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DIGITIZATION OF NUCLEAR EXPLOSION SEISMOGRAMS FROM THE FORMER SOVIET UNION

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14. ABSTRACT
This project has been a collaboration between the Lamont-Doherty Earth Observatory of Columbia University and the Institute of Geophysical Research in Almaty, Kazakhstan. More than 6000 seismograms, recorded photographically or with pen on paper, displaying signals from nuclear explosions conducted in the atmosphere, underwater, or underground, have been collected from 270 stations operated in the former Soviet Union. These signals, including thousands recorded at regional distances from nuclear explosions in Eurasia, have been scanned, digitized, and incorporated into a modern digital database (CSS3.0), now openly available at http://www.LDEO.columbia.edu/Monitoring/digitized_analog_FSUarchive. Most of these stations lie in a region stretching approximately 6000 km East-West and 2000 km North-South, which includes much of Central Asia. Much of this work has been done in Kazakhstan. Also included, are seismograms from large chemical explosions, and some from earthquakes near nuclear test sites.
The newly-available data are expected to improve studies of three-dimensional Earth structure (mantle and crust), to promote the development and evaluation of seismological methods of discrimination between explosions and earthquakes, and to provide a useful training set for analysts interpreting data today from modern seismographic stations used for monitoring—most of which were installed long after the era of frequent nuclear testing (1960s to1980s) had come to an end, and which therefore do not have an archive of the types of signal that are generated by nuclear explosions.

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We thank the many people involved in operating the hundreds of stations from which we have acquired data in this project. Headquarters of the Complex Seismological Expedition were at Talgar, near Almaty, Kazakhstan. Under the leadership of Igor L. Nersesov from 1955 to 1989, the CSE staff deployed stations temporarily, often for about two years (see Appendix A), then moved them to new locations, using an approach similar to that later applied in Australia from 1993 to 1998 (the SKIPPY Project, see http://researchdata.ands.org.au/dimensional-seismic-structure-skippy-project/61967) and then in the United States from 2007 (western states) to the present day (eastern states, and beginning in Alaska) as part of the USArray project. During its period of greatest activity, the CSE used a fleet of field vehicles requiring forty drivers.

We appreciate the contributions of Vitaly I. Khalturin (1927 – 2007), who led so many projects in Central Asia which used the data we have described in this report, and who worked from 1993 to 2005 in the United States at the Lamont-Doherty Earth Observatory; of Yuri F. Kopnichev, who managed CSE facilities during the period of transition from the Soviet era through to the era of independence for Kazakhstan and Kyrgyzstan until the CSE closed in 2002, and who made extensive efforts to maintain safely the original archive of explosion seismograms during that difficult time; and of Nadezhda N. Belyashova, Director of the Institute of Geophysical Research, Republic of Kazakhstan, who has consistently supported our efforts to acquire and make openly available the data described in this report.

This project was funded by AFRL, under an arrangement made with the Defense Threat Reduction Agency. Such inter-agency collaboration is much appreciated by those who participated in the work reported here.

1. SUMMARY

We have gathered thousands of Soviet-era analog recordings of seismic ground motions, made at hundreds of locations on territory of the former U.S.S. R., from numerous nuclear explosions. These recordings have been combined with metadata on event location and characteristics of the recording system, into a modern digital database now available at

http://www.LDEO.columbia.edu/Monitoring/digitized_analog_FSUarchive

A large fraction of the new archive, of principal interest to some potential users, is comprised of regional signals from explosions too small to be reliably identified via teleseismic monitoring. The archive also includes signals recorded teleseismically from explosions in Eurasia, the South Pacific, and the United States. The great majority of signals are from underground nuclear explosions. The archive additionally includes signals from large chemical explosions, from nuclear explosions conducted in the atmosphere and underwater, and from earthquakes on or near nuclear test sites.

2. INTRODUCTION

Seismology is an observational science. Hence, the effort to understand details of seismic signals from underground nuclear explosions requires analysis of waveforms recorded from past nuclear explosions. Of particular interest in support of research and development to improve explosion monitoring, are regional signals from explosions too small to be reliably identified at great distance (i.e., teleseismically). But also of interest, are signals from larger explosions, especially those for which the hypocentral parameters are accurately known. For example, signals from such explosions enable evaluation of travel-time models. The digitized seismograms can be used not only for developing new methods for explosion monitoring, but to calibrate stations of the CTBTO International Monitoring System, to investigate lithosphere and asthenosphere structure at the regions where nuclear tests were conducted, and to investigate the ways in which nuclear explosions have had an influence on the medium in which they were conducted.

We note that the great majority of stations operated today, even those in networks built specifically for nuclear explosion monitoring, have never recorded explosion signals at regional distances because most modern stations were installed long after the period when most underground nuclear explosions were conducted; and the few nuclear explosions that have occurred since the early 1990s were mostly recorded only at teleseismic distances. Although regional data are the main focus of the project reported here, we have acquired teleseismic signals, as well as signals from chemical explosions and earthquakes. Most of our nuclear explosion seismograms are from testing conducted underground, but some were in the atmosphere, and a few were under water.

Our purpose in digitizing the seismograms originally recorded via analog systems, is of course to permit the application of modern methods of analysis, such as filtering to pass or reject specific bands of frequency, and to enable objective methods of detecting arrivals by comparison of short-time average and long-time average signals (STA/LTA). For analog recordings of sufficiently high quality, it is even possible to take spectra and work with spectral ratios. But in this project, more fundamentally, we accomplish the

basic goal of making nuclear explosion waveform data openly available electronically. Such access represents a huge improvement on previous practice with the original data set, which required seismologists either to visit paper archives in Central Asia and to become knowledgeable in details of instrument characteristics, or to establish a collaboration with people who had the necessary access to unique paper archives in different locations in Eurasia, and familiarity with their contents. Finally, as a goal in this project, we can recognize that seismograms, recorded on photo paper and stored in archives for a long time, tend to darken and become fragile; and ink records fade. By scanning and digitizing, we effectively halt the loss of information associated with the processes of degradation of the originally recorded signals.

Most of our data originated in Kazakhstan, with significant additions from Kyrgyzstan. Continuous seismological observations started in Kazakhstan in 1927, and a permanent station network has operated in the country since 1951 for detailed investigation of seismicity. In addition to the permanent seismographic stations, many temporary stations were installed at regional distances from test sites in order to record nuclear explosions. Temporary stations were also installed to build up knowledge of regional and teleseismic travel times from active earthquake source regions.

The effort to digitize nuclear explosions seismograms recorded in the former Soviet Union was initiated in the 1990s under the International Science and Technology Centre (ISTC) project K-063 using analog data from the Complex Seismological Expedition (CSE) of the Institute of Physics of the Earth, Russian Academy of Sciences (IPE, RAS). The Lamont-Doherty Observatory of Columbia University (LDEO) helped to organize that work, writing the proposal to ISTC, which involved the U.S.A, Kazakhstan, and the Russian Federation; providing NXSCAN[1] software for digitization; training; and consultations. After the CSE closed in 2002 the work of storing the historical archive of the nuclear explosion records was shut down until 2005, when the Institute of Geophysical Research (IGR), Republic of Kazakhstan, started a program titled "Creation of digital archive of historical seismograms of nuclear explosions and earthquakes, recorded by the stations of special control" (2005 – 2011). During this program, IGR employees digitized more than 6000 analog seismograms of nuclear explosions that had been recorded onto photo paper from the archives of various seismological organizations of Kazakhstan, and of the Kyrgyzstan Institute of Seismology (National Academy of Sciences, Kyrgyzstan Republic) (Beryozina *et al.*, 2013).

In 2012 the present project (i.e. the subject of this report), on digitizing the historical seismograms from archives held in Central Asia, was started as a collaboration between LDEO and IGR. This project has entailed digitizing of archived seismograms recorded with RVZT and CSE instruments (Aranovich *et al.*, 1974), and creation of a common database of nuclear explosions seismograms digitized under different projects.

From the 1990s and up to 2012 the digitization of historical analog seismograms was possible only for those recorded photographically. However, the archives of CSE IPE RAS contain thousands of seismograms recorded by ink pen on ordinary paper (i.e. non-photographic). These records have a curvilinear shape as discussed further below, and NXSCAN software cannot digitize such seismograms. The current project to digitize

[1] A manual for NXSCAN software is available from the website associated with this report, given in the SUMMARY section above.

historic seismograms from Kazakhstan archives has included digitization of curvilinear seismograms recorded by RVZT and CSE instruments, and creation of a common database of nuclear explosion seismograms digitized under the several previous projects.

3. PROCEDURES AND METHODS OF ANALYSIS

In this section we describe the main tasks into which the work of this project was broken, the stations and instruments that we used and their principal characteristics, and give a few examples of seismograms we have digitized.

3.1. Main Tasks of the Project

First, we selected and scanned analog seismograms that had been recorded in the period from 1957 to 1998 from the archives of the Complex Seismological Expedition of the Institute of Physics of Earth of the Russian Academy of Sciences (CSE IPE RAS), from the Seismological Experiential-Methodological Expedition of the Republic of Kazakhstan (SEME MES RK), from the Institute of Geophysical Research of the Republic of Kazakhstan (IGR RK), and from the Institute of Seismology, National Academy of Sciences, Kyrgyz Republic (IS NAS KR). Many seismograms recorded photographically had been previously scanned and digitized, but not incorporated into a modern database. In this present project we also scanned and digitized many seismograms written with pen and ink on non-photographic paper.

Second, we digitized selected parts of the scanned seismograms. This work typically took a few hours per seismogram.

Third, we created a common database for the digitized seismograms of nuclear explosions, chemical explosions, and earthquakes near test sites—doing this work for the previously-digitized records derived from photographic recordings, as well as for the newly-digitized records derived from pen and ink recordings. The format is CSS3.0.

3.2. The Stations Used in this Project

Man-made nuclear explosions first took place in 1945 and the first Soviet nuclear explosion was conducted in 1949. During this early period, continuous seismological observations on the territory of Kazakhstan were implemented by use of stations located mainly in the Northern Tien-Shan region (the mountains on Kazakhstan's southern and southeastern borders). At these stations an SKM-3 narrow-band instrument was installed with amplification of 20,000-40,000 (Mikhailova and Kurskeev, 1995). At most of these stations an SKD broadband instrument with amplification of 1000 was also installed; the purpose of these stations was monitoring the earthquakes of the southern and southeastern parts of Kazakhstan. Other seismic stations (stationary as well as temporary, throughout the territory of the USSR) were included into the seismographic network of the Complex Seismological Expedition (CSE), founded by the Institute of Physics of the Earth (IPE), a part of the USSR Academy of Sciences (later, the Russian

Academy of Sciences), and headquartered in Talgar. The goals of this network included monitoring of earthquakes and study of the structure of the lithosphere, and also detection and discrimination of nuclear tests at regional and teleseismic distances. All stations were equipped with sensitive instruments such as SKM-3, USF, KSE and RVZT type with amplification ranging from 40,000 to 120,000) (Aranovich *et al*., 1974). Most of these stations were located at sites with a low level of seismic noise, allowing signals to be obtained even from small underground nuclear explosions at teleseismic distances.

In Kyrgyzstan the archive of analog seismograms of the Institute of Seismology of the National Academy of Science of the Kyrgyz Republic (IS NAS KR) contains hundreds of thousands of seismograms, starting from 1927. By the early 1980s the Kyrgyzstan network had grown to 31 fixed stations, dispersed throughout the country (Beryozina *et al*., 2013). Some stations were installed in large cities of Kyrgyzstan, but most of them were located on bedrock outcrops, in dry drifts, which allowed low seismic noise levels and thus recording of small underground nuclear explosions. In addition to the fixed stations, temporary local networks were deployed on the territory of Kyrgyzstan at different times (Beryozina *et al*., 2013). In total, 166 seismographic stations operated on the territory of Kyrgyzstan during Soviet times. A standard Kirnos SKM-3 instrument with amplification 20,000 and an SKD instrument with amplitude of 1000 were installed in all stations (Aranovich *et al*., 1974).

The archive of seismograms at the Institute of Geophysical Research includes the records of USSR special monitoring stations that were located on the territory of Kazakhstan at Kurchatov, Borovoye, Aktyubinsk and Makanchi.

The data on parameters of about 270 stations on the territory of former USSR have been collected under the present project. They are given here as Appendix A, and are the basis for the "site" tables we have created in CSS3.0 format. Their seismic records are now kept in archives of Kazakhstan and Kyrgyzstan. Here, we may note that for many of the stations we have used, the same station code was applied in practice for several different locations at different times. Appendix A specifies the location of instruments in different date ranges for a particular station code. (Modern practice is to assign a different station code if an instrument is moved between two sites that are more than 12 meters apart. If such different locations are counted, then this project has entailed digitization of instruments deployed at more than 400 sites.)

The accuracy of station coordinates entered into the database is different for different stations. In some cases the coordinates were determined using topographic maps of different scale, or taken from literature sources, and in other cases were determined by GPS. For permanent stations of the SEME MES RK network, of the Kyrgyz Institute of Seismology, the Tajik network, and the Uzbek network, coordinates were determined under the ISTC CASRI Project. For Kyrgyzstan temporary stations the coordinates were based on reports and information provided by personnel of the IS NAS KR. An additional source of information for the coordinates of Central Asia stations has been the set of research papers associated with the collection "Earthquakes in the USSR 1964-1991," and "Earthquakes of Northern Eurasia 1992-2004."

Information about temporary stations CSE was taken from a manuscript based on field notes, and checked using geographic maps.

Information on Kyrgyz stations was agreed with colleagues from IS NAS KR. Some stations located in Central Asia belonged to CSE until ~1970, and after 1970 the stations

were transferred to regional networks of other Republics of the USSR; at some stations the instruments were changed, and others were moved to new coordinates. Thus Appendix A includes information concerning which location to use in different date ranges, and information about the stations belonging to a network.

Figure 1 shows the location of seismographic stations from which records were digitized in this project. Seismograms of these stations are stored mainly in archives: of SEME MES RK in Almaty city (Seismological Experimental-Methodological Expedition); of CSE IPE RAS in Talgar town (Complex Seismological Expedition of the Institute of Physics of the Earth); of IGR RK for seismographic stations Kurchatov, Borovoye, Aktyubinsk, and Makanchi as noted above; and of IS KR in Bishkek city (Institute of Seismology of Kyrgyzstan). The majority of these station locations are in Kazakhstan, Kyrgyzstan and southern Siberia.

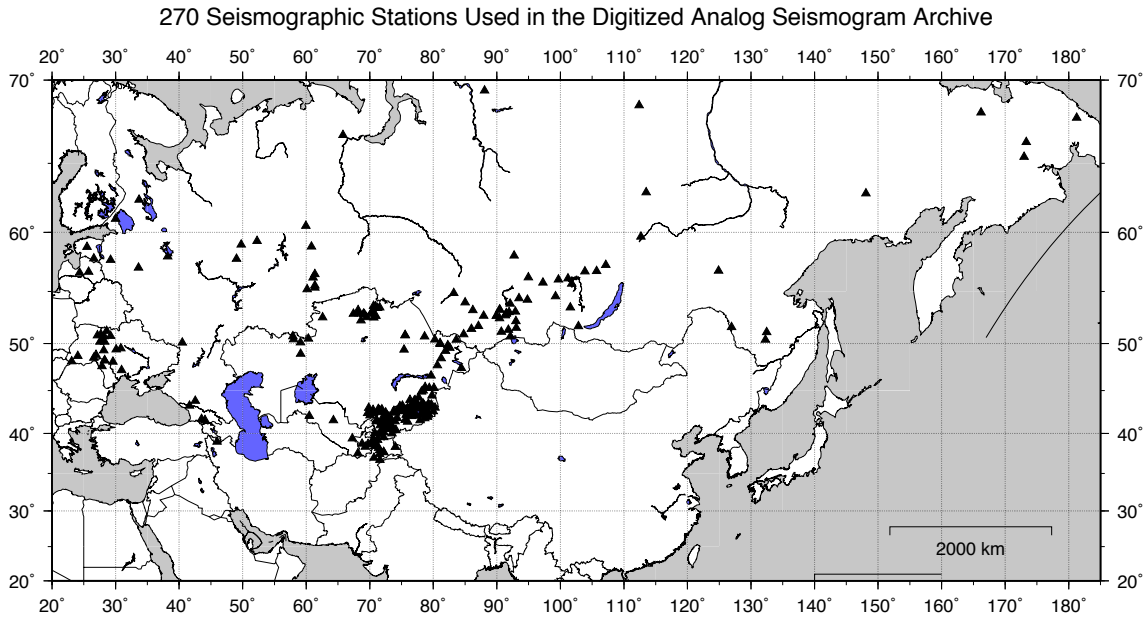
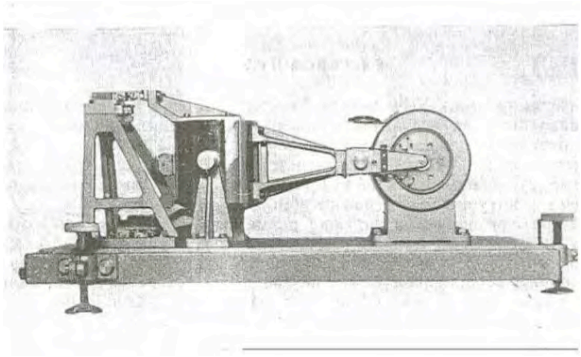


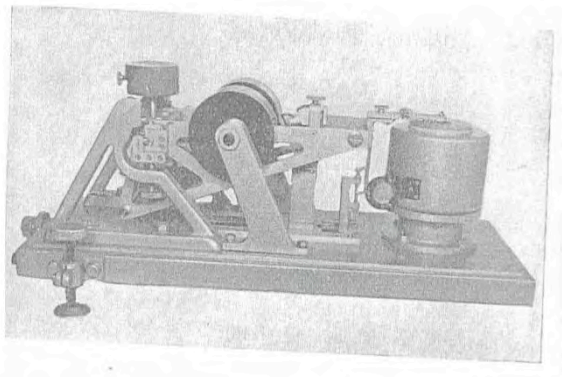
Figure 1. A map of station locations (triangles), from which seismograms were digitized in this project.

3.3. The Instruments Used in this Project, and their Responses

Figure 2 shows the main types of instruments, which have been used at analog stations of Kazakhstan and Central Asia since the 1960s, and Tables 1 – 3 list the principal characteristics of the most important sensors and recording systems. Recording on photographic paper enables a straightforward procedure for digitizing after scanning, and such work began at IGR RK long prior to the present project. As we describe below, in the present project we also undertook the digitization of curvilinear seismograms with registration by pen and ink on regular paper.



a)



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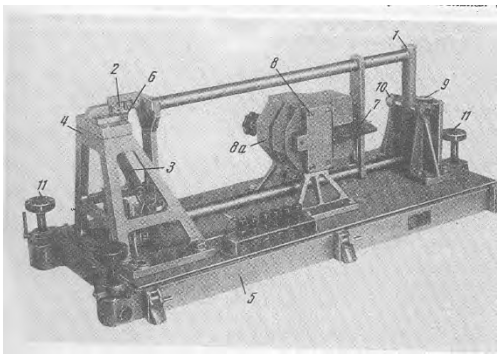

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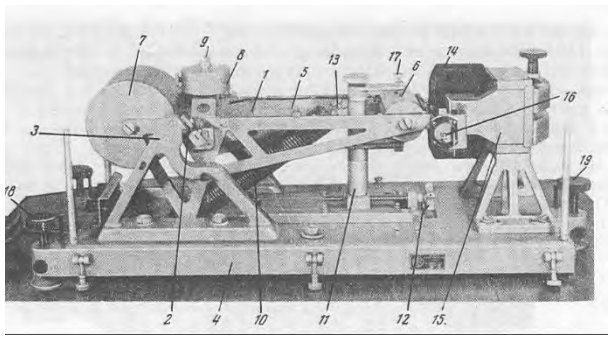

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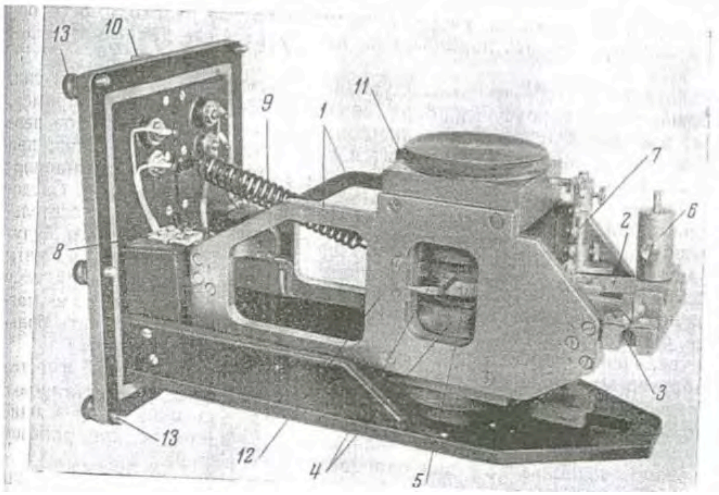
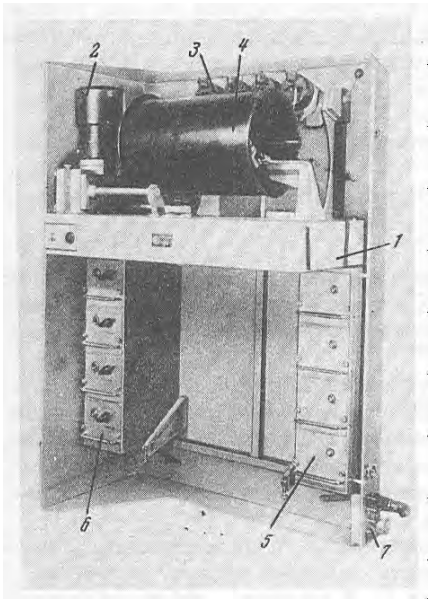


e)

Figure 2. The main seismometer types used at analog seismographic stations in this project: a) SGKM-3, b) SVKM-3, c) SGKD, d) SVKD, e) USF, f) RVZT, g) KSE.



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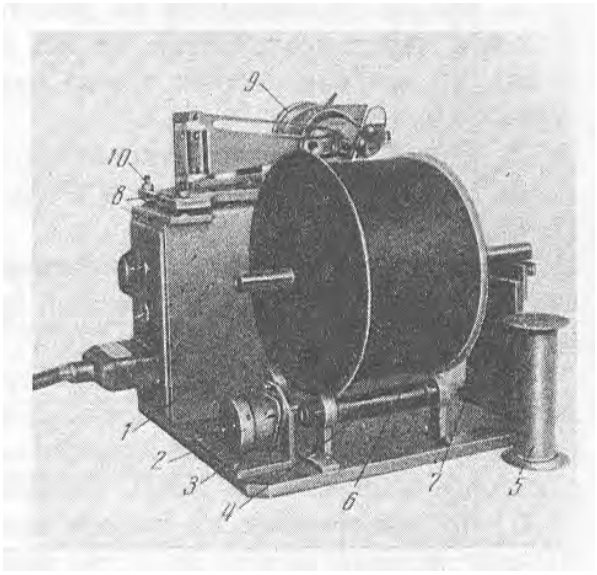


g)

Figure 2. The main seismometer types used at analog seismographic stations in this project: a) SGKM-3, b) SVKM-3, c) SGKD, d) SVKD, e) USF, f) RVZT, g) KSE (continued).

Most of the permanent stations used in this project produced analog seismograms recorded by a three-component, short-period seismograph known as SKM, consisting of a short-period seismometer, SM2, with natural period 1 – 2 s and nominal damping constant of about 0.5 (slightly under-damped), and a galvanometer (type GB-4) which recorded on photographic paper. The SKM seismograph had various standard configurations for its seismometer and galvanometer settings. Among those seismograph settings, about five instrument configurations are used in the digitized analog archive. Detailed instrument constants of those SKM seismographs are listed in Table 1 and Table 2, and their displacement amplitude responses are plotted in Figure 3a. Among the five configurations, SKM-2 (T_0 = 1.5s) and SKM-4 (T_0 = 2.0s) are the ones most often used by permanent stations. Our final data products include instrument responses of SKD seismographs in terms of poles and zeroes, and others in terms of frequency-amplitude-phase (fap) response files.

Table 1. Instruments used for the digitized analog seismogram archive of this project*.

Seismograph type/response	sensor	T_0(s)	D_0	Pass band[(2)] (Hz)	f_N[(3)] (Hz)	Amplification range	Recording media	Channel name	Characteristics and notes
SKM3-1	SM2[(1)]	1.49	0.46	1.0-2.5	0.625	25 - 80K	3-component, recording on photographic paper using galvanometer	SP-Z,N,E	Narrow response
SKM3-2		1.47	0.62	1.0-10.0	0.571			SP-Z,N,E	Widely used
SKM3-3		1.99	0.40	0.7-3.1	0.667			SP-Z,N,E	Narrow band
SKM3-4		2.02	0.55	0.7-10.0	0.606			SP-Z,N,E	Most wideband
SKM3-5		1.25	0.495	1.0-2.5	0.625			SP-Z,N,E	
RVZ-T-1	SM2	1.50	0.62	0.8-8.0 Hz	3.98	100-300 K	4-channel, ink pen on 180 cm x 29 cm paper, trace separation 2-100 mm	SP-Z,N,E	Wide response
RVZ-T-2		1.25	0.645	0.9-2.5 Hz	2.62			SP-Z,N,E	
KSE-1-1	SM2	1.50	0.46	0.7-2.0 Hz	1.02	300 - 1,000 K	Single vertical-component, ink pen on 180 cm x 9 cm paper, recording speed 15-240 mm/minutes; max amplitude= ± 2 cm	SPZ00	
KSE-1-2		1.25	0.495	0.8-2.1 Hz	1.21			SPZ10	Supplements RVZ-T
KSE-1-3		1.00	0.50	1.0-1.7 Hz	1.33			SHZ	High-gain, narrow band.
SKD-1	SKD	25.0	0.46	0.04-12.5	0.07	1 – 1.5 K	3-component, recording on photographic paper using galvanometer	LP-Z,N,E	
SKD-2		20.0	0.46	0.05-10.0	0.07			LP-Z,N,E	
SK		12.5	0.45	0.08-8.0	0.2			LP-Z,N,E	

* [(1)]SM2 = short-period seismometer with nominal natural period, T_0=1-2 seconds, and damping=0.5; [(2)] frequency range in which amplitude is down by 3 db from the peak value; [(3)] normalization frequency where peak amplitude response is set to unity.

Table 2. SKM seismograph constants

Seismograph	Seismometer		Galvanometer		Coupling factor (CF)	Scale constant (SC)
	Natural period, Ts (s)	Damping constant, Ds	Natural period, Tg (s)	Damping constant, Dg		
SKM3-1	1.49	0.46	0.49	0.46	0.90	9.307
SKM3-2	1.47	0.62	0.23	1.25	0.90	57.889
SKM3-3	1.99	0.40	0.55	0.64	0.50	13.440
SKM3-4	2.02	0.55	0.31	1.60	0.50	60.696
SKM3-5	1.25	0.495	0.575	0.49	0.10	9.407

Table 3. SKD seismograph constants

Seismograph	Seismometer		Galvanometer		Coupling factor (CF)	Scale constant (SC)
	Natural period Ts (s)	Damping constant, (Ds)	Natural period, Tg (s)	Damping constant, (Dg)		
SKD-1	25.0	0.46	1.20	8.0	0.25	78.3085
SKD-2	20.0	0.46	1.20	8.0	0.25	71.4493
SK	12.5	0.45	1.2	5.0	0.03	51.007

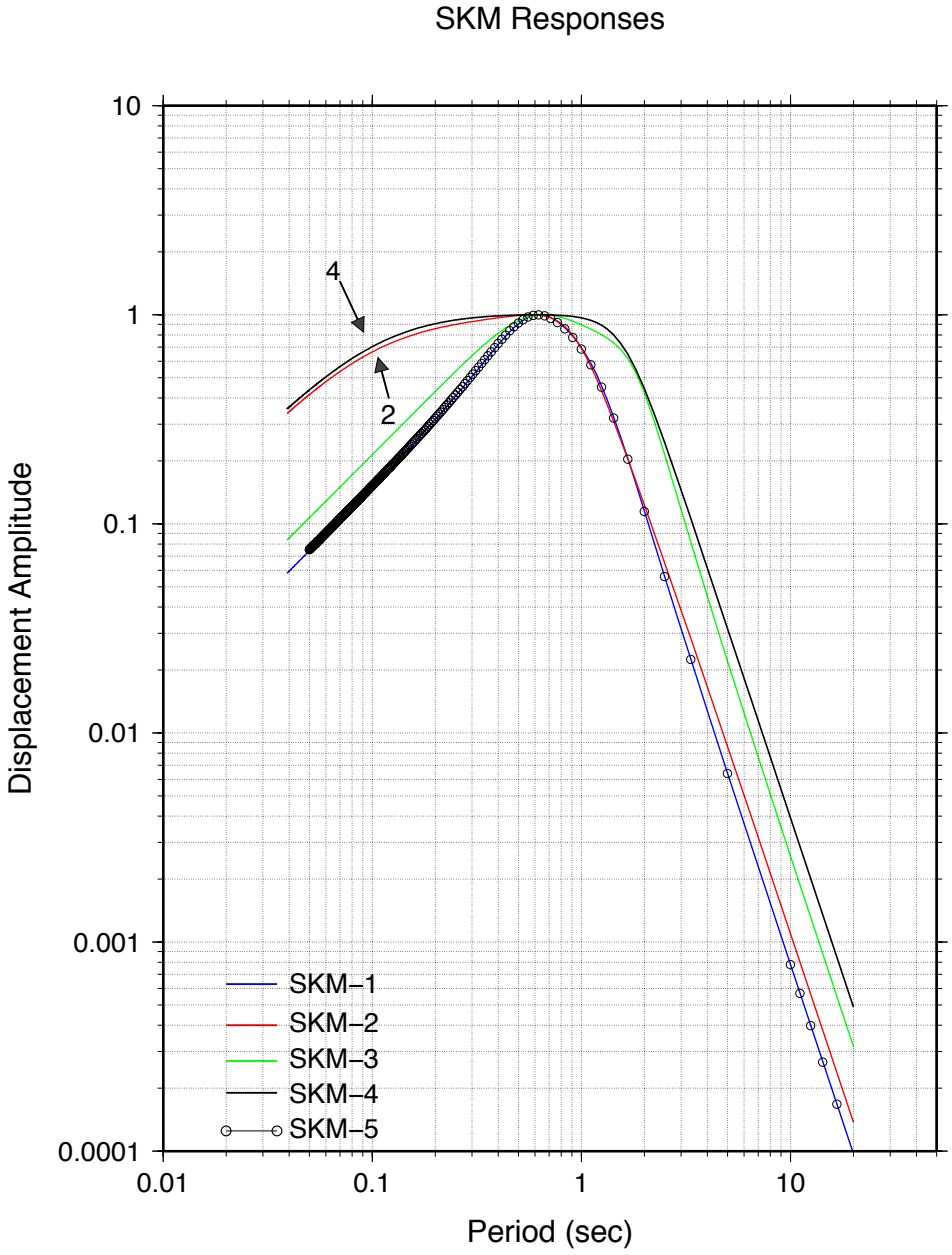


Figure 3a. Displacement amplitude response curves of five SKM seismographs used in the digitized analog seismogram archive are plotted against period in seconds.

Most permanent seismographic stations were also equipped with a three-component, long-period (broadband) seismograph known as SKD. Two types of configuration were used, namely SKD-1 with $T_0 = 25$ s, and SKD-2 with $T_0 = 20$s. A few records were derived from an SK seismograph with intermediate period band ($T_0 =$ 12.5s). Displacement amplitude responses of these long-period seismographs are plotted in Figure 3b and their instrument constants are given in Table 3. The SKD seismographs have relatively wide pass bands (see Table 1), namely 0.05 – 10 Hz, which indicates that it is similar to a modern intermediate range broadband seismometer (see Figure 3b).

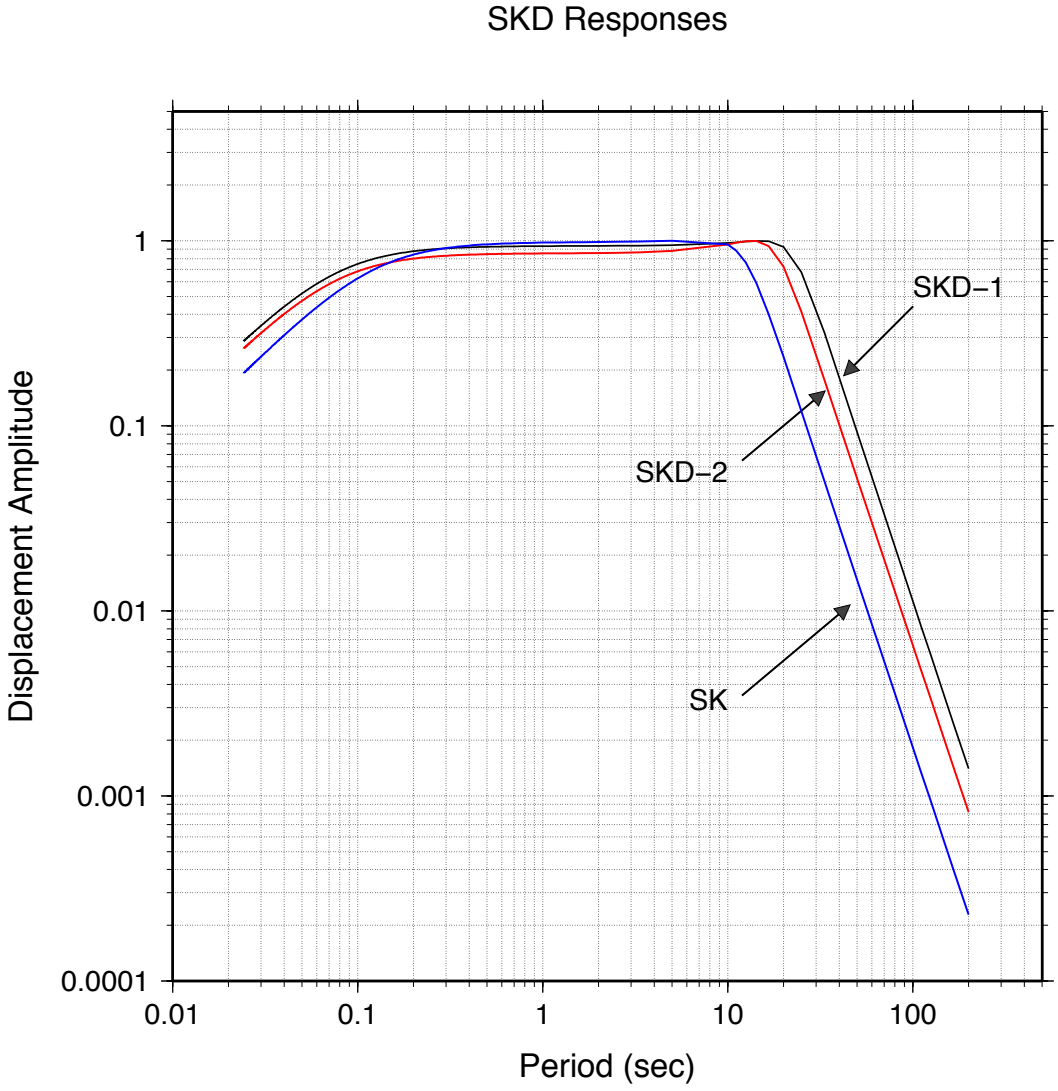


Figure 3b. Displacement amplitude response curves of SKD-1 ($T_0 = 25$s), SKD-2 ($T_0 = 20$s), and SK ($T_0 = 12.5$) seismographs. These responses indicate that SKD seismographs have a wide passband and are intermediate-range broadband seismographs.

The RVZ-T seismograph is also widely used in the digitized analog data. RVZ-T is four channel system that recorded on a long narrow paper strip (180 cm by 29 cm) on a rotating drum using an ink pen. The RVZ-T system used the SM2 seismometer, which has a relatively wide frequency response range (see Figure 3c). The RVZ-T instrument response is given in our database in terms of poles and zeros. The ink pen recorder electronic circuit and mechanical system functions effectively as a low-pass filter, and we assumed it as either a 2nd or a 4th order Butterworth low-pass filter. The amplitude responses given in Table 1 are the theoretical values based on those poles and zeros.

The KSE-1 seismograph is a single vertical-component system that was widely used as a portable seismograph. At most of the temporary stations operated by CSE (Talgar Complex Seismological Expedition), the KSE-1 seismograph supplemented the RVZ-T seismograph. The KSE-1 seismograph has a relatively narrow pass band with high gain settings (300 – 1,000 K) (see Table 1 and Figure 3c).

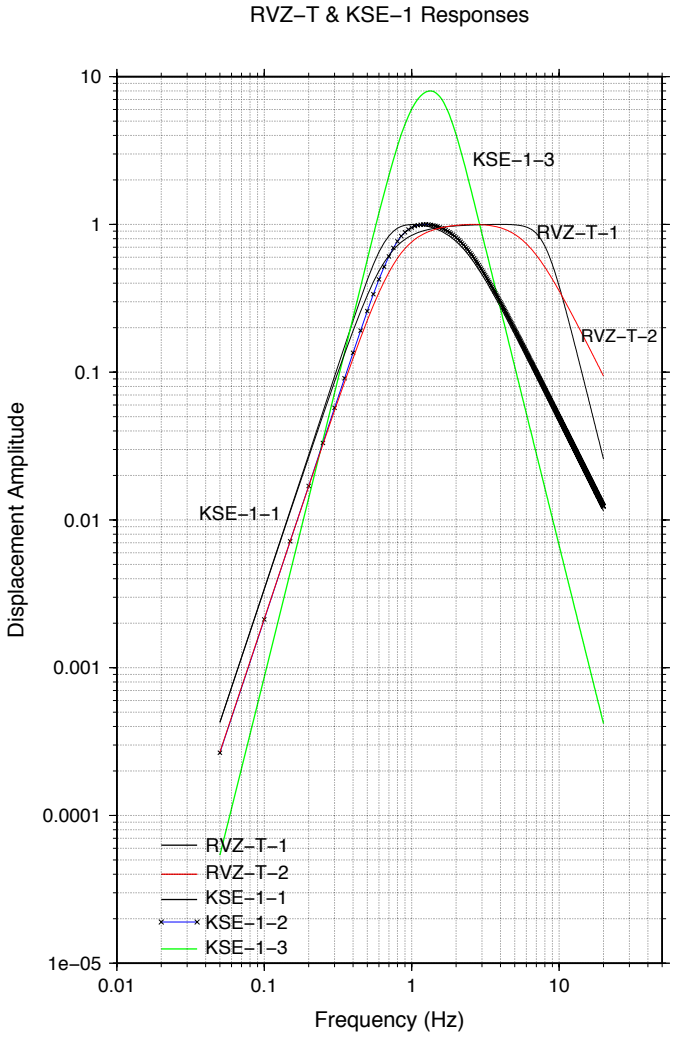


Figure 3c. Displacement amplitude responses of two short-period seismographs, the RVZ-T and KSE-1 systems. KSE-1 has a relatively narrow band, but high gain.

The characteristics of the analog seismographs – SKM3, SKD, KSE-1, and RVZ-T are obtained from Aranovich et al. (1974). Their instrument responses are given in terms of poles and zeros, or fap (frequency-amplitude-phase) in CSS 3.0 relational database tables, specifically via .sensor and .instrument tables (Anderson & Farrell, 1990).

3.4. Scanning Procedures

Analog seismograms were scanned at the Data Center in Almaty using two large-format scanners, namely:

1. a Calcomp Contex, format A0, purchased under the ISTC K-063 Project in 1998, with CADIMAGE software, and
2. a monochrome scanner HD ULTRA i4210s, format A0+ using software Nextimage Scan+Archive, purchased in 2012.

Scanning was conducted in grey-scale mode with resolution 400 DPI for the Calcomp Contex scanner and 1200 DPI for the HD ULTRA i4210s scanner.

In total, more than 6200 seismograms were scanned, including
527 seismograms of large chemical explosions from Central Asia,
896 seismograms of nuclear explosions at the Novaya Zemlya Test Site, and
3212 seismograms of nuclear explosions at the Semipalatinsk Test Site.

The files of scanned seismograms totaled 136.8 Gb.

All scanned and digitized seismograms were transmitted to LDEO via a hard disk.

3.5. Examples of Digitized Seismograms—from Photographic Records

NXSCAN software was used, to digitize the scanned seismograms. They were digitized at 40 samples per second. Fragments of analog seismograms digitized by NXSCAN are saved in SAC (Seismic Analysis Code) format (Tapley and Tull, 1992), and then converted into CSS 3.0 format (Center for Seismic Studies v.3.0, Anderson and Farrell, *et al*., 1990). The database of each digitized record was created by IGR with the following CSS 3.0 tables: wfdisc, site, sitechan, assoc, origin. Later, a sensor table was created by IGR and LDEO.

Figure 4a shows an example of an original (analog) seismogram, recorded via the SKD system, and the digitized results, in Figure 4b, for a nuclear explosion at the Semipalatinsk Test Site. Figure 4c shows digitized results for a chemical explosion recorded at a station that deployed both the SKM and SKD systems. It is useful to have been able to work from analog recordings made on systems with such different instrument responses (SKM, short period; SKD, intermediate-range broadband).

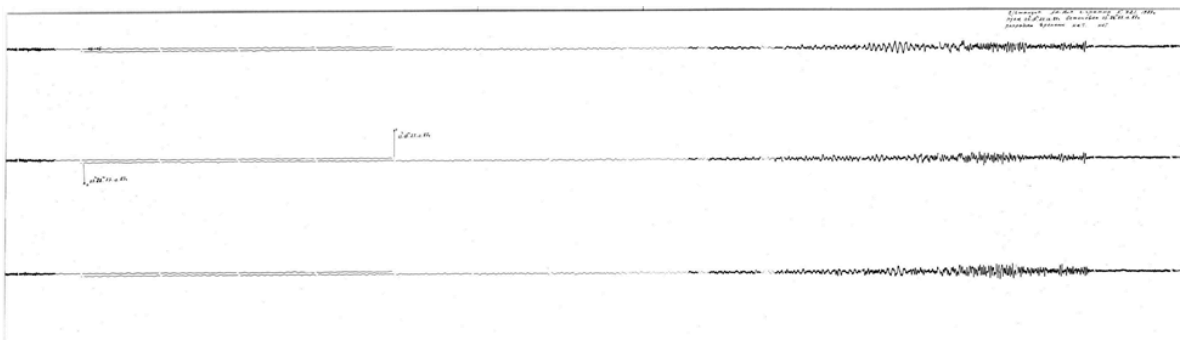


Figure 4. a) Three-component seismogram of the nuclear explosion conducted at the Semipalatinsk Test Site on December 27, 1987, t_0 = 03:05:07.2, (49.87944°N, 78.72500°E), mb = 6.0. Analog record (Ak-Kiya station, SKD) on photo paper.

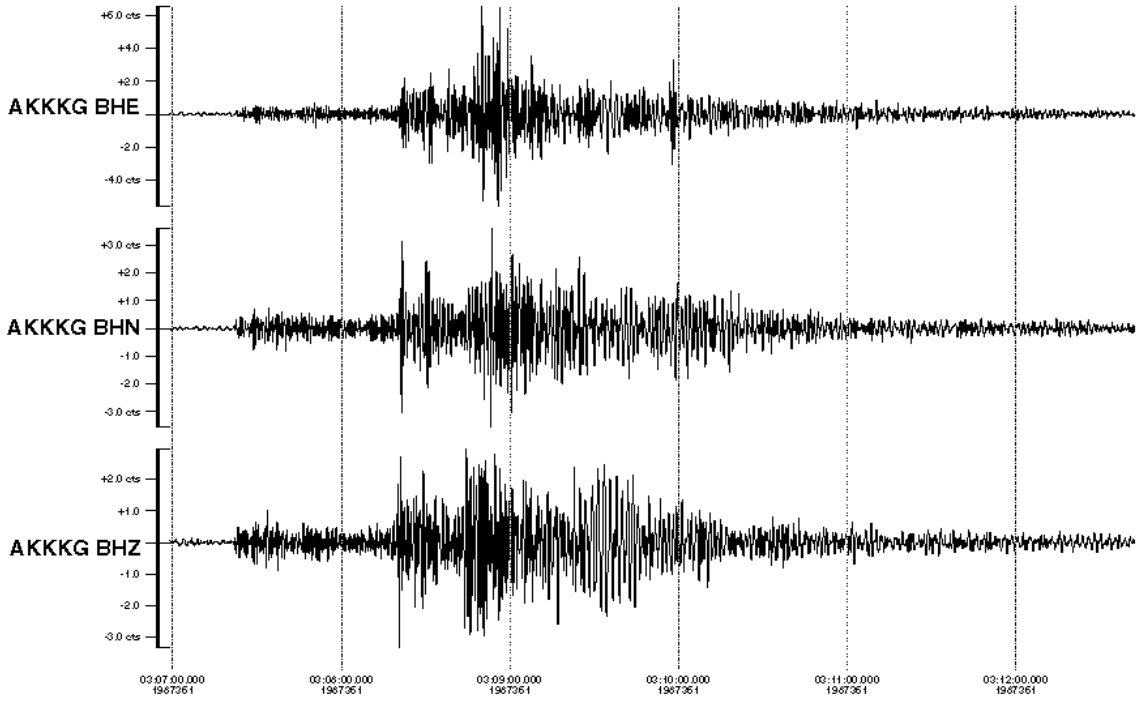


Figure 4 b) Digitized version of Figure 4a.

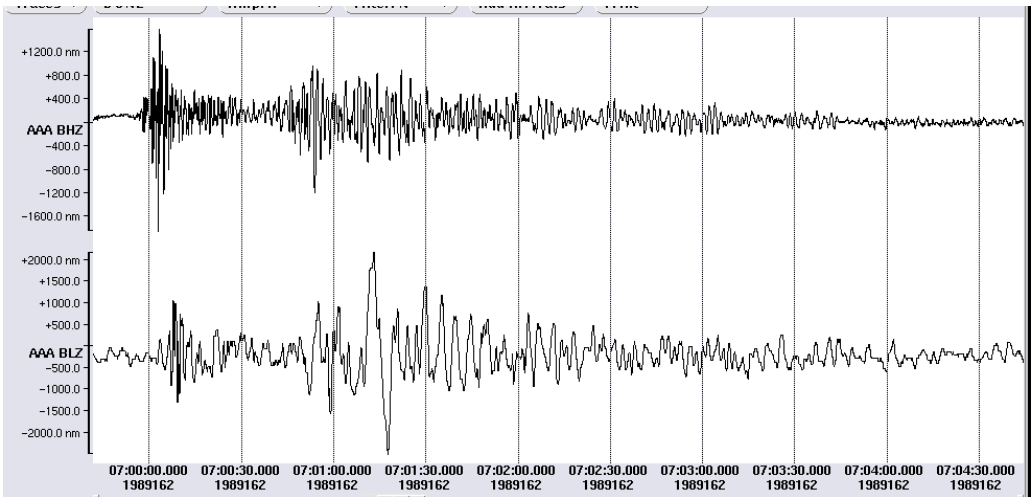


Figure 4 c) Digitized seismograms for the chemical explosion Uch-Terek of June 11, 1989, 6:59:52, recorded by SKM and SKD instruments. Alma-Ata station.

3.6. Example of a Digitized Seismogram—from a Pen-and-Ink Record

For an analog seismogram written by pen and ink, the trace is curved to a degree that is inversely proportional to the length of the arm of the pen. Although the time axis is straightforward, digitization is complicated by the fact that in the direction perpendicular to the time axis, there can be two or more intersections with the original seismogram trace, for each point in time. We therefore developed a computer code to correct for curvilinear pen motion directly on scanned images. In order to correct the traces for the curvilinear pen motion, we need to know the length of the pen arm or radius of the arc generated by the pen motion. The code has been adapted on MATLAB, to utilize its easy handling of images and graphics. The code, called DEARC and written at LDEO by Kim and Gold, can be run in a variety of environments, since the MATLAB package runs on different computer systems. It was installed in this project at IGR in Almaty, Kazakhstan. The correction is carried out directly on the scanned image working with pixels. Essentially, each pixel is moved laterally to the location that would be appropriate if the pen had an arm of infinite length.

Figure 5 shows an example of a curvilinear seismogram, its appearance after application of DEARC (transformation into standard form so that there is one amplitude value for each time value), and a digitized fragment of the record.

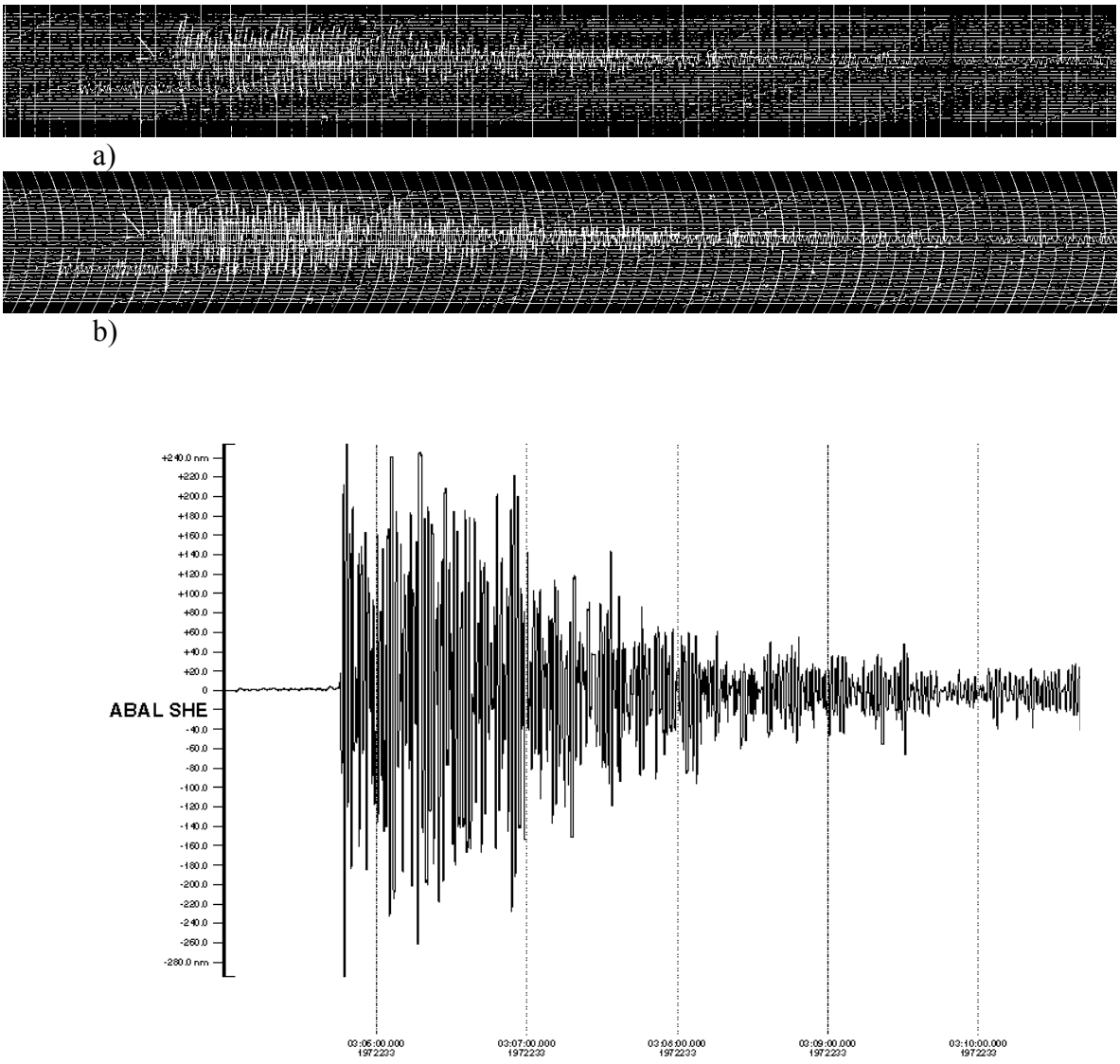


Figure 5. The seismogram of a peaceful nuclear explosion, conducted on August 20, 1972, origin time = 03:00:00, (49.400°N, 48.142°E), recorded by the Abalakovo station ABAL, on an RVZT instrument, E-W component. a) original seismogram, b) seismogram transformed using DEARC software, c) digitized seismogram.

4. CHEMICAL AND NUCLEAR EXPLOSION AND EARTHQUAAKE DATA SETS IN DIFFERENT SOURCE REGIONS

We have classified the digitized seismograms by source type, source region (e.g., test site), event, and instrument. For purposes of description in this section of the report, the

thousands of digitized records are organized into thirteen groups, each associated with a particular source region and source type.

In building the digital database, metadata characterizing seismic sources were taken from a variety of publications. For many nuclear explosions, we used

http://www.johnstonsarchive.net/nuclear/tests/index.html

for source parameters.

For small nuclear explosions not characterized by this URL, we used information from Khalturin *et al*. (2001).

For air and surface explosions, parameters were determined using analog seismograms and space images as described in Sokolova and Velikanov (2013).

For peaceful nuclear explosions (PNEs), the information was taken from Fujita *et al*. (2013).

For nuclear explosions at Lop Nor the information is from Waldhauser *et al*. (2004).

For chemical explosions the information is from Khalturin *et al*. (1998), Khalturin *et al*. (2001), and Adushkin *et al*. (1995).

4.1. Large Chemical Explosions in Central Asia

401 seismograms of large chemical well-recorded research explosions conducted on the territory of Central Asia in 1966 – 1989 have been digitized; the distance range was 16 – 1802 km. Figure 6 shows the map of chemical explosion epicenters and station locations from which records were used for digitization. Figure 7a shows the distribution of digitized records by distance, Figure 7b shows the distribution of digitized records by m_b values, Figure 8 shows an example of the digitized seismogram of chemical explosion Uch-Terek.

Appendix B gives the parameters of the digitized seismograms of large chemical explosions in our database.

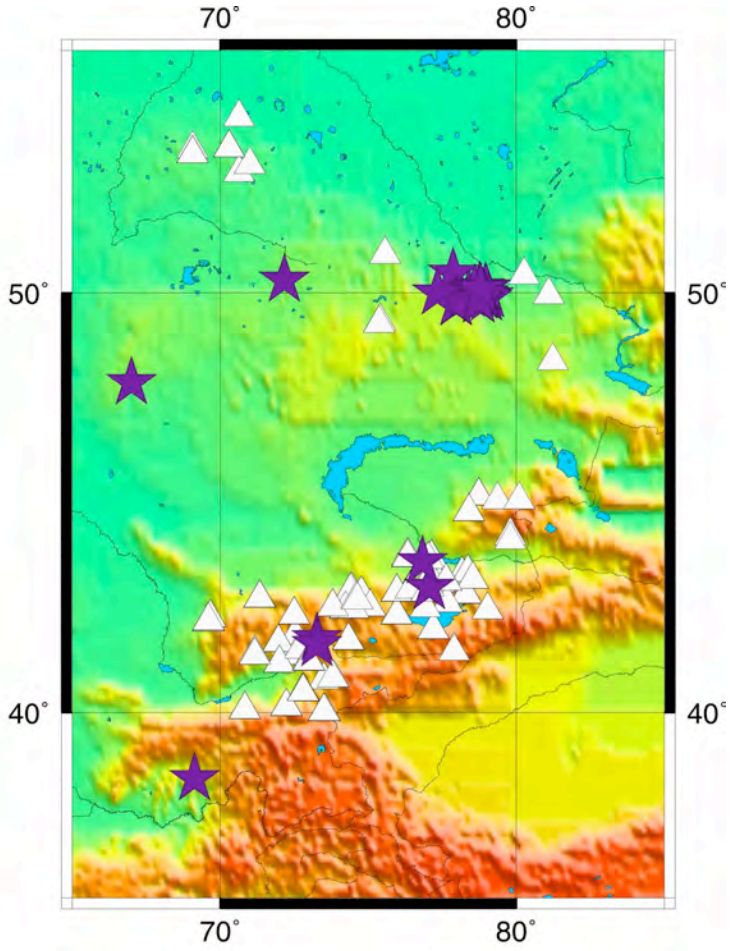


Figure 6. A map of chemical explosion epicenters and seismic stations, from which records were digitized. Stars – explosion epicenters, triangles – seismic stations.

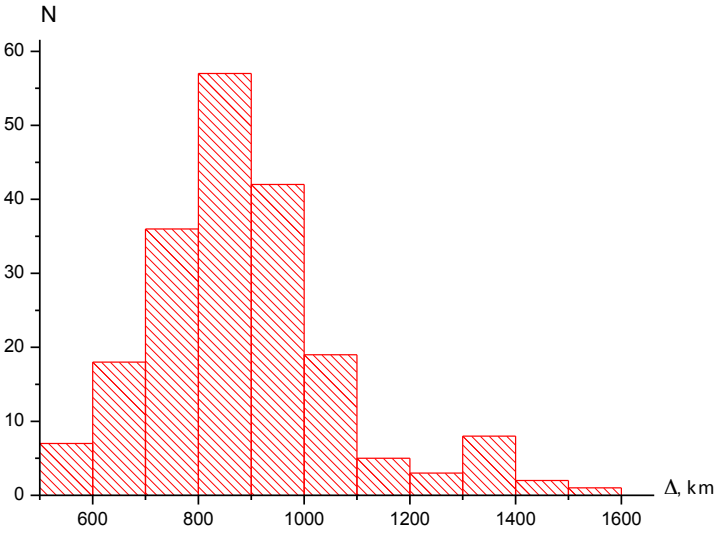


Figure 7a Distribution of epicentral distances of the digitized records of large chemical explosions in Central Asia.

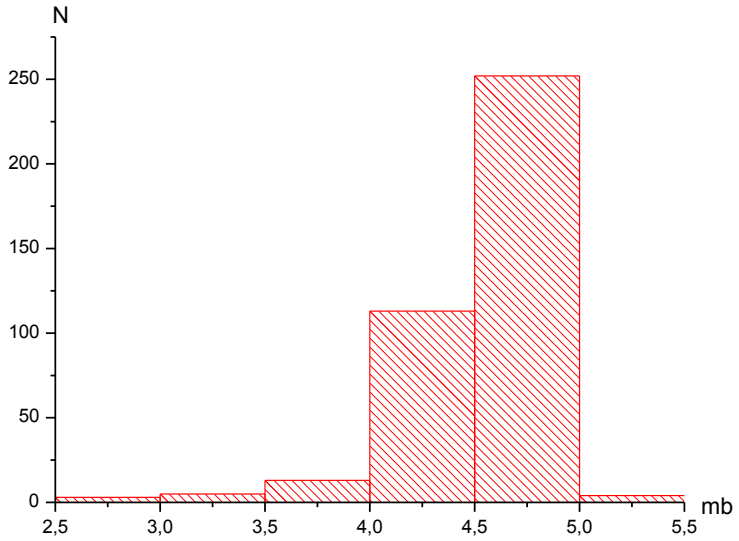


Figure 7b Distribution of m_b values of the digitized records of large chemical explosions in Central Asia.

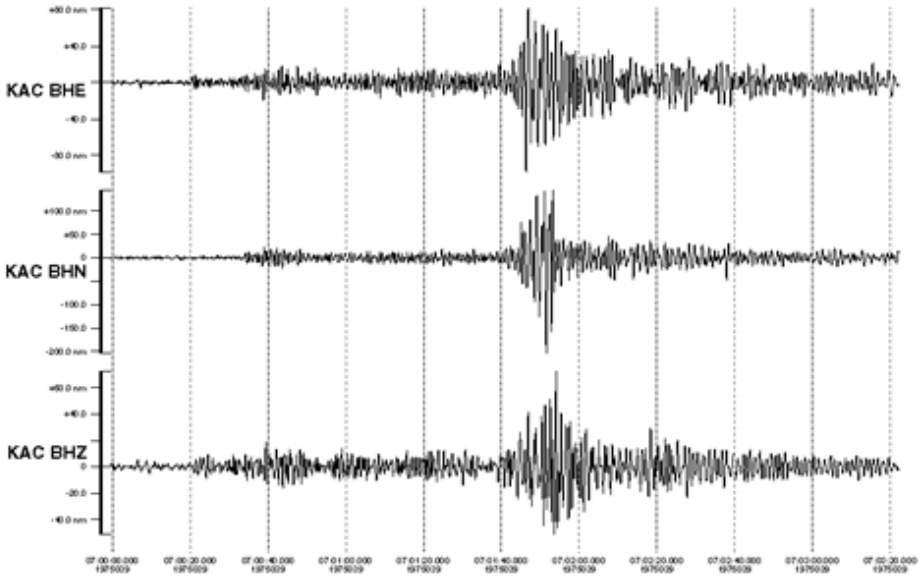


Figure 8. A digitized seismogram of the calibration explosion Uch-Terek, Feb 02, 1975, (41.88°N, 73.26°E), recorded at station KAC.

4.2. Nuclear Explosions, Lop Nor Test Site, China

537 seismograms of atmospheric and underground nuclear explosions conducted at Lop Nor Test Site, China, in 1965 – 1996 have been digitized; the distance range is 698 – 2003 km. Figure 9 shows the map of nuclear explosion epicenters and station locations from which records were used for digitization. Figure 10a shows the distribution of digitized records by distance, Figure 10b shows the distribution by m_b values, Figure 11 shows an example of a digitized seismogram of the nuclear explosion conducted at Lop Nor on December 12, 1984, recorded at Ala-Archa station (SKM instrument).

Appendix C gives the parameters of the digitized seismograms of nuclear explosions for the Lop Nor Test Site in our database.

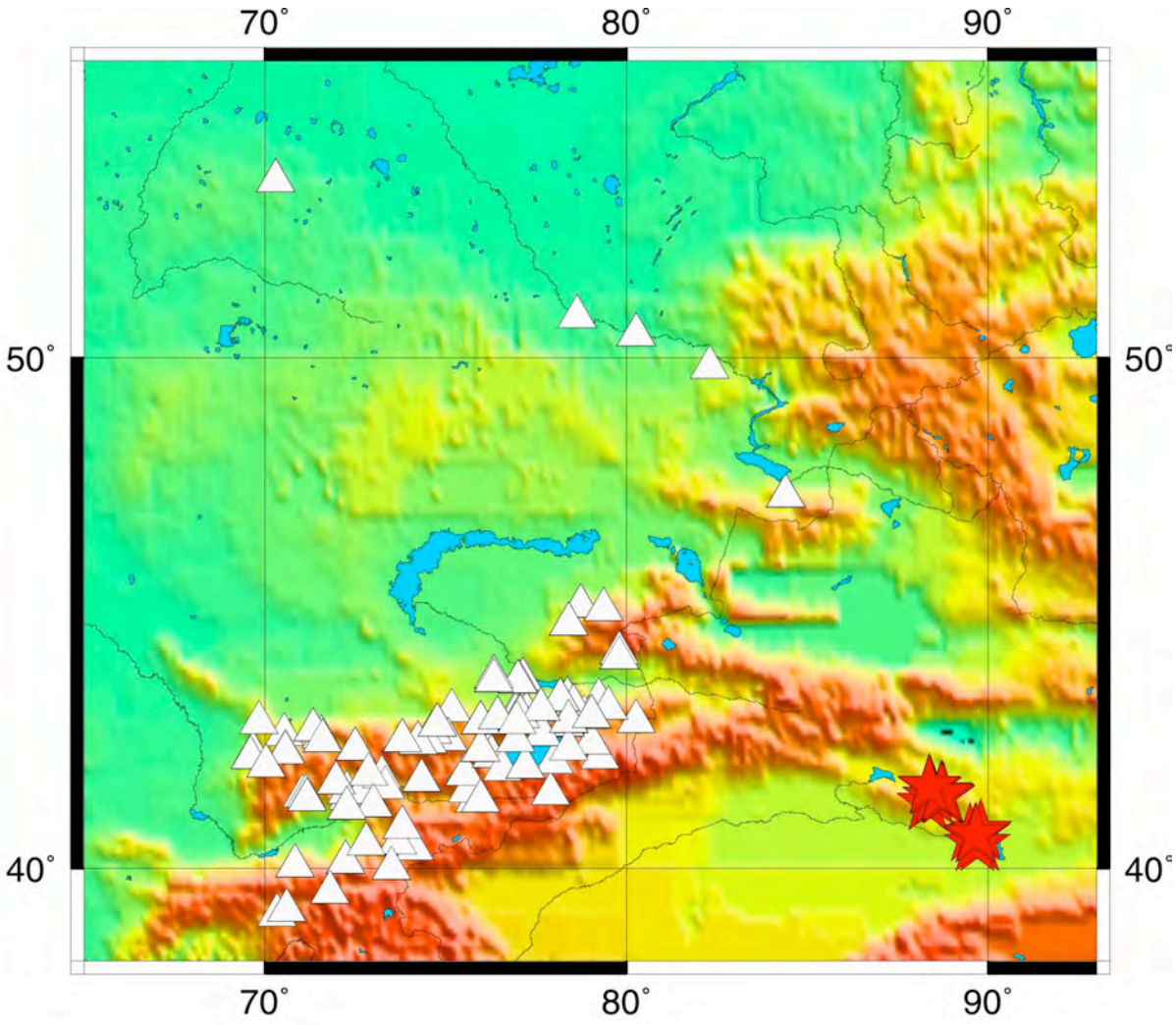


Figure 9. A map of Lop Nor Test Site nuclear explosion epicenters and stations, from which records were used for digitization. Stars – explosion epicenters, triangles – seismic stations.

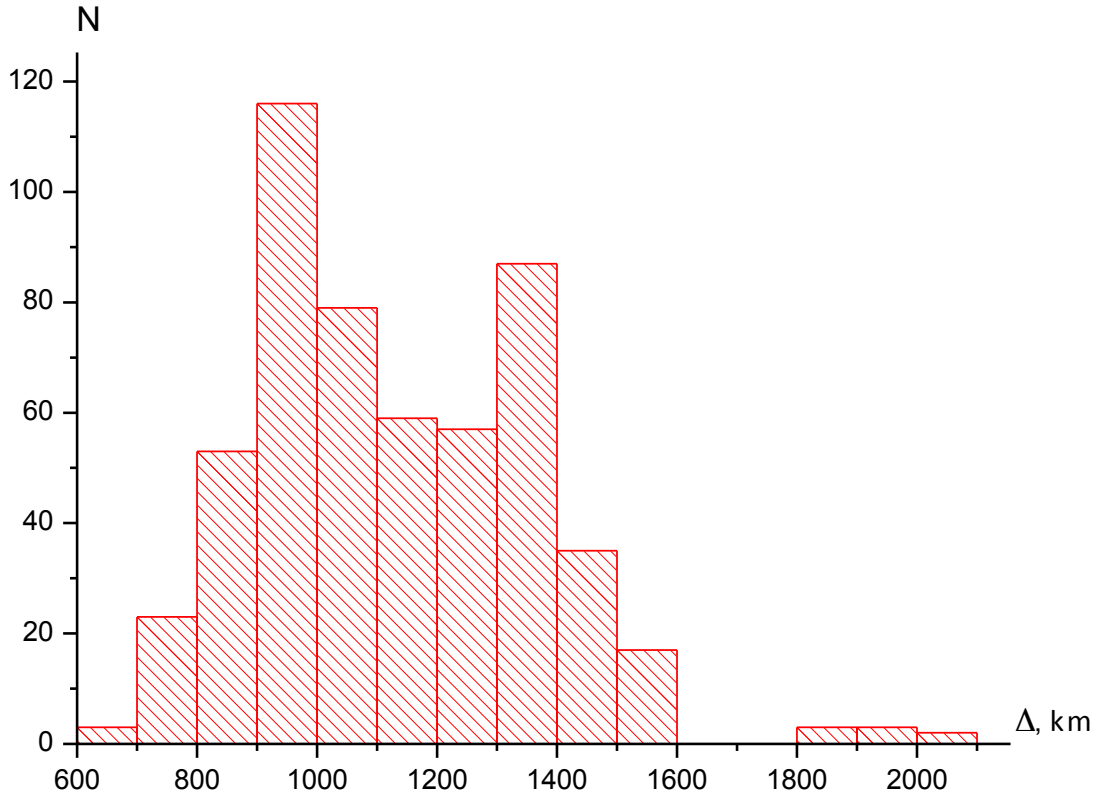


Figure 10a. Distribution of epicentral distances of the digitized records of nuclear explosions conducted at the Lop Nor Test Site.

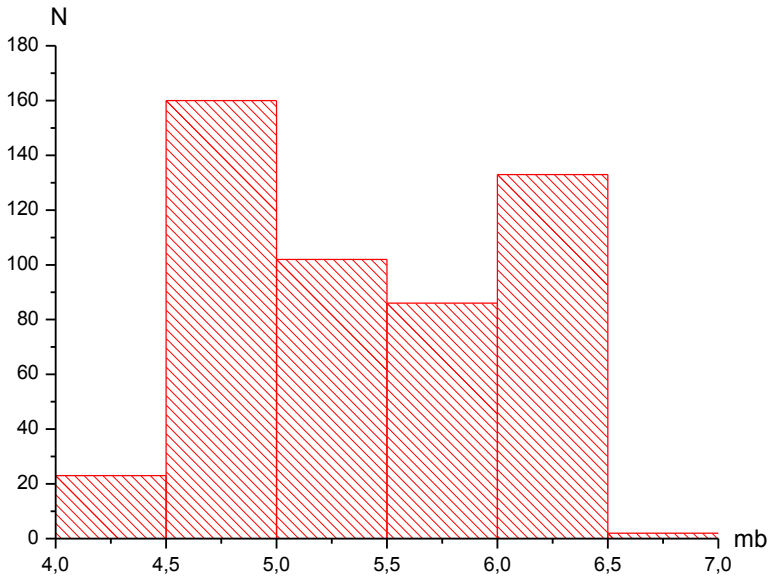


Figure 10b. Distribution of m_b values of the digitized records of nuclear explosions conducted at the Lop Nor Test Site.

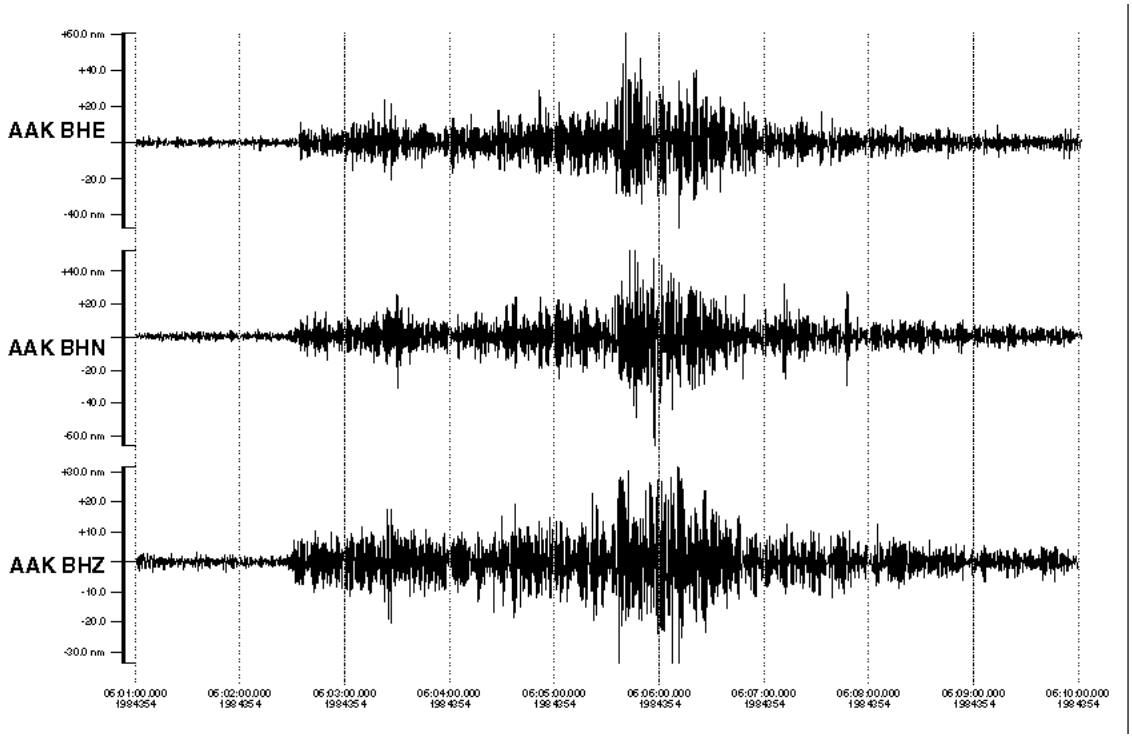


Figure 11. Example of a digitized seismogram of the nuclear explosion conducted at the Lop Nor Test Site, December 19, 1984, (41.736°N, 88.425°E), m_b = 4.7, Ala-Archa station (SKM instrument).

4.3. Earthquakes, Lop Nor Test Site, China

195 earthquake seismograms for 1967 – 1999 have been digitized; the distance range was 539 – 1545 km. Figure 12a shows a distribution diagram of the digitized seismograms by distances, Figure 12b shows a distribution diagram of the digitized seismograms by m_b values, Figure 13 shows an example of a digitized seismogram for the earthquake near Lop Nor Test Site on January 21,1990, (41.534°N, 88.728°E), station AAA.

Appendix D gives the parameters of digitized earthquake seismograms from the Lop Nor Test Site region in our database.

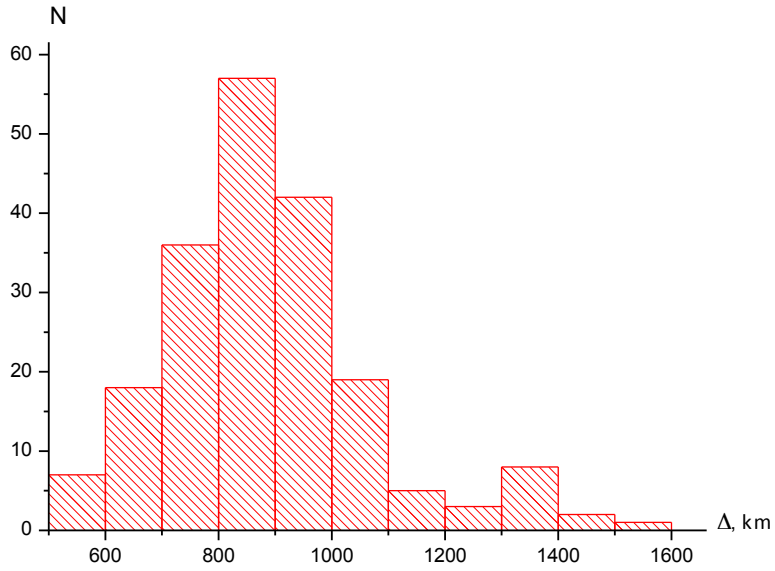


Figure 12a. Distribution of epicentral distances of digitized earthquakes records for the Lop Nor Test Site.

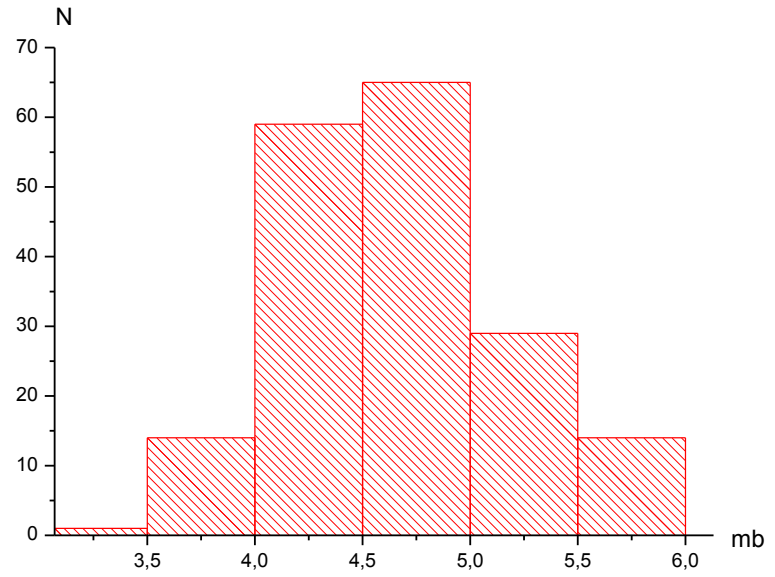


Figure 12b. Distribution of m_b values of digitized earthquakes records for the Lop Nor Test Site region.

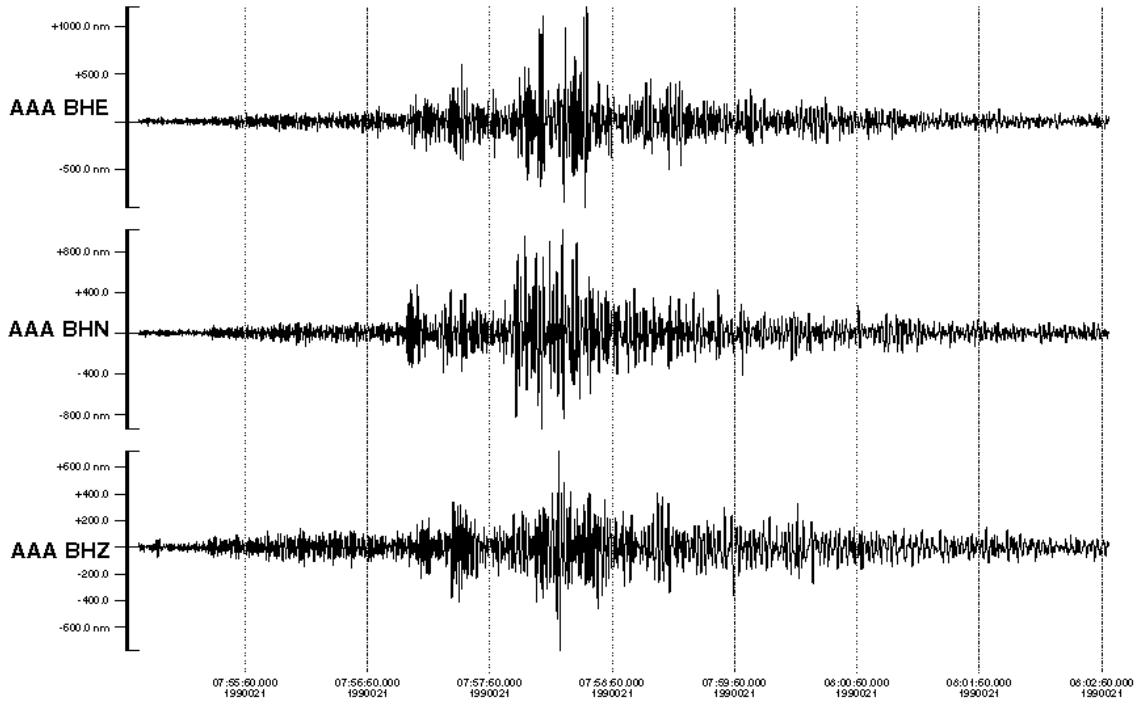


Figure 13. An example of a digitized seismogram for the earthquake which occurred near the Lop Nor Test Site on January 21, 1990, 07:53:31.9, (41.534°N, 88.728°E), station AAA.

4.4. Nuclear Explosions, Novaya Zemlya Test Site, USSR

717 seismograms of atmospheric, underground, above-water and under-water nuclear explosions for 1961 – 1990 have been digitized; the distance range was 1266 – 4411 km. Descriptions of these explosions and a history of this test site are given by Khalturin *et al*. (2005). Figure 14 shows a map of nuclear explosion epicenters and location of stations for which records were used for digitization. Figure 15a shows a distribution diagram of the digitized nuclear explosions seismograms from Novaya Zemlya Test Site by distances, Figure 15b shows a distribution diagram of the digitized nuclear explosions seismograms from Novaya Zemlya Test Site by m_b values, Figure 16 shows an example of a digitized seismogram from the nuclear explosion conducted at this test site on October 24, 1990, (73.361°N, 54.707°E), m_b = 5.7, TLG station.

Appendix E gives parameters of the digitized seismograms of nuclear explosions for the Novaya Zemlya Test Site region in our database.

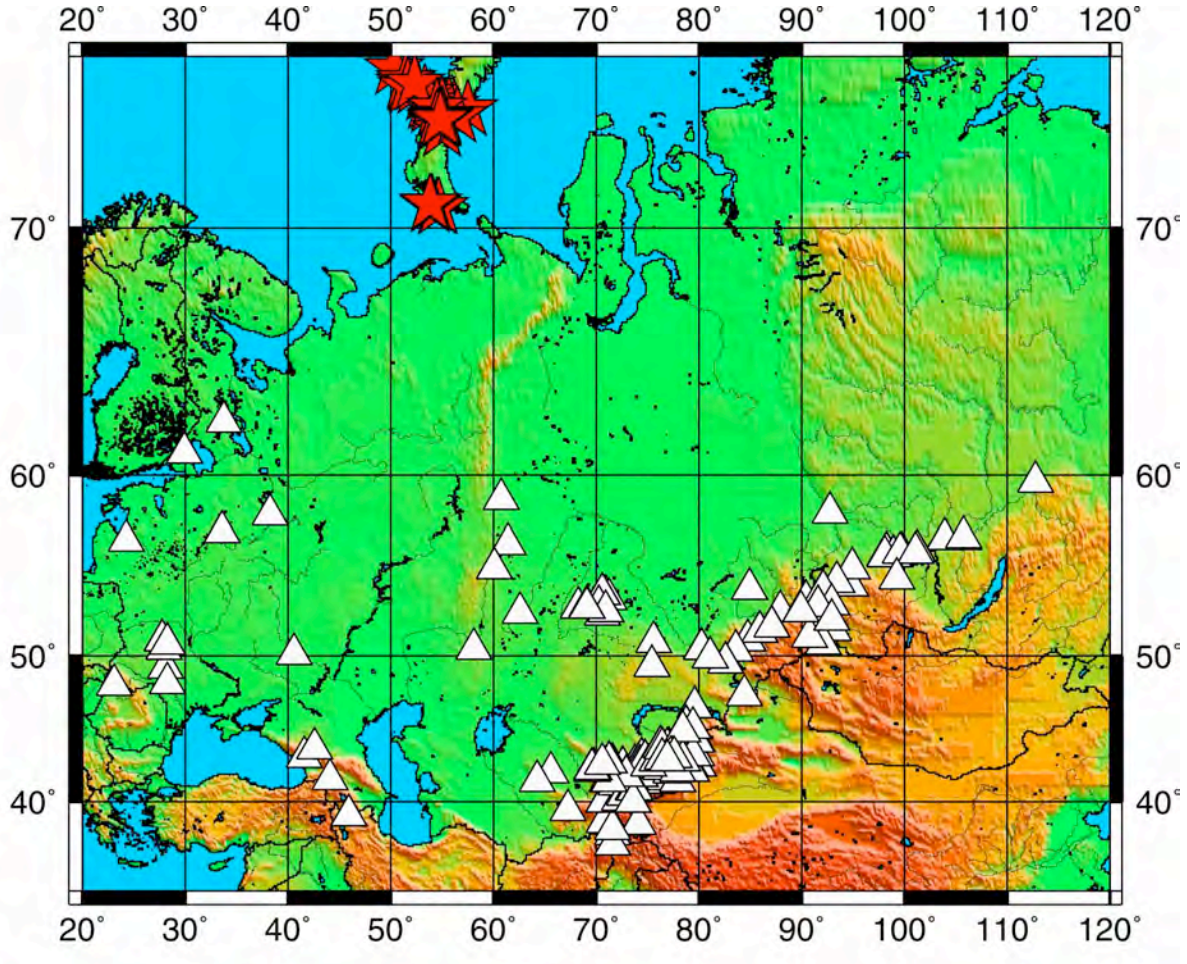


Figure 14. A map showing nuclear explosion epicenters at the Novaya Zemlya Test Site, and the location of stations from which records were used for digitization. Stars – explosion epicenters, triangles – seismic stations.

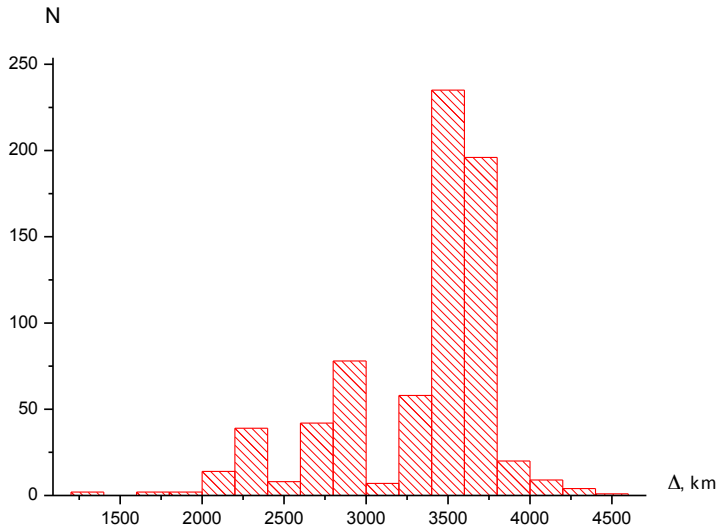


Figure 15a. Distribution of epicentral distances of the digitized records of nuclear explosions, for the Novaya Zemlya Test Site.

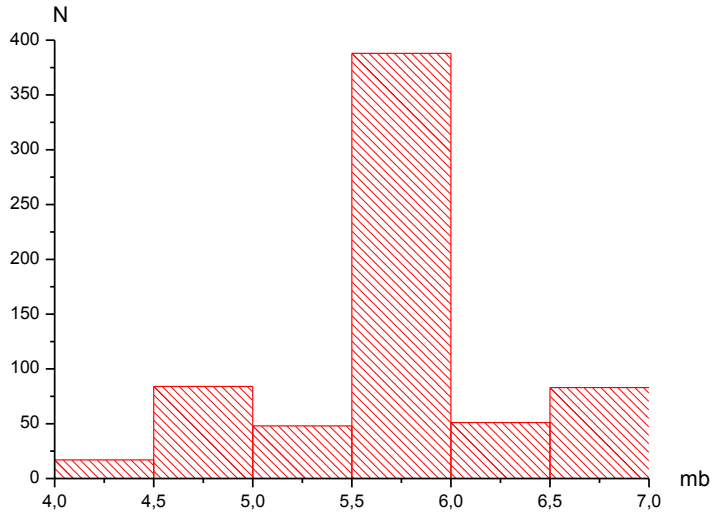


Figure 15b. Distribution of m_b values of digitized records of nuclear explosions for the Novaya Zemlya Test Site region.

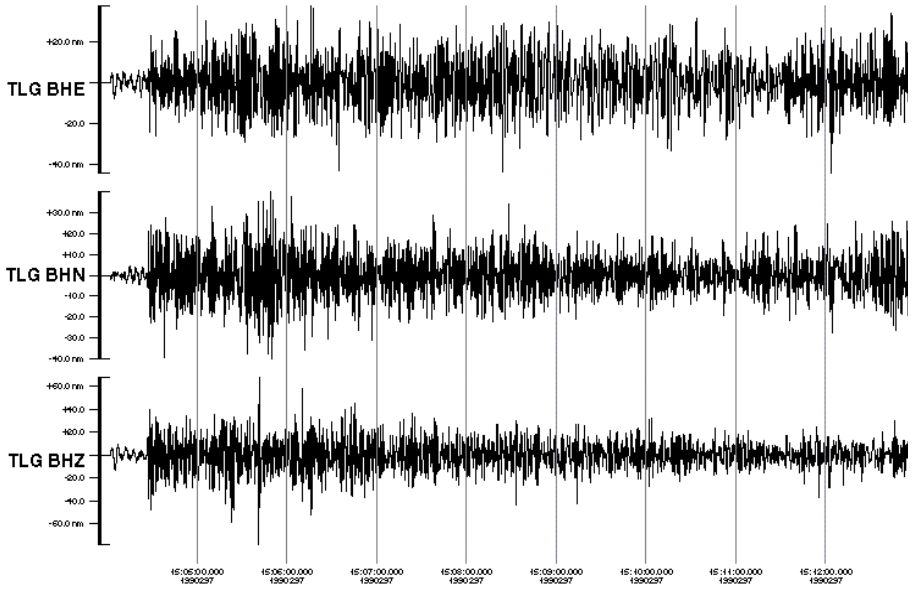


Figure 16. Example of a digitized seismogram of the nuclear explosion conducted at Novaya Zemlya Test Site on October 24, 1990, (73.361°N, 54.707°E), m_b = 5.7, TLG station.

4.5. Peaceful Nuclear Explosions, USSR

1074 seismograms of peaceful nuclear explosions for 1965 – 1988 were digitized; the distance range was 521 – 6729 km. Figure 17 shows a map of nuclear explosion epicenters, and the location of stations from which records were digitized. Figure 18a

shows the distribution of the digitized peaceful nuclear explosion seismograms conducted on the USSR territory by distance, and Figure 18b shows the distribution by m_b values. Figure 19 shows an example of a digitized seismogram from the peaceful nuclear explosion on October 3,1987, (47.60°N, 56.20°E), m_b = 5.3, MNAS station.

Appendix F gives parameters of the digitized peaceful nuclear explosion seismograms in our database.

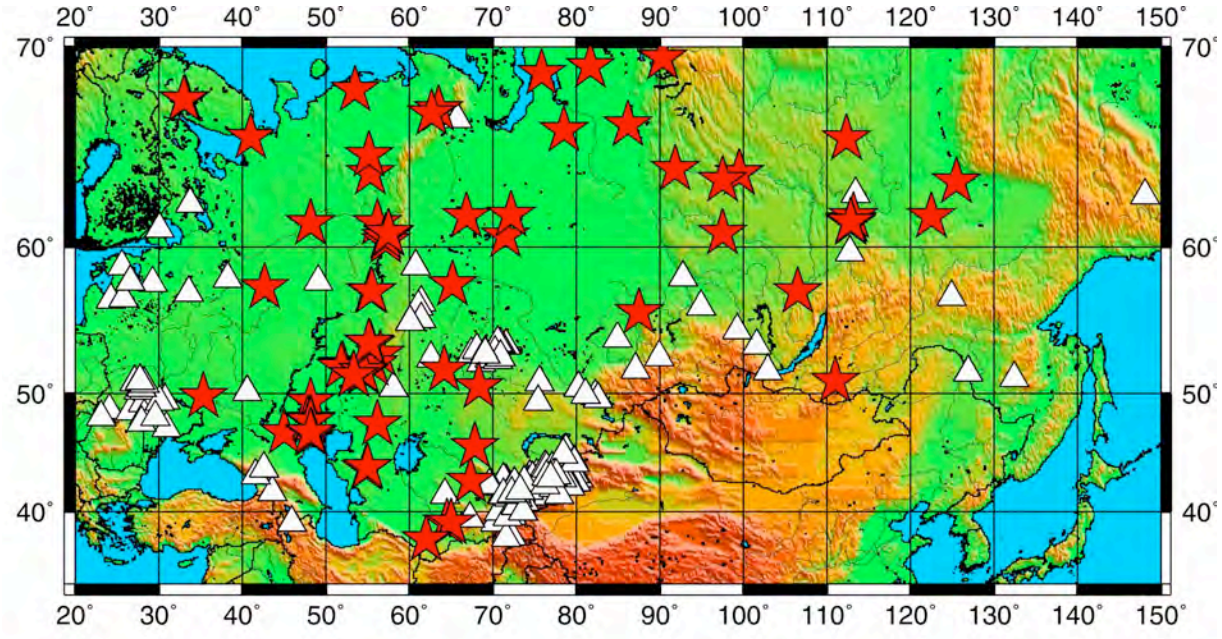


Figure 17. A map of epicenters for peaceful nuclear explosions conducted on the territory of the USSR and the location of stations from which records were used for digitization. Stars – explosion epicenters, triangles – seismic stations.

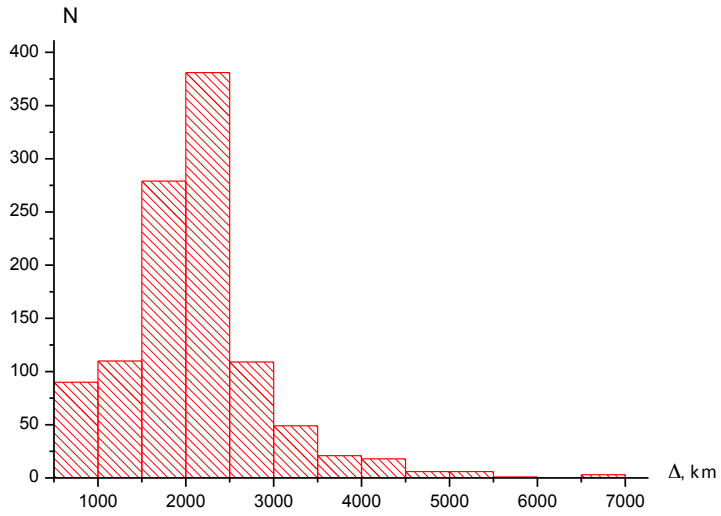


Figure 18a. Distribution of epicentral distances of the digitized records of peaceful nuclear explosions.

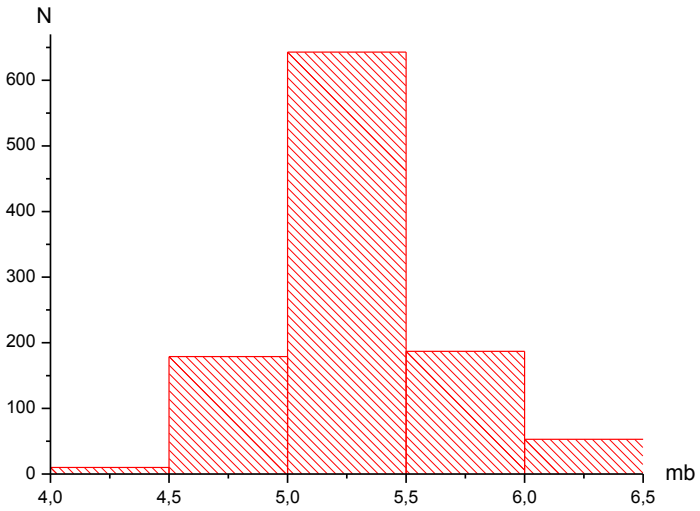


Figure 18b. Distribution of m_b values of the digitized records of peaceful nuclear explosions.

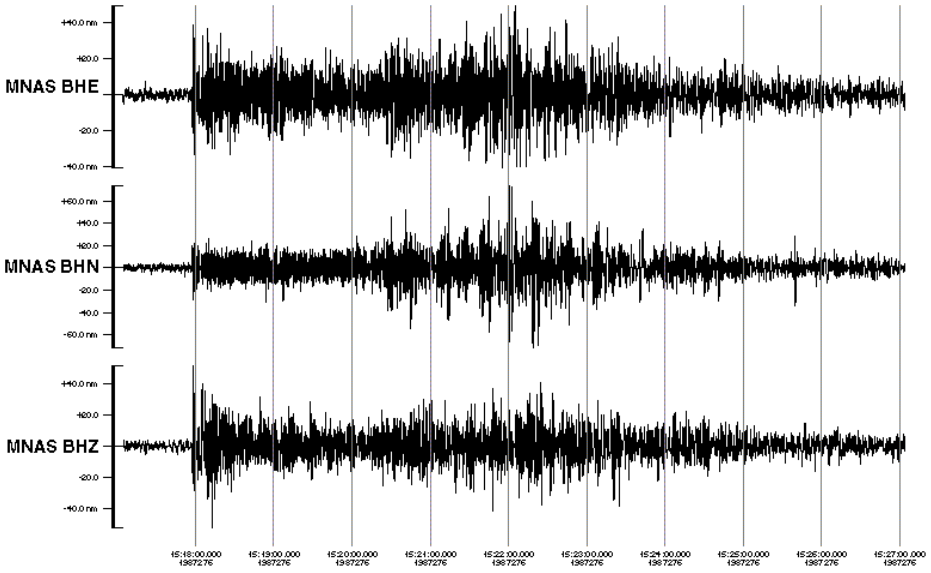


Figure 19. An example of a digitized seismogram of the peaceful nuclear explosion on October 3, 1987, (47.60°N, 56.20°E), m_b = 5.3, MNAS station.

4.6. Nuclear Explosions, Pokharan Test Site, India

54 seismograms of underground nuclear explosions for 1974 – 1998 have been digitized; the distance range was 1379 – 2955 km. Figure 20 shows a map of nuclear explosion epicenters and the location of stations from which records were used for digitization. Figure 21 shows a distribution of the digitized nuclear explosion seismograms by distance for explosions conducted at the Pokharan Test Site, Figure 22

shows an example of a digitized seismogram from the nuclear test at the Pokharan Test Site on May 11, 1998, (27.105°, 71.802°E), m_b = 5.2, NRN station. (This nuclear test consisted of near-simultaneous multiple explosions.)

Appendix G gives parameters of the digitized seismograms of nuclear explosions for Pokharan Test Site region in our database.

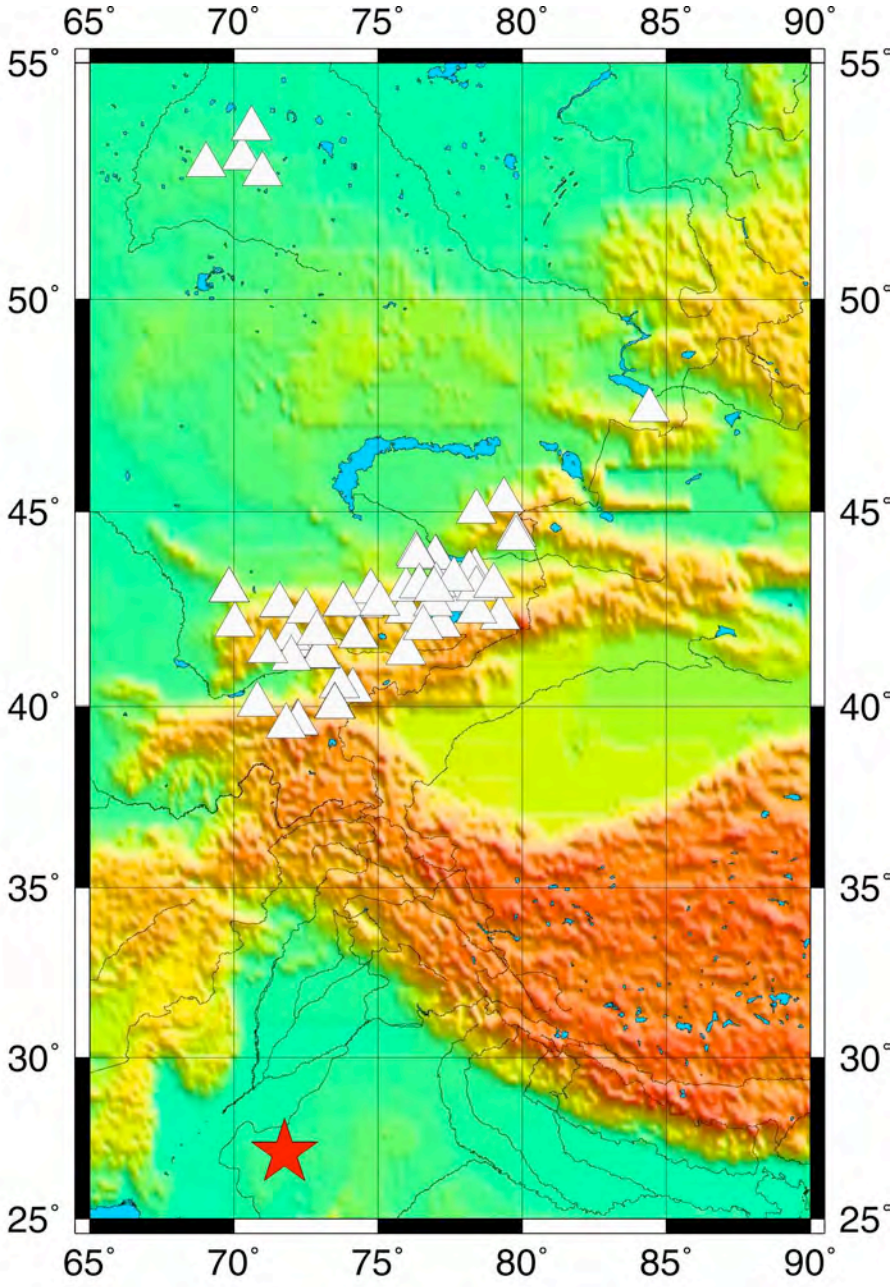


Figure 20. A map of epicenters for underground nuclear explosions conducted at the Pokharan Test Site, and of stations from which records have been used for digitization. Stars – explosion epicenters, triangles – seismic stations.

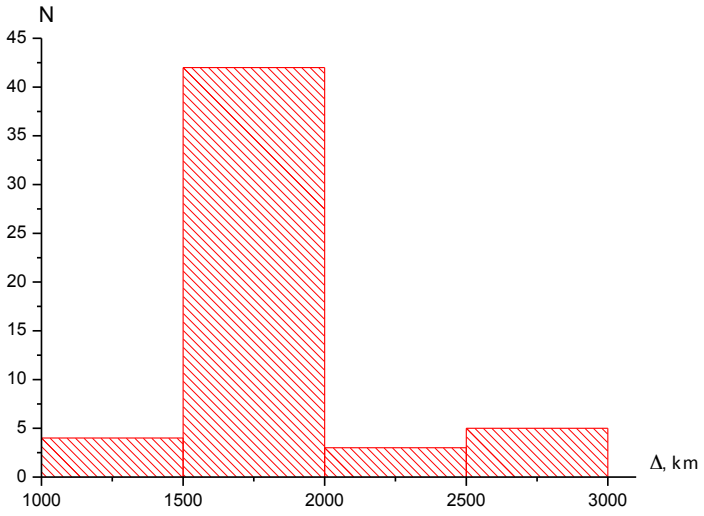


Figure 21. Distribution of epicentral distances of the digitized records of nuclear explosions for the Pokharan Test Site.

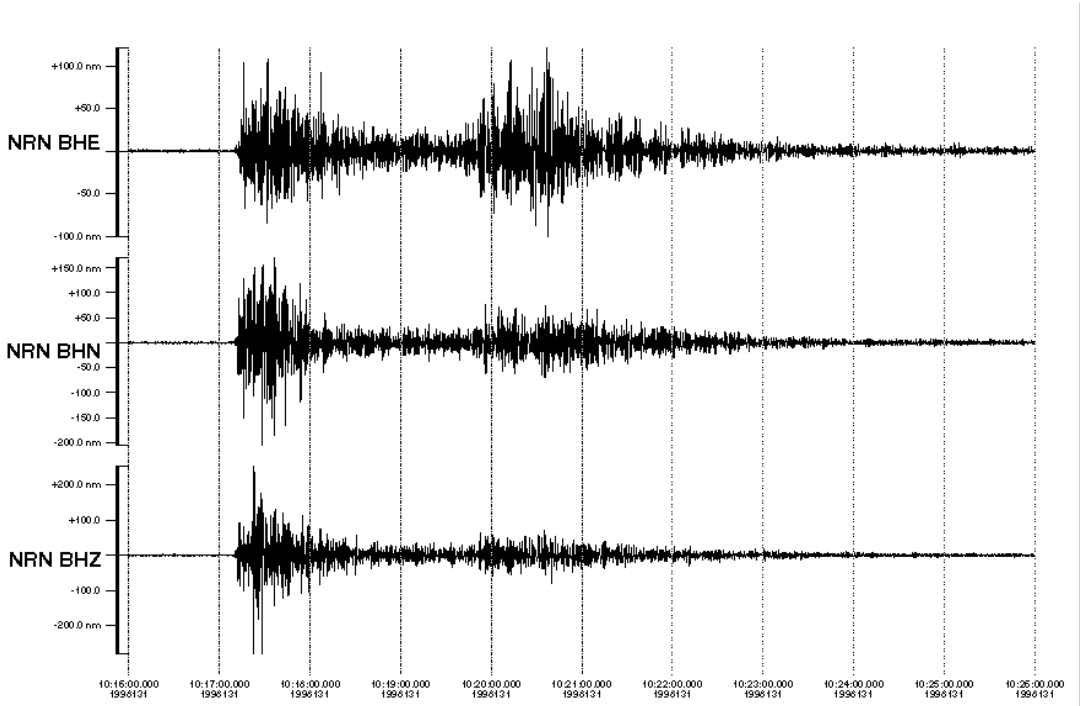


Figure 22. A digitized seismogram for the nuclear explosion at the Pokharan Test Site on May 11, 1998, (27.105°N, 71.802°E), m_b = 5.2, NRN station.

4.7. Nuclear Explosions, Chagay Test Site, Pakistan

32 seismograms of underground nuclear explosions for 1998 at this site were digitized; the distance range was 1344 – 2666 km. This nuclear test, on May 28, 1998, like many others conducted at other test sites around the world, consisted of near-simultaneous multiple explosions. Figure 23 shows a map of nuclear explosion epicenters and the location of stations from which records were digitized. Figure 24 shows the distribution of digitized nuclear explosion seismograms by distance for explosions conducted at the Chagay Test Site, Figure 25 shows an example of a digitized seismogram from the nuclear explosion at the Chagay Test Site on May 28, 1998, (28.902°N, 64.789°E), m_b = 4.8, OHH station.

On May 30, 1998, when Pakistan conducted a second nuclear test at 06: 55: 00.0, there was also an earthquake on the border of Tajikistan and Afghanistan (37.106°N, 70.11°E), of magnitude 6, at 06: 22: 28.9. The nuclear test signals are small compared to the earthquake signals on analog stations in Kirgizstan and in the south and southeast of Kazakhstan. The explosion record can be seen in digitally recorded data of stations in Kazakhstan, notably BRVK, VOS, ZRNK, CHKZ, and the Kurchatov cross array.

Appendix H gives parameters of the digitized seismograms of the May 28, 1998, nuclear explosion at the Chagay Test Site in our database.

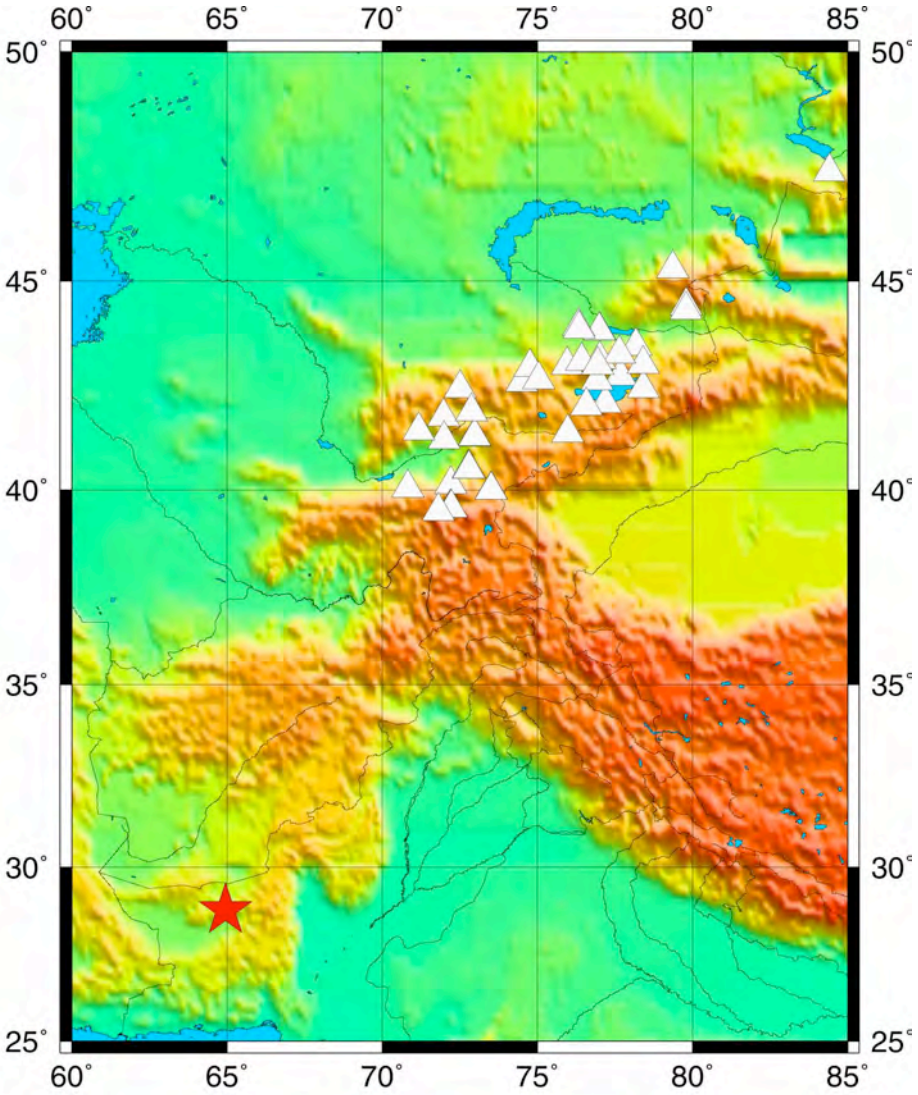


Figure 23. A map of the underground nuclear test epicenter at the Chagay Test Site, and the location of stations from which records were used for digitization. Star – explosion epicenter, triangles – seismic stations.

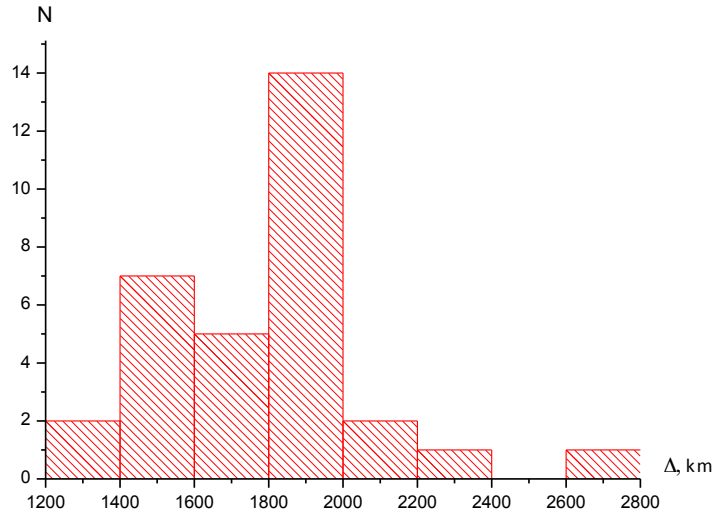


Figure 24. Distribution of epicentral distances of the digitized records of the nuclear test at the Chagay Test Site, Pakistan.

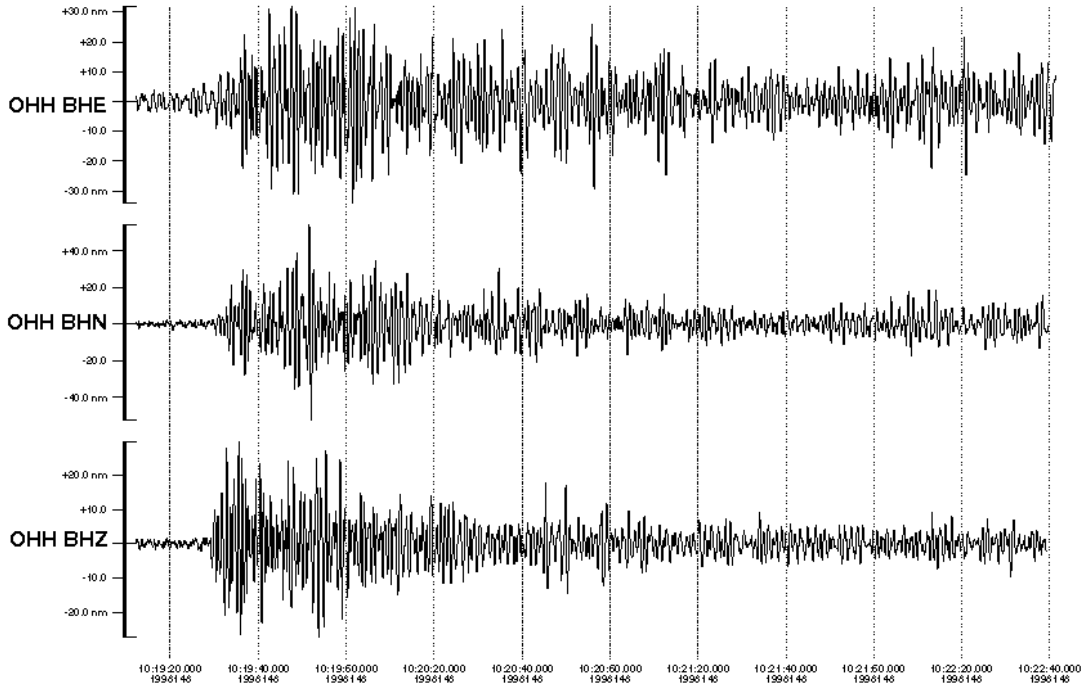


Figure 25. An example of a digitized seismogram from nuclear test at the Chagay Test Site on May 28, 1998, (28.902°N, 64.789°E), m_b = 4.8, OHH station.

4.8. Nuclear Explosions, In Ekker Test Site, now in Algeria, by France

79 seismograms of underground nuclear explosions for 1962 – 1966 were digitized; the distance range was 6500 – 8500 km. Figure 26 shows a map of nuclear explosion epicenters and the location of stations from which records were digitized. Figure 27 shows the distribution of digitized nuclear explosion seismograms by distance for explosions conducted at the In Ekker Test Site, Figure 28 shows an example of a digitized nuclear explosion seismogram from the In Ekker Test Site conducted on February 16,1966, (24.0441°N, 5.0412°E), m_b = 4.9, KRM station.

Appendix I gives parameters of the digitized nuclear explosion seismograms in our database for the In Ekker Test Site.

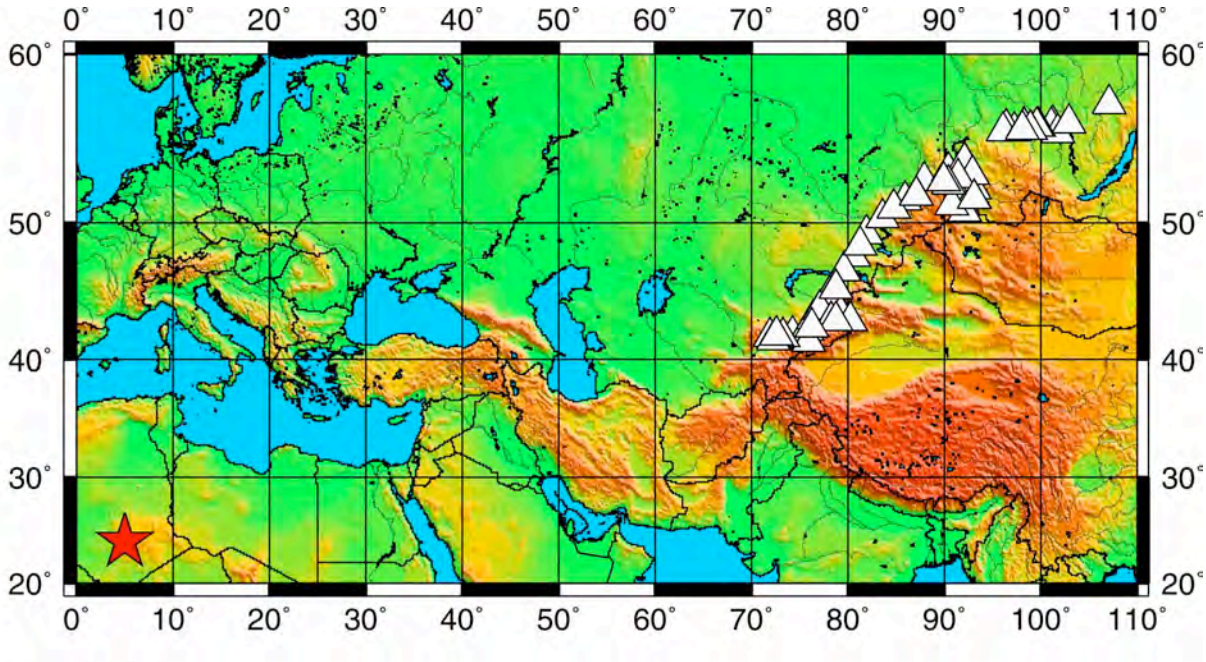


Figure 26. A map of underground nuclear explosion epicenters at the In Ekker Test Site and location of stations from which records were digitized. Stars – explosion epicenters, triangles – seismic stations.

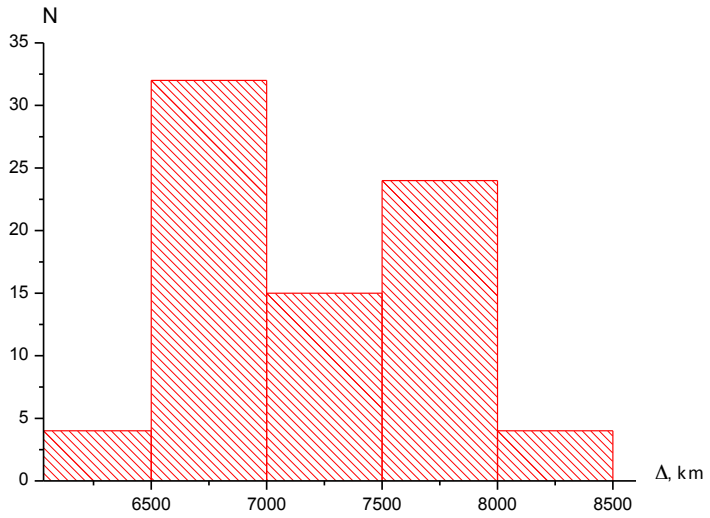


Figure 27. Distribution of epicentral distances of the digitized records of nuclear explosions for the In Ekker Test Site.

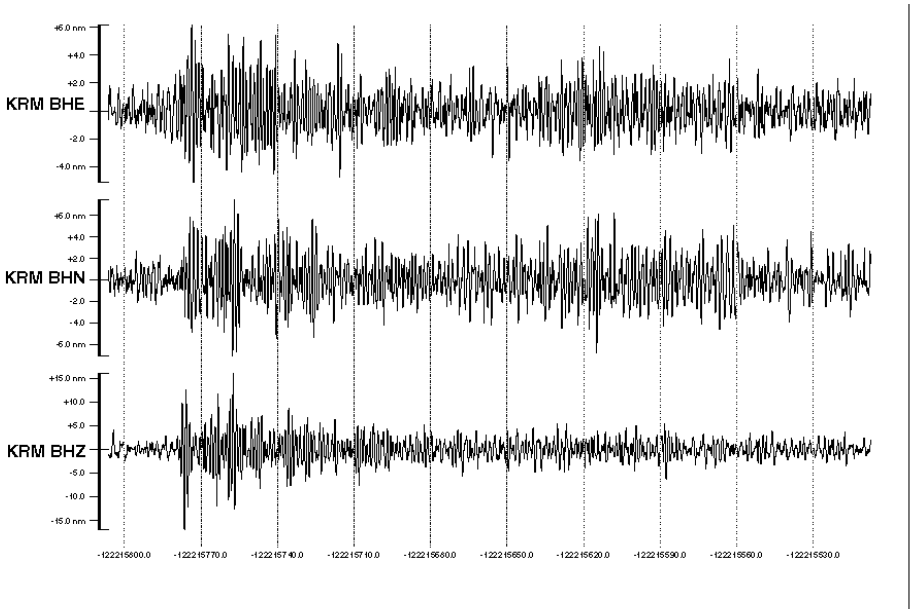


Figure 28. An example of a digitized seismogram from a nuclear explosion at the In Ekker Test Site on February 16, 1966, (24.0441°N, 5.0412°E), m_b = 4.9, KRM station.

4.9. Nuclear Explosions, Amchitka Test Site, USA

21 seismograms of underground nuclear explosions for 1965 – 1971 were digitized; the distance range was 5588 – 8021 km. Figure 29 shows the map of nuclear explosion epicenters (effectively, all at the same site) and the location of stations from which

records were digitized. Figure 30 shows a distribution of the digitized nuclear explosion seismograms by distance for explosions conducted at the Amchitka Test Site, Figure 31 shows an example of a digitized record from the Amchitka Test Site explosion of October 29, 1965, (51.4381°N, 179.1826°E), Tereksay station (TERS).

Appendix J gives parameters of the digitized seismograms in our database, for nuclear explosions conducted at the Amchitka Test Site.

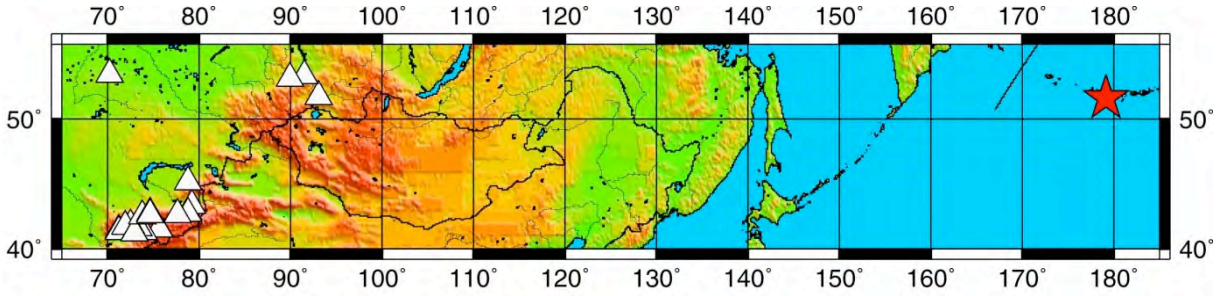


Figure 29. The map of underground nuclear explosion epicenters at the Amchitka Test Site and stations from which records were used for digitization. Stars – explosion epicenters, triangles – seismic stations.

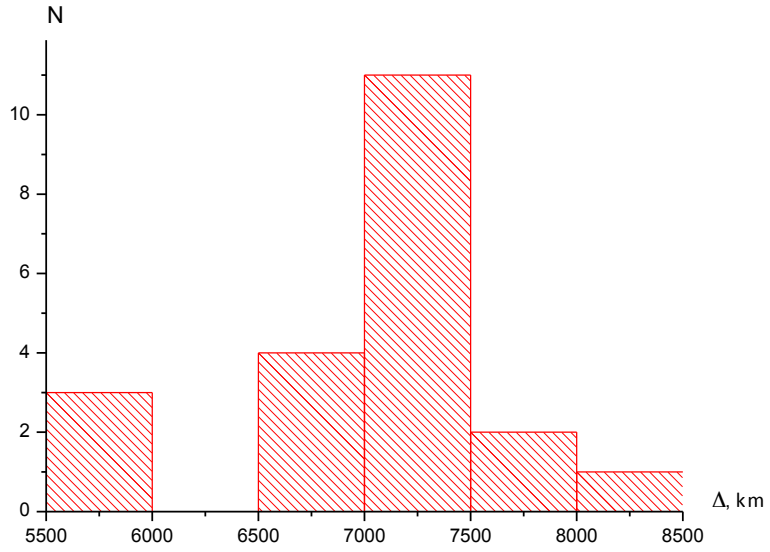


Figure 30. Distribution of epicentral distances of the digitized records of nuclear explosions for the Amchitka Test Site.

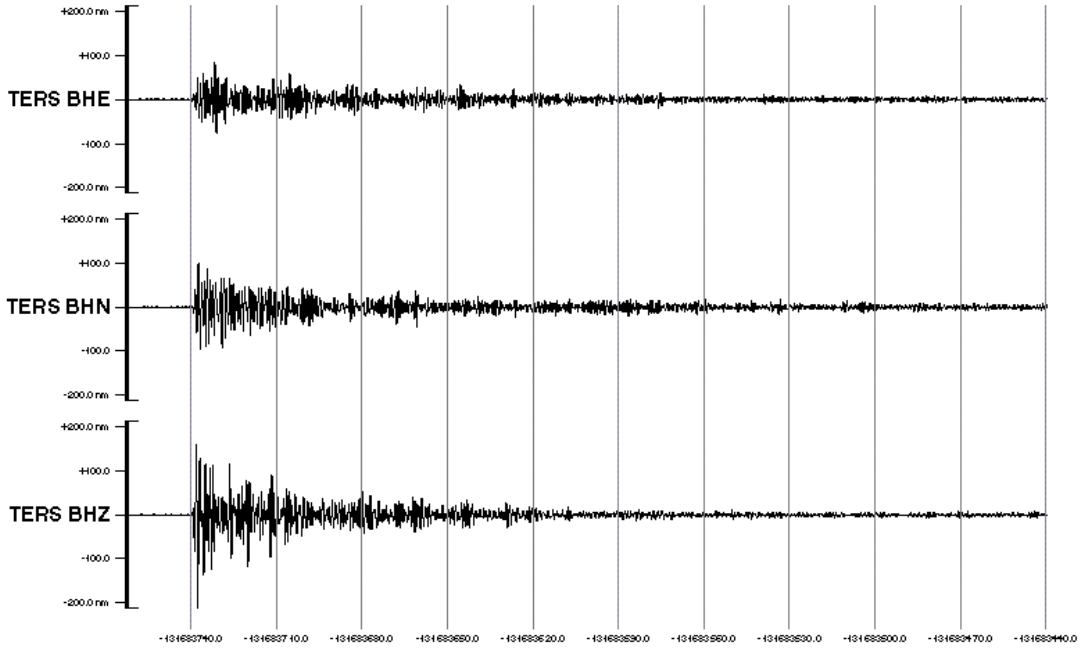


Figure 31. An example of a digitized seismogram for the nuclear explosion at the Amchitka Test Site on October 29, 1965, (51.4381°N, 179.1826°E), Tereksay station (TERS).

4.10. Nuclear Explosions, Mururoa Test Site, South Pacific, by France

260 seismograms of underground nuclear explosions for 1968 – 1996 have been digitized; the distance range was 15256 – 16907 km. Figure 31 shows a map of nuclear explosion epicenters and the location of stations from which records were digitized. Figure 33 shows a distribution of the digitized nuclear explosion seismograms by distance for explosions conducted at the Mururoa Test Site, and Figure 34 shows an example of a digitized seismogram from the nuclear explosion at the Mururoa Test Site on January 27, 1996, (22.236°S, 138.81°W), URVKG station.

Appendix K gives parameters of the digitized seismograms of nuclear explosions for Mururoa Test Site in our database.

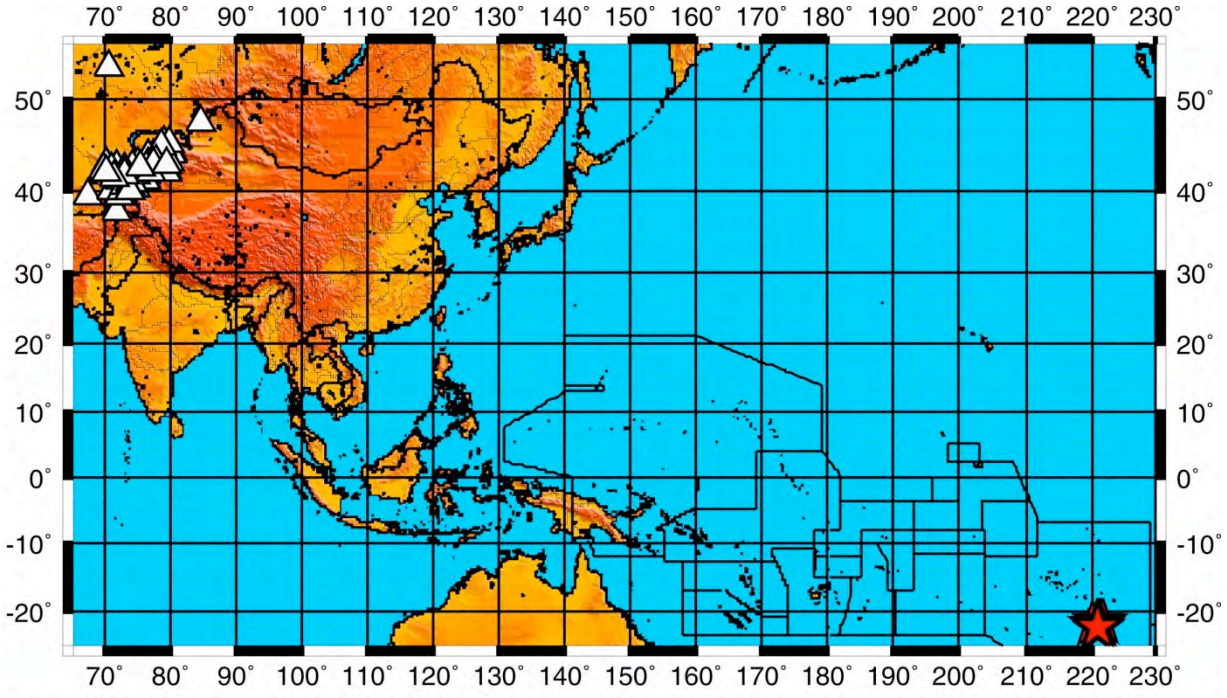


Figure 32. A map of underground nuclear explosion epicenters at the Mururoa Test Site, and the location of stations from which records were digitized. Stars – nuclear explosion epicenters, triangles – seismic stations.

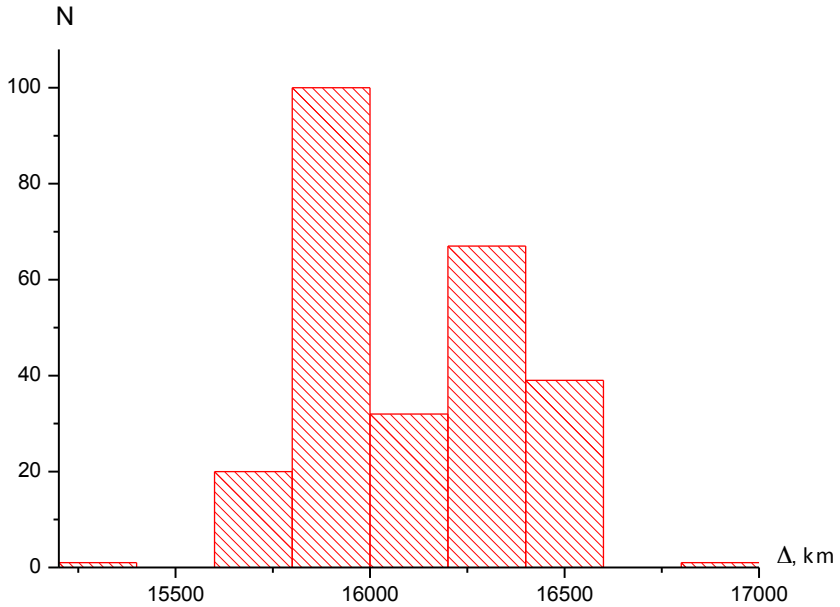


Figure 33. Distribution of epicentral distances of the digitized records of nuclear explosions for the Mururoa Test Site region.

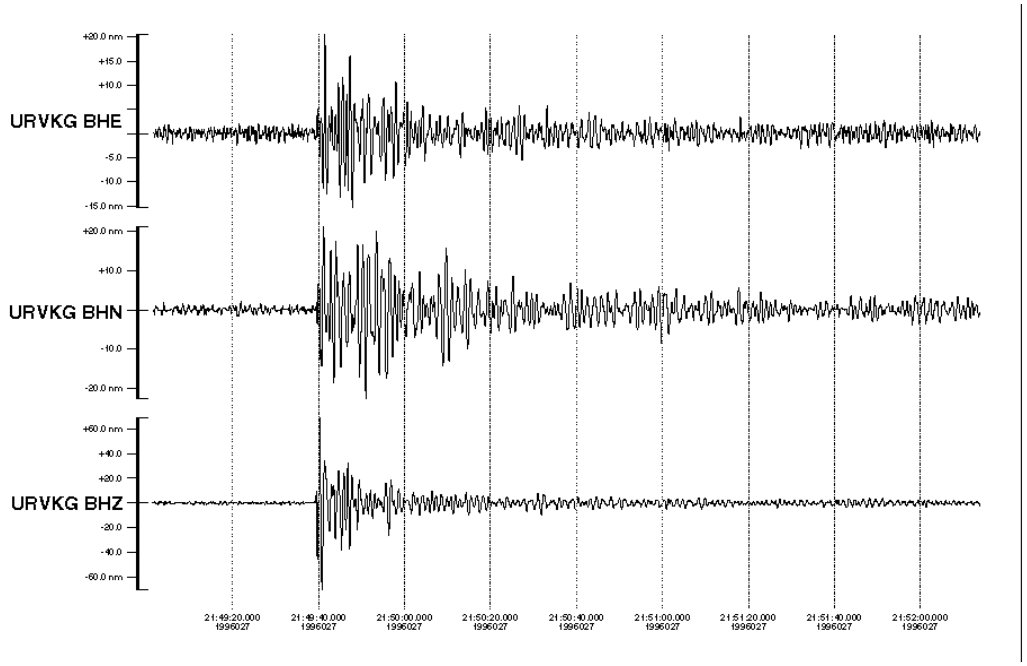


Figure 34. An example of a digitized seismogram for the nuclear explosion conducted at Mururoa Test Site on January 27, 1996, (22.236°S, 138.81°W), station URVKG.

4.11. Nuclear Explosions, Nevada Test Site, USA

392 seismograms of underground nuclear explosions at this test site for 1963 – 1992 were digitized; the distance range was 5588 – 8021 km. Figure 35 shows a map of nuclear explosion epicenters and the location of stations from which records were digitized. Figure 36 shows a distribution of the digitized nuclear explosion seismograms by distance for explosions conducted at the Nevada Test Site, and Figure 37 shows an example of a digitized record from the Nevada Test Site on September 16, 1969, (37.314°N, 116.46°W), Volodarskoye station (VOL), RVZT instrument.

Appendix L gives parameters of the digitized seismograms of nuclear explosions for Nevada Test Site in our database.

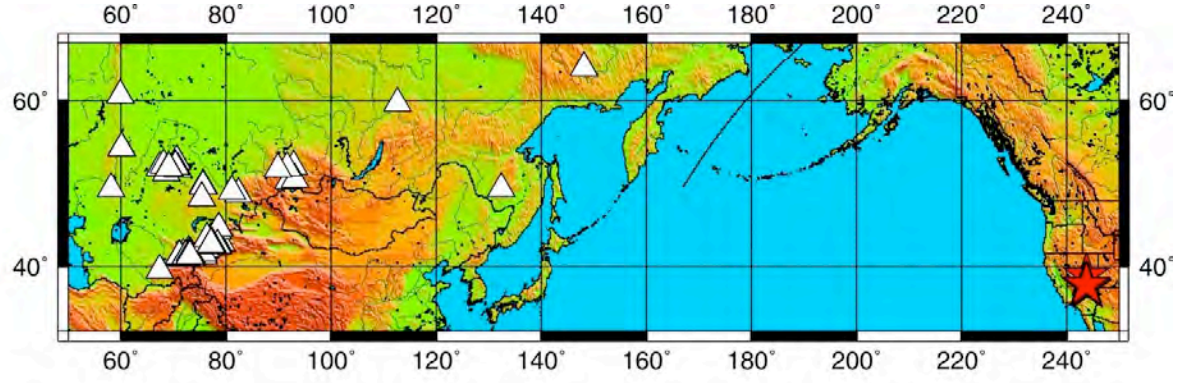


Figure 35. A map of underground nuclear explosion epicenters on the Nevada Test Site and location of stations from which records were digitized. Stars – nuclear explosion epicenters, triangles – seismic stations.

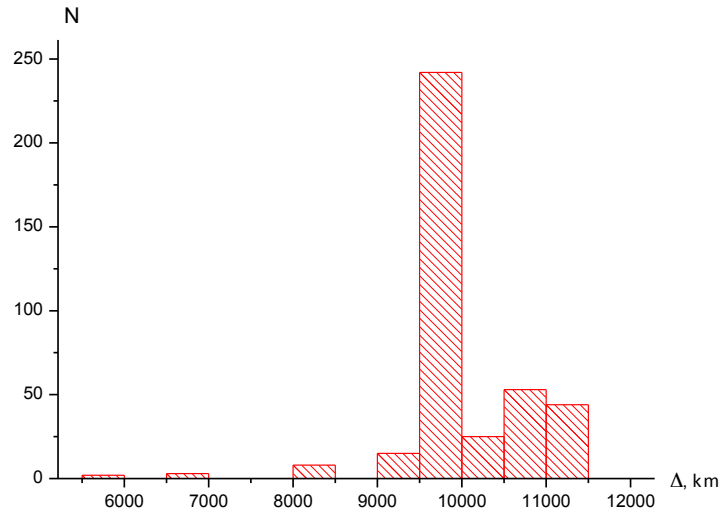


Figure 36. Distribution of epicentral distances of the digitized records of nuclear explosions for the Nevada Test Site region.

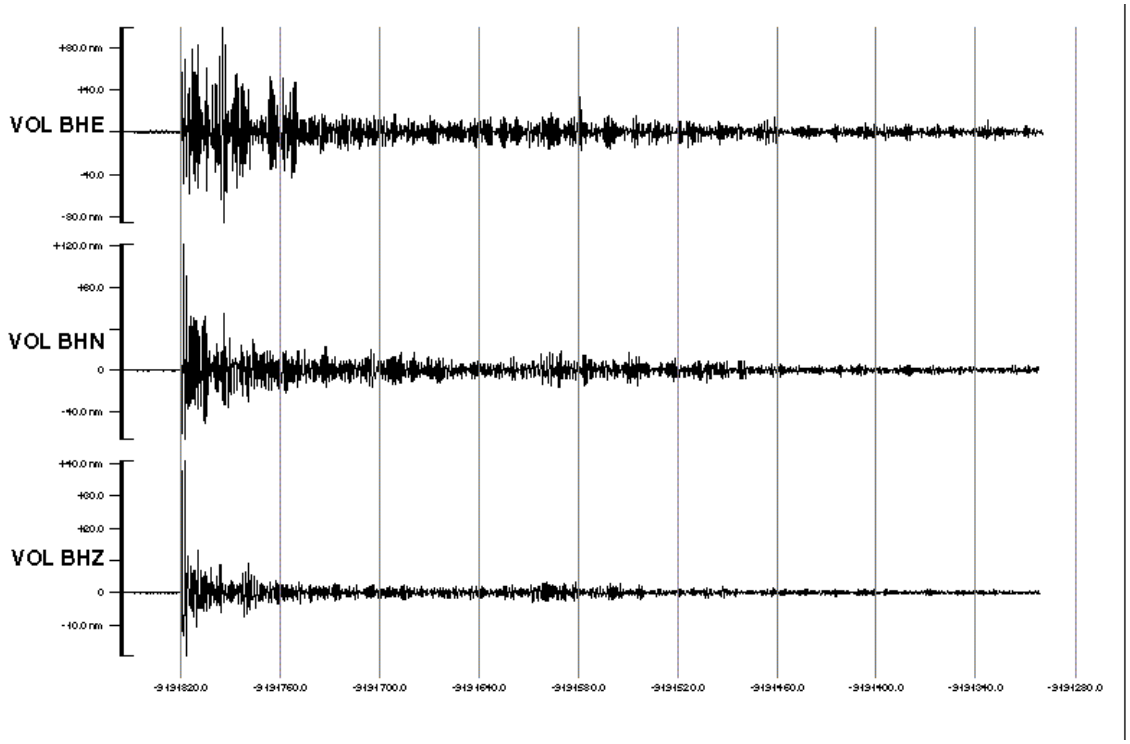


Figure 37. An example of a digitized record, from the underground nuclear explosion at the Nevada Test Site on September 16, 1969, (37.314°N, 116.46°W), Volodarskoye station (VOL), RVZT instrument.

4.12. Nuclear Explosions, Semipalatinsk Test Site, USSR

3074 seismograms of air, surface and underground nuclear explosions for 1961 – 1989 have been digitized; the distance range was 94 – 3494 km. Figure 38 shows a map of nuclear explosion epicenters and the location of stations from which records were used for digitization. Figure 39a shows the distribution of digitized nuclear explosion seismograms by distance for explosions conducted at the Semipalatinsk Test Site (STS), Figure 39b shows the distribution of the digitized nuclear explosion seismograms by m_b values for explosions conducted at the Semipalatinsk Test Site, and Figure 40 shows an example of a digitized seismogram from the nuclear explosion in the STS region on July 8, 1989, (49.8678°N, 78.7803°E), AAK station, SKD instrument.

Appendix M gives parameters of the digitized seismograms of nuclear explosions at the Semipalatinsk Test Site in our database. The set from this test site is by far the largest in our database.

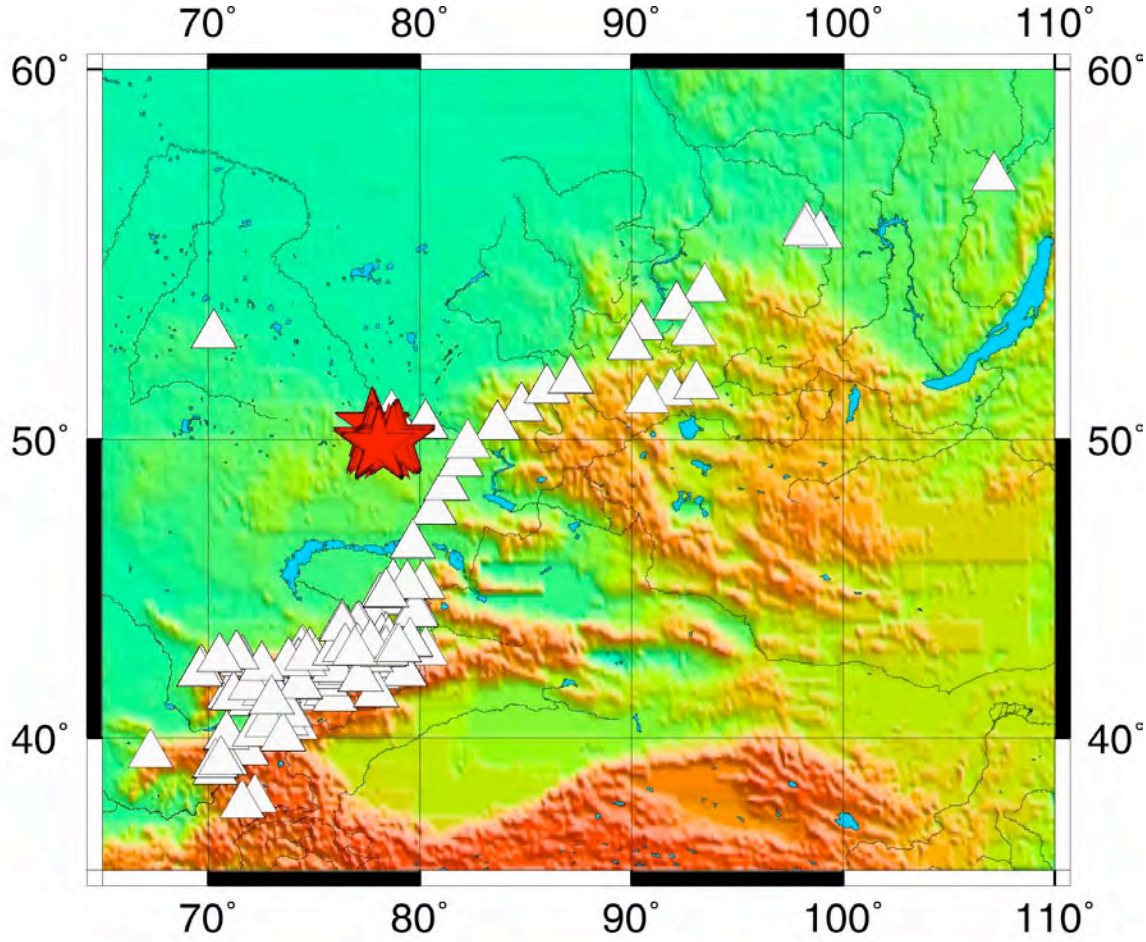


Figure 38. A map of nuclear explosion epicenters at the Semipalatinsk Test Site, and locations of stations from which records were digitized. Stars – explosions epicenters, triangles – seismic stations.

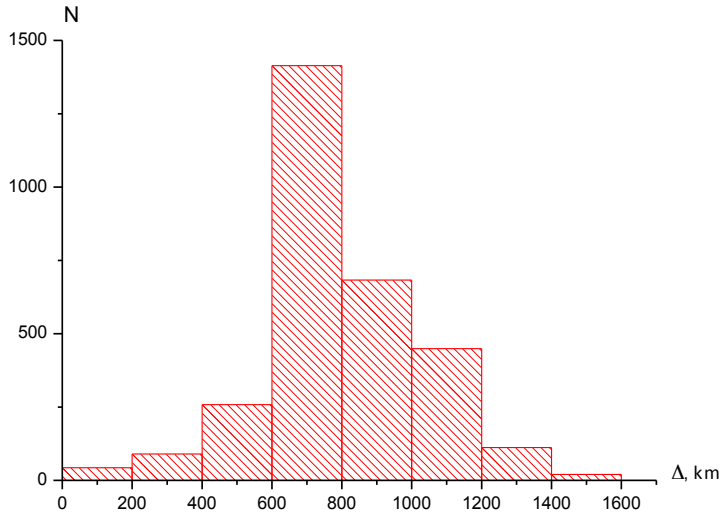


Figure 39a. Distribution of epicentral distances of the digitized records of nuclear explosions at the Semipalatinsk Test Site.

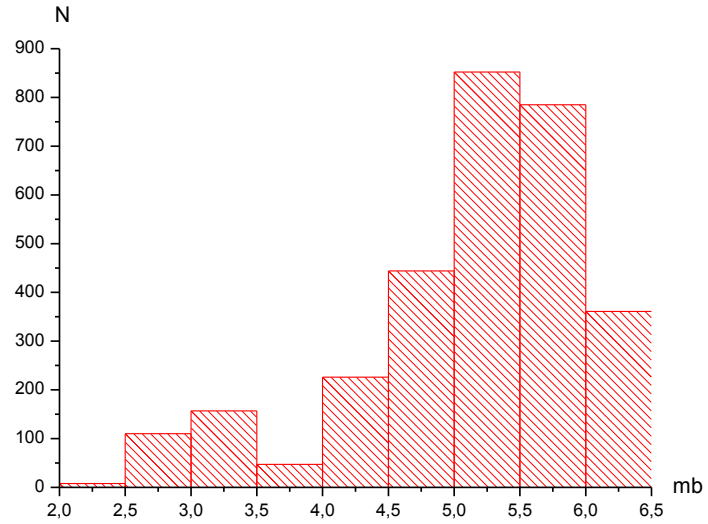


Figure 39b. Distribution of m_b values for the digitized records of nuclear explosions at the Semipalatinsk Test Site.

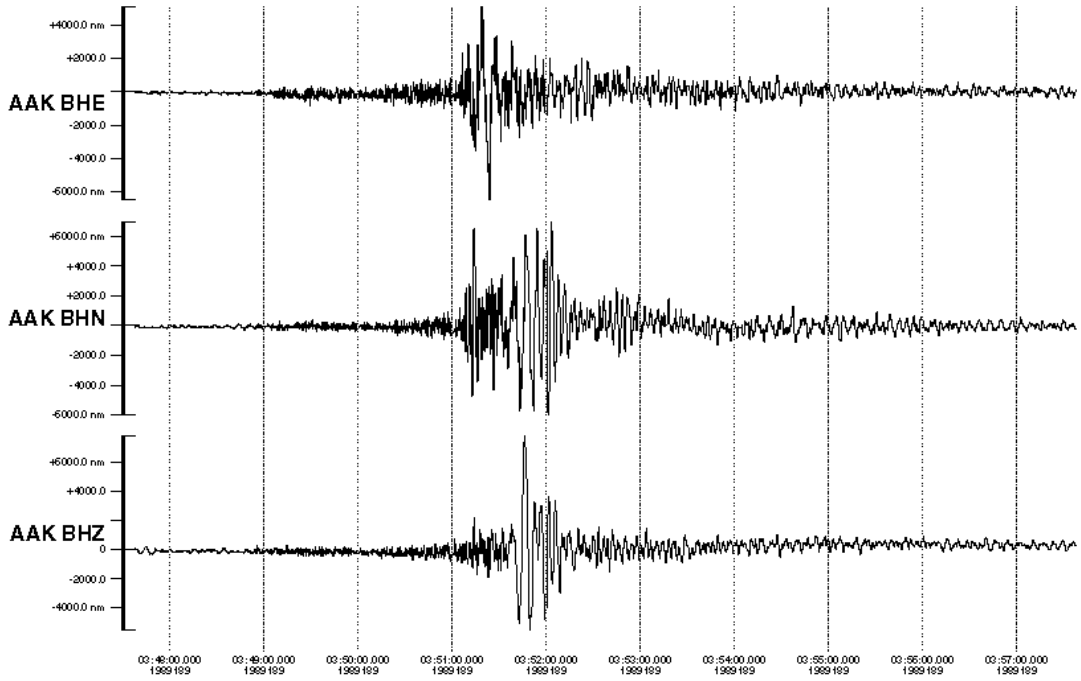


Figure 40. An example of a digitized seismogram from the nuclear explosion conducted at the STS on July 8, 1989, (49.8678°N, 78.7803°E), AAK station.

4.13. Earthquakes, Semipalatinsk Test Site Region, USSR

33 seismograms from the STS region for 1966 – 1996 were digitized; the distance range is 259 – 1065 km. Figure 41 shows the distribution of the digitized earthquake seismograms by distance for events in the Semipalatinsk Test Site region, and Figure 42 shows an example of the digitized seismogram from the earthquake which occurred near STS on March 20, 1976, (50.04°N, 77.321°E), EKS station, SKD instrument.

Appendix N gives parameters of the digitized seismograms for earthquakes in the Semipalatinsk Test Site region.

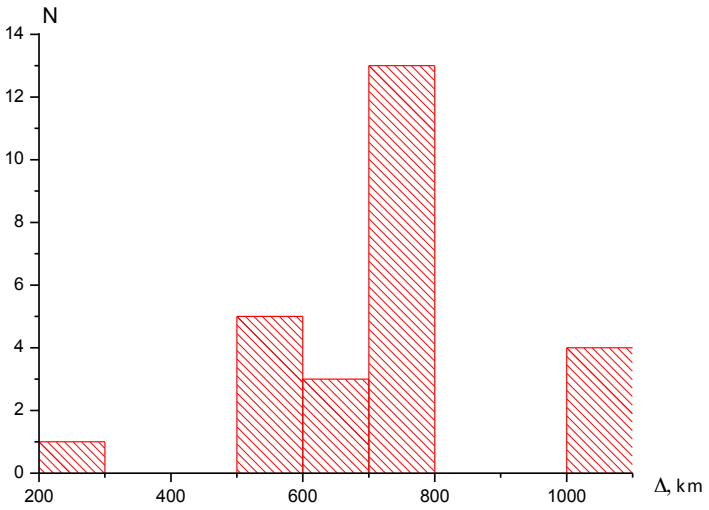


Figure 41. Distribution of epicentral distances of the digitized records of earthquakes that occurred in the Semipalatinsk Test Site region.

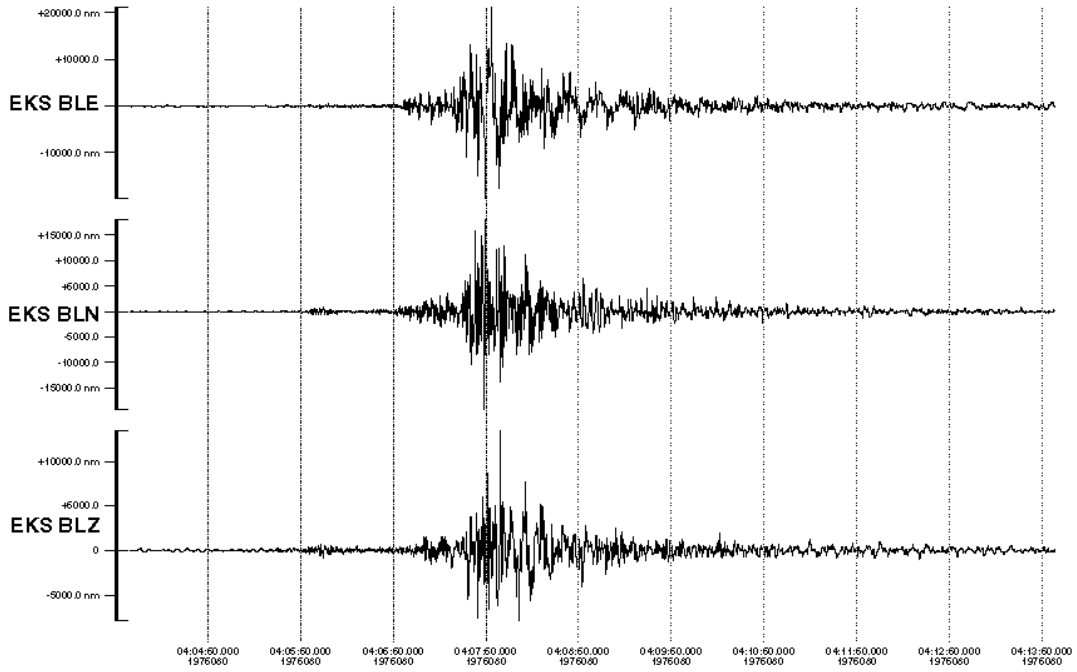
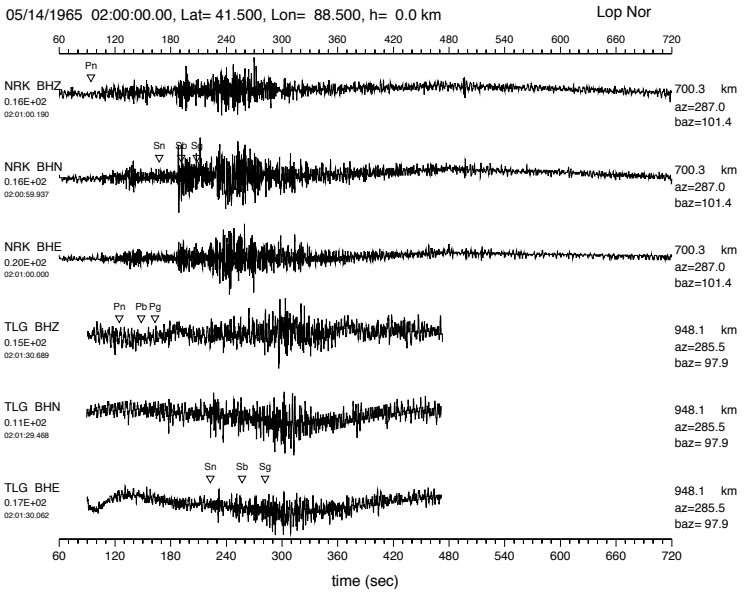


Figure 42. An example of a digitized seismogram for the earthquake near the STS that occurred on March 20, 1976, (50.04°N, 77.321°E), EKS station.

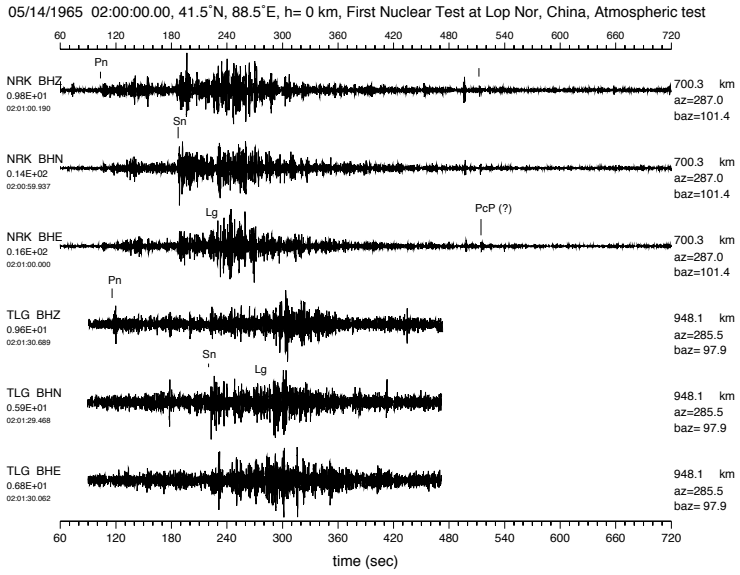
5. MORE SEISMOGRAM EXAMPLES, AND CONCLUSIONS

This section is used to show digitized seismograms obtained in this project, that are chosen to give a sense of the variety of explosion sources for which we now have waveform data. It also gives some brief conclusions.

Figure 43 gives a record section of the first nuclear test conducted by China, which was an atmospheric nuclear explosion on May 14, 1965. Figure 43a shows the raw data, and Figure 43b shows the digitized data passed in the band from 0.6 to 10 hz.



a)



b)

Figure 43. Digitized data of the first Chinese nuclear test. a) raw data, 40 samples per second (the rate used throughout this project); and b) the same data, after filtering to pass the band from 0.6 to 20 hz.

The test site for which we have the most seismograms, is that at Semipalatinsk in northeastern Kazakhstan. Figure 44 gives a map of the stations at regional distances, and Figure 45 gives a record section of the atmospheric nuclear explosion of November 14, 1965. Data of this type have not been available for Soviet, American, and UK nuclear testing since 1963, when the Limited Test Ban Treaty of banned nuclear explosions in the atmosphere.

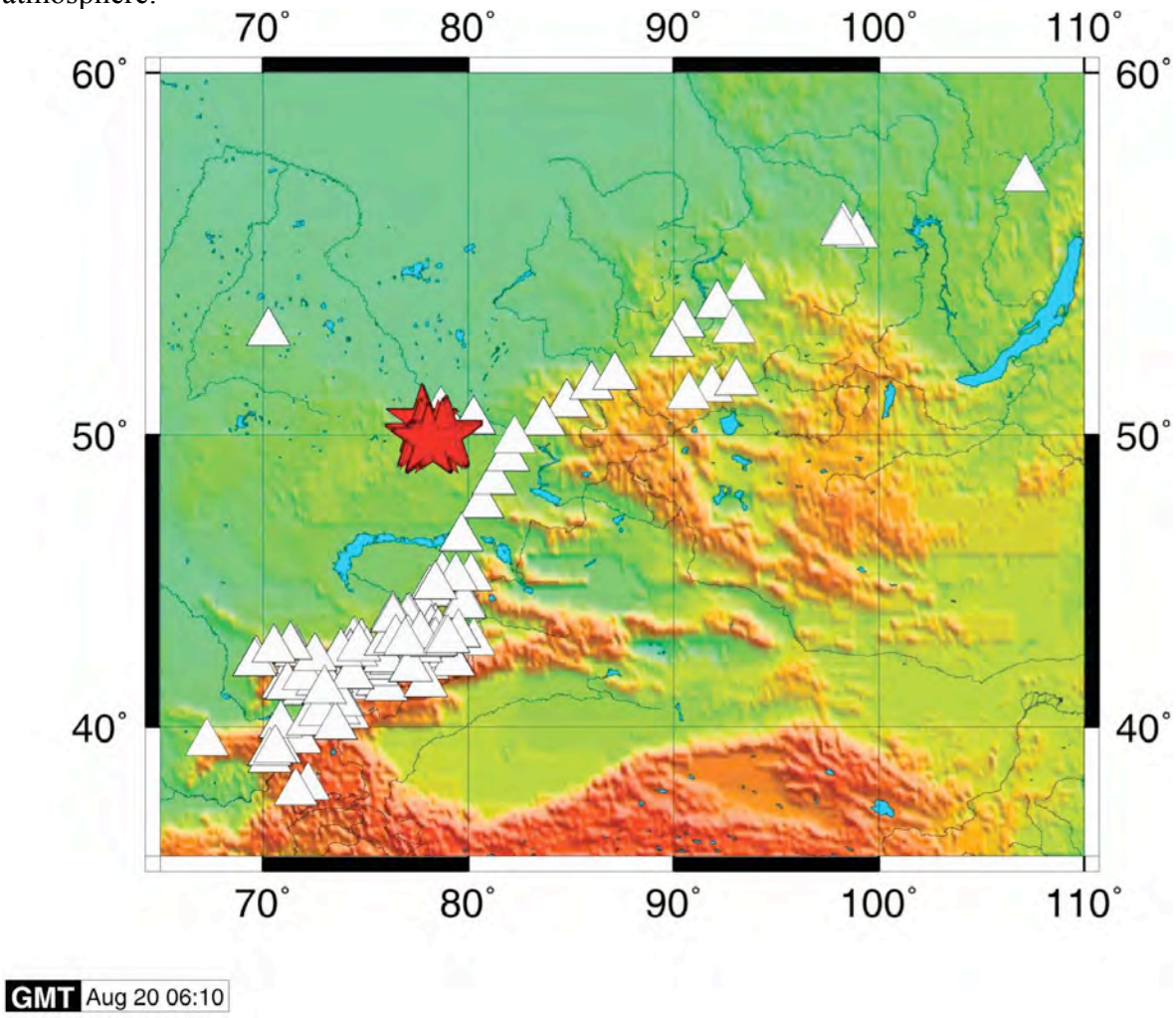


Figure 44. A map showing the location of nuclear explosions at the Semipalatinsk Test Site (red stars), and the chain of CSE stations used to provide regional data in this project (white stars).

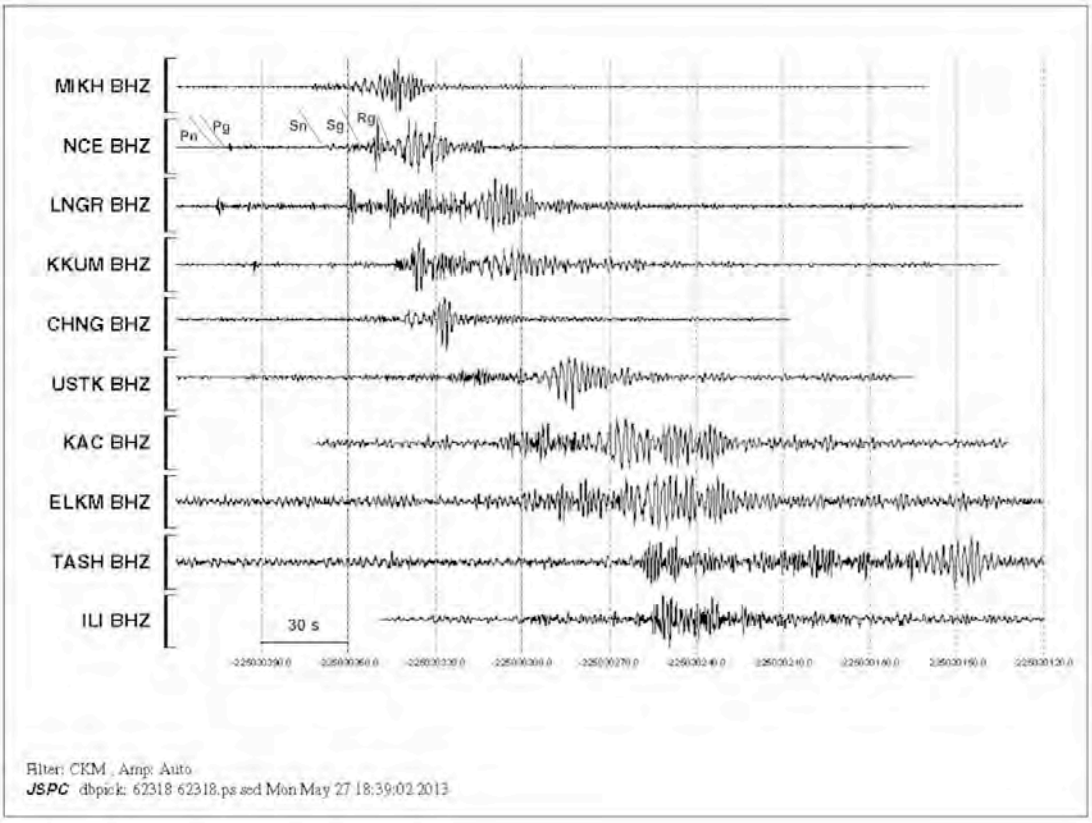


Figure 45. A record section drawn from stations shown in Figure 44, for the atmospheric nuclear explosion of November 14, 1962, at the Semipalatinsk Test Site.

In Degelen Mountain, on the Semipalatinsk Test Site, where nuclear explosions were conducted underground in adits, some explosion pairs took place at almost the same location. The second explosion was therefore located in rock that may have been damaged by the first explosion. We have several examples of seismogram sets from pairs of such explosions. Figure 46 gives a map of Degelen Mountain, with numbers indicating specific explosions, and Figure 47 shows pairs of seismograms at station MDO (Fig. 47a) and at station TSE (Fig. 47b), for two closely located nuclear explosions. For each station, there are slight differences in waveform, of the second event as compared with the first.

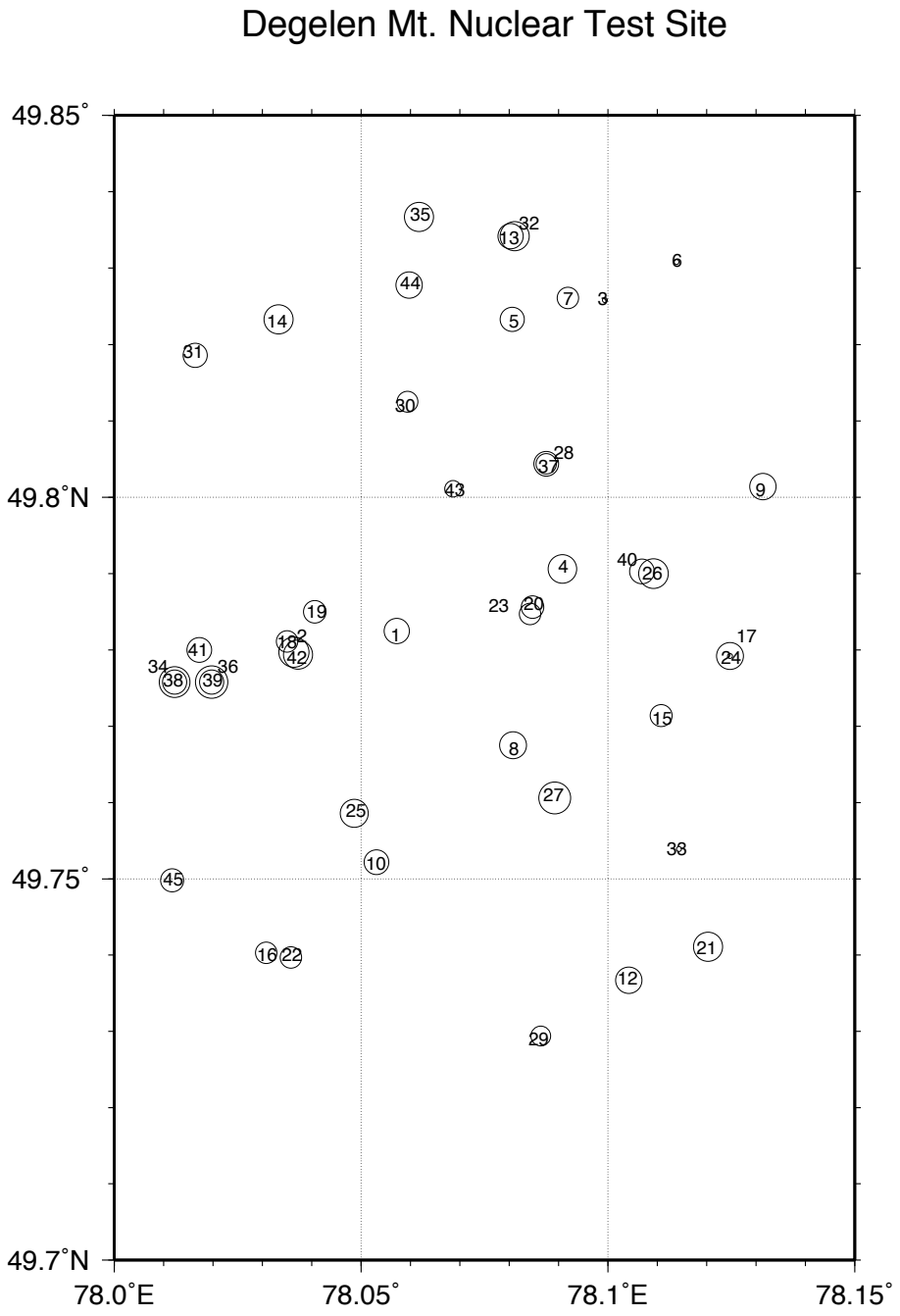
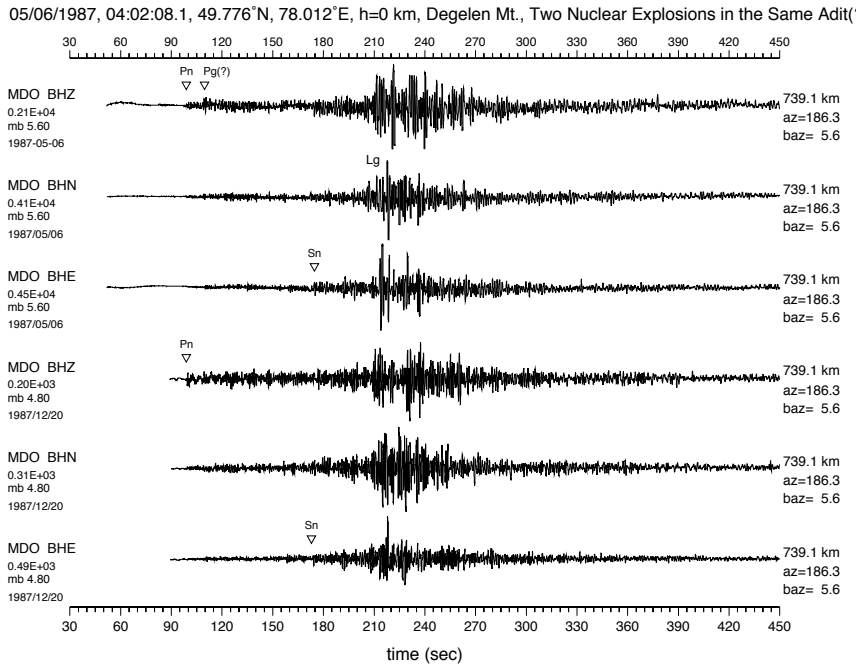
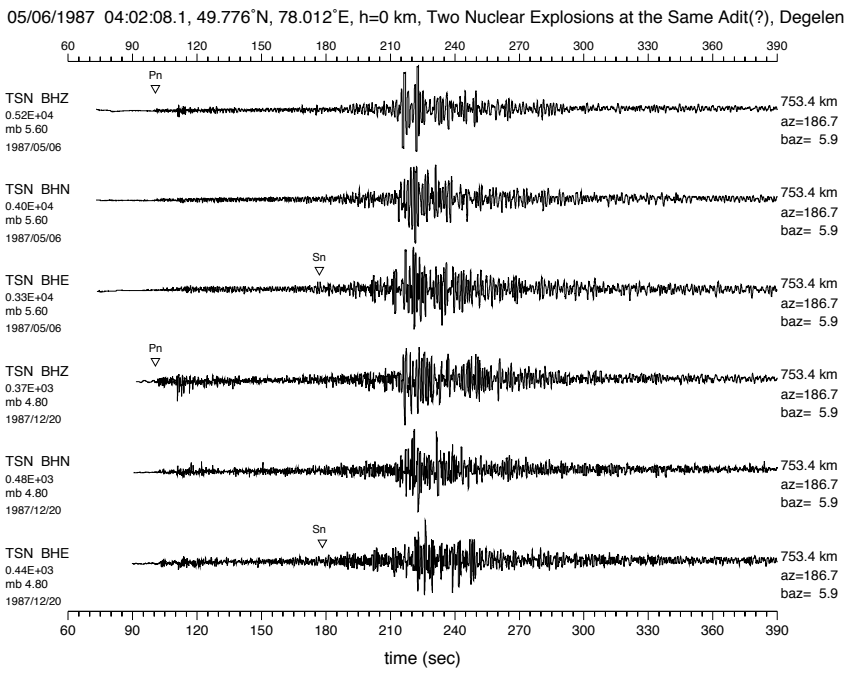


Figure 46. A map of explosion locations in Degelen Mountain, and their ID numbers. Note that some locations have multiple events, such as 34 & 38, 36 & 39, 2 & 18 & 42 (and more).



a)



b)

Figure 47. a) Three-component records at MDO from two nuclear explosions at Degelen Mountain: #34 (1987 May 6, mb 5.6) and #38 (1987 December 20, mb 4.8). b) Three-component records at TSN from two nuclear explosions at Degelen Mountain: #34 (1987 May 6, mb 5.6) and #38 (1987 December 20, mb 4.8). For both stations, *Pn* and *Sn* arrivals are consistent for close location, but waveforms are slightly different.

The largest nuclear explosions carried out by the Soviet Union took place at the Novaya Zemlya Test Site (see Khalturin *et al*., 2005, for extensive detail and a history of the development of this test site). At this test site, 39 underground nuclear tests were comprised of 133 separate nuclear explosive devices. Earlier there had been nuclear explosions in the atmosphere and under water. Figure 48 gives a map of stations for which we have digitized seismograms in this project from nuclear explosions at Novaya Zemlya. Figure 49 shows a record section of the under water nuclear test of October 23, 1961, conducted at the southern part of the Novaya Zemlya Test Site.

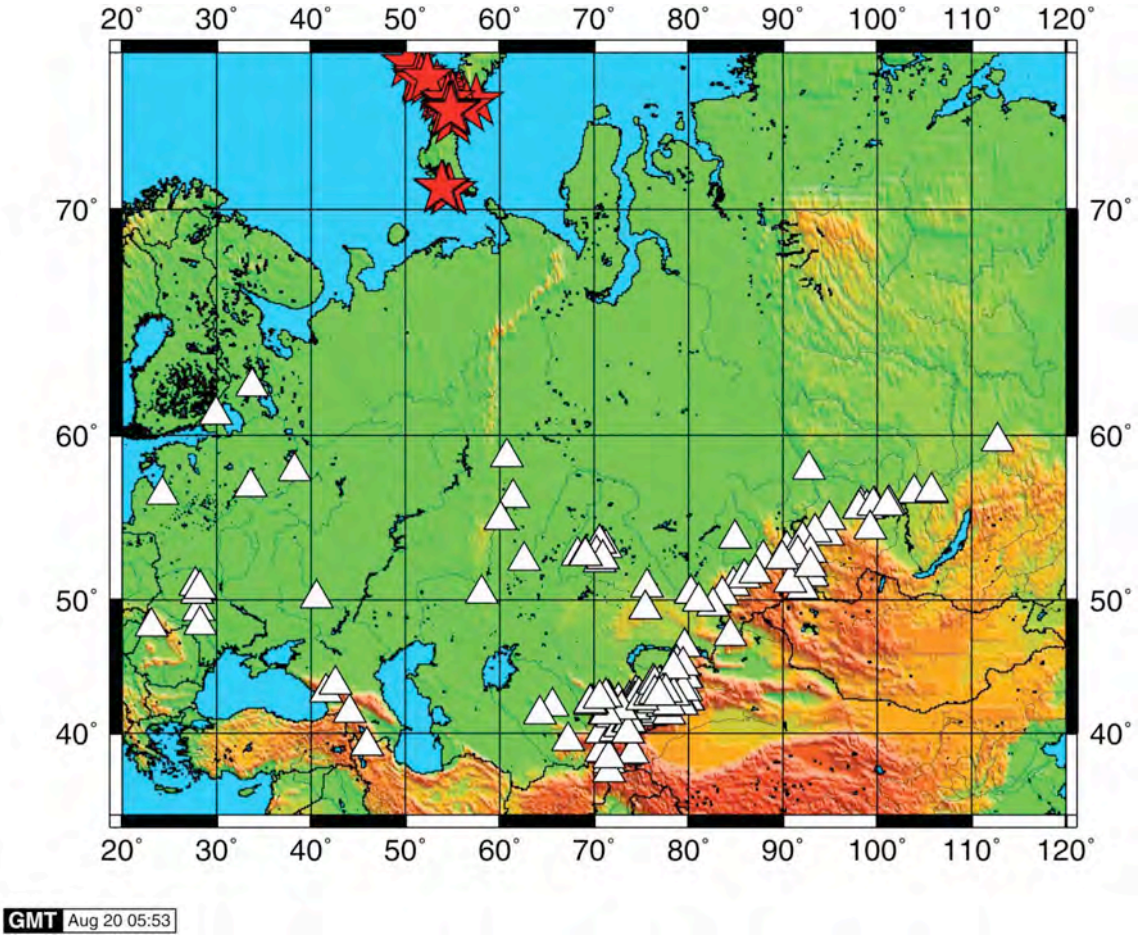


Figure 48. A map showing the location of Novaya Zemlya nuclear explosions, and stations for which we have digitized associated seismograms.

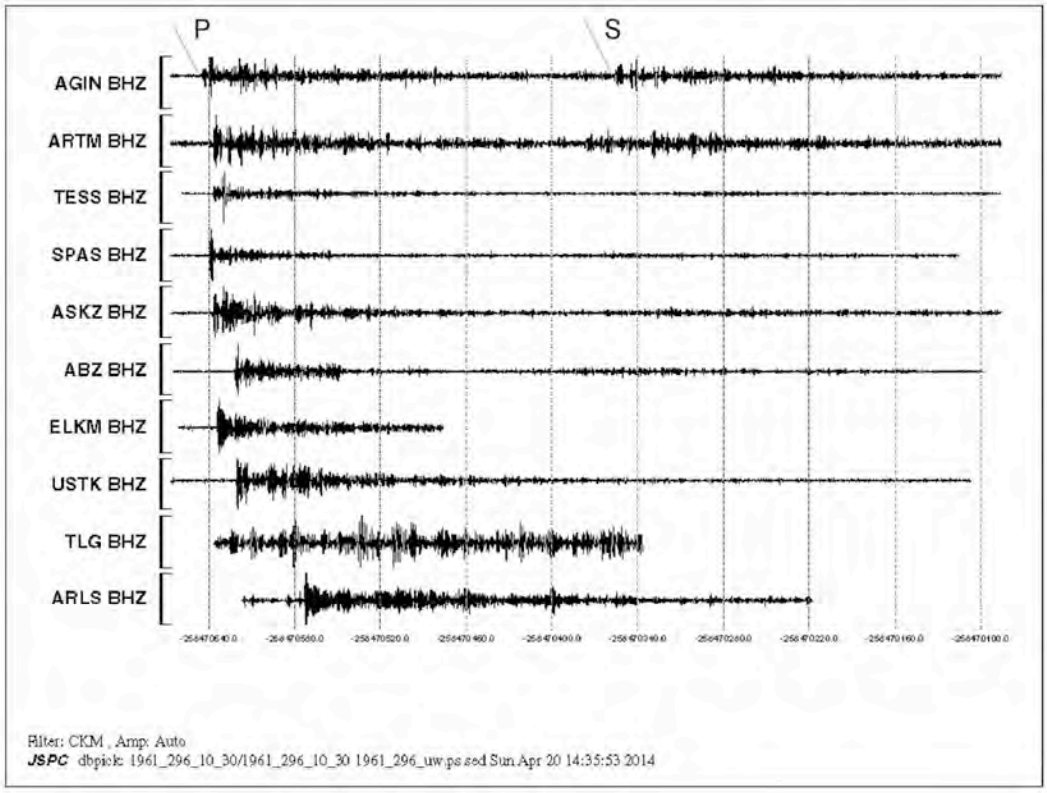


Figure 49. A record section of seismograms derived from the under water nuclear explosion of October 23, 1961 (4.8 kt) at the Novaya Zemlya Test Site.

We note that our database of thousands of digitized seismograms, derived mostly from nuclear explosions but including records from chemical explosions and earthquakes near nuclear test sites, are drawn from a variety of locations, all of them on territory of the former Soviet Union; and a large fraction of the recorded explosions in this database took place in the FSU. These signals include teleseismic recordings from test sites outside Eurasia and within Eurasia; and regional recordings from tests sites within Eurasia. Figure 50 gives information on the numbers of seismograms we have digitized for different source regions.

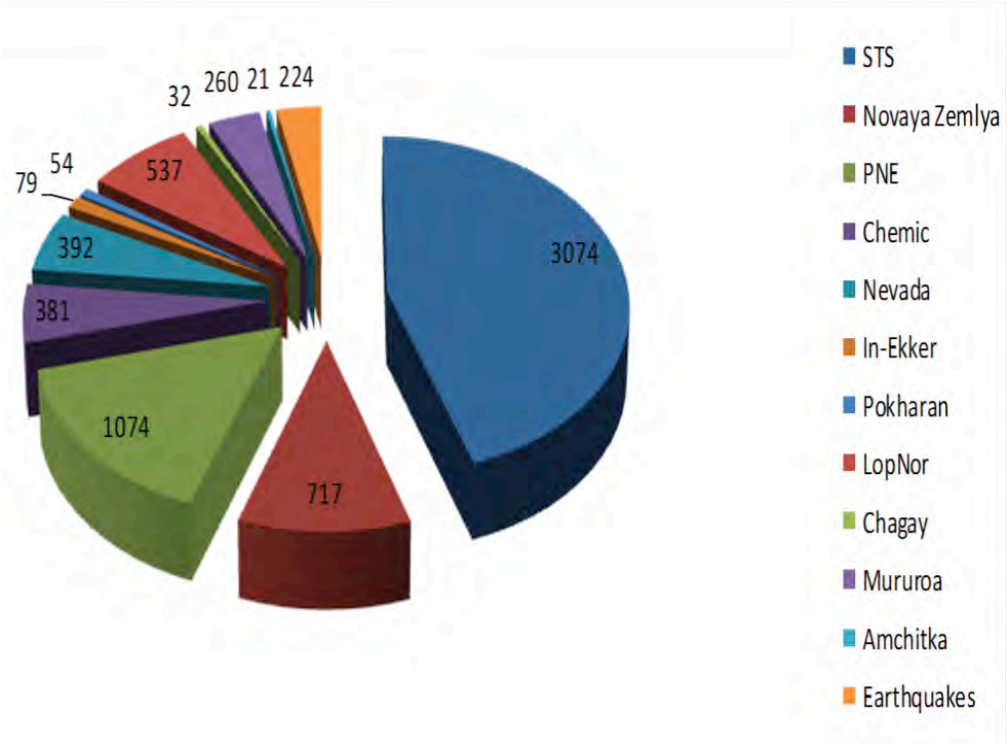


Figure 50. A pie chart showing the numbers of digitized seismograms in twelve different categories, by test site location and source type. The earthquake category includes seismograms from events occurring near the Lop Nor region and the Semipalatinsk Test Site region.

To conclude: nuclear test explosions constitute an extraordinary human activity from several perspectives. The physical and radiochemical signals from such testing provide the basis for training sophisticated modern monitoring systems, both national and international, that are designed to detect future nuclear explosions in the context of international efforts at nuclear arms control. These same signals also have many uses in the study of Earth processes and Earth structures.

Of principal interest for monitoring purposes, are regional signals from explosions—conducted in a wide variety of environments—that were too small to be reliably identified via teleseismic recordings. The great majority of stations operated today, even those in networks established for nuclear explosion monitoring, have never recorded explosion signals at regional distances, because most stations were installed long after the period when most underground nuclear explosions were conducted; and the few nuclear explosions that have been conducted since the early 1990s were mostly recorded only at teleseismic distances. Of principal interest for studies of Earth structure and processes, are the larger explosions whose signals were clearly recorded on global scales, with accurate knowledge of source depth, epicenter, and origin time.

This Final Report describes a substantial project, conducted over about twenty years, with intensive efforts made in 2012–2014, that has achieved the rescue of regional seismic waveform data, now digitized, from nuclear test explosions conducted in Eurasia. It has also included teleseismic waveform data from explosions globally. These data are now available in modern digital formats.

6. RECOMMENDATION

The present project complements a previous project, also supported by AFRL—and other agencies, both national and international—in which the Borovoye digital archive was processed into a CSS3.0 database. See

http://www.ldeo.columbia.edu/res/pi/Monitoring/Data

Because of these two data rescue projects—the earlier one associated with primitive digital data from a single station (Borovoye) that began operations in 1965, and the present one associated with analog data from about 270 stations that began to be acquired in about 1957—we conclude that openly available seismogram archives for Eurasian explosions are now better in several respects than those for explosions conducted by the United States, France, and the UK, especially for the era from 1960 to about 1985.

The opportunity to build and improve such archives will not last indefinitely. We therefore recommend extensive efforts to collect waveform data and associated metadata for ALL nuclear test explosions; and to make such data openly available for present and future generations of scientists engaged in seismic monitoring and in the study of Earth.

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Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR.

N	station code	start time	end time	latitude	longitude	h, km	station name	network code	instrument type	number of digitized seismograms	number of scanned seismograms
1	AAA	1927217	1975212	43.267	76.938	0.8000	Almaty(Alma-Ata).a.KazIS	KZ	SKD	65	106
		1975214	1990118	43.235	76.950	0.8560	Almaty(Alma-Ata).a.KazIS	KZ	SKM, SKD		
		1990111	2004279	43.209	76.914	0.9200	Almaty(Alma-Ata).a.KazIS	KZ	SKM, SKD		
2	AAK	1983121		42.6375	74.4942	1.6833	Ala-Archa.KyrgIS	KR	SKM, SKD	36	55
3	ABAL	1972121	1974090	58.12	92.72		Abalakovo, Krasnoyarsk region	CSE	RVZT,KSE	8	20
3	ABO	1972121	1973152	53.63	70.92		Alabota,CSE,Kazakhstan	CSE	RVZT,KSE	5	16
4	ABZ	1961263	1963060	52.7367	89.9367	0.4500	Abaza, CSE, Altai	CSE	SKM	12	14
5	AGIN	1961032	1961274	54.240	94.805		Aginskoye, CSE,Baykal region	CSE	SKM	2	13
		1961275	1963001	55.1389	94.9083		Aginskoye, CSE,Baykal region	CSE	SKM		
6	AKIKG	1981085	1993001	41.825	78.656	3.1000	Ak-Shiyrak,Kyrgyzstan	KR	SKM, SKD		6
7	AKJ	1973152	1989001	41.607	72.253	0.9200	Akdjol, CSE, Kyrgyzstan	CSE	SKM	58	37
8	AKKKG	1983001		41.6081	72.6817	0.9600	Ak-Kiya.KyrgIS	KR	SKM, SKD	17	34
9	AKSKG	1980122	1981122	42.468	74.052	2.2000	Aksu1, Kyrgyzstan	KR	SKM, SKD		10
10	AKUKG	1987182	1999242	40.4167	74.1250	2.0400	Alai-Kuu.KyrgIS	KR	SKM, SKD	8	6
		1999243		40.5417	73.6555	1.9400	Alai-Kuu.KyrgIS	KR	SKM, SKD		

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Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

11	AND	1929001		40.7565	72.3607	0.4940	Andijan,Uzbekistan	UZ			1
12	ANVS	1970091		42.7853	77.6669	1.8600	Ananevo.KyrgIS	KR	SKM, SKD	113	159
13	ARB	1969274	1970090	52.945	68.245		Aryk-Balyk,CSE,Kazakhstan	CSE	RVZT,KSE	1	4
14	ARK	1961274	1969334	41.7995	71.9667	1.2800	Arkit, CSE,Kyrgyzstan	CSE	SKM	139	172
		1969335		41.78	71.98	1.420	Arkit.KyrgIS	KR	SKM, SKD		
15	ARLS	1960294	1969365	41.846	74.324	1.6400	Aral, CSE, Kyrgyzstan	CSE	SKM, SKD	174	213
		1970001		41.87	74.33	1.526	Aral, Kyrgyzstan	KR	SKM, SKD		
16	ARSB	1965032	1965145	41.315	72.957	1.6000	Arslanbob, CSE	CSE	SKM, SKD	135	190
		1965146	1966191	41.3233	72.9750	1.5000	Arslanbob, CSE	CSE	SKM, SKD		
		1970182		41.3233	72.9820	1.5100	Arslanbob.KyrgIS	KR	SKM, SKD		
17	ARTM	1961030	1963001	54.3817	93.4717		Artemovsk, CSE, Baykal region	CSE	SKM	4	18
18	ASKR	1986224	1986365	50.048	81.075		Askaraly, CSE, Eastern Kazakhstan	CSE	RVZT,KSE	1	
11	ASKZ	1961056	1963001	53.3183	90.4511		Askiz, CSE, Baykal region	CSE	SKM	11	21
12	BAKR	1950001		41.7337	43.5170	1.7980	Bakuriani,CSE,Georgia	CSE	CSE	3	15
13	BALD	1969181	1970091	56.66	24.33		Baldone,CSE	CSE	RVZT,KSE	4	9
14	BARIT	1963088	1963347	53.318	90.451		Barit, CSE, Altay	CSE	SKM	1	
15	BAY	1986305	1988335	50.8264	75.5537	0.4420	Bayan-aul, CSE, Northern Kazakhstan	CSE	RVZT,KSE	10	16
16	BAYD	1961060	1961242	56.0567	99.7000		Bayanda, Baykal region	CSE	SKM	3	20

Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

	BAYD	1961243	1963001	55.9917	99.5517		Bayanda, Baykal region	CSE	SKM		
17	BERZ	1971121	1971212	47.2200	30.9300		Berezovka,CSE	CSE	RVZT,KSE	1	4
18	BEZ	1975274	1976274	68.18	166.20	0.3000	Bezymyannyy, CSE	CSE	RVZT,KSE	3	5
19	BGK	1972343	1973017	42.6580	74.2533	1.4500	Belogorka.KyrgIS	KR	SKM, SKD	52	57
		1973018	1977277	43.0970	74.4217		Belogorka	KR	SKM, SKD		
		1977278	1978001	42.6400	74.2383	1.3000	Belogorka2	KR	SKM, SKD		
		1978002	1979060	43.0670	74.3967		Belogorka	KR	SKM, SKD		
		1979061		42.6400	74.2383	1.3000	Belogorka2	KR	SKM, SKD		
20	BKOL	1970012	1975200	42.6330	79.9830		Bayan-Kol,CSE,Kazakhstan	CSE	RVZT,KSE	16	59
21	BLCH	1981151	1982213	62.92	148.10		Belichany,CSE,Russia	CSE	RVZT,KSE	5	8
22	BOGRY	1969183	1969269	48.7367	24.0556		Bogorodchany,CSE	CSE	RVZT,KSE	1	6
23	BOGY	1969213	1970120	49.52	30.83		Boguslav,CSE	CSE	RVZT,KSE	3	7
24	BOM	1960304	1972180	42.4850	75.9433	1.8000	Boomskoye uschel'e,CSE, Kyrgyzstan	CSE	SKM	80	91
		1972181		42.4817	75.9422	1.8000	Boom.KyrgIS	KR	SKM, SKD		
25	BORK	1969213	1970121	58.04	38.21		Borok,CSE	CSE	RVZT,KSE	4	12
26	BRD	1989303	1992001	43.030	69.836	0.5900	Boraldai.a.KazIS	KZ	SKM	12	
		1994001	2006257	43.030	69.836	0.5900	Boraldai.a.KazIS	KZ	SKM		
27	BRTG	1986261	1993166	43.367	78.517	1.1000	Bartogai.a.KazIS	KZ	SKM	25	3

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Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

28	BRV	1966151	1981121	53.0578	70.2828	0.3150	Borovoye, CSE, Northern Kazakhstan	CSE	RVZT,KSE	17	95
29	BRVK	1966151		53.0578	70.2828	0.3150	Borovoye, Northern Kazakhstan	IGR	SKM	272	
30	BTK	1977091		40.0575	70.8180	1.0200	Batken.KyrgIS	KR	SKM, SKD	71	113
31	BUGS	1974194	1975085	50.12	59.10		Bugetsay,CSE,Kazakhstan	CSE	RVZT,KSE	1	4
32	BURE	1976181	1976305	51.15	132.47		Bureya,CSE,Russia	CSE	RVZT,KSE	3	6
33	CHAD	1963213	1965134	51.3743	91.8233		Chadan, Altay	CSE	SKM	5	6
34	CHAR	1965195	1967365	43.4958	79.2167		Charyn, CSE, Kazakhstan	CSE	SKM	8	5
35	CHAT	1964304	1966231	37.7	72.2		Chartym, CSE, Tajikistan	CSE	SKM	2	1
36	CHDR	1970239	1995001	38.7803	70.3131	1.700	Cheel-Dora (Shakou),Tadjikistan	CSE	SKM	8	
37	CHER	1963260	1965138	53.1386	92.9264		Chernaya rechka, CSE, Altay	CSE	SKM	5	8
38	CHIM	1970136	1971213	55.533	61.367		Chishma,CSE, Ural	CSE	RVZT,KSE		2
39	CHIN	1960304	1980001	42.04	72.82	1.2000	Chichkan, CSE, Kyrgyzstan	CSE	SKM	4	2
40	CHIS	1973145	1973268	53.467	71.217		Chistyakovka,CSE, Northern Kazakhstan	CSE	RVZT,KSE	1	6
41	CHK	1969151	1981121	53.6762	70.6152	0.2400	Chkalovo, CSE, Northern Kazakhstan	CSE	RVZT,KSE	28	47
42	CHL	1964366	1970001	43.438	78.413	0.6000	Chilik, Northern Tien Shan	CSE	SKM	60	31
43	CHL3	1968366	1990001	43.527	78.374	0.760	Chilik, Northern Tien Shan	CSE	SKM	115	
44	CHMK	1932247	1973324	42.42	69.67	0.5100	Shymkent(Chimkent).a.KazIS	KZ	SKD	80	5
		1975111	2006115	42.319	69.603	0.5120	Shymkent(Chimkent).a.KazIS	KZ	SKD		

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Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

45	CHMS	1968306	2002182	42.9917	74.7539	0.6550	Chumysh.KyrgIS	KR	SKM, SKD	64	52
46	CHNG	1960295	1964001	47.7417	80.6528		Chinguzha, CSE, Kazakhstan	CSE	SKM	31	26
47	CHPA	1974243	1982001	41.925	72.592		Cholpon-Ata, CSE, Kyrgyzstan	CSE	SKM	24	26
48	CHRN	1969213	1969340	63.0	113.5		Chernyshevsk,CSE	CSE	RVZT	2	2
49	CHSL	1959365	1995001	39.115	70.767	1.67	Chusal, CSE, Tadzhikistan	CSE	SKM	10	3
50	CHT	1964304	1980001	37.7	72.2		Chartym, CSE,Tajikistan	CSE	SKM	1	
51	CHUK	1989132	2003218	43.857	77.002	0.5100	Chushkaly.a.KazIS	KZ	SKM	21	
52	CHVKG	1976183		40.1447	72.2106	2.1200	Chauvai.KyrgIS	KR	SKM, SKD	76	79
53	CLMKG	1976193	198091	40.582	73.735	1.5000	Chalma,Kyrgyzstan	KR	SKM, SKD		9
54	CLNS	1963181		56.837	124.893	0.7040	Chul'man,CSE,Russia	CSE	KSE	1	6
55	DEM	1969182	1970151	48.850	26.925		Demyankovtsy,CSE	CSE	RVZT,KSE	4	
56	DJO	1964060	1965181	52.77	91.32	0.553	Djoy,CSE,Altay	CSE	SKM		4
57	DJRKG	1981032	1996122	42.6097	79.0217	2.1200	Djergalan.KyrgIS	KR	SKM, SKD	19	12
58	DJU	1972244	1973122	52.93	70.60		Djukey,CSE,Kazakhstan	CSE	RVZT,KSE	2	9
59	DOLG	1970245	1971288	55.3416	61.3500		Dolgoderevenskoye,CSE	CSE	RVZT,KSE	2	16
60	DOMB	1974050	1975087	43.292	41.624	1.6080	Dombay,CSE, Russia	CSE	RVZT,KSE	2	8
61	DRKKG	1965305	1966244	39.559	72.199	2.7000	Daraut-Kurgan (Karamyk), KyrgIS	KR	SKM, SKD	12	10
		1978305	1979121	39.553	72.212	2.3000	Daraut-Kurgan (Karamyk), KyrgIS	KR	SKM, SKD		

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Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

		1985274	1986238	39.558	72.225	2.3000	Daraut-Kurgan (Karamyk), KyrgIS	KR	SKM, SKD		
		1986239		39.4808	71.8050	2.3200	Daraut-Kurgan (Karamyk), KyrgIS	KR	SKM, SKD		
62	DTRKG	1967182	1969155	43.228	74.758	0.7500	Dzhany-Turmys,Kyrgyzstan	KR	SKM, SKD		3
63	DYR	1972151	1973305	38.992	45.983		Dyrnys,CSE	CSE	RVZT,KSE	10	22
64	DZH	1973281	2006091	42.892	71.331	0.6310	Taraz(Dzhambul).a.KazIS	KZ	SKD	115	6
65	DZHF	1956220	1994001	39.1000	70.5833	1.6500	Dzhafr, CSE, Tadzhikistan	CSE	SKM		3
66	DZHR	1987289	2005096	44.431	79.787	1.6000	Djarkent.a.KazIS	KZ	SKM	36	
67	DZT	1955319	1995001	39.2167	71.2333	1.8400	Djergetal,CSE,Tadzhikistan	CSE	SKM		3
68	EKS	1971152		42.6683	73.7864	1.1800	Erkin-Sai.KyrgIS	KR	SKM, SKD	129	167
69	ELKM	1960298	1965001	51.4639	85.9928		Elekmonar, CSE, Altay	CSE	SKM	21	22
70	ELT	1960351		53.261	86.239	0.2150	Eltsovka,Russia	CSE	VEGIK		3
71	EPN	1971140	1971201	58.83	25.50		Epneri,CSE	CSE	RVZT,KSE	1	2
72	FAB	1953091	1984136	43.138	76.438	1.0500	Fabrichnaya(Krasnogorka), Kazakhstan	CSE	SKM	141	27
73	FAZ	1965314	1967268	37.010	70.657		Fayzabad,CSE,Afganistan	CSE	SKM		1
74	FRG	1949001		40.3741	71.7847	0.5770	Fergana,Uzbekistan	UZ	SKM, SKD		4
75	FRU	1927213	1955001	42.883	74.600	0.8000	Bishkek(Frunze),KyrgIS	KR	Nikiforov	18	9
		1955002		42.8411	74.6128	0.8360	Bishkek(Frunze),KyrgIS	KR	SKM, SKD		
76	GIR	1972151	1974274	62.470	33.687		Girvas,CSE	CSE	RVZT,KSE	6	18

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Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

77	GRM	1959365		39.0000	70.3167	1.3050	Garm,CSE,Tadjikistan	CSE	SKM	58	9
78	HARP	1983213	1986151	66.82	65.79		Kharp, CSE, Ural	CSE	RVZT,KSE	12	29
79	HIHI	1963324	1966227	38.2450	71.4067		Khikhik(Rushan),CSE,Tadzhikistan	CSE	SKM	1	3
80	HRG	1951001	1992001	37.4833	71.5333	2.1990	Khorog, CSE, Tadzhikistan	CSE	SKM	4	6
81	ILI	1949365	1971001	43.900	77.122	0.4200	Ili, Kazakhstan	CSE	SKM	163	51
		1971002	1989365	43.853	77.029	0.5400	Ili, Kazakhstan	KZ	SKM		
82	ILMS	1961060	1961283	56.7700	103.8567		Ilimsk, Baykal region	CSE	USF	1	16
		1961284	1962213	56.7567	103.8783		Ilimsk, Baykal region	CSE	SKM		
83	ILT	1969213	1972181	67.867	-178.733	0.2440	Iultin,CSE,Russia	CSE	KSE	1	16
84	IMAN	1969242	1969303	52.957	68.3000		Imantau, CSE, Northern Kazakhstan	CSE	RVZT,KSE	2	4
85	IORD	1960288	1969108	39.95	71.75	2.000	Iordan(Shakhimardan),CSE,Tajikistan	CSE	SKM	1	
86	ISH	1946001	1992001	38.833	70.783	1.8800	Ishtion, CSE, Tadzhikistan	CSE	SKM		3
87	ISHK	1963361	1964267	36.7300	71.6083	2.5600	Ishkashim,CSE,Tadzhikistan	CSE	SKM	1	1
88	JAB	1993254	2006341	42.423	70.544	1.4700	Jabagly, Kazakhstan	KZ	SKM	3	
89	JASB	1986238	1986365	50.850	75.572		Dzhasybay, CSE, Northern Kazakhstan	CSE	RVZT,KSE	1	
90	KAC	1960275	1987265	45.371	78.722	0.5100	Kzyl-Agach,CSE, Northern Tien-Shan	CSE	SKM	163	61
91	KALH	1963315	1969334	38.4617	70.8083		Kalay-Khumb,CSE, Tadzhikistan	CSE	SKM	1	1
92	KAR	1950001	1969365	41.62	75.58		Karakol, CSE,Kyrgyzstan	CSE	SKM	9	4

Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

93	KARSU	1986314	1987285	49.952	81.075		Karasu,CSE,Kazakhstan	CSE	RVZT,KSE	5	21
94	KAVO	1970121	1971121	56.53	61.35		Kamyshevo,CSE	CSE	RVZT,KSE	3	10
95	KAZ	1965258	1967305	41.455	73.977	1.3600	Kazarman, CSE	CSE	SKM	5	5
96	KB	1981243	1984213	50.425	27.850		Kamennyy Brod, CSE	CSE	RVZT,KSE	11	48
97	KBUR	1978001	1982001	42.5264	71.5614		Karabura, Kyrgyzstan	KR	SKM, SKD	2	11
98	KDSKG	1961001		42.1230	77.1875	1.8800	Kadji-Sai.KyrgIS	KR	SKM, SKD	141	207
99	KENKG	1970165	1970173	42.771	78.741	2.0000	Ken-Suu,Kyrgyzstan	KR	SKM, SKD		16
		1970174	1970267	42.670	78.808	1.8000	Ken-Suu,Kyrgyzstan	KR	SKM, SKD		
		1970268	1971012	42.654	78.805	1.6600	Ken-Suu,Kyrgyzstan	KR	SKM, SKD		
100	KEZ	1960290	1966365	51.7528	87.1036	0.4000	Kebezen', CSE, Altay	CSE	SKM	26	34
101	KHAR	1963188	1965365	51.5717	93.0650		Khayrakan, CSE, Altay	CSE	SKM	7	6
102	KHND	1963279	1964061	50.7208	92.1297		Khandagayty, CSE, Baykal region	CSE	SKM	2	6
		1964062	1965151	50.733	92.100		Khandagayty, CSE, Baykal region	CSE	SKM		
103	KIBI	1963359	1965365	52.50	90.43		Kibin, CSE,Altay	CSE	SKM	2	1
104	KIBK	1963243	1965120	52.92	91.48		Kibik, CSE, Altai	CSE	SKM	2	5
	KIRI	1961060	1961274	55.7933	97.2633		Kirillovka, Baykal region	CSE	USF	1	9
		1961275	1961365	55.955	96.400		Kirillovka, Baykal region	CSE	SKM		
		1962001	1963001	55.7583	96.0667		Kirillovka, Baykal region	CSE	SKM		

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Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

105	KIRS	1971213	1971274	59.31	52.26		Kirs(Kirovsk),CSE	CSE	RVZT,KSE		21
106	KKL	1986346	1987285	49.376	75.400	0.9250	Karkaralinsk, CSE, Central Kazakhstan	CSE	RVZT,KSE	7	16
		1988348	1989029	49.345	75.370	0.9250	Karkaralinsk, CSE, Central Kazakhstan	CSE	RVZT,KSE		
107	KKOR	1969151	1981121	52.912	69.025	0.4200	Krasnyy Kordon, CSE, Northern Kazakhstan	CSE	RVZT,KSE	14	45
108	KKUL	1965032	1966193	41.635	72.728	1.3000	Karakul, CSE, Kyrgyzstan	CSE	SKM	86	63
		1975001	1978001	41.633	72.728	1.3000	Karakul, CSE, Kyrgyzstan	CSE	SKM		
		1983172	1988001	41.6667	72.6780	1.0000	Karakul, Kyrgyzstan	KR	SKM, SKD		
109	KKUL1	1966126	1966193	41.620	72.583	0.5000	Karakul1,CSE	CSE	SKM	7	
110	KKUM	1960310	1964001	46.6361	79.6583		Kara-Kum, CSE, Eastern Kazakhstan	CSE	SKM	31	27
111	KLD	1961001	1995001	38.38	69.29	1.8000	Kalaidasht, Tadzhikistan	CSE	SKM		2
112	KNDKZ	1988014	1988291	42.85	71.92		Kaindy.a.KazIS	KZ	SKM		24
113	KNGKG	1986213		42.6667	76.9197	2.0500	Kungei.KyrgIS	KR	SKM, SKD	7	1
114	KNSKG	1981001		42.3244	79.2439	3.1800	Ken-Su.KyrgIS	KR	SKM, SKD	19	
115	KOCH	1960305	1962121	42.2361	75.7314		Kochkorka, CSE, Kyrgyzstan	CSE	SKM	14	15
116	KOSH	1972335	1975090	53.03	69.06		Koshkarbay, CSE, Northern Kazakhstan	CSE	RVZT,KSE	4	24
117	KPA	1988262	2006135	45.283	79.356	0.9460	Kapal-Arasan, Kazakhstan	KZ	SKM	19	1
118	KRM	1951182	1989135	42.9875	78.2750	2.1510	Kurmenty, Kazakhstan	KZ	SKM	188	35
		1991111	1993031	42.987	78.275	2.1510	Kurmenty, Kazakhstan	KZ	SKM		

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Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

119	KRS	1960275	1969121	43.28	75.13		Krasnogorka, CSE, Northern Tien-Shan	CSE	SKM	11	13
120	KRSKG	1981213	1994305	41.5750	77.9061	3.3600	Kara-Sai.KyrgIS	KR	SKM, SKD	16	12
121	KRSU	1976121	1989001	41.59	73.17	2.0500	Karasu, CSE, Kyrgyzstan	CSE	SKM	15	26
122	KRT	1987352	1993020	42.7855	70.5122	1.0800	Karatas, Kazakhstan	KZ	SKM	12	
123	KSKG	1968350	1969186	42.703	74.540	1.3000	Kashka-Suu, Kyrgyzstan	KR	SKM, SKD	2	2
		1969187	1970157	42.692	74.533	1.3000	Kashka-Suu, Kyrgyzstan	KR	SKM, SKD		
124		1976264	2003157	43.043	75.963	1.4150	Kastek, Kazakhstan	KZ	SKM	162	17
125	KURK	1987001		50.7149	78.6208	0.2400	Kurchatov, IGR, Kazakhstan	IGR	SKM	3	
126	KURM	1988260	2003218	43.487	78.168	0.8400	Kuram, Kazakhstan	KZ	SKM	28	1
127	KUST	1969213	1970121	52.58	62.58		Kustanay,CSE,Kazakhstan	CSE	RVZT	2	8
128	KUU	1972001	1975237	43.95	76.33	0.5500	Kurty, Kazakhstan	KZ	SKM, SKD	188	20
		1979075	2004063	43.893	76.339	0.5500	Kurty, Kazakhstan	KZ	SKM, SKD		
129	KZAD	1964213	1967188	42.642	71.600	1.0000	Kirovka.KyrgIS	KR	SKM, SKD	22	
	KZAD	1973091	2001001	42.6583	71.6000	0.9800	Kirovka.KyrgIS	KR	SKM, SKD		
130	KZD	1965032	1976183	41.255	71.988	0.7000	Kyzyl-Djar, CSE, Kyrgyzstan	CSE	SKM	65	47
131	KZDKG	1976184		41.2750	72.2467	0.6600	Kyzyl-Djar.KyrgIS	KR	SKM, SKD	1	
132	KZU	1965032	1976121	41.710	73.295	1.3000	Kzyl-Uran, CSE, Kyrgyzstan	CSE	SKM	20	18
133	KZYU	1975335	1981212	42.7511	71.5567		Kzyl-Yulduz, Kyrgyzstan	KR	SKM, SKD	11	16

Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

134	LAST	1969299	1970110	48.550	26.583		Lastovtsy,CSE	CSE	RVZT,KSE	1	2
135	LENG	1971132	1971291	53.517	71.583		Leningradskoye,CSE,Kazakhstan	CSE	RVZT	3	9
136	LITI	1969186	1970110	49.2997	28.1288		Litin,CSE	CSE	RVZT,KSE	4	9
137	LNGR	1960295	1964001	50.3819	83.6233		Leninogorsk, CSE, Eastern Kazakhstan	CSE	SKM	27	26
138	LNSK	1974181	1975090	50.73	57.90		Leninskoye, CSE, Western Kazakhstan	CSE	RVZT,KSE	1	4
139	LUNK	1971181	1971305	57.75	29.20		Lunevka,CSE	CSE	KSE	1	4
140	MAKN	1972121	1976182	52.57	70.620		Makinka, CSE, Northern Kazakhstan	CSE	RVZT,KSE	13	53
141	MALI	1975209	1976180	50.7703	29.2028	0.160	Malin,CSE	CSE	RVZT,KSE		8
142	MAN	1962329	1965151	52.9781	91.5122		Maina, CSE, Altay	CSE	RVZT,KSE	4	2
143	MARN	1971159	1971223	47.6583	27.8400		Marandeny,CSE	CSE	RVZT,KSE	1	2
144	MASL	1970183	1971090	53.5233	101.5583		Maslyanogorsk,CSE	CSE	RVZT,KSE	1	8
145	MAYS	1975222	1975297	41.2917	75.5083		Mayli-Say,CSE,Kyrgyzstan	CSE	RVZT,KSE	1	3
146	MDO	1980001	2004106	43.16310 77.04810 1590.0		1.590	Medeo, Kazakhstan	KZ	SKM, SKD	169	15
147	MIKG	1967302	1968226	42.837	75.713	1.1700	Mikhailovka, Kyrgyzstan	KR	SKM, SKD	5	
		1968227	1975001	42.8410	75.6980	1.2000	Mikhailovka, Kyrgyzstan	KR	SKM, SKD		
148	MIKH	1960294	1963001	48.4917	81.2250	0.5200	Mikhailovka, CSE, Kazakhstan	CSE	SKM	35	28
14	MKOP	196919	196927	48.1550	23.0936		Mala-Kopanya,CSE	CSE	RVZT,KSE	3	28

Stations

Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

9		1	5								
150	MNAS	1973121		42.4870	72.5042	1.5150	Manas.KyrgIS	KR	SKM, SKD	133	168
151	MRKT	1988132	1993171	45.282	80.100	1.5000	Markatau, Kazakhstan	KZ	SKM	6	1
152	MTB	1984195	2004007	43.13	76.43	1.1900	Maytyube, Kazakhstan	KZ	SKM	77	3
154	MUKH	1970305	1971055	66.383	173.333		Mukhomornoye,CSE	CSE	RVZT,KSE	2	3
155	MUKR	1960305	1961090	44.8792	78.1330		Mukry, CSE, Kazakhstan	CSE	SKM	24	22
		1961091	1964001	44.7861	78.2111		Mukry, CSE, Kazakhstan	CSE	SKM		
156	MURTJ	1964005	1964240	38.350	74.033		Murgab,CSE,Tadzhikistan	CSE	SKM	1	2
157	MYS	1961090	1962182	57.3292	107.1367		Mysovaya, CSE, Baykal region	CSE	USF	3	13
158	NAM	1951001		40.9914	71.6594	0.4790	Namangan,Uzbekistan	UZ	SKM, SKD		1
159	NCE	1960280	1963001	49.2583	81.9125	0.8000	Nickolaevka, Kazakhstan	CSE	SKM	28	30
160	NICH	1985330	1992001	41.71	73.34	1.7000	Nichke, Kyrgyzstan	CSE	SKM	4	
161	NORI	1985277	1986263	51.272	28.600		Norinsk,CSE	CSE	RVZT,KSE	1	
162	NRI	1961001	1993001	69.43	88.08	0.0440	Norilsk, Krasnoyarsk region	OBN	USF	1	
163	NRK	1964352	1967058	43.0500	80.2708		Narynkol(E),CSE,Kazakhstan	CSE	SKM, KSE	7	6
164	NRN	1950213	1969365	41.4167	75.9667	2.1200	Naryn, CSE, Kyrgyzstan	CSE	SKM	19	20
		1970001		41.4167	75.9667	2.1200	Naryn.KyrgIS	KR	SKM, SKD		
165	NTR	1979121	1980151	50.4348	58.0164	0.3800	Novo-Troitskoye,CSE,Kazakhstan	CSE	RVZT,KSE	8	17
16	NUKS	197014	197107	42.100	60.483		Nukus,CSE,Uzbekistan	CSE	SKM,RVZT,KSE	1	6

Stations

Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

6		5	3								
167	NVG	1974228	1975107	48.9500	59.1167		Novogodnyaya,CSE	CSE	RVZT,KSE	1	6
168	NVP	1970140	1971108	56.233	61.083		Novo-Ipatovo,CSE	CSE	RVZT,KSE	1	8
169	NVS	1965314		54.85	83.23	0.2000	Novossibirsk,Russia	OBN	SKM		3
170	OBG	1947001		38.72	69.72	1.5000	Obigarm,CSE,Tadzhikistan	CSE	VEGIK		2
171	OHH	1963032	1964107	40.527	72.778	1.0000	Osh.KyrgIS	KR	SKM, SKD	93	146
		1964108	1967267	40.555	72.797	0.9600	Osh.KyrgIS	KR	SKM, SKD		
		1976213		40.5244	72.7847	0.9800	Osh.KyrgIS	KR	SKM, SKD		
172	OL	1985213		68.6	112.4		Olenek,CSE	CSE	KSE		1
173	OM	1965200	1980001	42.950	78.767		Orto-Merke, CSE, Northern Tien Shan	CSE	SKM	9	4
174	OS	1975295	1978264	41.728	72.840		Oot-Say,CSE,Kyrgyzstan	CSE	RVZT,KSE	12	29
175	OTK	1971090	2010001	42.3458	76.017	1.7000	Orto-Tokoy, Kyrgyzstan	KR	SKM, SKD	12	29
176	PDG	1987269	1996320	43.329	79.490	1.4000	Podgornoye, Kazakhstan	KZ	SKM	28	2
177	PELD	1979181	1980152	59.650	112.667	0.3000	Peleduy,CSE	CSE	RVZT,KSE	4	13
178	POD	1981243	1988121	50.928	27.675		Podluby,CSE	CSE	RVZT,KSE	36	73
179	PONI	1969259	1970110	50.185	27.530		Poninika,CSE	CSE	RVZT,KSE	1	6
180	PORG	1970191	1971032	54.563	99.240		Porog,CSE	CSE	RVZT,KSE	3	5
181	PRZ	1950213		42.4833	78.4000	1.8350	Prjevalsk(Karakol).KyrgIS	KR	SKM, SKD	5	3
18	PYKH	197926	198017	54.0	85.0		Pykhtar,CSE	CSE	RVZT,KSE	3	10

Stations

Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

2		0	2								
183	RAIS	1969188	1969268	52.930	67.437		Raisovka,CSE	CSE	RVZT,KSE	4	4
184	RSKG	1976112	1979243	42.967	74.800		Rassvet, Kyrgyzstan	KR	SKM, SKD	9	9
185	RUS	1969243	1970121	48.28	28.28		Rusava (Yampol),CSE	CSE	RVZT,KSE	1	3
186	RUSH	1963316	1966250	37.9470	71.5770		Rushan,CSE,Tadzhikistan	CSE	SKM	1	1
187	RYA	1965032	1970001	41.475	72.295	1.2000	Ryazan-Say, CSE, Kyrgyzstan	CSE	SKM	22	9
188	RYB	1950365	1970001	42.45	76.0833		Rybach'ye, Kyrgyzstan	CSE	SKM,SKD	28	33
189	SALK	1980174	1982253	40.843	73.503	1.5000	Salom-Alik, Kyrgyzstan	KR	SKM, SKD	25	29
		1982254	1983295	40.877	73.817	1.6000	Salom-Alik, Kyrgyzstan	KR	SKM, SKD		
		1983296		40.871	73.804	1.7100	Salom-Alik, Kyrgyzstan	KR	SKM, SKD		
190	SARKG	1981152	1994274	42.2214	77.9764	2.0600	Saruu.KyrgIS	KR	SKM, SKD	18	14
191	SASK	1972171	1974120	51.633	126.933		Saskal,CSE	CSE	RVZT,KSE	10	21
192	SATY	1988291	2004131	43.057	78.407	1.5000	Saty, Kazakhstan	KZ	SKM	29	1
193	SCHE	1974198	1975085	50.50	60.33		Scherbakovka, CSE, Kazakhstan	CSE	RVZT,KSE		5
194	SEM	1934293	2006091	50.40	80.25	0.2090	Semipalatinsk, Kazakstan	KZ	SKM, SKD	81	55
195	SEMB	1967355	1971032	42.238	75.841	1.9000	Semizbel, Kyrgyzstan	KR	SKM, SKD	6	5
		1977010	1982001	42.200	75.838	1.8000	Semizbel, Kyrgyzstan	KR	SKM, SKD		
196	SERKG	1971091	1973016	42.7567	74.8400	1.0000	Serafimovka, Kyrgyzstan	KR	SKM, SKD	4	
19	SEVR	198225	198622	55.20	60.15		Severnyy,CSE	CSE	RVZT,KSE	28	55

Stations

Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

7		8	4								
198	SGD	1975274	1976274	50.3975	132.2597		Sogda,CSE	CSE	RVZT,KSE	4	4
199	SHEK	1963192	1965133	51.1738	90.6983		Shekpeer, CSE, Altay	CSE	SKM	3	6
200	SIMP	1971237	1971296	57.867	26.583		Simerpalu,CSE	CSE	RVZT,KSE	3	7
201	SKE	1972213	1974107	49.567	82.600		Skalistoye,CSE	CSE	RVZT,KSE	6	18
202	SNE	1970223	1971056	65.433	172.967		Snezhnoye,CSE	CSE	RVZT,KSE	1	3
203	SOSN	1969158	1971129	50.8183	27.1306		Sosnovaya,CSE	CSE	RVZT,KSE	5	16
204	SOZ	1960271	1963001	44.2125	77.7039	0.9200	Sary-Ozek, CSE, Kazakhstan	CSE	SKM	5	13
205	SPAS	1961001	1963001	52.7333	87.9167		Spassk, CSE, Baykal region	CSE	SKM	2	6
206	SRDKG	1981101	1995001	41.989	79.084	2.6000	Sary-Dzhaz,Kyrgyzstan	KR	SKM, SKD		14
207	SUBB	1963335	1964365	53.083	91.917		Subbotino,CSE	CSE	SKM		6
208	SUFI	1966254	1973181	40.017	73.511	2.2000	Sufi-Kurgan, CSE, Kyrgyzstan	CSE	SKM	128	194
		1973182		40.0128	73.5030	2.1600	Sufi-Kurgan.KyrgIS	KR	SKM, SKD		
209	SVOB	1977181	1977285	61.05	30.00		Svobodnoye,CSE	CSE	RVZT,KSE	5	13
210	TARTJ	1964120	1967110	37.57	68.13		Tartku, CSE, Tajikistan	CSE	SKM		2
211	TASH	1961256	1965365	52.7336	89.9336	0.6500	Tashtyp, CSE, Altay	CSE	SKM	23	16
212	TASKG	1973030	1978171	42.6806	74.7500	1.6000	Tashpashat, Kyrgyzstan	KR	SKM, SKD	15	16
213	TAYSH	1960032	1961060	56.0617	98.2783		Tayshet, CSE, Baykal region	CSE	USF	18	20
		196106	196112	55.8308	98.9400		Tayshet, CSE, Baykal region	CSE	SKM		

Stations

Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

		1	0								
		1961121	1962213	55.883	98.150		Tayshet, CSE, Baykal region	CSE	SKM		
214	TAZH	1970353	1971201	56.2517	94.9533		Taezhnyy,CSE	CSE	RVZT,KSE	2	8
215	TDO	1983151	1990121	50.0917	40.5083		Tikhiy Don, CSE	CSE	RVZT,KSE	22	52
216	TDT	1954001	1994001	38.6833	70.4833	1.6700	Tavil-Dora,CSE,Tadzhikistan	CSE	SKM		3
217	TERS	1965198	1968184	41.525	71.145	1.6000	Terek-Say, CSE, Kyrgyzstan	CSE	SKM	14	
	TERS	1968185	1976001	41.473	71.160	1.6000	Terek-Say,CSE,Kyrgyzstan	CSE	SKM		
218	TESS	1961030	1963329	53.8750	92.1011		TES', Baykal region	CSE	SKM	30	20
219	TGRM	1970010	1971224	43.39	79.72		Tegermen',CSE	CSE	RVZT,KSE	6	11
220	TK	1975214	2005111	45.006	78.405	0.6010	Taldy-Kurgan, Kazakhstan	KZ	SKM, SKD	142	14
221	TKLKG	1981152		41.925	72.869	1.3000	Toktogul.KyrgIS	KR	SKM, SKD	25	27
222	TLG	1949001	1960180	43.2740	77.3939	1.2000	Talgar, CSE, Schel' Dalnyaya	CSE	VEGIK	446	526
		1960181	1994001	43.2375	77.2250	1.2000	Talgar, CSE, Northern Tien Shan	CSE	SKM,RVZT(SM2),KSE, SK		
223	TORK	1973121		41.933	73.210	1.4000	Torkent, CSE, Kyrgyzstan	CSE	SKM	46	36
224	TOS			41.845	73.060		Toskol,CSE	CSE	SKM		1
225	TRG	1976292	2004106	43.307	77.637	1.5100	Turgen', Kazakhstan	KZ	SKM, SKD	171	24
226	TRKKG	1986244	2001001	42.0639	76.5706	2.2000	Terskei.KyrgIS	KR	SKM, SKD	6	4
227	TRKS	1976214		41.4625	71.1733	1.6400	Terek-Say.KyrgIS	KR	SKM, SKD	42	48
228	TSAL	197329	197404	41.603	44.083		Tsalka,CSE	CSE	RVZT,KSE		2

Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

8		4	5								
229	TSN	1979269	2005349	43.043	76.943	3.1300	Tyan'-Shan', Kazakhstan	KZ	SKM	123	10
230	UCH	1981240	1983172	43.85	42.55		Uchkeken,CSE	CSE	RVZT,KSE	4	19
231	UKM	1966273	1968273	49.830	82.283		Ust'-Kamenogorsk, CSE, Eastern Kazakhstan	CSE	SKM	11	8
232	URG	1969181	1971182	39.388	67.262		Urgut, CSE	CSE	SKM	7	7
233	URVKG	1967152		42.6889	75.0500	1.1750	Urevka.KyrgIS	KR	SKM, SKD	39	54
234	USTK	1960304		50.939	84.769	1.1000	Ust'-Kan, CSE	CSE	SKM	37	28
235	USTKT	1961060	1961181	56.793	105.717		Ust'-Kut, CSE	CSE	SKM	1	14
		1961182	1962152	56.867	105.700		Ust'-Kut, CSE	CSE	SKM		
236	UZA	1961365	1965032	41.953	72.528	1.0000	Uzun-Akhmat, CSE, Kyrgyzstan	CSE	SKM	20	11
		1965033	1965167	41.93	72.59	1.0000	Uzun-Akhmat, CSE, Kyrgyzstan	CSE	SKM		
237	UZB	1991213	1999074	43.150	79.022	1.6800	Uzun-Bulak, Kazakhstan	KZ	SKM	13	
238	VED	1972265	1973130	52.6	69.5		Vedenovka,Kazakhstan	CSE	RVZT,KSE	1	8
239	VERT	1972121	1973151	58.855	60.820		Verkhotur'e, CSE, Ural	CSE	RVZT,KSE	9	28
240	VIKH	1961060	1962180	56.1633	101.1850		Vikhorevka, Baykal region	CSE	SKM	9	18
		1962181	1963031	56.0417	101.0580		Vikhorevka, Baykal region	CSE	SKM		
241	VINA	1971139	1971196	49.3950	30.0917		Vinarovka,CSE	CSE	RVZT,KSE	1	2
242	VISK	1971121	1971304	57.850	49.025		Vysokovo,CSE	CSE	RVZT,KSE	1	9
24	VLAD	196915	196927	52.2833	68.6170		Vladimirovka, CSE, Northern	CSE	SKM	3	4

Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

3		1	3				Kazakhstan				
244	VOL	1969151	1969273	53.2613	68.1567		Volodarskoye, CSE	CSE	RVZT,KSE	3	4
245	VOLV	1971151	1971305	48.12	29.59		Volovaya,CSE	CSE	RVZT,KSE	1	4
246	VOS	1973121		52.7232	70.9797	0.3000	Vostochnaya,CSE,Kazakhstan	CSE	RVZT,KSE	51	88
247	VSE	1988183	1991151	60.50	59.95		Vsevolodsk, CSE, Ural	CSE	RVZT,KSE	7	8
248	VUS	1963197	1965151	52.2167	93.000		Verkhne-Usinsk, CSE, Altay	CSE	SKM	2	6
249	VYP	1969193	1970110	50.190	28.273		Vysokaya Pech', CSE, Ukraina	CSE	SKM,RVZT,KSE	7	6
250	YAKT	1971142	1971201	56.73	25.75		Yaktani,CSE	CSE	RVZT,KSE	1	4
251	YAMP	1969243	1970110	48.253	28.283		Yampol (Rusava),CSE	CSE	RVZT,KSE	1	1
252	YARD	1960275	1980001	41.52	71.01	1.8000	Yaro-Dar, CSE	CSE	SKM	11	6
253	YAT	1956228	1994001	39.0583	70.4433	1.4100	Yaldymych, Tadzhikistan	CSE	SKM		3
254	YRVKG	1967001	2000001	42.6889	75.0508	1.1800	Yur'evka, Kyrgyzstan	KR	SKM, SKD	2	
255	YUR	1971234	1971288	59.0100	49.7583		Yur'ya,CSE	CSE	RVZT,KSE		6
256	YUZH	1989349	2005349	42.147	70.031	1.2200	Yuzhnaya, Southern Kazakhstan	KZ	SKM	11	
257	ZAY	1961060	1961180	55.6917	101.7917		Zayarsk, Baykal region	CSE	USF	1	5
		1961181	1962152	56.1733	102.8783		Zayarsk, Baykal region	CSE	SKM		
258	ZEL	1975151	1985273	50.740	28.198		Zelenica	CSE	RVZT,KSE	25	78
259	ZER	1970121	1971212	41.573	64.277		Zeravshan,CSE	CSE	RVZT	5	13
26	ZHD	198624	199015	57.1	33.6		Zhdanovo,CSE	CSE	RVZT,KSE	15	18

Stations

Appendix A. Location, and dates of operation, of stations from which seismograms were digitized in this project. via scans from the archives of CSE IPE RAS, SEME MES RK, IGR RK, IS NAS KR. (Continued)

0		3	1								
261	ZHLS	1986001	1988126	43.15	78.83	1.6800	Zhylysay, Kazakhstan	KZ	SKM	16	
		1988294	1991079	43.128	78.972	1.6800	Zhylysay, Kazakhstan	KZ	SKM		
262	ZIM	1957001	1990001	38.7667	68.8000		Zimchurud, Tadzhikistan	CSE	SKM		3
263	ZM	1970223	1971121	51.73	102.85		Zun-Murino,CSE	CSE	RVZT	2	5
264	ZRN	1969151	000001	52.933	69.050	0.3800	Zerenda, CSE, Northern Kazakhstan	CSE	RVZT,KSE	138	204
265	ZRN2	1979349	1981129	52.883	69.150	0.3800	Zerenda2,CSE,Kazakhstan	CSE	RVZT,KSE	2	8
266	ZSN	1990184	2006141	47.45	84.40	0.5500	Zaisan, Kazakhstan	KZ	SKM	25	

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Appendix B Digitized seismograms of large chemical explosions.

Mo.	Day	Year	Origin Time	Lat. °N	Long. °E	mb	Sta.	Dist.	Inst. type
6	5	1961	3:50:00.000	49.7730	77.9830	4.40	MIKH	275	SKM
11	20	1965	7:00:00.000	48.0000	67.0000		BRVK	608	SKM
10	21	1966	4:59:59.100	43.1570	77.0570	5.10	ILI	77	SKM
10	21	1966	4:59:59.100	43.1570	77.0570	5.10	RYA	434	SKM
10	21	1966	4:59:59.100	43.1570	77.0570	5.10	TERS	519	SKM
10	21	1966	4:59:59.100	43.1570	77.0570	5.10	BRVK	1208	SKM
4	14	1967	5:00:09.000	43.1570	77.0570	4.80	UZA	394	SKM
4	14	1967	5:00:09.000	43.1570	77.0570	4.80	KKUL	395	SKM
4	14	1967	5:00:09.000	43.1570	77.0570	4.80	KKUL1	405	SKM
4	14	1967	5:00:09.000	43.1570	77.0570	4.80	RYA	434	SKM
4	14	1967	5:00:09.000	43.1570	77.0570	4.80	ARK	443	SKM
4	14	1967	5:00:09.000	43.1570	77.0570	4.80	BRVK	1208	SKM
3	29	1968	6:48:42.000	38.2630	69.1200	4.40	KRS	819	SKM
3	29	1968	6:48:42.000	38.2630	69.1200	4.40	KRM	933	SKM
3	29	1968	6:48:42.000	38.2630	69.1200	4.40	KAC	1119	SKM
3	29	1968	6:48:42.000	38.2630	69.1200	4.40	CHL	969	SKM
3	29	1968	6:48:42.000	38.2630	69.1200	4.40	ILI	907	SKM
3	29	1968	6:48:42.000	38.2630	69.1200	4.40	BRVK	1646	SKM
3	23	1973	6:30:00.000	49.9400	79.0600	3.74	SEM	99	SKM
3	23	1973	6:30:00.000	49.9400	79.0600	3.74	TLG	758	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	ARSB	66	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	ARLS	88	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	ARK	107	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	MNAS	92	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	TASKG	152	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	CHMS	174	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	DZH	194	SKD
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	DZH	194	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	FAB	296	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	KDSKG	325	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	KUU	336	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	TLG	358	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	ILI	377	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	KRM	429	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	CHL	455	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	KAC	586	SKM
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	MAKN	1203	RVZT
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	ZRN	1268	RVZT

2	8	1975	6:59:59.300	41.8780	73.2600	4.40	KOSH	1278	RVZT
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	CHK	1325	RVZT
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	NVG	1351	RVZT
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	BUGS	1422	RVZT
2	8	1975	6:59:59.300	41.8780	73.2600	4.40	LNSK	1530	RVZT
7	31	1978	8:00:00.000	50.4200	77.8700	3.90	BRVK	598	SKM
7	31	1978	8:00:00.000	50.4200	77.8700	3.90	TLG	800	SKM
5	24	1979	4:07:00.000	49.9400	78.7900	4.02	TLG	754	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	KAC	509	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	BRVK	685	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	ILI	691	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	KUU	699	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	TLG	756	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	KST	798	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	KURM	720	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	CHL	724	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	KDSKG	879	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	BOM	859	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	BGK	885	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	TRG	744	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	FAB	779	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	DZH	972	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	MNAS	961	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	ARLS	965	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	ARK	1049	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	ARSB	1060	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	CHMK	1104	SKD
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	SUFI	1180	SKM
9	14	1979	7:33:00.000	49.9500	78.8400	4.40	NTR	1477	RVZT
9	15	1979	4:07:00.000	49.9400	78.8200	3.80	TLG	755	SKM
7	13	1980	8:10:00.000	49.9100	78.8400	4.10	BRVK	687	SKM
7	13	1980	8:10:00.000	49.9100	78.8400	4.10	ZRN	756	RVZT
7	13	1980	8:10:00.000	49.9100	78.8400	4.10	TLG	752	SKM
9	20	1980	10:40:01.000	49.9600	78.8800	3.80	VOS	628	RVZT
9	20	1980	10:40:01.000	49.9600	78.8800	3.80	BRVK	686	SKM
9	20	1980	10:40:01.000	49.9600	78.8800	3.80	ZRN	756	RVZT
9	30	1980	5:57:17.000	49.9500	78.4000	4.20	TLG	751	SKM
11	6	1980	17:42:58.000	50.1400	78.7600	3.90	BRVK	668	SKM
11	6	1980	17:42:58.000	50.1400	78.7600	3.90	ZRN	739	RVZT
6	5	1981	3:22:18.000	49.8400	78.7200	4.00	TLG	742	SKM
6	5	1981	3:22:18.000	49.8400	78.7200	4.00	BRVK	684	SKM

6	5	1981	3:22:18.000	49.8400	78.7200	4.00	ZRN	753	RVZT
7	5	1981	3:59:14.000	49.8700	78.9900	3.88	TLG	749	SKM
9	30	1981	12:55:10.000	49.9400	78.9000	3.96	TLG	756	SKM
11	19	1981	5:57:15.000	50.1100	78.9500	3.69	TLG	775	SKM
11	28	1981	2:31:00.000	43.8000	76.8500		ILI	16	SKM
11	28	1981	2:31:00.000	43.8000	76.8500		FAB	81	SKM
11	28	1981	2:31:00.000	43.8000	76.8500		TSN	84	SKM
11	28	1981	2:31:00.000	43.8000	76.8500		KUU	42	SKM
11	28	1981	2:31:00.000	43.8000	76.8500		KST	110	SKM
11	28	1981	2:31:00.000	43.8000	76.8500		MDO	72	SKM
11	28	1981	2:31:00.000	43.8000	76.8500		TRG	84	SKM
11	28	1981	2:31:00.000	43.8000	76.8500		KURM	112	SKM
11	28	1981	2:31:00.000	43.8000	76.8500		TK	182	SKM
11	28	1981	2:31:00.000	43.8000	76.8500		KAC	229	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	CHMK	674	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	DZH	825	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	KST	1200	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	FAB	1239	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	KUU	1243	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	TSN	1279	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	MDO	1286	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	ILI	1297	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	TRG	1338	SKD
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	TRG	1338	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	KRM	1386	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	TK	1428	SKD
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	TK	1428	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	CHL	1401	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	KAC	1461	SKM
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	TK	1428	SKD
12	26	1982	5:29:00.000	40.9800	61.6800	4.80	TK	1428	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	CHMK	560	SKD
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	BTK	568	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	TRKS	632	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	CHVKG	687	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	DZH	712	SKD
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	DZH	712	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	OHH	739	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	ARSB	772	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	MNAS	777	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	SUFI	795	SKM

4	22	1983	3:56:22.000	39.3400	64.2400	4.80	SALK	830	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	KKUL	758	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	ARLS	895	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	BGK	914	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	CHMS	968	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	BOM	1042	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	KST	1062	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	FAB	1102	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	KUU	1124	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	MDO	1147	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	ILI	1173	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	TRG	1200	SKM
4	22	1983	3:56:22.000	39.3400	64.2400	4.80	KAC	1362	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	CHMK	556	SKD
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	BTK	561	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	CHVKG	680	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	KZD	684	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	ARK	701	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	OHH	733	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	ARSB	766	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	MNAS	771	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	ARLS	889	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	SUFI	788	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	CHMS	962	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	URVKG	973	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	KST	1056	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	FAB	1096	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	TSN	1132	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	KUU	1119	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	MDO	1141	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	KRSKG	1174	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	ANVS	1181	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	TRG	1194	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	KRM	1234	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	CHL	1259	SKM
5	16	1983	12:07:51.000	39.3100	64.3300	4.70	SUFI	788	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	ARK	710	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	CHVKG	686	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	DZH	717	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	OHH	740	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	ARLS	897	SKM

5	26	1983	12:46:21.890	39.2291	64.2715	4.50	AAK	937	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	BOM	1044	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	KST	1065	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	FAB	1105	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	KUU	1128	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	MDO	1150	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	TSN	1140	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	TRG	1203	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	KRM	1243	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	KAC	1367	SKM
5	26	1983	12:46:21.890	39.2291	64.2715	4.50	TK	1327	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	BTK	558	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	TRKS	624	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	KZD	681	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	CHVKG	677	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	OHH	730	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	MNAS	769	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	SUFI	786	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	EKS	874	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	BGK	907	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	CHMS	960	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	URVKG	971	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	BOM	1034	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	KST	1054	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	KUU	1116	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	KDSKG	1123	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	MDO	1139	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	TLG	1158	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	ILI	1166	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	TRG	1192	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	KURM	1239	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	TK	1316	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	KAC	1355	SKM
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	ZRN	1555	RVZT
6	15	1983	13:34:03.000	39.3100	64.3600	4.80	SEVR	1793	RVZT
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	CHMK	680	SKD
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	BTK	780	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	DZH	831	SKD
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	KZD	867	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	CHVKG	895	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	OHH	938	SKM

6	25	1983	20:35:14.000	40.8600	61.6530	4.50	ARSB	949	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	SUFI	1006	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	EKS	1024	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	SALK	1020	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	ARLS	1062	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	BGK	1061	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	URVKG	1127	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	KST	1206	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	BOM	1198	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	KUU	1250	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	FAB	1245	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	MDO	1291	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	KDSKG	1299	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	TLG	1310	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	TRG	1344	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	TRG	1344	SKD
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	KRM	1392	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	KRSKG	1359	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	CHL	1407	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	TK	1435	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	DJRKG	1451	SKM
6	25	1983	20:35:14.000	40.8600	61.6530	4.50	KAC	1469	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	BTK	560	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	CHMK	560	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	CHVKG	679	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	KZD	685	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	DZH	712	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	OHH	733	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	ARSB	767	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	SUFI	787	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	EKS	878	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	ARLS	890	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	BGK	911	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	AAK	931	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	KST	1059	SKD
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	FAB	1099	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	TSN	1134	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	KUU	1122	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	MDO	1143	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	TRG	1197	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	KRM	1236	SKM

7	2	1983	11:42:21.000	39.2200	64.3600	4.80	CHL	1261	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	TK	1322	SKM
7	2	1983	11:42:21.000	39.2200	64.3600	4.80	KAC	1361	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	BTK	558	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	TRKS	626	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	CHMK	558	SKD
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	KZD	683	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	DZH	710	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	OHH	731	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	ARSB	765	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	MNAS	772	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	CHVKG	677	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	ARLS	888	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	BGK	909	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	URVKG	973	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	CHMS	963	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	SUFI	785	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	BOM	1036	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	KST	1057	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	FAB	1097	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	TSN	1132	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	KUU	1120	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	TLG	1160	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	ANVS	1180	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	TRG	1195	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	KRM	1234	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	CHL	1259	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	TK	1320	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	KAC	1359	SKM
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	ZRN	1564	RVZT
7	11	1983	14:47:56.000	39.2300	64.3800	4.60	SEVR	1802	RVZT
7	28	1983	3:41:25.000	50.0700	78.6000	4.17	TLG	766	SKM
7	28	1983	3:41:25.000	50.0700	78.6000	4.17	ZRN	732	RVZT
8	27	1983	5:04:42.000	39.2400	64.4700	4.55	CHMK	551	SKD
8	27	1983	5:04:42.000	39.2400	64.4700	4.55	KST	1049	SKM
8	27	1983	5:04:42.000	39.2400	64.4700	4.55	FAB	1089	SKM
8	27	1983	5:04:42.000	39.2400	64.4700	4.55	KUU	1112	SKM
8	27	1983	5:04:42.000	39.2400	64.4700	4.55	ILI	1162	SKM
8	27	1983	5:04:42.000	39.2400	64.4700	4.55	MDO	1134	SKM
8	27	1983	5:04:42.000	39.2400	64.4700	4.55	TSN	1125	SKM
8	27	1983	5:04:42.000	39.2400	64.4700	4.55	KURM	1234	SKM

8	27	1983	5:04:42.000	39.2400	64.4700	4.55	KAC	1352	SKM
8	27	1983	5:04:42.000	39.2400	64.4700	4.55	TRG	1187	SKM
8	27	1983	5:04:48.500	39.2425	64.4744	4.55	CHMK	551	SKD
8	27	1983	5:04:48.500	39.2425	64.4744	4.55	KST	1049	SKM
8	27	1983	5:04:48.500	39.2425	64.4744	4.55	FAB	1089	SKM
8	27	1983	5:04:48.500	39.2425	64.4744	4.55	KUU	1112	SKM
8	27	1983	5:04:48.500	39.2425	64.4744	4.55	ILI	1161	SKM
8	27	1983	5:04:48.500	39.2425	64.4744	4.55	MDO	1134	SKM
8	27	1983	5:04:48.500	39.2425	64.4744	4.55	TSN	1124	SKM
8	27	1983	5:04:48.500	39.2425	64.4744	4.55	KURM	1234	SKM
8	27	1983	5:04:48.500	39.2425	64.4744	4.55	KAC	1352	SKM
8	27	1983	5:04:48.500	39.2425	64.4744	4.55	TRG	1187	SKM
3	23	1983	11:07:57.000	39.2400	64.3400	4.60	KST	1059	SKM
3	23	1983	11:07:57.000	39.2400	64.3400	4.60	KUU	1122	SKM
3	23	1983	11:07:57.000	39.2400	64.3400	4.60	FAB	1099	SKM
3	23	1983	11:07:57.000	39.2400	64.3400	4.60	MDO	1144	SKM
3	23	1983	11:07:57.000	39.2400	64.3400	4.60	TRG	1197	SKM
3	23	1983	11:07:57.000	39.2400	64.3400	4.60	TRG	1197	SKD
3	23	1983	11:07:57.000	39.2400	64.3400	4.60	KRM	1237	SKM
6	23	1984	2:57:16.000	49.9200	78.9300	4.40	KAC	506	SKM
6	23	1984	2:57:16.000	49.9200	78.9300	4.40	TLG	754	SKM
6	23	1984	2:57:16.000	49.9200	78.9300	4.40	KUU	698	SKM
6	23	1984	2:57:16.000	49.9200	78.9300	4.40	ZRN	761	RVZT
6	23	1984	2:57:16.000	49.9200	78.9300	4.40	MDO	764	SKM
6	23	1984	2:57:16.000	49.9200	78.9300	4.40	CHL3	712	SKM
6	23	1984	2:57:16.000	49.9200	78.9300	4.40	TRG	741	SKM
6	23	1984	2:57:16.000	49.9200	78.9300	4.40	KRM	772	SKM
6	23	1984	2:57:16.000	49.9200	78.9300	4.40	KST	797	SKM
6	23	1984	2:57:16.000	49.9200	78.9300	4.40	AAK	878	SKM
6	23	1984	2:57:16.000	49.9200	78.9300	4.40	DZH	973	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	KAC	513	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	KUU	704	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	TLG	761	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	ZRN	754	RVZT
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	TRG	749	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	MDO	771	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	MTB	785	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	CHL3	719	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	TSN	786	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	KST	803	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	KRM	779	SKM

9	15	1984	6:15:10.000	49.9900	78.8800	4.48	KDSKG	884	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	ILI	696	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	BOM	864	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	AAK	884	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	URVKG	862	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	BGK	891	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	ANVS	806	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	EKS	902	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	DZH	977	SKD
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	MNAS	966	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	ARSB	1066	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	CHVKG	1211	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	BTK	1271	SKM
9	15	1984	6:15:10.000	49.9900	78.8800	4.48	SEVR	1385	CSE
6	29	1987	4:55:08.000	49.7800	77.9700	3.27	BRTG	714	SKM
6	29	1987	4:55:08.000	49.7800	77.9700	3.27	KUU	666	SKM
6	29	1987	4:55:08.000	49.7800	77.9700	3.27	KST	764	SKM
9	2	1987	7:00:00.320	50.2810	72.1720	3.05	KKL	252	RVZT
9	2	1987	7:00:00.320	50.2810	72.1720	3.05	BAY	246	RVZT
9	2	1987	9:27:04.950	50.0000	77.3360	2.70	BAY	156	RVZT
9	2	1987	9:27:04.950	50.0000	77.3360	2.70	KKL	159	RVZT
9	2	1987	9:27:04.950	50.0000	77.3360	2.70	KARSU	267	RVZT
9	16	1987	7:30:01.000	49.8600	78.7300	4.30	KAC	499	SKM
9	16	1987	7:30:01.000	49.8600	78.7300	4.30	KUU	687	SKM
9	16	1987	7:30:01.000	49.8600	78.7300	4.30	TRG	733	SKM
9	16	1987	7:30:01.000	49.8600	78.7300	4.30	BRTG	722	SKM
9	16	1987	7:30:01.000	49.8600	78.7300	4.30	ZRN	752	RVZT
9	16	1987	7:30:01.000	49.8600	78.7300	4.30	MDO	755	SKM
9	16	1987	7:30:01.000	49.8600	78.7300	4.30	KRM	764	SKM
9	16	1987	7:30:01.000	49.8600	78.7300	4.30	MTB	768	SKM
9	16	1987	7:30:01.000	49.8600	78.7300	4.30	KST	786	SKM
9	16	1987	7:30:01.000	49.8600	78.7300	4.30	CHL3	704	SKM
9	16	1987	7:30:01.000	49.8600	78.7300	4.30	TLG	745	SKM
9	26	1988	7:45:04.000	50.0800	78.8000	4.30	DZHR	643	SKM
9	26	1988	7:45:04.000	50.0800	78.8000	4.30	KUU	712	SKM
9	26	1988	7:45:04.000	50.0800	78.8000	4.30	TRG	758	SKM
9	26	1988	7:45:04.000	50.0800	78.8000	4.30	MDO	780	SKM
9	26	1988	7:45:04.000	50.0800	78.8000	4.30	BRTG	746	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	AAA	343	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	AAA	343	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	AAK	144	SKM

6	11	1989	6:59:48.000	41.7250	73.2500	4.50	AKKKG	49	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	ANVS	382	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	ARLS	90	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	ARSB	50	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	BRTG	468	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	BTK	276	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	BTK	276	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	DJRKG	485	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	DZH	204	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	DZH	204	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	EKS	114	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	FRU	167	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	ILI	388	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	KDSKG	328	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	KNGKG	320	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	KST	266	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	KUU	348	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	KUU	348	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	KST	266	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	KST	266	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	MDO	347	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	MDO	347	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	MTB	304	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	MTB	304	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	SUFI	191	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	MRKT	679	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	KPA	631	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	OHH	139	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	TK	553	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	TK	553	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	TRG	400	SKD
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	TRG	400	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	TSN	337	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	KUU	348	SKM
6	11	1989	6:59:48.000	41.7250	73.2500	4.50	KUU	348	SKD

Appendix C. Digitized seismograms of nuclear explosions at the Lop Nor Test Site.

Mo	D	Year	t_0	Lat. °N	Long. °E	Type	mb	Sta.	Dist.
5	14	1965	2:00:00.000	41.5000	88.5000	ANE		NRK	698
5	14	1965	2:00:00.000	41.5000	88.5000	ANE		TLG	945
5	9	1966	8:00:00.000	41.5000	88.5000	ANE		NRK	698
5	9	1966	8:00:00.000	41.5000	88.5000	ANE		UZA	1076
5	9	1966	8:00:00.000	41.5000	88.5000	ANE		OM	1057
10	27	1966	1:10:00.000	41.5000	88.5000	ANE		CHAR	792
10	27	1966	1:10:00.000	41.5000	88.5000	ANE		NRK	698
10	27	1966	1:10:00.000	41.5000	88.5000	ANE		OM	1057
12	28	1966	4:00:00.000	41.5000	88.5000	ANE		CHAR	792
12	28	1966	4:00:00.000	41.5000	88.5000	ANE		OM	1057
12	28	1966	4:00:00.000	41.5000	88.5000	ANE		CHL3	859
12	28	1966	4:00:00.000	41.5000	88.5000	ANE		KAC	898
12	28	1966	4:00:00.000	41.5000	88.5000	ANE		TLG	945
12	28	1966	4:00:00.000	41.5000	88.5000	ANE		UKM	1043
12	28	1966	4:00:00.000	41.5000	88.5000	ANE		RYA	1348
12	28	1966	4:00:00.000	41.5000	88.5000	ANE		YARD	1453
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	PRZ	964
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	KAC	1033
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	RYB	1144
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	KRS	1236
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	NRN	1158
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	UKM	1166
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	OM	1172
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	UZA	1195
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	KZU	1384
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	YARD	1570
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	RYA	1464
6	17	1967	0:19:08.200	40.7440	89.7750	ANE	4.70	BRVK	2003
12	27	1968	7:30:00.000	41.5000	88.5000	ANE		UZA	1076
12	27	1968	7:30:00.000	41.5000	88.5000	ANE		KRS	1110
12	27	1968	7:30:00.000	41.5000	88.5000	ANE		CHL	859
12	27	1968	7:30:00.000	41.5000	88.5000	ANE		TLG	945
12	27	1968	7:30:00.000	41.5000	88.5000	ANE		KZU	1266
12	27	1968	7:30:00.000	41.5000	88.5000	ANE		KKUL	1309
12	27	1968	7:30:00.000	41.5000	88.5000	ANE		ARK	1371
12	27	1968	7:30:00.000	41.5000	88.5000	ANE		TERS	1443
9	22	1969	16:14:59.210	41.3760	88.3180	UNE-T	5.20	KRM	845
9	22	1969	16:14:59.210	41.3760	88.3180	UNE-T	5.20	CHL3	849
9	22	1969	16:14:59.210	41.3760	88.3180	UNE-T	5.20	KAC	892

9	22	1969	16:14:59.210	41.3760	88.3180	UNE-T	5.20	UZA	1063
9	22	1969	16:14:59.210	41.3760	88.3180	UNE-T	5.20	KAR	1059
9	22	1969	16:14:59.210	41.3760	88.3180	UNE-T	5.20	KZU	1253
9	22	1969	16:14:59.210	41.3760	88.3180	UNE-T	5.20	KKUL	1296
9	22	1969	16:14:59.210	41.3760	88.3180	UNE-T	5.20	BRVK	1871
9	29	1969	8:40:12.360	40.7220	89.5150	ANE	4.37	KAC	1016
9	29	1969	8:40:12.360	40.7220	89.5150	ANE	4.37	CHL3	969
9	29	1969	8:40:12.360	40.7220	89.5150	ANE	4.37	AAA	1076
9	29	1969	8:40:12.360	40.7220	89.5150	ANE	4.37	TLG	1052
9	29	1969	8:40:12.360	40.7220	89.5150	ANE	4.37	KRM	963
9	29	1969	8:40:12.360	40.7220	89.5150	ANE	4.37	BRVK	1991
9	29	1969	8:40:12.360	40.7220	89.5150	ANE	4.37	KKUL	1405
10	14	1970	7:29:56.910	40.5200	89.7790	ANE	4.60	SEM	1324
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	CHL3	989
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	KDSKG	1060
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	TLG	1072
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	AAA	1097
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	KUU	1157
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	URVKG	1240
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	CHMS	1267
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	EKS	1343
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	MNAS	1447
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	ARSB	1409
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	ARK	1491
6	27	1973	3:59:46.290	40.7985	89.8091	ANE	4.80	BRVK	2001
6	17	1974	5:59:52.700	40.5180	89.6190	ANE	4.50	CHL3	986
6	17	1974	5:59:52.700	40.5180	89.6190	ANE	4.50	KAC	1036
6	17	1974	5:59:52.700	40.5180	89.6190	ANE	4.50	TLG	1068
6	17	1974	5:59:52.700	40.5180	89.6190	ANE	4.50	KUU	1154
6	17	1974	5:59:52.700	40.5180	89.6190	ANE	4.50	FAB	1128
6	17	1974	5:59:52.700	40.5180	89.6190	ANE	4.50	EKS	1335
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	CHL3	850
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	KDSKG	926
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	ILI	963
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	OTK	1004
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	ARLS	1163
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	EKS	1207
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	SUFI	1256
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	ARSB	1278
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	MNAS	1312
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	AKJ	1336
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	CHT	1438
10	27	1975	0:59:58.230	41.3750	88.3260	UNE-T	5.00	BRVK	1871

9	26	1976	6:00:00.000	41.5000	88.5000	ANE		TLG	945
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	CHL3	843
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	AAA	954
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	FAB	992
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	KDSKG	927
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	ILI	956
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	BOM	1029
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	OTK	1004
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	CHMS	1127
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	TASKG	1127
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	EKS	1205
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	ARLS	1164
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	AKJ	1338
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	ARSB	1281
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	MNAS	1311
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	KZD	1342
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	KZYU	1387
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	CHVKG	1367
10	17	1976	5:00:00.820	41.7086	88.3897	UNE-T	4.90	KZAD	1384
11	17	1976	6:00:12.700	40.6960	89.6270	UNE-T	4.70	KRM	973
11	17	1976	6:00:12.700	40.6960	89.6270	UNE-T	4.70	KAC	1025
11	17	1976	6:00:12.700	40.6960	89.6270	UNE-T	4.70	KDSKG	1048
11	17	1976	6:00:12.700	40.6960	89.6270	UNE-T	4.70	ARLS	1283
11	17	1976	6:00:12.700	40.6960	89.6270	UNE-T	4.70	TASKG	1252
11	17	1976	6:00:12.700	40.6960	89.6270	UNE-T	4.70	EKS	1331
11	17	1976	6:00:12.700	40.6960	89.6270	UNE-T	4.70	ARSB	1395
11	17	1976	6:00:12.700	40.6960	89.6270	UNE-T	4.70	MNAS	1434
11	17	1976	6:00:12.700	40.6960	89.6270	UNE-T	4.70	KZD	1457
11	17	1976	6:00:12.700	40.6960	89.6270	UNE-T	4.70	BRVK	1999
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	CHL3	877
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	ANVS	923
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	TRG	932
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	KDSKG	959
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	TLG	964
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	OTK	1036
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	ILI	990
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	FAB	1026
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	BOM	1062
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	CHMS	1161
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	EKS	1239
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	KZD	1374
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	KZYU	1421
10	14	1978	1:00:00.170	41.5413	88.7545	UNE-S	4.90	BRVK	1880

10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	KRM	974
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	KAC	1026
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	ANVS	1019
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	TK	1031
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	TRG	1032
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	TLG	1063
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	FAB	1124
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	MDO	1075
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	KST	1160
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	KUU	1148
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	BOM	1154
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	ARLS	1284
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	BGK	1295
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	EKS	1332
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	ARSB	1397
10	16	1980	4:30:29.670	40.7190	89.6510	ANE	4.44	BRVK	1999
10	5	1982	7:59:58.000	41.5000	88.5000	UNE		KRM	857
10	5	1982	7:59:58.000	41.5000	88.5000	UNE		TLG	945
10	5	1982	7:59:58.000	41.5000	88.5000	UNE		FAB	1007
10	5	1982	7:59:58.000	41.5000	88.5000	UNE		MDO	958
10	5	1982	7:59:58.000	41.5000	88.5000	UNE		TSN	965
10	5	1982	7:59:58.000	41.5000	88.5000	UNE		TRG	913
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	KNSKG	756
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	DJRKG	776
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	TK	883
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	KRM	840
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	ANVS	887
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	KRSKG	868
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	KAC	876
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	TRG	896
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	TLG	928
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	KDSKG	925
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	TSN	948
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	MDO	941
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	FAB	990
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	BOM	1027
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	KUU	1009
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	KST	1027
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	BGK	1167
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	ARSB	1279
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	MNAS	1309
5	4	1983	5:00:00.310	41.7187	88.3669	UNE-T	4.50	BTK	1483
10	6	1983	10:00:00.140	41.5409	88.7283	UNE-S	5.47	CHL3	875

10	6	1983	10:00:00.140	41.5409	88.7283	UNE-S	5.47	CHL	875
10	6	1983	10:00:00.140	41.5409	88.7283	UNE-S	5.47	KAC	911
10	6	1983	10:00:00.140	41.5409	88.7283	UNE-S	5.47	TK	918
10	6	1983	10:00:00.140	41.5409	88.7283	UNE-S	5.47	TRG	930
10	6	1983	10:00:00.140	41.5409	88.7283	UNE-S	5.47	MDO	975
10	6	1983	10:00:00.140	41.5409	88.7283	UNE-S	5.47	ILI	988
10	6	1983	10:00:00.140	41.5409	88.7283	UNE-S	5.47	KST	1061
10	6	1983	10:00:00.140	41.5409	88.7283	UNE-S	5.47	TSN	982
10	6	1983	10:00:00.140	41.5409	88.7283	UNE-S	5.47	FAB	1024
10	6	1983	10:00:00.140	41.5409	88.7283	UNE-S	5.47	KUU	1043
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	KRM	872
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	SARKG	891
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	CHL3	874
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	KAC	909
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	TK	916
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	ANVS	920
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	TRG	928
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	KDSKG	956
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	MDO	974
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	ILI	987
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	TSN	981
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	MTB	1023
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	KUU	1042
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	BOM	1059
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	KST	1060
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	URVKG	1132
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	CHMS	1158
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	ARLS	1193
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	BGK	1199
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	EKS	1235
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	SALK	1248
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	SUFI	1290
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	ARSB	1310
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	KKUL	1327
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	OHH	1339
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	MNAS	1340
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	CHVKG	1395
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	KZAD	1414
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	KZD	1371
10	3	1984	6:00:00.080	41.5799	88.7246	UNE-S	5.20	BTK	1512
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	KNSKG	757
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	KRSKG	870
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	CHL3	843

12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	TSN	950
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	BOM	1029
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	KUU	1011
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	KST	1029
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	URVKG	1102
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	CHMS	1127
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	AAK	1147
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	BGK	1168
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	ARLS	1164
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	EKS	1205
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	SALK	1219
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	SUFI	1263
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	ARSB	1281
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	MNAS	1310
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	OHH	1311
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	KZD	1342
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	CHVKG	1367
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	TRKS	1428
12	19	1984	5:59:59.820	41.7081	88.3862	UNE-T	4.70	BTK	1485
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	ZHLS	821
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	CHL3	876
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	KAC	912
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	TK	919
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	ANVS	922
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	TRG	931
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	MDO	976
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	ILI	989
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	DJRKG	810
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	MNAS	1342
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	OHH	1340
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	KZAD	1416
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	AAK	1179
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	ARLS	1195
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	BOM	1061
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	CHMS	1160
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	BTK	1514
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	CHVKG	1396
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	EKS	1237
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	KDSKG	958
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	KZD	1373
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	MNAS	1342
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	OHH	1340
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	SARKG	893

6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	SUFI	1292
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	TRKS	1459
6	5	1987	5:00:00.480	41.5558	88.7431	UNE-S	6.30	URVKG	1134
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	DZHR	753
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	BRTG	825
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	KRM	839
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	KPA	826
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	KURM	856
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	TRG	895
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	ILI	953
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	TLG	927
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	MDO	940
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	TSN	947
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	MTB	990
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	KUU	1008
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	KST	1027
9	29	1988	7:00:00.490	41.7219	88.3574	UNE-T	4.70	TORK	1253
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	DZHR	787
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	KURM	889
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	ANVS	919
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	TLG	960
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	MDO	973
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	CHUK	989
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	KUU	1041
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	KST	1059
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	AAK	1176
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	SEM	1177
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	ARLS	1193
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	SALK	1247
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	KURK	1276
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	TKLKG	1312
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	ARSB	1309
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	AKKKG	1330
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	OHH	1338
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	KZD	1370
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	AKJ	1366
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	ARK	1388
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	TRKS	1457
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	BTK	1511
5	26	1990	8:00:00.040	41.5756	88.7130	UNE-S	5.50	KRT	1502
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	ZSN	742
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	ANVS	922
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	TRG	931

8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	KDSKG	958
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	MDO	976
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	TSN	983
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	MTB	1026
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	KUU	1044
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	FRU	1170
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	AAK	1179
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	ARLS	1195
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	EKS	1237
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	ARSB	1311
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	SUFI	1291
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	TKLKG	1314
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	AKKKG	1333
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	MNAS	1342
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	SEM	1183
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	ARK	1390
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	DRKKG	1446
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	KRT	1505
8	16	1990	5:00:00.050	41.5274	88.7358	UNE-S	6.20	BTK	1513
5	21	1992	4:59:59.840	41.5337	88.7670	UNE-S	6.50	ARK	1393
5	21	1992	4:59:59.840	41.5337	88.7670	UNE-S	6.50	GRM	1586
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	PDG	749
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	DZHR	755
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	UZB	783
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	BRTG	827
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	KRM	841
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	SATY	831
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	KURM	857
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	TK	884
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	ANVS	888
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	KDSKG	926
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	TLG	929
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	KNGKG	948
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	MDO	942
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	TSN	949
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	TRKKG	977
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	MTB	992
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	NRN	1031
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	KUU	1010
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	KST	1028
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	BOM	1028
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	URVKG	1101
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	CHMS	1126

9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	AAK	1146
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	ARLS	1163
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	FRU	1137
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	BGK	1168
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	EKS	1204
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	AKUKG	1237
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	SALK	1219
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	KURK	1248
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	ARSB	1280
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	SUFI	1263
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	AKKKG	1301
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	TKLKG	1282
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	MNAS	1309
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	OHH	1310
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	CHVKG	1366
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	ARK	1358
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	TRKS	1428
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	JAB	1470
9	25	1992	8:00:00.560	41.7165	88.3776	UNE-T	5.00	BTK	1484
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	ZSN	734
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	TK	914
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	TRG	926
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	KDSKG	954
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	MDO	972
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	CHUK	988
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	TSN	979
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	MTB	1021
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	KUU	1040
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	NRN	1059
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	URVKG	1130
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	CHMS	1156
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	ARLS	1192
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	EKS	1234
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	ARSB	1308
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	SUFI	1289
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	MNAS	1339
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	ARK	1387
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	DZH	1434
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	DRKKG	1444
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	TRKS	1456
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	YUZH	1543
10	5	1993	1:59:59.690	41.5957	88.7060	UNE-S	5.90	CHMK	1577
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	ZSN	741

6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	KURM	890
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	TK	918
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	PDG	782
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	TRG	929
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	ANVS	920
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	MDO	974
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	TSN	981
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	CHUK	991
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	MTB	1024
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	KST	1060
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	CHMS	1158
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	FRU	1168
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	SALK	1247
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	SUFI	1289
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	ARSB	1309
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	OHH	1338
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	AKKKG	1331
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	MNAS	1340
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	KZD	1370
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	ARK	1388
6	10	1994	6:26:00.190	41.5277	88.7118	UNE-S	5.80	DRKKG	1444
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	ZSN	737
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	DZHR	788
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	UZB	815
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	SATY	863
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	TK	916
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	ANVS	919
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	TRG	928
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	MDO	973
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	CHUK	990
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	TSN	980
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	MTB	1023
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	KUU	1042
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	NRN	1060
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	KST	1060
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	FRU	1168
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	AAK	1177
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	ARLS	1193
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	SUFI	1290
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	ARSB	1309
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	TKLKG	1312
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	OHH	1338
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	AKKKG	1331

10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	MNAS	1340
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	KZAD	1414
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	KZD	1371
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	ARK	1388
10	7	1994	3:26:00.180	41.5735	88.7191	UNE-S	6.00	BTK	1512
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	ZSN	740
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	DZHR	791
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	UZB	818
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	SATY	866
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	KURM	892
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	KPA	863
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	TK	919
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	KDSKG	959
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	MDO	976
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	CHUK	993
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	TSN	984
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	KUU	1045
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	MTB	1026
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	NRN	1063
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	NRN	1063
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	KST	1063
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	AAK	1180
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	BGK	1201
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	TORK	1287
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	SUFI	1292
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	NICH	1278
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	SUFI	1292
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	ARSB	1312
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	OHH	1341
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	AKKKG	1334
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	MNAS	1343
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	OHH	1341
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	CHVKG	1397
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	ARK	1391
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	KZAD	1417
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	DZH	1438
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	BTK	1514
5	15	1995	4:06:00.200	41.5513	88.7496	UNE-S	6.10	CHMK	1582
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	ZSN	741
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	UZB	818
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	TK	920
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	MDO	977
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	CHUK	993

8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	TSN	984
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	KDSKG	959
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	MTB	1026
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	BOM	1062
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	KST	1063
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	CHMS	1161
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	ARLS	1196
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	BGK	1202
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	EKS	1238
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	AKUKG	1268
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	NICH	1278
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	TKLKG	1315
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	OHH	1341
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	MNAS	1343
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	KZD	1374
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	ARK	1391
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	CHVKG	1397
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	KZAD	1417
8	17	1995	1:00:00.140	41.5412	88.7522	UNE-S	6.00	DRKKG	1447
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	ZSN	735
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	TK	914
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	TRG	925
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	KDSKG	953
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	KNGKG	977
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	MDO	971
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	TSN	978
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	TSN	978
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	MTB	1020
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	KUU	1039
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	BOM	1056
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	KST	1057
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	CHUK	987
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	SEM	1176
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	KZAD	1411
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	DZH	1433
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	BRD	1554
6	8	1996	2:56:00.060	41.5804	88.6893	UNE-S	5.90	CHMK	1576
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	ZSN	710
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	DZHR	755
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	PRZ	826
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	UZB	783
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	SATY	831
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	KURM	857

7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	TK	883
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	ANVS	888
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	TRG	896
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	MDO	942
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	KDSKG	925
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	KNGKG	948
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	TSN	949
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	CHUK	958
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	MTB	991
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	KUU	1009
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	KST	1028
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	CHMS	1126
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	ARLS	1163
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	AKUKG	1237
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	SALK	1219
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	EKS	1204
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	SUFI	1262
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	ARSB	1280
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	OHH	1310
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	KZD	1341
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	CHVKG	1366
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	DRKKG	1417
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	TRKS	1427
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	YUZH	1514
7	29	1996	1:49:00.170	41.7163	88.3748	UNE-T	4.90	BRD	1526

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Appendix D. Digitized seismograms for earthquakes in the Lop Nor Test Site region.

Mo.	Day	Year	Origin time	Lat. °N	Long. °E	mb	Station	Dist.	Instrument type
6	2	1967	4:27:33.000	41.0100	87.0000	4.70	RYB	911	SKM
6	2	1967	4:27:33.000	41.0100	87.0000	4.70	BOM	930	SKM
3	24	1967	3:18:58.700	42.5290	86.6860	4.70	KRS	838	SKM
3	24	1967	3:18:58.700	42.5290	86.6860	4.70	BOM	879	SKM
2	14	1970	1:17:40.000	42.1600	89.6100	4.30	SUFI	1368	SKM
2	14	1970	1:17:40.000	42.1600	89.6100	4.30	CHIN	1383	SKM
2	14	1970	1:17:40.000	42.1600	89.6100	4.30	KKUL	1399	SKM
11	10	1972	21:58:00.000	41.0000	89.0000	4.20	TLG	1001	SKM
1	23	1973	11:31:42.000	40.6000	91.6000	4.60	TLG	1222	SKM
3	9	1975	14:04:42.000	42.1500	87.3500		KRM	748	SKM
3	9	1975	14:04:42.000	42.1500	87.3500		CHL	742	SKM
3	9	1975	14:04:42.000	42.1500	87.3500		KAC	779	SKM
3	9	1975	14:04:42.000	42.1500	87.3500		TLG	835	SKM
3	9	1975	14:04:42.000	42.1500	87.3500		ILI	859	SKM
3	9	1975	14:04:42.000	42.1500	87.3500		FAB	898	SKM
3	20	1976	4:34:03.600	41.7800	88.7000		CHL	861	SKD
3	20	1976	4:34:03.600	41.7800	88.7000		ANVS	913	SKM
3	20	1976	4:34:03.600	41.7800	88.7000		KRM	865	SKD
3	20	1976	4:34:03.600	41.7800	88.7000		KDSKG	951	SKD
3	20	1976	4:34:03.600	41.7800	88.7000		ILI	978	SKM
3	20	1976	4:34:03.600	41.7800	88.7000		TK	904	SKM
3	20	1976	4:34:03.600	41.7800	88.7000		EKS	1229	SKD
3	20	1976	4:34:03.600	41.7800	88.7000		ARSB	1306	SKM
3	20	1976	4:34:03.600	41.7800	88.7000		ARK	1384	SKD
2	2	1979	1:08:42.600	39.7680	90.7350	4.90	TLG	1187	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	CHL	785	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	KAC	813	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	KRM	793	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	TK	822	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	TK	822	SKD
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	TRG	847	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	TRG	847	SKD
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	MDO	896	SKD
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	MDO	896	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	TSN	901	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	TSN	901	SKD
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	ILI	901	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	MDO	896	SKD

4	22	1983	18:28:24.300	42.3120	87.9400	5.00	MDO	896	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	FAB	943	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	KUU	957	SKD
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	KUU	957	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	KST	981	SKM
4	22	1983	18:28:24.300	42.3120	87.9400	5.00	KST	981	SKD
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	DZHR	867	SKM
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	CHL	949	SKM
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	KRM	952	SKM
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	TRG	1008	SKD
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	ILI	1067	SKM
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	MDO	1057	SKM
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	TSN	1060	SKM
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	AAA	1065	SKD
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	AAA	1065	SKM
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	MTB	1103	SKM
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	KST	1140	SKM
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	KUU	1122	SKD
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	AAA	1065	SKD
12	22	1987	0:16:39.000	41.3600	89.6380	5.90	AAA	1065	SKM
11	15	1988	16:56:46.200	42.0180	89.2950	5.00	PDG	814	SKM
11	15	1988	16:56:46.200	42.0180	89.2950	5.00	SATY	898	SKM
11	15	1988	16:56:46.200	42.0180	89.2950	5.00	TK	937	SKM
11	15	1988	16:56:46.200	42.0180	89.2950	5.00	BRTG	892	SKM
11	15	1988	16:56:46.200	42.0180	89.2950	5.00	TRG	962	SKM
11	15	1988	16:56:46.200	42.0180	89.2950	5.00	TSN	1017	SKM
11	15	1988	16:56:46.200	42.0180	89.2950	5.00	AAA	1020	SKM
11	15	1988	16:56:46.200	42.0180	89.2950	5.00	MTB	1059	SKM
11	15	1988	16:56:46.200	42.0180	89.2950	5.00	KST	1096	SKM
11	15	1988	16:56:46.200	42.0180	89.2950	5.00	TK	937	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	DZHR	790	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	MRKT	811	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	SATY	864	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	KPA	863	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	KURM	891	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	TK	919	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	TRG	930	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	MDO	978	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	CHUK	992	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	AAA	987	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	TSN	982	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	KUU	1044	SKM
1	21	1990	7:53:31.900	41.5340	88.7280	4.60	KST	1061	SKM

1	21	1990	7:53:31.900	41.5340	88.7280	4.60	YUZH	1545	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	PDG	716	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	ZSN	725	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	DZHR	730	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	UZB	748	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	BRTG	793	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	KURM	824	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	SATY	795	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	KPA	808	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	TRG	861	SKD
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	TRG	861	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	TK	860	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	CHUK	925	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	MDO	909	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	AAA	917	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	TSN	912	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	MTB	955	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	KUU	977	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	KST	991	SKM
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	TRG	861	SKD
12	18	1991	13:44:04.100	41.3900	87.8090	4.40	TRG	861	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	ZSN	546	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	DZHR	605	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	PDG	614	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	UZB	652	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	BRTG	693	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	SATY	702	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	TK	729	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	TRG	764	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	MDO	815	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	TSN	821	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	KUU	871	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	AAA	823	SKM
4	14	1993	8:31:09.700	42.9040	87.0450	4.40	MTB	862	SKM
7	5	1995	23:38:48.900	42.5130	86.6780	4.50	ZSN	577	SKM
7	5	1995	23:38:48.900	42.5130	86.6780	4.50	UZB	628	SKM
7	5	1995	23:38:48.900	42.5130	86.6780	4.50	KURM	700	SKM
7	5	1995	23:38:48.900	42.5130	86.6780	4.50	SATY	677	SKM
7	5	1995	23:38:48.900	42.5130	86.6780	4.50	MDO	791	SKM
7	5	1995	23:38:48.900	42.5130	86.6780	4.50	TRG	741	SKM
7	5	1995	23:38:48.900	42.5130	86.6780	4.50	CHUK	799	SKM
7	5	1995	23:38:48.900	42.5130	86.6780	4.50	TK	719	SKM
7	5	1995	23:38:48.900	42.5130	86.6780	4.50	KST	875	SKM

7	5	1995	23:38:48.900	42.5130	86.6780	4.50	KUU	851	SKM
8	2	1995	11:59:43.900	41.6310	88.4470	4.10	ZSN	721	SKM
8	2	1995	11:59:43.900	41.6310	88.4470	4.10	DZHR	765	SKM
8	2	1995	11:59:43.900	41.6310	88.4470	4.10	TLG	937	SKM
12	12	1995	17:31:16.800	42.1170	86.9110	4.30	ZSN	625	SKM
12	12	1995	17:31:16.800	42.1170	86.9110	4.30	TK	756	SKM
12	12	1995	17:31:16.800	42.1170	86.9110	4.30	MTB	864	SKM
12	12	1995	17:31:16.800	42.1170	86.9110	4.30	CHUK	829	SKM
12	12	1995	17:31:16.800	42.1170	86.9110	4.30	AAA	825	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	ZSN	690	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	DZHR	737	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	SATY	816	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	KPA	808	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	TK	866	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	TRG	881	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	MDO	930	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	TSN	934	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	AAA	938	SKD
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	MTB	976	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	KUU	993	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	KURM	841	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	KST	1013	SKM
5	10	1996	11:26:04.000	41.8680	88.2340	3.80	SEM	1128	SKM
8	24	1996	12:15:26.200	39.6060	91.5690		ZSN	1045	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	ZSN	638	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	SATY	760	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	KURM	784	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	TK	805	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	TRG	824	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	TSN	878	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	MDO	874	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	AAA	882	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	CHUK	883	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	MTB	920	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	KUU	935	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	KST	958	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	SEM	1073	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	YUZH	1446	SKM
3	20	1996	2:11:21.900	42.1820	87.6270	4.80	BRD	1455	SKM
5	13	1997	21:13:00.300	39.1970	90.5980	3.40	ZSN	1044	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	DZHR	547	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	KPA	619	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	SATY	633	SKM

5	27	1997	1:56:24.800	42.6180	86.1580	4.90	KURM	656	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	TK	676	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	TRG	697	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	MDO	747	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	MTB	794	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	KUU	807	SKD
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	KUU	807	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	KST	832	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	AAA	755	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	CHUK	754	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	SEM	975	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	DZH	1208	SKD
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	BRD	1329	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	ZSN	554	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	TSN	752	SKM
5	27	1997	1:56:24.800	42.6180	86.1580	4.90	YUZH	1322	SKM
7	2	1998	22:42:44.000	42.5540	86.0080	4.10	UZB	573	SKM
7	2	1998	22:42:44.000	42.5540	86.0080	4.10	SATY	622	SKM
7	2	1998	22:42:44.000	42.5540	86.0080	4.10	TK	668	SKM
7	2	1998	22:42:44.000	42.5540	86.0080	4.10	TRG	686	SKM
7	2	1998	22:42:44.000	42.5540	86.0080	4.10	TSN	741	SKM
7	2	1998	22:42:44.000	42.5540	86.0080	4.10	KUU	796	SKM
7	2	1998	22:42:44.000	42.5540	86.0080	4.10	BRD	1318	SKM
2	7	1998	22:42:44.000	42.5540	86.0080	4.10	ZSN	558	SKM
2	7	1998	22:42:44.000	42.5540	86.0080	4.10	DZHR	539	SKM
2	7	1998	22:42:44.000	42.5540	86.0080	4.10	KPA	612	SKM
2	7	1998	22:42:44.000	42.5540	86.0080	4.10	MDO	736	SKM
2	7	1998	22:42:44.000	42.5540	86.0080	4.10	AAA	744	SKM
2	7	1998	22:42:44.000	42.5540	86.0080	4.10	MTB	783	SKM
2	7	1998	22:42:44.000	42.5540	86.0080	4.10	KST	820	SKM
1	25	1999	19:50:05.000	42.0760	91.5870	4.80	ZSN	823	SKM

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Appendix E. Digitized seismograms of nuclear explosions at the Novaya Zemlya Test Site.

Mo.	D.	Yr.	Origin time	Lat. °N	Long. E	Type of expl.	mb	Station	Dist.	Inst. type
9	10	1961	9:00:09.200	74.2000	52.5000	ANE	4.60	TAYSH	2822	SKM
9	10	1961	9:00:09.200	74.2000	52.5000	ANE	4.60	TESS	2858	SKM
9	10	1961	9:00:09.200	74.2000	52.5000	ANE	4.60	KEZ	2952	SKM
10	4	1961	7:30:54.800	73.7000	53.8000	ANE	4.50	TESS	2796	SKM
10	4	1961	7:30:54.800	73.7000	53.8000	ANE	4.50	ABZ	2855	SKM
10	6	1961	7:00:12.200	74.3000	51.6000	ANE	4.70	TESS	2887	SKM
10	6	1961	7:00:12.200	74.3000	51.6000	ANE	4.70	TASH	2948	SKM
10	6	1961	7:00:12.200	74.3000	51.6000	ANE	4.70	ABZ	2948	SKM
10	6	1961	7:00:12.200	74.3000	51.6000	ANE	4.70	CHMK	3668	SK
10	6	1961	7:00:12.200	74.3000	51.6000	ANE	4.70	FRU	3684	SK
10	6	1961	7:00:12.200	74.3000	51.6000	ANE	4.70	AAA	3681	SKD
10	6	1961	7:00:12.200	74.3000	51.6000	ANE	4.70	ARLS	3788	SKM
10	23	1961	8:31:22.100	70.7000	54.5600	ANE	5.10	TASH	2655	SKM
10	23	1961	8:31:22.100	70.7000	54.5600	ANE	5.10	ARTM	2612	SKM
10	23	1961	8:31:22.100	70.7000	54.5600	ANE	5.10	TESS	2615	SKM
10	23	1961	8:31:22.100	70.7000	54.5600	ANE	5.10	ASKZ	2614	SKM
10	23	1961	8:31:22.100	70.7000	54.5600	ANE	5.10	ABZ	2655	SKM
10	23	1961	8:31:22.100	70.7000	54.5600	ANE	5.10	USTK	2678	SKM
10	23	1961	8:31:22.100	70.7000	54.5600	ANE	5.10	AAA	3296	SKD
10	23	1961	8:31:22.100	70.7000	54.5600	ANE	5.10	RYB	3360	SKD
10	23	1961	10:30:48.000	73.9000	53.8000	UW		AGIN	2755	SKM
10	23	1961	10:30:48.000	73.9000	53.8000	UW		ARTM	2792	SKM
10	23	1961	10:30:48.000	73.9000	53.8000	UW		SPAS	2818	SKM
10	23	1961	10:30:48.000	73.9000	53.8000	UW		TESS	2807	SKM
10	23	1961	10:30:48.000	73.9000	53.8000	UW		ASKZ	2821	SKM
10	23	1961	10:30:48.000	73.9000	53.8000	UW		ELKM	2904	SKM
10	23	1961	10:30:48.000	73.9000	53.8000	UW		ABZ	2868	SKM
10	23	1961	10:30:48.000	73.9000	53.8000	UW		USTK	2931	SKM
10	23	1961	10:30:48.000	73.9000	53.8000	UW		TLG	3609	SKM
10	23	1961	10:30:48.000	73.9000	53.8000	UW		ARLS	3716	SKM
10	27	1961	8:30:26.600	70.7000	54.6700	AW		KEZ	2661	SKM
10	27	1961	8:30:26.600	70.7000	54.6700	AW		ELKM	2657	SKM
10	27	1961	8:30:26.600	70.7000	54.6700	AW		USTK	2675	SKM
10	27	1961	8:30:26.600	70.7000	54.6700	AW		ILMS	2756	SKM
10	27	1961	8:30:26.600	70.7000	54.6700	AW		USTKT	2813	SKM
10	30	1961	8:33:27.800	73.8000	53.5000	ANE	5.40	SEM	2890	USF
10	30	1961	8:33:27.800	73.8000	53.5000	ANE	5.40	AAA	3603	SKD

10	31	1961	8:29:17.200	73.6000	56.2000	ANE		FRU	3547	SKM
11	4	1961	7:20:19.700	73.7000	55.7000	ANE		SEM	2838	SKD
8	5	1962	9:08:45.800	74.2000	52.5000	ANE	5.20	TAYSH	2822	SKM
8	5	1962	9:08:45.800	74.2000	52.5000	ANE	5.20	VIKH	2889	SKM
8	5	1962	9:08:45.800	74.2000	52.5000	ANE	5.20	TESS	2858	SKM
8	5	1962	9:08:45.800	74.2000	52.5000	ANE	5.20	SEM	2944	SKD
8	5	1962	9:08:45.800	74.2000	52.5000	ANE	5.20	KKUM	3335	SKM
8	5	1962	9:08:45.800	74.2000	52.5000	ANE	5.20	RYB	3725	SK
8	5	1962	9:08:45.800	74.2000	52.5000	ANE	5.20	ILI	3589	SKD
8	5	1962	9:08:45.800	74.2000	52.5000	ANE	5.20	KOCH	3743	SKM
8	5	1962	9:08:45.800	74.2000	52.5000	ANE	5.20	AAA	3657	SK
8	5	1962	9:08:45.800	74.2000	52.5000	ANE	5.20	FRU	3660	SK
8	10	1962	9:00:00.000	73.0000	55.0000	ANE		ILI	3434	SKD
8	20	1962	9:02:14.100	74.3000	51.5000	ANE	4.60	TESS	2890	SKM
8	20	1962	9:02:14.100	74.3000	51.5000	ANE	4.60	TAYSH	2854	SKM
8	20	1962	9:02:14.100	74.3000	51.5000	ANE	4.60	VIKH	2921	SKM
8	20	1962	9:02:14.100	74.3000	51.5000	ANE	4.60	SEM	2972	SKD
8	20	1962	9:02:14.100	74.3000	51.5000	ANE	4.60	TLG	3685	SKD
8	20	1962	9:02:14.100	74.3000	51.5000	ANE	4.60	KOCH	3769	SKM
8	22	1962	9:00:04.200	74.0000	53.3000	ANE	4.40	TAYSH	2791	SKM
8	22	1962	9:00:04.200	74.0000	53.3000	ANE	4.40	TLG	3627	SKD
8	22	1962	9:00:04.200	74.0000	53.3000	ANE	4.40	RYB	3693	SK
8	22	1962	9:00:04.200	74.0000	53.3000	ANE	4.40	KOCH	3712	SKM
8	25	1962	9:00:00.000	73.0000	55.0000	ANE		TESS	2723	SKM
8	25	1962	9:00:00.000	73.0000	55.0000	ANE		FRU	3505	SK
8	27	1962	9:00:50.900	74.7000	50.3000	ANE	4.70	VIKH	2968	SKM
8	27	1962	9:00:50.900	74.7000	50.3000	ANE	4.70	TAYSH	2902	SKM
8	27	1962	9:00:50.900	74.7000	50.3000	ANE	4.70	TLG	3742	SKD
8	27	1962	9:00:50.900	74.7000	50.3000	ANE	4.70	AAA	3740	SK
8	27	1962	9:00:50.900	74.7000	50.3000	ANE	4.70	KOCH	3826	SKM
8	27	1962	9:00:50.900	74.7000	50.3000	ANE	4.70	RYB	3808	SK
8	27	1962	9:00:50.900	74.7000	50.3000	ANE	4.70	FRU	3742	SK
9	8	1962	10:17:57.700	73.7000	53.8000	ANE	4.40	TAYSH	2765	SKM
9	8	1962	10:17:57.700	73.7000	53.8000	ANE	4.40	TESS	2796	SKM
9	8	1962	10:17:57.700	73.7000	53.8000	ANE	4.40	SEM	2875	SKD
9	8	1962	10:17:57.700	73.7000	53.8000	ANE	4.40	TLG	3591	SKD
9	8	1962	10:17:57.700	73.7000	53.8000	ANE	4.40	RYB	3657	SK
9	15	1962	8:02:13.900	74.4000	51.5000	ANE	4.60	TAYSH	2858	SKM
9	15	1962	8:02:13.900	74.4000	51.5000	ANE	4.60	SEM	2980	SKD
9	15	1962	8:02:13.900	74.4000	51.5000	ANE	4.60	RYB	3760	SK
9	15	1962	8:02:13.900	74.4000	51.5000	ANE	4.60	AAA	3692	SK

9	15	1962	8:02:13.900	74.4000	51.5000	ANE	4.60	TLG	3694	SKD
9	15	1962	8:02:13.900	74.4000	51.5000	ANE	4.60	KOCH	3778	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	AGIN	2830	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	VIKH	2915	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	KEZ	2973	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	ABZ	2942	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	TESS	2882	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	ELKM	2977	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	TAYSH	2847	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	USTK	3003	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	SEM	2962	SKD
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	ILI	3604	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	KOCH	3758	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	ARLS	3778	SKM
9	16	1962	10:59:10.500	74.2000	51.6000	ANE	4.60	RYB	3740	SK
9	18	1962	8:29:02.700	73.2000	54.7000	ANE	4.30	TAYSH	2718	SKM
9	18	1962	8:29:02.700	73.2000	54.7000	ANE	4.30	TESS	2743	SKM
9	18	1962	8:29:02.700	73.2000	54.7000	ANE	4.30	BAYD	2749	SKM
9	18	1962	8:29:02.700	73.2000	54.7000	ANE	4.30	SEM	2815	SKD
9	18	1962	8:29:02.700	73.2000	54.7000	ANE	4.30	USTK	2857	SKM
9	18	1962	8:29:02.700	73.2000	54.7000	ANE	4.30	KAC	3324	SKM
9	18	1962	8:29:02.700	73.2000	54.7000	ANE	4.30	KOCH	3613	SKM
9	19	1962	11:00:56.400	73.8000	53.8000	ANE	4.90	TAYSH	2769	SKM
9	19	1962	11:00:56.400	73.8000	53.8000	ANE	4.90	TESS	2801	SKM
9	19	1962	11:00:56.400	73.8000	53.8000	ANE	4.90	VIKH	2838	SKM
9	19	1962	11:00:56.400	73.8000	53.8000	ANE	4.90	FRU	3602	SK
9	19	1962	11:00:56.400	73.8000	53.8000	ANE	4.90	AAA	3598	SK
9	19	1962	11:00:56.400	73.8000	53.8000	ANE	4.90	RYB	3666	SK
9	19	1962	11:00:56.400	73.8000	53.8000	ANE	4.90	TLG	3600	SK
9	19	1962	11:00:56.400	73.8000	53.8000	ANE	4.90	KOCH	3685	SKM
9	21	1962	8:00:00.000	73.0000	55.0000	ANE		SEM	2791	SKD
9	21	1962	8:00:00.000	73.0000	55.0000	ANE		TESS	2723	SKM
9	21	1962	8:00:00.000	73.0000	55.0000	ANE		TAYSH	2701	SKM
9	21	1962	8:00:00.000	73.0000	55.0000	ANE		KOCH	3589	SKM
9	21	1962	8:00:00.000	73.0000	55.0000	ANE		TLG	3505	SKD
9	25	1962	13:02:31.700	73.7000	55.0000	ANE		KEZ	2857	SKM
9	25	1962	13:02:31.700	73.7000	55.0000	ANE		TESS	2764	SKM
9	25	1962	13:02:31.700	73.7000	55.0000	ANE		VIKH	2799	SKM
9	25	1962	13:02:31.700	73.7000	55.0000	ANE		TLG	3571	SKD
9	25	1962	13:02:31.700	73.7000	55.0000	ANE		KOCH	3657	SKM
9	27	1962	8:03:16.400	74.3000	52.4000	ANE	5.10	TAYSH	2828	SKM

9	27	1962	8:03:16.400	74.3000	52.4000	ANE	5.10	KEZ	2961	SKM
9	27	1962	8:03:16.400	74.3000	52.4000	ANE	5.10	SEM	2954	SKD
9	27	1962	8:03:16.400	74.3000	52.4000	ANE	5.10	AAA	3668	SK
9	27	1962	8:03:16.400	74.3000	52.4000	ANE	5.10	KOCH	3755	SKM
9	27	1962	8:03:16.400	74.3000	52.4000	ANE	5.10	ARLS	3775	SK
9	27	1962	8:03:16.400	74.3000	52.4000	ANE	5.10	VIKH	2895	SKM
10	22	1962	9:06:10.100	73.4000	54.9000	ANE	4.90	KEZ	2838	SKM
10	22	1962	9:06:10.100	73.4000	54.9000	ANE	4.90	TESS	2749	SKM
10	22	1962	9:06:10.100	73.4000	54.9000	ANE	4.90	SEM	2828	SKD
10	22	1962	9:06:10.100	73.4000	54.9000	ANE	4.90	TAYSH	2720	SKM
10	22	1962	9:06:10.100	73.4000	54.9000	ANE	4.90	KOCH	3629	SKM
10	22	1962	9:06:10.100	73.4000	54.9000	ANE	4.90	AAA	3542	SK
10	22	1962	9:06:10.100	73.4000	54.9000	ANE	4.90	TLG	3544	MBAR
10	22	1962	9:06:10.100	73.4000	54.9000	ANE	4.90	FRU	3546	SK
12	24	1962	11:11:42.000	73.6000	57.5000	ANE		TAYSH	2654	SKM
12	24	1962	11:11:42.000	73.6000	57.5000	ANE		FRU	3530	SK
12	24	1962	11:11:42.000	73.6000	57.5000	ANE		TLG	3523	MBAR
12	24	1962	11:11:42.000	73.6000	57.5000	ANE		TLG	3523	SKM
12	24	1962	11:11:42.000	73.6000	57.5000	ANE		AAA	3521	SK
12	25	1962	13:35:57.200	73.4000	56.5000	ANE		ARTM	2691	SKM
12	25	1962	13:35:57.200	73.4000	56.5000	ANE		TESS	2706	SKM
12	25	1962	13:35:57.200	73.4000	56.5000	ANE		BAYD	2704	SKM
12	25	1962	13:35:57.200	73.4000	56.5000	ANE		ASKZ	2720	SKM
12	25	1962	13:35:57.200	73.4000	56.5000	ANE		VIKH	2743	SKM
12	25	1962	13:35:57.200	73.4000	56.5000	ANE		SEM	2796	SKD
12	25	1962	13:35:57.200	73.4000	56.5000	ANE		ABZ	2767	SKM
12	25	1962	13:35:57.200	73.4000	56.5000	ANE		ELKM	2804	SKM
12	25	1962	13:35:57.200	73.4000	56.5000	ANE		LNGR	2866	USF
12	25	1962	13:35:57.200	73.4000	56.5000	ANE		TLG	3518	MBAR
12	25	1962	13:35:57.200	73.4000	56.5000	ANE		ARLS	3628	SKM
9	18	1964	8:00:00.400	73.6670	54.5330	UNE-T	4.18	MAN	2850	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	TASH	2805	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	KEZ	2835	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	MAN	2821	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	CHER	2843	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	VUS	2939	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	SHEK	2985	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	KHAR	3006	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	CHAD	2994	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	KHND	3067	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	KAC	3336	SKM

10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	KRS	3540	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	BOM	3603	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	TLG	3541	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	KRM	3586	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	NRN	3720	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	HIHI	4005	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	KALH	3974	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	RUSH	4040	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	MURTJ	4027	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	HRG	4090	SKM
10	25	1964	7:59:58.100	73.3870	54.9850	UNE-T	5.10	ISHK	4174	SKM
10	27	1966	5:57:58.100	73.3870	54.8360	UNE-T	6.49	CHMK	3536	SKD
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	BRVK	2371	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	KAC	3339	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	CHL3	3533	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	ILI	3474	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	KRS	3543	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	CHMK	3536	SKD
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	TLG	3545	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	KRM	3590	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	BOM	3606	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	ARK	3624	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	UZA	3614	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	TERS	3649	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	RYB	3611	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	KAZ	3689	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	KZD	3684	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	KKUL	3648	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	RYA	3664	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	NRN	3723	SKM
10	21	1967	4:59:58.400	73.3900	54.8100	UNE-T	5.98	YARD	3642	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	BRVK	2370	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	ILI	3473	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	KRS	3542	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	CHL	3542	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	TLG	3544	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	AAA	3541	SKD
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	BOM	3605	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	AAA	3541	SKD
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	AAA	3541	SK
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	RYB	3610	SKM

11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	YARD	3641	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	UZA	3613	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	ARK	3623	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	KZU	3650	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	TERS	3648	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	KKUL	3647	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	KAR	3693	SKM
11	7	1968	10:02:05.400	73.3870	54.8580	UNE-T	6.13	RYA	3663	SKM
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	BORK	1851	RVZT
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	BALD	2290	RVZT
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	KUST	2341	RVZT
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	BRVK	2371	SKM
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	ARB	2356	RVZT
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	LITI	2971	RVZT
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	YAMP	3079	RVZT
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	MKOP	3202	RVZT
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	TLG	3545	SKM
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	CHMK	3537	SKD
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	RYB	3612	SKM
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	UZA	3615	SKM
10	14	1969	7:00:06.600	73.3900	54.7870	UNE-T	6.30	KKUL	3648	SKM
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	KAVO	1885	RVZT
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	SEM	2817	SK
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	PORG	2874	RVZT
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	NUKS	3511	RVZT
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	AAA	3531	SK
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	FAB	3531	SKM
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	TLG	3533	SKM
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	CHIN	3590	SKM
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	TGRM	3560	RVZT
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	ZER	3559	RVZT
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	KRM	3578	SKM
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	KKUL	3636	SKM
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	BOM	3594	SKM
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	CHMK	3525	SKD
10	14	1970	5:59:57.500	73.3040	55.0270	UNE-T	6.79	URG	3826	SKM
9	27	1971	5:59:55.700	73.3930	54.9200	UNE-T	6.67	BRVK	2369	SKM
9	27	1971	5:59:55.700	73.3930	54.9200	UNE-T	6.67	SEM	2827	SK
9	27	1971	5:59:55.700	73.3930	54.9200	UNE-T	6.67	KUU	3457	SKM
9	27	1971	5:59:55.700	73.3930	54.9200	UNE-T	6.67	FAB	3541	SKM
9	27	1971	5:59:55.700	73.3930	54.9200	UNE-T	6.67	TLG	3543	SKM

9	27	1971	5:59:55.700	73.3930	54.9200	UNE-T	6.67	KRM	3588	SKM
9	27	1971	5:59:55.700	73.3930	54.9200	UNE-T	6.67	BKOL	3657	RVZT
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	ABO	2317	RVZT
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	BRVK	2370	SKM
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	ZRN	2367	RVZT
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	MAKN	2429	RVZT
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	SEM	2828	SK
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	SKE	2965	RVZT
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	KUU	3458	SKM
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	TLG	3544	SKM
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	CHMK	3536	SKM
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	KRM	3589	SKM
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	BKOL	3658	RVZT
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	DYR	3852	RVZT
8	28	1972	5:59:56.800	73.3880	54.8470	UNE-T	6.49	SASK	4034	RVZT
9	12	1973	6:59:54.800	73.3140	55.0560	UNE-T	6.97	CHIS	2329	RVZT
9	12	1973	6:59:54.800	73.3140	55.0560	UNE-T	6.97	BRVK	2360	SKM
9	12	1973	6:59:54.800	73.3140	55.0560	UNE-T	6.97	KAC	3328	SKM
9	12	1973	6:59:54.800	73.3140	55.0560	UNE-T	6.97	KUU	3447	SK
9	12	1973	6:59:54.800	73.3140	55.0560	UNE-T	6.97	CHL3	3521	SK
9	12	1973	6:59:54.800	73.3140	55.0560	UNE-T	6.97	TLG	3533	SKM
9	12	1973	6:59:54.800	73.3140	55.0560	UNE-T	6.97	KRM	3578	SK
9	12	1973	6:59:54.800	73.3140	55.0560	UNE-T	6.97	TORK	3615	SKM
9	12	1973	6:59:54.800	73.3140	55.0560	UNE-T	6.97	KKUL	3637	SKM
9	12	1973	6:59:54.800	73.3140	55.0560	UNE-T	6.97	SASK	4027	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	GIR	1266	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	VERT	1358	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	CHK	2068	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	BRVK	2127	SKM
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	KOSH	2108	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	KKOR	2120	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	ZRN	2118	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	VOS	2176	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	MAKN	2187	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	ABAL	2267	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	SKE	2780	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	KAC	3122	SKM
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	CHMK	3276	SK
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	TLG	3317	SKM
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	AKJ	3398	SKM
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	KKUL	3398	SKM

9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	KZU	3405	SKM
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	BKOL	3443	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	TORK	3379	SKM
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	DYR	3556	RVZT
9	27	1973	7:00:01.100	70.7310	53.8360	UNE-S	5.89	SASK	4100	RVZT
10	27	1973	7:00:00.600	70.7800	54.0350	UNE-S	6.98	BRVK	2128	SKM
10	27	1973	7:00:00.600	70.7800	54.0350	UNE-S	6.98	KAC	3122	SKM
10	27	1973	7:00:00.600	70.7800	54.0350	UNE-S	6.98	KUU	3228	SKM
10	27	1973	7:00:00.600	70.7800	54.0350	UNE-S	6.98	CHMK	3278	SK
10	27	1973	7:00:00.600	70.7800	54.0350	UNE-S	6.98	CHL3	3311	SKM
10	27	1973	7:00:00.600	70.7800	54.0350	UNE-S	6.98	TSAL	3290	RVZT
10	27	1973	7:00:00.600	70.7800	54.0350	UNE-S	6.98	KRM	3367	SKM
10	27	1973	7:00:00.600	70.7800	54.0350	UNE-S	6.98	KKUL	3400	SKM
10	27	1973	7:00:00.600	70.7800	54.0350	UNE-S	6.98	SASK	4092	RVZT
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	CHK	2308	RVZT
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	BRVK	2370	SKM
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	ZRN	2367	RVZT
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	KAC	3338	SKM
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	DOMB	3415	RVZT
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	ILI	3474	SKM
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	KUU	3458	SKM
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	DZH	3495	SKD
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	FAB	3542	SKM
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	BKOL	3657	RVZT
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	AKJ	3648	SKM
8	29	1974	9:59:56.200	73.3970	54.9050	UNE-T	6.58	KKUL	3647	SKM
11	2	1974	5:00:00.000	70.8100	53.9100	UNE-S	6.81	CHK	2074	RVZT
11	2	1974	5:00:00.000	70.8100	53.9100	UNE-S	6.81	BRVK	2133	SKM
11	2	1974	5:00:00.000	70.8100	53.9100	UNE-S	6.81	KAC	3128	SKM
11	2	1974	5:00:00.000	70.8100	53.9100	UNE-S	6.81	ILI	3252	SKM
11	2	1974	5:00:00.000	70.8100	53.9100	UNE-S	6.81	DZH	3249	SKM
11	2	1974	5:00:00.000	70.8100	53.9100	UNE-S	6.81	TLG	3323	SKM
11	2	1974	5:00:00.000	70.8100	53.9100	UNE-S	6.81	CHL3	3316	SKM
11	2	1974	5:00:00.000	70.8100	53.9100	UNE-S	6.81	KKUL	3405	SKM
11	2	1974	5:00:00.000	70.8100	53.9100	UNE-S	6.81	AKJ	3404	SKM
11	2	1974	5:00:00.000	70.8100	53.9100	UNE-S	6.81	BKOL	3448	RVZT
8	23	1975	8:59:58.200	73.3340	54.6820	UNE-T	6.55	BRVK	2367	SKM
8	23	1975	8:59:58.200	73.3340	54.6820	UNE-T	6.55	TK	3370	SKM
8	23	1975	8:59:58.200	73.3340	54.6820	UNE-T	6.55	DZH	3492	SKM
8	23	1975	8:59:58.200	73.3340	54.6820	UNE-T	6.55	CHL3	3530	SKM
8	23	1975	8:59:58.200	73.3340	54.6820	UNE-T	6.55	CHPA	3614	SKM

8	23	1975	8:59:58.200	73.3340	54.6820	UNE-T	6.55	TORK	3622	SKM
8	23	1975	8:59:58.200	73.3340	54.6820	UNE-T	6.55	AKJ	3645	SKM
8	23	1975	8:59:58.200	73.3340	54.6820	UNE-T	6.55	KKUL	3644	SKM
8	23	1975	8:59:58.200	73.3340	54.6820	UNE-T	6.55	KAC	3337	SKM
8	23	1975	8:59:58.200	73.3340	54.6820	UNE-T	6.55	KUU	3455	SKM
10	18	1975	8:59:59.400	70.8160	53.7530	UNE-S	6.75	CHL3	3320	SKM
10	18	1975	8:59:59.400	70.8160	53.7530	UNE-S	6.75	FAB	3321	SKM
10	18	1975	8:59:59.400	70.8160	53.7530	UNE-S	6.75	CHMK	3286	SKM
10	18	1975	8:59:59.400	70.8160	53.7530	UNE-S	6.75	TLG	3326	SKM
10	18	1975	8:59:59.400	70.8160	53.7530	UNE-S	6.75	CHPA	3379	SKM
10	18	1975	8:59:59.400	70.8160	53.7530	UNE-S	6.75	KRM	3376	SKM
10	18	1975	8:59:59.400	70.8160	53.7530	UNE-S	6.75	AKJ	3407	SKM
10	18	1975	8:59:59.400	70.8160	53.7530	UNE-S	6.75	TORK	3389	SKM
10	18	1975	8:59:59.400	70.8160	53.7530	UNE-S	6.75	BEZ	3765	RVZT
10	18	1975	8:59:59.400	70.8160	53.7530	UNE-S	6.75	SGD	4411	RVZT
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	CHPA	3614	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	ILI	3471	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	FAB	3539	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	KKUL	3644	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	TORK	3622	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	OS	3639	RVZT
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	CHL3	3529	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	BURE	4256	RVZT
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	SGD	4324	RVZT
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	KRM	3586	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	BRVK	2367	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	CHL3	3529	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	FAB	3539	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	KRM	3586	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	TORK	3622	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	CHPA	3614	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	KKUL	3644	SKM
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	OS	3639	RVZT
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	BURE	4256	RVZT
9	29	1976	2:59:57.700	73.3600	54.8710	UNE-T	5.83	SGD	4324	RVZT
10	20	1976	7:59:58.100	73.3980	54.8120	UNE-T	4.80	BRVK	2371	SKM
10	20	1976	7:59:58.100	73.3980	54.8120	UNE-T	4.80	ZRN	2368	RVZT
10	20	1976	7:59:58.100	73.3980	54.8120	UNE-T	4.80	ZEL	2817	RVZT
10	20	1976	7:59:58.100	73.3980	54.8120	UNE-T	4.80	TLG	3545	SKM
10	20	1976	7:59:58.100	73.3980	54.8120	UNE-T	4.80	TORK	3626	SKM
10	20	1976	7:59:58.100	73.3980	54.8120	UNE-T	4.80	AKJ	3649	SKM

10	20	1976	7:59:58.100	73.3980	54.8120	UNE-T	4.80	OS	3644	RVZT
10	20	1976	7:59:58.100	73.3980	54.8120	UNE-T	4.80	KKUL	3648	SKM
10	20	1976	7:59:58.100	73.3980	54.8120	UNE-T	4.80	KRSU	3663	SKM
9	1	1977	2:59:57.900	73.3390	54.6190	UNE-T	5.70	SVOB	1702	RVZT
9	1	1977	2:59:57.900	73.3390	54.6190	UNE-T	5.70	CHK	2306	RVZT
9	1	1977	2:59:57.900	73.3390	54.6190	UNE-T	5.70	BRVK	2368	SKM
9	1	1977	2:59:57.900	73.3390	54.6190	UNE-T	5.70	VOS	2415	RVZT
9	1	1977	2:59:57.900	73.3390	54.6190	UNE-T	5.70	KAC	3338	SKM
9	1	1977	2:59:57.900	73.3390	54.6190	UNE-T	5.70	ILI	3473	SKM
9	1	1977	2:59:57.900	73.3390	54.6190	UNE-T	5.70	CHL3	3531	SKM
9	1	1977	2:59:57.900	73.3390	54.6190	UNE-T	5.70	TORK	3623	SKM
9	1	1977	2:59:57.900	73.3390	54.6190	UNE-T	5.70	KKUL	3645	SKM
9	1	1977	2:59:57.900	73.3390	54.6190	UNE-T	5.70	AKJ	3646	SKM
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	SVOB	1715	RVZT
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	CHK	2308	RVZT
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	ZRN	2368	RVZT
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	BRV	2371	RVZT
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	BRVK	2371	SKM
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	VOS	2417	RVZT
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	KAC	3339	SKM
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	TRG	3544	SKM
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	TLG	3544	SKM
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	KRM	3589	SKM
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	AKJ	3649	SKM
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	TORK	3626	SKM
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	KKUL	3648	SKM
10	9	1977	10:59:58.100	73.4090	54.9270	UNE-T	4.60	OS	3643	CSE
8	10	1978	7:59:57.900	73.2910	54.8830	UNE-T	6.04	BRVK	2360	SKM
8	10	1978	7:59:57.900	73.2910	54.8830	UNE-T	6.04	TK	3363	SKD
8	10	1978	7:59:57.900	73.2910	54.8830	UNE-T	6.04	CHL	3533	SKM
8	10	1978	7:59:57.900	73.2910	54.8830	UNE-T	6.04	FAB	3532	SKM
8	10	1978	7:59:57.900	73.2910	54.8830	UNE-T	6.04	KRM	3579	SKM
8	10	1978	7:59:57.900	73.2910	54.8830	UNE-T	6.04	DZH	3485	SKM
9	27	1978	2:04:58.600	73.3490	54.6760	UNE-T	5.63	KAC	3338	SKM
9	27	1978	2:04:58.600	73.3490	54.6760	UNE-T	5.63	TK	3372	SKM
9	27	1978	2:04:58.600	73.3490	54.6760	UNE-T	5.63	TK	3372	SKD
9	27	1978	2:04:58.600	73.3490	54.6760	UNE-T	5.63	DZH	3493	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	BRVK	2368	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	CHK	2306	RVZT
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	VOS	2414	RVZT
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	PYKH	2556	RVZT

9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	KAC	3338	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	TK	3371	SKD
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	KUU	3457	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	DZH	3493	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	ILI	3472	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	MNAS	3552	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	TLG	3542	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	EKS	3551	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	URVKG	3567	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	BGK	3560	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	CHL	3541	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	ARK	3621	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	TORK	3623	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	AKJ	3646	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	KKUL	3645	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	KRSU	3660	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	KZD	3681	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	ARSB	3687	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	OHH	3771	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	CHVKG	3805	SKM
9	24	1979	3:29:58.700	73.3430	54.6720	UNE-T	5.77	SUFI	3837	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	BRVK	2363	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	NTR	2547	RVZT
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	PYKH	2550	RVZT
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	PELD	2815	RVZT
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	KAC	3332	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	TK	3366	SKD
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	TK	3366	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	KUU	3452	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	DZH	3488	SKD
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	CHMS	3525	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	EKS	3546	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	BGK	3556	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	MNAS	3548	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	CHMK	3529	SKD
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	TLG	3538	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	FAB	3535	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	TRG	3537	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	ANVS	3594	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	BOM	3599	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	KRM	3583	SKM

10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	ARLS	3644	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	ARK	3616	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	AKJ	3641	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	KDSKG	3658	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	ARSB	3682	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	KRSU	3655	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	KZD	3676	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	OHH	3767	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	CHVKG	3801	SKM
10	18	1979	7:09:58.700	73.3160	54.8160	UNE-T	5.85	SUFI	3833	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	BRVK	2363	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	VOS	2410	RVZT
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	KARSU	2886	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	KAC	3332	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	TK	3366	SKD
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	DZH	3489	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	CHMS	3525	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	KUU	3451	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	ILI	3467	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	MNAS	3548	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	BGK	3556	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	FAB	3535	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	TRG	3537	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	EKS	3546	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	KZYU	3507	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	MDO	3541	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	TLG	3537	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	BOM	3599	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	KRM	3582	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	OTK	3619	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	CHPA	3611	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	KRSU	3656	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	AKJ	3641	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	ARLS	3644	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	ARK	3616	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	KDSKG	3658	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	KKUL	3640	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	KZD	3677	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	ARSB	3682	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	SALK	3743	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	OHH	3767	SKM

10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	BTK	3794	SKM
10	11	1980	7:09:57.400	73.3360	54.9400	UNE-T	5.76	SUFI	3833	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	ZRN	2359	RVZT
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	POD	2801	RVZT
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	ZEL	2810	RVZT
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	KAC	3331	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	DZH	3487	SKD
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	KUU	3450	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	CHMS	3524	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	EKS	3545	SKD
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	BGK	3554	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	CHMK	3527	SK
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	MNAS	3547	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	URVKG	3561	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	BLCH	3588	RVZT
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	ARK	3615	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	TRKS	3642	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	ARSB	3681	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	AKJ	3640	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	SALK	3742	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	OHH	3766	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	CHVKG	3800	SKM
10	1	1981	12:14:57.200	73.3040	54.8180	UNE-T	5.97	SUFI	3831	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	SEVR	2031	RVZT
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	ZRN	2365	RVZT
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	ZEL	2808	RVZT
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	POD	2799	RVZT
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	KB	2849	RVZT
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	UCH	3335	RVZT
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	ILI	3473	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	KZAD	3522	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	EKS	3551	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	MNAS	3553	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	DZH	3493	SKD
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	CHMS	3530	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	TLG	3543	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	BOM	3604	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	FAB	3541	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	ANVS	3600	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	MDO	3547	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	URVKG	3568	SKM

10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	BGK	3561	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	KRM	3588	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	TKLKG	3620	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	TSN	3560	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	KDSKG	3664	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	TRG	3543	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	ARLS	3649	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	ARK	3621	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	DJRKG	3643	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	SARKG	3666	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	TRKS	3648	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	ARSB	3687	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	KNSKG	3678	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	KRSKG	3735	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	OHH	3772	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	BTK	3798	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	CHVKG	3806	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	SUFI	3838	SKM
10	11	1982	7:14:58.600	73.3390	54.6080	UNE-T	5.58	TRG	3543	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	ZRN	2362	RVZT
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	POD	2808	RVZT
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	KB	2858	RVZT
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	TK	3367	SKD
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	KST	3539	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	TSN	3555	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	KUU	3453	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	DZH	3490	SKD
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	CHMS	3526	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	BGK	3557	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	MNAS	3550	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	MDO	3543	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	MDO	3543	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	MDO	3543	SKD
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	ILI	3468	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	ANVS	3595	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	URVKG	3564	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	TLG	3538	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	CHL	3537	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	TKLKG	3616	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	TRG	3538	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	CHMK	3531	SK

8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	TRKS	3645	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	BOM	3600	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	KRM	3583	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	ARK	3618	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	KKUL	3642	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	KZD	3678	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	ARLS	3645	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	SARKG	3662	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	DJRKG	3637	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	KDSKG	3659	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	ARSB	3684	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	KNSKG	3672	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	KRSKG	3731	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	SALK	3744	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	BTK	3795	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	CHVKG	3803	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	SUFI	3834	SKM
8	18	1983	16:09:58.900	73.3540	54.9740	UNE-T	5.91	TRG	3538	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	SEVR	2030	RVZT
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	ZRN	2365	RVZT
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	TDO	2669	RVZT
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	ZEL	2806	RVZT
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	POD	2797	RVZT
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	KB	2847	RVZT
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	KAC	3339	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	TK	3372	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	KUU	3457	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	CHMS	3530	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	MNAS	3553	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	ILI	3473	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	URVKG	3568	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	ANVS	3600	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	BGK	3561	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	TRG	3543	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	TLG	3543	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	MDO	3547	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	CHL	3542	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	CHMK	3533	SK
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	ARK	3621	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	TSN	3560	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	KST	3544	SKM

9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	KRM	3589	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	BOM	3604	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	TKLKG	3619	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	ARLS	3649	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	KNSKG	3678	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	KKUL	3645	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	DJRKG	3643	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	TRKS	3648	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	ARSB	3687	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	KDSKG	3664	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	KZD	3681	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	SARKG	3667	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	SALK	3748	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	KRSKG	3736	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	CHVKG	3806	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	OHH	3772	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	BTK	3798	SKM
9	25	1983	13:09:58.200	73.3280	54.5410	UNE-T	5.77	SUFI	3838	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	ZRN	2362	RVZT
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	KAC	3333	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	KUU	3452	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	ILI	3468	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	KZAD	3519	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	CHMS	3526	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	URVKG	3564	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	TLG	3538	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	BGK	3557	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	TRG	3538	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	KST	3539	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	KRM	3583	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	BOM	3600	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	DJRKG	3637	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	OTK	3620	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	TKLKG	3616	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	KKUL	3642	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	TRKS	3645	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	KNSKG	3672	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	KZD	3678	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	ARLS	3645	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	KDSKG	3659	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	SARKG	3661	SKM

10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	ARSB	3683	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	ARK	3618	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	SALK	3744	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	OHH	3768	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	BTK	3795	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	CHVKG	3803	SKM
10	25	1984	6:29:58.100	73.3550	54.9900	UNE-T	5.80	SUFI	3834	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	KAC	3337	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	KST	3542	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	TLG	3542	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	TRG	3542	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	CHMK	3532	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	MDO	3546	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	KUU	3456	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	KAC	3337	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	KST	3542	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	TLG	3542	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	TRG	3542	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	CHMK	3532	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	MDO	3546	SKM
8	2	1987	2:00:00.200	73.3260	54.6020	UNE-T	5.90	KUU	3456	SKM
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	ZHD	2023	RVZT
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	ZRN	2363	RVZT
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	TDO	2668	RVZT
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	SEM	2827	SKM
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	TK	3371	SKM
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	TK	3371	SKM
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	CHMK	3532	SKM
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	KUU	3456	SKM
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	DZH	3491	SKD
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	MTB	3540	SKM
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	TLG	3542	SKM
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	TRG	3541	SKM
5	7	1988	22:49:58.300	73.3140	54.5530	UNE-T	5.58	AAA	3540	SKM
12	4	1988	5:19:53.300	73.3660	55.0010	UNE-T	5.89	ZHD	2037	RVZT
12	4	1988	5:19:53.300	73.3660	55.0010	UNE-T	5.89	ZRN	2363	RVZT
12	4	1988	5:19:53.300	73.3660	55.0010	UNE-T	5.89	BAY	2689	RVZT
12	4	1988	5:19:53.300	73.3660	55.0010	UNE-T	5.89	KKL	2846	RVZT
12	4	1988	5:19:53.300	73.3660	55.0010	UNE-T	5.89	KARSU	2887	RVZT
12	4	1988	5:19:53.300	73.3660	55.0010	UNE-T	5.89	KUU	3453	SKM
12	4	1988	5:19:53.300	73.3660	55.0010	UNE-T	5.89	CHMK	3532	SK

12	4	1988	5:19:53.300	73.3660	55.0010	UNE-T	5.89	TLG	3539	SKM
12	4	1988	5:19:53.300	73.3660	55.0010	UNE-T	5.89	TRG	3539	SKM
12	4	1988	5:19:53.300	73.3660	55.0010	UNE-T	5.89	MDO	3543	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	ZRN	2362	RVZT
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	ZSN	3226	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	KPA	3356	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	TK	3369	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	CHUK	3469	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	KUU	3454	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	DZHR	3467	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	KRT	3492	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	MTB	3538	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	KURM	3529	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	TRG	3539	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	BRTG	3548	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	KST	3540	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	TSN	3556	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	MDO	3544	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	TLG	3540	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	PDG	3570	SKM
10	24	1990	14:57:58.400	73.3310	54.7570	UNE-T	5.70	SATY	3580	SKM

Appendix F. Digitized seismograms of peaceful nuclear explosions conducted on territory of the USSR.

Mo.	D.	Yr.	Origin time	Lat. °N	Long. °E	mb	Station	Dist.	Inst. type
3	30	1965	8:00:00.000	52.9000	56.5000		TASH	2225	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	BRVK	1676	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	TERS	1958	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	ARK	1999	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	RYA	2040	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	KZU	2102	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	UZA	2033	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	KAZ	2165	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	CHAT	2263	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	ILI	2281	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	TLG	2321	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	KAC	2350	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	CHL	2401	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	KRM	2410	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	NRK	2557	SKM
4	22	1966	2:58:00.300	47.8280	47.9350	4.70	KEZ	2808	SKM
9	30	1966	5:59:51.000	38.9680	64.5170	5.10	NRN	1008	SKM
9	30	1966	5:59:51.000	38.9680	64.5170	5.10	RYB	1055	SKM
9	30	1966	5:59:51.000	38.9680	64.5170	5.10	TLG	1163	SKM
9	30	1966	5:59:51.000	38.9680	64.5170	5.10	KRM	1236	SKM
10	6	1967	6:59:57.500	57.7000	65.2000	4.70	BRVK	607	SKM
10	6	1967	6:59:57.500	57.7000	65.2000	4.70	KAC	1652	SKM
10	6	1967	6:59:57.500	57.7000	65.2000	4.70	TLG	1812	SKM
10	6	1967	6:59:57.500	57.7000	65.2000	4.70	RYB	1859	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	TRKS	593	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	YARD	584	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	KZD	646	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	ARK	668	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	RYA	678	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	KKUL	716	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	KKUL1	707	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	UZA	718	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	KZU	765	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	KAZ	809	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	NRN	968	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	BOM	1000	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	KRS	1063	SKM

5	21	1968	3:59:12.000	38.9180	65.0320	5.40	RYB	1018	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	RYB	1018	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	TLG	1127	SK
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	TLG	1127	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	KRM	1198	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	CHL	1225	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	KAC	1334	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	BRVK	1621	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	UKM	1822	SKM
5	21	1968	3:59:12.000	38.9180	65.0320	5.40	TLG	1127	SK
7	1	1968	4:02:00.500	47.9090	47.9120	5.50	BRVK	1674	SKM
7	1	1968	4:02:00.500	47.9090	47.9120	5.50	KRS	2168	SKM
7	1	1968	4:02:00.500	47.9090	47.9120	5.50	ILI	2283	SKM
7	1	1968	4:02:00.500	47.9090	47.9120	5.50	TLG	2323	SKM
7	1	1968	4:02:00.500	47.9090	47.9120	5.50	KAC	2351	SKM
7	1	1968	4:02:00.500	47.9090	47.9120	5.50	RYB	2280	SKM
7	1	1968	4:02:00.500	47.9090	47.9120	5.50	CHL	2403	SKM
7	1	1968	4:02:00.500	47.9090	47.9120	5.50	BOM	2262	SKM
7	1	1968	4:02:00.500	47.9090	47.9120	5.50	KRM	2412	SKM
7	1	1968	4:02:00.500	47.9090	47.9120	5.50	UKM	2499	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	RAIS	900	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	VOL	918	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	IMAN	945	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	KKOR	988	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	VLAD	1007	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	BORK	1023	RVZT
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	BRVK	1050	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	BOGY	1825	RVZT
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	VYP	1931	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	BALD	1868	RVZT
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	SOSN	1960	RVZT
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	LITI	1996	RVZT
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	DEM	2096	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	UZA	2085	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	KKUL	2119	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	RYA	2122	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	KKUL1	2120	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	KZU	2140	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	TLG	2177	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	RYB	2197	SKM
9	2	1969	4:59:58.600	57.2200	55.3930	4.80	MKOP	2368	RVZT

9	2	1969	4:59:58.600	57.2200	55.3930	4.80	CHRN	3164	RVZT
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	KUST	689	RVZT
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	RAIS	899	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	VOL	917	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	KKOR	987	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	VLAD	1006	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	BORK	1025	RVZT
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	BOGY	1827	RVZT
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	BALD	1869	RVZT
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	VYP	1932	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	LITI	1998	RVZT
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	SOSN	1961	RVZT
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	DEM	2098	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	UZA	2084	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	RYA	2121	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	KKUL	2118	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	KKUL1	2119	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	KZU	2139	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	TLG	2176	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	RYB	2196	SKM
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	BOGRY	2274	RVZT
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	MKOP	2369	RVZT
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	CHRN	3163	RVZT
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	CLNS	4015	CSE
9	8	1969	4:59:58.700	57.2200	55.4170	4.80	ILT	5417	CSE
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	GRM	1398	SK
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	BRVK	1525	SKM
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	TLG	1802	SKM
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	AAA	1777	SK
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	BOGY	1922	RVZT
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	BORK	1945	RVZT
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	RUS	2089	RVZT
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	VYP	2115	SKM
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	PONI	2167	RVZT
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	DEM	2194	SKM
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	SOSN	2206	RVZT
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	LAST	2217	RVZT
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	BALD	2556	RVZT
12	6	1969	7:02:59.900	43.8670	54.8000	5.80	LITI	2112	RVZT
6	25	1970	4:59:55.500	52.2000	55.7000	4.90	KAVO	604	RVZT
6	25	1970	4:59:55.500	52.2000	55.7000	4.90	ZER	1346	RVZT

6	25	1970	4:59:55.500	52.2000	55.7000	4.90	URG	1677	SKM
6	25	1970	4:59:55.500	52.2000	55.7000	4.90	SEM	1709	SKM
6	25	1970	4:59:55.500	52.2000	55.7000	4.90	TLG	1881	SKM
6	25	1970	4:59:55.500	52.2000	55.7000	4.90	SUFI	1917	SKM
6	25	1970	4:59:55.500	52.2000	55.7000	4.90	TGRM	2029	RVZT
6	25	1970	4:59:55.500	52.2000	55.7000	4.90	BKOL	2098	RVZT
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	URG	1146	SKM
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	KAVO	1482	RVZT
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	NVP	1446	RVZT
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	BRVK	1527	SKM
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	SUFI	1600	SKM
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	AAA	1778	SK
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	TLG	1802	SKM
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	TGRM	1998	RVZT
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	BKOL	2035	RVZT
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	SOSN	2207	RVZT
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	SEM	2045	SK
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	TAZH	3121	SKM
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	PORG	3372	RVZT
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	MASL	3523	RVZT
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	ZM	3622	RVZT
12	12	1970	7:00:59.800	43.8500	54.8000	6.00	MUKH	6691	RVZT
12	23	1970	7:00:59.800	44.0250	54.9330	6.00	BRVK	1505	SKM
12	23	1970	7:00:59.800	44.0250	54.9330	6.00	AAA	1765	SK
12	23	1970	7:00:59.800	44.0250	54.9330	6.00	TGRM	1985	RVZT
12	23	1970	7:00:59.800	44.0250	54.9330	6.00	SOSN	2206	RVZT
12	23	1970	7:00:59.800	44.0250	54.9330	6.00	SEM	2026	SK
12	23	1970	7:00:59.800	44.0250	54.9330	6.00	PORG	3352	RVZT
12	23	1970	7:00:59.800	44.0250	54.9330	6.00	ZM	3603	RVZT
12	23	1970	7:00:59.800	44.0250	54.9330	6.00	MUKH	6668	RVZT
12	23	1970	7:00:59.800	44.0250	54.9330	6.00	SNE	6729	RVZT
7	2	1971	17:00:01.100	67.2830	63.4670	4.70	VISK	1276	RVZT
7	2	1971	17:00:01.100	67.2830	63.4670	4.70	DOLG	1331	RVZT
7	2	1971	17:00:01.100	67.2830	63.4670	4.70	LENG	1590	RVZT
7	2	1971	17:00:01.100	67.2830	63.4670	4.70	BRVK	1623	SKM
7	2	1971	17:00:01.100	67.2830	63.4670	4.70	SEM	2094	SKM
7	2	1971	17:00:01.100	67.2830	63.4670	4.70	YAKT	2238	RVZT
7	2	1971	17:00:01.100	67.2830	63.4670	4.70	TLG	2795	SKM
7	2	1971	17:00:01.100	67.2830	63.4670	4.70	ZER	2857	RVZT
7	2	1971	17:00:01.100	67.2830	63.4670	4.70	SUFI	3092	SKM
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	KKOR	1476	RVZT

7	10	1971	17:00:01.400	64.1670	55.2660	5.20	EPN	1667	RVZT
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	YAKT	1794	RVZT
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	VINA	2216	RVZT
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	SEM	2116	SKM
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	BERZ	2391	RVZT
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	MARN	2468	RVZT
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	KAC	2541	SKM
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	ZER	2576	RVZT
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	TLG	2706	SKM
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	CHL3	2714	SKM
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	KKUL	2738	SKM
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	KRM	2766	SKM
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	TGRM	2774	RVZT
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	BKOL	2859	RVZT
7	10	1971	17:00:01.400	64.1670	55.2660	5.20	SUFI	2934	SKM
9	19	1971	11:00:01.100	57.5080	42.6430	4.50	LUNK	799	RVZT
9	19	1971	11:00:01.100	57.5080	42.6430	4.50	SIMP	952	RVZT
9	19	1971	11:00:01.100	57.5080	42.6430	4.50	KKOR	1736	RVZT
9	19	1971	11:00:01.100	57.5080	42.6430	4.50	LENG	1858	RVZT
9	19	1971	11:00:01.100	57.5080	42.6430	4.50	SEM	2545	SKM
9	19	1971	11:00:01.100	57.5080	42.6430	4.50	KKUL	2750	SKM
9	19	1971	11:00:01.100	57.5080	42.6430	4.50	TLG	2871	SKM
10	4	1971	10:00:00.100	61.3580	48.0920	4.60	DOLG	1019	RVZT
10	4	1971	10:00:00.100	61.3580	48.0920	4.60	SIMP	1263	RVZT
10	4	1971	10:00:00.100	61.3580	48.0920	4.60	KKOR	1561	RVZT
10	4	1971	10:00:00.100	61.3580	48.0920	4.60	LENG	1639	RVZT
10	4	1971	10:00:00.100	61.3580	48.0920	4.60	VOLV	1876	RVZT
10	4	1971	10:00:00.100	61.3580	48.0920	4.60	SEM	2310	SKM
10	4	1971	10:00:00.100	61.3580	48.0920	4.60	KKUL	2736	SKM
10	4	1971	10:00:00.100	61.3580	48.0920	4.60	TLG	2779	SKM
10	22	1971	5:00:01.000	51.6000	54.4500	5.20	KKOR	1000	RVZT
10	22	1971	5:00:01.000	51.6000	54.4500	5.20	SIMP	1902	RVZT
10	22	1971	5:00:01.000	51.6000	54.4500	5.20	TLG	1937	SKM
10	22	1971	5:00:01.000	51.6000	54.4500	5.20	SEM	1800	SKM
10	22	1971	5:00:01.000	51.6000	54.4500	5.20	BKOL	2157	RVZT
12	22	1971	6:59:59.000	47.8970	48.1330	6.00	CHMK	1786	SK
12	22	1971	6:59:59.000	47.8970	48.1330	6.00	CHL3	2380	SKM
12	22	1971	6:59:59.000	47.8970	48.1330	6.00	ILI	2266	SKM
12	22	1971	6:59:59.000	47.8970	48.1330	6.00	SEM	2332	SK
12	22	1971	6:59:59.000	47.8970	48.1330	6.00	KAC	2335	SKM
3	23	1971	6:59:58.400	61.4000	56.2000	5.50	BRVK	1250	SKM

3	23	1971	6:59:58.400	61.4000	56.2000	5.50	SEM	1914	SKM
3	23	1971	6:59:58.400	61.4000	56.2000	5.50	TAZH	2264	SKM
3	23	1971	6:59:58.400	61.4000	56.2000	5.50	ZER	2269	RVZT
3	23	1971	6:59:58.400	61.4000	56.2000	5.50	FAB	2429	SKM
3	23	1971	6:59:58.400	61.4000	56.2000	5.50	TLG	2448	SK
3	23	1971	6:59:58.400	61.4000	56.2000	5.50	CHL3	2463	SKM
3	23	1971	6:59:58.400	61.4000	56.2000	5.50	TGRM	2529	RVZT
3	23	1971	6:59:58.400	61.4000	56.2000	5.50	URG	2560	SKM
4	11	1972	6:00:01.900	37.3500	62.0500	4.90	ARLS	1162	SKM
4	11	1972	6:00:01.900	37.3500	62.0500	4.90	OTK	1330	SKM
4	11	1972	6:00:01.900	37.3500	62.0500	4.90	CHMS	1246	SKM
4	11	1972	6:00:01.900	37.3500	62.0500	4.90	MIKG	1308	SKM
4	11	1972	6:00:01.900	37.3500	62.0500	4.90	BOM	1312	SKM
4	11	1972	6:00:01.900	37.3500	62.0500	4.90	TLG	1440	SKM
4	11	1972	6:00:01.900	37.3500	62.0500	4.90	KRM	1510	SKM
4	11	1972	6:00:01.900	37.3500	62.0500	4.90	CHL3	1538	SKM
4	11	1972	6:00:01.900	37.3500	62.0500	4.90	KAC	1646	SKM
4	11	1972	6:00:01.900	37.3500	62.0500	4.90	BRVK	1858	SKM
7	9	1972	7:00:01.300	49.8000	35.4000	4.80	BRVK	2419	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	VERT	1332	RVZT
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	KKOR	1501	RVZT
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	MAKN	1604	RVZT
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	ABO	1636	RVZT
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	EKS	2102	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	EKS	2102	SKD
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	ARSB	2124	SKD
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	CHMS	2154	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	BGK	2136	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	URVKG	2191	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	SERKG	2172	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	TASKG	2170	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	ARLS	2187	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	MIKG	2229	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	ILI	2273	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	SEM	2283	SK
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	TLG	2318	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	ANVS	2373	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	KRSKG	2457	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	KRM	2406	SKM
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	BKOL	2548	RVZT
8	20	1972	3:00:00.000	49.4000	48.1410	5.70	ABAL	3020	RVZT

8	20	1972	3:00:00.000	49.4000	48.1410	5.70	SASK	5293	RVZT
9	4	1972	7:00:00.000	67.7500	33.1000	4.60	GIR	587	RVZT
9	4	1972	7:00:00.000	67.7500	33.1000	4.60	VERT	1677	RVZT
9	4	1972	7:00:00.000	67.7500	33.1000	4.60	ABO	2521	RVZT
9	4	1972	7:00:00.000	67.7500	33.1000	4.60	KKOR	2511	RVZT
9	4	1972	7:00:00.000	67.7500	33.1000	4.60	ZRN	2510	RVZT
9	4	1972	7:00:00.000	67.7500	33.1000	4.60	BRVK	2547	SKM
9	4	1972	7:00:00.000	67.7500	33.1000	4.60	DJU	2571	RVZT
9	4	1972	7:00:00.000	67.7500	33.1000	4.60	MAKN	2605	RVZT
9	4	1972	7:00:00.000	67.7500	33.1000	4.60	DYR	3292	RVZT
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	VERT	928	RVZT
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	ZRN	1149	RVZT
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	DJU	1253	RVZT
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	MAKN	1257	RVZT
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	ABO	1272	RVZT
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	BAKR	1322	CSE
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	DYR	1532	RVZT
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	GIR	1583	RVZT
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	EKS	1930	SKM
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	ARSB	1982	SKM
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	KUU	2009	SKM
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	ARLS	2024	SKM
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	ILI	2057	SKM
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	TLG	2110	SKM
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	SKE	2145	RVZT
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	ANVS	2169	SKM
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	BKOL	2330	RVZT
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	ABAL	2624	RVZT
9	21	1972	9:00:00.300	52.1180	52.0680	5.00	SASK	4898	RVZT
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	DYR	878	RVZT
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	VERT	1698	RVZT
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	KKOR	1840	RVZT
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	ZRN	1843	RVZT
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	VED	1865	RVZT
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	BRVK	1926	SKM
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	ABO	1980	RVZT
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	CHMK	2006	SK
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	KRM	2637	SKM
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	BKOL	2781	RVZT
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	SKE	2775	RVZT
10	3	1972	9:00:00.200	46.8530	44.9380	5.60	ABAL	3381	RVZT

11	24	1972	9:00:00.000	51.9900	51.8670	4.50	ANVS	2177	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	VERT	808	RVZT
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	SEM	1128	SK
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	EKS	1247	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	EKS	1247	SKD
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	ARK	1260	SKD
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	ARK	1260	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	CHMS	1260	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	SERKG	1286	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	ARK	1260	SKD
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	ARK	1260	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	YRVKG	1302	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	ILI	1301	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	TASKG	1289	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	SKE	1315	RVZT
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	ARLS	1348	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	ARSB	1345	SKD
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	KRM	1440	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	ANVS	1424	SKD
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	KDSKG	1456	SKM
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	BKOL	1563	RVZT
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	ABAL	1929	RVZT
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	DYR	2004	RVZT
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	GIR	2155	RVZT
11	24	1972	10:00:00.200	51.8420	64.2100	5.20	SASK	4178	RVZT
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	ARLS	577	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	CHMS	598	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	CHMS	598	SKD
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	TASKG	599	SKD
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	MIKG	676	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	MIKG	676	SKD
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	KUU	732	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	ILI	787	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	TLG	799	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	FAB	735	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	KRM	884	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	CHL3	892	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	KAC	947	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	BKOL	1026	RVZT
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	MAKN	1113	RVZT
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	VOS	1137	RVZT

8	15	1973	2:00:00.000	42.7750	67.4080	5.30	KKOR	1133	RVZT
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	BRVK	1162	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	CHK	1234	RVZT
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	SEM	1293	SKM
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	VERT	1843	RVZT
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	DYR	1843	RVZT
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	ABAL	2445	RVZT
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	GIR	3091	RVZT
8	15	1973	2:00:00.000	42.7750	67.4080	5.30	SASK	4469	RVZT
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	SEM	843	SK
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	MNAS	948	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	KUU	952	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	KZAD	909	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	CHMS	969	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	KAC	961	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	SERKG	995	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	URVKG	1010	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	FAB	1026	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	VERT	1042	RVZT
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	MIKG	1021	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	BOM	1066	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	TLG	1053	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	ARSB	1084	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	CHL3	1086	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	KDSKG	1153	SKM
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	BKOL	1247	RVZT
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	ABAL	1778	RVZT
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	DYR	2165	RVZT
8	28	1973	3:00:00.000	50.5270	68.3230	5.20	SASK	3981	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	MNAS	521	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	MNAS	521	SKD
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	EKS	586	SKD
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	BGK	617	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	ARSB	644	SKD
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	ARSB	644	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	URVKG	668	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	KUU	702	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	FAB	742	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	CHMS	630	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	BOM	742	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	ILI	755	SKM

9	19	1973	3:00:00.200	45.7580	67.8250	5.10	TLG	795	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	SUFI	788	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	MAKN	782	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	ZRN	802	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	KKOR	800	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	VOS	807	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	KOSH	813	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	BRVK	830	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	ARLS	678	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	KDSKG	850	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	KDSKG	850	SKD
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	KAC	848	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	KDSKG	850	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	KDSKG	850	SKD
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	CHL3	869	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	KRM	884	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	CHK	902	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	ANVS	849	SKM
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	BKOL	1028	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	SKE	1181	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	VERT	1529	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	DYR	1936	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	BAKR	1993	CSE
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	ABAL	2168	RVZT
9	19	1973	3:00:00.200	45.7580	67.8250	5.10	SASK	4263	RVZT
9	30	1973	5:00:00.400	51.6500	54.5500	5.20	EKS	1754	SKM
9	30	1973	5:00:00.400	51.6500	54.5500	5.20	BGK	1784	SKM
9	30	1973	5:00:00.400	51.6500	54.5500	5.20	ARSB	1809	SKM
9	30	1973	5:00:00.400	51.6500	54.5500	5.20	SERKG	1813	SKM
9	30	1973	5:00:00.400	51.6500	54.5500	5.20	SUFI	1945	SKM
10	26	1973	5:59:59.500	53.6500	55.4000	4.80	ARK	1799	SKM
10	26	1973	5:59:59.500	53.6500	55.4000	4.80	EKS	1819	SKM
10	26	1973	5:59:59.500	53.6500	55.4000	4.80	ARSB	1892	SKM
10	26	1973	5:59:59.500	53.6500	55.4000	4.80	ARLS	1917	SKM
10	26	1973	5:59:59.500	53.6500	55.4000	4.80	SUFI	2035	SKM
10	26	1973	5:59:59.500	53.6500	55.4000	4.80	ANVS	2029	SKM
10	26	1973	5:59:59.500	53.6500	55.4000	4.80	KDSKG	2053	SKM
7	8	1974	6:00:00.000	53.7000	55.1000	4.60	KOSH	927	RVZT
7	8	1974	6:00:00.000	53.7000	55.1000	4.60	KKOR	927	CSE
7	8	1974	6:00:00.000	53.7000	55.1000	4.60	BRV	1007	CSE
7	8	1974	6:00:00.000	53.7000	55.1000	4.60	MAKN	1040	RVZT

7	8	1974	6:00:00.000	53.7000	55.1000	4.60	DOMB	1519	RVZT
7	8	1974	6:00:00.000	53.7000	55.1000	4.60	BAKR	1582	CSE
7	8	1974	6:00:00.000	53.7000	55.1000	4.60	GIR	1578	RVZT
8	14	1974	15:00:00.200	68.9030	75.8230	5.40	KAC	2620	SKM
8	29	1974	15:00:00.400	67.0850	62.6250	5.00	KAC	2591	SKM
8	29	1974	15:00:00.400	67.0850	62.6250	5.00	KUU	2703	SKM
8	29	1974	15:00:00.400	67.0850	62.6250	5.00	CHL3	2782	SKM
4	25	1975	5:00:00.000	47.9090	47.9120	4.70	ZRN	1590	RVZT
4	25	1975	5:00:00.000	47.9090	47.9120	4.70	MAKN	1686	RVZT
4	25	1975	5:00:00.000	47.9090	47.9120	4.70	BRVK	1674	RVZT
8	12	1975	15:00:00.600	70.7636	126.9518	5.10	BRVK	3366	RVZT
8	12	1975	15:00:00.600	70.7636	126.9518	5.10	MAKN	3401	RVZT
8	12	1975	15:00:00.600	70.7636	126.9518	5.10	ZRN	3423	RVZT
8	12	1975	15:00:00.600	70.7636	126.9518	5.10	TLG	4076	SKM
8	12	1975	15:00:00.600	70.7636	126.9518	5.10	MAYS	4435	RVZT
9	29	1975	11:00:00.400	69.5780	90.3370	4.80	BRVK	2102	SKM
9	29	1975	11:00:00.400	69.5780	90.3370	4.80	MAKN	2145	RVZT
9	29	1975	11:00:00.400	69.5780	90.3370	4.80	ZRN	2145	RVZT
9	29	1975	11:00:00.400	69.5780	90.3370	4.80	TLG	3020	SKM
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	ZEL	1475	RVZT
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	ZRN	1576	RVZT
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	BRV	1660	RVZT
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	MAKN	1672	RVZT
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	CHMK	1784	SKD
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	KZAD	1914	SKM
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	MNAS	1989	SKM
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	OS	2052	RVZT
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	EKS	2075	SKM
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	TLG	2305	CSE
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	KAC	2334	SKM
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	ANVS	2358	SKM
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	CHL3	2378	SKM
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	KRM	2395	SKM
7	29	1976	5:00:00.500	47.8700	48.1500	5.90	BURE	5749	RVZT
11	5	1976	3:59:59.980	61.4580	112.8600	5.30	BRVK	2666	SKM
11	5	1976	3:59:59.980	61.4580	112.8600	5.30	ZRN	2740	RVZT
11	5	1976	3:59:59.980	61.4580	112.8600	5.30	TLG	3088	SKM
11	5	1976	3:59:59.980	61.4580	112.8600	5.30	OS	3437	RVZT
11	5	1976	3:59:59.980	61.4580	112.8600	5.30	ZEL	4989	RVZT
7	26	1977	17:00:00.200	69.5750	90.3750	5.00	BRVK	2102	SKM
7	26	1977	17:00:00.200	69.5750	90.3750	5.00	TORK	3226	SKM

7	26	1977	17:00:00.200	69.5750	90.3750	5.00	AKJ	3279	SKM
8	10	1977	22:00:00.100	50.9550	110.9820	5.00	TLG	2666	SKM
8	10	1977	22:00:00.100	50.9550	110.9820	5.00	VOS	2718	RVZT
8	10	1977	22:00:00.100	50.9550	110.9820	5.00	BRVK	2756	SKM
8	10	1977	22:00:00.100	50.9550	110.9820	5.00	CHK	2721	RVZT
8	10	1977	22:00:00.100	50.9550	110.9820	5.00	ZRN	2839	RVZT
8	10	1977	22:00:00.100	50.9550	110.9820	5.00	OS	3060	RVZT
8	10	1977	22:00:00.100	50.9550	110.9820	5.00	SVOB	4815	RVZT
8	20	1977	22:00:00.800	64.1080	99.5570	5.00	CHK	1998	RVZT
8	20	1977	22:00:00.800	64.1080	99.5570	5.00	VOS	2060	RVZT
8	20	1977	22:00:00.800	64.1080	99.5570	5.00	ZRN	2129	RVZT
8	20	1977	22:00:00.800	64.1080	99.5570	5.00	TLG	2714	SKM
8	20	1977	22:00:00.800	64.1080	99.5570	5.00	TORK	2982	SKM
8	20	1977	22:00:00.800	64.1080	99.5570	5.00	OS	3016	RVZT
8	20	1977	22:00:00.800	64.1080	99.5570	5.00	AKJ	3049	SKM
8	20	1977	22:00:00.800	64.1080	99.5570	5.00	SVOB	3396	RVZT
9	10	1977	16:00:00.200	57.2510	106.5510	4.80	CHK	2271	CSE
9	10	1977	16:00:00.200	57.2510	106.5510	4.80	VOS	2295	RVZT
9	10	1977	16:00:00.200	57.2510	106.5510	4.80	BRV	2320	RVZT
9	10	1977	16:00:00.200	57.2510	106.5510	4.80	TLG	2568	SKM
9	10	1977	16:00:00.200	57.2510	106.5510	4.80	OS	2934	CSE
9	10	1977	16:00:00.200	57.2510	106.5510	4.80	SVOB	4130	CSE
9	30	1977	6:59:58.400	47.8970	48.1610	5.00	KZD	2015	SKM
9	30	1977	6:59:58.400	47.8970	48.1610	5.00	AKJ	2015	SKM
9	30	1977	6:59:58.400	47.8970	48.1610	5.00	TORK	2069	SKM
9	30	1977	6:59:58.400	47.8970	48.1610	5.00	ARSB	2084	SKM
9	30	1977	6:59:58.400	47.8970	48.1610	5.00	EKS	2075	SKM
9	30	1977	6:59:58.400	47.8970	48.1610	5.00	BOM	2243	SKM
9	30	1977	6:59:58.400	47.8970	48.1610	5.00	SUFI	2195	SKM
9	30	1977	6:59:58.400	47.8970	48.1610	5.00	TRG	2332	SKM
9	30	1977	6:59:58.400	47.8970	48.1610	5.00	CHL3	2378	SKM
8	9	1978	18:00:00.790	63.6800	125.5267	5.60	VOS	3295	RVZT
8	9	1978	18:00:00.790	63.6800	125.5267	5.60	BRVK	3304	RVZT
8	9	1978	18:00:00.790	63.6800	125.5267	5.60	TLG	3780	SKM
8	9	1978	18:00:00.790	63.6800	125.5267	5.60	OS	4126	RVZT
8	24	1978	18:00:00.350	65.9254	112.3330	5.10	VOS	2691	RVZT
8	24	1978	18:00:00.350	65.9254	112.3330	5.10	BRV	2694	RVZT
8	24	1978	18:00:00.350	65.9254	112.3330	5.10	ZRN	2760	RVZT
8	24	1978	18:00:00.350	65.9254	112.3330	5.10	TLG	3301	SKM
8	24	1978	18:00:00.350	65.9254	112.3330	5.10	AKJ	3655	SKM
8	24	1978	18:00:00.350	65.9254	112.3330	5.10	KKUL	3633	SKM

8	24	1978	18:00:00.350	65.9254	112.3330	5.10	OS	3620	RVZT
9	21	1978	15:00:00.200	66.5980	86.2100	5.20	BRVK	1736	RVZT
9	21	1978	15:00:00.200	66.5980	86.2100	5.20	VOS	1752	RVZT
9	21	1978	15:00:00.200	66.5980	86.2100	5.20	ILI	2587	SKM
9	21	1978	15:00:00.200	66.5980	86.2100	5.20	CHL3	2607	SKM
9	21	1978	15:00:00.200	66.5980	86.2100	5.20	TLG	2652	SKM
9	21	1978	15:00:00.200	66.5980	86.2100	5.20	KRM	2667	SKM
9	21	1978	15:00:00.200	66.5980	86.2100	5.20	FAB	2673	SKM
9	21	1978	15:00:00.200	66.5980	86.2100	5.20	DZH	2785	SKM
9	21	1978	15:00:00.200	66.5980	86.2100	5.20	OS	2883	RVZT
9	21	1978	15:00:00.200	66.5980	86.2100	5.20	AKJ	2906	SKM
10	8	1978	0:00:00.000	61.5565	112.9922	5.20	VOS	2660	RVZT
10	8	1978	0:00:00.000	61.5565	112.9922	5.20	BRVK	2674	RVZT
10	8	1978	0:00:00.000	61.5565	112.9922	5.20	TLG	3098	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	DZH	1885	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	TRKS	1946	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	KZYU	1909	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	MNAS	1991	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	ARK	1986	SKD
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	AKJ	2017	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	CHVKG	2096	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	KZD	2017	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	EKS	2077	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	CHMS	2134	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	OHH	2115	SKD
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	URVKG	2170	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	SUFI	2197	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	BOM	2246	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	FAB	2253	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	ILI	2267	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	OTK	2275	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	TLG	2307	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	TRG	2335	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	KAC	2336	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	ANVS	2360	SKD
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	KDSKG	2356	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	CHL3	2381	SKM
10	17	1978	4:59:59.100	47.8500	48.1200	5.80	KRM	2397	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	ZRN	1576	RVZT
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	CHK	1696	RVZT
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	CHMK	1783	SK

12	18	1978	7:59:58.500	47.8600	48.1600	5.90	KZYU	1906	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	DZH	1883	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	KBUR	1917	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	TRKS	1944	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	MNAS	1988	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	MNAS	1988	SKD
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	MNAS	1988	SKD
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	ARK	1984	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	ARK	1984	SKD
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	MNAS	1988	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	MNAS	1988	SKD
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	CHPA	2023	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	CHVKG	2093	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	OHH	2113	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	EKS	2075	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	CHMS	2132	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	ARSB	2083	SKD
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	RSKG	2136	SKD
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	URVKG	2167	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	BGK	2109	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	SUFI	2194	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	SUFI	2194	SKD
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	ARLS	2154	SKD
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	BOM	2243	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	KST	2219	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	SEMB	2249	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	OTK	2273	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	FAB	2250	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	TK	2323	SKD
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	KAC	2333	SKM
12	18	1978	7:59:58.500	47.8600	48.1600	5.90	ANVS	2358	SKD
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	KBUR	1921	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	DZH	1887	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	KZYU	1910	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	ARK	1988	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	ARK	1988	SKD
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	BTK	2004	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	MNAS	1992	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	KZD	2018	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	CHPA	2027	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	EKS	2078	SKM

1	17	1979	7:59:58.500	47.9200	48.1200	6.00	ARSB	2087	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	CHVKG	2098	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	BGK	2113	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	CHMS	2135	SKD
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	ARLS	2158	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	KST	2223	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	BOM	2247	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	OTK	2276	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	ILI	2267	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	ANVS	2361	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	KDSKG	2356	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	CHL3	2381	SKM
1	17	1979	7:59:58.500	47.9200	48.1200	6.00	KRM	2397	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	ZRN	1578	RVZT
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	DZH	1886	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	AKJ	2018	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	KUU	2214	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	KST	2222	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	ILI	2267	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	FAB	2253	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	TLG	2308	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	TK	2325	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	KAC	2336	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	TRG	2335	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	CHL3	2381	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	KRM	2397	SKM
7	14	1979	4:59:58.000	47.8800	48.1200	5.60	PELD	4246	RVZT
8	12	1979	18:00:00.200	61.8030	122.4300	4.90	VOS	3156	RVZT
8	12	1979	18:00:00.200	61.8030	122.4300	4.90	BRVK	3169	RVZT
8	12	1979	18:00:00.200	61.8030	122.4300	4.90	TLG	3577	SKM
8	12	1979	18:00:00.200	61.8030	122.4300	4.90	TORK	3896	SKM
8	12	1979	18:00:00.200	61.8030	122.4300	4.90	KKUL1	3955	SKM
8	12	1979	18:00:00.200	61.8030	122.4300	4.90	AKJ	3973	SKM
8	12	1979	18:00:00.200	61.8030	122.4300	4.90	NTR	3996	RVZT
9	6	1979	18:00:00.300	64.1100	99.5620	4.90	VOS	2060	RVZT
9	6	1979	18:00:00.300	64.1100	99.5620	4.90	ZRN	2129	RVZT
9	6	1979	18:00:00.300	64.1100	99.5620	4.90	NTR	2847	RVZT
9	6	1979	18:00:00.300	64.1100	99.5620	4.90	TORK	2982	SKM
9	6	1979	18:00:00.300	64.1100	99.5620	4.90	AKJ	3049	SKM
9	6	1979	18:00:00.300	64.1100	99.5620	4.90	KKUL1	3036	SKM
10	4	1979	16:00:00.000	60.6750	71.4550	5.40	VOS	884	RVZT

10	4	1979	16:00:00.000	60.6750	71.4550	5.40	NTR	1411	RVZT
10	4	1979	16:00:00.000	60.6750	71.4550	5.40	DZH	1976	SKM
10	4	1979	16:00:00.000	60.6750	71.4550	5.40	TRG	1973	SKM
10	4	1979	16:00:00.000	60.6750	71.4550	5.40	PELD	2244	RVZT
10	7	1979	21:00:00.220	61.7679	113.1554	5.00	PYKH	1853	RVZT
10	7	1979	21:00:00.220	61.7679	113.1554	5.00	VOS	2669	RVZT
10	7	1979	21:00:00.220	61.7679	113.1554	5.00	BRVK	2683	RVZT
10	7	1979	21:00:00.220	61.7679	113.1554	5.00	ZRN	2756	RVZT
10	7	1979	21:00:00.220	61.7679	113.1554	5.00	TLG	3116	SKM
10	7	1979	21:00:00.220	61.7679	113.1554	5.00	TORK	3427	SKM
10	7	1979	21:00:00.220	61.7679	113.1554	5.00	KKUL1	3486	SKM
10	7	1979	21:00:00.220	61.7679	113.1554	5.00	AKJ	3503	SKM
10	7	1979	21:00:00.220	61.7679	113.1554	5.00	NTR	3515	RVZT
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	NTR	772	RVZT
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	ZRN	1578	RVZT
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	BRVK	1662	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	CHK	1698	RVZT
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	DZH	1884	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	AKJ	2016	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	CHVKG	2095	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	KRSU	2084	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	KZD	2015	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	ARSB	2084	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	KUU	2212	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	KST	2221	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	ILI	2265	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	FAB	2252	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	TSN	2293	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	TLG	2306	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	TRG	2334	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	KAC	2335	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	CHL3	2379	SKM
10	24	1979	5:59:59.000	47.8500	48.1400	5.80	KRM	2395	SKM
10	8	1980	6:00:00.300	46.7570	48.2750	5.20	BRVK	1714	SKM
10	8	1980	6:00:00.300	46.7570	48.2750	5.20	AKJ	1986	SKM
11	1	1980	13:00:00.400	60.8000	97.5500	5.20	VOS	1832	RVZT
11	1	1980	13:00:00.400	60.8000	97.5500	5.20	ZRN2	1916	RVZT
11	1	1980	13:00:00.400	60.8000	97.5500	5.20	TLG	2374	SKM
11	1	1980	13:00:00.400	60.8000	97.5500	5.20	TORK	2659	SKM
11	1	1980	13:00:00.400	60.8000	97.5500	5.20	KKUL	2707	SKM
11	1	1980	13:00:00.400	60.8000	97.5500	5.20	AKJ	2730	SKM

12	10	1980	7:00:00.100	61.7500	66.7500	4.60	ZRN2	996	RVZT
12	10	1980	7:00:00.100	61.7500	66.7500	4.60	VOS	1034	RVZT
12	10	1980	7:00:00.100	61.7500	66.7500	4.60	TLG	2169	SKM
5	25	1981	5:00:00.300	68.2000	53.5000	5.50	KUU	3009	SKM
5	25	1981	5:00:00.300	68.2000	53.5000	5.50	TLG	3101	SKM
5	25	1981	5:00:00.300	68.2000	53.5000	5.50	AKJ	3158	SKM
5	25	1981	5:00:00.300	68.2000	53.5000	5.50	KRM	3155	SKM
5	25	1981	5:00:00.300	68.2000	53.5000	5.50	TORK	3143	SKM
5	25	1981	5:00:00.300	68.2000	53.5000	5.50	KKUL	3161	SKM
5	25	1981	5:00:00.300	68.2000	53.5000	5.50	KRSU	3179	SKM
5	25	1981	5:00:00.300	68.2000	53.5000	5.50	HRG	3589	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	POD	1571	RVZT
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	ZEL	1532	RVZT
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	TRKS	1909	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	ARK	1953	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	MNAS	1963	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	AKJ	1983	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	KZD	1980	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	ARSB	2052	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	EKS	2053	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	CHVKG	2054	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	OHH	2077	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	BGK	2088	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	SALK	2135	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	CHMS	2113	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	ARLS	2129	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	BOM	2224	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	FAB	2236	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	ILI	2254	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	MDO	2278	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	KDSKG	2334	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	TRG	2320	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	KRM	2381	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	KRSKG	2413	SKM
9	26	1981	5:00:00.300	46.7900	48.3130	5.20	DJRKG	2453	SKM
9	26	1981	5:03:59.900	46.7710	48.3030	5.30	ZEL	1532	RVZT
9	26	1981	5:03:59.900	46.7710	48.3030	5.30	POD	1571	RVZT
10	22	1981	14:00:00.400	63.8000	97.5500	5.10	ZRN	2025	RVZT
10	22	1981	14:00:00.400	63.8000	97.5500	5.10	BLCH	2454	RVZT
10	22	1981	14:00:00.400	63.8000	97.5500	5.10	TLG	2624	SKM
10	22	1981	14:00:00.400	63.8000	97.5500	5.10	TORK	2888	SKM

10	22	1981	14:00:00.400	63.8000	97.5500	5.10	KRSU	2924	SKM
10	22	1981	14:00:00.400	63.8000	97.5500	5.10	KKUL	2933	SKM
10	22	1981	14:00:00.400	63.8000	97.5500	5.10	AKJ	2954	SKM
10	22	1981	14:00:00.400	63.8000	97.5500	5.10	UCH	4052	RVZT
10	22	1981	14:00:00.400	63.8000	97.5500	5.10	POD	4177	RVZT
10	22	1981	14:00:00.400	63.8000	97.5500	5.10	ZEL	4168	RVZT
10	22	1981	14:00:00.400	63.8000	97.5500	5.10	KB	4210	RVZT
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	ZRN	1921	RVZT
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	KAC	2653	SKM
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	TK	2694	SKM
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	ILI	2829	SKM
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	KUU	2828	SKM
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	TRG	2886	SKM
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	MDO	2905	SKM
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	FAB	2911	SKM
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	KRM	2919	SKM
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	KST	2925	SKM
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	TSN	2919	SKM
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	POD	3442	RVZT
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	ZEL	3439	RVZT
9	4	1982	18:00:00.100	69.2000	81.6500	5.30	KB	3481	RVZT
9	25	1982	18:00:00.200	64.3500	91.8000	5.20	ZRN	1809	RVZT
9	25	1982	18:00:00.200	64.3500	91.8000	5.20	SEVR	2011	RVZT
9	25	1982	18:00:00.200	64.3500	91.8000	5.20	TK	2304	SKM
9	25	1982	18:00:00.200	64.3500	91.8000	5.20	ILI	2458	SKM
9	25	1982	18:00:00.200	64.3500	91.8000	5.20	KUU	2470	SKM
9	25	1982	18:00:00.200	64.3500	91.8000	5.20	MDO	2532	SKM
9	25	1982	18:00:00.200	64.3500	91.8000	5.20	TSN	2546	SKM
9	25	1982	18:00:00.200	64.3500	91.8000	5.20	UCH	3786	RVZT
9	25	1982	18:00:00.200	64.3500	91.8000	5.20	ZEL	3882	RVZT
9	25	1982	18:00:00.200	64.3500	91.8000	5.20	POD	3891	RVZT
9	25	1982	18:00:00.200	64.3500	91.8000	5.20	KB	3924	RVZT
10	10	1982	5:00:00.200	61.5006	112.9110	5.30	ZRN	2743	RVZT
10	10	1982	5:00:00.200	61.5006	112.9110	5.30	TLG	3092	SKM
10	10	1982	5:00:00.200	61.5006	112.9110	5.30	SEVR	3064	RVZT
10	10	1982	5:00:00.200	61.5006	112.9110	5.30	UCH	4842	RVZT
10	10	1982	5:00:00.200	61.5006	112.9110	5.30	POD	4999	RVZT
10	10	1982	5:00:00.200	61.5006	112.9110	5.30	ZEL	4989	RVZT
10	10	1982	5:00:00.200	61.5006	112.9110	5.30	KB	5032	RVZT
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	ZEL	1529	RVZT
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	POD	1568	RVZT

10	16	1982	6:00:00.200	46.7580	48.2470	5.20	KB	1548	RVZT
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	KZAD	1892	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	TRKS	1913	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	ARK	1957	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	BTK	1959	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	MNAS	1968	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	KZD	1984	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	TKLKG	2020	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	EKS	2057	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	ARSB	2056	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	CHVKG	2058	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	BGK	2093	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	CHMS	2118	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	URVKG	2153	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	SUFI	2161	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	ARLS	2133	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	BOM	2229	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	ANVS	2348	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	ANVS	2348	SKD
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	KDSKG	2339	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	SARKG	2395	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	KRSKG	2417	SKM
10	16	1982	6:00:00.200	46.7580	48.2470	5.20	DJRKG	2458	SKM
10	16	1982	6:05:00.100	46.7510	48.2580	5.20	SEVR	1251	RVZT
10	16	1982	6:05:00.100	46.7510	48.2580	5.20	ZEL	1530	RVZT
10	16	1982	6:05:00.100	46.7510	48.2580	5.20	KB	1549	RVZT
10	16	1982	6:05:00.100	46.7510	48.2580	5.20	POD	1569	RVZT
10	16	1982	6:05:00.100	46.7510	48.2580	5.20	ZRN	1633	RVZT
10	16	1982	6:05:00.100	46.7510	48.2580	5.20	TLG	2296	SKM
10	16	1982	6:10:00.100	46.7660	48.2880	5.20	SEVR	1248	RVZT
10	16	1982	6:10:00.100	46.7660	48.2880	5.20	ZEL	1531	RVZT
10	16	1982	6:10:00.100	46.7660	48.2880	5.20	KB	1550	RVZT
10	16	1982	6:10:00.100	46.7660	48.2880	5.20	POD	1571	RVZT
10	16	1982	6:10:00.100	46.7660	48.2880	5.20	ZRN	1630	RVZT
10	16	1982	6:10:00.100	46.7660	48.2880	5.20	TLG	2294	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	ARK	1769	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	TRKS	1748	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	BTK	1842	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	ARSB	1867	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	BGK	1849	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	KZD	1812	SKM

7	10	1983	4:00:00.000	51.3630	53.3060	5.30	CHMS	1858	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	URVKG	1898	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	OHH	1917	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	CHVKG	1914	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	KST	1933	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	ARLS	1911	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	ILI	1952	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	BOM	1969	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	SALK	1951	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	KAC	1979	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	SUFI	2000	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	MDO	1994	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	ANVS	2062	SKM
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	ANVS	2062	SKD
7	10	1983	4:00:00.000	51.3630	53.3060	5.30	KRSKG	2159	SKM
7	10	1983	4:04:59.900	51.3670	53.3270	5.30	URVKG	1896	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	KZAD	1887	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	MNAS	1963	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	KZD	1980	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	TKLKG	2015	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	CHVKG	2053	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	KKUL	2012	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	ARSB	2051	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	OHH	2076	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	ARLS	2128	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	CHMS	2113	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	SUFI	2157	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	BOM	2224	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	ILI	2254	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	TSN	2277	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	TRG	2320	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	KDSKG	2334	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	ANVS	2343	SKD
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	SARKG	2389	SKD
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	KRM	2381	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	DJRKG	2453	SKM
9	24	1983	5:00:00.000	46.7830	48.3150	5.20	KNSKG	2482	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	KZAD	1888	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	MNAS	1964	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	KZD	1981	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	TKLKG	2016	SKM

9	24	1983	5:05:00.000	46.7880	48.2970	5.10	ARSB	2053	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	KKUL	2014	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	CHVKG	2055	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	OHH	2078	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	ARLS	2130	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	CHMS	2114	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	SUFI	2158	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	BOM	2225	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	KDSKG	2335	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	ANVS	2344	SKD
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	SARKG	2391	SKD
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	DJRKG	2454	SKM
9	24	1983	5:05:00.000	46.7880	48.2970	5.10	KNSKG	2483	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	KZAD	1887	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	MNAS	1963	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	KZD	1980	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	KKUL	2012	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	TKLKG	2015	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	ARSB	2051	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	OHH	2076	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	CHVKG	2053	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	CHMS	2113	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	SUFI	2157	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	ARLS	2129	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	BOM	2224	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	ANVS	2343	SKD
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	KDSKG	2334	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	SARKG	2390	SKD
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	DJRKG	2453	SKM
9	24	1983	5:10:00.100	46.7660	48.3100	5.00	KNSKG	2482	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	KZAD	1887	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	MNAS	1963	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	KZD	1980	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	TKLKG	2015	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	KKUL	2013	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	ARSB	2052	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	OHH	2076	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	CHVKG	2054	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	ARLS	2129	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	SUFI	2157	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	CHMS	2114	SKM

9	24	1983	5:15:00.100	46.7480	48.3030	5.20	BOM	2225	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	ANVS	2344	SKD
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	KDSKG	2334	SKM
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	SARKG	2390	SKD
9	24	1983	5:15:00.100	46.7480	48.3030	5.20	KNSKG	2482	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	KZAD	1889	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	MNAS	1964	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	ARLS	2130	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	KZD	1981	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	KKUL	2014	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	ARSB	2053	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	OHH	2078	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	TKLKG	2016	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	CHMS	2115	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	CHVKG	2055	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	SUFI	2158	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	BOM	2226	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	ANVS	2345	SKD
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	DJRKG	2455	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	SARKG	2391	SKD
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	KNSKG	2484	SKM
9	24	1983	5:19:59.900	46.7540	48.2880	5.40	KDSKG	2336	SKM
9	24	1983	5:25:00.000	46.7660	48.2730	5.30	TKLKG	2018	SKM
9	24	1983	5:25:00.000	46.7660	48.2730	5.30	CHMS	2116	SKM
9	24	1983	5:25:00.000	46.7660	48.2730	5.30	CHVKG	2056	SKM
9	24	1983	5:25:00.000	46.7660	48.2730	5.30	ANVS	2346	SKD
9	24	1983	5:25:00.000	46.7660	48.2730	5.30	SARKG	2393	SKD
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	DZH	1648	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	POD	1779	RVZT
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	MNAS	1750	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	BGK	1848	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	KKUL	1821	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	AAK	1865	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	CHMS	1857	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	ARLS	1910	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	KUU	1902	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	BOM	1968	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	CHVKG	1913	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	ILI	1951	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	MTB	1957	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	TLG	2002	SKM

7	21	1984	2:59:59.800	51.3580	53.3180	5.40	MDO	1993	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	TSN	1996	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	SUFI	1999	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	TRG	2025	SKM
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	TDO	911	RVZT
7	21	1984	2:59:59.800	51.3580	53.3180	5.40	ZRN	1085	RVZT
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	KKUL	1821	SKM
7	21	1984	3:09:59.900	51.3910	53.3510	5.40	KKUL	1821	SKM
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	TDO	912	RVZT
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	ZRN	1083	RVZT
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	POD	1780	RVZT
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	MNAS	1749	SKM
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	HARP	1850	RVZT
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	BGK	1847	SKM
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	CHMS	1856	SKM
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	ARLS	1909	SKM
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	BOM	1967	SKM
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	TLG	2002	SKM
7	21	1984	3:04:59.700	51.3710	53.3360	5.30	SUFI	1999	SKM
7	21	1984	3:09:59.900	51.3910	53.3510	5.40	BGK	1847	SKM
7	21	1984	3:09:59.900	51.3910	53.3510	5.40	AAK	1864	SKM
7	21	1984	3:09:59.900	51.3910	53.3510	5.40	ARLS	1909	SKM
7	21	1984	3:09:59.900	51.3910	53.3510	5.40	BOM	1967	SKM
7	21	1984	3:09:59.900	51.3910	53.3510	5.40	CHVKG	1913	SKM
7	21	1984	3:09:59.900	51.3910	53.3510	5.40	TDO	913	RVZT
7	21	1984	3:09:59.900	51.3910	53.3510	5.40	ZRN	1081	RVZT
7	21	1984	3:09:59.900	51.3910	53.3510	5.40	POD	1781	RVZT
7	21	1984	3:09:59.900	51.3910	53.3510	5.40	TLG	2001	SKM
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	SEVR	1129	RVZT
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	ZRN	1557	RVZT
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	ZEL	2215	RVZT
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	KAC	2616	SKM
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	TK	2642	SKM
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	KUU	2692	SKM
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	ILI	2716	SKM
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	MTB	2773	SKM
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	TLG	2786	SKM
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	MDO	2787	SKM
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	CHL3	2792	SKM
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	TSN	2797	SKM
8	11	1984	19:00:00.200	65.0500	55.1000	5.30	KRM	2844	SKM

8	25	1984	19:00:00.300	61.9000	72.1000	5.30	TK	1921	SKM
8	25	1984	19:00:00.300	61.9000	72.1000	5.30	TSN	2119	SKM
8	25	1984	19:00:00.300	61.9000	72.1000	5.30	TDO	2325	RVZT
8	25	1984	19:00:00.300	61.9000	72.1000	5.30	ZEL	2903	RVZT
8	25	1984	19:00:00.300	61.9000	72.1000	5.30	POD	2917	RVZT
8	27	1984	6:00:00.100	67.7500	33.0000	4.70	HARP	1394	RVZT
8	27	1984	6:00:00.100	67.7500	33.0000	4.70	POD	1892	RVZT
8	27	1984	6:00:00.100	67.7500	33.0000	4.70	SEVR	1974	RVZT
8	27	1984	6:00:00.100	67.7500	33.0000	4.70	TDO	2005	RVZT
8	27	1984	6:00:00.100	67.7500	33.0000	4.70	ZRN	2514	RVZT
8	28	1984	2:59:59.800	60.3000	57.1000	4.40	SEVR	595	RVZT
8	28	1984	2:59:59.800	60.3000	57.1000	4.40	HARP	841	RVZT
8	28	1984	2:59:59.800	60.3000	57.1000	4.40	ZRN	1094	RVZT
8	28	1984	2:59:59.800	60.3000	57.1000	4.40	TDO	1539	RVZT
8	28	1984	2:59:59.800	60.3000	57.1000	4.40	TLG	2327	SKM
8	28	1984	3:04:59.900	60.7000	57.5000	4.40	SEVR	631	RVZT
8	28	1984	3:04:59.900	60.7000	57.5000	4.40	HARP	791	RVZT
8	28	1984	3:04:59.900	60.7000	57.5000	4.40	ZRN	1109	RVZT
8	28	1984	3:04:59.900	60.7000	57.5000	4.40	TDO	1584	RVZT
8	28	1984	3:04:59.900	60.7000	57.5000	4.40	TLG	2344	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	KAC	1315	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	TK	1363	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	CHL3	1514	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	ILI	1525	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	KUU	1546	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	MTB	1618	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	HARP	1666	RVZT
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	KST	1644	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	CHMS	1694	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	BOM	1700	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	URVKG	1712	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	EKS	1763	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	OHH	2012	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	CHVKG	2072	SKM
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	TDO	3146	RVZT
9	17	1984	21:00:00.000	55.8330	87.5260	5.00	ZEL	3858	RVZT
10	27	1984	6:00:00.100	46.9000	48.1500	5.00	KUU	2212	SKM
10	27	1984	6:00:00.100	46.9000	48.1500	5.00	KST	2216	SKM
10	27	1984	6:00:00.100	46.9000	48.1500	5.00	MTB	2248	SKM
10	27	1984	6:00:00.100	46.9000	48.1500	5.00	TSN	2290	SKM
10	27	1984	6:00:00.100	46.9000	48.1500	5.00	MDO	2290	SKM

10	27	1984	6:00:00.100	46.9000	48.1500	5.00	KAC	2345	SKM
10	27	1984	6:00:00.100	46.9000	48.1500	5.00	TRG	2332	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	TRKS	1928	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	ARK	1971	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	KZD	1999	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	KKUL	2031	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	CHVKG	2073	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	EKS	2070	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	BTK	1976	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	ARSB	2070	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	BGK	2105	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	ARLS	2146	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	AAK	2125	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	CHMS	2130	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	BOM	2241	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	KDSKG	2351	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	ANVS	2359	SKM
10	27	1984	6:05:00.000	46.9500	48.1000	5.00	SARKG	2406	SKM
7	18	1985	21:15:00.300	65.9940	41.0380	5.10	HARP	1097	RVZT
7	18	1985	21:15:00.300	65.9940	41.0380	5.10	SEVR	1576	RVZT
7	18	1985	21:15:00.300	65.9940	41.0380	5.10	ZEL	1844	RVZT
7	18	1985	21:15:00.300	65.9940	41.0380	5.10	POD	1836	RVZT
4	19	1987	4:00:00.000	60.6000	57.2000	4.50	ZRN	1113	RVZT
4	19	1987	4:00:00.000	60.6000	57.2000	4.50	POD	2109	RVZT
4	19	1987	4:00:00.000	60.6000	57.2000	4.50	TLG	2347	SKM
4	19	1987	4:05:00.000	60.8000	57.5000	4.50	ZRN	1117	RVZT
4	19	1987	4:05:00.000	60.8000	57.5000	4.50	ZHD	1421	RVZT
4	19	1987	4:05:00.000	60.8000	57.5000	4.50	TLG	2352	SKM
7	7	1987	0:00:00.000	61.4317	112.8860	5.10	TLG	3088	SKM
7	7	1987	0:00:00.000	61.4317	112.8860	5.10	TDO	4439	RVZT
7	7	1987	0:00:00.000	61.4317	112.8860	5.10	POD	5001	RVZT
7	24	1987	2:00:00.000	61.4172	112.8927	5.10	TLG	3087	SKM
7	24	1987	2:00:00.000	61.4172	112.8927	5.10	ZHD	4247	RVZT
7	24	1987	2:00:00.000	61.4172	112.8927	5.10	TDO	4440	RVZT
7	24	1987	2:00:00.000	61.4172	112.8927	5.10	POD	5002	RVZT
8	12	1987	1:30:00.500	61.4266	112.8879	5.00	KARSU	2330	RVZT
8	12	1987	1:30:00.500	61.4266	112.8879	5.00	BAY	2547	RVZT
8	12	1987	1:30:00.500	61.4266	112.8879	5.00	ZRN	2742	RVZT
8	12	1987	1:30:00.500	61.4266	112.8879	5.00	TLG	3087	SKM
8	12	1987	1:30:00.500	61.4266	112.8879	5.00	ZHD	4247	RVZT
8	12	1987	1:30:00.500	61.4266	112.8879	5.00	TDO	4440	RVZT

8	12	1987	1:30:00.500	61.4266	112.8879	5.00	POD	5001	RVZT
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	ZRN	1086	RVZT
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	TDO	1178	RVZT
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	CHMK	1203	SK
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	TRKS	1365	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	MNAS	1397	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	ARK	1399	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	KKL	1421	RVZT
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	BAY	1445	RVZT
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	AKKKG	1460	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	EKS	1479	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	BGK	1513	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	DRKKG	1542	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	OHH	1535	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	AAK	1533	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	CHMS	1533	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	ARLS	1562	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	SUFI	1618	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	KUU	1610	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	MTB	1650	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	OTK	1675	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	TSN	1692	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	MDO	1691	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	TLG	1704	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	KNGKG	1708	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	TK	1723	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	TRG	1731	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	KDSKG	1755	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	BRTG	1794	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	KRM	1793	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	ZHD	1848	RVZT
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	KRSKG	1836	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	DJRKG	1866	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	KNSKG	1896	SKM
10	3	1987	15:15:00.000	47.6000	56.2000	5.30	POD	2087	RVZT
8	22	1988	16:20:00.100	66.2800	78.4910	5.30	SEM	1767	SKM
8	22	1988	16:20:00.100	66.2800	78.4910	5.30	TK	2364	SKM
8	22	1988	16:20:00.100	66.2800	78.4910	5.30	DZHR	2440	SKM
8	22	1988	16:20:00.100	66.2800	78.4910	5.30	ILI	2493	SKM
8	22	1988	16:20:00.100	66.2800	78.4910	5.30	TLG	2561	SKM
8	22	1988	16:20:00.100	66.2800	78.4910	5.30	TRG	2553	SKM

8	22	1988	16:20:00.100	66.2800	78.4910	5.30	TSN	2584	SKM
8	22	1988	16:20:00.100	66.2800	78.4910	5.30	MDO	2570	SKM
8	22	1988	16:20:00.100	66.2800	78.4910	5.30	MTB	2575	SKM
8	22	1988	16:20:00.100	66.2800	78.4910	5.30	AKJ	2768	SKM
9	6	1988	16:19:59.900	61.3610	48.0920	4.80	ZHD	947	RVZT
9	6	1988	16:19:59.900	61.3610	48.0920	4.80	KKL	2153	RVZT
9	6	1988	16:19:59.900	61.3610	48.0920	4.80	AKJ	2725	SKM
9	6	1988	16:19:59.900	61.3610	48.0920	4.80	TORK	2732	SKM
9	6	1988	16:19:59.900	61.3610	48.0920	4.80	BAY	2041	RVZT
9	6	1988	16:19:59.900	61.3610	48.0920	4.80	KARSU	2387	RVZT
9	6	1988	16:19:59.900	61.3610	48.0920	4.80	ZRN	1561	RVZT

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Appendix G. Digitized seismograms of nuclear explosions at the Pokharan Test Site, India.

Mo.	D.	Yr.	Origin time	Lat. °N	Long. °E	mb	Station	Distance
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	SUFI	1444
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	ARSB	1585
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	ARLS	1656
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	EKS	1740
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	KZAD	1729
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	BOM	1752
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	KDSKG	1741
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	BRVK	2887
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	CHK	2955
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	CHL3	1920
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	FAB	1832
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	KKOR	2877
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	TLG	1860
5	18	1974	2:34:55.000	27.0950	71.7520	5.00	VOS	2848
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	DRKKG	1379
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	SUFI	1447
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	BTK	1445
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	AKUKG	1507
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	KZD	1576
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	ARSB	1587
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	AKKKG	1617
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	TRKS	1600
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	ARK	1637
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	NRN	1639
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	ARLS	1658
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	TKLKG	1653
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	YUZH	1682
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	MNAS	1714
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	TRKKG	1722
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	AAK	1747
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	BRD	1782
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	KDSKG	1743
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	URVKG	1761
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	CHMS	1789
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	EKS	1743
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	BOM	1754
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	KNGK	1795

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5	11	1998	10:13:41.800	27.0716	71.7612	5.2	PRZ	1815
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	KST	1815
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	KNSKG	1826
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	ANVS	1826
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	TSN	1835
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	MTB	1833
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	MDO	1850
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	SATY	1875
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	TRG	1880
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	UZB	1903
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	KUU	1914
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	KURM	1913
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	CHUK	1923
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	DZHR	2048
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	TK	2078
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	KPA	2133
5	11	1998	10:13:41.800	27.0716	71.7612	5.2	ZSN	2518

Appendix H. Digitized seismograms of nuclear explosions from Chagay Test Site, Pakistan.

Mo.	Day	Year	Origin TIme	Lat. °N	Long. °E	mb	Station	Dist.
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	BTK	1362
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	DRKKG	1344
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	CHVKG	1425
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	SUFI	1471
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	OHH	1486
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	TRKS	1516
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	KZD	1524
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	ARSB	1571
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	ARK	1578
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	TKLKG	1624
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	MNAS	1666
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	NRN	1720
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	AAK	1760
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	URVKG	1790
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	CHMS	1805
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	TRKKG	1808
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	KDSKG	1845
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	KST	1864
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	KNGKG	1878
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	MTB	1894
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	ANVS	1927
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	TSN	1912
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	PRZ	1942
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	MDO	1926
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	KUU	1959
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	TRG	1970
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	CHUK	1986
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	SATY	1989
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	KURM	2013
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	DZHR	2169
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	KPA	2226
5	28	1998	10:16:15.200	28.7919	64.9475	4.80	ZSN	2666

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Appendix I. Digitized seismograms of nuclear explosions at the In Ekker test site, now in Algeria, by France.

Mo.	D.	Year	Origin Time	Lat. °N	Long. °E	mb	Station	Dist.	Inst. type
5	1	1962	10:00:00.500	24.0630	5.0410		ARLS	6573	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		KOCH	6684	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		ILI	6768	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		FAB	6730	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		TLG	6792	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		MUKR	6850	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		KAC	6882	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		MIKH	7030	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		NCE	7069	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		CHNG	6997	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		NRI	7236	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		USTK	7246	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		ELKM	7322	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		SPAS	7428	VEGIK
5	1	1962	10:00:00.500	24.0630	5.0410		KEZ	7392	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		ABZ	7562	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		TAYSH	7995	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		VIKH	8162	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		ZAY	8263	SKM
5	1	1962	10:00:00.500	24.0630	5.0410		MYS	8457	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	NRN	6716	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	BOM	6700	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	KRS	6732	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	KAR	6682	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	KKUM	6940	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	TASH	7564	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	BARIT	7585	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	KIBI	7602	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	TESS	7679	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	CHAD	7722	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	CHER	7750	SKM
10	20	1963	13:00:00.100	24.0355	5.0386	5.60	VUS	7779	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	NRN	6715	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	RYB	6718	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	TLG	6793	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	KRM	6881	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	KAC	6883	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	KKUM	6938	SKM

3	18	1963	10:02:00.400	24.0413	5.0521	4.86	CHNG	6998	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	MIKH	7030	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	LNGR	7176	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	USTK	7247	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	KEZ	7393	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	ASKZ	7584	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	TESS	7677	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	MAN	7661	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	TAYSH	7996	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	KIRI	7875	SKM
3	18	1963	10:02:00.400	24.0413	5.0521	4.86	BAYD	8076	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	ARK	6381	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	UZA	6425	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	KZU	6491	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	BOM	6699	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	ILI	6770	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	KRS	6731	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	TLG	6793	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	KAC	6883	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	KRM	6881	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	KEZ	7393	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	TASH	7563	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	SHEK	7650	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	KIBK	7660	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	CHAD	7721	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	CHER	7749	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	KHND	7756	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	KHAR	7799	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	NRK	7041	SKM
2	27	1965	11:30:00.000	24.0587	5.0311	5.80	RYA	6411	SKM
2	16	1966	11:00:00.000	24.0441	5.0412	4.94	RYB	6719	SKM
2	16	1966	11:00:00.000	24.0441	5.0412	4.94	ILI	6770	SKM
2	16	1966	11:00:00.000	24.0441	5.0412	4.94	KRM	6881	SKM
2	16	1966	11:00:00.000	24.0441	5.0412	4.94	KAC	6883	SKM
2	16	1966	11:00:00.000	24.0441	5.0412	4.94	CHAR	6949	SKM
2	16	1966	11:00:00.000	24.0441	5.0412	4.94	OM	6922	SKM
2	16	1966	11:00:00.000	24.0441	5.0412	4.94	NRK	7041	SKM
2	16	1966	11:00:00.000	24.0441	5.0412	4.94	KEZ	7394	SKM
2	16	1966	11:00:00.000	24.0441	5.0412	4.94	TASH	7563	SKM
2	16	1966	11:00:00.000	24.0441	5.0412	4.94	KIBI	7601	SKM
2	16	1966	11:00:00.000	24.0441	5.0412	4.94	KHAR	7800	SKM

Appendix J. Digitized seismograms of nuclear explosions at the Amchitka Test Site.

Mo.	D.	Yr.	Origin time	Lat. °N	Long. °E	mb	Station	Dist.	Inst. type
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	KIBK	5588	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	KHAR	5589	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	TASH	5684	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	KAC	6835	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	CHAR	6957	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	OM	7026	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	KAR	7312	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	KAZ	7414	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	KZU	7430	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	UZA	7450	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	ARK	7493	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	RYA	7503	SKM
10	29	1965	21:00:00.080	51.4381	179.1826	6.10	TERS	7564	SKM
10	29	1965	21:00:00.100	43.8100	179.1826	6.10	ARSB	8021	SKM
10	2	1969	22:06:00.000	51.4171	179.1823	6.40	BRVK	6642	SKM
11	6	1971	22:00:00.100	51.4719	179.1069	6.80	BRVK	6634	SKM
11	6	1971	22:00:00.100	51.4719	179.1069	6.80	ANVS	7095	SKD
11	6	1971	22:00:00.100	51.4719	179.1069	6.80	FRU	7257	SKD
11	6	1971	22:00:00.100	51.4719	179.1069	6.80	EKS	7316	SKD
11	6	1971	22:00:00.100	51.4719	179.1069	6.80	ARSB	7473	SKD
11	6	1971	22:00:00.100	51.4719	179.1069	6.80	ARK	7487	SKD

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Appendix K. Digitized seismograms of nuclear explosions at the Mururoa Test Site.

Mo.	D.	Yr.	Origin time	Lat. °N	Long. °E	mb	Station	Dist.	Inst. type
8	24	1968	18:30:00.500	-22.2280	-138.6440	4.95	KZU	16327	SKM
8	24	1968	18:30:00.500	-22.2280	-138.6440	4.95	RYA	16413	SKM
8	24	1968	18:30:00.500	-22.2280	-138.6440	4.95	TERS	16497	SKM
8	24	1968	18:30:00.500	-22.2280	-138.6440	4.95	KKUL	16375	SKM
8	24	1968	18:30:00.500	-22.2280	-138.6440	4.95	IORD	16529	SKM
8	24	1968	18:30:00.500	-22.2280	-138.6440	4.95	ARK	16421	SKM
8	24	1968	18:30:00.500	-22.2280	-138.6440	4.95	KZD	16447	SKM
9	8	1968	19:00:01.000	-21.8210	-138.0750	4.91	TERS	16506	SKM
9	8	1968	19:00:01.000	-21.8210	-138.0750	4.91	KZU	16338	SKM
9	8	1968	19:00:01.000	-21.8210	-138.0750	4.91	KKUL	16385	SKM
9	8	1968	19:00:01.000	-21.8210	-138.0750	4.91	KZD	16458	SKM
9	8	1968	19:00:01.000	-21.8210	-138.0750	4.91	ARK	16430	SKM
5	30	1970	17:59:59.900	-22.3090	-138.6060	4.44	TLG	15973	SKM
5	30	1970	17:59:59.900	-22.3090	-138.6060	4.44	SUFI	16399	SKM
5	30	1970	17:59:59.900	-22.3090	-138.6060	4.44	URG	16907	SKM
7	3	1970	18:30:00.300	-21.9350	-138.9170	4.65	SUFI	16348	SKM
8	14	1971	19:00:00.800	-21.8230	-138.9760	4.65	KKUL	16319	SKM
7	11	1976	0:30:00.500	-21.8630	-138.7860	4.93	TLG	15925	SKM
7	11	1976	0:30:00.500	-21.8630	-138.7860	4.93	TORK	16284	SKM
7	11	1976	0:30:00.500	-21.8630	-138.7860	4.93	KKUL	16336	SKM
11	24	1977	16:59:59.900	-21.8840	-138.8860	5.86	BRVK	15745	SKM
11	24	1977	16:59:59.900	-21.8840	-138.8860	5.86	CHL	15822	SKM
11	24	1977	16:59:59.900	-21.8840	-138.8860	5.86	TRG	15885	SKM
11	24	1977	16:59:59.900	-21.8840	-138.8860	5.86	TLG	15919	SKM
11	24	1977	16:59:59.900	-21.8840	-138.8860	5.86	KAC	15713	SKM
11	24	1977	16:59:59.900	-21.8840	-138.8860	5.86	KST	16021	SKM
3	19	1977	23:00:59.900	-21.8870	-138.9200	5.92	KAC	15711	SKM
3	19	1977	23:00:59.900	-21.8870	-138.9200	5.92	BRVK	15744	SKM
3	19	1977	23:00:59.900	-21.8870	-138.9200	5.92	TK	15750	SKM
3	19	1977	23:00:59.900	-21.8870	-138.9200	5.92	TRG	15883	SKM
3	19	1977	23:00:59.900	-21.8870	-138.9200	5.92	ILI	15903	SKM
3	19	1977	23:00:59.900	-21.8870	-138.9200	5.92	CHL	15820	SKM
3	19	1977	23:00:59.900	-21.8870	-138.9200	5.92	KST	16019	SKM
3	19	1977	23:00:59.900	-21.8870	-138.9200	5.92	KKUL	16328	SKM
11	30	1978	17:32:00.000	-21.8680	-138.9500	5.86	KAC	15707	SKM
11	30	1978	17:32:00.000	-21.8680	-138.9500	5.86	ILI	15899	SKM
11	30	1978	17:32:00.000	-21.8680	-138.9500	5.86	FAB	15976	SKM
11	30	1978	17:32:00.000	-21.8680	-138.9500	5.86	KST	16015	SKM
11	30	1978	17:32:00.000	-21.8680	-138.9500	5.86	KKUL	16325	SKM

11	30	1978	17:32:00.000	-21.8680	-138.9500	5.86	CHL	15816	SKM
7	25	1979	17:57:00.000	-21.8800	-138.9400	6.11	TORK	16274	SKM
7	25	1979	17:57:00.000	-21.8800	-138.9400	6.11	KKUL	16326	SKM
7	28	1979	19:56:00.300	-21.8090	-138.8120	4.73	AKJ	16365	SKM
6	16	1980	18:27:00.000	-21.8700	-138.8990	5.30	TLG	15917	SKM
6	16	1980	18:27:00.000	-21.8700	-138.8990	5.30	AKJ	16363	SKM
6	16	1980	18:27:00.000	-21.8700	-138.8990	5.30	KRSU	16296	SKM
6	16	1980	18:27:00.000	-21.8700	-138.8990	5.30	KKUL	16328	SKM
6	16	1980	18:27:00.000	-21.8700	-138.8990	5.30	TORK	16276	SKM
7	19	1980	23:47:00.000	-21.8610	-138.9340	5.73	TLG	15914	SKM
7	19	1980	23:47:00.000	-21.8610	-138.9340	5.73	KRSU	16292	SKM
7	19	1980	23:47:00.000	-21.8610	-138.9340	5.73	TORK	16273	SKM
7	19	1980	23:47:00.000	-21.8610	-138.9340	5.73	AKJ	16360	SKM
7	19	1980	23:47:00.000	-21.8610	-138.9340	5.73	KKUL	16325	SKM
12	3	1980	17:33:00.000	-21.8750	-139.9390	5.58	TLG	15840	SKM
12	3	1980	17:33:00.000	-21.8750	-139.9390	5.58	AKJ	16286	SKM
12	3	1980	17:33:00.000	-21.8750	-139.9390	5.58	TORK	16199	SKM
12	3	1980	17:33:00.000	-21.8750	-139.9390	5.58	KRSU	16218	SKM
12	3	1980	17:33:00.000	-21.8750	-139.9390	5.58	HRG	16526	SKM
12	3	1980	17:33:00.000	-21.8750	-139.9390	5.58	KKUL	16252	SKM
3	23	1980	19:37:00.000	-21.8610	-138.9390	5.63	BRVK	15741	SKM
3	23	1980	19:37:00.000	-21.8610	-138.9390	5.63	TLG	15913	SKM
3	23	1980	19:37:00.000	-21.8610	-138.9390	5.63	AKJ	16359	SKM
3	23	1980	19:37:00.000	-21.8610	-138.9390	5.63	KRSU	16292	SKM
3	23	1980	19:37:00.000	-21.8610	-138.9390	5.63	TORK	16272	SKM
3	23	1980	19:37:00.000	-21.8610	-138.9390	5.63	KKUL	16325	SKM
4	1	1980	19:31:00.200	-21.8450	-138.7580	5.05	TLG	15925	SKM
4	1	1980	19:31:00.200	-21.8450	-138.7580	5.05	TORK	16284	SKM
4	1	1980	19:31:00.200	-21.8450	-138.7580	5.05	AKJ	16371	SKM
4	10	1981	17:57:00.500	-21.7950	-138.9460	4.76	TLG	15908	SKM
8	3	1981	18:33:00.000	-21.8240	-138.9030	5.09	KRSU	16292	SKM
8	3	1981	18:33:00.000	-21.8240	-138.9030	5.09	KKUL	16325	SKM
8	3	1981	18:33:00.000	-21.8240	-138.9030	5.09	AKJ	16359	SKM
8	3	1981	18:33:00.000	-21.8240	-138.9030	5.09	TORK	16272	SKM
12	8	1981	16:47:00.200	-21.7970	-138.9270	5.14	TLG	15909	SKM
12	8	1981	16:47:00.200	-21.7970	-138.9270	5.14	KRSU	16288	SKM
12	8	1981	16:47:00.200	-21.7970	-138.9270	5.14	AKJ	16355	SKM
7	25	1982	18:02:00.000	-21.8360	-138.8960	5.60	TLG	15915	SKM
4	19	1983	18:53:00.200	-21.8190	-138.8720	5.70	TRG	15881	SKM
4	19	1983	18:53:00.200	-21.8190	-138.8720	5.70	TLG	15915	SKM
5	25	1983	17:31:00.100	-21.8610	-138.9170	5.87	KAC	15709	SKM
5	25	1983	17:31:00.100	-21.8610	-138.9170	5.87	CHL	15818	SKM
5	25	1983	17:31:00.100	-21.8610	-138.9170	5.87	ILI	15901	SKM

5	25	1983	17:31:00.100	-21.8610	-138.9170	5.87	TRG	15881	SKM
5	25	1983	17:31:00.100	-21.8610	-138.9170	5.87	KRM	15848	SKM
5	25	1983	17:31:00.100	-21.8610	-138.9170	5.87	KUU	15949	SKM
5	25	1983	17:31:00.100	-21.8610	-138.9170	5.87	TLG	15915	SKM
5	25	1983	17:31:00.100	-21.8610	-138.9170	5.87	MDO	15934	SKM
5	25	1983	17:31:00.100	-21.8610	-138.9170	5.87	TSN	15945	SKM
5	25	1983	17:31:00.100	-21.8610	-138.9170	5.87	FAB	15978	SKM
5	25	1983	17:31:00.100	-21.8610	-138.9170	5.87	KST	16017	SKM
8	4	1983	17:14:00.200	-21.8350	-138.8290	5.13	TLG	15919	SKM
5	12	1984	17:31:00.000	-21.8630	-138.9010	5.57	TLG	15916	SKM
11	2	1984	20:45:00.100	-21.8570	-138.9200	5.64	TLG	15914	SKM
12	6	1984	17:29:00.200	-21.8370	-138.8900	5.56	TLG	15915	SKM
4	30	1985	17:29:00.600	-21.8290	-138.9520	4.51	TLG	15910	SKM
5	8	1985	20:28:00.200	-21.8310	-138.9810	5.64	TLG	15908	SKM
6	3	1985	17:30:00.600	-21.8160	-138.8970	4.83	TLG	15913	SKM
10	26	1985	16:35:00.200	-21.8490	-138.8150	5.30	TLG	15922	SKM
11	26	1985	17:42:00.100	-21.8560	-138.8990	5.76	TRG	15882	SKM
11	26	1985	17:42:00.100	-21.8560	-138.8990	5.76	KAC	15710	SKM
11	26	1985	17:42:00.100	-21.8560	-138.8990	5.76	CHL	15819	SKM
11	26	1985	17:42:00.100	-21.8560	-138.8990	5.76	KUU	15950	SKM
11	26	1985	17:42:00.100	-21.8560	-138.8990	5.76	TSN	15946	SKM
11	26	1985	17:42:00.100	-21.8560	-138.8990	5.76	KRM	15849	SKM
11	26	1985	17:42:00.100	-21.8560	-138.8990	5.76	MDO	15935	SKM
11	26	1985	17:42:00.100	-21.8560	-138.8990	5.76	TLG	15916	SKM
11	26	1985	17:42:00.100	-21.8560	-138.8990	5.76	KST	16018	SKM
4	26	1986	17:01:56.600	-22.1540	-139.1150	4.80	TLG	15923	SKM
5	30	1986	17:25:00.100	-21.8620	-138.9490	5.58	TLG	15913	SKM
11	12	1986	17:02:00.300	-21.8430	-138.9270	5.28	TLG	15913	SKM
5	20	1987	17:05:00.100	-21.8500	-138.9130	5.51	TLG	15914	SKM
10	23	1987	16:50:00.300	-21.8450	-138.9070	5.54	TLG	15914	SKM
11	5	1987	17:30:00.400	-21.7910	-138.8740	5.36	TLG	15913	SKM
11	19	1987	16:31:00.200	-21.8450	-138.9410	5.74	PDG	15739	SKM
11	19	1987	16:31:00.200	-21.8450	-138.9410	5.74	TRG	15878	SKM
11	19	1987	16:31:00.200	-21.8450	-138.9410	5.74	BRTG	15810	SKM
11	19	1987	16:31:00.200	-21.8450	-138.9410	5.74	MDO	15931	SKM
11	19	1987	16:31:00.200	-21.8450	-138.9410	5.74	KUU	15946	SKM
11	19	1987	16:31:00.200	-21.8450	-138.9410	5.74	KRM	15845	SKM
11	19	1987	16:31:00.200	-21.8450	-138.9410	5.74	TSN	15942	SKM
11	19	1987	16:31:00.200	-21.8450	-138.9410	5.74	ZHLS	15786	SKM
11	19	1987	16:31:00.200	-21.8450	-138.9410	5.74	MTB	15976	SKM
11	19	1987	16:31:00.200	-21.8450	-138.9410	5.74	TLG	15912	SKM
11	19	1987	16:31:00.200	-21.8450	-138.9410	5.74	KST	16014	SKM
5	11	1988	17:00:00.300	-21.8330	-138.9450	5.27	TLG	15911	SKM

5	25	1988	17:01:00.100	-21.8450	-138.9610	5.50	TLG	15910	SKM
6	23	1988	17:31:00.300	-21.8460	-138.9110	5.18	TLG	15914	SKM
11	23	1988	17:01:00.300	-21.8350	-138.9540	5.29	TLG	15910	SKM
11	30	1988	17:55:00.000	-22.2330	-138.7400	5.58	TLG	15957	SKM
5	11	1989	16:45:00.500	-21.8120	-138.8840	5.16	TLG	15914	SKM
6	3	1989	17:30:00.200	-21.8420	-138.9220	5.16	TLG	15913	SKM
6	10	1989	17:30:00.100	-22.2170	-138.7210	5.52	TLG	15957	SKM
10	31	1989	16:57:00.300	-21.7930	-138.8550	5.30	TLG	15914	SKM
11	20	1989	17:29:00.300	-22.7930	-138.8840	5.19	TLG	15989	SKM
11	27	1989	17:00:00.000	-22.2510	-138.7220	5.59	TLG	15959	SKM
6	2	1990	17:29:58.500	-21.8770	-138.9180	5.30	TLG	15916	SKM
6	26	1990	17:59:58.200	-22.2150	-138.8410	5.50	TLG	15948	SKM
7	4	1990	17:59:58.600	-21.8500	-139.0420	5.10	TLG	15905	SKM
6	14	1991	17:59:57.800	-21.9440	-138.9880	5.20	TLG	15916	SKM
9	5	1995	21:29:58.400	-21.8520	-138.8440	4.80	MDO	15939	SKM
9	5	1995	21:29:58.400	-21.8520	-138.8440	4.80	KST	16022	SKM
9	5	1995	21:29:58.400	-21.8520	-138.8440	4.80	MTB	15983	SKM
9	5	1995	21:29:58.400	-21.8520	-138.8440	4.80	JAB	16441	SKM
9	5	1995	21:29:58.400	-21.8520	-138.8440	4.80	BRD	16459	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	DZHR	15721	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	UZB	15827	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	SATY	15878	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	TSN	15988	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	DJRKG	15849	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	ANVS	15945	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	PRZ	15902	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	KDSKG	16009	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	KNSKG	15843	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	TRKKG	16059	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	KST	16060	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	BOM	16087	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	URVKG	16144	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	CHMS	16151	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	EKS	16238	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	BGK	16206	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	AAK	16188	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	ARLS	16238	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	NRN	16133	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	AKKKG	16372	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	AKUKG	16349	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	SUFI	16384	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	OHH	16417	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	KZD	16441	SKM

10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	ARSB	16364	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	TKLKG	16343	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	NICH	16318	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	TRKS	16491	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	CHVKG	16479	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	DRKKG	16541	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	ARK	16415	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	KZAD	16396	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	BTK	16589	SKM
10	1	1995	23:29:58.000	-22.2500	-138.7400	5.40	BRD	16499	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	TK	15746	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	DJRKG	15804	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	DZHR	15675	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	PDG	15739	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	KPA	15665	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	TRKKG	16013	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	MDO	15931	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	MTB	15976	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	TSN	15942	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	KUU	15947	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	SATY	15832	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	TRG	15879	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	KST	16014	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	BOM	16042	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	CHMS	16106	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	AKUKG	16304	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	NRN	16087	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	AAK	16142	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	BGK	16161	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	EKS	16192	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	ARLS	16193	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	OHH	16371	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	NICH	16273	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	SALK	16277	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	TRKS	16445	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	ARSB	16318	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	SUFI	16339	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	MNAS	16294	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	ARK	16369	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	KZD	16396	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	CHVKG	16433	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	BRD	16452	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	YUZH	16490	SKM

10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	DRKKG	16496	SKM
10	27	1995	21:59:58.100	-21.8910	-138.9830	5.40	BTK	16544	SKM
11	21	1995	21:29:58.100	-21.8800	-139.0300	4.80	YUZH	16485	SKM
11	21	1995	21:29:58.100	-21.8800	-139.0300	4.80	BRD	16448	SKM
12	27	1995	21:29:58.000	-21.8800	-138.9700	5.10	TRG	15879	SKM
12	27	1995	21:29:58.000	-21.8800	-138.9700	5.10	BRD	16452	SKM
12	27	1995	21:29:58.000	-21.8800	-138.9700	5.10	YUZH	16490	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	ZSN	15256	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	DZHR	15715	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	PDG	15778	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	TK	15786	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	KURM	15870	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	SATY	15871	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	UZB	15821	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	TRG	15918	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	CHUK	15941	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	KUU	15986	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	KPA	15705	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	MDO	15970	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	TSN	15981	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	MTB	16015	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	KST	16054	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	TRKKG	16052	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	BOM	16081	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	CHMS	16145	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	URVKG	16138	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	BGK	16200	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	AAK	16181	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	DZH	16396	SKD
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	EKS	16231	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	ARLS	16231	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	AKUKG	16342	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	KNSKG	15836	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	MNAS	16334	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	TKLKG	16336	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	SUFI	16377	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	KZD	16435	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	OHH	16410	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	ARSB	16357	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	ARK	16409	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	AKKKG	16366	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	SALK	16316	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	CHVKG	16472	SKM

1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	BTK	16583	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	JAB	16474	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	YUZH	16529	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	BRD	16492	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	TRKS	16484	SKM
1	27	1996	21:29:57.800	-22.2400	-138.8200	5.30	CHMK	16549	SKD

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Appendix L. Digitized seismograms of nuclear explosions at the Nevada Test Site.

Mo.	D.	Yr.	Origin time	Lat. °N	Long. °E	mb	Station	Dist.	Inst. type
9	13	1963	17:00:00.100	37.0604	-116.0217	5.80	CHER	9597	SKM
9	13	1963	17:00:00.100	37.0604	-116.0217	5.80	MAN	9649	SKM
9	13	1963	17:00:00.100	37.0604	-116.0217	5.80	TASH	9713	SKM
9	13	1963	17:00:00.100	37.0604	-116.0217	5.80	KHAR	9754	SKM
9	13	1963	17:00:00.100	37.0604	-116.0217	5.80	CHAD	9807	SKM
5	6	1966	15:00:00.100	37.3480	-116.3219	5.50	BRVK	9935	SKM
5	13	1966	13:30:00.000	37.0869	-116.0334	5.60	BRVK	9965	SKM
5	19	1966	13:56:28.100	37.1111	-116.0579	5.90	BRVK	9963	SKM
6	30	1966	22:15:00.100	37.3158	-116.2990	6.10	BRVK	9938	SKM
6	30	1966	22:15:00.100	37.3158	-116.2990	6.10	KAC	10690	SKM
6	30	1966	22:15:00.100	37.3158	-116.2990	6.10	CHAR	10886	SKM
6	30	1966	22:15:00.100	37.3158	-116.2990	6.10	KRM	10957	SKM
12	20	1966	15:30:00.100	37.3021	-116.4083	6.30	BRVK	9939	SKM
5	20	1967	15:00:00.000	37.1304	-116.0639	5.90	BRVK	9960	SKM
5	20	1967	15:00:00.000	37.1304	-116.0639	5.90	UKM	10171	SKM
5	23	1967	14:00:00.000	37.2751	-116.3700	5.70	BRVK	9943	SKM
5	23	1967	14:00:00.000	37.2751	-116.3700	5.70	UKM	10150	SKM
5	26	1967	15:00:01.500	37.2479	-116.4802	5.54	BRVK	9945	SKM
9	27	1967	17:00:00.000	37.0988	-116.0532	5.70	BRVK	9964	SKM
9	27	1967	17:00:00.000	37.0988	-116.0532	5.70	UKM	10175	SKM
2	23	1967	18:50:00.000	37.1269	-116.0664	5.80	BRVK	9961	SKM
5	17	1968	13:00:00.000	37.1201	-116.0588	4.70	UKM	10172	SKM
5	17	1968	13:00:00.000	37.1201	-116.0588	4.70	KAC	10715	SKM
5	17	1968	13:00:00.000	37.1201	-116.0588	4.70	CHL	10931	SKM
5	17	1968	13:00:00.000	37.1201	-116.0588	4.70	KRM	10982	SKM
5	17	1968	13:00:00.000	37.1201	-116.0588	4.70	RYB	11070	SKM
6	15	1968	14:00:00.000	37.2649	-116.3146	5.90	BRVK	9944	SKM
1	19	1968	18:15:00.100	38.6343	-116.2153	6.30	UKM	10005	SKM
1	19	1968	18:15:00.100	38.6343	-116.2153	6.30	KAC	10547	SKM
8	29	1968	22:45:00.000	37.2503	-116.3469	5.90	BRVK	9945	SKM
9	6	1968	14:00:00.100	37.1361	-116.0472	5.60	BRVK	9960	SKM
12	19	1968	16:30:00.000	37.2315	-116.4736	6.30	BRVK	9947	SKM
12	19	1968	16:30:00.000	37.2315	-116.4736	6.30	CHL	10912	SKM
12	19	1968	16:30:00.000	37.2315	-116.4736	6.30	KAR	11154	SKM
12	19	1968	16:30:00.000	37.2315	-116.4736	6.30	ARK	11177	SKM
12	19	1968	16:30:00.000	37.2315	-116.4736	6.30	KZU	11173	SKM
12	19	1968	16:30:00.000	37.2315	-116.4736	6.30	KZD	11237	SKM
12	19	1968	16:30:00.000	37.2315	-116.4736	6.30	KKUL	11184	SKM
12	19	1968	16:30:00.000	37.2315	-116.4736	6.30	RYA	11210	SKM

12	19	1968	16:30:00.000	37.2315	-116.4736	6.30	TERS	11221	SKM
12	19	1968	16:30:00.000	37.2315	-116.4736	6.30	YARD	11217	SKM
2	21	1968	15:30:00.000	37.1166	-116.0537	5.80	BRVK	9962	SKM
5	7	1969	13:45:00.000	37.2829	-116.5006	5.80	KAR	11148	SKM
5	7	1969	13:45:00.000	37.2829	-116.5006	5.80	YARD	11211	SKM
7	16	1969	14:55:00.000	37.1395	-116.0874	5.60	VYP	9688	SKM
7	16	1969	14:55:00.000	37.1395	-116.0874	5.60	RAIS	9986	SKM
7	16	1969	14:55:00.000	37.1395	-116.0874	5.60	BRVK	9959	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	VYP	9682	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	DEM	9768	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	VOL	9926	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	RAIS	9966	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	IMAN	9959	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	BRVK	9938	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	VLAD	10033	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	KZU	11164	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	TLG	10944	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	RYB	11043	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	UZA	11109	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	KKUL	11175	SKM
9	16	1969	14:30:00.000	37.3141	-116.4607	6.20	KAR	11145	SKM
10	2	1969	22:06:00.000	51.4171	179.1823	6.40	AAA	7109	SKM
10	8	1969	14:30:00.100	37.2567	-116.4408	5.60	BRVK	9944	SKM
3	20	1969	18:12:00.000	37.0220	-116.0302	4.60	TLG	10982	SKM
5	26	1970	15:00:00.100	37.1134	-116.0623	5.60	BRVK	9962	SKM
10	14	1970	14:30:00.600	37.0707	-116.0051	5.50	BRVK	9967	SKM
2	4	1970	17:00:00.000	37.0981	-116.0265	5.60	BRVK	9964	SKM
3	23	1970	23:05:00.000	37.0862	-116.0211	5.50	BRVK	9966	SKM
3	26	1970	19:00:00.200	37.3005	-116.5341	6.50	BRVK	9939	SKM
3	26	1970	19:00:00.200	37.3005	-116.5341	6.50	CHIN	11127	SKM
3	26	1970	19:00:00.200	37.3005	-116.5341	6.50	KKUL	11176	SKM
3	26	1970	19:00:00.200	37.3005	-116.5341	6.50	TLG	10944	SKM
3	26	1970	19:00:00.200	37.3005	-116.5341	6.50	URG	11470	SKM
3	26	1970	19:00:00.200	37.3005	-116.5341	6.50	VYP	9686	SKM
7	8	1971	14:00:00.100	37.1101	-116.1514	5.50	BRVK	9962	SKM
9	21	1972	15:30:00.200	37.0821	-116.0383	5.70	BRVK	9966	SKM
4	26	1973	17:15:00.200	37.1231	-116.0585	5.60	BRVK	9961	SKM
6	6	1973	13:00:00.100	37.2451	-116.3460	6.10	BRVK	9946	SKM
6	6	1973	13:00:00.100	37.2451	-116.3460	6.10	KAC	10697	SKM
7	10	1974	16:00:00.100	37.0675	-116.0318	5.70	BRVK	9968	SKM
7	10	1974	16:00:00.100	37.0675	-116.0318	5.70	TLG	10977	SKM
9	26	1974	15:05:00.200	37.1326	-116.0684	5.60	BRVK	9960	SKM
2	27	1974	17:00:00.100	37.1043	-116.0528	5.80	BRVK	9963	SKM

5	14	1975	14:00:00.200	37.2208	-116.4742	6.00	BRVK	9948	SKM
5	14	1975	14:00:00.200	37.2208	-116.4742	6.00	KAC	10698	SKM
5	14	1975	14:00:00.200	37.2208	-116.4742	6.00	KRM	10964	SKM
5	14	1975	14:00:00.200	37.2208	-116.4742	6.00	TLG	10954	SKM
5	14	1975	14:00:00.200	37.2208	-116.4742	6.00	AKJ	11197	SKM
6	3	1975	14:20:00.200	37.3401	-116.5229	5.90	BRVK	9934	SKM
6	3	1975	14:20:00.200	37.3401	-116.5229	5.90	TLG	10940	SKM
6	3	1975	14:20:00.200	37.3401	-116.5229	5.90	TORK	11137	SKM
6	3	1975	14:20:00.200	37.3401	-116.5229	5.90	AKJ	11183	SKM
6	3	1975	14:20:00.200	37.3401	-116.5229	5.90	TLG	10940	SKM
6	3	1975	14:20:00.200	37.3401	-116.5229	5.90	TORK	11137	SKM
6	19	1975	13:00:00.100	37.3503	-116.3202	6.10	BRVK	9934	SKM
6	19	1975	13:00:00.100	37.3503	-116.3202	6.10	TORK	11138	SKM
6	19	1975	13:00:00.100	37.3503	-116.3202	6.10	AKJ	11184	SKM
6	26	1975	12:30:00.200	37.2789	-116.3686	6.20	TLG	10949	SKM
6	26	1975	12:30:00.200	37.2789	-116.3686	6.20	AKJ	11191	SKM
6	26	1975	12:30:00.200	37.2789	-116.3686	6.20	TORK	11145	SKM
10	28	1975	14:30:00.200	37.2901	-116.4115	6.40	TK	10736	SKM
10	28	1975	14:30:00.200	37.2901	-116.4115	6.40	TLG	10947	SKM
10	28	1975	14:30:00.200	37.2901	-116.4115	6.40	TORK	11144	SKM
10	28	1975	14:30:00.200	37.2901	-116.4115	6.40	AKJ	11190	SKM
11	20	1975	15:00:00.100	37.2250	-116.3676	6.00	BRVK	9948	SKM
11	20	1975	15:00:00.100	37.2250	-116.3676	6.00	KAC	10699	SKM
11	20	1975	15:00:00.100	37.2250	-116.3676	6.00	CHL	10914	SKM
12	20	1975	20:00:00.200	37.1276	-116.0616	5.70	BRVK	9961	SKM
2	28	1975	15:15:00.100	37.1062	-116.0563	5.70	BRVK	9963	SKM
3	7	1975	15:00:00.200	37.1340	-116.0842	5.50	BRVK	9960	SKM
7	27	1976	20:30:00.100	37.0754	-116.0438	5.30	ZEL	9637	CSE
8	26	1976	14:30:00.200	37.1250	-116.0820	5.30	BEZ	5715	RVZT
8	26	1976	14:30:00.200	37.1250	-116.0820	5.30	BEZ	5715	CSE
8	26	1976	14:30:00.200	37.1250	-116.0820	5.30	SGD	8210	RVZT
8	26	1976	14:30:00.200	37.1250	-116.0820	5.30	ZEL	9633	RVZT
12	8	1976	14:49:30.100	37.0793	-116.0016	4.90	VOS	9999	RVZT
12	8	1976	14:49:30.100	37.0793	-116.0016	4.90	ZRN	9987	RVZT
12	21	1976	15:09:00.200	37.1240	-116.0670		ZRN	9981	CSE
12	21	1976	15:09:00.200	37.1240	-116.0670		BRV	9961	CSE
2	4	1976	14:40:00.200	37.1066	-116.0374	5.70	BRVK	9963	SKM
2	4	1976	14:40:00.200	37.1066	-116.0374	5.70	TLG	10973	SKM
2	4	1976	14:40:00.200	37.1066	-116.0374	5.70	TORK	11168	SKM
12	28	1976	18:00:00.100	37.1005	-116.0365	5.50	BRVK	9964	SKM
12	28	1976	18:00:00.100	37.1005	-116.0365	5.50	ZRN	9984	RVZT
12	28	1976	18:00:00.100	37.1005	-116.0365	5.50	VOS	9997	RVZT
1	3	1976	19:15:00.200	37.2966	-116.3332	6.20	BRVK	9940	SKM

1	3	1976	19:15:00.200	37.2966	-116.3332	6.20	TLG	10948	SKM
1	3	1976	19:15:00.200	37.2966	-116.3332	6.20	TORK	11144	SKM
1	3	1976	19:15:00.200	37.2966	-116.3332	6.20	AKJ	11190	SKM
1	3	1976	19:15:00.200	37.2966	-116.3332	6.20	KKUL	11179	SKM
2	12	1976	14:45:00.200	37.2714	-116.4884	6.30	BRVK	9942	SKM
2	14	1976	11:30:00.200	37.2426	-116.4202	6.00	BRVK	9946	SKM
3	9	1976	14:00:00.100	37.3100	-116.3642	6.00	AKJ	11188	SKM
3	9	1976	14:00:00.100	37.3100	-116.3642	6.00	KKUL	11177	SKM
3	9	1976	14:00:00.100	37.3100	-116.3642	6.00	TLG	10946	SKM
3	9	1976	14:00:00.100	37.3100	-116.3642	6.00	TORK	11142	SKM
3	14	1976	12:30:00.200	37.3060	-116.4715	6.30	BRVK	9938	SKM
3	17	1976	14:15:00.100	37.1073	-116.0525	6.10	BRVK	9963	SKM
3	17	1976	14:15:00.100	37.1073	-116.0525	6.10	AKJ	11213	SKM
3	17	1976	14:15:00.100	37.1073	-116.0525	6.10	TLG	10973	SKM
3	17	1976	14:15:00.100	37.1073	-116.0525	6.10	TORK	11168	SKM
4	27	1977	15:00:00.100	37.0948	-116.0279	5.40	CHK	9894	RVZT
4	27	1977	15:00:00.100	37.0948	-116.0279	5.40	VOS	9997	RVZT
4	27	1977	15:00:00.100	37.0948	-116.0279	5.40	ZRN	9985	RVZT
4	27	1977	15:00:00.100	37.0948	-116.0279	5.40	TLG	10974	SKM
5	25	1977	17:00:00.100	37.0943	-116.0449	5.30	CHK	9894	RVZT
5	25	1977	17:00:00.100	37.0943	-116.0449	5.30	ZRN	9985	RVZT
5	25	1977	17:00:00.100	37.0943	-116.0449	5.30	TLG	10974	SKM
8	4	1977	16:40:00.100	37.0866	-116.0069	5.10	CHK	9895	RVZT
8	4	1977	16:40:00.100	37.0866	-116.0069	5.10	CHK	9895	CSE
8	4	1977	16:40:00.100	37.0866	-116.0069	5.10	ZRN	9986	RVZT
8	4	1977	16:40:00.100	37.0866	-116.0069	5.10	VOS	9998	RVZT
8	19	1977	17:55:00.100	37.1100	-116.0545	5.60	CHK	9892	RVZT
8	19	1977	17:55:00.100	37.1100	-116.0545	5.60	BRVK	9963	SKM
8	19	1977	17:55:00.100	37.1100	-116.0545	5.60	ZRN	9983	RVZT
8	19	1977	17:55:00.100	37.1100	-116.0545	5.60	VOS	9995	CSE
8	19	1977	17:55:00.100	37.1100	-116.0545	5.60	TLG	10972	SKM
9	15	1977	14:36:30.100	37.0328	-116.0431	4.50	ZRN	9992	CSE
9	15	1977	14:36:30.100	37.0328	-116.0431	4.50	BRV	9971	CSE
9	27	1977	14:00:00.200	37.1512	-116.0676	4.80	ZRN	9978	RVZT
9	27	1977	14:00:00.200	37.1512	-116.0676	4.80	VOS	9991	CSE
9	27	1977	14:00:00.200	37.1512	-116.0676	4.80	VOS	9991	RVZT
10	26	1977	14:15:00.100	37.0080	-116.0170	4.40	ZRN	9995	RVZT
10	26	1977	14:15:00.100	37.0080	-116.0170	4.40	BRV	9974	CSE
11	1	1977	18:06:00.100	37.1878	-116.2130	4.70	BRV	9953	CSE
11	1	1977	18:06:00.100	37.1878	-116.2130	4.70	ZRN	9974	CSE
11	9	1977	22:00:00.100	37.0721	-116.0500	5.80	CHK	9897	RVZT
11	9	1977	22:00:00.100	37.0721	-116.0500	5.80	BRVK	9967	SKM
11	9	1977	22:00:00.100	37.0721	-116.0500	5.80	VOS	10000	RVZT

11	17	1977	19:30:00.100	37.0206	-116.0251	4.70	BRV	9973	CSE
11	17	1977	19:30:00.100	37.0206	-116.0251	4.70	ZRN	9993	CSE
12	14	1977	15:30:00.200	37.1359	-116.0860	5.70	BRVK	9960	SKM
12	14	1977	15:30:00.200	37.1359	-116.0860	5.70	ZRN	9980	RVZT
12	14	1977	15:30:00.200	37.1359	-116.0860	5.70	VOS	9992	RVZT
4	5	1977	15:00:00.200	37.1202	-116.0623	5.60	ZEL	9633	RVZT
4	5	1977	15:00:00.200	37.1202	-116.0623	5.60	BRVK	9962	SKM
4	5	1977	15:00:00.200	37.1202	-116.0623	5.60	VOS	9994	RVZT
4	5	1977	15:00:00.200	37.1202	-116.0623	5.60	ZRN	9982	RVZT
4	5	1977	15:00:00.200	37.1202	-116.0623	5.60	TLG	10971	SKM
4	11	1978	17:45:00.100	37.2335	-116.3685	5.50	CHK	9877	RVZT
4	11	1978	17:45:00.100	37.2335	-116.3685	5.50	ZRN	9968	RVZT
4	11	1978	17:45:00.100	37.2335	-116.3685	5.50	BRVK	9947	SKM
4	11	1978	17:45:00.100	37.2335	-116.3685	5.50	VOS	9980	RVZT
7	12	1978	17:00:00.100	37.0787	-116.0438	5.60	BRVK	9966	SKM
7	12	1978	17:00:00.100	37.0787	-116.0438	5.60	ZRN	9987	RVZT
7	12	1978	17:00:00.100	37.0787	-116.0438	5.60	KKUL	11206	SKM
8	31	1978	14:00:00.200	37.2759	-116.3573	5.60	CHK	9872	RVZT
8	31	1978	14:00:00.200	37.2759	-116.3573	5.60	VOS	9975	RVZT
8	31	1978	14:00:00.200	37.2759	-116.3573	5.60	BRVK	9942	SKM
9	13	1978	15:15:00.200	37.2088	-116.2108	4.60	BRV	9951	CSE
9	27	1978	17:00:00.100	37.0798	-116.0513	5.00	VOS	9999	CSE
9	27	1978	17:00:00.100	37.0798	-116.0513	5.00	TLG	10976	SKM
9	27	1978	17:00:00.100	37.0798	-116.0513	5.00	VOS	9999	CSE
9	27	1978	17:20:00.100	37.0739	-116.0198	5.80	BRVK	9967	SKM
11	2	1978	15:25:00.200	37.2880	-116.2970	4.20	BRV	9942	RVZT
11	2	1978	15:25:00.200	37.2880	-116.2970	4.20	TLG	10949	SKM
11	18	1978	19:00:00.200	37.1269	-116.0839	5.10	ZRN	9981	RVZT
12	16	1978	15:30:00.200	37.2734	-116.4103	5.60	CHK	9872	RVZT
12	16	1978	15:30:00.200	37.2734	-116.4103	5.60	BRVK	9942	SKM
12	16	1978	15:30:00.200	37.2734	-116.4103	5.60	ZRN	9963	RVZT
12	16	1978	15:30:00.200	37.2734	-116.4103	5.60	VOS	9975	RVZT
2	23	1978	17:00:00.200	37.1237	-116.0638	5.60	CHK	9891	RVZT
2	23	1978	17:00:00.200	37.1237	-116.0638	5.60	BRVK	9961	SKM
2	23	1978	17:00:00.200	37.1237	-116.0638	5.60	ZRN	9982	RVZT
2	23	1978	17:00:00.200	37.1237	-116.0638	5.60	VOS	9994	RVZT
2	23	1978	17:00:00.200	37.1237	-116.0638	5.60	TLG	10971	SKM
3	23	1978	16:30:00.200	37.1018	-116.0511	5.60	BRVK	9964	SKM
6	11	1979	14:00:00.200	37.2897	-116.4553	5.50	CHK	9870	RVZT
6	11	1979	14:00:00.200	37.2897	-116.4553	5.50	VOS	9973	RVZT
6	11	1979	14:00:00.200	37.2897	-116.4553	5.50	BRVK	9940	SKM
6	11	1979	14:00:00.200	37.2897	-116.4553	5.50	ZRN	9961	RVZT
6	11	1979	14:00:00.200	37.2897	-116.4553	5.50	NTR	10238	RVZT

6	20	1979	15:00:13.500	37.1080	-116.0150	4.00	VOS	9996	CSE
6	20	1979	15:00:13.500	37.1080	-116.0150	4.00	BRV	9963	CSE
6	28	1979	14:44:00.200	37.1432	-116.0875	5.00	ZRN	9979	RVZT
6	28	1979	14:44:00.200	37.1432	-116.0875	5.00	CHK	9888	CSE
6	28	1979	14:44:00.200	37.1432	-116.0875	5.00	VOS	9991	RVZT
8	3	1979	15:07:30.200	37.0840	-116.0699	4.60	VOS	9998	RVZT
8	3	1979	15:07:30.200	37.0840	-116.0699	4.60	ZRN	9986	RVZT
8	8	1979	15:00:00.100	37.0147	-116.0080	4.90	VOS	10006	CSE
8	29	1979	15:08:00.200	37.1212	-116.0666	4.80	VOS	9994	RVZT
9	6	1979	15:00:00.100	37.0881	-116.0528	5.80	BRVK	9965	SKM
9	6	1979	15:00:00.100	37.0881	-116.0528	5.80	TLG	10975	SKM
1	24	1979	18:00:00.100	37.1054	-116.0117	4.50	VOS	9996	CSE
1	24	1979	18:00:00.100	37.1054	-116.0117	4.50	BRV	9963	RVZT
2	8	1979	20:00:00.100	37.1025	-116.0548	5.50	CHK	9893	RVZT
2	8	1979	20:00:00.100	37.1025	-116.0548	5.50	ZRN	9984	RVZT
2	8	1979	20:00:00.100	37.1025	-116.0548	5.50	BRVK	9964	SKM
2	8	1979	20:00:00.100	37.1025	-116.0548	5.50	VOS	9996	RVZT
2	8	1979	20:00:00.100	37.1025	-116.0548	5.50	TLG	10973	SKM
2	8	1979	20:00:00.100	37.1025	-116.0548	5.50	TORK	11168	SKM
2	8	1979	20:00:00.100	37.1025	-116.0548	5.50	AKJ	11214	SKM
2	15	1979	18:05:00.200	37.1520	-116.0718	4.90	VOS	9991	RVZT
2	15	1979	18:05:00.200	37.1520	-116.0718	4.90	VOS	9991	CSE
2	15	1979	18:05:00.200	37.1520	-116.0718	4.90	ZRN	9978	RVZT
2	15	1979	18:05:00.200	37.1520	-116.0718	4.90	TLG	10967	SKM
2	15	1979	18:05:00.200	37.1520	-116.0718	4.90	VOS	9991	CSE
2	15	1979	18:05:00.200	37.1520	-116.0718	4.90	VOS	9991	RVZT
3	14	1979	18:30:00.100	37.0280	-116.0400	4.30	BRV	9972	CSE
4	16	1980	20:00:00.100	37.1011	-116.0305	5.30	BLCH	6667	CSE
4	16	1980	20:00:00.100	37.1011	-116.0305	5.30	PELD	8361	RVZT
4	16	1980	20:00:00.100	37.1011	-116.0305	5.30	POD	9598	CSE
4	16	1980	20:00:00.100	37.1011	-116.0305	5.30	VOS	9997	RVZT
4	16	1980	20:00:00.100	37.1011	-116.0305	5.30	ZRN	9984	RVZT
4	16	1980	20:00:00.100	37.1011	-116.0305	5.30	TLG	10974	RVZT
4	26	1980	17:00:00.100	37.2484	-116.4224	5.50	BRVK	9945	SKM
6	12	1980	17:15:00.100	37.2817	-116.4539	5.60	BRVK	9941	SKM
7	25	1980	19:05:00.100	37.2563	-116.4774	5.60	BRVK	9944	SKM
2	28	1980	15:00:00.100	37.1270	-116.0890	4.40	BRV	9961	CSE
3	8	1980	15:35:00.100	37.1800	-116.0830	3.90	BRV	9955	CSE
4	3	1980	14:00:00.100	37.1499	-116.0823	4.80	ZRN	9979	RVZT
6	6	1981	18:00:00.100	37.3034	-116.3256	5.60	BRVK	9940	SKM
1	15	1981	20:25:00.100	37.0871	-116.0448	5.70	BRVK	9965	SKM
10	1	1981	19:00:00.100	37.0816	-116.0088	5.10	ZRN	9986	RVZT
11	11	1981	20:00:00.000	37.0763	-116.0685	4.90	ZRN	9987	RVZT

4	17	1982	18:00:00.100	37.0168	-116.0099	4.50	ZRN	9994	RVZT
4	25	1982	18:05:00.100	37.2558	-116.4224	5.40	BLCH	6634	RVZT
5	7	1982	18:17:00.100	37.0691	-116.0455	5.70	FAB	10999	SKM
5	7	1982	18:17:00.100	37.0691	-116.0455	5.70	ILI	10913	SKM
5	7	1982	18:17:00.100	37.0691	-116.0455	5.70	KAC	10721	SKM
5	7	1982	18:17:00.100	37.0691	-116.0455	5.70	KUU	10918	SKM
5	7	1982	18:17:00.100	37.0691	-116.0455	5.70	KST	11016	SKM
7	29	1982	20:05:00.100	37.1023	-116.0750	4.50	ZRN	9984	CSE
8	5	1982	14:00:00.100	37.0842	-116.0065	5.70	FAB	10998	SKM
8	5	1982	14:00:00.100	37.0842	-116.0065	5.70	KAC	10720	SKM
8	5	1982	14:00:00.100	37.0842	-116.0065	5.70	KUU	10917	SKM
8	5	1982	14:00:00.100	37.0842	-116.0065	5.70	KRM	10987	SKM
8	5	1982	14:00:00.100	37.0842	-116.0065	5.70	KST	11015	SKM
8	11	1982	15:00:00.000	37.1900	-116.0480		KB	9644	RVZT
9	23	1982	16:00:00.100	37.2120	-116.2068	4.90	SEVR	9726	CSE
9	23	1982	17:00:00.100	37.1748	-116.0878	4.90	ZRN	9976	RVZT
9	29	1982	13:30:00.100	37.0910	-116.0450		ZRN	9985	CSE
1	28	1982	16:00:00.100	37.0913	-116.0512	5.90	TLG	10974	SKM
11	12	1982	19:17:00.100	37.0240	-116.0320	4.40	ZRN	9993	CSE
12	10	1982	15:20:00.100	37.0302	-116.0719	4.80	ZRN	9992	CSE
2	12	1982	15:25:00.100	37.3480	-116.3161	5.60	BLCH	6630	RVZT
4	22	1983	13:53:00.000	37.1120	-116.0220	4.00	ZRN	9983	RVZT
5	5	1983	15:20:00.100	37.0123	-116.0892	4.50	ZRN	9994	RVZT
5	26	1983	15:00:00.100	37.1029	-116.0057	4.50	SEVR	9738	RVZT
6	9	1983	17:10:00.100	37.1576	-116.0892	4.50	SEVR	9732	RVZT
9	1	1983	14:00:00.100	37.2728	-116.3550	5.50	ZRN	9964	RVZT
9	21	1983	15:00:00.000	37.2100	-116.2090		ZRN	9971	RVZT
12	16	1983	18:30:00.000	37.1400	-116.0720	5.10	ZRN	9980	RVZT
2	11	1983	16:00:00.100	37.0510	-116.0450		ZRN	9990	RVZT
2	17	1983	17:00:00.000	37.1630	-116.0630	4.00	ZRN	9977	RVZT
3	26	1983	20:20:00.100	37.3007	-116.4600	5.20	ZRN	9960	RVZT
5	1	1984	19:05:00.100	37.1062	-116.0224	5.40	HARP	8452	RVZT
5	1	1984	19:05:00.100	37.1062	-116.0224	5.40	ZEL	9633	RVZT
5	1	1984	19:05:00.100	37.1062	-116.0224	5.40	SEVR	9737	RVZT
5	1	1984	19:05:00.100	37.1062	-116.0224	5.40	TDO	10042	RVZT
5	1	1984	19:05:00.100	37.1062	-116.0224	5.40	ZRN	9984	RVZT
5	1	1984	19:05:00.100	37.1062	-116.0224	5.40	TLG	10973	RVZT
5	31	1984	13:04:00.100	37.1031	-116.0480	5.80	SEVR	9738	RVZT
6	20	1984	15:15:00.100	37.0004	-116.0431	4.70	ZRN	9995	CSE
7	25	1984	15:30:00.100	37.2678	-116.4106	5.40	POD	9593	CSE
8	2	1984	15:00:00.100	37.0171	-116.0076	4.70	ZRN	9994	CSE
8	30	1984	14:45:00.100	37.0898	-115.9980	4.90	ZRN	9986	CSE
9	13	1984	14:00:00.000	37.0870	-116.0710	5.00	ZRN	9986	RVZT

12	9	1984	19:40:00.100	37.2701	-116.4976	5.50	ZRN	9963	RVZT
12	15	1984	14:45:00.000	37.2810	-116.3050	5.40	SEVR	9719	RVZT
3	1	1984	17:45:00.100	37.0658	-116.0463	5.90	HARP	8456	RVZT
3	1	1984	17:45:00.100	37.0658	-116.0463	5.90	POD	9602	RVZT
3	1	1984	17:45:00.100	37.0658	-116.0463	5.90	ZEL	9638	RVZT
3	1	1984	17:45:00.100	37.0658	-116.0463	5.90	SEVR	9742	RVZT
3	1	1984	17:45:00.100	37.0658	-116.0463	5.90	TDO	10047	RVZT
3	1	1984	17:45:00.100	37.0658	-116.0463	5.90	TLG	10977	RVZT
5	2	1985	15:20:00.100	37.2534	-116.3252	5.70	POD	9592	RVZT
6	12	1985	15:15:00.100	37.2479	-116.4891	5.50	SEVR	9723	RVZT
6	12	1985	17:30:00.100	37.0883	-116.0839	4.60	ZRN	9985	RVZT
6	26	1985	18:03:00.000	37.1240	-116.1220	4.30	ZRN	9981	RVZT
7	25	1985	14:00:00.100	37.2973	-116.4381	5.20	ZEL	9626	RVZT
9	27	1985	14:15:00.100	37.0898	-116.0018	4.70	POD	9598	RVZT
10	9	1985	23:20:00.000	37.2100	-116.2100	4.20	ZRN	9971	RVZT
10	16	1985	21:35:00.100	37.1099	-116.1214	4.70	ZRN	9983	RVZT
12	5	1985	15:00:00.100	37.0533	-116.0454	5.70	POD	9603	RVZT
12	28	1985	19:01:00.100	37.2378	-116.4727	5.30	SEVR	9724	RVZT
3	15	1985	16:31:00.100	37.0581	-116.0453	4.80	SEVR	9743	RVZT
3	23	1985	18:30:00.100	37.1800	-116.0890	5.30	ZRN	9975	RVZT
4	2	1985	20:00:00.100	37.0948	-116.0323	5.80	TLG	10974	SKM
4	6	1985	23:15:00.100	37.2008	-116.2072	4.80	ZRN	9972	RVZT
4	10	1986	14:08:30.100	37.2183	-116.1831	5.00	POD	9591	CSE
4	22	1986	14:30:00.100	37.2641	-116.4402	5.40	HARP	8434	RVZT
4	22	1986	14:30:00.100	37.2641	-116.4402	5.40	POD	9594	CSE
4	22	1986	14:30:00.100	37.2641	-116.4402	5.40	HARP	8434	RVZT
4	22	1986	14:30:00.100	37.2641	-116.4402	5.40	HARP	8434	CSE
6	5	1986	15:04:00.100	37.0983	-116.0155	5.40	HARP	8452	CSE
6	5	1986	15:04:00.100	37.0983	-116.0155	5.40	NORI	9594	CSE
6	25	1986	20:27:45.100	37.2650	-116.4990	5.50	SEVR	9721	CSE
7	17	1986	21:00:00.100	37.2787	-116.3556	5.70	NORI	9586	CSE
7	17	1986	21:00:00.100	37.2787	-116.3556	5.70	SEVR	9719	CSE
7	24	1986	15:05:00.100	37.1427	-116.0711	4.60	ZRN	9979	CSE
9	30	1986	22:30:00.100	37.3001	-116.3074	5.60	ZRN	9961	RVZT
9	30	1986	22:30:00.100	37.3001	-116.3074	5.60	ASKR	10146	CSE
10	16	1986	19:25:00.100	37.2202	-116.4616	5.60	ZRN	9969	RVZT
10	16	1986	19:25:00.100	37.2202	-116.4616	5.60	JASB	10144	RVZT
11	14	1986	16:00:00.100	37.1004	-116.0481	5.80	POD	9598	RVZT
11	14	1986	16:00:00.100	37.1004	-116.0481	5.80	TDO	10043	RVZT
12	13	1986	17:50:05.100	37.2630	-116.4117	5.60	BAY	10143	RVZT
3	22	1986	16:15:00.100	37.0830	-116.0661	5.20	POD	9601	CSE
3	22	1986	16:15:00.100	37.0830	-116.0661	5.20	SEVR	9740	RVZT
3	22	1986	16:15:00.100	37.0830	-116.0661	5.20	SEVR	9740	CSE

4	18	1987	13:40:00.600	37.2479	-116.5091	5.50	ZRN	9966	RVZT
4	22	1987	22:00:00.000	36.9830	-116.0050	4.20	ZRN	9997	CSE
4	30	1987	13:30:00.100	37.2330	-116.4231	5.50	BAY	10146	RVZT
6	18	1987	15:20:00.000	37.1940	-116.0350		ZRN	9974	CSE
7	16	1987	19:00:00.100	37.1036	-116.0234	4.90	ZRN	9984	RVZT
8	13	1987	14:00:00.100	37.0610	-116.0453	5.90	POD	9602	RVZT
12	2	1987	16:30:00.000	37.2350	-116.1630	4.10	ZRN	9969	CSE
5	21	1988	22:30:00.100	37.0320	-115.9870	4.30	ZRN	9992	CSE
6	2	1988	13:00:00.100	37.2601	-116.4411	5.40	ZHD	9146	CSE
6	2	1988	13:00:00.100	37.2601	-116.4411	5.40	TDO	10035	RVZT
7	7	1988	15:05:30.100	37.2524	-116.3767	5.70	ZHD	9145	CSE
8	17	1988	17:00:00.100	37.2972	-116.3065	5.60	ZHD	9138	CSE
8	17	1988	17:00:00.100	37.2972	-116.3065	5.60	ZRN	9961	CSE
8	17	1988	17:00:00.100	37.2972	-116.3065	5.60	BAY	10140	RVZT
8	17	1988	17:00:00.100	37.2972	-116.3065	5.60	KRSU	11182	RVZT
8	30	1988	18:00:00.100	37.0859	-116.0685	5.10	ZHD	9155	CSE
8	30	1988	18:00:00.100	37.0859	-116.0685	5.10	ZRN	9986	RVZT
8	30	1988	18:00:00.100	37.0859	-116.0685	5.10	BAY	10166	RVZT
8	30	1988	18:00:00.100	37.0859	-116.0685	5.10	KKL	10331	CSE
10	13	1988	14:00:00.100	37.0890	-116.0493	5.90	TLG	10975	SKM
12	10	1988	20:30:00.100	37.1990	-116.2094	5.00	ZHD	9147	CSE
12	10	1988	20:30:00.100	37.1990	-116.2094	5.00	ZRN	9972	RVZT
12	10	1988	20:30:00.100	37.1990	-116.2094	5.00	TDO	10036	CSE
12	10	1988	20:30:00.100	37.1990	-116.2094	5.00	KKL	10317	CSE
2	15	1988	18:10:00.100	37.3144	-116.4715	5.30	POD	9590	CSE
2	15	1988	18:10:00.100	37.3144	-116.4715	5.30	TDO	10029	CSE
2	15	1988	18:10:00.100	37.3144	-116.4715	5.30	TLG	10944	CSE
4	7	1988	17:15:00.000	37.0130	-116.0440	4.00	ZRN	9994	CSE
5	15	1989	13:10:00.000	37.1080	-116.1210	4.40	VSE	9149	CSE
5	15	1989	13:10:00.000	37.1080	-116.1210	4.40	ZRN	9983	CSE
5	26	1989	18:07:00.000	37.0860	-116.0550		ZRN	9986	CSE
6	22	1989	21:15:00.800	37.2829	-116.4123	5.30	VSE	9130	CSE
6	22	1989	21:15:00.800	37.2829	-116.4123	5.30	TDO	10032	CSE
6	27	1989	15:30:00.000	37.2755	-116.3536	4.90	TLG	10950	CSE
10	31	1989	15:30:00.100	37.2631	-116.4907	5.70	ZRN	9964	RVZT
12	8	1989	15:00:00.100	37.2311	-116.4094	5.50	VSE	9136	RVZT
12	8	1989	15:00:00.100	37.2311	-116.4094	5.50	VSE	9136	CSE
12	8	1989	15:00:00.100	37.2311	-116.4094	5.50	ZHD	9148	CSE
2	10	1989	20:06:00.100	37.0768	-116.0006	5.20	VSE	9152	CSE
2	24	1989	16:15:00.000	37.1280	-116.1220	4.40	ZRN	9981	CSE
3	9	1989	14:05:00.100	37.1428	-116.0669	5.00	VSE	9145	CSE
3	9	1989	14:05:00.100	37.1428	-116.0669	5.00	ZHD	9149	CSE
3	9	1989	14:05:00.100	37.1428	-116.0669	5.00	TDO	10039	CSE

3	9	1989	14:05:00.100	37.1428	-116.0669	5.00	ZRN	9979	CSE
6	13	1990	16:00:00.000	37.2620	-116.4200	5.70	ZHD	9145	CSE
7	25	1990	15:00:00.100	37.2069	-116.2143	4.70	VSE	9138	RVZT
10	12	1990	17:30:00.000	37.2480	-116.4940	5.60	ZRN	9966	RVZT
3	10	1990	16:00:00.000	37.1130	-116.0550	5.00	ZRN	9983	CSE
4	16	1991	15:30:00.100	37.2454	-116.4416	5.40	ZRN	9966	RVZT
9	14	1991	19:00:00.000	37.2260	-116.4280	5.50	ZRN	9968	RVZT
9	19	1991	16:30:00.000	37.2360	-116.1660	4.00	ZRN	9969	RVZT
4	4	1991	19:00:00.000	37.2960	-116.3130	5.60	ZRN	9961	RVZT
3	26	1992	16:30:00.000	37.2725	-116.3598	5.50	ZRN	9964	RVZT

Appendix M. Digitized seismograms of nuclear explosions at the Semipalatinsk Test Site.

Mo.	D.	Yr.	Origin time	Lat. °N	Long. °E	mb	Station	Dist.
9	1	1961	7:01:53.000	50.4227	77.7231	3.20	MIKH	332
9	1	1961	7:01:53.000	50.4227	77.7231	3.20	NCE	327
9	1	1961	7:01:53.000	50.4227	77.7231	3.20	LNGR	418
9	1	1961	7:01:53.000	50.4227	77.7231	3.20	ELKM	590
9	1	1961	7:01:53.000	50.4227	77.7231	3.20	CHNG	366
9	1	1961	7:01:53.000	50.4227	77.7231	3.20	USTK	499
9	13	1961	5:01:55.800	50.4227	77.7231	3.00	MIKH	332
9	13	1961	5:01:55.800	50.4227	77.7231	3.00	CHNG	366
9	13	1961	5:01:55.800	50.4227	77.7231	3.00	KKUM	444
9	13	1961	5:01:55.800	50.4227	77.7231	3.00	LNGR	418
9	13	1961	5:01:55.800	50.4227	77.7231	3.00	KAC	566
9	13	1961	5:01:55.800	50.4227	77.7231	3.00	USTK	499
9	13	1961	5:01:55.800	50.4227	77.7231	3.00	MUKR	627
9	13	1961	5:01:55.800	50.4227	77.7231	3.00	ILI	732
9	13	1961	5:01:55.800	50.4227	77.7231	3.00	ABZ	880
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	MIKH	332
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	LNGR	418
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	CHNG	366
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	KKUM	444
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	MUKR	627
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	KAC	566
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	USTK	499
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	KEZ	671
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	SOZ	690
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	ASKZ	929
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	ILI	732
9	17	1961	7:00:46.600	50.4227	77.7231	3.20	KAC	566
9	19	1961	18:32:01.400	50.3782	77.8373	3.10	LNGR	410
9	19	1961	18:32:01.400	50.3782	77.8373	3.10	NCE	317
9	19	1961	18:32:01.400	50.3782	77.8373	3.10	MIKH	322
9	19	1961	18:32:01.400	50.3782	77.8373	3.10	CHNG	357
9	19	1961	18:32:01.400	50.3782	77.8373	3.10	KKUM	437
9	19	1961	18:32:01.400	50.3782	77.8373	3.10	USTK	492
9	19	1961	18:32:01.400	50.3782	77.8373	3.10	ELKM	584
9	19	1961	18:32:01.400	50.3782	77.8373	3.10	MUKR	622
9	19	1961	18:32:01.400	50.3782	77.8373	3.10	KAC	560
9	19	1961	18:32:01.400	50.3782	77.8373	3.10	ABZ	875
9	21	1961	14:01:00.000	50.4227	77.7231	3.00	MIKH	332
9	21	1961	14:01:00.000	50.4227	77.7231	3.00	NCE	327
9	21	1961	14:01:00.000	50.4227	77.7231	3.00	CHNG	366

9	21	1961	14:01:00.000	50.4227	77.7231	3.00	KKUM	444
9	21	1961	14:01:00.000	50.4227	77.7231	3.00	USTK	499
9	26	1961	7:00:22.700	50.4227	77.7231	2.80	NCE	327
9	26	1961	7:00:22.700	50.4227	77.7231	2.80	MIKH	332
9	26	1961	7:00:22.700	50.4227	77.7231	2.80	CHNG	366
9	26	1961	7:00:22.700	50.4227	77.7231	2.80	USTK	499
10	4	1961	7:01:20.800	50.4227	77.7231	3.00	SEM	179
10	4	1961	7:01:20.800	50.4227	77.7231	3.00	MIKH	332
10	4	1961	7:01:20.800	50.4227	77.7231	3.00	CHNG	366
10	4	1961	7:01:20.800	50.4227	77.7231	3.00	LNGR	418
10	4	1961	7:01:20.800	50.4227	77.7231	3.00	ELKM	590
10	4	1961	7:01:20.800	50.4227	77.7231	3.00	SOZ	690
10	4	1961	7:01:20.800	50.4227	77.7231	3.00	MUKR	627
10	4	1961	7:01:20.800	50.4227	77.7231	3.00	ABZ	880
10	4	1961	7:01:20.800	50.4227	77.7231	3.00	ILI	732
10	4	1961	7:01:20.800	50.4227	77.7231	3.00	TESS	1050
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	NCE	289
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	CHNG	298
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	KKUM	370
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	LNGR	407
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	USTK	498
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	MUKR	554
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	SOZ	618
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	ILI	662
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	CHL	705
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	KEZ	677
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	FAB	747
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	KRM	754
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	BOM	825
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	TASH	892
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	ABZ	892
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	ARLS	925
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	NRN	942
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	ASKZ	945
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	TESS	1068
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	ARTM	1171
10	11	1961	7:39:59.900	49.7739	77.9886	4.78	MYS	2079
11	1	1961	9:59:54.600	50.4227	77.7231	2.80	SEM	179
11	1	1961	9:59:54.600	50.4227	77.7231	2.80	MIKH	332
11	1	1961	9:59:54.600	50.4227	77.7231	2.80	CHNG	366
11	1	1961	9:59:54.600	50.4227	77.7231	2.80	USTK	499
11	1	1961	9:59:54.600	50.4227	77.7231	2.80	LNGR	418
11	1	1961	9:59:54.600	50.4227	77.7231	2.80	KKUM	444

11	1	1961	9:59:54.600	50.4227	77.7231	2.80	KAC	566
11	1	1961	9:59:54.600	50.4227	77.7231	2.80	SOZ	690
11	1	1961	9:59:54.600	50.4227	77.7231	2.80	ABZ	880
11	3	1961	9:00:37.500	50.4123	77.7755	----	MIKH	328
8	3	1962	6:01:24.500	50.4227	77.7231	2.40	NCE	327
8	3	1962	6:01:24.500	50.4227	77.7231	2.40	MIKH	332
8	3	1962	6:01:24.500	50.4227	77.7231	2.40	CHNG	366
8	3	1962	6:01:24.500	50.4227	77.7231	2.40	USTK	499
8	3	1962	6:01:24.500	50.4227	77.7231	2.40	ELKM	590
8	3	1962	6:01:24.500	50.4227	77.7231	2.40	MUKR	627
8	3	1962	6:01:24.500	50.4227	77.7231	2.40	KAC	566
8	3	1962	6:01:24.500	50.4227	77.7231	2.40	ILI	732
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	NCE	327
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	MIKH	332
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	CHNG	366
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	KKUM	444
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	KEZ	671
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	USTK	499
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	KAC	566
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	MUKR	627
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	ILI	732
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	TASH	880
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	KRM	827
8	4	1962	3:00:57.000	50.4227	77.7231	2.70	TESS	1050
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	SEM	176
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	MIKH	332
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	NCE	326
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	CHNG	368
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	KKUM	447
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	MUKR	631
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	KAC	570
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	ELKM	586
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	ILI	736
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	RYB	896
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	TASH	876
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	BOM	897
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	ASKZ	925
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	TESS	1046
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	TAYSH	1478
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	USTK	496
8	7	1962	13:03:08.700	50.4578	77.7655	3.60	TLG	803
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	SEM	179
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	NCE	327

8	18	1962	5:00:24.900	50.4227	77.7231	2.90	LNGR	418
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	CHNG	366
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	KKUM	444
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	ILI	732
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	KEZ	671
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	MUKR	627
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	ELKM	590
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	ARLS	988
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	BOM	892
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	TASH	880
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	KRM	827
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	MIKH	332
8	18	1962	5:00:24.900	50.4227	77.7231	2.90	USTK	499
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	MIKH	332
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	NCE	327
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	LNGR	418
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	CHNG	366
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	ELKM	590
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	USTK	499
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	SEM	179
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	MUKR	627
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	KEZ	671
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	ILI	732
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	RYB	891
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	ARLS	988
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	KRM	827
8	18	1962	14:00:52.000	50.4227	77.7231	3.00	KKUM	444
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	SEM	179
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	NCE	327
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	MIKH	332
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	CHNG	366
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	LNGR	418
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	KKUM	444
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	USTK	499
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	ELKM	590
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	MUKR	627
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	KEZ	671
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	ILI	732
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	FAB	815
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	TLG	799
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	TASH	880
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	ASKZ	929
8	21	1962	12:01:09.100	50.4227	77.7231	3.30	ARLS	988

8	21	1962	12:01:09.100	50.4227	77.7231	3.30	TESS	1050
8	22	1962	10:59:43.500	50.4227	77.7231	2.80	MIKH	332
8	22	1962	10:59:43.500	50.4227	77.7231	2.80	LNGR	418
8	22	1962	10:59:43.500	50.4227	77.7231	2.80	KKUM	444
8	22	1962	10:59:43.500	50.4227	77.7231	2.80	MUKR	627
8	23	1962	11:00:28.100	50.4227	77.7231	2.60	SEM	179
8	23	1962	11:00:28.100	50.4227	77.7231	2.60	LNGR	418
8	23	1962	11:00:28.100	50.4227	77.7231	2.60	CHNG	366
8	23	1962	11:00:28.100	50.4227	77.7231	2.60	NCE	327
8	23	1962	11:00:28.100	50.4227	77.7231	2.60	MIKH	332
8	23	1962	11:00:28.100	50.4227	77.7231	2.60	USTK	499
8	25	1962	5:00:22.400	50.4227	77.7231	2.70	SEM	179
8	25	1962	5:00:22.400	50.4227	77.7231	2.70	MIKH	332
8	25	1962	5:00:22.400	50.4227	77.7231	2.70	CHNG	366
8	25	1962	5:00:22.400	50.4227	77.7231	2.70	NCE	327
8	25	1962	5:00:22.400	50.4227	77.7231	2.70	KKUM	444
8	25	1962	5:00:22.400	50.4227	77.7231	2.70	USTK	499
8	25	1962	5:00:22.400	50.4227	77.7231	2.70	MUKR	627
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	SEM	179
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	MIKH	332
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	NCE	327
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	CHNG	366
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	LNGR	418
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	KKUM	444
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	USTK	499
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	ELKM	590
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	MUKR	627
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	KRM	827
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	TASH	880
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	KEZ	671
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	ASKZ	929
8	27	1962	13:01:34.600	50.4227	77.7231	3.40	TESS	1050
8	31	1962	9:00:31.800	50.4227	77.7231	2.80	NCE	327
8	31	1962	9:00:31.800	50.4227	77.7231	2.80	MIKH	332
8	31	1962	9:00:31.800	50.4227	77.7231	2.80	CHNG	366
8	31	1962	9:00:31.800	50.4227	77.7231	2.80	LNGR	418
8	31	1962	9:00:31.800	50.4227	77.7231	2.80	KKUM	444
8	31	1962	9:00:31.800	50.4227	77.7231	2.80	MUKR	627
8	31	1962	9:00:31.800	50.4227	77.7231	2.80	KEZ	671
8	31	1962	9:00:31.800	50.4227	77.7231	2.80	ILI	732
8	31	1962	9:00:31.800	50.4227	77.7231	2.80	SEM	179
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	NCE	326
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	MIKH	332

9	25	1962	3:30:50.800	50.4502	77.7568	3.60	CHNG	367
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	LNGR	415
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	KKUM	446
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	USTK	496
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	KEZ	668
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	ELKM	587
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	MUKR	630
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	ILI	735
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	TASH	877
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	ASKZ	926
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	ARLS	992
9	25	1962	3:30:50.800	50.4502	77.7568	3.60	TESS	1047
9	28	1962	6:00:37.700	50.4227	77.7231	2.80	NCE	327
9	28	1962	6:00:37.700	50.4227	77.7231	2.80	CHNG	366
9	28	1962	6:00:37.700	50.4227	77.7231	2.80	LNGR	418
9	28	1962	6:00:37.700	50.4227	77.7231	2.80	USTK	499
9	28	1962	6:00:37.700	50.4227	77.7231	2.80	ELKM	590
9	28	1962	6:00:37.700	50.4227	77.7231	2.80	KKUM	444
9	28	1962	6:00:37.700	50.4227	77.7231	2.80	KAC	566
9	28	1962	6:00:37.700	50.4227	77.7231	2.80	MUKR	627
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	SEM	179
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	NCE	327
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	MIKH	332
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	LNGR	418
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	CHNG	366
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	KKUM	444
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	USTK	499
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	KAC	566
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	ELKM	590
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	MUKR	627
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	ILI	732
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	FAB	815
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	TESS	1050
10	9	1962	6:00:43.000	50.4227	77.7231	3.00	TASH	880
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	SEM	179
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	NCE	327
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	MIKH	332
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	CHNG	366
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	KKUM	444
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	USTK	499
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	LNGR	418
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	KAC	566
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	ELKM	590

10	10	1962	6:00:35.900	50.4227	77.7231	3.10	MUKR	627
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	TASH	880
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	TESS	1050
10	10	1962	6:00:35.900	50.4227	77.7231	3.10	ARLS	988
10	13	1962	9:00:17.500	50.4227	77.7231		SEM	179
10	14	1962	7:00:57.900	50.4227	77.7231		SEM	179
10	20	1962	9:21:45.600	50.4227	77.7231	3.00	SEM	179
10	20	1962	9:21:45.600	50.4227	77.7231	3.00	MIKH	332
10	20	1962	9:21:45.600	50.4227	77.7231	3.00	NCE	327
10	20	1962	9:21:45.600	50.4227	77.7231	3.00	LNGR	418
10	20	1962	9:21:45.600	50.4227	77.7231	3.00	CHNG	366
10	20	1962	9:21:45.600	50.4227	77.7231	3.00	USTK	499
10	20	1962	9:21:45.600	50.4227	77.7231	3.00	KKUM	444
10	28	1962	6:22:58.000	50.4227	77.7231	2.70	SEM	179
10	28	1962	6:22:58.000	50.4227	77.7231	2.70	MIKH	332
10	28	1962	6:22:58.000	50.4227	77.7231	2.70	LNGR	418
10	28	1962	6:22:58.000	50.4227	77.7231	2.70	KKUM	444
10	28	1962	6:22:58.000	50.4227	77.7231	2.70	USTK	499
10	28	1962	6:22:58.000	50.4227	77.7231	2.70	KEZ	671
10	28	1962	6:22:58.000	50.4227	77.7231	2.70	TESS	1050
10	28	1962	16:59:33.300	50.4227	77.7231	3.00	SEM	179
10	28	1962	16:59:33.300	50.4227	77.7231	3.00	NCE	327
10	28	1962	16:59:33.300	50.4227	77.7231	3.00	MIKH	332
10	28	1962	16:59:33.300	50.4227	77.7231	3.00	KKUM	444
10	28	1962	16:59:33.300	50.4227	77.7231	3.00	LNGR	418
10	28	1962	16:59:33.300	50.4227	77.7231	3.00	KAC	566
10	28	1962	16:59:33.300	50.4227	77.7231	3.00	USTK	499
10	28	1962	16:59:33.300	50.4227	77.7231	3.00	TASH	880
10	28	1962	16:59:33.300	50.4227	77.7231	3.00	ILI	732
10	30	1962	5:59:56.700	50.4227	77.7231	3.00	NCE	327
10	30	1962	5:59:56.700	50.4227	77.7231	3.00	MIKH	332
10	30	1962	5:59:56.700	50.4227	77.7231	3.00	CHNG	366
10	30	1962	5:59:56.700	50.4227	77.7231	3.00	LNGR	418
10	30	1962	5:59:56.700	50.4227	77.7231	3.00	KKUM	444
10	30	1962	5:59:56.700	50.4227	77.7231	3.00	USTK	499
10	31	1962	5:00:07.200	50.4227	77.7231	2.80	SEM	179
10	31	1962	5:00:07.200	50.4227	77.7231	2.80	NCE	327
10	31	1962	5:00:07.200	50.4227	77.7231	2.80	MIKH	332
10	31	1962	5:00:07.200	50.4227	77.7231	2.80	CHNG	366
10	31	1962	5:00:07.200	50.4227	77.7231	2.80	KKUM	444
10	31	1962	5:00:07.200	50.4227	77.7231	2.80	MUKR	627
10	31	1962	5:00:07.200	50.4227	77.7231	2.80	USTK	499
10	31	1962	5:00:07.200	50.4227	77.7231	2.80	KAC	566

11	1	1962	3:00:28.000	50.4227	77.7231	2.60	NCE	327
11	1	1962	3:00:28.000	50.4227	77.7231	2.60	MIKH	332
11	1	1962	3:00:28.000	50.4227	77.7231	2.60	CHNG	366
11	1	1962	3:00:28.000	50.4227	77.7231	2.60	KKUM	444
11	1	1962	3:00:28.000	50.4227	77.7231	2.60	USTK	499
11	1	1962	3:00:28.000	50.4227	77.7231	2.60	KAC	566
11	1	1962	3:00:28.000	50.4227	77.7231	2.60	MUKR	627
11	1	1962	3:00:28.000	50.4227	77.7231	2.60	ILI	732
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	SEM	179
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	NCE	327
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	MIKH	332
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	LNGR	418
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	USTK	499
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	USTK	499
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	KKUM	444
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	KAC	566
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	ILI	732
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	MUKR	627
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	KEZ	671
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	TASH	880
11	3	1962	9:00:11.800	50.4227	77.7231	2.90	SEM	179
11	4	1962	9:00:41.000	50.4227	77.7231		SEM	179
11	14	1962	11:32:15.600	50.4227	77.7231		MIKH	332
11	14	1962	11:32:15.600	50.4227	77.7231		CHNG	366
11	14	1962	11:32:15.600	50.4227	77.7231		NCE	327
11	14	1962	11:32:15.600	50.4227	77.7231		LNGR	418
11	14	1962	11:32:15.600	50.4227	77.7231		KKUM	444
11	14	1962	11:32:15.600	50.4227	77.7231		USTK	499
11	14	1962	11:32:15.600	50.4227	77.7231		ELKM	590
11	14	1962	11:32:15.600	50.4227	77.7231		KEZ	671
11	14	1962	11:32:15.600	50.4227	77.7231		TASH	880
11	14	1962	11:32:15.600	50.4227	77.7231		RYB	891
11	14	1962	11:32:15.600	50.4227	77.7231		ASKZ	929
11	14	1962	11:32:15.600	50.4227	77.7231		ARLS	988
11	14	1962	11:32:15.600	50.4227	77.7231		TESS	1050
11	17	1962	9:30:36.800	50.4227	77.7231	3.20	SEM	179
11	17	1962	9:30:36.800	50.4227	77.7231	3.20	MIKH	332
11	17	1962	9:30:36.800	50.4227	77.7231	3.20	NCE	327
11	17	1962	9:30:36.800	50.4227	77.7231	3.20	CHNG	366
11	17	1962	9:30:36.800	50.4227	77.7231	3.20	LNGR	418
11	17	1962	9:30:36.800	50.4227	77.7231	3.20	KKUM	444
11	17	1962	9:30:36.800	50.4227	77.7231	3.20	SEM	179
11	17	1962	9:30:36.800	50.4227	77.7231	3.20	ILI	732

11	17	1962	9:30:36.800	50.4227	77.7231	3.20	ELKM	590
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	UKM	307
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	ELKM	593
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	SOZ	620
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	MUKR	556
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	KEZ	676
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	ILI	663
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	FAB	748
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	KRM	756
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	KOCH	857
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	ARLS	927
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	TESS	1067
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	TAYSH	1505
2	2	1962	8:00:00.200	49.7850	77.9969	5.63	MYS	2077
5	16	1964	6:00:59.800	49.8178	78.0939	5.55	TLG	734
6	6	1964	0:00:00.000	49.7747	77.9881	4.42	KRM	755
6	6	1964	0:00:00.000	49.7747	77.9881	4.42	SHEK	911
6	6	1964	0:00:00.000	49.7747	77.9881	4.42	CHAD	991
6	6	1964	0:00:00.000	49.7747	77.9881	4.42	CHER	1097
6	6	1964	0:00:00.000	49.7747	77.9881	4.42	KHAR	1078
8	18	1964	6:00:00.000	49.8206	78.0819	3.27	KAC	497
11	16	1964	6:00:00.200	49.8139	78.1336	5.64	TLG	734
5	11	1965	6:40:00.200	49.7731	77.9914	5.20	ARK	1001
1	15	1965	6:00:00.800	49.9350	79.0094	5.87	TLG	756
6	17	1965	3:45:00.000	49.8306	78.0578	5.40	ARK	1009
7	29	1965	3:05:00.200	49.7850	77.9969	4.28	ILI	663
7	29	1965	3:05:00.200	49.7850	77.9969	4.28	KEZ	676
7	29	1965	3:05:00.200	49.7850	77.9969	4.28	CHAR	705
7	29	1965	3:05:00.200	49.7850	77.9969	4.28	TLG	730
7	29	1965	3:05:00.200	49.7850	77.9969	4.28	KRM	756
7	29	1965	3:05:00.200	49.7850	77.9969	4.28	TASH	891
10	8	1965	6:00:00.400	49.8306	78.1014	5.47	TLG	736
10	14	1965	4:00:00.200	49.9906	77.6357	4.28	RYB	843
10	14	1965	4:00:00.200	49.9906	77.6357	4.28	TLG	751
10	14	1965	4:00:00.200	49.9906	77.6357	4.28	KRM	780
10	14	1965	4:00:00.200	49.9906	77.6357	4.28	KAZ	990
10	14	1965	4:00:00.200	49.9906	77.6357	4.28	BOM	844
10	14	1965	4:00:00.200	49.9906	77.6357	4.28	UZA	908
10	14	1965	4:00:00.200	49.9906	77.6357	4.28	KZU	979
10	14	1965	4:00:00.200	49.9906	77.6357	4.28	RYA	1032
10	14	1965	4:00:00.200	49.9906	77.6357	4.28	TERS	1070
10	14	1965	4:00:00.200	49.9906	77.6357	4.28	NRN	961
10	14	1965	4:00:00.200	49.9906	77.6357	4.28	KHAR	1096

10	14	1965	4:00:00.200	49.9906	77.6357	4.28	KZD	1064
11	21	1965	4:58:00.000	49.8283	78.0597	5.61	TLG	735
3	3	1965	6:14:59.400	49.8297	78.0575	5.44	TLG	735
3	27	1965	6:30:00.000	49.7747	77.9881	3.22	TASH	892
4	21	1966	3:58:00.100	49.8178	78.0939	5.37	TLG	734
5	7	1966	3:58:00.200	49.7361	78.1072	4.80	UZA	887
5	7	1966	3:58:00.200	49.7361	78.1072	4.80	KAR	923
5	7	1966	3:58:00.200	49.7361	78.1072	4.80	ARK	1001
6	29	1966	6:58:00.500	49.8392	78.0708	5.60	TLG	736
7	21	1966	3:58:00.000	49.7356	78.1047	5.40	TLG	725
8	5	1966	3:57:59.600	49.7589	78.0486	5.50	BRVK	651
8	5	1966	3:57:59.600	49.7589	78.0486	5.50	TLG	727
8	19	1966	3:52:59.900	49.8306	78.1014	5.10	BRVK	649
8	19	1966	3:52:59.900	49.8306	78.1014	5.10	TLG	736
8	19	1966	3:52:59.900	49.8306	78.1014	5.10	CHL	711
8	19	1966	3:52:59.900	49.8306	78.1014	5.10	BOM	833
8	19	1966	3:52:59.900	49.8306	78.1014	5.10	CHAR	709
8	19	1966	3:52:59.900	49.8306	78.1014	5.10	OM	766
8	19	1966	3:52:59.900	49.8306	78.1014	5.10	YARD	1074
8	19	1966	3:52:59.900	49.8306	78.1014	5.10	KKUL	999
8	19	1966	3:52:59.900	49.8306	78.1014	5.10	ARK	1010
8	19	1966	3:52:59.900	49.8306	78.1014	5.10	RYA	1031
8	19	1966	3:52:59.900	49.8306	78.1014	5.10	TERS	1073
9	7	1966	3:51:59.700	49.8306	78.0578	4.80	CHAR	709
9	7	1966	3:51:59.700	49.8306	78.0578	4.80	CHL	711
9	7	1966	3:51:59.700	49.8306	78.0578	4.80	TLG	735
9	7	1966	3:51:59.700	49.8306	78.0578	4.80	KRM	761
9	7	1966	3:51:59.700	49.8306	78.0578	4.80	NRK	772
9	7	1966	3:51:59.700	49.8306	78.0578	4.80	BOM	832
9	7	1966	3:51:59.700	49.8306	78.0578	4.80	OM	766
10	19	1966	3:57:59.900	49.7419	78.0256	5.70	KAC	488
10	19	1966	3:57:59.900	49.7419	78.0256	5.70	BRVK	650
10	19	1966	3:57:59.900	49.7419	78.0256	5.70	RYA	1020
10	19	1966	3:57:59.900	49.7419	78.0256	5.70	TLG	725
12	3	1966	5:02:00.200	49.7403	78.0308	4.80	BRVK	651
12	3	1966	5:02:00.200	49.7403	78.0308	4.80	TLG	725
12	3	1966	5:02:00.200	49.7403	78.0308	4.80	UZA	887
12	3	1966	5:02:00.200	49.7403	78.0308	4.80	YARD	1063
12	3	1966	5:02:00.200	49.7403	78.0308	4.80	TERS	1062
12	3	1966	5:02:00.200	49.7403	78.0308	4.80	RYA	1020
12	3	1966	5:02:00.200	49.7403	78.0308	4.80	KAR	922
12	3	1966	5:02:00.200	49.7403	78.0308	4.80	ARK	999
12	18	1966	4:58:00.000	49.9246	77.7472	5.92	TLG	744

2	13	1966	4:58:00.100	49.8142	78.1308	6.26	TLG	734
3	20	1966	5:50:00.300	49.7517	78.0083	6.04	BRVK	649
4	20	1967	4:08:00.000	49.7361	78.1072	5.56	BRVK	656
4	20	1967	4:08:00.000	49.7361	78.1072	5.56	TLG	725
5	28	1967	4:07:59.600	49.7517	78.0083	5.46	BRVK	649
7	15	1967	3:26:59.900	49.8222	78.0433	5.40	BRVK	646
7	15	1967	3:26:59.900	49.8222	78.0433	5.40	TLG	734
8	4	1967	6:58:00.300	49.7544	78.0503	5.32	TLG	727
8	4	1967	6:58:00.300	49.7544	78.0503	5.32	BRVK	651
9	16	1967	4:04:00.300	49.9372	77.7281	5.25	BRVK	620
9	16	1967	4:04:00.300	49.9372	77.7281	5.25	TLG	745
9	22	1967	5:03:59.000	49.9596	77.6911	5.16	BRVK	617
9	22	1967	5:03:59.000	49.9596	77.6911	5.16	TLG	748
9	22	1967	5:03:59.000	49.9596	77.6911	5.16	KKUL	999
10	17	1967	5:04:00.200	49.7844	77.9978	5.63	TLG	730
10	17	1967	5:04:00.200	49.7844	77.9978	5.63	BRVK	646
10	30	1967	6:04:00.000	49.7972	77.9994	5.41	BRVK	645
1	30	1967	4:01:59.500	49.7731	77.9900	4.80	BRVK	646
1	30	1967	4:01:59.500	49.7731	77.9900	4.80	TLG	729
1	30	1967	4:01:59.500	49.7731	77.9900	4.80	YARD	1064
1	30	1967	4:01:59.500	49.7731	77.9900	4.80	KKUL	990
1	30	1967	4:01:59.500	49.7731	77.9900	4.80	UZA	889
1	30	1967	4:01:59.500	49.7731	77.9900	4.80	RYA	1022
1	30	1967	4:01:59.500	49.7731	77.9900	4.80	ARK	1001
1	30	1967	4:01:59.500	49.7731	77.9900	4.80	NRN	942
1	30	1967	4:01:59.500	49.7731	77.9900	4.80	TERS	1063
11	22	1967	4:03:59.900	49.9419	77.6868	4.41	BRVK	618
11	22	1967	4:03:59.900	49.9419	77.6868	4.41	TLG	746
11	22	1967	4:03:59.900	49.9419	77.6868	4.41	YARD	1068
11	22	1967	4:03:59.900	49.9419	77.6868	4.41	KKUL	997
11	22	1967	4:03:59.900	49.9419	77.6868	4.41	ARK	1006
12	8	1967	6:03:59.800	49.8183	78.1708	5.31	TLG	735
12	8	1967	6:03:59.800	49.8183	78.1708	5.31	KKUL	1000
2	26	1967	3:57:59.800	49.7394	78.0864	6.03	TLG	725
3	25	1967	5:58:01.100	49.7533	78.0636	5.30	BRVK	652
3	25	1967	5:58:01.100	49.7533	78.0636	5.30	TLG	727
1	7	1968	3:46:59.900	49.7539	78.0469	4.98	BRVK	651
1	7	1968	3:46:59.900	49.7539	78.0469	4.98	TLG	727
4	24	1968	10:35:59.700	49.8417	78.1072	4.91	BRVK	648
4	24	1968	10:35:59.700	49.8417	78.1072	4.91	TLG	737
4	24	1968	10:35:59.700	49.8417	78.1072	4.91	UZA	899
4	24	1968	10:35:59.700	49.8417	78.1072	4.91	KKUL	1000
6	11	1968	3:05:59.700	49.7986	78.1500	5.24	BRVK	654

6	11	1968	3:05:59.700	49.7986	78.1500	5.24	TLG	732
6	19	1968	5:05:59.800	49.9803	78.9855	5.28	TLG	761
7	12	1968	12:08:00.000	49.7556	78.0992	5.40	BRVK	654
7	12	1968	12:08:00.000	49.7556	78.0992	5.40	TLG	727
8	20	1968	4:05:59.600	49.8206	78.0811	4.80	BRVK	648
8	20	1968	4:05:59.600	49.8206	78.0811	4.80	TLG	734
9	5	1968	4:05:59.600	49.7381	78.0808	5.50	BRVK	654
9	5	1968	4:05:59.600	49.7381	78.0808	5.50	TLG	725
9	29	1968	3:43:00.000	49.8042	78.1056	5.80	BRVK	651
10	21	1968	3:52:00.000	49.7286	78.4863	4.05	TLG	728
11	9	1968	2:54:00.100	49.7997	78.1444	4.75	BRVK	653
11	9	1968	2:54:00.100	49.7997	78.1444	4.75	TLG	732
11	9	1968	2:54:00.100	49.7997	78.1444	4.75	KKUL	998
11	9	1968	2:54:00.100	49.7997	78.1444	4.75	ARK	1009
11	12	1968	7:30:00.000	49.7120	78.4610	4.24	TLG	726
12	18	1968	5:01:59.700	49.7408	78.0878	5.04	BRVK	654
12	18	1968	5:01:59.700	49.7408	78.0878	5.04	TLG	726
12	18	1968	5:01:59.700	49.7408	78.0878	5.04	ARK	1001
12	18	1968	5:01:59.700	49.7408	78.0878	5.04	KKUL	990
4	13	1969	4:04:00.000	49.7356	78.1047	4.55	RYA	1022
4	13	1969	4:04:00.000	49.7356	78.1047	4.55	KKUL	990
4	13	1969	4:04:00.000	49.7356	78.1047	4.55	KZU	966
4	13	1969	4:04:00.000	49.7356	78.1047	4.55	TLG	725
5	16	1969	4:02:59.700	49.7678	78.0817	5.26	BRVK	652
5	16	1969	4:02:59.700	49.7678	78.0817	5.26	TLG	729
5	16	1969	4:02:59.700	49.7678	78.0817	5.26	KKUL	992
5	16	1969	4:02:59.700	49.7678	78.0817	5.26	CHMK	1052
5	31	1969	5:01:59.400	49.9503	77.6942	5.29	BRVK	618
5	31	1969	5:01:59.400	49.9503	77.6942	5.29	TLG	747
5	31	1969	5:01:59.400	49.9503	77.6942	5.29	KRM	775
5	31	1969	5:01:59.400	49.9503	77.6942	5.29	CHMK	1050
7	4	1969	2:46:59.600	49.7542	78.1092	5.24	KAC	489
7	4	1969	2:46:59.600	49.7542	78.1092	5.24	TLG	727
7	4	1969	2:46:59.600	49.7542	78.1092	5.24	FAB	746
7	4	1969	2:46:59.600	49.7542	78.1092	5.24	BRVK	654
7	23	1969	2:47:00.200	49.8197	78.1372	5.50	BRVK	652
7	23	1969	2:47:00.200	49.8197	78.1372	5.50	CHL3	699
7	23	1969	2:47:00.200	49.8197	78.1372	5.50	TLG	735
7	23	1969	2:47:00.200	49.8197	78.1372	5.50	VYP	3494
9	11	1969	4:02:00.000	49.7777	77.9864	4.91	KAC	493
9	11	1969	4:02:00.000	49.7777	77.9864	4.91	BRVK	646
9	11	1969	4:02:00.000	49.7777	77.9864	4.91	KRM	755
9	11	1969	4:02:00.000	49.7777	77.9864	4.91	KZU	967

9	11	1969	4:02:00.000	49.7777	77.9864	4.91	KKUL	990
9	11	1969	4:02:00.000	49.7777	77.9864	4.91	RYA	1022
10	1	1969	4:02:59.900	49.7864	78.1081	5.26	BRVK	652
10	1	1969	4:02:59.900	49.7864	78.1081	5.26	CHL3	696
10	1	1969	4:02:59.900	49.7864	78.1081	5.26	TLG	731
11	27	1969	5:02:00.000	49.8367	78.0597	4.10	TLG	736
11	30	1969	3:32:59.700	49.9243	78.9558	6.02	BRVK	693
11	30	1969	3:32:59.700	49.9243	78.9558	6.02	TLG	755
11	30	1969	3:32:59.700	49.9243	78.9558	6.02	CHMK	1108
12	28	1969	3:47:00.200	49.9373	77.7142	5.79	BRVK	620
12	28	1969	3:47:00.200	49.9373	77.7142	5.79	TLG	745
12	29	1969	4:02:00.000	49.7322	78.1044	5.10	BRVK	656
12	29	1969	4:02:00.000	49.7322	78.1044	5.10	TLG	725
12	29	1969	4:02:00.000	49.7322	78.1044	5.10	KRM	750
12	29	1969	4:02:00.000	49.7322	78.1044	5.10	CHIN	941
12	29	1969	4:02:00.000	49.7322	78.1044	5.10	KKUL	990
12	29	1969	4:02:00.000	49.7322	78.1044	5.10	URG	1431
3	7	1969	8:26:59.800	49.8283	78.0597	5.66	BRVK	647
3	7	1969	8:26:59.800	49.8283	78.0597	5.66	TLG	735
3	7	1969	8:26:59.800	49.8283	78.0597	5.66	CHMK	1056
5	27	1970	4:03:00.000	49.7313	78.0986		TLG	725
6	28	1970	1:58:00.000	49.7900	78.1100		BRVK	652
7	21	1970	3:02:59.700	49.9524	77.6729	5.40	BRVK	616
7	21	1970	3:02:59.700	49.9524	77.6729	5.40	TLG	747
7	24	1970	3:57:00.000	49.8097	78.1284	5.30	TLG	734
9	6	1970	4:03:00.000	49.7500	78.0100	5.60	BRVK	649
9	6	1970	4:03:00.000	49.7500	78.0100	5.60	TLG	727
1	29	1970	7:03:00.000	49.7922	78.1113	5.60	BRVK	652
11	4	1970	6:02:59.800	49.9892	77.7624	5.40	BRVK	619
12	17	1970	7:01:00.000	49.7456	78.1686	5.50	TLG	727
3	27	1970	5:02:59.600	49.7478	77.9990	5.20	TLG	726
3	27	1970	5:02:59.600	49.7478	77.9990	5.20	BRVK	649
3	27	1970	5:02:59.600	49.7478	77.9990	5.20	CHL3	692
3	27	1970	5:02:59.600	49.7478	77.9990	5.20	FAB	744
4	25	1971	3:32:59.900	49.7685	78.0339	5.90	BRVK	649
4	25	1971	3:32:59.900	49.7685	78.0339	5.90	TLG	729
5	25	1971	4:03:00.400	49.8016	78.1388	5.20	TLG	733
5	25	1971	4:03:00.400	49.8016	78.1388	5.20	CHL3	697
5	25	1971	4:03:00.400	49.8016	78.1388	5.20	KRM	757
5	25	1971	4:03:00.400	49.8016	78.1388	5.20	FAB	752
6	6	1971	4:02:59.700	49.9754	77.6603	5.50	BRVK	614
6	6	1971	4:02:59.700	49.9754	77.6603	5.50	TLG	750
6	19	1971	4:04:00.100	49.9690	77.6408	5.50	BRVK	613

6	19	1971	4:04:00.100	49.9690	77.6408	5.50	TLG	749
6	30	1971	3:56:59.800	49.9460	78.9805	5.40	TLG	758
6	30	1971	3:56:59.800	49.9460	78.9805	5.40	KKUL	1042
6	30	1971	3:56:59.800	49.9460	78.9805	5.40	TLG	758
6	30	1971	3:56:59.800	49.9460	78.9805	5.40	KKUL	1042
10	9	1971	6:02:59.700	49.9779	77.6414	5.40	BRVK	613
10	9	1971	6:02:59.700	49.9779	77.6414	5.40	CHL3	719
10	9	1971	6:02:59.700	49.9779	77.6414	5.40	TLG	750
10	9	1971	6:02:59.700	49.9779	77.6414	5.40	FAB	766
10	21	1971	6:02:59.700	49.9738	77.5973	5.60	BRVK	610
10	21	1971	6:02:59.700	49.9738	77.5973	5.60	TLG	750
11	29	1971	6:02:59.900	49.7434	78.0785	5.50	BRVK	653
11	29	1971	6:02:59.900	49.7434	78.0785	5.50	TLG	726
12	15	1971	7:52:59.800	49.8306	77.9933	4.90	ILI	668
12	15	1971	7:52:59.800	49.8306	77.9933	4.90	CHL3	701
12	15	1971	7:52:59.800	49.8306	77.9933	4.90	FAB	753
12	15	1971	7:52:59.800	49.8306	77.9933	4.90	BRVK	643
12	30	1971	6:21:00.200	49.7550	78.0475		BRVK	651
12	30	1971	6:21:00.200	49.7550	78.0475		TLG	727
3	22	1971	4:33:00.300	49.7933	78.1131	5.77	TLG	732
4	9	1971	2:33:00.000	49.8322	78.0386	3.78	FAB	754
6	7	1972	1:28:00.000	49.7731	77.9900	5.42	AAA	727
6	7	1972	1:28:00.000	49.7731	77.9900	5.42	TLG	729
7	6	1972	1:03:00.000	49.7361	78.1092	4.40	AAA	724
7	6	1972	1:03:00.000	49.7361	78.1092	4.40	BRVK	656
7	6	1972	1:03:00.000	49.7361	78.1092	4.40	ILI	659
7	6	1972	1:03:00.000	49.7361	78.1092	4.40	CHL3	690
7	6	1972	1:03:00.000	49.7361	78.1092	4.40	KRM	750
8	16	1972	3:16:59.800	49.7706	78.0572	5.11	AAA	727
8	16	1972	3:16:59.800	49.7706	78.0572	5.11	BRVK	650
8	16	1972	3:16:59.800	49.7706	78.0572	5.11	TLG	729
8	26	1972	3:46:59.700	49.9820	77.7166	5.36	AAA	748
8	26	1972	3:46:59.700	49.9820	77.7166	5.36	BRVK	617
8	26	1972	3:46:59.700	49.9820	77.7166	5.36	TLG	751
9	2	1972	8:56:59.900	49.9594	77.6409	5.10	AAA	745
9	2	1972	8:56:59.900	49.9594	77.6409	5.10	ILI	680
9	2	1972	8:56:59.900	49.9594	77.6409	5.10	KKUL	1000
9	2	1972	8:56:59.900	49.9594	77.6409	5.10	CHMK	1048
11	2	1972	1:27:00.200	49.9270	78.8173	6.16	AAA	753
11	2	1972	1:27:00.200	49.9270	78.8173	6.16	TLG	754
12	10	1972	4:27:00.000	49.8261	78.0919	5.72	KUU	672
12	10	1972	4:27:00.000	49.8261	78.0919	5.72	KRM	760
12	10	1972	4:27:00.000	49.8261	78.0919	5.72	AAA	734

12	10	1972	4:27:00.000	49.8261	78.0919	5.72	TLG	736
12	10	1972	4:27:00.000	49.8261	78.0919	5.72	CHMK	1058
12	28	1972	4:27:00.000	49.7361	78.1072	4.60	AAA	724
12	28	1972	4:27:00.000	49.7361	78.1072	4.60	SEM	170
12	28	1972	4:27:00.000	49.7361	78.1072	4.60	ILI	659
12	28	1972	4:27:00.000	49.7361	78.1072	4.60	KUU	663
12	28	1972	4:27:00.000	49.7361	78.1072	4.60	KRM	750
2	10	1972	5:03:00.000	50.0243	78.8781	5.27	TLG	765
2	10	1972	5:03:00.000	50.0243	78.8781	5.27	CHMK	1112
2	10	1972	5:03:00.000	50.0243	78.8781	5.27	BRVK	682
3	10	1972	4:56:59.800	49.7519	78.1181	5.45	BRVK	655
3	10	1972	4:56:59.800	49.7519	78.1181	5.45	TLG	728
3	10	1972	4:56:59.800	49.7519	78.1181	5.45	CHMK	1053
3	28	1972	4:22:00.100	49.7342	78.0825	5.18	BRVK	654
3	28	1972	4:22:00.100	49.7342	78.0825	5.18	TLG	725
3	28	1972	4:22:00.100	49.7342	78.0825	5.18	KRM	750
4	19	1973	4:32:59.900	49.9840	77.6140	5.36	AAA	748
4	19	1973	4:32:59.900	49.9840	77.6140	5.36	BRVK	611
4	19	1973	4:32:59.900	49.9840	77.6140	5.36	TLG	751
7	10	1973	1:27:00.150	49.7911	78.0128	5.34	TLG	731
7	10	1973	1:27:00.150	49.7911	78.0128	5.34	KRM	756
7	23	1973	1:23:00.160	49.9689	78.8175	6.17	BRVK	682
7	23	1973	1:23:00.160	49.9689	78.8175	6.17	TLG	758
10	26	1973	4:27:00.140	49.7522	78.1325	5.23	BRVK	656
10	26	1973	4:27:00.140	49.7522	78.1325	5.23	TLG	728
10	26	1973	4:27:00.140	49.7522	78.1325	5.23	FAB	746
10	26	1973	4:27:00.140	49.7522	78.1325	5.23	CHMK	1054
11	4	1973	3:57:00.000	50.0631	78.9331		KAC	522
12	14	1973	7:46:59.670	50.0438	78.9857	6.00	TLG	769
12	31	1973	4:03:00.000	49.7394	78.0864	4.12	TLG	726
12	31	1973	4:03:00.000	49.7394	78.0864	4.12	KZU	951
12	31	1973	4:03:00.000	49.7394	78.0864	4.12	TORK	945
12	31	1973	4:03:00.000	49.7394	78.0864	4.12	KKUL	992
2	16	1973	5:03:00.000	49.8158	78.1067	5.60	TLG	735
4	16	1974	5:52:59.840	50.0244	78.9244	4.90	KAC	517
4	16	1974	5:52:59.840	50.0244	78.9244	4.90	KUU	709
4	16	1974	5:52:59.840	50.0244	78.9244	4.90	CHL3	723
4	16	1974	5:52:59.840	50.0244	78.9244	4.90	TLG	766
4	16	1974	5:52:59.840	50.0244	78.9244	4.90	FAB	788
4	16	1974	5:52:59.840	50.0244	78.9244	4.90	AKJ	1067
4	16	1974	5:52:59.840	50.0244	78.9244	4.90	TORK	1001
4	16	1974	5:52:59.840	50.0244	78.9244	4.90	KKUL	1048
4	16	1974	5:52:59.840	50.0244	78.9244	4.90	KZU	1006

5	16	1974	3:03:00.100	49.7397	78.0358	5.30	KUU	662
5	16	1974	3:03:00.100	49.7397	78.0358	5.30	BRVK	651
5	16	1974	3:03:00.100	49.7397	78.0358	5.30	ILI	659
5	16	1974	3:03:00.100	49.7397	78.0358	5.30	TLG	726
5	16	1974	3:03:00.100	49.7397	78.0358	5.30	FAB	744
5	16	1974	3:03:00.100	49.7397	78.0358	5.30	DZH	918
5	16	1974	3:03:00.100	49.7397	78.0358	5.30	CHL3	691
5	31	1974	3:27:00.020	49.9606	78.8442	5.90	BRVK	684
5	31	1974	3:27:00.020	49.9606	78.8442	5.90	TLG	758
6	25	1974	3:57:00.200	49.8306	78.1014	4.70	KAC	498
6	25	1974	3:57:00.200	49.8306	78.1014	4.70	KUU	673
6	25	1974	3:57:00.200	49.8306	78.1014	4.70	FAB	754
6	25	1974	3:57:00.200	49.8306	78.1014	4.70	TORK	955
6	25	1974	3:57:00.200	49.8306	78.1014	4.70	AKJ	1019
7	10	1974	2:57:00.000	49.7772	78.1125	5.30	ILI	663
7	10	1974	2:57:00.000	49.7772	78.1125	5.30	CHL3	695
7	10	1974	2:57:00.000	49.7772	78.1125	5.30	TLG	730
9	13	1974	3:03:00.000	49.7697	78.0553	5.20	AAA	727
9	13	1974	3:03:00.000	49.7697	78.0553	5.20	KAC	491
9	13	1974	3:03:00.000	49.7697	78.0553	5.20	KUU	666
9	13	1974	3:03:00.000	49.7697	78.0553	5.20	KUU	666
9	13	1974	3:03:00.000	49.7697	78.0553	5.20	CHL3	694
9	13	1974	3:03:00.000	49.7697	78.0553	5.20	ILI	662
9	13	1974	3:03:00.000	49.7697	78.0553	5.20	FAB	747
9	13	1974	3:03:00.000	49.7697	78.0553	5.20	DZH	921
10	16	1974	6:33:00.140	49.9875	78.8942	5.50	AAA	761
10	16	1974	6:33:00.140	49.9875	78.8942	5.50	BRVK	686
10	16	1974	6:33:00.140	49.9875	78.8942	5.50	TLG	761
1	30	1974	4:57:04.600	49.8233	78.0417	5.40	AAA	733
1	30	1974	4:57:04.600	49.8233	78.0417	5.40	TLG	735
1	30	1974	4:57:04.600	49.8233	78.0417	5.40	DZH	926
12	7	1974	5:59:59.000	49.9160	77.6050	4.70	KAC	512
12	7	1974	5:59:59.000	49.9160	77.6050	4.70	KUU	676
12	7	1974	5:59:59.000	49.9160	77.6050	4.70	ILI	675
12	7	1974	5:59:59.000	49.9160	77.6050	4.70	CHL3	712
12	7	1974	5:59:59.000	49.9160	77.6050	4.70	TLG	743
12	7	1974	5:59:59.000	49.9160	77.6050	4.70	FAB	758
12	7	1974	5:59:59.000	49.9160	77.6050	4.70	AKJ	1011
12	16	1974	6:23:00.100	49.7678	78.0817	4.94	AAA	727
12	16	1974	6:23:00.100	49.7678	78.0817	4.94	DZH	922
12	27	1974	5:46:59.490	49.9658	79.0033	5.50	AAA	760
12	27	1974	5:46:59.490	49.9658	79.0033	5.50	BRVK	693
12	27	1974	5:46:59.490	49.9658	79.0033	5.50	TLG	760

12	27	1974	5:46:59.490	49.9658	79.0033	5.50	TASKG	872
12	27	1974	5:46:59.490	49.9658	79.0033	5.50	KDSKG	883
12	27	1974	5:46:59.490	49.9658	79.0033	5.50	KDSKG	883
12	27	1974	5:46:59.490	49.9658	79.0033	5.50	FAB	783
12	27	1974	5:46:59.490	49.9658	79.0033	5.50	ARLS	972
12	27	1974	5:46:59.490	49.9658	79.0033	5.50	MNAS	969
12	27	1974	5:46:59.490	49.9658	79.0033	5.50	DZH	980
12	27	1974	5:46:59.490	49.9658	79.0033	5.50	ARK	1057
12	27	1974	5:46:59.490	49.9658	79.0033	5.50	SUFI	1187
4	27	1975	5:36:59.780	49.9375	78.9036	5.60	BRVK	689
4	27	1975	5:36:59.780	49.9375	78.9036	5.60	TLG	756
4	27	1975	5:36:59.780	49.9375	78.9036	5.60	KRM	774
4	27	1975	5:36:59.780	49.9375	78.9036	5.60	FAB	779
4	27	1975	5:36:59.780	49.9375	78.9036	5.60	DZH	973
6	8	1975	3:27:00.000	49.7517	78.0058	5.50	BRVK	649
6	8	1975	3:27:00.000	49.7517	78.0058	5.50	CHL	692
6	8	1975	3:27:00.000	49.7517	78.0058	5.50	TLG	727
6	8	1975	3:27:00.000	49.7517	78.0058	5.50	FAB	745
6	8	1975	3:27:00.000	49.7517	78.0058	5.50	DZH	918
6	8	1975	3:27:00.000	49.7517	78.0058	5.50	CHMK	1047
6	30	1975	3:27:00.250	49.9856	78.8969	5.00	KAC	513
6	30	1975	3:27:00.250	49.9856	78.8969	5.00	BRVK	686
6	30	1975	3:27:00.250	49.9856	78.8969	5.00	CHL3	719
6	30	1975	3:27:00.250	49.9856	78.8969	5.00	FAB	784
7	15	1975	2:57:00.000	49.7914	78.0944		KAC	493
7	15	1975	2:57:00.000	49.7914	78.0944		TLG	732
7	15	1975	2:57:00.000	49.7914	78.0944		KUU	669
7	15	1975	2:57:00.000	49.7914	78.0944		FAB	750
8	7	1975	3:57:00.100	49.8019	78.1306	5.20	KAC	494
8	7	1975	3:57:00.100	49.8019	78.1306	5.20	TK	534
8	7	1975	3:57:00.100	49.8019	78.1306	5.20	CHL3	697
8	7	1975	3:57:00.100	49.8019	78.1306	5.20	TLG	733
8	7	1975	3:57:00.100	49.8019	78.1306	5.20	DZH	927
10	5	1975	4:27:00.000	49.7831	78.0867	4.18	TLG	731
10	5	1975	4:27:00.000	49.7831	78.0867	4.18	TORK	950
10	5	1975	4:27:00.000	49.7831	78.0867	4.18	AKJ	1014
10	5	1975	4:27:00.000	49.7831	78.0867	4.18	CHAT	1422
10	5	1975	4:27:00.000	49.7831	78.0867	4.18	KAC	493
10	5	1975	4:27:00.000	49.7831	78.0867	4.18	TK	532
10	5	1975	4:27:00.000	49.7831	78.0867	4.18	CHL3	695
10	5	1975	4:27:00.000	49.7831	78.0867	4.18	KRM	755
10	5	1975	4:27:00.000	49.7831	78.0867	4.18	FAB	749
10	29	1975	4:46:59.890	49.9539	78.8739	5.61	BRVK	686

10	29	1975	4:46:59.890	49.9539	78.8739	5.61	TLG	757
12	13	1975	4:56:59.990	49.8133	78.1086	5.00	TK	535
12	13	1975	4:56:59.990	49.8133	78.1086	5.00	BRVK	650
12	13	1975	4:56:59.990	49.8133	78.1086	5.00	ILI	667
12	13	1975	4:56:59.990	49.8133	78.1086	5.00	CHL3	699
12	13	1975	4:56:59.990	49.8133	78.1086	5.00	FAB	753
12	13	1975	4:56:59.990	49.8133	78.1086	5.00	TLG	734
12	13	1975	4:56:59.990	49.8133	78.1086	5.00	DZH	927
12	25	1975	5:16:59.670	50.0439	78.8200	5.69	BRVK	678
12	25	1975	5:16:59.670	50.0439	78.8200	5.69	TLG	766
12	25	1975	5:16:59.670	50.0439	78.8200	5.69	FAB	788
12	25	1975	5:16:59.670	50.0439	78.8200	5.69	KRM	785
2	20	1975	5:33:00.000	49.7989	78.0014	5.70	BRVK	645
2	20	1975	5:33:00.000	49.7989	78.0014	5.70	TLG	732
2	20	1975	5:33:00.000	49.7989	78.0014	5.70	KRM	757
3	11	1975	5:43:00.100	49.7547	78.1075	5.40	ILI	661
3	11	1975	5:43:00.100	49.7547	78.1075	5.40	BRVK	654
3	11	1975	5:43:00.100	49.7547	78.1075	5.40	FAB	746
3	11	1975	5:43:00.100	49.7547	78.1075	5.40	DZH	922
4	21	1976	4:58:00.160	49.7547	78.1075	4.94	AAA	726
4	21	1976	4:58:00.160	49.7547	78.1075	4.94	BRVK	654
4	21	1976	4:58:00.160	49.7547	78.1075	4.94	ANVS	775
4	21	1976	4:58:00.160	49.7547	78.1075	4.94	ILI	661
4	21	1976	4:58:00.160	49.7547	78.1075	4.94	MNAS	915
4	21	1976	5:02:59.700	49.9006	78.8308	5.12	TK	545
4	21	1976	5:02:59.700	49.9006	78.8308	5.12	BRVK	687
4	21	1976	5:02:59.700	49.9006	78.8308	5.12	CHL	709
4	21	1976	5:02:59.700	49.9006	78.8308	5.12	TLG	751
4	21	1976	5:02:59.700	49.9006	78.8308	5.12	KRM	769
4	21	1976	5:02:59.700	49.9006	78.8308	5.12	ANVS	796
4	21	1976	5:02:59.700	49.9006	78.8308	5.12	DZH	967
4	21	1976	5:02:59.700	49.9006	78.8308	5.12	MNAS	956
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	CHMS	794
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	EKS	854
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	EKS	854
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	KDSKG	853
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	EKS	854
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	EKS	854
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	EKS	854
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	SUFI	1141
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	TLG	730
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	KRM	755
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	DZH	920

5	19	1976	2:57:00.200	49.7775	78.0156	4.72	FAB	747
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	ILI	663
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	KAC	492
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	KKUL	993
5	19	1976	2:57:00.200	49.7775	78.0156	4.72	TORK	947
1	15	1976	4:46:59.970	49.8170	78.1711	5.18	TLG	735
1	15	1976	4:46:59.970	49.8170	78.1711	5.18	FAB	754
1	15	1976	4:46:59.970	49.8170	78.1711	5.18	DZH	930
6	9	1976	3:02:59.790	49.9936	79.0244	5.07	BRVK	693
6	9	1976	3:02:59.790	49.9936	79.0244	5.07	CHL3	720
6	9	1976	3:02:59.790	49.9936	79.0244	5.07	TLG	764
6	9	1976	3:02:59.790	49.9936	79.0244	5.07	AAA	764
6	9	1976	3:02:59.790	49.9936	79.0244	5.07	KRM	781
6	9	1976	3:02:59.790	49.9936	79.0244	5.07	CHL3	720
7	4	1976	2:56:59.990	49.9042	78.8994	5.85	AAA	752
7	4	1976	2:56:59.990	49.9042	78.8994	5.85	BRVK	691
7	4	1976	2:56:59.990	49.9042	78.8994	5.85	TLG	752
7	23	1976	2:33:00.190	49.7433	78.0517	4.96	KAC	488
7	23	1976	2:33:00.190	49.7433	78.0517	4.96	BRVK	652
7	23	1976	2:33:00.190	49.7433	78.0517	4.96	TLG	726
7	23	1976	2:33:00.190	49.7433	78.0517	4.96	ILI	659
7	23	1976	2:33:00.190	49.7433	78.0517	4.96	CHL3	691
7	23	1976	2:33:00.190	49.7433	78.0517	4.96	FAB	744
7	23	1976	2:33:00.190	49.7433	78.0517	4.96	KRM	751
7	23	1976	2:33:00.190	49.7433	78.0517	4.96	DZH	919
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	BRVK	623
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	TLG	738
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	BOM	832
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	MNAS	912
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	ARK	1000
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	ARSB	1017
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	SUFI	1143
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	KZAD	928
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	KAC	506
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	CHL3	707
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	FAB	754
8	4	1976	2:57:00.000	49.8700	77.7000	4.20	FAB	754
8	28	1976	2:57:00.400	49.9750	78.9264	5.74	BRVK	688
8	28	1976	2:57:00.400	49.9750	78.9264	5.74	TLG	760
8	28	1976	2:57:00.400	49.9750	78.9264	5.74	FAB	783
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	ANVS	783
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	EKS	861
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	KDSKG	859

10	30	1976	4:57:00.210	49.8314	78.0572	4.62	MNAS	921
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	ARLS	933
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	KZYU	931
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	KZAD	938
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	KZD	1052
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	TRKS	1072
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	KAC	498
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	FAB	754
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	TLG	736
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	TRG	726
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	BRVK	646
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	BOM	833
10	30	1976	4:57:00.210	49.8314	78.0572	4.62	ARSB	1024
11	23	1976	5:02:59.840	50.0131	78.9433	5.79	BRVK	687
11	23	1976	5:02:59.840	50.0131	78.9433	5.79	ANVS	809
11	23	1976	5:02:59.840	50.0131	78.9433	5.79	TLG	765
11	23	1976	5:02:59.840	50.0131	78.9433	5.79	EKS	906
11	23	1976	5:02:59.840	50.0131	78.9433	5.79	KDSKG	887
11	23	1976	5:02:59.840	50.0131	78.9433	5.79	ARLS	975
11	23	1976	5:02:59.840	50.0131	78.9433	5.79	ARK	1059
11	23	1976	5:02:59.840	50.0131	78.9433	5.79	ARSB	1070
11	23	1976	5:02:59.840	50.0131	78.9433	5.79	CHMK	1114
11	23	1976	5:02:59.840	50.0131	78.9433	5.79	SUFI	1190
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	BRVK	685
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	TLG	750
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	ANVS	795
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	TASKG	860
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	KDSKG	873
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	EKS	890
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	MNAS	954
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	ARLS	959
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	ARSB	1053
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	ARK	1042
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	CHMK	1097
12	7	1976	4:57:00.000	49.8992	78.7864	5.90	SUFI	1174
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	AAA	728
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	BRVK	649
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	TLG	730
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	OTK	837
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	BGK	847
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	KDSKG	853
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	MNAS	915
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	DZH	921

12	30	1976	3:57:00.310	49.7803	78.0367	5.09	ARLS	927
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	ARK	1003
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	KZD	1046
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	TRKS	1066
12	30	1976	3:57:00.310	49.7803	78.0367	5.09	SUFI	1142
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	KAC	496
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	TK	535
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	ILI	667
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	ANVS	782
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	TLG	734
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	FAB	753
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	KDSKG	857
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	EKS	860
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	CHPA	974
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	ARK	1009
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	ARSB	1024
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	KZD	1052
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	BTK	1225
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	BRVK	650
4	25	1977	4:07:00.160	49.8133	78.1086	5.07	ARLS	932
5	29	1977	2:57:00.000	49.9464	78.7717	5.75	BRVK	681
5	29	1977	2:57:00.000	49.9464	78.7717	5.75	TLG	755
5	29	1977	2:57:00.000	49.9464	78.7717	5.75	ANVS	800
5	29	1977	2:57:00.000	49.9464	78.7717	5.75	RSKG	833
5	29	1977	2:57:00.000	49.9464	78.7717	5.75	ARK	1046
5	29	1977	2:57:00.000	49.9464	78.7717	5.75	ARSB	1058
6	29	1977	3:07:00.240	49.9994	78.8667	5.20	KAC	514
6	29	1977	3:07:00.240	49.9994	78.8667	5.20	TK	556
6	29	1977	3:07:00.240	49.9994	78.8667	5.20	CHL3	720
6	29	1977	3:07:00.240	49.9994	78.8667	5.20	TLG	762
6	29	1977	3:07:00.240	49.9994	78.8667	5.20	KRM	780
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	KAC	489
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	TK	528
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	ILI	660
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	BRVK	651
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	TRG	717
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	FAB	745
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	TLG	727
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	KDSKG	850
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	ANVS	774
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	EKS	852
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	ARK	1001
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	ARSB	1015

7	30	1977	1:57:00.110	49.7506	78.0492	5.13	KZD	1044
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	SUFI	1139
7	30	1977	1:57:00.110	49.7506	78.0492	5.13	EKS	852
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	KAC	498
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	BRVK	650
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	ILI	669
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	KRM	761
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	FAB	755
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	ANVS	784
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	CHMS	802
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	KDSKG	859
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	ARLS	934
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	EKS	862
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	CHPA	976
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	ARSB	1025
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	KDSKG	859
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	CHVKG	1171
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	BTK	1227
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	TK	537
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	TLG	736
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	TASKG	835
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	OTK	844
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	KZYU	933
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	MNAS	923
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	KZD	1054
8	17	1977	4:26:59.970	49.8308	78.1139	5.01	TRKS	1074
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	BRVK	683
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	KST	811
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	ANVS	813
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	RSKG	848
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	TASKG	879
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	KDSKG	891
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	TLG	769
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	MNAS	974
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	ARLS	978
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	CHPA	1026
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	ARSB	1073
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	ARK	1062
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	OHH	1161
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	GRM	1402
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	CHVKG	1219
9	5	1977	3:02:59.960	50.0556	78.9142	5.73	BTK	1278
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	BRVK	647

10	29	1977	3:06:59.970	49.8342	78.0803	5.60	ANVS	784
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	KST	772
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	KDSKG	860
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	TLG	736
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	DZH	928
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	ARLS	934
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	ARK	1010
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	TASKG	835
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	ARSB	1025
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	CHVKG	1170
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	SUFI	1149
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	GRM	1350
10	29	1977	3:06:59.970	49.8342	78.0803	5.60	ARLS	934
11	12	1977	5:11:00.000	50.0522	78.8644		CHL	726
11	12	1977	5:11:00.000	50.0522	78.8644		KRM	786
11	27	1977	3:57:00.000	49.7544	78.0503	3.92	CHL	692
11	27	1977	3:57:00.000	49.7544	78.0503	3.92	TRG	717
11	27	1977	3:57:00.000	49.7544	78.0503	3.92	KRM	752
11	27	1977	3:57:00.000	49.7544	78.0503	3.92	KST	763
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	BRVK	686
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	ANVS	803
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	TLG	759
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	TASKG	869
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	KDSKG	881
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	EKS	900
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	ARLS	968
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	MNAS	964
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	CHPA	1016
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	CHL	717
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	ARK	1052
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	ARSB	1063
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	OHH	1151
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	SUFI	1183
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	GRM	1392
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	CHVKG	1209
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	EKS	900
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	TASKG	869
11	30	1977	4:06:59.940	49.9672	78.8744	5.89	ARK	1052
12	26	1977	4:03:00.000	49.8019	78.1306		BRVK	652
12	26	1977	4:03:00.000	49.8019	78.1306		ILI	666
12	26	1977	4:03:00.000	49.8019	78.1306		TLG	733
12	26	1977	4:03:00.000	49.8019	78.1306		KRM	757
12	26	1977	4:03:00.000	49.8019	78.1306		EKS	860

12	26	1977	4:03:00.000	49.8019	78.1306		KDSKG	856
12	26	1977	4:03:00.000	49.8019	78.1306		CHPA	974
12	26	1977	4:03:00.000	49.8019	78.1306		ARSB	1023
12	26	1977	4:03:00.000	49.8019	78.1306		RSKG	801
12	26	1977	4:03:00.000	49.8019	78.1306		KZD	1051
12	26	1977	4:03:00.000	49.8019	78.1306		ARLS	932
12	26	1977	4:03:00.000	49.8019	78.1306		CHVKG	1169
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	TK	553
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	BRVK	639
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	FAB	769
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	KST	786
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	TLG	751
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	ANVS	799
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	OTK	859
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	DZH	941
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	KDSKG	875
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	MNAS	935
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	ARLS	948
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	ARK	1023
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	ARSB	1039
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	CHMS	816
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	SUFI	1163
3	29	1977	3:56:58.000	49.9700	78.0860	5.40	BTK	1239
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	BRVK	656
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	ANVS	775
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	RSKG	796
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	TLG	728
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	BOM	825
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	SEMB	857
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	BGK	846
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	OTK	835
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	KDSKG	851
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	ARLS	926
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	MNAS	916
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	KZDKG	1047
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	ARK	1004
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	TRKS	1067
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	CHVKG	1164
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	BTK	1220
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	OHH	1107
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	ANVS	775
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	ARK	1004
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	KDSKG	851

4	22	1978	3:07:00.100	49.7517	78.1317	5.35	MNAS	916
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	FAB	746
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	ARLS	926
4	22	1978	3:07:00.100	49.7517	78.1317	5.35	GRM	1344
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	SEM	168
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	KAC	493
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	TRG	721
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	CHL3	696
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	ANVS	779
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	KST	767
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	FAB	750
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	KRM	756
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	BOM	829
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	TLG	732
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	BGK	849
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	ARSB	1021
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	KZD	1049
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	AKJ	1015
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	ARLS	930
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	SUFI	1144
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	CHVKG	1166
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	TK	533
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	BRVK	651
5	29	1978	4:56:59.850	49.7914	78.0944	4.68	KDSKG	855
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	TK	547
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	BRVK	685
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	TLG	752
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	KST	793
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	FAB	774
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	SEMB	887
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	ARLS	961
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	CHPA	1008
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	OHH	1144
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	SUFI	1176
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	ARLS	961
6	11	1978	2:57:00.140	49.9133	78.8019	5.83	GRM	1385
7	5	1978	2:47:00.050	49.9000	78.8667	5.77	TK	545
7	5	1978	2:47:00.050	49.9000	78.8667	5.77	BRVK	689
7	5	1978	2:47:00.050	49.9000	78.8667	5.77	TLG	751
7	5	1978	2:47:00.050	49.9000	78.8667	5.77	CHL	709
7	5	1978	2:47:00.050	49.9000	78.8667	5.77	FAB	774
7	5	1978	2:47:00.050	49.9000	78.8667	5.77	ARLS	961
7	5	1978	2:47:00.050	49.9000	78.8667	5.77	DZH	968

7	5	1978	2:47:00.050	49.9000	78.8667	5.77	OHH	1144
7	5	1978	2:47:00.050	49.9000	78.8667	5.77	CHVKG	1202
7	5	1978	2:47:00.050	49.9000	78.8667	5.77	GRM	1386
7	28	1978	2:46:59.890	49.7550	78.1450	5.75	SEM	167
7	28	1978	2:46:59.890	49.7550	78.1450	5.75	BRVK	656
7	28	1978	2:46:59.890	49.7550	78.1450	5.75	CHL	692
7	28	1978	2:46:59.890	49.7550	78.1450	5.75	FAB	747
7	28	1978	2:46:59.890	49.7550	78.1450	5.75	KST	764
7	28	1978	2:46:59.890	49.7550	78.1450	5.75	OTK	836
7	28	1978	2:46:59.890	49.7550	78.1450	5.75	SEMB	858
7	28	1978	2:46:59.890	49.7550	78.1450	5.75	ARLS	927
7	28	1978	2:46:59.890	49.7550	78.1450	5.75	OHH	1108
7	28	1978	2:46:59.890	49.7550	78.1450	5.75	CHVKG	1164
8	29	1978	2:36:59.950	49.8133	78.1086	5.20	BRVK	650
8	29	1978	2:36:59.950	49.8133	78.1086	5.20	TLG	734
8	29	1978	2:36:59.950	49.8133	78.1086	5.20	DZH	927
8	29	1978	2:36:59.950	49.8133	78.1086	5.20	SEMB	864
8	29	1978	2:36:59.950	49.8133	78.1086	5.20	ARLS	932
8	29	1978	2:36:59.950	49.8133	78.1086	5.20	OHH	1112
8	29	1978	2:36:59.950	49.8133	78.1086	5.20	CHVKG	1169
8	29	1978	2:36:59.950	49.8133	78.1086	5.20	GRM	1349
9	15	1978	2:36:59.970	49.9283	78.8617	5.89	AAA	754
9	15	1978	2:36:59.970	49.9283	78.8617	5.89	BRVK	687
9	15	1978	2:36:59.970	49.9283	78.8617	5.89	TLG	754
9	15	1978	2:36:59.970	49.9283	78.8617	5.89	SEMB	890
9	15	1978	2:36:59.970	49.9283	78.8617	5.89	ARLS	964
9	15	1978	2:36:59.970	49.9283	78.8617	5.89	MNAS	960
9	15	1978	2:36:59.970	49.9283	78.8617	5.89	ARLS	964
9	15	1978	2:36:59.970	49.9283	78.8617	5.89	TRKS	1113
9	15	1978	2:36:59.970	49.9283	78.8617	5.89	OHH	1147
9	15	1978	2:36:59.970	49.9283	78.8617	5.89	CHVKG	1205
9	15	1978	2:36:59.970	49.9283	78.8617	5.89	GRM	1388
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	KAC	494
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	BRVK	654
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	TLG	733
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	FAB	752
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	CHL3	697
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	KRM	757
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	BOM	830
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	OTK	841
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	EKS	860
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	KDSKG	856
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	BGK	852

9	20	1978	5:03:00.000	49.7986	78.1500	4.30	DZH	928
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	KZYU	932
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	ARK	1009
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	ARSB	1023
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	CHMS	800
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	KZD	1052
9	20	1978	5:03:00.000	49.7986	78.1500	4.30	SUFI	1147
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	ILI	659
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	BRVK	656
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	CHL3	690
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	ANVS	773
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	URVKG	818
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	KDSKG	849
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	MNAS	913
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	KZYU	924
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	ARLS	924
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	CHMK	1051
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	EKS	853
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	ARK	1001
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	GRM	1342
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	SUFI	1139
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	OHH	1105
10	15	1978	5:37:00.140	49.7367	78.1111	5.15	CHVKG	1162
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	CHL	696
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	BRVK	652
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	FAB	750
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	ANVS	779
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	TLG	732
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	KRM	756
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	RSKG	799
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	BOM	829
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	KDSKG	855
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	BGK	850
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	EKS	858
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	OTK	839
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	MNAS	918
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	ARLS	930
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	MNAS	918
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	ARLS	930
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	KZYU	929
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	CHPA	972
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	ARK	1006
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	KZD	1049

10	31	1978	4:17:00.190	49.7886	78.1075	5.25	TRKS	1070
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	SUFI	1144
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	CHVKG	1167
10	31	1978	4:17:00.190	49.7886	78.1075	5.25	CHMK	1055
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	TK	561
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	BRVK	685
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	TLG	768
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	KRM	786
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	FAB	791
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	ANVS	812
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	KDSKG	890
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	CHL	725
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	YRVKG	870
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	MNAS	974
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	ARLS	978
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	ARK	1062
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	KST	810
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	ARSB	1073
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	EKS	909
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	OHH	1161
11	4	1978	5:05:59.860	50.0417	78.9472	5.56	SUFI	1193
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	TK	551
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	BRVK	682
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	TLG	756
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	ANVS	801
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	KDSKG	879
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	MNAS	959
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	ARLS	964
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	ARK	1048
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	DZH	970
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	EKS	896
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	KDSKG	879
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	ARSB	1059
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	OHH	1147
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	SUFI	1179
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	CHVKG	1205
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	KSKG	870
11	29	1978	4:33:00.170	49.9533	78.7953	5.21	GRM	1388
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	KAC	496
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	BRVK	650
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	TRG	724
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	FAB	753
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	TLG	735

12	14	1978	4:43:00.300	49.8158	78.1067	4.74	BGK	852
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	KSKG	838
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	ARLS	932
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	CHPA	974
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	MNAS	921
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	KDSKG	858
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	ARK	1009
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	ARSB	1024
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	SUFI	1147
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	KZD	1052
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	CHVKG	1169
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	BTK	1225
12	14	1978	4:43:00.300	49.8158	78.1067	4.74	BOM	832
12	20	1978	4:33:00.400	49.8108	78.0542	4.71	BRVK	647
12	20	1978	4:33:00.400	49.8108	78.0542	4.71	TLG	734
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	BRVK	618
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	ILI	679
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	CHL3	715
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	TLG	747
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	FAB	762
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	RSKG	806
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	EKS	862
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	DZH	923
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	ARLS	937
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	MNAS	920
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	CHPA	974
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	ARK	1007
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	CHPA	974
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	CHVKG	1170
3	19	1978	3:46:59.820	49.9450	77.7040	5.19	BTK	1223
3	26	1978	3:56:59.960	49.7619	77.9825	5.69	TK	530
3	26	1978	3:56:59.960	49.7619	77.9825	5.69	TLG	728
3	26	1978	3:56:59.960	49.7619	77.9825	5.69	CHL	694
3	26	1978	3:56:59.960	49.7619	77.9825	5.69	GRM	1340
3	26	1978	3:56:59.960	49.7619	77.9825	5.69	BRVK	647
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	TK	530
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	BRVK	647
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	CHL3	693
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	TRG	718
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	KST	762
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	FAB	745
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	KRM	753
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	ANVS	776

5	6	1979	3:17:00.070	49.7619	77.9825	5.22	KDSKG	851
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	BGK	843
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	EKS	851
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	MNAS	911
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	DZH	917
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	ARLS	924
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	KDSKG	851
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	ARSB	1015
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	AKJ	1009
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	ARK	999
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	ARSB	1015
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	KZD	1043
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	OHH	1104
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	SUFI	1139
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	CHVKG	1160
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	BTK	1215
5	6	1979	3:17:00.070	49.7619	77.9825	5.22	HRG	1458
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	TK	535
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	BRVK	648
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	KUU	671
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	CHL3	699
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	TLG	734
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	TRG	724
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	FAB	752
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	KRM	759
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	ANVS	781
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	RSKG	800
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	BGK	851
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	EKS	859
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	KDSKG	857
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	MNAS	919
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	ARLS	931
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	DZH	925
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	ARLS	931
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	CHPA	973
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	ARK	1007
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	ARSB	1022
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	OHH	1111
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	SUFI	1146
5	31	1979	5:55:00.050	49.8128	78.0594	5.27	CHVKG	1168
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	BRVK	687
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	KUU	695
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	AAA	752

6	23	1979	2:57:00.110	49.9147	78.8458	6.16	ILI	687
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	KRM	771
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	MNAS	958
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	ARLS	962
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	DZH	969
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	CHPA	1010
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	OHH	1145
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	SUFI	1177
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	CHVKG	1203
6	23	1979	2:57:00.110	49.9147	78.8458	6.16	GRM	1386
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	AAA	767
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	ILI	703
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	TLG	767
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	ANVS	812
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	RSKG	848
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	KDSKG	890
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	MNAS	974
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	OHH	1162
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	SUFI	1193
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	SUFI	1193
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	CHVKG	1219
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	BTK	1279
7	7	1979	3:46:59.870	50.0331	78.9892	5.84	GRM	1403
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	BRVK	653
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	KUU	667
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	CHL3	695
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	TRG	720
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	FAB	749
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	ANVS	778
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	CHMS	796
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	KRM	755
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	ANVS	778
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	KST	766
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	EKS	857
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	KDSKG	853
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	MNAS	917
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	ARLS	929
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	DZH	924
7	18	1979	3:17:04.920	49.7772	78.1125	5.20	ARSB	1020
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	AAA	752
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	TK	546
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	BRVK	690
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	TLG	752

8	4	1979	3:56:59.670	49.9031	78.8878	6.13	ANVS	796
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	KRM	770
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	KDSKG	874
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	EKS	894
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	ARLS	962
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	ARK	1047
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	ARSB	1057
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	OHH	1145
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	SUFI	1177
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	SUFI	1177
8	4	1979	3:56:59.670	49.9031	78.8878	6.13	GRM	1387
8	18	1979	2:51:59.710	49.9481	78.9189	6.13	KUU	701
8	18	1979	2:51:59.710	49.9481	78.9189	6.13	BRVK	689
8	18	1979	2:51:59.710	49.9481	78.9189	6.13	CHL	715
8	18	1979	2:51:59.710	49.9481	78.9189	6.13	AAA	757
8	18	1979	2:51:59.710	49.9481	78.9189	6.13	ILI	692
8	18	1979	2:51:59.710	49.9481	78.9189	6.13	DZH	975
8	18	1979	2:51:59.710	49.9481	78.9189	6.13	GRM	1392
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	KAC	489
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	BRVK	651
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	KUU	664
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	CHL3	692
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	TLG	727
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	TRG	717
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	KRM	752
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	FAB	745
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	KST	762
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	AKJ	1010
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	TORK	945
9	27	1979	4:13:00.000	49.7506	78.0492	4.42	DZH	919
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	TK	536
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	BRVK	649
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	ILI	668
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	KUU	672
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	CHL3	700
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	TRG	725
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	TLG	735
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	ANVS	783
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	KRM	760
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	FAB	754
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	KDSKG	859
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	TSN	759
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	DZH	928

10	18	1979	4:17:00.110	49.8242	78.0975	5.23	ARLS	933
10	18	1979	4:17:00.110	49.8242	78.0975	5.23	ARSB	1024
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	BRVK	691
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	AAA	771
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	ANVS	808
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	KDSKG	886
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	EKS	906
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	ARLS	974
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	DZH	983
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	MNAS	971
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	ARK	1060
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	ARSB	1070
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	OHH	1158
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	SUFI	1189
10	28	1979	3:16:59.550	49.9967	78.9950	5.98	GRM	1400
2	1	1979	4:13:00.170	50.0808	78.8533	5.29	AAA	770
2	1	1979	4:13:00.170	50.0808	78.8533	5.29	BRVK	677
2	1	1979	4:13:00.170	50.0808	78.8533	5.29	CHL3	729
2	1	1979	4:13:00.170	50.0808	78.8533	5.29	DZH	983
2	1	1979	4:13:00.170	50.0808	78.8533	5.29	CHMK	1115
2	1	1979	4:13:00.170	50.0808	78.8533	5.29	GRM	1402
11	30	1979	4:53:00.580	49.7831	78.0867	4.42	SEM	169
11	30	1979	4:53:00.580	49.7831	78.0867	4.42	KAC	493
11	30	1979	4:53:00.580	49.7831	78.0867	4.42	BRVK	651
11	30	1979	4:53:00.580	49.7831	78.0867	4.42	KUU	668
11	30	1979	4:53:00.580	49.7831	78.0867	4.42	CHL3	695
11	30	1979	4:53:00.580	49.7831	78.0867	4.42	TLG	731
11	30	1979	4:53:00.580	49.7831	78.0867	4.42	TRG	720
11	30	1979	4:53:00.580	49.7831	78.0867	4.42	KRM	755
11	30	1979	4:53:00.580	49.7831	78.0867	4.42	FAB	749
11	30	1979	4:53:00.580	49.7831	78.0867	4.42	KST	766
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	AAA	751
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	TK	546
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	ILI	686
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	BRVK	684
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	KUU	694
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	TLG	751
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	KRM	770
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	AAA	758
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	FAB	773
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	EKS	891
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	KDSKG	874
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	ARLS	960

12	2	1979	4:37:00.600	49.9094	78.7844	5.99	MNAS	955
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	ARSB	1054
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	ARK	1043
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	CHMK	1098
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	OHH	1143
12	2	1979	4:37:00.600	49.9094	78.7844	5.99	SUFI	1175
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	KAC	493
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	TK	533
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	BRVK	652
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	KUU	669
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	CHL3	696
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	TRG	721
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	TLG	732
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	FAB	750
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	ANVS	779
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	EKS	858
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	KST	768
12	21	1979	4:42:00.090	49.7922	78.1130	4.71	DZH	926
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	BRVK	680
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	CHL3	712
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	TLG	753
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	AAA	760
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	FAB	775
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	ANVS	798
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	EKS	892
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	KDSKG	876
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	MNAS	956
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	ARLS	961
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	ARK	1044
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	ARSB	1056
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	CHMK	1098
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	OHH	1144
12	23	1979	4:56:59.900	49.9322	78.7528	6.13	SUFI	1176
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	BRVK	614
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	TLG	750
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	CHL3	718
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	KRM	778
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	ANVS	799
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	CHMS	807
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	EKS	864
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	BGK	858
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	FAB	765
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	KDSKG	873

2	16	1979	4:04:00.500	49.9740	77.6680	5.39	BOM	843
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	MNAS	921
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	ARLS	939
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	ARK	1009
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	ARSB	1027
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	KZD	1054
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	TRKS	1071
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	CHVKG	1172
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	SUFI	1154
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	BTK	1225
2	16	1979	4:04:00.500	49.9740	77.6680	5.39	CHMK	1051
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	TK	532
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	CHL3	695
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	BRVK	650
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	KUU	667
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	TRG	720
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	FAB	749
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	TLG	730
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	KRM	755
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	MDO	740
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	DZH	923
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	ANVS	778
4	10	1980	4:07:00.190	49.7825	78.0572	5.00	KDSKG	854
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	BRVK	678
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	CHL3	717
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	TRG	746
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	MDO	768
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	KRM	777
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	TLG	758
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	ANVS	803
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	KDSKG	881
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	EKS	897
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	KST	799
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	MNAS	960
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	DZH	970
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	ARLS	966
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	ARK	1048
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	SUFI	1181
4	25	1980	3:57:00.060	49.9764	78.7594	5.45	OHH	1149
5	22	1980	3:57:00.100	49.7797	78.0364	5.53	BRVK	649
5	22	1980	3:57:00.100	49.7797	78.0364	5.53	CHL3	695
5	22	1980	3:57:00.100	49.7797	78.0364	5.53	TRG	720
5	22	1980	3:57:00.100	49.7797	78.0364	5.53	TLG	730

5	22	1980	3:57:00.100	49.7797	78.0364	5.53	MDO	739
5	22	1980	3:57:00.100	49.7797	78.0364	5.53	ANVS	778
5	22	1980	3:57:00.100	49.7797	78.0364	5.53	EKS	855
5	22	1980	3:57:00.100	49.7797	78.0364	5.53	KDSKG	853
5	22	1980	3:57:00.100	49.7797	78.0364	5.53	ARK	1003
5	22	1980	3:57:00.100	49.7797	78.0364	5.53	MNAS	915
5	22	1980	3:57:00.100	49.7797	78.0364	5.53	ARSB	1018
5	22	1980	3:57:00.100	49.7797	78.0364	5.53	OHH	1107
6	12	1980	3:27:00.190	49.9887	78.9911	5.52	TLG	763
6	12	1980	3:27:00.190	49.9887	78.9911	5.52	GRM	1399
6	25	1980	2:27:00.000	49.8258	78.0994		SEM	166
6	25	1980	2:27:00.000	49.8258	78.0994		MDO	745
6	25	1980	2:27:00.000	49.8258	78.0994		KST	771
6	25	1980	2:27:00.000	49.8258	78.0994		KAC	497
6	25	1980	2:27:00.000	49.8258	78.0994		KUU	673
6	25	1980	2:27:00.000	49.8258	78.0994		TRG	725
6	25	1980	2:27:00.000	49.8258	78.0994		FAB	754
6	25	1980	2:27:00.000	49.8258	78.0994		KRM	760
6	29	1980	2:33:00.240	49.9486	78.8181	5.69	TK	550
6	29	1980	2:33:00.240	49.9486	78.8181	5.69	BRVK	683
6	29	1980	2:33:00.240	49.9486	78.8181	5.69	CHL3	714
6	29	1980	2:33:00.240	49.9486	78.8181	5.69	TLG	756
6	29	1980	2:33:00.240	49.9486	78.8181	5.69	KRM	775
6	29	1980	2:33:00.240	49.9486	78.8181	5.69	MDO	766
6	29	1980	2:33:00.240	49.9486	78.8181	5.69	GRM	1389
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	KAC	493
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	TK	533
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	BRVK	651
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	KUU	669
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	CHL3	696
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	TRG	721
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	MDO	741
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	ANVS	779
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	TLG	732
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	EKS	857
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	KDSKG	855
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	MNAS	918
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	ARLS	929
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	DZH	925
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	ARK	1006
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	ARSB	1021
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	SUFI	1144
7	31	1980	3:33:00.070	49.7906	78.0908	5.33	GRM	1347

9	14	1980	2:42:41.710	49.9367	78.7975	6.21	BRVK	683
9	14	1980	2:42:41.710	49.9367	78.7975	6.21	TLG	754
9	14	1980	2:42:41.710	49.9367	78.7975	6.21	MDO	764
9	14	1980	2:42:41.710	49.9367	78.7975	6.21	ANVS	799
9	14	1980	2:42:41.710	49.9367	78.7975	6.21	KDSKG	877
9	14	1980	2:42:41.710	49.9367	78.7975	6.21	EKS	894
9	14	1980	2:42:41.710	49.9367	78.7975	6.21	ARK	1046
9	14	1980	2:42:41.710	49.9367	78.7975	6.21	ARSB	1058
9	14	1980	2:42:41.710	49.9367	78.7975	6.21	MNAS	958
9	14	1980	2:42:41.710	49.9367	78.7975	6.21	SUFI	1178
9	14	1980	2:42:41.710	49.9367	78.7975	6.21	GRM	1387
9	25	1980	6:21:13.060	49.8233	78.0806	4.83	KAC	497
9	25	1980	6:21:13.060	49.8233	78.0806	4.83	BRVK	648
9	25	1980	6:21:13.060	49.8233	78.0806	4.83	CHL3	700
9	25	1980	6:21:13.060	49.8233	78.0806	4.83	TRG	725
9	25	1980	6:21:13.060	49.8233	78.0806	4.83	TLG	735
9	25	1980	6:21:13.060	49.8233	78.0806	4.83	MDO	744
9	25	1980	6:21:13.060	49.8233	78.0806	4.83	KRM	760
9	25	1980	6:21:13.060	49.8233	78.0806	4.83	KST	770
9	25	1980	6:21:13.060	49.8233	78.0806	4.83	TK	536
9	25	1980	6:21:13.060	49.8233	78.0806	4.83	DZH	927
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	ILI	696
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	BRVK	694
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	TRG	748
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	CHL3	717
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	MDO	771
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	KRM	778
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	ANVS	805
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	KDSKG	883
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	EKS	905
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	ARLS	972
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	MNAS	970
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	DZH	981
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	ARK	1058
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	ARSB	1068
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	OHH	1156
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	SUFI	1187
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	GRM	1398
10	12	1980	3:34:16.650	49.9675	79.0225	5.88	TLG	761
12	5	1980	4:17:16.000	49.8308	78.1139		SEM	165
12	5	1980	4:17:16.000	49.8308	78.1139		KAC	498
12	5	1980	4:17:16.000	49.8308	78.1139		TRG	726
12	5	1980	4:17:16.000	49.8308	78.1139		KUU	673

12	5	1980	4:17:16.000	49.8308	78.1139		MDO	745
12	5	1980	4:17:16.000	49.8308	78.1139		TSN	759
12	5	1980	4:17:16.000	49.8308	78.1139		KST	772
12	5	1980	4:17:16.000	49.8308	78.1139		KRM	761
12	5	1980	4:17:16.000	49.8308	78.1139		FAB	755
12	5	1980	4:17:00.000	49.7517	78.1317		SEM	168
12	5	1980	4:17:00.000	49.7517	78.1317		KAC	489
12	5	1980	4:17:00.000	49.7517	78.1317		TRG	717
12	5	1980	4:17:00.000	49.7517	78.1317		KUU	665
12	5	1980	4:17:00.000	49.7517	78.1317		MDO	737
12	5	1980	4:17:00.000	49.7517	78.1317		TSN	751
12	5	1980	4:17:00.000	49.7517	78.1317		KST	764
12	5	1980	4:17:00.000	49.7517	78.1317		KRM	752
12	5	1980	4:17:00.000	49.7517	78.1317		FAB	746
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	TK	547
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	KUU	696
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	BRVK	692
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	TLG	753
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	MDO	763
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	FAB	776
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	KST	795
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	CHL3	710
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	EKS	895
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	ARLS	963
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	MNAS	960
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	ARK	1048
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	ARSB	1059
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	OHH	1147
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	SUFI	1178
12	14	1980	3:47:09.010	49.9089	78.9182	5.93	GRM	1389
12	26	1980	4:07:09.300	49.8261	78.0919	4.50	SEM	167
12	26	1980	4:07:09.300	49.8261	78.0919	4.50	KAC	497
12	26	1980	4:07:09.300	49.8261	78.0919	4.50	BRVK	649
12	26	1980	4:07:09.300	49.8261	78.0919	4.50	TLG	736
12	26	1980	4:07:09.300	49.8261	78.0919	4.50	MDO	745
12	26	1980	4:07:09.300	49.8261	78.0919	4.50	TRG	725
12	26	1980	4:07:09.300	49.8261	78.0919	4.50	KRM	760
12	26	1980	4:07:09.300	49.8261	78.0919	4.50	FAB	754
12	26	1980	4:07:09.300	49.8261	78.0919	4.50	TSN	759
12	26	1980	4:07:09.300	49.8261	78.0919	4.50	KST	771
12	27	1980	4:09:10.630	50.0619	78.9753	5.87	TK	564
12	27	1980	4:09:10.630	50.0619	78.9753	5.87	BRVK	686
12	27	1980	4:09:10.630	50.0619	78.9753	5.87	ILI	705

12	27	1980	4:09:10.630	50.0619	78.9753	5.87	KUU	714
12	27	1980	4:09:10.630	50.0619	78.9753	5.87	MDO	780
12	27	1980	4:09:10.630	50.0619	78.9753	5.87	TLG	770
12	27	1980	4:09:10.630	50.0619	78.9753	5.87	KRM	788
12	27	1980	4:09:10.630	50.0619	78.9753	5.87	KST	813
12	27	1980	4:09:10.630	50.0619	78.9753	5.87	KDSKG	893
12	27	1980	4:09:10.630	50.0619	78.9753	5.87	GRM	1405
4	4	1980	5:32:59.830	50.0000	77.8230	4.90	TK	557
4	4	1980	5:32:59.830	50.0000	77.8230	4.90	BRVK	622
4	4	1980	5:32:59.830	50.0000	77.8230	4.90	CHL3	720
4	4	1980	5:32:59.830	50.0000	77.8230	4.90	TRG	744
4	4	1980	5:32:59.830	50.0000	77.8230	4.90	FAB	770
4	4	1980	5:32:59.830	50.0000	77.8230	4.90	KRM	780
4	4	1980	5:32:59.830	50.0000	77.8230	4.90	MDO	762
4	4	1980	5:32:59.830	50.0000	77.8230	4.90	KST	786
4	4	1980	5:32:59.830	50.0000	77.8230	4.90	ANVS	802
4	4	1980	5:32:59.830	50.0000	77.8230	4.90	EKS	871
4	4	1980	5:32:59.830	50.0000	77.8230	4.90	DZH	932
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	TK	545
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	FAB	773
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	KRM	769
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	ILI	685
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	KUU	693
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	BRVK	686
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	TRG	738
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	TLG	750
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	MDO	760
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	DZH	966
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	ANVS	795
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	KDSKG	873
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	EKS	891
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	MNAS	955
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	ARK	1043
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	ARSB	1054
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	OHH	1142
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	SUFI	1174
4	22	1981	1:17:13.910	49.8989	78.8086	5.94	BTK	1259
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	KAC	513
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	TK	555
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	KUU	706
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	TLG	762
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	CHL	719
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	KRM	780

5	27	1981	3:58:14.880	49.9869	78.9706	5.30	MDO	772
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	ANVS	806
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	EKS	905
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	MNAS	969
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	DZH	981
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	KDSKG	884
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	ARLS	973
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	ARK	1058
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	FAB	785
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	ARSB	1068
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	OHH	1156
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	SUFI	1188
5	27	1981	3:58:14.880	49.9869	78.9706	5.30	BTK	1274
6	30	1981	1:57:15.340	49.7675	78.0808	5.16	KAC	491
6	30	1981	1:57:15.340	49.7675	78.0808	5.16	BRVK	652
6	30	1981	1:57:15.340	49.7675	78.0808	5.16	KUU	666
6	30	1981	1:57:15.340	49.7675	78.0808	5.16	MDO	738
6	30	1981	1:57:15.340	49.7675	78.0808	5.16	CHL3	694
6	30	1981	1:57:15.340	49.7675	78.0808	5.16	TRG	719
6	30	1981	1:57:15.340	49.7675	78.0808	5.16	FAB	747
6	30	1981	1:57:15.340	49.7675	78.0808	5.16	KDSKG	852
6	30	1981	1:57:15.340	49.7675	78.0808	5.16	KST	764
6	30	1981	1:57:15.340	49.7675	78.0808	5.16	BTK	1220
7	17	1981	2:37:18.120	49.8014	78.1314	5.07	KAC	494
7	17	1981	2:37:18.120	49.8014	78.1314	5.07	TK	534
7	17	1981	2:37:18.120	49.8014	78.1314	5.07	CHL3	697
7	17	1981	2:37:18.120	49.8014	78.1314	5.07	TRG	723
7	17	1981	2:37:18.120	49.8014	78.1314	5.07	MDO	742
7	17	1981	2:37:18.120	49.8014	78.1314	5.07	TLG	733
7	17	1981	2:37:18.120	49.8014	78.1314	5.07	DZH	927
8	14	1981	2:27:15.240	49.7522	78.0531	4.88	KAC	489
8	14	1981	2:27:15.240	49.7522	78.0531	4.88	TK	528
8	14	1981	2:27:15.240	49.7522	78.0531	4.88	KUU	664
8	14	1981	2:27:15.240	49.7522	78.0531	4.88	MDO	736
8	14	1981	2:27:15.240	49.7522	78.0531	4.88	CHL3	692
8	14	1981	2:27:15.240	49.7522	78.0531	4.88	TLG	727
8	14	1981	2:27:15.240	49.7522	78.0531	4.88	TRG	717
8	14	1981	2:27:15.240	49.7522	78.0531	4.88	FAB	745
8	14	1981	2:27:15.240	49.7522	78.0531	4.88	KRM	752
8	14	1981	2:27:15.240	49.7522	78.0531	4.88	TSN	750
8	14	1981	2:27:15.240	49.7522	78.0531	4.88	DZH	920
9	13	1981	2:17:20.840	49.9133	78.8944	6.06	TLG	753
9	13	1981	2:17:20.840	49.9133	78.8944	6.06	GRM	1388

10	18	1981	3:57:05.220	49.9281	78.8447	6.00	TK	548
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	KUU	697
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	MDO	764
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	ILI	689
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	TLG	754
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	TSN	779
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	KRM	772
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	ANVS	799
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	KST	796
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	KDSKG	877
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	EKS	895
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	CHL	712
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	DZH	970
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	FAB	776
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	ARLS	963
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	ARK	1047
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	ARSB	1058
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	GRM	1388
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	OHH	1147
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	SUFI	1178
10	18	1981	3:57:05.220	49.9281	78.8447	6.00	BTK	1263
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	TK	527
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	TSN	749
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	KUU	663
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	CHL3	690
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	TLG	726
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	TRG	715
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	MDO	735
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	KDSKG	849
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	EKS	852
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	MNAS	913
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	DZH	920
11	20	1981	4:57:05.070	49.7367	78.1042	5.10	ARK	1001
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	KAC	504
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	TK	545
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	KUU	694
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	KRM	770
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	TRG	739
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	MDO	761
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	FAB	774
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	ANVS	796
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	TLG	751
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	EKS	892

11	29	1981	3:35:11.200	49.9019	78.8489	5.62	KST	793
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	GRM	1385
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	DZH	968
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	ARSB	1056
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	OHH	1144
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	SUFI	1176
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	BTK	1261
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	ILI	686
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	CHL	709
11	29	1981	3:35:11.200	49.9019	78.8489	5.62	DZH	968
12	22	1981	4:31:05.270	49.8342	78.0803	4.96	TK	537
12	22	1981	4:31:05.270	49.8342	78.0803	4.96	KUU	673
12	22	1981	4:31:05.270	49.8342	78.0803	4.96	TLG	736
12	22	1981	4:31:05.270	49.8342	78.0803	4.96	TRG	726
12	22	1981	4:31:05.270	49.8342	78.0803	4.96	MDO	745
12	22	1981	4:31:05.270	49.8342	78.0803	4.96	TSN	760
12	22	1981	4:31:05.270	49.8342	78.0803	4.96	DZH	928
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	ILI	688
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	KUU	696
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	TK	549
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	TRG	741
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	TLG	754
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	CHL	713
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	MDO	764
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	FAB	776
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	KRM	773
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	KST	795
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	KDSKG	876
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	MNAS	957
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	ARLS	962
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	DZH	967
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	ARSB	1057
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	OHH	1145
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	SUFI	1177
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	BTK	1261
12	27	1981	3:43:16.720	49.9331	78.7783	6.16	GRM	1386
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	KAC	517
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	TK	559
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	BRVK	689
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	TRG	753
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	KUU	709
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	MDO	776
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	ANVS	810

3	29	1981	4:03:52.580	50.0181	78.9788	5.49	KRM	783
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	TLG	766
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	KDSKG	888
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	EKS	908
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	MNAS	973
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	ARLS	976
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	ARK	1061
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	SUFI	1191
3	29	1981	4:03:52.580	50.0181	78.9788	5.49	BTK	1277
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	ILI	688
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	KAC	505
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	ILI	688
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	CHL	711
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	TLG	753
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	MDO	763
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	FAB	776
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	TRG	741
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	KRM	771
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	TSN	778
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	KST	796
4	25	1982	3:23:07.990	49.9169	78.8878	6.10	GRM	1388
6	11	1982	10:59:06.000	49.9300	78.5000	4.00	TLG	750
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	MDO	739
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	KAC	491
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	TK	530
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	KUU	667
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	ILI	663
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	CHL3	694
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	TRG	719
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	TLG	730
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	KST	765
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	KRM	754
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	TSN	753
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	FAB	748
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	CHMS	796
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	SARKG	839
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	DZH	924
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	ARSB	1019
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	TRKS	1068
6	25	1982	2:03:07.160	49.7714	78.1108	4.57	BTK	1221
7	4	1982	1:17:16.680	49.9586	78.8117	6.08	TK	552
7	4	1982	1:17:16.680	49.9586	78.8117	6.08	ILI	692
7	4	1982	1:17:16.680	49.9586	78.8117	6.08	KUU	699

7	4	1982	1:17:16.680	49.9586	78.8117	6.08	TRG	744
7	4	1982	1:17:16.680	49.9586	78.8117	6.08	MDO	767
7	4	1982	1:17:16.680	49.9586	78.8117	6.08	ANVS	802
7	4	1982	1:17:16.680	49.9586	78.8117	6.08	KDSKG	880
7	4	1982	1:17:16.680	49.9586	78.8117	6.08	EKS	897
7	4	1982	1:17:16.680	49.9586	78.8117	6.08	MNAS	961
7	4	1982	1:17:16.680	49.9586	78.8117	6.08	FAB	779
7	4	1982	1:17:16.680	49.9586	78.8117	6.08	ARK	1049
7	4	1982	1:17:16.680	49.9586	78.8117	6.08	ARSB	1060
8	23	1982	2:43:06.700	49.7403	78.0308	4.44	SEM	175
8	23	1982	2:43:06.700	49.7403	78.0308	4.44	KAC	488
8	23	1982	2:43:06.700	49.7403	78.0308	4.44	KRM	751
8	23	1982	2:43:06.700	49.7403	78.0308	4.44	ILI	659
8	23	1982	2:43:06.700	49.7403	78.0308	4.44	KUU	662
8	23	1982	2:43:06.700	49.7403	78.0308	4.44	MDO	735
8	23	1982	2:43:06.700	49.7403	78.0308	4.44	TRG	715
8	23	1982	2:43:06.700	49.7403	78.0308	4.44	TLG	726
8	23	1982	2:43:06.700	49.7403	78.0308	4.44	FAB	744
8	23	1982	2:43:06.700	49.7403	78.0308	4.44	DZH	918
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	TLG	751
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	KST	793
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	CHL	720
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	FAB	773
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	KDSKG	874
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	MNAS	955
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	KRM	771
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	ARK	1043
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	ARSB	1054
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	EKS	891
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	KZD	1096
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	TRKS	1107
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	OHH	1142
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	SUFI	1175
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	CHVKG	1200
8	31	1982	1:31:03.190	49.9142	78.7614	5.20	GRM	1383
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	TSN	754
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	TK	531
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	TRG	720
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	ILI	664
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	KUU	668
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	MDO	740
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	CHL3	695
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	TLG	731

9	21	1982	2:57:03.170	49.7792	78.1247	5.15	KRM	755
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	EKS	857
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	DZH	925
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	ARLS	929
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	KZD	1049
9	21	1982	2:57:03.170	49.7792	78.1247	5.15	KST	766
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	ILI	689
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	KUU	696
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	MDO	764
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	KST	796
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	ANVS	799
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	FAB	776
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	KDSKG	876
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	EKS	894
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	MNAS	958
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	ARLS	963
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	ARK	1046
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	ARSB	1057
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	CHMK	1101
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	OHH	1146
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	SUFI	1178
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	BTK	1262
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	GRM	1387
12	5	1982	3:37:15.120	49.9308	78.8097	6.08	TLG	753
12	25	1982	4:23:08.380	49.7811	78.0350	4.47	SEM	173
12	25	1982	4:23:08.380	49.7811	78.0350	4.47	KAC	493
12	25	1982	4:23:08.380	49.7811	78.0350	4.47	TSN	753
12	25	1982	4:23:08.380	49.7811	78.0350	4.47	KUU	667
12	25	1982	4:23:08.380	49.7811	78.0350	4.47	ILI	663
12	25	1982	4:23:08.380	49.7811	78.0350	4.47	TRG	720
12	25	1982	4:23:08.380	49.7811	78.0350	4.47	TLG	730
12	25	1982	4:23:08.380	49.7811	78.0350	4.47	MDO	739
12	25	1982	4:23:08.380	49.7811	78.0350	4.47	KST	765
12	25	1982	4:23:08.380	49.7811	78.0350	4.47	FAB	748
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	TRG	758
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	TLG	770
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	KRM	788
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	ANVS	815
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	KDSKG	893
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	ARLS	981
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	MNAS	977
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	ARK	1066
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	ARSB	1077

12	26	1982	3:35:16.670	50.0631	78.9939	5.58	AKKKG	1058
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	KZD	1119
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	TRKS	1130
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	OHH	1165
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	EKS	913
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	SUFI	1196
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	CHVKG	1222
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	BTK	1282
12	26	1982	3:35:16.670	50.0631	78.9939	5.58	GRM	1406
2	19	1982	3:56:13.420	49.8233	78.0333	5.40	KUU	671
2	19	1982	3:56:13.420	49.8233	78.0333	5.40	TLG	735
2	19	1982	3:56:13.420	49.8233	78.0333	5.40	TRG	725
2	19	1982	3:56:13.420	49.8233	78.0333	5.40	TSN	758
2	19	1982	3:56:13.420	49.8233	78.0333	5.40	KRM	760
2	19	1982	3:56:13.420	49.8233	78.0333	5.40	MDO	744
2	19	1982	3:56:13.420	49.8233	78.0333	5.40	FAB	753
2	19	1982	3:56:13.420	49.8233	78.0333	5.40	KST	770
2	19	1982	3:56:13.420	49.8233	78.0333	5.40	DZH	925
2	19	1982	3:56:13.420	49.8233	78.0333	5.40	FAB	753
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	SEM	169
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	KUU	668
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	ILI	664
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	CHL3	696
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	TLG	731
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	TRG	721
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	MDO	740
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	FAB	749
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	TSN	754
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	KRM	756
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	ANVS	778
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	CHMS	797
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	DJRKG	801
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	BOM	828
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	KNSKG	834
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	BGK	849
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	EKS	857
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	KDSKG	854
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	MNAS	917
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	KRSKG	912
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	KZAD	935
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	ARLS	929
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	TKLKG	956
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	ARK	1005

4	12	1983	3:41:08.260	49.7856	78.0847	4.65	KKUL	996
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	ARSB	1020
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	SALK	1045
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	KZD	1048
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	TRKS	1068
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	SUFI	1144
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	OHH	1109
4	12	1983	3:41:08.260	49.7856	78.0847	4.65	BTK	1221
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	TK	527
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	ILI	659
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	TRG	716
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	ANVS	774
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	URVKG	818
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	KUU	664
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	BOM	823
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	KDSKG	850
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	KST	762
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	KDSKG	850
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	MNAS	914
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	DZH	922
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	MNAS	914
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	ARLS	925
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	TLG	726
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	ARK	1002
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	ARSB	1017
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	SALK	1041
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	KZD	1056
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	TRKS	1066
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	EKS	853
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	CHMK	1052
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	ARLS	925
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	SUFI	1140
5	30	1983	3:33:47.040	49.7411	78.1203	5.43	BTK	1218
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	KAC	506
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	TK	548
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	ILI	689
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	KUU	698
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	CHL	722
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	TLG	754
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	MDO	765
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	FAB	777
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	ANVS	799
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	KST	797

6	12	1983	2:36:46.120	49.9250	78.8981	6.02	EKS	896
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	MNAS	961
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	ARLS	964
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	CHMK	1105
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	KRM	772
6	12	1983	2:36:46.120	49.9250	78.8981	6.02	MDO	765
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	SEM	174
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	KUU	662
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	TRG	715
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	TSN	749
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	FAB	744
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	KRM	751
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	TLG	725
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	KST	761
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	URVKG	816
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	KDSKG	849
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	ARLS	923
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	SARKG	835
6	24	1983	2:56:13.850	49.7397	78.0358	4.46	KST	761
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	KAC	493
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	TK	532
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	ILI	664
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	KUU	668
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	CHL3	696
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	TRG	721
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	TLG	730
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	KST	766
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	MDO	740
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	KRM	755
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	TSN	754
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	FAB	749
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	ANVS	778
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	CHMS	797
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	BOM	828
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	AAK	841
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	KDSKG	854
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	URVKG	822
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	EKS	857
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	SARKG	840
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	MNAS	917
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	KRSKG	912
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	ARLS	929
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	ARSB	1020

9	11	1983	6:33:13.100	49.7847	78.0842	4.48	ARK	1005
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	KZD	1059
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	TRKS	1068
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	OHH	1109
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	SUFI	1144
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	BTK	1221
9	11	1983	6:33:13.100	49.7847	78.0842	4.48	TKLKG	961
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	KAC	506
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	KUU	695
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	ILI	687
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	TLG	752
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	FAB	774
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	MDO	762
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	TSN	777
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	KRM	772
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	KST	794
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	AAK	873
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	EKS	891
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	MNAS	955
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	DZH	965
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	ARK	1043
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	ARSB	1055
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	OHH	1143
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	SUFI	1175
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	BTK	1260
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	GRM	1384
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	KDSKG	875
10	6	1983	1:47:09.170	49.9246	78.7507	5.95	MDO	762
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	ILI	687
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	TLG	752
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	ANVS	797
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	FAB	774
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	AAK	874
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	KST	794
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	KUU	695
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	KDSKG	875
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	KRM	771
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	EKS	892
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	TKLKG	999
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	ARK	1045
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	CHMK	1100
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	SUFI	1176
10	26	1983	1:55:07.300	49.9125	78.8217	6.04	GRM	1385

11	2	1983	4:18:54.000	49.7792	78.1247		SEM	166
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	TK	562
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	KAC	520
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	CHL	736
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	TSN	794
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	MDO	780
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	ANVS	814
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	TLG	769
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	BOM	873
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	AAK	893
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	KRM	787
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	KDSKG	892
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	EKS	912
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	KST	812
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	ARLS	980
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	FAB	792
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	KKUL	1051
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	ARSB	1075
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	ARK	1065
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	SALK	1097
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	OHH	1164
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	SUFI	1195
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	CHVKG	1221
11	20	1983	3:27:06.900	50.0508	78.9992	5.33	BTK	1281
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	TK	529
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	KRM	753
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	KUU	665
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	ILI	661
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	CHL	703
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	TRG	718
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	TLG	727
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	MDO	737
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	TSN	751
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	FAB	746
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	DZH	920
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	GRM	1342
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	CHMK	1050
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	KST	763
11	29	1983	2:19:08.800	49.7586	78.0486	5.31	DZH	920
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	KAC	493
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	TK	532
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	ILI	665
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	KUU	669

12	26	1983	4:29:09.250	49.7900	78.1092	5.48	FAB	750
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	TRG	721
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	TSN	755
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	MDO	741
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	KRM	756
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	ANVS	779
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	CHL	706
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	URVKG	823
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	AAK	842
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	EKS	858
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	KDSKG	855
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	ARLS	930
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	DZH	925
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	ARLS	930
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	TKLKG	963
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	ARK	1007
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	CHMK	1056
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	AAK	842
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	SUFI	1145
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	CHVKG	1167
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	SUFI	1145
12	26	1983	4:29:09.250	49.7900	78.1092	5.48	BTK	1223
3	30	1983	4:17:10.220	49.7850	78.0406	4.61	KUU	667
3	30	1983	4:17:10.220	49.7850	78.0406	4.61	CHL3	696
3	30	1983	4:17:10.220	49.7850	78.0406	4.61	TRG	720
3	30	1983	4:17:10.220	49.7850	78.0406	4.61	TLG	730
3	30	1983	4:17:10.220	49.7850	78.0406	4.61	MDO	740
3	30	1983	4:17:10.220	49.7850	78.0406	4.61	KRM	756
3	30	1983	4:17:10.220	49.7850	78.0406	4.61	KST	766
3	30	1983	4:17:10.220	49.7850	78.0406	4.61	ILI	664
3	30	1983	4:17:10.220	49.7850	78.0406	4.61	TSN	754
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	TK	529
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	TLG	728
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	KUU	665
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	ILI	661
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	CHL	703
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	MDO	737
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	KST	764
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	TSN	752
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	ANVS	776
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	URVKG	820
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	AAK	838
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	KDSKG	851

4	15	1984	3:17:11.460	49.7606	78.0892	5.72	EKS	854
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	DZH	922
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	MNAS	915
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	ARLS	926
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	ARK	1003
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	ARSB	1018
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	SALK	1042
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	ARSB	1018
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	CHMK	1052
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	OHH	1107
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	ARLS	926
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	SUFI	1141
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	CHVKG	1163
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	BTK	1219
4	15	1984	3:17:11.460	49.7606	78.0892	5.72	GRM	1344
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	KAC	507
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	KUU	698
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	TLG	754
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	MDO	765
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	TSN	780
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	FAB	777
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	KRM	773
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	KST	797
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	ANVS	800
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	EKS	896
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	MNAS	960
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	DZH	971
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	ARSB	1059
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	ARK	1048
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	KDSKG	877
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	CHMK	1103
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	SUFI	1179
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	OHH	1147
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	BTK	1264
4	25	1984	1:09:06.090	49.9358	78.8506	5.90	GRM	1389
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	TK	554
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	KUU	706
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	TLG	761
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	MDO	772
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	KRM	779
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	TSN	787
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	ANVS	806
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	KST	805

5	26	1984	3:13:14.920	49.9789	79.0056	6.01	KDSKG	884
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	EKS	905
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	MNAS	970
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	ARLS	973
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	ARSB	1069
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	ILI	697
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	CHMK	1115
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	ARK	1058
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	OHH	1157
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	SUFI	1188
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	BTK	1274
5	26	1984	3:13:14.920	49.9789	79.0056	6.01	GRM	1399
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	KUU	695
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	TLG	751
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	MDO	762
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	MTB	775
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	ANVS	796
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	KST	794
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	KDSKG	874
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	EKS	893
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	MNAS	958
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	DZH	969
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	ARLS	961
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	ARK	1046
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	CHMK	1102
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	OHH	1145
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	SUFI	1176
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	BTK	1262
7	14	1984	1:09:13.800	49.9010	78.8790	6.10	GRM	1387
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	TK	534
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	KUU	670
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	ILI	666
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	CHL3	698
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	MDO	742
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	TRG	723
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	TLG	733
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	KST	769
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	TSN	756
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	MTB	752
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	URVKG	824
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	MNAS	919
9	9	1984	2:59:08.850	49.8044	78.0875	4.89	KKUL	996
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	SEM	171

10	18	1984	4:57:08.320	49.7294	78.0864	4.25	KAC	487
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	KUU	662
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	CHL3	690
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	TRG	714
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	MDO	734
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	TLG	724
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	KRM	749
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	CHMS	791
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	TSN	748
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	SARKG	834
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	MTB	744
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	BOM	822
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	AAK	835
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	BGK	841
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	KST	760
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	KDSKG	848
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	KRSKG	906
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	ARLS	923
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	KKUL	989
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	ARK	1000
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	ARSB	1014
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	EKS	851
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	OHH	1103
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	CHVKG	1160
10	18	1984	4:57:08.320	49.7294	78.0864	4.25	BTK	1216
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	KUU	699
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	TRG	743
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	TLG	755
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	MDO	766
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	MTB	780
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	TSN	781
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	KST	798
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	ANVS	800
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	AAK	879
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	DZH	974
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	ARK	1051
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	ARSB	1062
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	CHMK	1107
10	27	1984	1:50:12.900	49.9347	78.9281	6.19	BTK	1267
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	KAC	496
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	KUU	671
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	TLG	733
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	MDO	743

11	23	1984	3:55:07.480	49.8125	78.0594	4.38	MTB	753
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	TSN	757
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	TRG	724
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	CHMS	799
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	URVKG	824
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	KNSKG	837
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	BOM	830
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	EKS	859
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	BGK	849
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	KST	769
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	MNAS	919
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	ARLS	931
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	TKLKG	963
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	ARSB	1022
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	ARK	1007
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	SALK	1047
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	TRKS	1070
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	SUFI	1146
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	CHVKG	1168
11	23	1984	3:55:07.480	49.8125	78.0594	4.38	BTK	1223
12	2	1984	3:19:08.940	50.0061	79.0089	5.77	KUU	709
12	2	1984	3:19:08.940	50.0061	79.0089	5.77	CHL	731
12	2	1984	3:19:08.940	50.0061	79.0089	5.77	TRG	752
12	2	1984	3:19:08.940	50.0061	79.0089	5.77	MDO	775
12	2	1984	3:19:08.940	50.0061	79.0089	5.77	TLG	764
12	2	1984	3:19:08.940	50.0061	79.0089	5.77	KST	808
12	2	1984	3:19:08.940	50.0061	79.0089	5.77	DZH	984
12	2	1984	3:19:08.940	50.0061	79.0089	5.77	CHMK	1117
12	2	1984	3:19:08.940	50.0061	79.0089	5.77	GRM	1401
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	ILI	690
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	KRM	774
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	MTB	779
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	MDO	766
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	ANVS	800
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	KST	797
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	AAK	877
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	KDSKG	878
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	MNAS	959
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	DZH	970
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	ARLS	964
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	ARK	1048
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	KDSKG	878
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	ARSB	1059

12	16	1984	3:55:05.190	49.9458	78.8086	6.12	CHMK	1102
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	OHH	1147
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	EKS	895
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	BTK	1264
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	GRM	1388
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	TLG	755
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	TSN	780
12	16	1984	3:55:05.190	49.9458	78.8086	6.12	SUFI	1179
12	28	1984	3:50:13.150	49.8803	78.7039	6.00	TK	542
12	28	1984	3:50:13.150	49.8803	78.7039	6.00	MTB	770
12	28	1984	3:50:13.150	49.8803	78.7039	6.00	MDO	757
12	28	1984	3:50:13.150	49.8803	78.7039	6.00	TSN	772
12	28	1984	3:50:13.150	49.8803	78.7039	6.00	TLG	747
12	28	1984	3:50:13.150	49.8803	78.7039	6.00	KRM	767
12	28	1984	3:50:13.150	49.8803	78.7039	6.00	KST	788
12	28	1984	3:50:13.150	49.8803	78.7039	6.00	DZH	959
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	KAC	503
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	TK	544
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	ILI	684
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	KUU	691
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	CHL	718
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	TRG	737
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	TLG	749
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	FAB	771
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	MDO	759
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	KRM	769
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	KST	790
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	AAK	870
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	KDSKG	872
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	EKS	888
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	DZH	963
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	MNAS	952
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	ARLS	957
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	OHH	1140
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	ARSB	1052
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	SUFI	1172
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	BTK	1257
2	19	1984	3:57:05.920	49.8961	78.7431	5.77	KST	790
3	7	1984	2:39:08.860	50.0500	78.9561	5.56	TK	562
3	7	1984	2:39:08.860	50.0500	78.9561	5.56	KAC	520
3	7	1984	2:39:08.860	50.0500	78.9561	5.56	ILI	704
3	7	1984	2:39:08.860	50.0500	78.9561	5.56	CHL	736
3	7	1984	2:39:08.860	50.0500	78.9561	5.56	TSN	794

3	7	1984	2:39:08.860	50.0500	78.9561	5.56	TLG	768
3	7	1984	2:39:08.860	50.0500	78.9561	5.56	FAB	792
3	7	1984	2:39:08.860	50.0500	78.9561	5.56	MDO	779
3	7	1984	2:39:08.860	50.0500	78.9561	5.56	KRM	786
3	7	1984	2:39:08.860	50.0500	78.9561	5.56	KST	811
3	7	1984	2:39:08.860	50.0500	78.9561	5.56	GRM	1403
3	7	1984	2:39:08.860	50.0500	78.9561	5.56	KST	811
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	TK	546
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	ILI	688
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	KUU	697
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	CHL	720
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	TLG	753
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	MDO	763
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	FAB	776
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	TSN	778
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	KRM	771
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	KST	796
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	ANVS	798
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	AAK	877
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	KDSKG	876
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	MNAS	961
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	ARLS	964
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	DZH	972
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	ARLS	964
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	ARK	1049
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	ARSB	1059
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	OHH	1147
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	SUFI	1179
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	CHMK	1105
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	BTK	1265
3	29	1984	5:19:10.750	49.9111	78.9269	5.86	GRM	1389
4	25	1985	0:57:09.100	49.9267	78.8808	5.84	ILI	689
4	25	1985	0:57:09.100	49.9267	78.8808	5.84	KUU	697
4	25	1985	0:57:09.100	49.9267	78.8808	5.84	TRG	742
4	25	1985	0:57:09.100	49.9267	78.8808	5.84	MDO	764
4	25	1985	0:57:09.100	49.9267	78.8808	5.84	TLG	754
4	25	1985	0:57:09.100	49.9267	78.8808	5.84	CHL3	712
4	25	1985	0:57:09.100	49.9267	78.8808	5.84	TSN	779
4	25	1985	0:57:09.100	49.9267	78.8808	5.84	KRM	772
4	25	1985	0:57:09.100	49.9267	78.8808	5.84	MTB	778
6	15	1985	0:57:03.210	49.9086	78.8428	6.05	KUU	695
6	15	1985	0:57:03.210	49.9086	78.8428	6.05	TLG	752
6	15	1985	0:57:03.210	49.9086	78.8428	6.05	MDO	762

6	15	1985	0:57:03.210	49.9086	78.8428	6.05	MTB	775
6	15	1985	0:57:03.210	49.9086	78.8428	6.05	TSN	777
6	15	1985	0:57:03.210	49.9086	78.8428	6.05	GRM	1386
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	KAC	499
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	TK	541
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	ILI	679
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	KUU	687
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	TLG	745
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	MDO	755
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	CHL3	705
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	TSN	769
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	KST	786
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	DZH	956
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	CHMK	1089
6	30	1985	2:39:05.130	49.8644	78.6686	5.92	GRM	1375
7	20	1985	0:53:16.980	49.9497	78.7839	5.89	KUU	698
7	20	1985	0:53:16.980	49.9497	78.7839	5.89	MDO	766
7	20	1985	0:53:16.980	49.9497	78.7839	5.89	TLG	756
7	20	1985	0:53:16.980	49.9497	78.7839	5.89	KST	797
7	20	1985	0:53:16.980	49.9497	78.7839	5.89	GRM	1387
7	25	1985	3:11:09.230	49.8186	78.0164	4.82	TK	536
7	25	1985	3:11:09.230	49.8186	78.0164	4.82	ILI	667
7	25	1985	3:11:09.230	49.8186	78.0164	4.82	TLG	734
7	25	1985	3:11:09.230	49.8186	78.0164	4.82	TRG	724
7	25	1985	3:11:09.230	49.8186	78.0164	4.82	MDO	743
2	10	1985	3:27:10.070	49.8992	78.7806	5.83	KUU	693
2	10	1985	3:27:10.070	49.8992	78.7806	5.83	TLG	750
2	10	1985	3:27:10.070	49.8992	78.7806	5.83	CHL	709
2	10	1985	3:27:10.070	49.8992	78.7806	5.83	TRG	738
2	10	1985	3:27:10.070	49.8992	78.7806	5.83	MDO	760
2	10	1985	3:27:10.070	49.8992	78.7806	5.83	TSN	775
2	10	1985	3:27:10.070	49.8992	78.7806	5.83	KST	792
2	10	1985	3:27:10.070	49.8992	78.7806	5.83	DZH	964
2	10	1985	3:27:10.070	49.8992	78.7806	5.83	CHMK	1097
2	10	1985	3:27:10.070	49.8992	78.7806	5.83	GRM	1382
4	17	1987	1:03:07.140	49.8778	78.6689	5.92	CHL3	706
4	17	1987	1:03:07.140	49.8778	78.6689	5.92	ILI	681
4	17	1987	1:03:07.140	49.8778	78.6689	5.92	TLG	746
4	17	1987	1:03:07.140	49.8778	78.6689	5.92	MDO	756
4	17	1987	1:03:07.140	49.8778	78.6689	5.92	MTB	769
4	17	1987	1:03:07.140	49.8778	78.6689	5.92	TSN	771
4	17	1987	1:03:07.140	49.8778	78.6689	5.92	KST	787
4	17	1987	1:03:07.140	49.8778	78.6689	5.92	KRM	766

4	17	1987	1:03:07.140	49.8778	78.6689	5.92	CHMK	1090
4	17	1987	1:03:07.140	49.8778	78.6689	5.92	OHH	1136
4	17	1987	1:03:07.140	49.8778	78.6689	5.92	CHSL	1350
4	17	1987	1:03:07.140	49.8778	78.6689	5.92	CHDR	1400
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	KAC	492
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	TK	531
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	KUU	666
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	ILI	662
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	CHL3	695
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	MTB	748
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	TRG	719
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	MDO	738
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	TLG	729
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	TSN	753
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	KRM	755
5	6	1987	4:02:08.110	49.7758	78.0122	5.60	CHMK	1050
6	6	1987	2:37:09.250	49.8367	78.0617	5.40	KUU	673
6	6	1987	2:37:09.250	49.8367	78.0617	5.40	CHL3	701
6	6	1987	2:37:09.250	49.8367	78.0617	5.40	TRG	726
6	6	1987	2:37:09.250	49.8367	78.0617	5.40	MTB	756
6	6	1987	2:37:09.250	49.8367	78.0617	5.40	MDO	746
6	6	1987	2:37:09.250	49.8367	78.0617	5.40	KRM	761
6	6	1987	2:37:09.250	49.8367	78.0617	5.40	TSN	760
6	20	1987	0:53:07.160	49.9353	78.7442	6.03	KUU	696
6	20	1987	0:53:07.160	49.9353	78.7442	6.03	KUU	696
6	20	1987	0:53:07.160	49.9353	78.7442	6.03	TRG	741
6	20	1987	0:53:07.160	49.9353	78.7442	6.03	MDO	764
6	20	1987	0:53:07.160	49.9353	78.7442	6.03	MTB	776
6	20	1987	0:53:07.160	49.9353	78.7442	6.03	KRM	773
6	20	1987	0:53:07.160	49.9353	78.7442	6.03	KST	795
6	20	1987	0:53:07.160	49.9353	78.7442	6.03	GRM	1384
6	20	1987	0:53:07.160	49.9353	78.7442	6.03	CHDR	1408
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	KUU	666
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	ILI	662
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	CHL3	695
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	BRTG	713
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	TRG	719
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	KST	764
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	MDO	738
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	ZHLS	742
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	KRM	755
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	TSN	753
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	MTB	748

7	17	1987	1:17:09.180	49.7758	78.0197	5.80	GRM	1343
7	17	1987	1:17:09.180	49.7758	78.0197	5.80	CHSL	1317
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	KAC	501
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	TK	543
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	BRTG	724
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	KUU	692
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	TRG	736
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	TLG	749
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	MTB	773
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	TSN	774
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	KST	792
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	KRM	767
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	MDO	759
8	2	1987	0:58:09.270	49.8806	78.8747	5.83	ZHLS	750
9	18	1987	2:32:10.010	49.8044	78.0875	4.30	SEM	168
9	18	1987	2:32:10.010	49.8044	78.0875	4.30	TRG	723
9	18	1987	2:32:10.010	49.8044	78.0875	4.30	KST	769
9	18	1987	2:32:10.010	49.8044	78.0875	4.30	TLG	733
9	18	1987	2:32:10.010	49.8044	78.0875	4.30	TSN	756
9	18	1987	2:32:10.010	49.8044	78.0875	4.30	BRTG	716
9	18	1987	2:32:10.010	49.8044	78.0875	4.30	MDO	742
9	18	1987	2:32:10.010	49.8044	78.0875	4.30	KRM	758
9	18	1987	2:32:10.010	49.8044	78.0875	4.30	MTB	752
9	18	1987	2:32:10.010	49.8044	78.0875	4.30	PDG	727
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	KUU	692
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	ILI	684
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	KST	791
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	TRG	737
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	PDG	732
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	MDO	760
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	TSN	774
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	MTB	773
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	KRM	769
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	CHMK	1096
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	GRM	1382
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	CHSL	1356
11	15	1987	3:31:09.170	49.8986	78.7581	5.98	CHDR	1405
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	TK	552
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	KUU	700
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	ILI	692
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	CHL3	716
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	PDG	739
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	ZHLS	760

12	13	1987	3:21:07.250	49.9631	78.7931	6.06	MDO	767
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	MTB	780
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	TSN	782
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	KST	799
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	GRM	1389
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	CHSL	1363
12	13	1987	3:21:07.250	49.9631	78.7931	6.06	CHDR	1413
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	TK	531
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	ILI	662
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	KUU	666
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	CHL3	695
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	BRTG	713
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	TRG	719
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	PDG	725
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	TLG	729
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	MDO	738
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	KRM	755
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	MTB	748
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	TSN	753
12	20	1987	2:55:09.140	49.7758	78.0122	4.80	KST	764
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	TK	542
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	DZHR	622
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	KUU	689
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	CHL3	706
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	PDG	730
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	TLG	747
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	ZHLS	750
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	KRM	767
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	MTB	770
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	TSN	772
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	KST	788
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	ILI	682
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	DZH	960
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	CHMK	1093
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	CHSL	1352
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	GRM	1378
12	27	1987	3:05:07.220	49.8794	78.7250	6.00	CHDR	1402
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	TSN	760
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	TK	537
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	ILI	669
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	KUU	673
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	CHL3	701
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	TRG	726

2	26	1987	4:58:24.300	49.8342	78.0811	5.40	MDO	745
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	TLG	736
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	KNSKG	839
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	EKS	862
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	AKKKG	1005
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	DRKKG	1252
2	26	1987	4:58:24.300	49.8342	78.0811	5.40	DJRKG	806
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	KAC	507
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	TK	549
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	KUU	697
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	CHL3	713
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	ILI	689
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	TLG	755
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	MDO	765
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	TRG	742
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	MTB	778
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	KRM	773
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	TSN	779
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	KST	796
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	DZH	970
3	12	1987	1:57:19.630	49.9353	78.8289	5.31	CHMK	1102
4	3	1987	1:17:12.320	49.7539	78.1144		ANVS	775
4	3	1987	1:17:12.320	49.7539	78.1144		ZHLS	739
4	3	1987	1:17:12.320	49.7539	78.1144		TLG	728
4	3	1987	1:17:12.320	49.7539	78.1144		EKS	854
4	3	1987	1:17:12.320	49.7539	78.1144		ARLS	926
4	3	1987	1:17:12.320	49.7539	78.1144		AKKKG	998
4	3	1987	1:17:12.320	49.7539	78.1144		ARK	1003
4	3	1987	1:17:12.320	49.7539	78.1144		AAK	838
4	3	1987	1:17:12.320	49.7539	78.1144		KDSKG	851
4	3	1987	1:17:12.320	49.7539	78.1144		OHH	1107
4	3	1987	1:17:12.320	49.7539	78.1144		SUFI	1141
4	3	1987	1:17:12.320	49.7539	78.1144		CHSL	1319
4	3	1987	1:17:12.320	49.7539	78.1144		GRM	1344
4	3	1987	1:17:12.320	49.7539	78.1144		CHDR	1368
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	SEM	167
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	TK	533
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	KUU	669
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	DZHR	620
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	ILI	665
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	CHL3	696
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	BRTG	714
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	TRG	721

4	22	1988	9:30:09.440	49.7903	78.1069	4.90	TLG	732
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	PDG	726
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	ZHLS	743
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	MDO	741
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	KRM	756
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	TSN	755
4	22	1988	9:30:09.440	49.7903	78.1069	4.90	KST	767
5	4	1988	0:57:09.150	49.9494	78.7503	6.09	ILI	690
5	4	1988	0:57:09.150	49.9494	78.7503	6.09	KUU	697
5	4	1988	0:57:09.150	49.9494	78.7503	6.09	CHL3	714
5	4	1988	0:57:09.150	49.9494	78.7503	6.09	MDO	765
5	4	1988	0:57:09.150	49.9494	78.7503	6.09	MTB	778
5	4	1988	0:57:09.150	49.9494	78.7503	6.09	TSN	780
5	4	1988	0:57:09.150	49.9494	78.7503	6.09	KST	796
5	4	1988	0:57:09.150	49.9494	78.7503	6.09	CHSL	1360
5	4	1988	0:57:09.150	49.9494	78.7503	6.09	CHDR	1410
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	TK	559
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	DZHR	635
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	ILI	701
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	PDG	744
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	TRG	753
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	CHL3	723
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	MDO	776
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	MTB	789
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	KRM	783
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	TSN	790
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	KST	808
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	BRTG	740
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	AKJ	1068
6	14	1988	2:27:09.000	50.0189	78.9606	4.80	CHL3	723
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	KURK	94
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	TK	543
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	DZHR	621
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	ILI	683
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	KUU	691
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	PDG	729
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	TLG	748
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	TSN	773
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	MDO	758
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	KRM	767
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	KST	790
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	MTB	772
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	KRT	1012

9	14	1988	4:00:00.000	49.8778	78.8231	6.03	GRM	1382
9	14	1988	4:00:00.000	49.8778	78.8231	6.03	CHSL	1356
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	SEM	174
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	ILI	663
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	KUU	666
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	BRTG	714
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	PDG	726
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	TRG	720
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	TLG	730
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	MDO	739
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	SATY	747
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	TSN	753
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	MTB	749
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	KST	765
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	URVKG	820
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	BOM	826
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	BGK	846
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	EKS	854
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	KNSKG	834
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	KRSKG	912
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	ARLS	927
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	CHMS	794
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	ARK	1002
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	SALK	1043
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	SUFI	1141
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	OHH	1106
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	CHVKG	1163
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	MNAS	914
10	18	1988	3:40:09.160	49.7800	78.0172	4.90	DRKKG	1244
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	TK	562
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	DZHR	638
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	ILI	703
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	KURM	731
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	KUU	712
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	PDG	747
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	TLG	768
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	TRG	755
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	TSN	793
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	MDO	778
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	SATY	777
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	KRM	786
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	MTB	792
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	DZH	985

11	12	1988	3:30:06.270	50.0431	78.9689	5.24	KRT	1033
11	12	1988	3:30:06.270	50.0431	78.9689	5.24	KST	811
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	TK	532
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	DZHR	620
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	ILI	663
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	KUU	667
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	KURM	699
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	TLG	730
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	TRG	720
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	MDO	739
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	PDG	725
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	KRM	755
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	MTB	749
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	KST	765
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	SATY	747
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	TSN	753
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	KRT	967
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	ARK	1003
11	23	1988	3:57:08.990	49.7794	78.0372	5.40	ARSB	1018
12	28	1988	5:28:10.000	49.8011	78.0686	3.74	KPA	511
12	28	1988	5:28:10.000	49.8011	78.0686	3.74	MRKT	525
12	28	1988	5:28:10.000	49.8011	78.0686	3.74	DZHR	621
12	28	1988	5:28:10.000	49.8011	78.0686	3.74	KRM	757
12	28	1988	5:28:10.000	49.8011	78.0686	3.74	KUU	669
12	28	1988	5:28:10.000	49.8011	78.0686	3.74	KST	768
12	28	1988	5:28:10.000	49.8011	78.0686	3.74	PDG	727
12	28	1988	5:28:10.000	49.8011	78.0686	3.74	TSN	756
12	28	1988	5:28:10.000	49.8011	78.0686	3.74	ZHLS	745
12	28	1988	5:28:10.000	49.8011	78.0686	3.74	TRG	722
12	28	1988	5:28:10.000	49.8011	78.0686	3.74	MTB	752
2	6	1988	4:19:09.130	49.7758	78.0197	4.80	SEM	174
2	6	1988	4:19:09.130	49.7758	78.0197	4.80	MDO	738
2	6	1988	4:19:09.130	49.7758	78.0197	4.80	TLG	730
2	6	1988	4:19:09.130	49.7758	78.0197	4.80	KUU	666
2	6	1988	4:19:09.130	49.7758	78.0197	4.80	CHL3	695
2	6	1988	4:19:09.130	49.7758	78.0197	4.80	TRG	719
2	6	1988	4:19:09.130	49.7758	78.0197	4.80	ZHLS	742
2	6	1988	4:19:09.130	49.7758	78.0197	4.80	MTB	748
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	TK	549
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	DZHR	627
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	ILI	690
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	CHL3	713
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	MDO	765

2	13	1988	3:05:08.280	49.9367	78.8639	5.97	KRM	773
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	ZHLS	757
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	MTB	779
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	TSN	780
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	DZH	971
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	CHMK	1104
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	CHSL	1363
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	CHDR	1413
2	13	1988	3:05:08.280	49.9367	78.8639	5.97	GRM	1389
4	3	1988	1:33:08.210	49.9083	78.9083	5.99	ILI	688
4	3	1988	1:33:08.210	49.9083	78.9083	5.99	CHL3	710
4	3	1988	1:33:08.210	49.9083	78.9083	5.99	PDG	732
4	3	1988	1:33:08.210	49.9083	78.9083	5.99	TRG	740
4	3	1988	1:33:08.210	49.9083	78.9083	5.99	KRM	771
4	3	1988	1:33:08.210	49.9083	78.9083	5.99	MDO	763
4	3	1988	1:33:08.210	49.9083	78.9083	5.99	MTB	777
4	3	1988	1:33:08.210	49.9083	78.9083	5.99	KST	795
4	3	1988	1:33:08.210	49.9083	78.9083	5.99	DZH	971
4	3	1988	1:33:08.210	49.9083	78.9083	5.99	CHMK	1104
4	3	1988	1:33:08.210	49.9083	78.9083	5.99	KRT	1019
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	KPA	511
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	TK	541
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	DZHR	620
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	KUU	689
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	CHUK	682
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	TRG	734
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	MDO	757
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	SATY	757
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	TSN	771
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	ANVS	792
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	KST	788
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	KURM	711
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	FRU	844
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	AAK	868
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	KDSKG	869
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	MTB	770
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	EKS	887
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	ARLS	955
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	KRT	1010
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	AKKKG	1032
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	ARK	1039
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	ARSB	1050
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	SALK	1072

7	8	1989	3:47:00.090	49.8678	78.7803	5.55	CHMK	1094
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	OHH	1138
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	CHVKG	1196
7	8	1989	3:47:00.090	49.8678	78.7803	5.55	SEM	121
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	DZHR	627
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	ILI	690
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	KUU	698
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	BRTG	731
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	TRG	742
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	SATY	765
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	PDG	736
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	MDO	765
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	MTB	778
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	ZHLS	757
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	KST	797
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	TSN	780
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	KRM	774
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	DZH	970
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	KRT	1017
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	CHMK	1102
1	22	1989	3:57:09.060	49.9394	78.8194	6.10	CHSL	1362
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	MRKT	531
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	KPA	525
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	TK	558
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	DZHR	633
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	KURM	727
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	BRTG	739
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	TRG	751
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	MDO	775
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	SATY	773
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	KST	807
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	MTB	788
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	TSN	789
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	BOM	868
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	FRU	864
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	KDSKG	887
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	ARLS	975
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	MNAS	972
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	KRT	1031
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	AKKKG	1052
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	ARK	1060
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	SALK	1092
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	ARSB	1071

9	2	1989	4:16:59.850	50.0058	78.9856	4.94	TRKS	1125
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	AKUKG	1130
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	SUFI	1190
9	2	1989	4:16:59.850	50.0058	78.9856	4.94	CHVKG	1217
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	KPA	506
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	MRKT	521
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	TK	528
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	DZHR	617
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	KUU	663
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	CHUK	660
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	KURM	696
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	BRTG	710
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	TRG	716
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	KST	761
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	PDG	722
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	MDO	736
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	ZHLS	739
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	MTB	745
10	4	1989	11:30:00.160	49.7498	78.0117	4.70	SATY	744
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	KAC	506
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	TK	548
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	CHUK	690
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	KUU	698
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	ZHLS	755
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	BRTG	729
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	PDG	734
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	TRG	741
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	KURM	717
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	MDO	764
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	MTB	778
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	TSN	779
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	ANVS	799
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	KST	797
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	FRU	853
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	KDSKG	877
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	AAK	877
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	EKS	896
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	MNAS	961
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	ARLS	964
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	ARK	1049
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	AKKKG	1041
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	DZH	972
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	ARSB	1060

10	19	1989	9:49:59.980	49.9222	78.9083	5.86	CHMK	1105
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	OHH	1148
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	SUFI	1179
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	CHVKG	1206
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	BTK	1265
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	GRM	1390
10	19	1989	9:49:59.980	49.9222	78.9083	5.86	FRU	853
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	KAC	505
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	MRKT	526
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	DZHR	626
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	TK	547
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	BRTG	728
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	ILI	686
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	KUU	693
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	TRG	739
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	PDG	735
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	ZHLS	755
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	MDO	761
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	TSN	776
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	KRM	771
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	SATY	763
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	MTB	774
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	DZH	963
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	KRT	1010
2	12	1989	4:15:09.260	49.9186	78.7111	5.86	CHMK	1095
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	KPA	514
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	TK	537
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	DZHR	624
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	KUU	672
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	BRTG	719
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	PDG	730
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	TRG	725
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	SATY	753
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	MDO	745
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	MTB	755
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	ZHLS	748
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	KRM	760
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	TSN	759
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	KST	771
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	KRT	973
2	17	1989	4:01:09.220	49.8278	78.0597	5.10	ARSB	1024

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Appendix N. Digitized seismograms of earthquakes near the Semipalatinsk Test Site.

Mo.	D.	Yr.	Origin time	Lat. °N	Long. °E	mb	Station	Dist.	Inst. type
12	26	1966	17:39:38.5	49.52	78.71	4.3	UKM	259	SKM
12	26	1966	17:39:38.5	49.52	78.71	4.3	BRVK	705	SKM
12	26	1966	17:39:38.5	49.52	78.71	4.3	TLG	707	SKM
12	26	1966	17:39:38.5	49.52	78.71	4.3	OM	730	SKM
12	26	1966	17:39:38.5	49.52	78.71	4.3	RYA	1023	SKM
12	26	1966	17:39:38.5	49.52	78.71	4.3	KZD	1057	SKM
12	26	1966	17:39:38.5	49.52	78.71	4.3	TERS	1065	SKM
3	20	1976	4:03:42.500	50.0400	77.3210	5.10	BRVK	601	SKM
3	20	1976	4:03:42.500	50.0400	77.3210	5.10	TK	565	SKM
3	20	1976	4:03:39.300	50.0540	77.3370	5.10	ANVS	808	SKD
3	20	1976	4:03:42.500	50.0400	77.3210	5.10	ARK	1004	SKD
3	20	1976	4:03:42.500	50.0400	77.3210	5.10	ARSB	1025	SKD
3	20	1976	4:03:42.500	50.0400	77.3210	5.10	EKS	863	SKD
3	20	1976	4:03:42.500	50.0400	77.3210	5.10	KDSKG	880	SKD
2	18	1979	11:49:32.000	49.2000	82.0000		TLG	757	SKM
3	31	1981	7:51:30.000	47.8000	81.0000	4.96	TRG	564	SKM
3	31	1981	7:51:30.000	47.8000	81.0000	4.96	KUU	564	SKM
3	31	1981	7:51:30.000	47.8000	81.0000	4.96	MDO	601	SKM
3	31	1981	7:51:30.000	47.8000	81.0000	4.96	KST	658	SKM
9	17	1986	16:04:59.000	47.4000	81.5000	3.80	TLG	570	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	KPA	555	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	TK	568	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	ZSN	605	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	MDO	765	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	KURM	733	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	TRG	750	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	TLG	757	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	MTB	771	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	TSN	779	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	UZB	780	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	SATY	783	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	PDG	768	SKM
3	26	1996	13:58:11.700	50.0500	77.1400	4.70	YUZH	1034	SKM

List of Acronyms

AFRL	Air Force Research Laboratory
ANE	Atmospheric Nuclear Explosion
CSE	Complex Seismological Expedition
FSU	Former Soviet Union
IGR	Institute of Geophysical Research
IPE	Institute of Physics of the Earth (based in Moscow)
IS	Institute of Seismology
KR	Kyrgyz Republic (also called Kyrgyzstan, or Kirgizia)
KSE	A variant of CSE (Komplex rather Complex)
LDEO	Lamont-Doherty Earth Observatory of Columbia University
NAS	National Academy of Sciences
NXSCAN	The software package used in this project to digitize scanned data
PNE	Peaceful Nuclear Explosion
RAS	Russian Academy of Sciences
RK	Republic of Kazakhstan
RVZT	A seismometer used at many stations in the FSU
SEME MES	Seismological Experiential-Methodological Expedition
SKD	A seismometer recording a broader band than that of SKM
SKM	A short-period seismometer much used at stations in the FSU
STA/LTA	Short Time Average/Long Time Average
STS	Semipalatinsk Test Site
USSR	Union of Soviet Socialistic Republics
UWNE	Under Water Nuclear Explosion

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