	37.0522N	121.2900W	152	276.7153	260.5229	17918	18752
CBVL	36.5752N	121.1890W	510	279.8296	249.3654	18753	19587
CBPI	36.4900N	121.1735W	329	281.7559	247.4352	11238	12072
CBHR	36.7278N	121.2638W	213	282.2068	253.1903	22928	23762
CHLT	36.8845N	121.3082W	183	282.4204	256.8643	42595	43429
CHJS	36.8165N	121.2987W	215	283.2380	255.3274	41760	42594
CAGI	38.8447N	120.9813W	305	283.4175	302.6765	27938	28772
CBSCV	36.6417N	121.2598W	323	284.7412	251.3191	16248	17082
CBLR	36.6660N	121.2727W	232	285.2427	251.9263	22093	22927
CAFD	38.9480N	120.9723W	549	289.0012	304.7021	27103	27937

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CHFE  36.9833N 121.4015W   323   290.3042   259.4390   40925  41759
CBJO  36.6108N 121.3135W  1052   291.5315   251.0557   19588  20422
CAHR  38.8543N 121.0705W   354   292.3958   301.8013   28773  29607
CCST  37.6392N 121.4982W   205   296.6072   273.7563   37958  38792
CARR  38.7653N 121.1718W   127   297.0857   299.0322   33783  34617
CARW  38.9563N 121.1622W   320   307.1311   302.5964   34618  35452
CAPR  38.8770N 121.2172W   133   307.6921   300.5972   32113  32947
CALN  38.9297N 121.2878W    54   317.4717   300.7856   30443  31277
CBPP  36.1687N 121.3780W  1591   317.6711   243.0371    9568  10402
CAVR  39.0245N 121.2708W   114   321.4480   302.5752   35453  36287
CBHS  36.3558N 121.5398W   646   325.2871   247.7621   10403  11237
CABR  39.1352N 121.4868W    24   348.4402   302.1536   25433  26267
CCSH  37.6480N 122.0428W   170   357.1821   273.2747   37123  37957
CIRG1  0.0000    0.0000      0 13863.5586   107.3875    1218   2052
CWWVB  0.0000    0.0000      0 13863.5586   107.3875     383   1217
C*
C* ORIGINAL WAVEFORM CARDS
C5777  84 0517  357  WFC USGSWWVB                                3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSIRG1                                3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSPGH  35.8310N 120.3528W  433  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSPWK  35.8145N 120.5112W  503  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSPCA  35.9317N 120.3370W 1189  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSPCR  36.0938N 120.4347W  296  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSPAR  36.2492N 120.3420W  485  3 56 54.69 100 133 16
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C5777  84 0517  357  WFC USGSPBW  36.3150N 120.9292W  381  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBPP  36.1687N 121.3780W 1591  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBHS  36.3558N 121.5398W  646  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBPI  36.4900N 121.1735W  329  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBBN  36.5100N 121.0755W  448  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBBG  36.5783N 121.0385W 1097  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBMS  36.6630N 120.7918W  811  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBAVV 36.6458N 121.0298W  604  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBAVZ 36.6458N 121.0298W  604  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBSCV 36.6417N 121.2598W  323  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSHQRV 36.8337N 121.2127W  536  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSHPLV 37.0522N 121.2900W  152  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBVL  36.5752N 121.1890W  510  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBJO  36.6108N 121.3135W 1052  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBEM  36.6613N 121.0960W  488  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBEH  36.6647N 121.1742W  342  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBLR  36.6660N 121.2727W  232  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBHR  36.7278N 121.2638W  213  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSMHD  37.1235N 119.8923W  180  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSMYL  37.3780N 120.4197W   84  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSABR  39.1352N 121.4868W   24  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSADW  38.4392N 120.8482W  251  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSAFD  38.9480N 120.9723W  549  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSAGI  38.8447N 120.9813W  305  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSAHR  38.8543N 121.0705W  354  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSALA  38.5667N 120.9562W  293  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSALN  38.9297N 121.2878W   54  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSAOD  38.6148N 120.7285W  520  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSAPR  38.8770N 121.2172W  133  3 56 54.69 100 133 16
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C5777	84	0517	357	WFC	USGSARJ	38.6865N	120.9563W	460	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSARR	38.7653N	121.1718W	127	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSARW	38.9563N	121.1622W	320	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSAVR	39.0245N	121.2708W	114	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSBRM	36.8450N	120.8237W	372	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSCSH	37.6480N	122.0428W	170	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSCST	37.6392N	121.4982W	205	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSWMDR	37.4435N	118.6370W	1683	3	57	10.13	100	117	16
C5777	84	0517	357	WFC	USGSCLK	37.5902N	118.8242W	2630	3	57	9.49	100	88	16
C5777	84	0517	357	WFC	USGSHCP	37.1945N	121.1847W	513	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSHFE	36.9833N	121.4015W	323	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSHJS	36.8165N	121.2987W	215	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSHLT	36.8845N	121.3082W	183	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSHSL	37.0193N	121.0855W	520	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSMAT	37.8733N	119.8667W	1353	3	57	23.33	100	96	16
C5777	84	0517	357	WFC	USGSMCH	38.0187N	120.5095W	475	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSMCU	37.9727N	120.6170W	336	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSMNH	38.1458N	120.8137W	219	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSMNP	37.4150N	119.7283W	1000	3	57	20.13	100	107	16
C5777	84	0517	357	WFC	USGSMOY	37.9000N	120.5673W	176	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSMRF	38.2453N	120.5207W	799	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSMST	37.9045N	120.4048W	366	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSSRT	35.6918N	117.7493W	698	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSFRI	36.9917N	119.7083W	119	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSCASR	37.5748N	118.5515W	2107	3	57	11.81	100	116	16
C5777	84	0517	357	WFC	USGSLLK	37.5788N	118.9050W	3030	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSCLKR	37.5902N	118.8242W	2630	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSBENR	37.7155N	118.5733W	2463	3	57	13.17	100	90	16
C5777	84	0517	357	WFC	USGSEMH	37.6663N	118.9392W	2495	3	57	11.09	100	116	16
C5777	84	0517	357	WFC	USGSLCC	37.6105N	118.9158W	2550	3	57	10.05	100	117	16
C5777	84	0517	357	WFC	USGSLMC	37.7288N	118.9465W	2540	3	57	12.21	100	115	16
C5777	84	0517	357	WFC	USGSMGNR	37.8133N	118.6955W	2472	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSMMCR	38.3608N	119.1283W	2548	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSORCR	37.6353N	118.6560W	2301	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSSCHR	37.3658N	118.6870W	2365	3	57	9.97	100	117	16
C5777	84	0517	357	WFC	USGSSHL	37.6167N	118.9550W	2530	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSRSM	37.5107N	118.8822W	3680	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSTAC	37.6317N	118.9650W	2398	3	57	10.69	100	49	16
C5777	84	0517	357	WFC	USGSMLK	37.6643N	118.9750W	2670	3	57	11.33	100	116	16
C5777	84	0517	357	WFC	USGSDOE	37.6387N	118.8355W	2220	3	57	10.37	100	106	16
C5777	84	0517	357	WFC	USGSWKT	35.7940N	118.4425W	890	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSWOF	35.5357N	118.7125W	1341	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSSHLR	37.6167N	118.9550W	2530	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSLCCR	37.6105N	118.9158W	2550	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSLULR	38.0523N	119.1803W	2243	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSPWM	36.4328N	120.2110W	72	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSPHB	36.2488N	120.0827W	100	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSPDR	36.3357N	120.3687W	488	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSPKE	36.0615N	120.1090W	288	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSDMP	37.7080N	119.0458W	2550	3	57	12.53	100	115	16
C5777	84	0517	357	WFC	USGSCVM	37.6098N	118.8733W	2260	3	57	9.89	100	117	16
C5777	84	0517	357	WFC	USGSCSR	37.6777N	118.8183W	2122	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSSKI	37.6530N	119.0238W	2660	3	57	11.49	100	73	16
C5777	84	0517	357	WFC	USGSCHS	37.6550N	118.9045W	2420	3	57	10.77	100	117	16
C5777	84	0517	357	WFC	USGSSHLN	37.6167N	118.9550W	2530	3	56	54.69	100	133	16
C5777	84	0517	357	WFC	USGSMDW	37.6313N	118.9162W	2350	3	57	10.37	100	117	16

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C5777  84 0517  357  WFC USGSMMP  37.6100N 119.0280W 2870  3 57 10.93 100 116 16
C5777  84 0517  357  WFC USGSGRP  37.6265N 118.9013W 2208  3 57 10.21 100 117 16
C5777  84 0517  357  WFC USGSYMC  37.6255N 118.9362W 2340  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSCSW  37.6442N 118.9282W 2280  3 56 54.69 100 133 16
C5777  84 0517  357  WFC USGSBNY  37.6408N 118.9358W 2325  3 57 10.69 100  50 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
C*
C*     PHC               756        785
C*     STA               786        803
C*     SAT               804        868
C*     SPC               869       1873
C*     CQ2              1874       1944
C*     CQ3              1945       2040
C*     WFC              2041       2057
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                          LINES
C*     STATION         START        END
C*
C*     CLKR              2058       2528
C*     CVM               2529       2999
C*     GRP               3000       3470
C*     DOE               3471       3941
C*     SCHR              3942       4412
C*     MDW               4413       4883
C*     YMC               4884       5354
C*     CHS               5355       5825
C*     WMDR              5826       6296
C*     EMH               6297       6767
C*     MMP               6768       7238
C*     MLK               7239       7709
C*     SKI               7710       8180
C*     LMC               8181       8651
C*     CASR              8652       9122
C*     DMP               9123       9593
C*     BENR              9594      10064
C*END-------------------------------------------------------------------------
 5777  84 0517  357  SUC 16.31 37.4635N 118.8397W  8.07A 2.5D    23 137  14 .14
 5777  84 0517  357  PHC USGSWMDR IPD0 20.07
 5777  84 0517  357  PHC USGSCLK  IPU0 19.33
 5777  84 0517  357  PHC USGSMAT  EPU2 33.47
 5777  84 0517  357  PHC USGSMNP  IPU0 30.02
 5777  84 0517  357  PHC USGSCASR IPD0 21.92
 5777  84 0517  357  PHC USGSLLK   P4  21.25
 5777  84 0517  357  PHC USGSBENR IPD0 22.99
 5777  84 0517  357  PHC USGSEMH  IPD0 21.14
 5777  84 0517  357  PHC USGSLCC  EPD2 19.96
****************** 9300 data cards not shown here ******************
C*FINIS DSN=SL000090
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Table SL000091

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C$DSN=SL000091;SIZE=011585;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=060;STRT=000001;
C*DATE:  19850430; 0; 840517B ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840517; 19840517; 37.463N; 37.463N; 118.840W; 118.840W; ;  5780;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840517 AT 05:02
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
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****
See previous format from dataset SL000080 for details
****

C* ORIGINAL STATION CARDS

CRSM	37.5107N	118.8822W	3680	7.0585	318.5002	53215	54026
CCLKR	37.5902N	118.8242W	2630	14.1905	7.2073	45789	46600
CCLK	37.5902N	118.8242W	2630	14.1905	7.2073	32752	33310
CLLK	37.5788N	118.9050W	3030	14.7090	330.6257	44977	45788
CCVM	37.6098N	118.8733W	2260	16.6594	347.2158	63147	63858
CLCCR	37.6105N	118.9158W	2550	18.3665	332.7219	58392	59203
CLCC	37.6105N	118.9158W	2550	18.3665	332.7219	47911	48621
CGRP	37.6265N	118.9013W	2208	19.3291	339.3911	68307	69016
CDOE	37.6387N	118.8355W	2220	19.4489	1.5415	55247	55955
CSCHR	37.3658N	118.6870W	2365	20.1611	122.2073	51692	52402
CMDW	37.6313N	118.9162W	2350	20.4557	335.5654	66893	67601
CYMC	37.6255N	118.9362W	2340	20.9193	329.2729	69017	69828
CSHL	37.6167N	118.9550W	2530	21.2762	323.0764	52403	53214
CSHLN	37.6167N	118.9550W	2530	21.2762	323.0764	66081	66892
CSHLR	37.6167N	118.9550W	2530	21.2762	323.0764	57580	58391
CCSW	37.6442N	118.9282W	2280	22.3154	333.9541	69829	70640
CBNY	37.6408N	118.9358W	2325	22.3680	331.5835	70641	71347
CCHS	37.6550N	118.9045W	2420	22.4173	341.3774	65375	66080
CWMDR	37.4435N	118.6370W	1683	22.7270	95.4216	32042	32751
CTAC	37.6317N	118.9650W	2398	23.2707	323.3396	54027	54434
CCSR	37.6777N	118.8183W	2122	23.8786	5.8591	63859	64562
CEMH	37.6663N	118.9392W	2495	25.0487	333.8960	47207	47910
CMMP	37.6100N	119.0280W	2870	26.4921	307.8853	67602	68306
CMLK	37.6643N	118.9750W	2670	26.8575	326.0259	54435	55246
CORCR	37.6353N	118.6560W	2301	27.9997	47.0842	50880	51691
CSKI	37.6530N	119.0238W	2660	29.3221	315.8035	64563	65374
CLMC	37.7288N	118.9465W	2540	31.6956	338.0752	48622	49255
CCASR	37.5748N	118.5515W	2107	34.4420	68.9412	44277	44976
CDMP	37.7080N	119.0458W	2550	35.4753	319.8162	62452	63146

CBENR	37.7155N	118.5733W	2463	40.7802	46.7683	46601	47206
CMGNR	37.8133N	118.6955W	2472	41.9585	22.5762	49256	50067
CLULR	38.0523N	119.1803W	2243	75.3710	329.8455	59204	60015
CMNP	37.4150N	119.7283W	1000	99.0299	266.9312	40381	41028
CMMCR	38.3608N	119.1283W	2548	104.3742	342.1018	50068	50879
CFRI	36.9917N	119.7083W	119	109.9001	241.6362	43465	44276
CMAT	37.8733N	119.8667W	1353	122.9529	291.6580	37371	37944
CMHD	37.1235N	119.8923W	180	123.0649	252.2165	19862	20673
CMYL	37.3780N	120.4197W	84	176.1285	266.9424	20674	21485
CMST	37.9045N	120.4048W	366	180.8892	285.6594	42653	43464
CPWM	36.4328N	120.2110W	72	190.9362	233.1765	60016	60827
CWKT	35.7940N	118.4425W	890	191.2031	166.5764	55955	56767
CMCH	38.0187N	120.5095W	475	195.7301	288.2991	37945	38756
CMOY	37.9000N	120.5673W	176	198.2465	284.1096	41029	41840
CMCU	37.9727N	120.6170W	336	205.6730	285.9062	38757	39568
CMRF	38.2453N	120.5207W	799	206.1334	294.8201	41841	42652
CPKE	36.0615N	120.1090W	288	210.6362	222.2249	61640	62451
CPDR	36.3357N	120.3687W	488	211.5448	233.6830	60828	61639
CPAR	36.2492N	120.3420W	485	215.1053	231.1405	5246	6057
CWOF	35.5357N	118.7125W	1341	215.4526	176.2056	56768	57579
CBRM	36.8450N	120.8237W	372	231.3832	252.7777	30418	31229
CMNH	38.1458N	120.8137W	219	232.3186	288.9685	39569	40380
CPCR	36.0938N	120.4347W	296	234.2141	229.4197	4434	5245
CBMS	36.6630N	120.7918W	811	234.9297	247.8008	11742	12553
CPCA	35.9317N	120.3370W	1189	238.7033	224.4059	3622	4433
CPRC	36.2562N	120.6200W	623	239.5983	235.9433	6058	6869
CAOD	38.6148N	120.7285W	520	245.9259	301.2302	25546	26357
CADW	38.4392N	120.8482W	251	248.3070	295.7854	21486	22297
CPHR	36.3730N	120.8183W	732	251.6419	241.2289	7682	8493
CPTR	35.6547N	120.2112W	643	253.1301	217.2025	1998	2809
CPHGV	35.8760N	120.4835W	792	254.7221	226.0522	2810	3621
CHSL	37.0193N	121.0855W	520	254.8994	258.8833	36559	37370
CPMP	36.2152N	120.7948W	784	258.4304	237.5233	6870	7681
CBAVV	36.6458N	121.0298W	604	260.3513	249.6170	12554	13365
CBAVZ	36.6458N	121.0298W	604	260.3513	249.6170	13366	14177
CHCP	37.1945N	121.1847W	513	262.7949	263.5071	33311	34122
CBBG	36.5783N	121.0385W	1097	263.9912	248.1614	10930	11741
CALA	38.5667N	120.9562W	293	265.4204	297.4041	24734	25545
CPBW	36.3150N	120.9292W	381	265.6223	241.2894	8494	9305
CBEM	36.6613N	121.0960W	488	266.6924	250.5164	16614	17425
CBBN	36.5100N	121.0755W	448	270.7366	246.9917	10118	10929
CARJ	38.6865N	120.9563W	460	271.8394	299.8918	27170	27981
CHQRV	36.8337N	121.2127W	536	273.4082	255.2164	14178	14989
CBEH	36.6647N	121.1742W	342	274.8005	251.1970	17426	18237
CHPLV	37.0522N	121.2900W	152	276.6511	260.5344	14990	15801
CBVL	36.5752N	121.1890W	510	279.7556	249.3741	15802	16613
CBPI	36.4900N	121.1735W	329	281.6804	247.4434	9306	10117
CBHR	36.7278N	121.2638W	213	282.1357	253.2000	19050	19861
CHLT	36.8845N	121.3082W	183	282.3528	256.8748	35747	36558
CHJS	36.8165N	121.2987W	215	283.1689	255.3374	34935	35746
CAGI	38.8447N	120.9813W	305	283.4070	302.6936	23110	23921
CAFD	38.9480N	120.9723W	549	288.9934	304.7190	22298	23109
CBSL	36.7755N	121.3493W	155	289.8103	254.7482	18238	19049
CHFE	36.9833N	121.4015W	323	290.2390	259.4497	34123	34934
CAHR	38.8543N	121.0705W	354	292.3840	301.8179	23922	24733
CCST	37.6392N	121.4982W	205	296.5574	273.7695	31230	32041

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CARR  38.7653N 121.1718W   127   297.0701   299.0483   27982  28793
CARW  38.9563N 121.1622W   320   307.1204   302.6123   28794  29605
CAPR  38.8770N 121.2172W   133   307.6787   300.6130   26358  27169
CAVR  39.0245N 121.2708W   114   321.4375   302.5901   29606  30417
CWWVB  0.0000    0.0000     0 13863.5937   107.3870     374   1185
CIRG1  0.0000    0.0000     0 13863.5937   107.3870    1186   1997
C*
C* ORIGINAL WAVEFORM CARDS
C5780  84 0517  5 2  WFC USGSWWVB                                5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSIRG1                                5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPTR  35.6547N 120.2112W  643  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPHGV 35.8760N 120.4835W  792  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPCA  35.9317N 120.3370W 1189  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPCR  36.0938N 120.4347W  296  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPAR  36.2492N 120.3420W  485  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPRC  36.2562N 120.6200W  623  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPMP  36.2152N 120.7948W  784  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPHR  36.3730N 120.8183W  732  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPBW  36.3150N 120.9292W  381  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBPI  36.4900N 121.1735W  329  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBBN  36.5100N 121.0755W  448  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBBG  36.5783N 121.0385W 1097  5  2 14.83 100 129 16
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C5780  84 0517  5 2  WFC USGSBAVV 36.6458N 121.0298W  604  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBAVZ 36.6458N 121.0298W  604  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSHQRV 36.8337N 121.2127W  536  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSHPLV 37.0522N 121.2900W  152  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBVL  36.5752N 121.1890W  510  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBEM  36.6613N 121.0960W  488  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBEH  36.6647N 121.1742W  342  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBSL  36.7755N 121.3493W  155  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBHR  36.7278N 121.2638W  213  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSMHD  37.1235N 119.8923W  180  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSMYL  37.3780N 120.4197W   84  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSADW  38.4392N 120.8482W  251  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSAFD  38.9480N 120.9723W  549  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSAGI  38.8447N 120.9813W  305  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSAHR  38.8543N 121.0705W  354  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSALA  38.5667N 120.9562W  293  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSAOD  38.6148N 120.7285W  520  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSAPR  38.8770N 121.2172W  133  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSARJ  38.6865N 120.9563W  460  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSARR  38.7653N 121.1718W  127  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSARW  38.9563N 121.1622W  320  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSAVR  39.0245N 121.2708W  114  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBRM  36.8450N 120.8237W  372  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSCST  37.6392N 121.4982W  205  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSWMDR 37.4435N 118.6370W 1683  5  2 31.11 100 113 16
C5780  84 0517  5 2  WFC USGSCLK  37.5902N 118.8242W 2630  5  2 30.47 100  88 16
C5780  84 0517  5 2  WFC USGSHCP  37.1945N 121.1847W  513  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSHFE  36.9833N 121.4015W  323  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSHJS  36.8165N 121.2987W  215  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSHLT  36.8845N 121.3082W  183  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSHSL  37.0193N 121.0855W  520  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSMAT  37.8733N 119.8667W 1353  5  2 44.31 100  91 16
C5780  84 0517  5 2  WFC USGSMCH  38.0187N 120.5095W  475  5  2 14.83 100 129 16
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C5780  84 0517  5 2  WFC USGSMCU  37.9727N 120.6170W  336  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSMNH  38.1458N 120.8137W  219  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSMNP  37.4150N 119.7283W 1000  5  2 41.11 100 103 16
C5780  84 0517  5 2  WFC USGSMOY  37.9000N 120.5673W  176  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSMRF  38.2453N 120.5207W  799  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSMST  37.9045N 120.4048W  366  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSFRI  36.9917N 119.7083W  119  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSCASR 37.5748N 118.5515W 2107  5  2 32.79 100 111 16
C5780  84 0517  5 2  WFC USGSLLK  37.5788N 118.9050W 3030  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSCLKR 37.5902N 118.8242W 2630  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBENR 37.7155N 118.5733W 2463  5  2 34.15 100  96 16
C5780  84 0517  5 2  WFC USGSEMH  37.6663N 118.9392W 2495  5  2 32.07 100 112 16
C5780  84 0517  5 2  WFC USGSLCC  37.6105N 118.9158W 2550  5  2 31.03 100 113 16
C5780  84 0517  5 2  WFC USGSLMC  37.7288N 118.9465W 2540  5  2 33.19 100 101 16
C5780  84 0517  5 2  WFC USGSMGNR 37.8133N 118.6955W 2472  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSMMCR 38.3608N 119.1283W 2548  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSORCR 37.6353N 118.6560W 2301  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSSCHR 37.3658N 118.6870W 2365  5  2 30.95 100 113 16
C5780  84 0517  5 2  WFC USGSSHL  37.6167N 118.9550W 2530  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSRSM  37.5107N 118.8822W 3680  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSTAC  37.6317N 118.9650W 2398  5  2 31.67 100  64 16
C5780  84 0517  5 2  WFC USGSMLK  37.6643N 118.9750W 2670  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSDOE  37.6387N 118.8355W 2220  5  2 31.35 100 112 16
C5780  84 0517  5 2  WFC USGSWKT  35.7940N 118.4425W  890  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSWOF  35.5357N 118.7125W 1341  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSSHLR 37.6167N 118.9550W 2530  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSLCCR 37.6105N 118.9158W 2550  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSLULR 38.0523N 119.1803W 2243  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPWM  36.4328N 120.2110W   72  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPDR  36.3357N 120.3687W  488  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSPKE  36.0615N 120.1090W  288  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSDMP  37.7080N 119.0456W 2550  5  2 33.51 100 110 16
C5780  84 0517  5 2  WFC USGSCVM  37.6098N 118.8733W 2260  5  2 30.87 100 113 16
C5780  84 0517  5 2  WFC USGSCSR  37.6777N 118.8183W 2122  5  2 32.07 100 112 16
C5780  84 0517  5 2  WFC USGSSKI  37.6530N 119.0238W 2660  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSCHS  37.6550N 118.9045W 2420  5  2 31.75 100 112 16
C5780  84 0517  5 2  WFC USGSSHLN 37.6167N 118.9550W 2530  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSMDW  37.6313N 118.9162W 2350  5  2 31.35 100 112 16
C5780  84 0517  5 2  WFC USGSMMP  37.6100N 119.0280W 2870  5  2 31.91 100 112 16
C5780  84 0517  5 2  WFC USGSGRP  37.6265N 118.9013W 2208  5  2 31.19 100 113 16
C5780  84 0517  5 2  WFC USGSYMC  37.6255N 118.9362W 2340  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSCSW  37.6442N 118.9282W 2280  5  2 14.83 100 129 16
C5780  84 0517  5 2  WFC USGSBNY  37.6408N 118.9358W 2325  5  2 31.67 100 112 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
C*
C*     PHC               742        771
C*     STA               772        793
C*     SAT               794        873
C*     SPC               874       2113
C*     CQ2              2114       2208
C*     CQ3              2209       2322
C*     WFC              2323       2343
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C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                            LINES
C*      STATION          START        END
C*
C*      CLK               2344        2783
C*      CVM               2784        3223
C*      LCC               3224        3663
C*      GRP               3664        4103
C*      DOE               4104        4543
C*      SCHR              4544        4983
C*      MDW               4984        5423
C*      YMC               5424        5863
C*      BNY               5864        6303
C*      CHS               6304        6743
C*      WMDR              6744        7183
C*      TAC               7184        7623
C*      CSR               7624        8063
C*      EMH               8064        8503
C*      MMP               8504        8943
C*      MLK               8944        9383
C*      SKI               9384        9823
C*      LMC               9824       10263
C*      CASR             10264       10703
C*      DMP              10704       11143
C*      BENR             11144       11583
C*END-----------------------------------------------------------------------
 5780  84 0517  5 2  SUC 37.24 37.4629N 118.8402W  7.90A 2.5D    23 137  14 .13
 5780  84 0517  5 2  PHC USGSWMDR IPD0 41.01
 5780  84 0517  5 2  PHC USGSCLK  IPU0 40.26
 5780  84 0517  5 2  PHC USGSMAT  EPD2 54.43
 5780  84 0517  5 2  PHC USGSMNP  IPU0 50.94
 5780  84 0517  5 2  PHC USGSCASR IPD0 42.85
 5780  84 0517  5 2  PHC USGSLLK   P4  42.03
 5780  84 0517  5 2  PHC USGSBENR IPD0 43.92
 5780  84 0517  5 2  PHC USGSEMH  IPD1 42.09
 5780  84 0517  5 2  PHC USGSLCC  IPD0 40.89
****************** 10833 data cards not shown here ******************
C#FINIS DSN=SL000091
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Table SL000092

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C$DSN=SL000092;SIZE=017139;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=061;STRT=000001;
C*DATE:  19850430; 0; 840520A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840520; 19840520; 37.566N; 37.566N; 118.829W; 118.829W; ;  5997;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840520 AT 02:10
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
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****
See previous format from dataset SL000080 for details
****

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C* ORIGINAL STATION CARDS
CCLKR 37.5902N 118.8242W  2630     2.7205    10.3596   70093  70845
CCLK  37.5902N 118.8242W  2630     2.7205    10.3596   48108  48965
CCVM  37.6098N 118.8733W  2260     6.9456   314.2251   91889  92639
CDOE  37.6387N 118.8355W  2220     8.0766   354.5447   80113  80970
CRSM  37.5107N 118.8822W  3680     8.5450   224.2985   77665  78522
CLLK  37.5788N 118.9050W  3030     8.6226   279.4502   69235  70092
CGRP  37.6265N 118.9013W  2208    10.5013   309.5750   97462  98210
CLCCR 37.6105N 118.9158W  2550    10.8846   296.8848   85261  86118
CLCC  37.6105N 118.9158W  2550    10.8846   296.8848   72321  73069
CMDW  37.6313N 118.9162W  2350    12.1350   306.5205   95746  96603
CCSR  37.6777N 118.8183W  2122    12.4054     5.3032   92640  93497
CCHS  37.6550N 118.9045W  2420    12.9712   319.3538   94141  94887
CYMC  37.6255N 118.9362W  2340    13.6677   298.7812   98211  98957
CCSW  37.6442N 118.9282W  2280    14.0621   307.9475   98958  99815
CBNY  37.6408N 118.9358W  2325    14.5209   304.7224   99816 100673
CRCCR 37.4877N 118.7217W  2804    14.7186   126.0381   86977  87722
CSHLR 37.6167N 118.9550W  2530    15.1480   291.7249   83545  84402
CSHL  37.6167N 118.9550W  2530    15.1480   291.7249   76807  77664
CSHLN 37.6167N 118.9550W  2530    15.1480   291.7249   94888  95745
CEMH  37.6663N 118.9392W  2495    16.5716   312.0159   71577  72320
CTAC  37.6317N 118.9650W  2398    16.8333   295.5701   78523  79254
CMLK  37.6643N 118.9750W  2670    19.5916   303.7024   79255  80112
CORCR 37.6353N 118.6560W  2301    20.6859    68.2546   75332  76073
CLMC  37.7288N 118.9465W  2540    22.2791   323.9041   73070  73807
CMMP  37.6100N 119.0280W  2870    22.7258   282.3645   96604  97461
CSKI  37.6530N 119.0238W  2660    23.7657   293.8799   93498  94140
CWMDR 37.4435N 118.6370W  1683    25.2718   122.4219   47371  48107
CSCHR 37.3658N 118.6870W  2365    27.1859   144.5535   76074  76806
CDMP  37.7080N 119.0458W  2550    28.8309   302.9968   91155  91888
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CCASR	37.5748N	118.5515W	2107	30.8643	88.1921	68501	69234
CMGNR	37.8133N	118.6955W	2472	31.1001	28.4529	73808	74665
CBENR	37.7155N	118.5733W	2463	32.8784	59.8145	70846	71576
CLULR	38.0523N	119.1803W	2243	66.5207	323.9429	86119	86976
CMMCR	38.3608N	119.1283W	2548	94.0592	339.2197	74666	75331
CMNPN	37.4150N	119.7283W	1000	101.5543	260.5330	63789	64646
CMNP	37.4150N	119.7283W	1000	101.5543	260.5330	63113	63788
CFRI	36.9917N	119.7083W	119	116.8196	237.0107	67842	68500
CMAT	37.8733N	119.8667W	1353	120.4554	286.3848	60120	60780
CMHD	37.1235N	119.8923W	180	128.1904	247.5344	33016	33873
CMYL	37.3780N	120.4197W	84	178.3705	263.3044	33874	34500
CMST	37.9045N	120.4048W	366	179.4140	282.0410	66363	66983
CMCH	38.0187N	120.5095W	475	193.7077	284.9771	60781	61396
CMOY	37.9000N	120.5673W	176	197.0487	280.8020	64647	65504
CPWM	36.4328N	120.2110W	72	198.9500	230.7693	87723	88580
CWKT	35.7940N	118.4425W	890	202.0255	167.6855	81829	82686
CPHB	36.2488N	120.0827W	100	202.4562	223.6905	88581	89438
CMRF	38.2453N	120.5207W	799	202.8279	291.7446	65505	66362
CMCU	37.9727N	120.6170W	336	204.1080	282.7283	61397	62254
CWCH	35.8830N	118.0747W	2475	205.4025	155.8242	80971	81828
CPDR	36.3357N	120.3687W	488	219.4680	231.4826	89439	90296
CPKE	36.0615N	120.1090W	288	220.0254	220.4764	90297	91154
CPAR	36.2492N	120.3420W	485	223.3795	229.0692	8134	8991
CWOF	35.5357N	118.7125W	1341	226.7656	176.7231	82687	83544
CMNH	38.1458N	120.8137W	219	230.1189	286.1799	62255	63112
CBRM	36.8450N	120.8237W	372	236.1927	250.2274	43939	44796
CBMS	36.6630N	120.7918W	811	240.6074	245.4019	19288	20145
CSRT	35.6918N	117.7493W	698	241.1066	150.0244	66984	67841
CAOD	38.6148N	120.7285W	520	241.3802	298.7598	38791	39648
CPCR	36.0938N	120.4347W	296	242.7079	227.5715	7276	8133
CADW	38.4392N	120.8482W	251	244.7776	293.2529	34501	35358
CTNKR	39.2675N	120.2358W	2666	245.5980	320.2996	84403	85260
CPRC	36.2562N	120.6200W	623	247.1716	233.9195	11566	12423
CPCA	35.9317N	120.3370W	1189	247.8291	222.7720	5560	6417
CPSM	36.0697N	120.5947W	988	257.9045	229.8055	8992	9849
CPHR	36.3730N	120.8183W	732	258.3921	239.1492	12424	13281
CHSL	37.0193N	121.0855W	520	258.5630	256.4583	57546	58403
CALA	38.5667N	120.9562W	293	261.5745	295.0591	37933	38790
CPHGV	35.8760N	120.4835W	792	263.6421	224.4600	4702	5559
CHCP	37.1945N	121.1847W	513	265.5740	261.0935	48966	49823
CBAVZ	36.6458N	121.0298W	604	265.6892	247.4081	21004	21861
CBAVV	36.6458N	121.0298W	604	265.6892	247.4081	20146	21003
CPPT	36.1083N	120.7212W	506	266.1709	232.4764	10708	11565
CARJ	38.6865N	120.9563W	460	267.5264	297.6396	40507	41364
CBBG	36.5783N	121.0385W	1097	269.5784	246.0130	18430	19287
CPWK	35.8145N	120.5112W	503	270.7598	223.9061	3844	4701
CBEM	36.6613N	121.0960W	488	271.8667	248.3409	27010	27867
CPBW	36.3150N	120.9292W	381	272.3521	239.3147	13282	14139
CBBN	36.5100N	121.0755W	448	276.5186	244.9207	17572	18429
CPIV	35.9065N	120.6823W	497	277.3286	228.2271	6418	7275
CHQRV	36.8337N	121.2127W	536	277.7319	253.0092	22720	23577
CAGI	38.8447N	120.9813W	305	278.5767	300.5796	36217	37074
CBEH	36.6647N	121.1742W	342	279.8472	249.0714	27868	28725
CHPLV	37.0522N	121.2900W	152	279.9822	258.2756	23578	24435
CAFD	38.9480N	120.9723W	549	283.7974	302.6814	35359	36216
CBVL	36.5752N	121.1890W	510	285.1189	247.3201	24436	25293

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CHLT  36.8845N 121.3082W   183   286.3630   254.7110   55830  56687
CPSA  36.0253N 120.8883W   184   286.6724   233.2745    9850  10707
CBHR  36.7278N 121.2638W   213   286.8179   251.0932   32158  33015
CBPI  36.4900N 121.1735W   329   287.3767   245.4417   16714  17571
CHJS  36.8165N 121.2987W   215   287.4614   253.2032   54114  54971
CAHR  38.8543N 121.0705W   354   287.7095   299.7559   37075  37932
CBLR  36.6660N 121.2727W   232   290.0771   249.8726   28726  29583
CARR  38.7653N 121.1718W   127   292.9036   296.9788   41365  42222
CHFE  36.9833N 121.4015W   323   293.7622   257.3088   50682  51539
CBSL  36.7755N 121.3493W   155   294.2046   252.6712   29584  30441
CBCG  36.7092N 121.3433W   305   295.8794   251.2703   31300  32157
CBJO  36.6108N 121.3135W  1052   296.5151   249.0606   25294  26151
CCST  37.6392N 121.4982W   205   297.3044   271.5603   46513  47370
CHKR  36.9017N 121.4260W    66   298.5581   255.7284   54972  55829
CBSGV 36.4138N 121.2537W   192   299.1016   244.6739   15856  16713
CBVY  36.7493N 121.4133W   585   301.8911   252.5468   30442  31299
CARW  38.9563N 121.1622W   320   302.2976   300.6628   42223  43080
CAPR  38.8770N 121.2172W   133   303.2200   298.6375   39649  40506
CHSP  37.1152N 121.5157W   850   303.3906   260.5320   58404  59261
CHFH  36.8882N 121.4688W   101   303.5542   255.6761   51540  52397
CPMG  35.4298N 120.5203W   529   304.0735   218.4012    2128   2985
CPJLV 36.0898N 121.1555W   290   307.1260   237.6819    2986   3843
CBJC  36.5470N 121.3922W   207   307.2944   248.4083   26152  27009
CHSF  36.8120N 121.4995W   340   309.0818   254.3129   56688  57545
CHFP  36.7537N 121.4905W   705   309.9626   253.1098   52398  53255
CBSRV 36.6665N 121.5187W   395   315.9392   251.5931   21862  22719
CAVR  39.0245N 121.2708W   114   316.6150   300.7288   43081  43938
CHJG  36.7980N 121.5738W   171   317.4800   254.4468   53256  54113
CCMN  37.6275N 121.7083W   245   320.6570   271.2153   44797  45654
CHDL  36.8353N 121.6440W   204   323.9429   255.5235   49824  50681
CBPP  36.1687N 121.3780W  1591   324.0061   241.3479   14140  14997
CCSC  37.2852N 121.7725W   128   329.2715   264.5854   45655  46512
CBHS  36.3558N 121.5398W   646   330.8218   246.0247   14998  15855
CJBZ  37.0178N 121.8192W   213   338.5830   259.6707   59262  60119
CIRG1  0.0000    0.0000     0 13865.2539   107.4324    1270   2127
CWWVB  0.0000    0.0000     0 13865.2539   107.4324     412   1269
C*
C* ORIGINAL WAVEFORM CARDS
C5997  84 0520  210  WFC USGSWWVB                                  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSIRG1                                  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPMG  35.4298N 120.5203W  529  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPJLV 36.0898N 121.1555W  290  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPWK  35.8145N 120.5112W  503  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPHGV 35.8760N 120.4835W  792  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPCA  35.9317N 120.3370W 1189  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPIV  35.9065N 120.6823W  497  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPCR  36.0938N 120.4347W  296  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPAR  36.2492N 120.3420W  485  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPSM  36.0697N 120.5947W  988  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPSA  36.0253N 120.8883W  184  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPPT  36.1083N 120.7212W  506  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPRC  36.2562N 120.6200W  623  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPHR  36.3730N 120.8183W  732  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPBW  36.3150N 120.9292W  381  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSBPP  36.1687N 121.3780W 1591  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSBHS  36.3558N 121.5398W  646  2 10 31.94 100 136 16
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C5997	84	0520	210	WFC	USGSBSGV	36.4138N	121.2537W	192	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBPI	36.4900N	121.1735W	329	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBBN	36.5100N	121.0755W	448	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBBG	36.5783N	121.0385W	1097	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBMS	36.6630N	120.7918W	811	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBAVV	36.6458N	121.0298W	604	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBAVZ	36.6458N	121.0298W	604	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBSRV	36.6665N	121.5187W	395	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHQRV	36.8337N	121.2127W	536	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHPLV	37.0522N	121.2900W	152	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBVL	36.5752N	121.1890W	510	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBJO	36.6108N	121.3135W	1052	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBJC	36.5470N	121.3922W	207	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBEM	36.6613N	121.0960W	488	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBEH	36.6647N	121.1742W	342	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBLR	36.6660N	121.2727W	232	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBSL	36.7755N	121.3493W	155	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBVY	36.7493N	121.4133W	585	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBCG	36.7092N	121.3433W	305	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBHR	36.7278N	121.2638W	213	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSMHD	37.1235N	119.8923W	180	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSMYL	37.3780N	120.4197W	84	2	11	8.94	100	99	16
C5997	84	0520	210	WFC	USGSADW	38.4392N	120.8482W	251	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSAFD	38.9480N	120.9723W	549	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSAGI	38.8447N	120.9813W	305	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSAHR	38.8543N	121.0705W	354	2	10	31.94	100	136	16
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C5997	84	0520	210	WFC	USGSAOD	38.6148N	120.7285W	520	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSAPR	38.8770N	121.2172W	133	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSARJ	38.6865N	120.9563W	460	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSARR	38.7653N	121.1718W	127	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSARW	38.9563N	121.1622W	320	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSAVR	39.0245N	121.2708W	114	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSBRM	36.8450N	120.8237W	372	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSCMN	37.6275N	121.7083W	245	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSCSC	37.2852N	121.7725W	128	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSCST	37.6392N	121.4982W	205	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSWMDR	37.4435N	118.6370W	1683	2	10	51.34	100	117	16
C5997	84	0520	210	WFC	USGSCLK	37.5902N	118.8242W	2630	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHCP	37.1945N	121.1847W	513	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHDL	36.8353N	121.6440W	204	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHFE	36.9833N	121.4015W	323	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHFH	36.8882N	121.4688W	101	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHFP	36.7537N	121.4905W	705	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHJG	36.7980N	121.5738W	171	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHJS	36.8165N	121.2987W	215	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHKR	36.9017N	121.4260W	66	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHLT	36.8845N	121.3082W	183	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHSF	36.8120N	121.4995W	340	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHSL	37.0193N	121.0855W	520	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSHSP	37.1152N	121.5157W	850	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSJBZ	37.0178N	121.8192W	213	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSMAT	37.8733N	119.8667W	1353	2	11	3.42	100	105	16
C5997	84	0520	210	WFC	USGSMCH	38.0187N	120.5095W	475	2	11	10.70	100	98	16
C5997	84	0520	210	WFC	USGSMCU	37.9727N	120.6170W	336	2	10	31.94	100	136	16
C5997	84	0520	210	WFC	USGSMNH	38.1458N	120.8137W	219	2	10	31.94	100	136	16

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C5997  84 0520  210  WFC USGSMOY  37.9000N 120.5673W  176  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSMRF  38.2453N 120.5207W  799  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSMST  37.9045N 120.4048W  366  2 11   9.18 100  98 16
C5997  84 0520  210  WFC USGSSRT  35.6918N 117.7493W  698  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSFRI  36.9917N 119.7083W  119  2 11   3.74 100 105 16
C5997  84 0520  210  WFC USGSCASR 37.5748N 118.5515W 2107  2 10 51.74 100 117 16
C5997  84 0520  210  WFC USGSLLK  37.5788N 118.9050W 3030  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSCLKR 37.5902N 118.8242W 2630  2 10 48.70 100 120 16
C5997  84 0520  210  WFC USGSBENR 37.7155N 118.5733W 2463  2 10 52.30 100 116 16
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C5997  84 0520  210  WFC USGSLCC  37.6105N 118.9158W 2550  2 10 49.34 100 119 16
C5997  84 0520  210  WFC USGSLMC  37.7288N 118.9465W 2540  2 10 51.18 100 117 16
C5997  84 0520  210  WFC USGSMGNR 37.8133N 118.6955W 2472  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSMMCR 38.3608N 119.1285W 2548  2 11   2.62 100 106 16
C5997  84 0520  210  WFC USGSORCR 37.6353N 118.6560W 2301  2 10 50.54 100 118 16
C5997  84 0520  210  WFC USGSSCHR 37.3658N 118.6870W 2365  2 10 51.90 100 116 16
C5997  84 0520  210  WFC USGSSHL  37.6167N 118.9550W 2530  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSRSM  37.5107N 118.8822W 3680  2 10 31.94 100 136 16
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C5997  84 0520  210  WFC USGSLULR 38.0523N 119.1803W 2243  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSRCCR 37.4877N 118.7217W 2804  2 10 49.90 100 118 16
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C5997  84 0520  210  WFC USGSPDR  36.3357N 120.3687W  488  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSPKE  36.0615N 120.1090W  288  2 10 31.94 100 136 16
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C5997  84 0520  210  WFC USGSCVM  37.6098N 118.8733W 2260  2 10 49.02 100 119 16
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C5997  84 0520  210  WFC USGSSKI  37.6530N 119.0238W 2660  2 10 51.02 100 102 16
C5997  84 0520  210  WFC USGSCHS  37.6550N 118.9045W 2420  2 10 49.74 100 119 16
C5997  84 0520  210  WFC USGSSHLN 37.6167N 118.9550W 2530  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSMDW  37.6313N 118.9162W 2350  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSMMP  37.6100N 119.0280W 2870  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSGRP  37.6265N 118.9013W 2208  2 10 49.34 100 119 16
C5997  84 0520  210  WFC USGSYMC  37.6255N 118.9362W 2340  2 10 49.74 100 119 16
C5997  84 0520  210  WFC USGSCSW  37.6442N 118.9282W 2280  2 10 31.94 100 136 16
C5997  84 0520  210  WFC USGSBNY  37.6408N 118.9358W 2325  2 10 31.94 100 136 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*      ITEM             START        END
C*
C*      PHC                805        842
C*      STA                843        866
C*      SAT                867        957
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C*      SPC              958       2442
C*      CQ1             2443       2472
C*      CQ2             2473       2574
C*      CQ3             2575       2694
C*      WFC             2695       2717
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                           LINES
C*      STATION         START        END
C*
C*      CLK              2718       3344
C*      CVM              3345       3971
C*      DOE              3972       4598
C*      GRP              4599       5225
C*      LCC              5226       5852
C*      CSR              5853       6479
C*      CHS              6480       7106
C*      YMC              7107       7733
C*      BNY              7734       8360
C*      RCCR             8361       8987
C*      SHLN             8988       9614
C*      EMH              9615      10241
C*      TAC             10242      10868
C*      MLK             10869      11495
C*      ORCR            11496      12122
C*      LMC             12123      12749
C*      MMP             12750      13376
C*      SKI             13377      14003
C*      WMDR            14004      14630
C*      SCHR            14631      15257
C*      DMP             15258      15884
C*      CASR            15885      16511
C*      BENR            16512      17138
C*END-------------------------------------------------------------------------
 5997  84 0520  210  SUC 56.82 37.5660N 118.8286W  8.70A 2.8D    27  80   2 .10
 5997  84 0520  211  PHC USGSMHD  EP4  15.02
 5997  84 0520  211  PHC USGSMYL   P4  20.68
 5997  84 0520  211  PHC USGSWMDR IPU0  1.20
 5997  84 0520  210  PHC USGSCLK  IPU0 58.62
 5997  84 0520  211  PHC USGSMAT  EPU2 13.30
 5997  84 0520  211  PHC USGSMCH   P4  22.40
 5997  84 0520  211  PHC USGSMNP  IPU0 10.83
 5997  84 0520  211  PHC USGSMST   P4  20.41
 5997  84 0520  211  PHC USGSFRI  EPD3 13.95
****************** 16324 data cards not shown here ******************
C*FINIS DSN=SL000092
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Table SL000093

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C$DSN=SL000093;SIZE=011976;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=062;STRT=000001;
C*DATE:  19850430; 0; 840525A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840525; 19840525; 37.545N; 37.545N; 118.783W; 118.783W; ;  6259;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840525 AT 11:18
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
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****
See previous format from dataset SL000080 for details
****

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C* ORIGINAL STATION CARDS
CCLK   37.5902N 118.8242W  2630     6.7869   317.8523   17333  18075
CCLKR  37.5902N 118.8242W  2630     6.7869   317.8523   29448  30190
CRCCR  37.4877N 118.7217W  2804     9.3150   132.5872   42313  42946
CRSM   37.5107N 118.8822W  3680    11.6359   251.1469   35974  36716
CDOE   37.6387N 118.8355W  2220    11.9097   330.7944   38081  38711
CCVM   37.6098N 118.8733W  2260    12.3393   305.6978   44752  45494
CLLK   37.5788N 118.9050W  3030    14.0643   285.5547   28705  29447
CCSR   37.6777N 118.8183W  2122    15.2154   345.1696   45495  46121
CGRP   37.6265N 118.9013W  2208    15.9509   304.5488   49787  50415
CLCCR  37.6105N 118.9158W  2550    16.4492   296.2593   40941  41569
CLCC   37.6105N 118.9158W  2550    16.4492   296.2593   31429  32171
CORCR  37.6353N 118.6560W  2301    17.3550    54.7373   33979  34605
CMDW   37.6313N 118.9162W  2350    17.6250   302.9153   47915  48541
CCHS   37.6550N 118.9045W  2420    18.1888   312.1138   46546  47171
CCEN   37.6338N 118.9272W  2280    18.8085   301.5952   48542  49167
CYMC   37.6255N 118.9362W  2340    19.2258   297.6975   50416  51158
CCSW   37.6442N 118.9282W  2280    19.5276   304.2954   51159  51783
CWMDR  37.4435N 118.6370W  1683    19.7643   124.4971   16708  17332
CBNY   37.6408N 118.9358W  2325    20.0300   302.0422   51784  52408
CSHLN  37.6167N 118.9550W  2530    20.7078   292.6145   47172  47914
CSHLR  37.6167N 118.9550W  2530    20.7078   292.6145   40198  40940
CSHL   37.6167N 118.9550W  2530    20.7078   292.6145   35349  35973
CEMH   37.6663N 118.9392W  2495    21.9557   307.7698   30806  31428
CTAC   37.6317N 118.9650W  2398    22.3997   295.4375   36717  37459
CSCHR  37.3658N 118.6870W  2365    22.5095   151.5532   34606  35348
CMLK   37.6643N 118.9750W  2670    25.1086   301.7881   37460  38080
CCASR  37.5748N 118.5515W  2107    26.0196    82.6482   28084  28704
CLMC   37.7288N 118.9465W  2540    27.2864   318.2517   32172  32788
CMMP   37.6100N 119.0280W  2870    28.1834   284.8477   49168  49786
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CSKI  37.6530N 119.0238W  2660    29.3313   294.0991   46122  46545
CBENR 37.7155N 118.5733W  2463    30.0532    51.0645   30191  30805
CMGNR 37.8133N 118.6955W  2472    31.2658    18.2163   32789  33531
CDMP  37.7080N 119.0458W  2550    34.3523   301.7109   44433  44751
CLULR 38.0523N 119.1803W  2243    71.4430   321.7839   41570  42312
CMMCR 38.3608N 119.1283W  2548    98.1245   336.9529   33532  33978
CMNP  37.4150N 119.7283W  1000   106.1906   262.2349   24558  25111
CFRI  36.9917N 119.7083W   119   119.8658   239.2691   27341  28083
CMAT  37.8733N 119.8667W  1353   125.9609   286.7656   21791  22328
CMHD  37.1235N 119.8923W   180   132.0196   249.3163   12993  13735
CMYL  37.3780N 120.4197W    84   183.1320   264.2207   13736  14478
CMST  37.9045N 120.4048W   366   184.8415   282.4290   26598  27340
CWKT  35.7940N 118.4425W   890   198.6972   168.9651   38712  39454
CMCH  38.0187N 120.5095W   475   199.1894   285.2563   22329  23071
CPWM  36.4328N 120.2110W    72   201.4415   232.1972   42947  43689
CMOY  37.9000N 120.5673W   176   202.4482   281.1892   25112  25854
CMRF  38.2453N 120.5207W   799   208.3824   291.8320   25855  26597
CMCU  37.9727N 120.6170W   336   209.5487   283.0527   23072  23814
CPDR  36.3357N 120.3687W   488   222.0167   232.7704   43690  44432
CWOF  35.5357N 118.7125W  1341   224.1771   177.9792   39455  40197
CPAR  36.2492N 120.3420W   485   225.7176   230.3615    2591   3333
CMNH  38.1458N 120.8137W   219   235.6179   286.3879   23815  24557
CBRM  36.8450N 120.8237W   372   240.1846   251.1636   15222  15964
CBMS  36.6630N 120.7918W   811   244.2620   246.3974    7049   7791
CPCR  36.0938N 120.4347W   296   244.9098   228.7763    1848   2590
CADW  38.4392N 120.8482W   251   250.3366   293.2920   14479  15221
CPHR  36.3730N 120.8183W   732   261.5698   240.1597    3334   4076
CHSL  37.0193N 121.0855W   520   262.9465   257.2148   21048  21790
CBAVV 36.6458N 121.0298W   604   269.4858   248.2830    7792   8534
CHCP  37.1945N 121.1847W   513   270.2170   261.7527   18076  18818
CBBG  36.5783N 121.0385W  1097   273.2756   246.8948    6306   7048
CBEM  36.6613N 121.0960W   488   275.7280   249.1832   10764  11506
CBRV  36.4248N 121.0183W   541   278.4795   243.4750    4077   4819
CBBN  36.5100N 121.0755W   448   280.1360   245.7950    5563   6305
CHQRV 36.8337N 121.2127W   536   281.9036   253.7670    8535   9277
CBEH  36.6647N 121.1742W   342   283.7590   249.8799   11507  12249
CHPLV 37.0522N 121.2900W   152   284.4709   258.9468    9278  10020
CBVL  36.5752N 121.1890W   510   288.9084   248.1374   10021  10763
CHLT  36.8845N 121.3082W   183   290.6411   255.4213   20305  21047
CBHR  36.7278N 121.2638W   213   290.8650   251.8545   12250  12992
CBPI  36.4900N 121.1735W   329   291.0312   246.2769    4820   5562
CHJS  36.8165N 121.2987W   215   291.6455   253.9329   19562  20304
CHFE  36.9833N 121.4015W   323   298.1951   257.9634   18819  19561
CCAOV 37.3493N 121.5327W   628   306.8955   265.9607   15965  16707
CWWVB  0.0000    0.0000      0 13859.8203   107.4277     362   1104
CIRG1  0.0000    0.0000      0 13859.8203   107.4297    1105   1847
C*
C* ORIGINAL WAVEFORM CARDS
C6259  84 0525 1118  WFC USGSWWVB                          11 17 36.46 100 118 16
C6259  84 0525 1118  WFC USGSIRG1                          11 17 36.46 100 118 16
C6259  84 0525 1118  WFC USGSPCR  36.0938N 120.4347W  296 11 17 36.46 100 118 16
C6259  84 0525 1118  WFC USGSPAR  36.2492N 120.3420W  485 11 17 36.46 100 118 16
C6259  84 0525 1118  WFC USGSPHR  36.3730N 120.8183W  732 11 17 36.46 100 118 16
C6259  84 0525 1118  WFC USGSBRV  36.4248N 121.0183W  541 11 17 36.46 100 118 16
C6259  84 0525 1118  WFC USGSBPI  36.4900N 121.1735W  329 11 17 36.46 100 118 16
C6259  84 0525 1118  WFC USGSBBN  36.5100N 121.0755W  448 11 17 36.46 100 118 16
```

C6259	84	0525	1118	WFC	USGSBBG	36.5783N	121.0385W	1097	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSBMS	36.6630N	120.7918W	811	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSBAVV	36.6458N	121.0298W	604	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSHQRV	36.8337N	121.2127W	536	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSHPLV	37.0522N	121.2900W	152	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSBVL	36.5752N	121.1890W	510	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSBEM	36.6613N	121.0960W	488	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSBEH	36.6647N	121.1742W	342	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSBHR	36.7278N	121.2638W	213	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSMHD	37.1235N	119.8923W	180	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSMYL	37.3780N	120.4197W	84	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSADW	38.4392N	120.8482W	251	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSBRM	36.8450N	120.8237W	372	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSCAOV	37.3493N	121.5327W	628	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSWMDR	37.4435N	118.6370W	1683	11	17	55.28	100	99	16
C6259	84	0525	1118	WFC	USGSCLK	37.5902N	118.8242W	2630	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSHCP	37.1945N	121.1847W	513	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSHFE	36.9833N	121.4015W	323	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSHJS	36.8165N	121.2987W	215	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSHLT	36.8845N	121.3082W	183	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSHSL	37.0193N	121.0855W	520	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSMAT	37.8733N	119.8667W	1353	11	18	9.24	100	85	16
C6259	84	0525	1118	WFC	USGSMCH	38.0187N	120.5095W	475	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSMCU	37.9727N	120.6170W	336	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSMNH	38.1458N	120.8137W	219	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSMNP	37.4150N	119.7283W	1000	11	18	6.71	100	88	16
C6259	84	0525	1118	WFC	USGSMOY	37.9000N	120.5673W	176	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSMRF	38.2453N	120.5207W	799	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSMST	37.9045N	120.4048W	366	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSFRI	36.9917N	119.7083W	119	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSCASR	37.5748N	118.5515W	2107	11	17	55.89	100	99	16
C6259	84	0525	1118	WFC	USGSLLK	37.5788N	118.9050W	3030	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSCLKR	37.5902N	118.8242W	2630	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSBENR	37.7155N	118.5733W	2463	11	17	56.87	100	98	16
C6259	84	0525	1118	WFC	USGSEMH	37.6663N	118.9392W	2495	11	17	55.64	100	99	16
C6259	84	0525	1118	WFC	USGSLCC	37.6105N	118.9158W	2550	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSLMC	37.7288N	118.9465W	2540	11	17	56.61	100	98	16
C6259	84	0525	1118	WFC	USGSMGNR	37.8133N	118.6955W	2472	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSMMCR	38.3608N	119.1283W	2548	11	18	8.29	100	71	16
C6259	84	0525	1118	WFC	USGSORCR	37.6353N	118.6560W	2301	11	17	54.93	100	99	16
C6259	84	0525	1118	WFC	USGSSCHR	37.3658N	118.6870W	2365	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSSHL	37.6167N	118.9550W	2530	11	17	55.28	100	99	16
C6259	84	0525	1118	WFC	USGSRSM	37.5107N	118.8822W	3680	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSTAC	37.6317N	118.9650W	2398	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSMLK	37.6643N	118.9750W	2670	11	17	56.02	100	98	16
C6259	84	0525	1118	WFC	USGSDOE	37.6387N	118.8355W	2220	11	17	54.32	100	100	16
C6259	84	0525	1118	WFC	USGSWKT	35.7940N	118.4425W	890	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSWOF	35.5357N	118.7125W	1341	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSSHLR	37.6167N	118.9550W	2530	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSLCCR	37.6105N	118.9158W	2550	11	17	54.72	100	100	16
C6259	84	0525	1118	WFC	USGSLULR	38.0523N	119.1803W	2243	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSRCCR	37.4877N	118.7217W	2804	11	17	53.83	100	101	16
C6259	84	0525	1118	WFC	USGSPWM	36.4328N	120.2110W	72	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSPDR	36.3357N	120.3687W	488	11	17	36.46	100	118	16
C6259	84	0525	1118	WFC	USGSDMP	37.7080N	119.0458W	2550	11	17	57.36	100	50	16
C6259	84	0525	1118	WFC	USGSCVM	37.6098N	118.8733W	2260	11	17	36.46	100	118	16

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C6259  84 0525 1118  WFC USGSCSR  37.6777N 118.8183W 2122 11 17 54.93 100  99 16
C6259  84 0525 1118  WFC USGSSKI  37.6530N 119.0238W 2660 11 17 56.51 100  67 16
C6259  84 0525 1118  WFC USGSCHS  37.6550N 118.9045W 2420 11 17 55.13 100  99 16
C6259  84 0525 1118  WFC USGSSHLN 37.6167N 118.9550W 2530 11 17 36.46 100 118 16
C6259  84 0525 1118  WFC USGSMDW  37.6313N 118.9162W 2350 11 17 54.95 100  99 16
C6259  84 0525 1118  WFC USGSCEN  37.6338N 118.9272W 2280 11 17 55.10 100  99 16
C6259  84 0525 1118  WFC USGSMMP  37.6100N 119.0280W 2870 11 17 56.23 100  98 16
C6259  84 0525 1118  WFC USGSGRP  37.6265N 118.9013W 2208 11 17 54.72 100 100 16
C6259  84 0525 1118  WFC USGSYMC  37.6255N 118.9362W 2340 11 17 36.46 100 118 16
C6259  84 0525 1118  WFC USGSCSW  37.6442N 118.9282W 2280 11 17 55.24 100  99 16
C6259  84 0525 1118  WFC USGSBNY  37.6408N 118.9358W 2325 11 17 55.29 100  99 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
C*
C*     PHC               712        745
C*     STA               746        768
C*     SAT               769        836
C*     SPC               837       2051
C*     CQ1              2052       2069
C*     CQ2              2070       2171
C*     CQ3              2172       2273
C*     WFC              2274       2295
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                          LINES
C*     STATION         START        END
C*
C*     CLKR             2296       2735
C*     RCCR             2736       3175
C*     DOE              3176       3615
C*     CSR              3616       4055
C*     GRP              4056       4495
C*     LCCR             4496       4935
C*     ORCR             4936       5375
C*     MDW              5376       5815
C*     CHS              5816       6255
C*     CEN              6256       6695
C*     CSW              6696       7135
C*     WMDR             7136       7575
C*     BNY              7576       8015
C*     SHL              8016       8455
C*     EMH              8456       8895
C*     SCHR             8896       9335
C*     MLK              9336       9775
C*     CASR             9776      10215
C*     LMC             10216      10655
C*     MMP             10656      11095
C*     SKI             11096      11535
C*     BENR            11536      11975
C*END-------------------------------------------------------------------------
 6259  84 0525 1118  SUC  1.72 37.5447N 118.7833W  4.97A 2.3D    24 103   6 .12
 6259  84 0525 1118  PHC USGSWMDR IPU1  5.28
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 6259  84 0525 1118  PHC USGSCLK  IPD0  3.25
 6259  84 0525 1118  PHC USGSMAT  EPU3 19.06
 6259  84 0525 1118  PHC USGSMNP  IPU1 16.42
 6259  84 0525 1118  PHC USGSCASR EPD2  6.02
 6259  84 0525 1118  PHC USGSLLK   P4   3.34
 6259  84 0525 1118  PHC USGSBENR EPD2  6.65
 6259  84 0525 1118  PHC USGSEMH  IPD1  5.72
 6259  84 0525 1118  PHC USGSLMC  EPD2  6.87
********** 11254 data cards not shown here **********
C$FINIS DSN=SL000093
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Table SL000094

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C*DSN=SL000094;SIZE=009327;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=063;STRT=000001;
C*DATE:  19850430; 0; 840601A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840601; 19840601; 37.457N; 37.457N; 118.842W; 118.842W; ;  6609;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840601 AT 14:07
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
```

****
See previous format from dataset SL000080 for details
****

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C* ORIGINAL STATION CARDS
CRSM  37.5107N 118.8822W  3680     7.3895   322.9280   22308  23237
CRCCR 37.4877N 118.7217W  2804    13.8289    75.9705   25769  26407
CCLKR 37.5902N 118.8242W  2630    14.8236     7.7651   16521  17341
CCLK  37.5902N 118.8242W  2630    14.8236     7.7651    7646   8575
CCVM  37.6098N 118.8733W  2260    17.2080   348.3875   27338  28267
CLCC  37.6105N 118.9158W  2550    18.8121   334.1750   17892  18258
CGRP  37.6265N 118.9013W  2208    19.8257   340.6130   32278  32789
CSCHR 37.3658N 118.6870W  2365    20.0348   120.3928   20792  21721
CDOE  37.6387N 118.8355W  2220    20.0650     2.1299   24358  24838
CMDW  37.6313N 118.9162W  2350    20.9234   336.8105   30418  31347
CSHL  37.6167N 118.9550W  2530    21.6365   324.5171   21722  22307
CSHLN 37.6167N 118.9550W  2530    21.6365   324.5171   30128  30417
CCSW  37.6442N 118.9282W  2280    22.7700   335.1306   32790  33157
CBNY  37.6408N 118.9358W  2325    22.8033   332.8040   33158  34087
CWMDR 37.4435N 118.6370W  1683    22.8996    93.8508    6829   7645
CCHS  37.6550N 118.9045W  2420    22.9273   342.3906   29622  30127
CTAC  37.6317N 118.9650W  2398    23.6329   324.6545   23238  23427
CCSR  37.6777N 118.8183W  2122    24.5080     6.2314   28268  28691
CEMH  37.6663N 118.9392W  2495    25.5023   334.9473   17342  17891
CMMP  37.6100N 119.0280W  2870    26.6979   309.2107   31348  32277
CMLK  37.6643N 118.9750W  2670    27.2435   327.1301   23428  24357
CORCR 37.6353N 118.6560W  2301    28.5792    46.4934   19982  20791
CSKI  37.6530N 119.0238W  2660    29.6097   316.9341   28692  29621
CLMC  37.7288N 118.9465W  2540    32.1807   338.8477   18259  19188
CCASR 37.5748N 118.5515W  2107    34.8722    68.1382   16216  16520
CDMP  37.7080N 119.0458W  2550    35.8017   320.7173   26408  27337
CMGNR 37.8133N 118.6955W  2472    42.6065    22.5378   19189  19981
CMNP  37.4150N 119.7283W  1000    98.7773   267.2773   11742  12495
CFRI  36.9917N 119.7083W   119   109.4162   241.8617   15286  16215
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CMHD  37.1235N 119.8923W   180   122.6686   252.4558    3109   4038
CMAT  37.8733N 119.8667W  1353   122.9727   291.9600    8576   8951
CMYL  37.3780N 120.4197W    84   175.8756   267.1367    4039   4968
CMST  37.9045N 120.4048W   366   180.8406   285.8643   14356  15285
CWKT  35.7940N 118.4425W   890   190.6625   166.4685   24839  25768
CMCH  38.0187N 120.5095W   475   195.7109   288.4888    8952   9881
CMOY  37.9000N 120.5673W   176   198.1803   284.2961   12496  13425
CMCU  37.9727N 120.6170W   336   205.6268   286.0864    9882  10811
CMRF  38.2453N 120.5207W   799   206.1874   294.9995   13426  14355
CMNH  38.1458N 120.8137W   219   232.3065   289.1282   10812  11741
CBMS  36.6630N 120.7918W   811   234.4955   247.9181    2179   3108
CADW  38.4392N 120.8482W   251   248.3710   295.9343    4969   5898
CARJ  38.6865N 120.9563W   460   271.9485   300.0264    5899   6828
CIRG1  0.0000    0.0000     0 13863.6602   107.3843    1249   2178
CWWVB  0.0000    0.0000     0 13863.6602   107.3843     319   1248
C*
C* ORIGINAL WAVEFORM CARDS
C6609  84 06 1 14 7  WFC USGSWWVB                                14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSIRG1                                14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSBMS  36.6630N 120.7918W  811 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSMHD  37.1235N 119.8923W  180 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSMYL  37.3780N 120.4197W   84 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSADW  38.4392N 120.8482W  251 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSARJ  38.6865N 120.9563W  460 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSWMDR 37.4435N 118.6370W 1683 14  7 45.32 100 130 16
C6609  84 06 1 14 7  WFC USGSCLK  37.5902N 118.8242W 2630 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSMAT  37.8733N 119.8667W 1353 14  7 58.96 100  59 16
C6609  84 06 1 14 7  WFC USGSMCH  38.0187N 120.5095W  475 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSMCU  37.9727N 120.6170W  336 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSMNH  38.1458N 120.8137W  219 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSMNP  37.4150N 119.7283W 1000 14  7 55.44 100 120 16
C6609  84 06 1 14 7  WFC USGSMOY  37.9000N 120.5673W  176 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSMRF  38.2453N 120.5207W  799 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSMST  37.9045N 120.4048W  366 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSFRI  36.9917N 119.7083W  119 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSCASR 37.5748N 118.5515W 2107 14  7 47.08 100  48 16
C6609  84 06 1 14 7  WFC USGSCLKR 37.5902N 118.8242W 2630 14  7 44.64 100 131 16
C6609  84 06 1 14 7  WFC USGSEMH  37.6663N 118.9392W 2495 14  7 46.28 100  87 16
C6609  84 06 1 14 7  WFC USGSLCC  37.6105N 118.9158W 2550 14  7 45.16 100  58 16
C6609  84 06 1 14 7  WFC USGSLMC  37.7288N 118.9465W 2540 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSMGNR 37.8133N 118.6955W 2472 14  7 49.20 100 126 16
C6609  84 06 1 14 7  WFC USGSORCR 37.6353N 118.6560W 2301 14  7 46.52 100 129 16
C6609  84 06 1 14 7  WFC USGSSCHR 37.3658N 118.6870W 2365 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSSHL  37.6167N 118.9550W 2530 14  7 45.52 100  93 16
C6609  84 06 1 14 7  WFC USGSRSM  37.5107N 118.8822W 3680 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSTAC  37.6317N 118.9650W 2398 14  7 45.84 100  30 16
C6609  84 06 1 14 7  WFC USGSMLK  37.6643N 118.9750W 2670 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSDOE  37.6387N 118.8355W 2220 14  7 45.52 100  76 16
C6609  84 06 1 14 7  WFC USGSWKT  35.7940N 118.4425W  890 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSRCCR 37.4877N 118.7217W 2804 14  7 44.12 100 101 16
C6609  84 06 1 14 7  WFC USGSDMP  37.7080N 119.0458W 2550 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSCVM  37.6098N 118.8733W 2260 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSCSR  37.6777N 118.8183W 2122 14  7 46.28 100  67 16
C6609  84 06 1 14 7  WFC USGSSKI  37.6530N 119.0238W 2660 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSCHS  37.6550N 118.9045W 2420 14  7 45.92 100  80 16
C6609  84 06 1 14 7  WFC USGSSHLN 37.6167N 118.9550W 2530 14  7 45.52 100  46 16
```

```
C6609  84 06 1 14 7  WFC USGSMDW  37.6313N 118.9162W 2350 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSMMP  37.6100N 119.0280W 2870 14  7 27.32 100 148 16
C6609  84 06 1 14 7  WFC USGSGRP  37.6265N 118.9013W 2208 14  7 45.40 100  81 16
C6609  84 06 1 14 7  WFC USGSCSW  37.6442N 118.9282W 2280 14  7 45.84 100  58 16
C6609  84 06 1 14 7  WFC USGSBNY  37.6408N 118.9358W 2325 14  7 27.32 100 148 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
C*
C*     PHC               645        666
C*     STA               667        684
C*     SAT               685        741
C*     SPC               742       1661
C*     CQ1              1662       1667
C*     CQ2              1668       1745
C*     CQ3              1746       1829
C*     WFC              1830       1846
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                          LINES
C*     STATION         START        END
C*
C*     RSM              1847       2286
C*     RCCR             2287       2726
C*     CLKR             2727       3166
C*     LCC              3167       3606
C*     GRP              3607       4046
C*     SCHR             4047       4486
C*     DOE              4487       4926
C*     SHL              4927       5366
C*     CSW              5367       5806
C*     BNY              5807       6246
C*     WMDR             6247       6686
C*     CHS              6687       7126
C*     CSR              7127       7566
C*     EMH              7567       8006
C*     ORCR             8007       8446
C*     CASR             8447       8886
C*     MGNR             8887       9326
C*END-------------------------------------------------------------------------
 6609  84 06 1 14 7  SUC 51.49 37.4574N 118.8422W  5.76A 2.0D    19 140  11 .08
 6609  84 06 1 14 7  PHC USGSWMDR IPD0 55.18
 6609  84 06 1 14 8  PHC USGSMAT  EPD3  8.73
 6609  84 06 1 14 8  PHC USGSMNP  EPU2  5.26
 6609  84 06 1 14 7  PHC USGSCASR IPD0 57.04
 6609  84 06 1 14 7  PHC USGSCLKR IPU0 54.55
 6609  84 06 1 14 7  PHC USGSEMH  IPD0 56.39
 6609  84 06 1 14 7  PHC USGSLCC  IPD0 55.19
 6609  84 06 1 14 7  PHC USGSMGNR IPU0 59.20
 6609  84 06 1 14 7  PHC USGSORCR IPU0 56.43
********** 8672 data cards not shown here **********
C*FINIS DSN=SL000094
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Table SL000095

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C#DSN=SL000095;SIZE=004709;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=064;STRT=000001;
C*DATE:  19850430; 0; 840604A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840604; 19840604; 37.469N; 37.469N; 118.614W; 118.614W; ;  6762;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840604 AT 22:54
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
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****
See previous format from dataset SL000080 for details
****

```
C* ORIGINAL STATION CARDS
CWMDR 37.4435N 118.6370W  1683     3.8250   222.7072    1497   1833
CRCCR 37.4877N 118.7217W  2804    12.2034   279.8115    6890   7223
CCASR 37.5748N 118.5515W  2107    13.6062    30.5913    2718   3048
CSCHR 37.3658N 118.6870W  2365    14.0281   215.5814    5016   5413
CORCR 37.6353N 118.6560W  2301    18.9956   345.6414    4618   5015
CCLKR 37.5902N 118.8242W  2630    27.0044   299.7864    3049   3286
CCLK  37.5902N 118.8242W  2630    27.0044   299.7864    1834   2231
CDOE  37.6387N 118.8355W  2220    31.0223   307.2520    6210   6491
CCSR  37.6777N 118.8183W  2122    32.4348   315.3899    7622   8019
CGRP  37.6265N 118.9013W  2208    36.4561   298.5598    9057   9363
CLCC  37.6105N 118.9158W  2550    37.1014   294.9675    3503   3821
CCHS  37.6550N 118.9045W  2420    38.3623   302.4436    8418   8658
CMGNR 37.8133N 118.6955W  2472    39.1537   346.5508    4220   4617
CCSW  37.6442N 118.9282W  2280    40.0230   298.9709    9364   9580
CBNY  37.6408N 118.9358W  2325    40.5877   297.9277    9581   9978
CSHLR 37.6167N 118.9550W  2530    41.3648   293.2759    6492   6889
CSHLN 37.6167N 118.9550W  2530    41.3648   293.2759    8659   9056
CSHL  37.6167N 118.9550W  2530    41.3648   293.2759    5414   5811
CEMH  37.6663N 118.9392W  2495    42.3050   301.0657    3287   3507
CMLK  37.6643N 118.9750W  2670    45.6614   298.2454    5812   6209
CLMC  37.7288N 118.9465W  2540    46.8903   307.8008    3822   4219
CSKI  37.6530N 119.0238W  2660    49.9908   294.0327    8020   8417
CDMP  37.7080N 119.0458W  2550    54.8925   298.7932    7224   7621
CMNP  37.4150N 119.7283W  1000   124.2507   267.2483    2467   2717
CMAT  37.8733N 119.8667W  1353   146.4791   287.7739    2232   2466
CMHD  37.1235N 119.8923W   180   147.4586   254.9659    1099   1496
CIRG1  0.0000    0.0000      0 13839.6875   107.4207     701   1098
CWWVB  0.0000    0.0000      0 13839.6875   107.4207     303    700
C*
```

```
C* ORIGINAL WAVEFORM CARDS
C6762  84 06 4 2254  WFC USGSWWVB                          22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSIRG1                          22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSMHD  37.1235N 119.8923W  180 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSWMDR 37.4435N 118.6370W 1683 22 54  8.71 100  53 16
C6762  84 06 4 2254  WFC USGSCLK  37.5902N 118.8242W 2630 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSMAT  37.8733N 119.8667W 1353 22 54 24.91 100  37 16
C6762  84 06 4 2254  WFC USGSMNP  37.4150N 119.7283W 1000 22 54 22.35 100  39 16
C6762  84 06 4 2254  WFC USGSCASR 37.5748N 118.5515W 2107 22 54  9.63 100  52 16
C6762  84 06 4 2254  WFC USGSCLKR 37.5902N 118.8242W 2630 22 54 11.05 100  37 16
C6762  84 06 4 2254  WFC USGSEMH  37.6663N 118.9392W 2495 22 54 13.17 100  34 16
C6762  84 06 4 2254  WFC USGSLCC  37.6105N 118.9158W 2550 22 54 12.33 100  49 16
C6762  84 06 4 2254  WFC USGSLMC  37.7288N 118.9465W 2540 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSMGNR 37.8133N 118.6955W 2472 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSORCR 37.6353N 118.6560W 2301 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSSCHR 37.3658N 118.6870W 2365 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSSHL  37.6167N 118.9550W 2530 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSMLK  37.6643N 118.9750W 2670 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSDOE  37.6387N 118.8355W 2220 22 54 11.71 100  44 16
C6762  84 06 4 2254  WFC USGSSHLR 37.6167N 118.9550W 2530 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSRCCR 37.4877N 118.7217W 2804 22 54  9.21 100  52 16
C6762  84 06 4 2254  WFC USGSDMP  37.7080N 119.0458W 2550 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSCSR  37.6777N 118.8183W 2122 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSSKI  37.6530N 119.0238W 2660 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSCHS  37.6550N 118.9045W 2420 22 54 12.65 100  38 16
C6762  84 06 4 2254  WFC USGSSHLN 37.6167N 118.9550W 2530 22 53 58.93 100  63 16
C6762  84 06 4 2254  WFC USGSGRP  37.6265N 118.9013W 2208 22 54 12.31 100  48 16
C6762  84 06 4 2254  WFC USGSCSW  37.6442N 118.9282W 2280 22 54 12.79 100  34 16
C6762  84 06 4 2254  WFC USGSBNY  37.6408N 118.9358W 2325 22 53 58.93 100  63 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
C*
C*     PHC               610        631
C*     STA               632        646
C*     SAT               647        679
C*     SPC               680       1094
C*     CQ1              1095       1100
C*     CQ2              1101       1130
C*     CQ3              1131       1166
C*     WFC              1167       1180
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                          LINES
C*     STATION         START        END
C*
C*     WMDR             1181       1432
C*     RCCR             1433       1684
C*     CASR             1685       1936
C*     SCHR             1937       2188
C*     ORCR             2189       2440
C*     CLK              2441       2692
C*     DOE              2693       2944
```

```
C*      CSR              2945        3196
C*      GRP              3197        3448
C*      LCC              3449        3700
C*      CHS              3701        3952
C*      CSW              3953        4204
C*      SHL              4205        4456
C*      EMH              4457        4708
C*END-----------------------------------------------------------------------
 6762  84 06 4 2254  SUC 16.17 37.4689N 118.6137W 12.83A 1.5D    17 184   3 .09
 6762  84 06 4 2254  PHC USGSWMDR IPD0 18.64
 6762  84 06 4 2254  PHC USGSCLK  IPU1 21.06
 6762  84 06 4 2254  PHC USGSMAT  EP4  35.74
 6762  84 06 4 2254  PHC USGSMNP  EP4  32.92
 6762  84 06 4 2254  PHC USGSCASR IPU0 19.59
 6762  84 06 4 2254  PHC USGSCLKR IPU0 21.07
 6762  84 06 4 2254  PHC USGSEMH  IPU0 23.21
 6762  84 06 4 2254  PHC USGSLCC  IPU0 22.20
 6762  84 06 4 2254  PHC USGSMGNR IPU1 23.67
****************** 4089 data cards not shown here ******************
C#FINIS DSN=SL000095
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Table SL000096

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C$DSN=SL000096;SIZE=008876;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=065;STRT=000001;
C*DATE:  19850430; 0; 840605A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840605; 19840605; 37.529N; 37.529N; 118.590W; 118.590W; ;  6788;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840605 AT 11:18
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
```

****
See previous format from dataset SL000080 for details
****

C* ORIGINAL STATION CARDS

CCASR	37.5748N	118.5515W	2107	6.6912	40.0784	11077	11680
CWMDR	37.4435N	118.6370W	1683	10.7504	208.9915	4183	4783
CORCR	37.6353N	118.6560W	2301	13.8979	328.1855	13991	14664
CRCCR	37.4877N	118.7217W	2804	15.3204	252.8677	18618	19217
CSCHR	37.3658N	118.6870W	2365	20.9815	210.9114	14665	15338
CCLKR	37.5902N	118.8242W	2630	26.9305	284.6748	11681	12271
CCLK	37.5902N	118.8242W	2630	26.9305	284.6748	4784	5457
CDOE	37.6387N	118.8355W	2220	29.9041	294.0483	16818	17269
CCSR	37.6777N	118.8183W	2122	30.2826	303.0117	19892	20478
CRSM	37.5107N	118.8822W	3680	32.5699	266.5330	15881	16554
CCVM	37.6098N	118.8733W	2260	32.7755	285.9207	19218	19891
CMGNR	37.8133N	118.6955W	2472	33.6002	339.5813	12992	13571
CGRP	37.6265N	118.9013W	2208	36.2909	287.3733	21425	22007
CLCC	37.6105N	118.9158W	2550	37.3663	284.0449	12639	12991
CCHS	37.6550N	118.9045W	2420	37.6823	291.7900	20757	21234
CCSW	37.6442N	118.9282W	2280	39.7452	288.7771	22008	22587
CBNY	37.6408N	118.9358W	2325	40.4299	287.8865	22588	22850
CEMH	37.6663N	118.9392W	2495	41.7340	291.4153	12272	12638
CSHLN	37.6167N	118.9550W	2530	41.7679	283.5039	21235	21424
CSHL	37.6167N	118.9550W	2530	41.7679	283.5039	15339	15880
CTAC	37.6317N	118.9650W	2398	43.2580	285.2959	16555	16817
CSKI	37.6530N	119.0238W	2660	50.1969	285.9180	20479	20756
CMMCR	38.3608N	119.1283W	2548	109.8568	326.9487	13572	13990
CMNP	37.4150N	119.7283W	1000	127.3387	264.3406	7866	8380
CFRI	36.9917N	119.7083W	119	138.0122	244.4785	10403	11076
CMAT	37.8733N	119.8667W	1353	147.1282	285.0181	5458	5843
CMHD	37.1235N	119.8923W	180	151.7926	252.8181	2341	2834
CWKT	35.7940N	118.4425W	890	193.9357	175.1245	17270	17943
CMYL	37.3780N	120.4197W	84	204.3835	265.3271	2835	3508

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CMST  37.9045N 120.4048W   366   206.2390   281.6232    9729   10402
CMCH  38.0187N 120.5095W   475   220.4337   284.2349    5844    6517
CWOF  35.5357N 118.7125W  1341   222.6647   183.5156   17944   18617
CMOY  37.9000N 120.5673W   176   223.8960   280.5710    8381    9054
CMRF  38.2453N 120.5207W   799   229.0900   290.2476    9055    9728
CMCU  37.9727N 120.6170W   336   230.9142   282.2805    6518    7191
CMNH  38.1458N 120.8137W   219   256.7820   285.4177    7192    7865
CARJ  38.6865N 120.9563W   460   293.0857   295.9482    3509    4182
CHQRV 36.8337N 121.2127W   536   302.1650   255.2336    1667    2340
CWWVB  0.0000    0.0000      0 13838.8437   107.4495     319     992
CIRG1  0.0000    0.0000      0 13838.8437   107.4495     993    1666
C*
C* ORIGINAL WAVEFORM CARDS
C6788  84 06 5 1118  WFC USGSWWVB                              11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSIRG1                              11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSHQRV 36.8337N 121.2127W  536 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSMHD  37.1235N 119.8923W  180 11 18 11.79 100  78 16
C6788  84 06 5 1118  WFC USGSMYL  37.3780N 120.4197W   84 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSARJ  38.6865N 120.9563W  460 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSWMDR 37.4435N 118.6370W 1683 11 17 55.13 100  95 16
C6788  84 06 5 1118  WFC USGSCLK  37.5902N 118.8242W 2630 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSMAT  37.8733N 119.8667W 1353 11 18 11.05 100  61 16
C6788  84 06 5 1118  WFC USGSMCH  38.0187N 120.5095W  475 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSMCU  37.9727N 120.6170W  336 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSMNH  38.1458N 120.8137W  219 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSMNP  37.4150N 119.7283W 1000 11 18  8.89 100  82 16
C6788  84 06 5 1118  WFC USGSMOY  37.9000N 120.5673W  176 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSMRF  38.2453N 120.5207W  799 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSMST  37.9045N 120.4048W  366 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSFRI  36.9917N 119.7083W  119 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSCASR 37.5748N 118.5515W 2107 11 17 54.69 100  96 16
C6788  84 06 5 1118  WFC USGSCLKR 37.5902N 118.8242W 2630 11 17 56.79 100  94 16
C6788  84 06 5 1118  WFC USGSEMH  37.6663N 118.9392W 2495 11 17 58.83 100  58 16
C6788  84 06 5 1118  WFC USGSLCC  37.6105N 118.9158W 2550 11 17 58.13 100  56 16
C6788  84 06 5 1118  WFC USGSMGNR 37.8133N 118.6955W 2472 11 17 58.59 100  92 16
C6788  84 06 5 1118  WFC USGSMMCR 38.3608N 119.1283W 2548 11 18  9.17 100  66 16
C6788  84 06 5 1118  WFC USGSORCR 37.6353N 118.6560W 2301 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSSCHR 37.3658N 118.6870W 2365 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSSHL  37.6167N 118.9550W 2530 11 17 58.71 100  86 16
C6788  84 06 5 1118  WFC USGSRSM  37.5107N 118.8822W 3680 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSTAC  37.6317N 118.9650W 2398 11 17 58.93 100  41 16
C6788  84 06 5 1118  WFC USGSDOE  37.6387N 118.8355W 2220 11 17 57.29 100  71 16
C6788  84 06 5 1118  WFC USGSWKT  35.7940N 118.4425W  890 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSWOF  35.5357N 118.7125W 1341 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSRCCR 37.4877N 118.7217W 2804 11 17 55.39 100  95 16
C6788  84 06 5 1118  WFC USGSCVM  37.6098N 118.8733W 2260 11 17 43.55 100 107 16
C6788  84 06 5 1118  WFC USGSCSR  37.6777N 118.8183W 2122 11 17 57.47 100  93 16
C6788  84 06 5 1118  WFC USGSSKI  37.6530N 119.0238W 2660 11 17 59.87 100  44 16
C6788  84 06 5 1118  WFC USGSCHS  37.6550N 118.9045W 2420 11 17 58.29 100  76 16
C6788  84 06 5 1118  WFC USGSSHLN 37.6167N 118.9550W 2530 11 17 58.71 100  30 16
C6788  84 06 5 1118  WFC USGSGRP  37.6265N 118.9013W 2208 11 17 58.03 100  92 16
C6788  84 06 5 1118  WFC USGSCSW  37.6442N 118.9282W 2280 11 17 58.51 100  92 16
C6788  84 06 5 1118  WFC USGSBNY  37.6408N 118.9358W 2325 11 17 58.59 100  41 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
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C*                              LINES
C*      ITEM            START          END
C*
C*      PHC               639          664
C*      STA               665          684
C*      SAT               685          737
C*      SPC               738         1567
C*      CQ1              1568         1573
C*      CQ2              1574         1609
C*      CQ3              1610         1693
C*      WFC              1694         1712
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                              LINES
C*      STATION         START          END
C*
C*      CASR              1713         2089
C*      WMDR              2090         2466
C*      ORCR              2467         2843
C*      RCCR              2844         3220
C*      SCHR              3221         3597
C*      CLKR              3598         3974
C*      DOE               3975         4351
C*      CSR               4352         4728
C*      RSM               4729         5105
C*      MGNR              5106         5482
C*      GRP               5483         5859
C*      LCC               5860         6236
C*      CHS               6237         6613
C*      CSW               6614         6990
C*      BNY               6991         7367
C*      EMH               7368         7744
C*      SHL               7745         8121
C*      TAC               8122         8498
C*      SKI               8499         8875
C*END-------------------------------------------------------------------------
 6788  84 06 5 1118  SUC  2.20 37.5285N 118.5902W 11.31A 2.1D    20 170   6 .09
 6788  84 06 5 1118  PHC USGSMHD   PD4 22.87
 6788  84 06 5 1118  PHC USGSWMDR IPU0  5.05
 6788  84 06 5 1118  PHC USGSCLK  IPU0  6.80
 6788  84 06 5 1118  PHC USGSMAT  EP4  22.03
 6788  84 06 5 1118  PHC USGSMNP  IPU0 19.25
 6788  84 06 5 1118  PHC USGSCASR IPD0  4.76
 6788  84 06 5 1118  PHC USGSCLKR IPU1  6.80
 6788  84 06 5 1118  PHC USGSEMH  IPU0  8.86
 6788  84 06 5 1118  PHC USGSLCC  IPU0  8.04
****************** 8227 data cards not shown here ******************
C*FINIS DSN=SL000096
```

Table SL000097

```
C$DSN=SL000097;SIZE=009374;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=066;STRT=000001;
C*DATE:  19850430; 0; 840605B ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840605; 19840605; 37.511N; 37.511N; 118.670W; 118.670W; ;  6819;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840605 AT 22:58
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
```

****
See previous format from dataset SL000080 for details
****

C* ORIGINAL STATION CARDS

CRCCR	37.4877N	118.7217W	2804	6.2777	246.1994	10309	10659
CWMDR	37.4435N	118.6370W	1683	8.2887	153.5906	1998	2345
CORCR	37.6353N	118.6560W	2301	13.8786	6.4937	7035	7455
CCASR	37.5748N	118.5515W	2107	14.9922	61.7349	4708	5050
CSCHR	37.3658N	118.6870W	2365	16.1318	186.6954	7456	7876
CCLK	37.5902N	118.8242W	2630	19.2821	297.1609	2346	2766
CCLKR	37.5902N	118.8242W	2630	19.2821	297.1609	5051	5389
CDOE	37.6387N	118.8355W	2220	23.2312	307.5730	8625	9045
CCSR	37.6777N	118.8183W	2122	24.7711	318.2402	11081	11501
CGRP	37.6265N	118.9013W	2208	28.7534	296.4695	12251	12581
CLCC	37.6105N	118.9158W	2550	29.5000	291.9934	5715	6044
CLCCR	37.6105N	118.9158W	2550	29.5000	291.9934	9888	10308
CCHS	37.6550N	118.9045W	2420	30.5918	301.4636	11923	12250
CCSW	37.6442N	118.9282W	2280	32.3091	297.2092	12582	12908
CBNY	37.6408N	118.9358W	2325	32.8974	295.9526	12909	13098
CMGNR	37.8133N	118.6955W	2472	33.5874	355.1724	6365	6785
CSHL	37.6167N	118.9550W	2530	33.8178	290.3003	7877	8203
CSHLR	37.6167N	118.9550W	2530	33.8178	290.3003	9467	9887
CEMH	37.6663N	118.9392W	2495	34.5522	299.8882	5390	5714
CMLK	37.6643N	118.9750W	2670	37.9612	296.5986	8204	8624
CLMC	37.7288N	118.9465W	2540	39.1014	308.1011	6045	6364
CSKI	37.6530N	119.0238W	2660	42.4081	291.7964	11502	11922
CDMP	37.7080N	119.0458W	2550	47.1776	297.5581	10660	11080
CMMCR	38.3608N	119.1283W	2548	107.0012	331.5244	6786	7034
CMNP	37.4150N	119.7283W	1000	118.2962	264.8699	3188	3444
CFRI	36.9917N	119.7083W	119	129.1458	243.5697	4287	4707
CMAT	37.8733N	119.8667W	1353	139.1130	286.7549	2767	3187
CMHD	37.1235N	119.8923W	180	142.7101	252.5220	1156	1576
CWKT	35.7940N	118.4425W	890	192.9347	172.4343	9046	9466

```
CMYL  37.3780N 120.4197W    84   195.3610   265.6931    1577    1997
CMOY  37.9000N 120.5673W   176   215.5439   281.5220    3445    3865
CMRF  38.2453N 120.5207W   799   221.4801   291.5242    3866    4286
CWWVB  0.0000    0.0000      0 13846.8242   107.4307     314     734
CIRG1  0.0000    0.0000      0 13846.8242   107.4307     735    1155
C*
C* ORIGINAL WAVEFORM CARDS
C6819  84 06 5 2258  WFC USGSWWVB                                22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSIRG1                                22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSMHD  37.1235N 119.8923W  180 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSMYL  37.3780N 120.4197W   84 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSWMDR 37.4435N 118.6370W 1683 22 58 30.06 100  55 16
C6819  84 06 5 2258  WFC USGSCLK  37.5902N 118.8242W 2630 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSMAT  37.8733N 119.8667W 1353 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSMNP  37.4150N 119.7283W 1000 22 58 44.58 100  40 16
C6819  84 06 5 2258  WFC USGSMOY  37.9000N 120.5673W  176 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSMRF  38.2453N 120.5207W  799 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSFRI  36.9917N 119.7083W  119 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSCASR 37.5748N 118.5515W 2107 22 58 30.86 100  54 16
C6819  84 06 5 2258  WFC USGSCLKR 37.5902N 118.8242W 2630 22 58 31.46 100  53 16
C6819  84 06 5 2258  WFC USGSEMH  37.6663N 118.9392W 2495 22 58 33.70 100  51 16
C6819  84 06 5 2258  WFC USGSLCC  37.6105N 118.9158W 2550 22 58 32.82 100  52 16
C6819  84 06 5 2258  WFC USGSLMC  37.7288N 118.9465W 2540 22 58 34.54 100  50 16
C6819  84 06 5 2258  WFC USGSMGNR 37.8133N 118.6955W 2472 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSMMCR 38.3608N 119.1283W 2548 22 58 45.78 100  39 16
C6819  84 06 5 2258  WFC USGSORCR 37.6353N 118.6560W 2301 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSSCHR 37.3658N 118.6870W 2365 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSSHL  37.6167N 118.9550W 2530 22 58 33.42 100  51 16
C6819  84 06 5 2258  WFC USGSMLK  37.6643N 118.9750W 2670 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSDOE  37.6387N 118.8355W 2220 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSWKT  35.7940N 118.4425W  890 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSSHLR 37.6167N 118.9550W 2530 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSLCCR 37.6105N 118.9158W 2550 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSRCCR 37.4877N 118.7217W 2804 22 58 29.58 100  55 16
C6819  84 06 5 2258  WFC USGSDMP  37.7080N 119.0458W 2550 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSCSR  37.6777N 118.8183W 2122 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSSKI  37.6530N 119.0238W 2660 22 58 18.34 100  66 16
C6819  84 06 5 2258  WFC USGSCHS  37.6550N 118.9045W 2420 22 58 33.14 100  52 16
C6819  84 06 5 2258  WFC USGSGRP  37.6265N 118.9013W 2208 22 58 32.78 100  52 16
C6819  84 06 5 2258  WFC USGSCSW  37.6442N 118.9282W 2280 22 58 33.30 100  51 16
C6819  84 06 5 2258  WFC USGSBNY  37.6408N 118.9358W 2325 22 58 33.38 100  30 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
C*
C*     PHC               626        652
C*     STA               653        671
C*     SAT               672        713
C*     SPC               714       1303
C*     CQ1              1304       1321
C*     CQ2              1322       1375
C*     CQ3              1376       1435
C*     WFC              1436       1453
C*
```

```
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                          LINES
C*     STATION         START        END
C*
C*     RCCR             1454        1893
C*     WMDR             1894        2333
C*     ORCR             2334        2773
C*     CASR             2774        3213
C*     SCHR             3214        3653
C*     CLKR             3654        4093
C*     DOE              4094        4533
C*     CSR              4534        4973
C*     GRP              4974        5413
C*     LCC              5414        5853
C*     CHS              5854        6293
C*     CSW              6294        6733
C*     BNY              6734        7173
C*     MGNR             7174        7613
C*     SHL              7614        8053
C*     EMH              8054        8493
C*     MLK              8494        8933
C*     LMC              8934        9373
C*END-----------------------------------------------------------------------
 6819  84 06 5 2258  SUC 38.05 37.5106N 118.6701W  3.52A 1.9D    17 102   5 .10
 6819  84 06 5 2258  PHC USGSMHD  EP4  57.79
 6819  84 06 5 2258  PHC USGSWMDR IPU1 39.96
 6819  84 06 5 2258  PHC USGSCLK  IPD1 41.35
 6819  84 06 5 2258  PHC USGSMAT   P4  57.40
 6819  84 06 5 2258  PHC USGSMNP   P4  54.32
 6819  84 06 5 2258  PHC USGSFRI   P4  56.71
 6819  84 06 5 2258  PHC USGSCASR IPD1 40.88
 6819  84 06 5 2258  PHC USGSCLKR IPD0 41.34
 6819  84 06 5 2258  PHC USGSEMH  EPD3 43.73
****************** 8738 data cards not shown here ******************
C#FINIS DSN=SL000097
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Table SL000098

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C#DSN=SL000098;SIZE=006420;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=067;STRT=000001;
C*DATE:  19850430; 0; 840608A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840608; 19840608; 37.436N; 37.436N; 118.693W; 118.693W; ;  6955;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840608 AT 14:51
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
```

****
See previous format from dataset SL000080 for details
****

C* ORIGINAL STATION CARDS

CWMDR	37.4435N	118.6370W	1683	6.3487	82.2976	1198	1578
CRCCR	37.4877N	118.7217W	2804	6.5436	331.3271	11481	11860
CSCHR	37.3658N	118.6870W	2365	7.7811	174.6624	8088	8464
CCASR	37.5748N	118.5515W	2107	22.0522	45.8000	4087	4450
CCLK	37.5902N	118.8242W	2630	22.4359	319.5627	1579	2022
CCLKR	37.5902N	118.8242W	2630	22.4359	319.5627	4895	5257
CORCR	37.6353N	118.6560W	2301	22.4549	10.7124	7644	8087
CRSM	37.5107N	118.8822W	3680	22.5850	291.5198	8817	9260
CDOE	37.6387N	118.8355W	2220	27.4493	324.8350	9705	10148
CCVM	37.6098N	118.8733W	2260	27.7687	313.8701	11861	12304
CLLK	37.5788N	118.9050W	3030	28.3662	303.8875	4451	4894
CCSR	37.6777N	118.8183W	2122	30.1446	332.5537	12305	12658
CGRP	37.6265N	118.9013W	2208	31.3060	312.3516	14343	14697
CLCCR	37.6105N	118.9158W	2550	31.3991	307.9788	10593	11036
CLCC	37.6105N	118.9158W	2550	31.3991	307.9788	5957	6311
CMDW	37.6313N	118.9162W	2350	32.8972	311.0901	13455	13898
CBENR	37.7155N	118.5733W	2463	33.7003	23.3940	5258	5607
CCHS	37.6550N	118.9045W	2420	33.7559	315.9011	13103	13454
CCSW	37.6442N	118.9282W	2280	34.8422	311.4121	14698	15049
CBNY	37.6408N	118.9358W	2325	35.2379	310.0432	15050	15326
CSHLR	37.6167N	118.9550W	2530	35.3258	304.4966	10149	10592
CSHL	37.6167N	118.9550W	2530	35.3258	304.4966	8465	8816
CEMH	37.6663N	118.9392W	2495	37.3903	312.9819	5608	5956
CMLK	37.6643N	118.9750W	2670	40.2595	308.8799	9261	9704
CMGNR	37.8133N	118.6955W	2472	41.7411	359.6943	6756	7199
CMMP	37.6100N	119.0280W	2870	41.9299	297.3542	13899	14342
CLMC	37.7288N	118.9465W	2540	42.9321	318.9993	6312	6755
CSKI	37.6530N	119.0238W	2660	43.9234	303.1526	12659	13102
CLULR	38.0523N	119.1803W	2243	87.0833	321.5156	11037	11480

```
CMMCR 38.3608N 119.1283W  2548    113.1893    334.6792     7200    7643
CMNP  37.4150N 119.7283W  1000    115.2480    268.8547     2911    3198
CMAT  37.8733N 119.8667W  1353    139.2749    290.3242     2023    2466
CMST  37.9045N 120.4048W   366    197.4289    285.2175     3643    4086
CMCH  38.0187N 120.5095W   475    212.1874    287.6826     2467    2910
CMOY  37.9000N 120.5673W   176    214.8182    283.8230     3199    3642
CIRG1  0.0000    0.0000      0 13847.3008    107.3958      754    1197
CWWVB  0.0000    0.0000      0 13847.3008    107.3958      310     753
C*
C* ORIGINAL WAVEFORM CARDS
C6955  84 06 8 1451  WFC USGSWWVB                              14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSIRG1                              14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSWMDR 37.4435N 118.6370W 1683 14 51 14.49 100  60 16
C6955  84 06 8 1451  WFC USGSCLK  37.5902N 118.8242W 2630 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSMAT  37.8733N 119.8667W 1353 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSMCH  38.0187N 120.5095W  475 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSMNP  37.4150N 119.7283W 1000 14 51 29.45 100  45 16
C6955  84 06 8 1451  WFC USGSMOY  37.9000N 120.5673W  176 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSMST  37.9045N 120.4048W  366 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSCASR 37.5748N 118.5515W 2107 14 51 17.33 100  57 16
C6955  84 06 8 1451  WFC USGSLLK  37.5788N 118.9050W 3030 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSCLKR 37.5902N 118.8242W 2630 14 51 17.45 100  57 16
C6955  84 06 8 1451  WFC USGSBENR 37.7155N 118.5733W 2463 14 51 19.53 100  55 16
C6955  84 06 8 1451  WFC USGSEMH  37.6663N 118.9392W 2495 14 51 19.65 100  55 16
C6955  84 06 8 1451  WFC USGSLCC  37.6105N 118.9158W 2550 14 51 18.65 100  56 16
C6955  84 06 8 1451  WFC USGSLMC  37.7288N 118.9465W 2540 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSMGNR 37.8133N 118.6955W 2472 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSMMCR 38.3608N 119.1283W 2548 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSORCR 37.6353N 118.6560W 2301 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSSCHR 37.3658N 118.6870W 2365 14 51 15.13 100  59 16
C6955  84 06 8 1451  WFC USGSSHL  37.6167N 118.9550W 2530 14 51 19.13 100  55 16
C6955  84 06 8 1451  WFC USGSRSM  37.5107N 118.8822W 3680 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSMLK  37.6643N 118.9750W 2670 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSDOE  37.6387N 118.8355W 2220 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSSHLR 37.6167N 118.9550W 2530 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSLCCR 37.6105N 118.9158W 2550 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSLULR 38.0523N 119.1803W 2243 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSRCCR 37.4877N 118.7217W 2804 14 51 14.73 100  60 16
C6955  84 06 8 1451  WFC USGSCVM  37.6098N 118.8733W 2260 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSCSR  37.6777N 118.8183W 2122 14 51 18.85 100  56 16
C6955  84 06 8 1451  WFC USGSSKI  37.6530N 119.0238W 2660 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSCHS  37.6550N 118.9045W 2420 14 51 19.13 100  55 16
C6955  84 06 8 1451  WFC USGSMDW  37.6313N 118.9162W 2350 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSMMP  37.6100N 119.0280W 2870 14 51  4.49 100  70 16
C6955  84 06 8 1451  WFC USGSGRP  37.6265N 118.9013W 2208 14 51 18.69 100  56 16
C6955  84 06 8 1451  WFC USGSCSW  37.6442N 118.9282W 2280 14 51 19.21 100  55 16
C6955  84 06 8 1451  WFC USGSBNY  37.6408N 118.9358W 2325 14 51 19.25 100  43 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM            START        END
C*
C*     PHC               630        649
C*     STA               650        666
C*     SAT               667        705
```

```
C*      SPC                706        1225
C*      CQ1               1226        1243
C*      CQ2               1244        1279
C*      CQ3               1280        1363
C*      WFC               1364        1379
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                             LINES
C*      STATION          START         END
C*
C*      WMDR              1380        1694
C*      RCCR              1695        2009
C*      SCHR              2010        2324
C*      CASR              2325        2639
C*      CLKR              2640        2954
C*      ORCR              2955        3269
C*      DOE               3270        3584
C*      CSR               3585        3899
C*      GRP               3900        4214
C*      LCC               4215        4529
C*      BENR              4530        4844
C*      CHS               4845        5159
C*      CSW               5160        5474
C*      BNY               5475        5789
C*      SHL               5790        6104
C*      EMH               6105        6419
C*END-----------------------------------------------------------------------
 6955  84 06 8 1451  SUC 23.09 37.4358N 118.6935W  2.32A 2.0D    15  95   5 .10
 6955  84 06 8 1451  PHC USGSWMDR IPD0 24.43
 6955  84 06 8 1451  PHC USGSMNP  IPU1 39.07
 6955  84 06 8 1451  PHC USGSCASR EPD2 27.35
 6955  84 06 8 1451  PHC USGSCLKR EPU3 27.30
 6955  84 06 8 1451  PHC USGSBENR EP4  29.40
 6955  84 06 8 1451  PHC USGSEMH  EPU2 29.73
 6955  84 06 8 1451  PHC USGSLCC  EPU2 28.52
 6955  84 06 8 1451  PHC USGSORCR EPD2 27.75
 6955  84 06 8 1451  PHC USGSSCHR IPU0 25.18
****************** 5780 data cards not shown here ******************
C$FINIS DSN=SL000098
```

Table SL000099

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C$DSN=SL000099;SIZE=005317;DATE=050285;ARCH=JN;TAPE=SM9302;FILE=067;STRT=006421;
C*DATE:  19850430; 0; 840610A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840610; 19840610; 37.629N; 37.629N; 118.940W; 118.940W; ;  7045;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840610 AT 06:34
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
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See previous format from dataset SL000080 for details
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C* ORIGINAL STATION CARDS

CBNY	37.6408N	118.9358W	2325	1.3647	20.0164	17258	17643
CCSW	37.6442N	118.9282W	2280	2.1154	38.3687	16774	17257
CSHLR	37.6167N	118.9550W	2530	2.1674	230.3903	13503	14107
CSHLN	37.6167N	118.9550W	2530	2.1674	230.3903	16075	16404
CSHL	37.6167N	118.9550W	2530	2.1674	230.3903	11252	11618
CTAC	37.6317N	118.9650W	2398	2.7961	275.6792	12224	12546
CLCC	37.6105N	118.9158W	2550	3.3956	127.4949	9379	9732
CLCCR	37.6105N	118.9158W	2550	3.3956	127.4949	14108	14712
CEMH	37.6663N	118.9392W	2495	4.1042	1.2568	9060	9378
CGRP	37.6265N	118.9013W	2208	4.3182	93.9656	16405	16773
CCHS	37.6550N	118.9045W	2420	4.8749	54.1787	15731	16074
CSKI	37.6530N	119.0238W	2660	9.6932	285.7554	15477	15730
CDOE	37.6387N	118.8355W	2220	11.6815	84.8372	12547	12897
CCLK	37.5902N	118.8242W	2630	13.5936	108.4971	3188	3792
CCLKR	37.5902N	118.8242W	2630	13.5936	108.4971	8235	8711
CCSR	37.6777N	118.8183W	2122	14.5715	68.4023	15097	15476
CRSM	37.5107N	118.8822W	3680	14.5992	153.8472	11619	12223
CRCCR	37.4877N	118.7217W	2804	28.9058	122.7751	14713	15096
CORCR	37.6353N	118.6560W	2301	31.6227	88.7769	10338	10800
CWMDR	37.4435N	118.6370W	1683	39.4946	121.3335	2734	3187
CSCHR	37.3658N	118.6870W	2365	40.5259	135.9658	10801	11251
CBENR	37.7155N	118.5733W	2463	41.9222	76.8425	8712	9059
CCASR	37.5748N	118.5515W	2107	43.6667	97.9177	7630	8234
CMMCR	38.3608N	119.1283W	2548	83.6324	345.4805	9733	10337
CMNP	37.4150N	119.7283W	1000	90.9057	254.8933	4798	5209
CMAT	37.8733N	119.8667W	1353	106.6351	284.6621	3793	4192
CFRI	36.9917N	119.7083W	119	110.9283	230.4794	7025	7629
CMHD	37.1235N	119.8923W	180	119.9120	242.1755	1524	2128
CMST	37.9045N	120.4048W	366	165.8836	280.5740	6420	7024

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CMYL  37.3780N 120.4197W    84   167.0695   260.4268    2129   2733
CMCH  38.0187N 120.5095W   475   179.9604   283.8484    4193   4797
CMOY  37.9000N 120.5673W   176   183.6152   279.3853    5210   5814
CMRF  38.2453N 120.5207W   799   188.7375   291.1699    5815   6419
CWKT  35.7940N 118.4425W   890   211.7634   164.8022   12898  13502
CIRG1  0.0000    0.0000      0 13879.0000   107.4443     919   1523
CWWVB  0.0000    0.0000      0 13879.0000   107.4443     314    918
C*
C* ORIGINAL WAVEFORM CARDS
C7045  84 0610  634  WFC USGSWWVB                          6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSIRG1                          6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSMHD  37.1235N 119.8923W  180  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSMYL  37.3780N 120.4197W   84  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSWMDR 37.4435N 118.6370W 1683  6 34 28.71 100  72 16
C7045  84 0610  634  WFC USGSCLK  37.5902N 118.8242W 2630  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSMAT  37.8733N 119.8667W 1353  6 34 37.35 100  63 16
C7045  84 0610  634  WFC USGSMCH  38.0187N 120.5095W  475  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSMNP  37.4150N 119.7283W 1000  6 34 35.43 100  65 16
C7045  84 0610  634  WFC USGSMOY  37.9000N 120.5673W  176  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSMRF  38.2453N 120.5207W  799  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSMST  37.9045N 120.4048W  366  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSFRI  36.9917N 119.7083W  119  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSCASR 37.5748N 118.5515W 2107  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSCLKR 37.5902N 118.8242W 2630  6 34 24.95 100  75 16
C7045  84 0610  634  WFC USGSBENR 37.7155N 118.5733W 2463  6 34 28.71 100  55 16
C7045  84 0610  634  WFC USGSEMH  37.6663N 118.9392W 2495  6 34 23.99 100  50 16
C7045  84 0610  634  WFC USGSLCC  37.6105N 118.9158W 2550  6 34 23.91 100  56 16
C7045  84 0610  634  WFC USGSMMCR 38.3608N 119.1283W 2548  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSORCR 37.6353N 118.6560W 2301  6 34 27.27 100  73 16
C7045  84 0610  634  WFC USGSSCHR 37.3658N 118.6870W 2365  6 34 29.19 100  71 16
C7045  84 0610  634  WFC USGSSHL  37.6167N 118.9550W 2530  6 34 23.83 100  58 16
C7045  84 0610  634  WFC USGSRSM  37.5107N 118.8822W 3680  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSTAC  37.6317N 118.9650W 2398  6 34 23.83 100  51 16
C7045  84 0610  634  WFC USGSDOE  37.6387N 118.8355W 2220  6 34 24.63 100  55 16
C7045  84 0610  634  WFC USGSWKT  35.7940N 118.4425W  890  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSSHLR 37.6167N 118.9550W 2530  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSLCCR 37.6105N 118.9158W 2550  6 34  4.55 100  96 16
C7045  84 0610  634  WFC USGSRCCR 37.4877N 118.7217W 2804  6 34 27.27 100  61 16
C7045  84 0610  634  WFC USGSCSR  37.6777N 118.8183W 2122  6 34 25.11 100  60 16
C7045  84 0610  634  WFC USGSSKI  37.6530N 119.0238W 2660  6 34 24.47 100  40 16
C7045  84 0610  634  WFC USGSCHS  37.6550N 118.9045W 2420  6 34 23.99 100  54 16
C7045  84 0610  634  WFC USGSSHLN 37.6167N 118.9550W 2530  6 34 23.83 100  52 16
C7045  84 0610  634  WFC USGSGRP  37.6265N 118.9013W 2208  6 34 23.91 100  58 16
C7045  84 0610  634  WFC USGSCSW  37.6442N 118.9282W 2280  6 34 23.83 100  77 16
C7045  84 0610  634  WFC USGSBNY  37.6408N 118.9358W 2325  6 34 23.75 100  61 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                          LINES
C*     ITEM              START        END
C*
C*     PHC                 628        652
C*     STA                 653        669
C*     SAT                 670        711
C*     SPC                 712       1276
C*     CQ1                1277       1330
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C*      CQ2              1331        1396
C*      CQ3              1397        1468
C*      WFC              1469        1484
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                            LINES
C*      STATION         START         END
C*
C*      BNY              1485        1736
C*      CSW              1737        1988
C*      SHL              1989        2240
C*      TAC              2241        2492
C*      LCC              2493        2744
C*      EMH              2745        2996
C*      GRP              2997        3248
C*      CHS              3249        3500
C*      SKI              3501        3752
C*      DOE              3753        4004
C*      CLKR             4005        4256
C*      CSR              4257        4508
C*      RSM              4509        4760
C*      RCCR             4761        5012
C*      ORCR             5013        5264
C*      WMDR             5265        5516
C*END-------------------------------------------------------------------------
 7045  84 0610  634  SUC 32.31 37.6292N 118.9400W  6.81A 1.8D    21  81   1 .08
 7045  84 0610  634  PHC USGSMHD  EPU3 49.69
 7045  84 0610  634  PHC USGSWMDR IPU1 38.59
 7045  84 0610  634  PHC USGSCLK  IPD0 34.95
 7045  84 0610  634  PHC USGSMAT  EP4  46.74
 7045  84 0610  634  PHC USGSMNP  EP4  45.06
 7045  84 0610  634  PHC USGSCASR EPU2 38.95
 7045  84 0610  634  PHC USGSCLKR IPD0 34.96
 7045  84 0610  634  PHC USGSBENR EPD2 38.64
 7045  84 0610  634  PHC USGSEMH  IPU0 33.89
****************** 4879 data cards not shown here ******************
C*FINIS DSN=SL000099
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C*DATE:  19850430; 0; 840616A ;
C*CLASS:  EARTHQUAKE; SUMMARY; PHASE; WAVEFORM;
C*PERSN:  W.H.K. LEE; J.T. NEWBERRY; S. STEWART;
C*ALPHA:  19840616; 19840616; 37.594N; 37.594N; 118.825W; 118.825W; ;  7313;
C*KEYWD:  CUSP; CODA Q; SPECTRA;
C*TITLE:  EDITED DATA ,SPECTRAL ESTIMATES, AND CODA Q RESULTS
C*        FOR EARTHQUAKE ON 840616 AT 07:30
C*INSTITUTION:  U. S. GEOLOGICAL SURVEY, MENLO PARK, CA, 94025
C*ICODE:  GSMP;
C*ABSTRACT:  THIS DATA SET IS A RESULT OF EDITING OF AN EARTHQUAKE DATA
C*           FILE CONVERTED TO STANDARDIZED FORMAT FROM THE ORIGINAL CUSP
C*           MEM AND BINARY ARCHIVE TAPES.  INCLUDED IN THE DATA SET ARE
C*           DIGITAL STATION TRACES, SUMMARY AND PHASE INFORMATION, AND
C*           SPECTRAL ESTIMATES AND CODA Q DETERMINATIONS.  USEFUL TRACES
C*           HAVE BEEN SELECTED AND CHOPPED TO UNIFORM LENGTH.
C*REFERENCE:
C*FORMAT:
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See previous format from dataset SL000080 for details
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C* ORIGINAL STATION CARDS
CCLK  37.5902N 118.8242W  2630     0.3860   161.5288   79039  79896
CCLKR 37.5902N 118.8242W  2630     0.3860   161.5288  112860 113609
CDOE  37.6387N 118.8355W  2220     5.1249   347.2078  120470 121218
CCVM  37.6098N 118.8733W  2260     5.6397   288.6340  130427 131175
CGRP  37.6265N 118.9013W  2208     9.2140   293.3225  134036 134782
CCSR  37.6777N 118.8183W  2122     9.3426     4.7871  131176 132033
CLCC  37.6105N 118.9158W  2550    10.2488   280.5679  115081 115938
CLCCR 37.6105N 118.9158W  2550    10.2488   280.5679  124651 125396
CCHS  37.6550N 118.9045W  2420    11.1336   307.6416  132770 133514
CRSM  37.5107N 118.8822W  3680    11.1355   214.6717  119137 119994
CSHLR 37.6167N 118.9550W  2530    14.6649   280.0720  123793 124650
CSHL  37.6167N 118.9550W  2530    14.6649   280.0720  118394 119136
CSHLN 37.6167N 118.9550W  2530    14.6649   280.0720  133515 134035
CEMH  37.6663N 118.9392W  2495    15.0184   302.4111  114339 115080
CTAC  37.6317N 118.9650W  2398    16.1147   285.1931  119995 120469
CRCCR 37.4877N 118.7217W  2804    16.4310   135.4114  125397 126136
CORCR 37.6353N 118.6560W  2301    19.4052    76.2222  116797 117535
CSKI  37.6530N 119.0238W  2660    23.0564   286.5781  132034 132769
CWMDR 37.4435N 118.6370W  1683    26.7362   128.3577   78307  79038
CSCHR 37.3658N 118.6870W  2365    29.5233   148.5613  117536 118393
CCASR 37.5748N 118.5515W  2107    30.5518    93.8826  112129 112859
CBENR 37.7155N 118.5733W  2463    31.1277    64.3198  113610 114338
CMMCR 38.3608N 119.1283W  2548    91.3605   338.3281  115939 116796
CMNPN 37.4150N 119.7283W  1000   102.4570   258.8884  107167 107838
CMNP  37.4150N 119.7283W  1000   102.4570   258.8884  106495 107166
CFRI  36.9917N 119.7083W   119   118.8034   235.8763  111271 112128
CMAT  37.8733N 119.8667W  1353   119.9878   284.9417  103063 103920
CMHD  37.1235N 119.8923W   180   129.7159   246.3544   52776  53424
CMYL  37.3780N 120.4197W    84   179.1110   262.3516   53425  54282
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CMST	37.9045N	120.4048W	366	179.1650	281.0652	109555	110412
CMCH	38.0187N	120.5095W	475	193.3018	284.0779	103921	104778
CMOY	37.9000N	120.5673W	176	196.8635	279.9124	107839	108696
CPWM	36.4328N	120.2110W	72	201.1611	230.1642	126995	127852
CMRF	38.2453N	120.5207W	799	202.0679	290.9053	108697	109554
CMCU	37.9727N	120.6170W	336	203.8201	281.8716	104779	105636
CPHB	36.2488N	120.0827W	100	204.9096	223.1770	127853	128710
CWKT	35.7940N	118.4425W	890	204.9183	167.9678	122077	122934
CWCH	35.8830N	118.0747W	2475	208.0282	156.2603	121219	122076
CPDR	36.3357N	120.3687W	488	221.6509	230.9263	128711	129568
CPKE	36.0615N	120.1090W	288	222.5764	220.0396	129569	130426
CPAR	36.2492N	120.3420W	485	225.6501	228.5465	22746	23603
CMNH	38.1458N	120.8137W	219	229.6473	285.4258	105637	106494
CWOF	35.5357N	118.7125W	1341	229.7836	176.8582	122935	123792
CBRM	36.8450N	120.8237W	372	237.5741	249.5668	62005	62862
CAOD	38.6148N	120.7285W	520	240.2647	298.0823	57715	58572
CBMS	36.6630N	120.7918W	811	242.2115	244.7837	36474	37331
CSRT	35.6918N	117.7493W	698	243.5613	150.4578	110413	111270
CADW	38.4392N	120.8482W	251	243.9390	292.5627	55141	55998
CPCR	36.0938N	120.4347W	296	245.0300	227.1040	21888	22745
CPCA	35.9317N	120.3370W	1189	250.3101	222.3603	19314	20171
CPSR	35.8578N	120.2802W	552	252.3895	220.0311	14166	15023
CPMR	35.7848N	120.2357W	512	255.6442	218.0002	12450	13307
CHSL	37.0193N	121.0855W	520	259.6396	255.8246	97915	98772
CPGH	35.8310N	120.3528W	433	259.9443	220.9728	15024	15881
CPSM	36.0697N	120.5947W	988	260.1470	229.3456	23604	24461
CPPF	35.8818N	120.4135W	469	260.2200	222.9204	18456	19313
CPHR	36.3730N	120.8183W	732	260.2671	238.6155	27036	27893
CALA	38.5667N	120.9562W	293	260.6443	294.4197	56857	57714
CPAG	35.7320N	120.2493W	482	261.2715	217.4637	11592	12449
CPHA	35.8360N	120.3985W	455	262.8965	221.8921	15882	16739
CPST	35.9288N	120.5083W	573	263.7944	225.3814	20172	21029
CPTR	35.6547N	120.2112W	643	265.7297	215.5997	10734	11591
CPHGV	35.8760N	120.4835W	792	266.0691	224.0571	17598	18455
CHCP	37.1945N	121.1847W	513	266.4167	260.4592	84187	85044
CARJ	38.6865N	120.9563W	460	266.4670	297.0242	59431	60288
CBAVV	36.6458N	121.0298W	604	267.1990	246.8360	37332	38189
CPMP	36.2152N	120.7948W	784	267.7739	235.1043	26178	27035
CPPT	36.1083N	120.7212W	506	268.3135	232.0086	25320	26177
CPMCV	35.7247N	120.3705W	488	270.3445	219.6343	13308	14165
CBBG	36.5783N	121.0385W	1097	271.1519	245.4572	35616	36473
CPWK	35.8145N	120.5112W	503	273.2051	223.5185	16740	17597
CDEM	36.6613N	121.0960W	488	273.3325	247.7766	45912	46769
CPBW	36.3150N	120.9292W	381	274.2192	238.8070	27894	28751
CTBM	35.1358N	118.5968W	1237	275.5566	174.6863	2154	3011
CBRV	36.4248N	121.0183W	541	276.7646	242.0418	33042	33899
CAGI	38.8447N	120.9813W	305	277.3726	300.0007	55999	56856
CCMP	37.3577N	121.3085W	799	277.7083	264.6099	74017	74874
CBBN	36.5100N	121.0755W	448	278.1406	244.3851	34758	35615
CHQRZ	36.8337N	121.2127W	536	278.9753	252.4337	40764	41621
CHQRV	36.8337N	121.2127W	536	278.9753	252.4337	39906	40763
CPIV	35.9065N	120.6823W	497	279.6272	227.8118	21030	21887
CTCG	35.2422N	119.7233W	1204	280.9299	200.9132	4728	5585
CHPLV	37.0522N	121.2900W	152	280.9661	257.6833	41622	42479
CBEH	36.6647N	121.1742W	342	281.2781	248.5193	46770	47627
CCOS	37.5085N	121.3740W	1020	283.9016	268.1023	75733	76590

CBVL	36.5752N	121.1890W	510	286.6306	246.7873	42480	43337
CHLT	36.8845N	121.3082W	183	287.5229	254.1454	93625	94482
CBHR	36.7278N	121.2638W	213	288.1523	250.5445	51060	51917
CHJS	36.8165N	121.2987W	215	288.6946	252.6462	91909	92766
CPSA	36.0253N	120.8883W	184	288.7834	232.8339	24462	25319
CBPI	36.4900N	121.1735W	329	288.9741	244.9233	33900	34757
CPLO	36.2465N	121.0425W	308	289.0176	238.8078	28752	29609
CTTR	35.0873N	119.5347W	1021	290.8179	195.8091	3870	4727
CBSCV	36.6417N	121.2598W	323	291.1042	248.7380	38190	39047
CBLR	36.6660N	121.2727W	232	291.4692	249.3359	47628	48485
CARR	38.7653N	121.1718W	127	291.8774	296.4146	60289	61146
CHFE	36.9833N	121.4015W	323	294.7925	256.7476	86761	87618
CBSL	36.7755N	121.3493W	155	295.4629	252.1293	48486	49343
CHGS	37.0958N	121.4472W	778	297.1470	259.3140	89335	90192
CBCG	36.7092N	121.3433W	305	297.2048	250.7376	50202	51059
CCMM	37.4557N	121.4937W	1117	297.4717	267.0630	73159	74016
CCST	37.6392N	121.4982W	205	297.6016	270.9729	77449	78306
CBJO	36.6108N	121.3135W	1052	297.9448	248.5394	43338	44195
CHPH	36.8563N	121.4062W	122	298.8921	254.1396	95341	96198
CHKR	36.9017N	121.4260W	66	299.6665	255.1820	92767	93624
CBSGV	36.4138N	121.2537W	192	300.7324	244.1798	32184	33041
CCAOV	37.3493N	121.5327W	628	302.6526	264.8787	64579	65436
CHCA	37.0253N	121.4837W	332	302.6938	258.0029	81613	82470
CBVY	36.7493N	121.4133W	585	303.1541	252.0191	49344	50201
CTBH	35.1850N	120.0842W	1140	303.3879	207.6062	5586	6443
CHSP	37.1152N	121.5157W	850	304.2583	259.9783	98773	99630
CHFH	36.8882N	121.4688W	101	304.6646	255.1387	87619	88476
CPMG	35.4298N	120.5203W	529	306.6895	218.1007	6444	7301
CPAN	35.7797N	120.9073W	451	307.8877	228.9923	7302	8159
CHOR	36.9172N	121.5077W	98	308.0454	255.9243	94483	95340
CBJC	36.5470N	121.3922W	207	308.7539	247.9084	45054	45911
CPJLV	36.0898N	121.1555W	290	309.0591	237.2413	9876	10733
CTMA	34.8508N	119.2208W	1981	309.5027	188.2059	3012	3869
CHSF	36.8120N	121.4995W	340	310.2588	253.7904	97057	97914
CHFP	36.7537N	121.4905W	705	311.1978	252.5935	88477	89334
CCMR	37.5947N	121.6370W	500	313.0144	270.0239	74875	75732
CCBS	37.8177N	121.6405W	58	314.3723	274.5225	65437	66294
CHBT	36.8502N	121.5507W	98	314.5867	254.8225	80755	81612
CCML	37.4773N	121.6515W	1076	314.9087	267.6606	72301	73158
CHCR	36.9577N	121.5835W	241	315.1899	257.0896	85045	85902
CAVR	39.0245N	121.2708W	114	315.4045	300.2202	61147	62004
CCAD	37.1638N	121.6258W	207	315.4661	261.3289	62863	63720
CABJ	39.1650N	121.1912W	457	316.2085	303.4846	54283	55140
CBSRV	36.6665N	121.5187W	395	317.2471	251.0927	39048	39905
CCDVV	37.5663N	121.6802W	250	317.8428	269.4575	68011	68868
CHAZ	36.8847N	121.5908W	122	317.9175	255.6994	79897	80754
CHJG	36.7980N	121.5738W	171	318.6494	253.9375	91051	91908
CCCO	37.2577N	121.6725W	366	319.2036	263.3152	66295	67152
CPBY	35.8150N	121.0815W	335	320.3318	231.8084	8160	9017
CCMN	37.6275N	121.7083W	245	320.9709	270.6711	68869	69726
CHGW	37.0170N	121.6503W	133	321.0515	258.5305	90193	91050
CHCB	36.9313N	121.6605W	219	324.2180	256.9238	82471	83328
CHDL	36.8353N	121.6440W	204	325.0591	255.0295	85903	86760
CBPP	36.1687N	121.3780W	1591	325.7827	240.9092	29610	30467
CCVA	37.6183N	121.7582W	201	326.5161	270.4812	126137	126994
CCMH	37.3595N	121.7563W	518	327.3630	265.4644	70585	71442

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CHPR  36.9532N 121.6950W    94   327.4185   257.4902   96199  97056
CJRR  37.0545N 121.7268W   408   328.6121   259.5366  102205 103062
CCSC  37.2852N 121.7725W   128   329.9297   264.0654   76591  77448
CHCO  36.8885N 121.7057W   129   330.2336   256.3188   83329  84186
CCALV 37.4512N 121.7992W   265   331.4678   267.2783   63721  64578
CBPC  36.5720N 121.6260W   183   332.0701   250.0449   44196  45053
CBHS  36.3558N 121.5398W   646   332.3889   245.5712   31326  32183
CCVL  37.6263N 121.8357W   245   335.1509   270.6199   69727  70584
CAOH  39.3753N 121.2560W   457   335.6741   306.1499   58573  59430
CCMJ  37.5208N 121.8705W   498   339.1150   268.6411   71443  72300
CPAP  35.9128N 121.3617W  1015   339.2356   236.5314    9018   9875
CJBZ  37.0178N 121.8192W   213   339.4910   259.1765   99631 100488
CJPL  36.9770N 121.8322W   158   341.8054   258.4771  101347 102204
CBPR  36.4070N 121.7295W   741   349.5337   247.8574  134783 135640
CHMO  36.6005N 121.9177W   192   361.8018   252.2743   51918  52775
CBPF  36.2300N 121.7717W   349   361.8174   245.2405   30468  31325
CCCY  37.5517N 122.0908W    67   363.5708   269.2712   67153  68010
CJLT  37.3537N 122.2042W   270   377.1423   265.9663  100489 101346
CWWVB  0.0000    0.0000      0 13865.7227   107.4448     438   1295
CIRG1  0.0000    0.0000      0 13865.7227   107.4448    1296   2153
C*
C* ORIGINAL WAVEFORM CARDS
C7313  84 0616  730  WFC USGSWWVB                                  7 30  8.40 100 136 16
C7313  84 0616  730  WFC USGSIRG1                                  7 30  8.40 100 136 16
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C7313	84	0616	730	WFC	USGSWMDR	37.4435N	118.6370W	1683	7	30	28.60	100	116	16
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C7313	84	0616	730	WFC	USGSMMCR	38.3608N	119.1283W	2548	7	30	8.40	100	136	16
C7313	84	0616	730	WFC	USGSORCR	37.6353N	118.6560W	2301	7	30	27.33	100	117	16
C7313	84	0616	730	WFC	USGSSCHR	37.3658N	118.6870W	2365	7	30	8.40	100	136	16
C7313	84	0616	730	WFC	USGSSHL	37.6167N	118.9550W	2530	7	30	26.73	100	118	16
C7313	84	0616	730	WFC	USGSRSM	37.5107N	118.8822W	3680	7	30	8.40	100	136	16
C7313	84	0616	730	WFC	USGSTAC	37.6317N	118.9650W	2398	7	30	26.92	100	75	16
C7313	84	0616	730	WFC	USGSDOE	37.6387N	118.8355W	2220	7	30	25.88	100	119	16
C7313	84	0616	730	WFC	USGSWCH	35.8830N	118.0747W	2475	7	30	8.40	100	136	16
C7313	84	0616	730	WFC	USGSWKT	35.7940N	118.4425W	890	7	30	8.40	100	136	16
C7313	84	0616	730	WFC	USGSWOF	35.5357N	118.7125W	1341	7	30	8.40	100	136	16

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C7313  84 0616  730  WFC USGSSHLR 37.6167N 118.9550W 2530  7 30  8.40 100 136 16
C7313  84 0616  730  WFC USGSLCCR 37.6105N 118.9158W 2550  7 30 26.24 100 119 16
C7313  84 0616  730  WFC USGSRCCR 37.4877N 118.7217W 2804  7 30 27.22 100 118 16
C7313  84 0616  730  WFC USGSCVA  37.6183N 121.7582W  201  7 30  8.40 100 136 16
C7313  84 0616  730  WFC USGSPWM  36.4328N 120.2110W   72  7 30  8.40 100 136 16
C7313  84 0616  730  WFC USGSPHB  36.2488N 120.0827W  100  7 30  8.40 100 136 16
C7313  84 0616  730  WFC USGSPDR  36.3357N 120.3687W  488  7 30  8.40 100 136 16
C7313  84 0616  730  WFC USGSPKE  36.0615N 120.1090W  288  7 30  8.40 100 136 16
C7313  84 0616  730  WFC USGSCVM  37.6098N 118.8733W 2260  7 30 25.84 100 119 16
C7313  84 0616  730  WFC USGSCSR  37.6777N 118.8183W 2122  7 30  8.40 100 136 16
C7313  84 0616  730  WFC USGSSKI  37.6530N 119.0238W 2660  7 30 27.81 100 117 16
C7313  84 0616  730  WFC USGSCHS  37.6550N 118.9045W 2420  7 30 26.45 100 118 16
C7313  84 0616  730  WFC USGSSHLN 37.6167N 118.9550W 2530  7 30 26.73 100  82 16
C7313  84 0616  730  WFC USGSGRP  37.6265N 118.9013W 2208  7 30 26.17 100 119 16
C7313  84 0616  730  WFC USGSBPR  36.4070N 121.7295W  741  7 30  8.40 100 136 16
C*
C*ITEM DIRECTORY:  THE FOLLOWING ITEMS PRECEDE DIGITAL DATA
C*
C*                            LINES
C*     ITEM             START        END
C*
C*     PHC                880        903
C*     STA                904        922
C*     SAT                923        993
C*     SPC                994       2128
C*     CQ1               2129       2170
C*     CQ2               2171       2248
C*     CQ3               2249       2344
C*     WFC               2345       2362
C*
C*DIRECTORY:  THE FOLLOWING STATION TRACES ARE IN THIS FILE
C*
C*                            LINES
C*     STATION          START        END
C*
C*     CLKR              2363       3052
C*     DOE               3053       3742
C*     CVM               3743       4432
C*     GRP               4433       5122
C*     CSR               5123       5812
C*     LCCR              5813       6502
C*     CHS               6503       7192
C*     RSM               7193       7882
C*     SHL               7883       8572
C*     EMH               8573       9262
C*     TAC               9263       9952
C*     RCCR              9953      10642
C*     ORCR             10643      11332
C*     SKI              11333      12022
C*     WMDR             12023      12712
C*     SCHR             12713      13402
C*     CASR             13403      14092
C*     BENR             14093      14782
C*END-------------------------------------------------------------------------
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 7313  84 0616  730  PHC USGSMHD  IPU0 52.26
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 7313  84 0616  730  PHC USGSWMDR IPU0 38.52
 7313  84 0616  730  PHC USGSCLK  EP4  35.65
 7313  84 0616  730  PHC USGSMNP  IPU0 47.96
 7313  84 0616  730  PHC USGSMNPN  P4  48.01
 7313  84 0616  730  PHC USGSCASR IPD0 38.87
 7313  84 0616  730  PHC USGSCLKR IPD0 35.65
 7313  84 0616  730  PHC USGSBENR IPD0 38.85
 7313  84 0616  730  PHC USGSEMH  IPD0 36.93
********** 13893 data cards not shown here **********
C#FINIS DSN=SL000100
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TITLE INDEX

INDEX OF PERSONS