

University of Utah



Seismological Bulletin

January 1, 1969 — December 31, 1969



University of Utah
Seismological Bulletin
Salt Lake City

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1962 - 1969

Stations

Salt Lake City, Utah

University of Utah

Seismological Bulletin

R. Steve Bellon
Grace M. Hathaway
W. Lee Majors
Kenneth L. Cook, Editor

January 1, 1969 - - December 31, 1969

Contribution No. 102
University of Utah Seismograph Stations
Kenneth L. Cook, Director
University of Utah
Salt Lake City, Utah 84112

PERSONNEL OF UNIVERSITY OF UTAH SEISMOGRAPH STATIONS NETWORK DURING 1969

Kenneth L. Cook, Director

Cedar City (CCU)

Judd, Harl E. -- Attendant in charge
 Jones, Merrill R., Attendant
 Morrell, W. Lee, Attendant

Dugway (DUG)

Salisbury, A. M. -- Attendant in charge
 Hergott, John, Attendant
 Bishop, Gerald R., Attendant

Price (PCU)

Trujillo, A. R. -- Attendant in charge
 King, A. Lavell, Attendant
 Torgerson, Robert O., Attendant

Salt Lake City (SLC)

Anderson, Andrew M., Attendant
 Bellon, R. Steve, Senior Technician-Analyst
 Fox, Carma, Executive Secretary
 Hathaway, Grace M., Research Analyst
 Logan, Kathleen H., Secretary
 Majors, W. Lee, Technicain-Analyst

Logan (LOG) -- station owned by Utah State University

Hardy, Clyde T., Chairman, Department of Geology,
 Utah State University -- in charge
 Galloway, Cheryl, Attendant
 Harston, Ruth, Attendant

Dugway, Utah* (DUG)

Latitude: 40° 11.70' N Longitude: 112° 48.80' W
 Elevation: 1477 meters Bedrock: Rhyolite-quartz dacite flow (Tertiary)
 Time: Standard timing system of the World-Wide Standard Seismograph
 Network, Model 10700, The Geotechnical Corp., Garland, Texas.
 Calibration WWV time signal automatically impressed every 6 hours.

Instruments: Standard Benioff three-component seismographs (Z, N, E);
 Sprengnether three-component seismographs (Z, N, E);
 Wood-Anderson horizontal torsion seismographs (N, E).

Locality: The vault is located 5 miles southwest of Dugway, Utah and
 is underground.

Price, Utah (PCU)

Latitude: 39° 36.40' N Longitude: 110° 48.30' W
 Elevation: 1714 meters Bedrock: Mancos shale (Cretaceous)
 Time: Simplex Master Clock calibrated against WWV. Calibration time
 signals impressed manually at beginning and end of daily record.

Instruments: Portable Benioff three-component seismographs (Z, N, E);
 Wood-Anderson horizontal torsion seismographs (N, E).

Locality: The vault is located on the campus of the College of Eastern
 Utah, Price, Utah. The college was formerly called Carbon
 College.

Salt Lake City, Utah (SLC)

Latitude: 40° 45.92' N Longitude: 111° 50.90' W
 Elevation: 1425 meters Bedrock: Quaternary alluvium
 Time: IBM Master Clock, calibrated against WWV. Calibration time signal
 impressed manually at beginning and end of daily record.

Instruments: Portable Benioff three-component seismographs (Z, N, E);
 Wilson-Lamison** vertical moving-coil seismograph (Z);
 McComb-Romberg** horizontal seismographs (N, E).

Locality: The vault is located on the campus of the University of Utah,
 Salt Lake City, Utah.

* One of the stations in the World-Wide Standard Seismograph Network (WWSSN)
 operated in conjunction with the Coast and Geodetic Survey, Environmental
 Science Services Administration (ESSA).

** Instrument owned by, and operated in conjunction with the Coast and Geodetic
 Survey, Environmental Science Services Administration (ESSA).

INFORMATION IN THE BULLETIN

Cedar City, Utah (CCU)

Latitude: 37° 40.52' N Longitude: 113° 04.11' W
Elevation: 1775 meters Bedrock: Quaternary alluvium

Time: Geotech Model TG110 Crystal Timer.

Instruments: Portable Benioff three-component seismographs (Z, N, E);
(same instruments formerly at Dugway station).

Locality: The vault is located on campus of Southern Utah State College
(formerly College of Southern Utah), Cedar City, Utah.

UTAH STATE UNIVERSITY SEISMOGRAPH STATION

Logan, Utah (LOG)

Latitude: 41° 44.50' N Longitude: 111° 48.80' W
Elevation: 1455 meters Bedrock: Quaternary alluvium

Time: Master pendulum clock calibrated against WWV. Calibration time
signals impressed manually at beginning and end of daily record.

Instruments: Wilson-Lamison vertical moving-coil seismograph (Z);
Wood-Anderson horizontal torsion seismographs (N, E).

Locality: The vault is located on the campus of the Utah State Univer-
sity, Logan, Utah.

The station, which is owned by Utah State University, was under the
supervision of Dr. Clyde T. Hardy, Chairman, Department of Geology,
Utah State University, during the period covered in this bulletin.

The University of Utah Seismological Bulletins present data for important earthquakes occurring principally in the conterminous United States west of longitude 105°W approximately (Rocky Mountain Front). Data for certain selected earthquakes in northwestern Mexico and southwestern Canada are also included. Emphasis is given to events occurring in Utah and immediately adjacent areas. Earthquakes occurring at teleseismic distances are not generally included in the Bulletin.* Certain seismic events of special interest are included, as for example large announced underground nuclear explosions at the Nevada Test Site (NTS) and other areas, high-energy chemical explosions in various regions, and certain unannounced seismic events from the Semipalatinsk (eastern Kazakh) area, USSR.

The present University of Utah Seismological Bulletin gives the data and arrival times of the most important phases from seismic events as described above that were recorded at the University of Utah seismograph stations, Dugway (DUG), Price (PCU), Salt Lake City (SLC), Cedar City (CCU), and at the Utah State University station at Logan (LOG).

For the Price (PCU) station only, the designation "R" has been used to identify tentatively a phase that is apparently generated by probable rockbursts associated with coal mining activity in Carbon County, Utah. The phase generally arrives within about 15 seconds after the compressional P-wave first arrival, but at least several seconds later than the conventional body shear S-wave and is thought to be associated with a surface wave arrival. An event associated with this type of activity is designated "Probable rockburst, Carbon County."

A seismic event associated with blasting in the Bingham Canyon mining area of western Salt Lake County is designated as a "Bingham blast." Only those Bingham blasts with a ground motion ≤ 10 millimicrons, as recorded at the Dugway (DUG) station, are included. Seismic events associated with blasting in the Elkol, Wyoming and McGill, Nevada mining areas are designated "Elkol blast" and "McGill blast," respectively.

In this bulletin for 1969, only those probable rockbursts in Carbon County, Utah, that were recorded at the Price (PCU) station and, in addition, one or more other stations (i.e., a total of two or more stations) are included.

* During the period covered by this Bulletin, data recorded at the Dugway (DUG) station for earthquakes occurring at teleseismic distances, as well as for local and regional earthquakes of magnitude 4.0 approximately or greater, were promptly forwarded to the Coast and Geodetic Survey (CGS), ESSA, and included in the Earthquake Data Reports and Seismological Bulletin of the GGS.

BULLETIN FORMAT

Unless otherwise indicated, epicenter locations that give specific latitudes and longitudes, depths of focus (h), and magnitudes in the "Remarks" column are taken from the Coast and Geodetic Survey (CGS) Earthquake Data Reports. Epicenter locations of many local earthquakes and blasts, however, were determined also by the staff of the University of Utah Seismograph Stations. These determinations, which are indicated by an asterisk (*) preceding the information in the "Remarks" column, were made using a modified Geiger's epicenter determination method which was programmed for a UNIVAC 1108 digital computer of the University of Utah Computer Center. Data for these events were obtained from not only the University of Utah seismograph stations but also other seismograph stations in Utah and the surrounding states. A more complete discussion of the methods and techniques used in the local earthquake research by the staff of the University of Utah Seismograph Stations is given in a paper by Cook and Smith (1967)*. In the case where both CGS and University of Utah epicenter determinations were made on the same event, the epicenter chosen was that believed to be the most accurate based on the number of stations available, the location of the epicenter with respect to reporting stations, and the general characteristics of the events. The number of stations used in the epicenter determination by us is given in parentheses in the "Remarks" column.

Magnitudes ("Mag.") of some local events were determined by using Wood-Anderson torsion seismograph data from DUG, LOG and/or PCU. These determinations are noted with either an asterisk (*) or "(U. of U.)" in the "Remarks" column. Where magnitude is given without any indication of the source from which it was obtained, it may be assumed to have been taken from CGS Earthquake Data Reports.

A. MONTH and YEAR: These are found in the upper left-hand corner of each page.

B. DAY (GCT): Listed in the left margin in Greenwich Civil Time (GCT); entered in chronological order. Because Greenwich Civil Time (GCT) is 7 hours later than Mountain Standard Time (MST), some GCT dates are 1 day later than the MST date.

C. STA: Station designators. DUG--Dugway, Utah; PCU--Price, Utah; SIC--Salt Lake City, Utah; CGU--Cedar City, Utah; and LOG--Logan, Utah.

D. PHASE: For local events, an attempt has been made to better identify the recorded phases by using the phase designations as published in Seismological Tables, Jeffreys and Bullen, 1958. For teleseismic events, only the P phase is usually listed even though other short-period and long-period phases may have been recognizable on the seismograms; and for these events it is hoped that the magnitude and/or ground motion will help the reader to determine whether other phases may appear on the seismogram. For purposes of the bulletin, the prefix "i" (impetus) indicates a phase* timed to 0.1 sec, and the prefix "e" (emersio) indicates a phase** timed to 0.5 sec. An "e" preceding the phase indicates an emersio phase with undiscernable first motion. A phase designator in parentheses indicates uncertainty of the start of the phase; and in the case of local earthquakes, the parentheses are also indicative that the phase designation is uncertain. For the purpose of the bulletin, the prefixes "i" and "e" without a suffix indicate an unknown phase timed in accordance with the definitions above.

E. DIR: Direction of first motion. Used only when "i" or impetus first motion is recorded on the seismogram. "C" indicates compressional (up) first motion and "D" indicates dilatational (down) first motion.

F. TIME (GCT): All timing is recorded in Greenwich Civil Time (GCT) in hours, minutes, and seconds (to the nearest tenth of a second). For conversion to Mountain Standard Time (MST) and Mountain Daylight Time (MDT): MST = GCT - 7 hours; and MDT = GCT - 6 hours.

G. PER: Period, in seconds, of the cycle measured for ground motion.

H. GND MOT: Amplitude (Amp) of ground motion, in millimicrons (μ), of the recorded phase.

I. DIST: Epicentral distance, in kilometers (km), unless otherwise noted.

J. MAG: Richter magnitude.

* i = sudden beginning of the motion (impetus); impulsive and sharply defined beginning of a phase; direction of motion is usually evident.

** e = gradual beginning of the motion (emersio); poorly defined emergence of a phase.

* Cook, K. L. and R. B. Smith, 1967, Seismicity in Utah, 1850 through June 1965: Bulletin of the Seismological Society of America, vol. 57, no. 4, p. 689-718, August 1967.

K. **REMARKS:** Lists the locations of events and other pertinent data. "Local," "regional," and "teleseismic" indicate events occurring within the following approximate distances, respectively, of the recording station: 50 km; 500 to 1775 km; and more than 1775 km. "h" is depth of focus, in km. Also included in the "Remarks" column are the terms "Bingham blast" and "Rockburst," which were discussed in the previous section.

CHARACTERISTICS AND MAGNIFICATIONS

The characteristics and magnifications of the seismographs of the University of Utah Seismograph Network during the period of this bulletin are given in Table 1. Corresponding data for the Utah State University seismographs during the same period are also given in the same table.

COMPILATION OF BULLETIN

This bulletin was compiled by R. Steve Bellon, Senior Technician-Analyst, Grace M. Hathaway, Research Analyst, and W. Lee Majors, Technician-Analyst, under the direction of Dr. Kenneth L. Cook, Director, University of Utah Seismograph Stations.

PHASE IDENTIFICATION FOR LOCAL AND REGIONAL EARTHQUAKES

In this bulletin and in previous bulletins, unless otherwise indicated, the following phases are interpreted on the basis of the observed character of the events on the seismograms and the known local and regional travel-time curves, as observed by (1) Berg and others (1960) and (2) Narans and others (1961).*

P (for primary)--a longitudinal (compressional or dilatational) body wave, in which the rock particles in the earth are vibrating back and forth in the direction of wave propagation.

S (for secondary)--a transverse (or shear) wave, in which the rock particles are vibrating perpendicular to the direction of propagation.

Note: The P and S body waves originate at the focus, or hypocenter (point of origin of an earthquake).

P_n--a compressional wave that has penetrated through the crust and travels as a refracted wave in the upper-mantle rocks of the earth (Pakiser, 1963, p. 2749).

P*--a compressional wave that has penetrated through the upper layer of the crust and travels as a refracted wave in a deeper layer of the crust (Pakiser, 1963, p. 2748-2749).

P_g--a compressional wave that has penetrated through the sedimentary veneer of the earth and travels as a refracted wave in the upper layer of the crust (Pakiser, 1963, p. 2748-2749).

S_n--a shear wave that corresponds approximately to the P_n-phase travel path.

S_g--a shear wave that corresponds approximately to the P_g-phase travel path.

Surface waves--waves which are generated when the P and S body waves--which originate at the focus--reach the surface of the earth, and travel along the earth's surface as large amplitude surface waves, designated "Rayleigh waves" (R) and "Love waves" (L). In this bulletin these two types of waves are collectively designated as "L", except as otherwise indicated. A notable exception is for a characteristic seismic event that is apparently associated with probable rockbursts in the coal-mining areas in Carbon County, Utah, which is designated "R", as previously described.

*See also the discussion under "D. PHASE" on page "v" in this bulletin.

Probable rockbursts in coal-mining areas in Carbon County, Utah.--In this bulletin, the phase designations observed from probable rockbursts in the coal-mining areas in Carbon County, Utah, which are modified slightly from those of Norris (1967), are as follows (as generally observed at the Price, Utah (PCU) station):

P (same as "P₃" designation of Norris, 1967, p. 10)--the first compressional arrival which is refracted along the second interface (at an assumed depth of 6.8 km[#], according to Norris, 1967, p. 33).

Pg (same as "P₁" designation of Norris, 1967, p. 10)--the direct compressional wave traveling in the top layer of the earth.

R--a phase interpreted by Norris (1967, p. viii) as a Rayleigh wave, which generally arrives within about 15 sec after the compressional P-wave first arrival, but at least several seconds later than the conventional body shear S-wave, which, according to Norris (1967, p. 36) is not generally observed for these probable rockbursts.

Earthquakes in the coal-mining areas in Carbon County, Utah.--In this bulletin, for earthquakes in the coal-mining areas in Carbon County, Utah--as, for example, in the area south of Sunnyside, Utah--the designations P, Pg, and L are generally used for the phases observed at the Price, Utah (PCU) station.

Notes:

1. If only two phases are interpreted from either a probable rockburst or earthquake recorded at the Price, Utah (PCU) station, the designations are generally P and R for probable rockbursts and P and L for earthquakes.
2. It should be emphasized that for the seismic events generated in the coal-mining areas of Carbon County, Utah and recorded at the Price (PCU) station, the selection on the seismograms of some the specific phases outlined above is often ambiguous; and, therefore, it is often difficult or impossible to distinguish the "earthquakes" from "probable rockbursts."

CORRECTIONS TO PREVIOUS BULLETINS

In the Appendix of this bulletin, corrections are given for the bulletins for the period July 1, 1966 through December 31, 1966 (Contribution No. 92) and the years 1968 and 1969 (Contribution Nos. 93 and 101, respectively). The lists of corrections are rather extensive in order to make consistent, for the first time, the usage of the phase identifications as defined in this 1969 bulletin with those of the above-mentioned previous bulletins, especially for earthquakes and probable rockbursts in the coal-mining areas of Carbon County, Utah. Also, in the above-mentioned previous bulletins, the first compressional P-wave arrival for events at epicentral distances less than about 130 km was sometimes erroneously designated as the "Pn" phase; and this error has been corrected.

[#]This depth was based on three reversed refraction seismic profiles taken by the U. S. Geological Survey near the mining area at Sunnyside (Norris, 1967, p. 32).

References

Berg, J. W., Jr., Cook, K. L., Narans, H. D., Jr., and Dolan, W. M., 1960, Seismic investigations of crustal structure in the eastern part of the Basin and Range province: Seismol. Soc. America Bull., v. 50, p. 511-535.

Narans, H. D., Jr., Berg, J. W., Jr., and Cook, K. L., 1961, Subbasement seismic reflections in northern Utah: Jour. Geophys. Research, v. 66, p. 599-603.

Norris, J. W., 1967, Seismic characteristics of coal-mine rockbursts in Utah: Unpublished M. S. thesis, University of Utah, 79 p.

Pakiser, L. C., 1963, Structure of the crust and upper mantle in the western United States: Jour. Geophys. Research, v. 68, p. 5747-5756.

ACKNOWLEDGMENTS

Financial support for the bulletin was provided as follows: (1) the Utah Earthquake Bulletin Project, Uniform School Fund, University of Utah (prior to July 1, 1971); (2) the Department of Geological and Geophysical Sciences, University of Utah (during July 1, 1968 to June 30, 1971); (3) the University Research Fund of the University of Utah (prior to July 14, 1970); and (4) Utah State funds, in line-item budgets to the University of Utah from the Utah State Legislature (since July 1, 1971). Partial support for the bulletin and the operation of the Dugway (DUG) and Salt Lake City (SLC) seismograph stations was provided by the Coast and Geodetic Survey (CGS), Environmental Science Services Administration (ESSA, effective October 1, 1965), U. S. Department of Commerce. The seismograms from the seismograph station at Utah State University were made available through the cooperation of Dr. Clyde T. Hardy, Chairman, Department of Geology, Utah State University, Logan, Utah. Some data used in the bulletin were obtained from (1) the Earthquake Data Reports and Seismological Bulletin of the Coast and Geodetic Survey, Environmental Science Services Administration (ESSA), U. S. Department of Commerce, and (2) written communications from the Uinta Basin Seismological Observatory (UBO), near Vernal, Utah. Mr. Kenneth H. Behrens, Technician-Analyst of the University of Utah Seismograph Stations, assisted in editing and proofreading the Bulletin.

Please address all communications to:

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ADDENDUM TO ACKNOWLEDGMENTS

Support for the installation and operation of the seismological equipment in the Granite Mountain Records Vault, located about 15 miles south-southeast of Salt Lake City, Utah, during March 1, 1970 to June 30, 1973 was provided through Contract No. AT(26-1)-488 with the U. S. Atomic Energy Commission. Support for the operation of the Uinta Basin Seismological Observatory, near Vernal, Utah was provided by (1) the National Science Foundation (NSF Grant GA 21120) from April 15, 1970 to May 31, 1974 and (2) the University of Utah Institutional Funds during July 1, 1972 to June 30, 1973. The compilation, proofreading, and editing of this bulletin was done partly with the above-mentioned support from the U. S. Atomic Energy Commission, National Science Foundation, and University of Utah Institutional Funds.

Table 1. Characteristics and Magnifications of the Seismographs of the University of Utah Seismograph Network during the Period January 1, 1969 to December 31, 1969 and the Seismographs of the Utah State University During the Same Period.

Stations and Instruments	Components	To1 (sec)	Tg1 (sec)	Trace Speed (mm/min)	Approximate Magnification	Approximate Damping-- Seismometers	Approximate Damping-- Galvanometers
<u>Dugway, Utah (DUG)</u>							
Standard Benioff	Z, N, E	1.0	0.75	60	200,000 ² @ 1.0 Hz	Critical	Critical
Sprengnether	Z, N, E	15.0	100.0	30	3,000 @ 0.0667 Hz	Critical	Critical
Wood-Anderson	N, E	0.8	---	60	2,800 --	Critical	Critical
<u>Logan, Utah (LOG)</u>							
Wilson-Lamison	Z	1.0	1.5	60	125,000 @ 1.0 Hz	Underdamped	Critical
Wood-Anderson	N, E	0.8	---	60	2,800 --	Critical	--
<u>Price, Utah (PCU)</u>							
Portable Benioff	N	1.0	1.5	60	21,000 @ 1.0 Hz	Critical	Critical
	E	1.0	1.4	60	20,000 @ 1.0 Hz	Critical	Critical
	Z	0.25	1.35	60	68,000 @ 1.0 Hz	Critical	Critical
Wood-Anderson	N, E	0.8	---	60	2,800 --	Critical	--
<u>Salt Lake City, Utah (SLC)</u>							
Portable Benioff	N, E	1.0	1.5	60	15,000 @ 1.0 Hz	Critical	Critical
	Z	1.0	1.5	60	41,000 ³ @ 1.0 Hz	Critical	Critical
Wilson-Lamison	Z	1.1	1.8	60	25,000 @ 1.4 Hz	Critical	Critical
McComb-Romberg	N, E	10.0	---	15	470 @ 10.0 Hz	Critical	--
<u>Cedar City, Utah (CCU)</u>							
Portable Benioff	N	1.0	1.5	60	45,000 ⁴ @ 1.0 Hz	Critical	Critical
	E	1.0	1.5	60	45,000 ⁵ @ 1.0 Hz	Critical	Critical
	Z	1.0	1.5	60	45,000 ⁶ @ 1.0 Hz	Critical	Critical

To = natural period of the seismometer, Tg = natural period of the galvanometer.
² 2400,000 during May 1, 1969 through Oct. 31, 1969 and then back to 200,000 on Nov. 1, 1969 through Dec. 31, 1969.
³ Magnification changed to 42,000 on Oct. 1, 1969 through Dec. 31, 1969.
⁴ Magnification changed to 91,000 on Jan. 1, 1969 through Jan. 7, 1969 and then changed to 48,000 on Jan. 8, 1969 through Dec. 31, 1969.
⁵ Magnification changed to 81,000 on Jan. 1, 1969 through Jan. 7, 1969 and then changed to 43,000 on Jan. 8, 1969 through Dec. 31, 1969.
⁶ Magnification changed to 62,000 on Jan. 1, 1969 through Jan. 7, 1969 and then changed to 31,000 on Jan. 8, 1969 through Dec. 31, 1969.

NOTICE

Reprints of the following paper are now available:

"Seismicity in Utah, 1850 through June 1965," by Kenneth L. Cook and Robert B. Smith, published in the Bulletin of the Seismological Society of America, vol. 57, p. 689-718, August issue 1967. The paper includes an Earthquake Epicenter Map of the State of Utah and a catalog of Utah earthquakes.

As long as they are available, reprints may be obtained at cost plus handling (totaling \$1.50 each) by writing:

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LIST OF PREVIOUSLY PUBLISHED SEISMOLOGICAL BULLETINS
OF THE UNIVERSITY OF UTAH

Contribution No.	Period	Date Published
50	July 1 - September 30, 1962	Dec. 30, 1963
54	October 1 - December 31, 1962	Apr. 1, 1964
55	January 1 - March 31, 1963	June 15, 1964
56	April 1 - June 30, 1963	July 1, 1964
58	July 1 - September 30, 1963	Nov. 1, 1964
59	October 1 - December 31, 1963	Feb. 9, 1965
61	January 1 - March 31, 1964	May 11, 1965
62	April 1 - June 30, 1964	June 2, 1965
63	July 1 - September 30, 1964	Aug. 30, 1965
64	October 1 - December 31, 1964	Dec. 7, 1966
83	January 1 - March 31, 1965	Mar. 1, 1967
84	April 1 - June 30, 1964	July 8, 1967
85	July 1 - September 30, 1965	Aug. 1, 1967
86	October 1 - December 31, 1965	Aug. 1, 1967
90	January 1 - March 31, 1966	Apr. 8, 1968
91	April 1 - June 30, 1966	Apr. 8, 1968
92	July 1 - December 31, 1966	June 15, 1973
93	January 1 - December 31, 1967	Aug. 16, 1974
101	January 1 - December 31, 1968	Aug. 16, 1974

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Jan 1 1969	PCU	eP		22 54 43.4			140		Local.
		ePg		22 54 49.5					
		eL		22 55 00.7					
2	PCU	ePn		02 50 36.1			256		Local.
		ePg		02 50 39.2					
		eL		02 51 10.5			412		
	DUG	eP		02 51 09.0					South of Sunnyside, Utah.
		eL		02 52 05.0			45		
	PCU	eP		05 20 13.6					
		ePg		05 20 20.3					
		eL		05 20 25.1					
	DUG	eP		06 26 32.0			467		Local.
		eL		06 27 32.0					
	DUG	eP		13 03 35.0	0.5	0.9	371		Local.
		eL		13 04 27.0					
	DUG	eP		14 53 47.0			167		Local.
		eL		14 54 09.0					
	DUG	ePg		17 59 16.0	0.4	1.1	145		Local.
		eL		17 59 35.5					
	SLC	ePg		19 19 48.5			120		Local.
		eL		19 20 03.0					
	DUG	ePg		22 42 00.0	0.4	2.1	156		Local.
		eL		22 42 19.0					
3	DUG	eP		02 01 55.0			140		Local.
		eL		02 02 13.0					
	DUG	eP		13 12 53.0	0.4	1.1	160		Local.
		eL		13 13 15.0					
	DUG	eP		16 18 55.0			111		Local.
		eL		16 19 08.0					
	DUG	eP		19 43 05.7			189		Local.
		eL		19 43 32.0					
	DUG	ePg		22 04 09.3	0.5	1.8	122		Local.
		eL		22 04 24.5					



Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Jan 4	DUG	eP	03 17 07.5			405		Local.
		eL	03 18 01.5					
	DUG	eP	14 11 23.0	0.5	0.9	456		Local.
		eL	14 12 28.0					
	DUG	ePn	19 48 39.3	0.5	1.8	245		Local.
		ePg	19 48 44.0					
		eL	19 49 11.0					
	DUG	ePg	22 35 24.6	0.5	4.5	134		Local.
		eL	22 35 40.0					
	5	DUG	ePg	10 53 28.2	0.4	2.1	111	
		eL	10 53 41.5					
DUG		ePg	11 57 55.0	0.5	0.9	145		Local.
		eL	11 58 13.7					
DUG		ePg	16 59 38.2	0.5	1.8	178		Local.
		eL	17 00 00.5					
DUG		ePg	18 32 05.2	0.5	0.9	134		Local.
		eL	18 32 22.0					
DUG		ePn	22 53 25.0	0.5	2.1	267		Local.
		ePg	22 53 32.0					
	eL	22 54 00.0						
Jan 6	DUG	ePn	06 35 20.7	0.8	6.0	456	4.6	Southern Nevada 37.3 N, 116.5 W 06 34 14.5 h = 4 km Mag. 4.6.
		ePg	06 35 32.5					
		eL	06 36 26.5					
	PCU	ePn	06 35 33.9			545		
		eL	06 36 55.1					
	SLC	ePn	06 35 41.6			556		
		ePg	06 36 02.0					
		eL	06 37 03.0					
	LOG	ePn	06 35 46.0			660		
		ePg	06 36 06.5					
	eL	06 37 25.4						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Jan 6 (con't)	DUG	ePg	18 45 20.8	0.4	1.1	134		Local.
		eL	18 45 37.5					
	DUG	ePn	22 57 37.6	0.5	3.6	256		Probable McGill, Nevada blast.
		ePg	22 57 43.0					
		eL	22 58 11.0					
7	DUG	ePn	00 49 11.0	0.5	1.8	401		Southern Nevada.
		ePg	00 49 17.0					
		eL	00 50 07.5					
	DUG	ePg	04 56 20.0	0.5	0.9	250		Local.
		eL	04 56 48.5					
	DUG	ePn	13 42 18.0	0.7	3.2	578	4.1	Nevada 40.2 N, 119.6 W 13 40 59.7 h = 33 km Mag. 4.1.
		ePg	13 42 38.0					
		eL	13 43 45.0					
	SLC	ePg	16 40 04.5			29		Near Salt Lake City, Utah.
		eL	16 40 07.9			178		
DUG	eP	16 40 15.0			178			
DUG	ePg	16 40 38.5			178			
	eL	16 44 08.2	0.4	1.1	178		Local.	
	eL	16 44 30.0						
DUG	eP	20 13 33.0	0.5	0.9	356		Local.	
	eL	20 14 23.5						
8	DUG	eP	03 45 44.5	0.5	1.8	405		Southern Nevada.
		eL	03 46 32.5					
	DUG	ePn	11 48 03.0	0.4	1.1	456	3.9	Southern Nevada 37.2 N, 116.5 W 11 46 51.9 h = 4 km Mag. 3.9.
		ePg	11 48 10.0					
		eL	11 49 15.0					
	DUG	eP	13 42 35.0	0.5	1.8	278		Local.
		eL	13 43 06.0					
	SLC	eP	18 27 43.8			134		Local.
	ePg	18 27 48.4						
	eL	18 27 59.6						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Jan 8 (con't)	DUG	ePn	20 46 12.0	0.5	1.8	467	4.0	Southern Nevada 37.2 N, 116.5 W 20 44 57.4 h = 4 km Mag. 4.0.
		ePg	20 46 18.5					
		eL	20 47 16.0					
	CCU	ePn	21 07 34.4	0.5	2.7	272		Southern Nevada 37.2 N, 116.6 W 21 06 22.4 h = 4 km Mag. 3.9.
		eL	21 08 10.5					
	DUG	ePn	21 07 37.4	0.5	2.7	467	3.9	
		ePg	21 07 47.0					
	PCU	eL	21 08 41.5	0.5	1.8	520		California-Nevada border region 36.9 N, 116.8 W 23 49 19.2 h = 4 km Mag. 4.1.
		e(Ph)	21 07 49.7					
	SLC	ePg	21 08 03.4	0.5	1.8	567	4.1	
		eL	21 09 05.7					
	DUG	e(P)	21 08 02.1	0.5	1.8	501	4.1	
		ePn	23 50 22.8					
CCU	ePg	23 50 42.0	0.5	2.7	578			
	eL	23 51 35.0						
PCU	ePg	23 50 27.6	0.5	0.9	600			
	e	23 51 11.0						
SLC	ePn	23 50 41.5	0.5	1.8	478	Local.		
	ePg	23 50 56.8						
DUG	eL	23 52 06.7	0.5	2.7	456	4.1	Southern Nevada 37.19 N, 116.49 W 00 13 18.00 h = 4 km Mag. 4.1.	
	eP	23 50 57.9						
DUG	eL	23 52 06.6	0.5	0.9	456	4.1	Southern Nevada 37.2 N, 116.5 W 00 13 18.0 h = 4 km Mag. 4.1.	
	e(P)	00 06 18.0						
DUG	eL	00 07 28.0	0.5	2.7	456	4.1		
	ePn	00 14 33.0						
DUG	ePg	00 15 30.2	0.5	0.9	456	4.1	Local.	
	eL	00 17 32.0						
DUG	eP	00 55 18.0	0.5	0.9	456	4.1	Local.	
	eL	00 56 46.0						
DUG	eP	01 16 35.0	0.5	0.9	456	4.1	Local.	
	eL	01 17 28.0						
DUG	e(P)	01 19 46.0	0.5	0.9	412	4.1	Local.	
	eL	01 20 45.0						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Jan 9 (con't)	DUG	eP	01 39 16.0	0.5	3.6	345	4.1	Local.
		eL	01 39 54.5					
		e(P)	01 48 23.3					
	DUG	eL	01 49 23.0	0.5	0.9	412	4.1	Local.
		e(P)	02 15 10.0					
	DUG	eL	02 16 08.0	0.5	0.9	405	4.1	Local.
		ePn	03 10 14.7					
	DUG	ePg	03 10 16.5	0.5	0.9	412	4.1	Local.
		eL	03 11 13.5					
	DUG	ePn	03 17 11.0	0.5	0.9	456	4.1	Local.
		ePg	03 17 20.0					
	SLC	eL	03 18 15.0	0.5	0.9	556	4.1	Local.
		eP	03 18 37.4					
DUG	eP	05 53 43.5	0.5	1.8	367	4.1	Local.	
	eL	05 54 42.0						
DUG	eP	06 23 48.0	0.5	1.8	456	3.9	Southern Nevada 37.3 N, 116.4 W 06 22 36.0 h = 4 km Mag. 3.9.	
	eL	06 23 49.0						
DUG	eP	07 47 42.8	0.5	0.9	445	4.2	Southern Nevada. 03 16 00.4 h = 4 km Mag. 4.1.	
	eL	07 48 46.5						
DUG	ePn	10 15 03.5	0.5	1.8	456	4.2	Local.	
	ePg	10 15 15.3						
PCU	eL	10 16 09.0	0.5	1.8	550	4.2	Local.	
	ePn	10 15 18.4						
SLC	ePg	10 15 33.4	0.5	1.8	556	4.2	Local.	
	eL	10 16 39.4						
LOG	eP	10 15 34.9	0.5	0.9	634	4.2	Local.	
	ePg	10 15 48.2						
DUG	eL	10 17 09.2	0.5	1.8	456	4.2	Local.	
	eP	12 59 11.2						
PCU	eL	13 00 16.0	0.5	1.8	145	4.2	Local.	
	eP	16 51 26.7						
DUG	ePg	16 51 36.8	0.5	1.8	145	4.2	Local.	
	eL	16 51 45.3						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Jan 9 (con't)	DUG	ePg		18 08 43.5	0.5	3.6	134		Local.
		eL		18 09 00.0					
	DUG	eP		20 17 35.8	0.7	2.4	470		Local.
		eL		20 18 41.0					
	SLC	eP		22 28 29.3			100		Local.
		ePg		22 28 32.0					
		eL		22 28 44.3					
	DUG	ePg		22 28 34.4	0.5	9.8	122		
		eL		22 28 49.0					
	10	DUG	ePn		08 08 45.3	0.7	1.6	850	
	ePg		08 10 00.0						
	eL		08 10 56.0						
DUG	eP		08 32 20.5			412		Local.	
	eL		08 33 18.0						
DUG	ePn		09 42 27.8	0.7	2.4	467	*4.6	Southern Nevada 37.2 N, 116.5 W 09 41 21.5 h = 4 km Mag. 4.4 (CGS), 4.6 (U. of U.).	
	ePg		09 42 40.0						
	eL		09 43 32.5						
SLC	eP		09 42 42.3			540			
	ePg		09 42 59.8						
	eL		09 44 01.6						
PCU	ePn		09 42 44.8			550			
	ePg		09 43 01.2						
	eL		09 44 05.3						
LOG	ePn		09 42 55.4			645			
	ePg		09 43 14.3						
	eL		09 44 31.5						
DUG	eP		10 27 29.5	0.5	1.6	423		Local.	
	eL		10 28 27.0						
DUG	eP		10 53 36.0	0.5	1.6	270		Local.	
	eL		10 54 15.0						
DUG	eP		12 08 41.0	0.5	1.6	430		Southern Nevada.	
	eL		12 09 42.0						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Jan 10 (con't)	DUG	eP		17 02 52.5	0.6	2.4	467	4.4	Southern Nevada 37.2 N, 116.5 W 17 01 44.5 h = 4 km Mag. 4.4.
		eL		17 03 51.0					
	PCU	ePg		17 03 08.9			545		
		eL		17 04 29.5					
	SLC	eP		17 03 22.6			567		
		eL		17 04 31.1					
	DUG	eP		17 15 30.0	0.7	4.0	456	4.3	Southern Nevada 37.2 N, 116.5 W 17 14 17.2 h = 4 km Mag. 4.3.
		eL		17 16 30.0					
	PCU	ePn		17 15 40.9			536		
		ePg		17 15 57.2					
	eL		17 16 59.2						
SLC	eP		17 15 53.6			567			
	eL		17 17 00.2						
11	DUG	eP		00 10 41.8	0.5	3.6	270		Local.
	eL		00 11 12.0						
DUG	eP		01 29 18.3	0.5	1.8	401		Local.	
	ePg		01 29 23.0						
	eL		01 30 15.0						
12	DUG	eP		00 37 45.0	0.5	0.9	390		Local.
	eL		00 38 40.5						
DUG	eP		00 40 42.2	0.5	1.8	390		Local.	
	eL		00 41 37.5						
DUG	eP		02 37 31.5	0.5	1.8	360		Local.	
	eL		02 38 22.5						
DUG	eP		14 38 02.7	0.5	0.9	370		Local.	
	eL		14 38 54.0						
13	DUG	ePn		02 31 11.0	0.5	1.8	489		Local.
	ePg		02 31 25.8						
	eL		02 32 22.5						
DUG	eP		16 25 53.0	0.7	1.6	667		Regional.	
	eL		16 27 32.0						
DUG	ePn		20 17 15.0	0.5	0.9	512		Local.	
	ePg		20 17 27.0						
	eL		20 18 30.0						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Jan 14	PCU	eP		06 54 52.9	0.3		45		South of Sunnyside, Utah.
		ePg		06 54 57.5					
	DUG	eL		06 55 04.9			434		Local.
		eP		07 20 43.5	0.4	1.1			
	PCU	eL		07 21 45.0			111		*Near Mt. Pleasant, Utah 39.56 N, 111.45 W 13 07 46.8 h = 0 km Mag. 1.9 (4 sta).
		eP		13 07 55.4			160	*1.9	
	DUG	ePg		13 08 00.8			45		South of Sunnyside, Utah.
		eL		13 08 08.6	0.5	1.8			
	PCU	eP		13 08 07.8			167		
		eL		13 08 30.2			45		
	DUG	eP		21 23 49.3			403		Local.
		ePg		21 23 54.0			289		Local.
	DUG	eL		21 24 00.4	0.5	0.9			South of Sunnyside, Utah.
		eP		21 24 12.0			45		
DUG	eL		21 24 34.0			140		Local.	
	eP		01 26 01.0	0.4	1.1				
15	DUG	eL		01 26 58.0			403		Local.
		eP		03 16 12.0	0.4	2.1			Local.
DUG	eL		03 16 51.5			45		South of Sunnyside, Utah.	
	eP		10 43 59.4			140		Local.	
PCU	ePg		10 44 03.9			435	*4.5	Nevada Test Site "Packard" 37.23 N 116.08 W 19 00 00.00 h = 0 km Mag. 4.5 (U. of U.).	
	eL		10 44 10.9	0.5	1.8				
DUG	eP		17 42 23.8			495			
	ePg		17 42 31.3						
DUG	eL		17 42 41.1	0.5	1.8				
	ePn		19 01 02.5			435	*4.5	Nevada Test Site "Packard" 37.23 N 116.08 W 19 00 00.00 h = 0 km Mag. 4.5 (U. of U.).	
PCU	ePg		19 01 15.0			495			
	eL		19 02 05.0	0.5	1.6				
DUG	eP		19 01 16.0						
	ePg		19 01 32.8	0.5	1.6				
DUG	eL		19 02 18.4						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Jan 15 (con't)	DUG	ePn		19 31 02.7	0.5	16.0	445	*5.3	Nevada Test Site "Wineskin" 37.28 N, 116.24 W 19 30 00.00 h = 0 km Mag. 5.3 (U. of U.).
		ePg		19 31 15.0					
	PCU	eL		19 32 10.0			523		
		ePn		19 31 16.1			545		Local.
	SLC	ePg		19 31 23.8			128		Local.
		eL		19 32 32.9			380		Local.
	DUG	eP		19 31 17.8	0.5	2.7			Local.
		ePg		23 02 07.7			395		Local.
	DUG	eL		23 02 23.0			380		Local.
		eP		05 05 22.0	0.4	1.1			Local.
	DUG	eL		05 06 18.5			380		Local.
		eP		05 15 30.0	0.4	1.1			Local.
	DUG	eL		05 16 26.0			395		Local.
		eP		09 19 19.0	0.5	1.8			Local.
DUG	eL		09 20 18.0			380		Local.	
	eP		09 27 04.5	0.6	1.6			South of Sunnyside, Utah.	
PCU	eL		09 27 59.5			45			
	ePg		09 38 32.8			122		Local.	
DUG	eL		09 38 37.3	0.7	4.0			Bingham blast.	
	eP		09 38 44.4			229		Bingham blast. Probable McGill, Nevada blast.	
DUG	ePg		21 49 26.5	0.7	4.0				
	eL		21 49 41.5			145			
DUG	eP*		21 56 16.0	0.6	11.1				
	eP*		22 06 50.0	0.6	14.2				
17	DUG	ePn		23 11 37.3	0.5	4.5			
		ePg		23 11 42.0			189		Local.
DUG	eL		23 12 07.0			78		Local.	
	eP		08 29 19.0	0.5	0.9				
18	DUG	eL		08 29 44.3			189		Local.
		ePg		19 00 03.6			78		Local.
DUG	eL		19 00 11.5			145			
	ePg		19 00 07.0	0.5	2.7				
DUG	eL		19 00 25.5						

Date 1969	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Jan 19	DUG	ePg		01 44 33.2	0.4	1.1	134		Local.
		eL		01 44 49.5					
	DUG	eP		15 56 04.5	0.4	1.1	270		Local.
		eL		15 56 41.0					
20	DUG	ePn		00 32 12.0	0.5	3.6	518		Local.
		ePg		00 32 18.3					
	eL		00 33 28.0						
	eP*		22 03 21.2	0.6	11.1				Bingham blast.
	ePg		22 15 45.5	0.5	2.7	145			Local.
	eL		22 16 03.0						
22	DUG	ePn		15 01 05.0	0.5	1.8	456	4.6	Southern Nevada 36.9 N, 116.0 W 15 00 02.6 h = 20 km Mag. 4.6.
		ePg		15 01 19.0					
	eL		15 02 07.0						
	eP		15 01 16.3			523			
	ePg		15 01 29.4						
	eL		15 02 33.2						
	ePg		15 01 19.8			556			
	eL		15 02 38.2						
	ePn		15 46 30.5	0.7	1.6	456			Southern Nevada 37.0 N, 116.0 W 15 45 27.5 h = 33 km.
	ePg		15 46 45.0						
	eL		15 47 35.0						
	23	PCU	eP		17 31 27.0			45	
ePg				17 31 31.0					
eL			17 31 38.0			56		Local.	
ePg			18 45 18.9						
DUG	eL		18 45 23.9			67		Local.	
	ePg		18 45 21.2	0.5	4.5				
	eL		18 45 30.0						
	ePg		20 29 45.5	0.5	3.6	134			
eL		20 30 02.5							

Date 1969	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Jan 23	DUG	eP		02 25 48.0			289		Local.	
		eL		02 26 27.5						
	CCU	ePg		19 36 15.6			289		Local.	
		eL		19 36 47.7						
	DUG	eP		20 16 50.5	0.5	1.8	545		Near Regional.	
		eL		20 18 11.0						
	CCU	ePn		23 02 10.3						Southern California 33.9 N, 116.0 W
		ePn		23 02 40.8	0.5	8.9	756	4.9		23 01 01.0 h = 18 km Mag. 4.9. Felt in Imperial and Coachella Valley and at Riverside.
	PCU	ePg		23 03 05.0						
		eL		23 04 32.0						
		ePn		23 02 46.9						
		ePg		23 03 10.5						
SIC	eL		23 04 50.5			850				
	ePn		23 02 53.9							
SIC	ePg		23 03 24.9							
	eL		23 05 02.3							
DUG	eP		23 10 36.9			29			Mouth of Emigration Canyon Mag. 2.8.(U. of U.).	
	eL		23 10 39.8							
PCU	ePg		23 10 53.2	0.4	12.7	111	*2.8		Felt in East Bench area of Salt Lake City, Utah, near mouth of Emigration Canyon.	
	eL		23 11 07.0			145				
24	DUG	ePn		23 10 55.7						
		eL		23 11 14.9						
	LOG	eP		23 10 56.4						
		eL		23 10 56.4						
DUG	eP		01 44 08.3	0.4	1.1	245			Local.	
	eL		01 44 40.5							
	DUG	eP		11 46 39.5	0.5	2.7	395			Local.
		eL		11 47 34.0						
DUG	ePn		20 00 37.5	0.5	0.9	251	*3.2		Central Nevada Mag. 3.2 (U. of U.).	
	ePg		20 00 43.5							
PCU	eL		20 01 10.0							
	ePg		20 00 45.9			289				
eL		20 01 17.9								

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Jan 24 (con't)	DUG	eP	20 10 09.2	0.5	0.9	325		Local.
		eL	20 10 53.0					
	PCU	eP	21 02 37.0			140		Local.
		ePg	21 02 44.0					
		eL	21 02 54.2					
25	PCU	eP	02 25 57.2			45		South of Sunnyside, Utah.
		ePg	02 26 00.6					
		eL	02 26 07.3					
	CCU	ePn	03 01 11.9			567		Southern California 33.8 N, 116.0 W 03 00 04.0 h = 14 km Mag. 4.8. Felt in Coachella Valley.
		e	03 01 29.3					
	DUG	eL	03 02 34.9	0.5	1.8	757	4.8	
		ePn	03 01 43.3					
26	DUG	ePg	03 02 11.0			145		Local.
		eL	03 03 43.0					
	DUG	ePg	21 39 04.8	0.5	7.1	145		Local.
27	DUG	eP	13 45 35.0	0.5	1.8	300		Local.
		eL	13 46 16.0					
	CCU	ePg	23 19 38.8			67		Near Logan, Utah.
		eL	23 19 45.6					
28	DUG	eP	11 01 00.0			462		Local.
		eL	11 02 07.0					
	DUG	eP	11 48 41.0			478		Local.
		eL	11 49 52.0					
	DUG	eP	21 56 14.3	0.5	7.1	134		Local.
29	DUG	eP	13 34 02.5	0.5	1.8	456	3.9	Southern Nevada 37.0 N, 116.5 W 13 32 45.8 h = 4 km Mag. 3.9.
		eL	13 34 56.5					

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Jan 30	PCU	ePn	05 19 18.0			667		New Mexico 34.3 N, 106.9 W 05 17 37.8 h = 8 km Mag. 4.1.
		ePg	05 19 39.1					
		eL	05 20 58.1					
	DUG	ePn	05 19 42.5	0.5	0.9	833	4.1	
		ePg	05 19 59.5					
	PCU	eL	05 21 31.0			45		South of Sunnyside, Utah.
		eP	07 29 48.7					
		ePg	07 29 50.5					
		eL	07 30 58.3					
	DUG	eP	07 30 14.0					
	DUG	ePn	15 01 02.3	0.5	5.3	445	*5.0	Nevada Test Site "Vise" 37.13 N, 116.03 W h = 0 km Mag. 5.0 (U. of U.).
		ePg	15 01 14.0					
		eL	15 02 07.5					
	PCU	ePn	15 01 17.3			534		
		ePg	15 01 19.0					
		eL	15 02 34.9					
	SIC	ePn	15 01 18.8			570		
		ePg	15 01 34.4					
		eL	15 02 46.0					
	CCU	ePn	19 41 06.4			412		Southern Nevada.
	ePg	19 41 11.2						
	eL	19 42 05.6						
DUG	ePn	19 41 35.0	0.7	3.2	445			
	ePg	19 41 48.5						
	eL	19 42 41.0						
DUG	ePg	22 20 53.3	0.5	0.9	134		Local.	
	eL	22 21 10.5						
DUG	ePn	22 55 09.0	0.5	1.8	229		Probable McGill, Nevada blast.	
	ePg	22 55 14.5						
	eL	22 55 39.0						
CCU	ePg	23 20 37.6			78		Near Cedar City, Utah.	
	eL	23 20 45.9						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Jan 31	DUG	eP		11 28 23.0			205		Local.
		eL		11 28 50.5					
	DUG	eP		20 00 56.5			245		Local.
		eL		20 01 23.0					
	DUG	eP		21 31 54.0	0.5	1.8	189		Local.
		eL		21 32 19.0					
1969 Feb 1	PCU	eP		02 09 19.9			140		Local.
		ePg		02 09 25.9					
		eL		02 09 37.9					
	PCU	ePn		02 37 28.3			140		Local.
		ePg		02 37 34.9					
		eL		02 37 45.9					
	PCU	ePg		03 13 13.4			100		Local.
		eL		03 13 24.5					
	DUG	eP		08 03 41.0	0.5	0.9	424		Local.
		eL		08 04 41.0					
	PCU	ePn		08 16 09.5			140		Local.
		ePg		08 16 15.3					
	eL		08 16 26.5						
SLC	ePg		11 56 01.5			145		Eastern Idaho 42.0 N, 111.5 W	
	eL		11 56 27.6					11 55 38.4 h = 33 km Mag. 2.6	
DUG	ePn		11 56 10.7	0.6	2.4	223	*2.6	(U. of U.).	
	ePg		11 56 14.0						
	eL		11 56 50.5						
PCU	eP		11 56 18.7			278		Local.	
	eL		11 57 02.7						
PCU	ePn		12 55 45.0			140		Local.	
	ePg		12 55 50.2						
	eL		12 56 02.8						
DUG	eP*		22 19 11.0	0.6	10.3			Bingham blast.	

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Feb 1 (con't)	DUG	eP		23 11 50.5	0.5	0.9	278		Central Nevada.
		eL		23 12 21.0					
	CCU	eP		23 12 01.5			312		
		ePg		23 12 06.9					
		eL		23 12 37.8					
	2	PCU	eP		15 32 47.8			170	
	ePg		15 32 57.3						
	eL		15 33 08.2						
	ePg		20 21 16.1			33		Near Cedar City, Utah.	
	eL		20 21 19.1						
1969 Feb 3	DUG	eP		00 57 23.0	0.5	1.8	499		Local.
		eL		00 58 34.5					
	PCU	eP		02 31 41.4			15		Probable rockburst Castle Gate, Utah area.
		eR		02 31 46.4					
	DUG	eP		02 32 08.5			15		Probable rockburst Castle Gate, Utah area.
	PCU	eP		03 55 58.6					
		eR		03 56 03.6					
	DUG	eP		03 56 31.2					
		eL		03 56 44.0					
	DUG	eP		06 24 06.5			990	4.5	Gulf of California 31.5 N, 114.0 W 06 21 52.7 h = 33 km Mag. 4.5.
1969 Feb 4	CCU	eP		18 59 02.6			53		Near Cedar City, Utah.
		eL		18 59 08.8					
	DUG	eP		05 00 20.7	0.5	1.8	278		*Central Idaho 43.71 N, 111.64 W h = 20 km (4 sta).
		eL		05 00 57.5					
	PCU	eP		05 00 29.3			300		
		eL		05 01 09.0					
	DUG	eP		13 23 08.5	0.5	1.8	312		Local.
		eL		13 23 50.0					

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Feb 4 (con't)	CCU	ePn		15 00 41.0			334		Southern Nevada Mag. 4.1 (U. of U.).	
		ePg		15 00 46.5						
		eL		15 01 26.7						
	DUG	ePn		15 01 04.0	0.5	1.8	445	*4.1		
		ePg		15 01 19.0						
		eL		15 02 08.0						
	PCU	eP		15 01 21.7			623			
		eL		15 02 54.3						
	SLC	ePg		15 01 36.5			660			
		eL		15 02 57.9						
DUG	eP		15 33 03.3	0.6	1.6	367		Local.		
	eL		15 33 54.0					Local.		
DUG	ePg		16 01 10.0	0.4	2.1	122			Near Cedar City, Utah.	
	eL		16 01 25.5							
CCU	ePg		23 17 30.1			56				
	eL		23 17 35.1							
5	SLC	ePg		02 01 04.4			160		*Southwest Wyoming 42.04 N, 110.58 W 02 00 37.5 h = 20 km Mag. 2.5 (5 sta).	
		eL		02 01 26.4						
	PCU	eP		02 01 15.6			245			
		eL		02 01 47.7						
	DUG	eP		02 01 16.5	0.4	2.1	256	*2.5		
		eL		02 01 50.5						
	PCU	ePn		10 55 32.5			140			*Near Dragerton, Utah 39.56 N, 110.44 W 10 55 33.3 h = 0 km Mag. 2.0 (4 sta).
		ePg		10 55 38.1						
		eL		10 55 50.1						
	DUG	eP		10 56 03.0	0.5	1.8	270	*2.0		
	eL		10 56 39.5							
CCU	ePg		16 05 40.5			44			Near Cedar City, Utah.	
	eL		16 05 44.2							
CCU	ePg		22 23 45.2			56			Near Cedar City, Utah.	
	eL		22 23 50.2							
6	DUG	eP		11 06 10.0			1577	4.3	Off Coast of Oregon 43.4 N, 126.0 W 11 03 41.0 h = 33 km Mag. 4.3.	
	DUG	eP		18 40 11.7	0.4	5.3	130		Local.	

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Feb 6 (con't)	CCU	ePg		21 47 15.7			50		Near Cedar City, Utah.	
		eL		21 47 20.2						
	PCU	ePg		21 47 29.8			111			
		eL		21 47 42.4						
	CCU	eP		22 49 16.9			99			Local.
		ePg		22 49 22.4						
		eL		22 49 27.2						
	PCU	eP		00 44 47.6			289			Local.
		eL		00 45 39.8						
	CCU	ePg		19 00 51.0			40			Near Cedar City, Utah.
	eL		19 00 55.7							
DUG	eP		19 45 07.5	0.7	1.6	220	*2.6	*Central Nevada (4 sta) 39.49 N, 115.12 W 19 44 37.4 h = 20 km Mag. 2.6.		
	eL		19 45 37.0							
CCU	eP		19 45 15.1			250			Near Coast of Northern California 40.4 N, 124.5 W 21 25 45.4 h = 6 km Mag. 5.2.	
	eL		19 45 47.5						Felt at Eureka.	
DUG	eP		21 27 57.5			1056	5.2		Near Cedar City, Utah.	
CCU	ePg		22 39 10.0			78				
	eL		22 39 17.5							
DUG	eP		22 57 58.0			323			Local.	
	eL		22 58 43.5							
8	DUG	ePn		22 56 21.0	0.5	3.6	245		Probable McGill, Nevada blast.	
		ePg		22 56 23.5						
		eL		22 56 53.0						
	CCU	ePg		22 56 55.2			256			
		eL		22 57 24.5						
PCU	eP		22 56 56.1			334				
	eL		22 57 42.3							

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Remarks
Feb 9 1969	PCU	eP		03 58 56.3			356	Local.
		eL		03 59 46.3				
	DUG	eP		03 58 57.0	0.5	0.9	489	
		eL		04 00 08.0				
	PCU	eP		06 17 40.1			140	Local.
		ePg		06 17 45.7				
		eL		06 17 58.5			256	
	DUG	eP		06 18 11.0				
		eL		06 18 45.5			345	Local.
	DUG	eP		08 03 15.5				
		eL		08 04 02.5			45	South of Sunnyside, Utah.
	PCU	eP		14 46 57.3				
		ePg		14 47 03.6				
		eL		14 47 09.3			278	Local.
	CCU	eP		18 28 09.0				
		eL		18 29 40.0		3.2		
	DUG	ePg		18 47 15.5	0.4		134	Local.
		eL		18 47 31.5			212	
	PCU	ePg		18 47 30.0				
		eL		18 47 58.8			134	North of Sunnyside, Utah Mag. 2.4 (U. of U.).
SLC	ePg		21 57 35.6					
	eL		21 57 51.4			250	*2.4	
DUG	ePg		21 57 38.0	0.5	1.8			
	eL		21 58 06.0			267		
LOG	ePg		21 57 57.0					
	eL		21 58 26.8			1080	4.7 Gulf of California 30.4 N, 113.0 W 22 37 19.4 h = 33 km Mag. 4.7. Probable McGill, Nevada blast.	
DUG	eP		22 39 44.7			225		
	eL		22 42 59.0					
DUG	eP		23 14 35.5	0.5	0.9			
	eL		23 15 04.0			100	Local.	
PCU	ePg		23 23 08.1					
	eL		23 23 18.9					

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Remarks
Feb 10 1969	PCU	ePg		00 03 26.5			90	Local.
		eL		00 03 37.0				
	DUG	eP		07 01 07.0			1146	4.5 Gulf of California 30.0 N, 112.9 W 06 58 39.7 h = 33 km Mag. 4.5.
		eL		07 04 26.5			1169	4.4 Gulf of California 29.7 N, 113.5 W 07 16 42.8 h = 33 km Mag. 4.4.
	DUG	eP		07 19 18.5			1069	4.5 Gulf of California 30.5 N, 113.0 W 10 23 16.3 h = 33 km Mag. 4.5.
		eL		10 25 40.0			1111	4.5 Gulf of California 30.2 N, 113.0 W 10 54 09.4 h = 33 km Mag. 4.5.
	DUG	eP		10 56 36.0			1169	4.8 Gulf of California 29.7 N, 113.3 W 17 37 18.7 h = 33 km Mag. 4.8.
		eL		17 39 52.8			130	Local.
	DUG	eP		18 40 04.0	0.5	1.8		
		eL		18 40 18.0				
	DUG	eP		01 11 29.0	0.5	0.9	167	Local.
		eL		01 11 51.0				
	DUG	eP		01 32 10.7	0.5	1.8	200	Local.
		eL		01 32 38.0				
	PCU	eP		02 02 33.9			140	Local.
	ePg		02 02 39.3					
	eL		02 02 50.4			289	Local.	
PCU	ePg		03 00 18.6					
	eL		03 00 57.3			295		
DUG	eP		03 00 19.2	0.4	1.1			
	eL		03 01 00.0			105	Local.	
PCU	eP		07 50 01.2					
	eL		07 50 13.2			1236	Off Coast of Oregon 44.2 N, 129.0 W 10 47 31.0 h = 33 km Mag. 4.6.	
DUG	eP		10 50 34.3					
	eL		17 18 30.0	0.5	0.9	150	Local.	
DUG	eP		17 18 48.0					
	eL		19 10 26.0	0.5	2.7	230	Local.	
DUG	ePn		19 10 27.6					
	ePg		19 10 56.5					
	eL							

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Amp (Mu)	Mot	Dist (km)	Mag	Remarks	
Feb 11 (con't)	PCU	ePg		23 18 17.9				295		Local.	
		eL		23 18 57.7							
	CCU	ePg		23 19 32.0				67		Near Cedar City, Utah.	
		eL		23 19 38.6							
	CCU	ePg		23 57 16.1				44		Near Cedar City, Utah.	
		eL		23 57 20.1							
	12	DUG	eP		00 05 27.8				295		Local.
			eL		00 05 53.5						
		CCU	ePn		16 19 02.7				350		Nevada Test Site "Cypress" 37.26 N, 116.22 W 16 18 20.00 h = 0 km Mag. 4.8 (U. of U.).
			ePg		16 19 07.0						
		eL		16 19 52.2							
DUG		ePn		16 19 22.3	0.4	3.2		440	*4.8		
		ePg		16 19 36.5							
		eL		16 20 29.0							
PCU		ePn		16 19 37.6				512			
		ePg		16 19 51.3							
13	SLC	eL		16 20 53.2				612			
		ePn		16 19 42.4							
		ePg		16 19 55.2							
	DUG	eL		16 20 13.5				60		Local.	
		eP		17 40 34.0							
		eL		17 40 41.0							
	DUG	eP		20 31 13.2	0.5	1.8		200		Local.	
		eL		20 31 39.5							
	DUG	eP		22 06 05.0	0.5	1.8		122		Local.	
		eL		22 06 19.0							
13	CCU	eP		22 32 30.8				60		Near Cedar City, Utah.	
		eL		22 32 36.4							
	DUG	eP		10 03 26.5				1247	4.5	Gulf of California 29.0 N, 113.5 W 10 00 43.4 h = 33 km Mag. 4.5.	
	CCU	ePg		15 10 44.4				89		Near Cedar City, Utah.	
	eL		15 10 54.3								

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Amp (Mu)	Mot	Dist (km)	Mag	Remarks	
Feb 13 (con't)	DUG	eP		20 56 46.5				295		Local.	
		eL		20 57 27.0							
	14	CCU	ePg		01 28 14.7				44		Near Cedar City, Utah.
			eL		01 28 18.6						
	DUG	eP		03 26 11.5	0.5	0.9		378		Local.	
		eL		03 27 04.5							
	PCU	ePg		06 06 00.1				60		Near Price, Utah.	
		eL		06 06 07.0							
	PCU	eP		08 28 12.6				15		Probable rockburst Castle Gate, Utah area.	
		ePg		08 28 14.8							
	eR		08 28 17.7								
15	DUG	eP		08 28 39.0							
	DUG	eP		15 41 52.0				1102	4.5	Gulf of California 30.2 N, 113.1 W 15 39 34.2 h = 33 km Mag. 4.5.	
	PCU	eP		23 41 39.4				140		Local.	
		ePg		23 41 44.8							
		eL		23 41 56.6							
	PCU	ePg		00 09 51.9				267		Local.	
		eL		00 10 21.8							
	DUG	eP		00 09 54.8	0.5	1.8		323			
		eL		00 10 31.5							
	DUG	eP		16 58 21.5	0.5	1.8		378		Local.	
	eL		16 59 14.0								
CCU	ePg		19 46 56.4				56		Near Cedar City, Utah.		
	eL		19 47 01.2								
DUG	eP		23 12 22.5	0.5	0.9		223		Probable McGill, Nevada blast.		
	eL		23 12 51.0								
CCU	ePg		23 30 38.7				22		Near Cedar City, Utah.		
	eL		23 30 40.4								

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Feb 16	SLC	eP		11 29 56.3			12		East of Salt Lake City, Utah
		eL		11 29 57.8					Mag. 2.3 (U. of U.).
	DUG	ePg		11 30 12.0	0.5	0.9	114	*2.3	Felt in East Bench area of Salt Lake City, Utah, near mouth of Emigration Canyon.
		eL		11 30 26.3			120		
	LOG	eP		11 30 13.9					
		ePg		11 30 21.0			140		
		eL		11 30 39.6					
	DUG	ePg		16 36 45.0	0.4	1.1	83		Local.
		eL		16 36 56.0					
	DUG	eP		21 09 07.5			667	3.6	Montana 46.1 N, 112.5 W
		eL		21 10 40.0			15		21 07 18.2 h = 21 km Mag. 3.6.
	PCU	eP		21 23 02.8					Probable rockburst Castle Gate, Utah area.
		eR		21 23 08.1			45		South of Sunnyside, Utah.
	DUG	eP		21 23 29.5					
PCU	eP		22 41 26.3						
	ePg		22 41 33.0						
	eL		22 41 37.3			230			
DUG	eP		22 42 43.7						
	eL		22 43 14.0						
17	PCU	eP		09 40 23.9			45		South of Sunnyside, Utah.
		eL		09 40 35.0					
	DUG	eP		15 42 40.5			300		Local.
		eL		15 43 20.5			150		Local.
	DUG	eP		19 51 48.5			200		Local.
		eL		19 52 07.0					
	DUG	eP		23 00 06.2	0.5	0.9			
		eL		23 00 33.0					
	PCU	ePn		01 59 06.7			1055	4.8	Gulf of California 29.8 N, 113.3 W
		ePg		01 59 23.0					01 56 38.9 h = 33 km Mag. 4.8.
	eL		02 01 50.0						
DUG	eP		01 59 11.0			1157			

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Feb 18 (con't)	PCU	ePn		09 25 03.7			140		Local.	
		ePg		09 25 11.9						
		eL		09 25 21.6			350		Local.	
	DUG	ePg		20 19 38.0	0.5	1.8			Local.	
		eL		20 20 18.5			118		Local.	
	DUG	eP		20 49 36.8	0.5	3.6			Local.	
		eL		20 49 51.0			223		Probable McGill, Nevada blast.	
	DUG	eP		23 15 36.0	0.5	0.9				
		eL		23 16 05.0						
	19	PCU	ePg		15 39 36.6			223		Local.
			eL		15 40 05.5					
		DUG	eP		15 39 39.0	0.5	0.9	250		
			eL		15 40 11.5			140		Local.
		DUG	eP		17 31 12.0	0.4	1.1			Local.
		eL		17 31 30.0			223		Local.	
DUG		eP		19 49 26.5	0.5	0.9	220		Local.	
		eL		19 49 55.0			180		Local.	
DUG		eP		22 47 53.0	0.5	0.9			Local.	
		eL		22 48 21.5			140		Local.	
DUG		eP		23 34 45.0	0.5	1.8			Local.	
		eL		23 35 09.0						
PCU		ePg		23 48 20.6						
		eL		23 48 37.4						
20	PCU	eP		00 19 42.0			45		South of Sunnyside, Utah.	
		eL		00 19 52.6						
	DUG	eP		02 35 33.7	0.5	0.9	305		Local.	
		eL		02 36 15.0						
	DUG	ePn		17 23 10.5	0.5	2.7	245		Local.	
		ePg		17 23 14.5						
		eL		17 23 42.5						

Date 1969	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Feb 20 (con't)	DUG	eP		20 14 00.0	0.5	0.9	260		Local.	
		eL		20 14 35.0						
	PCU	eP		20 14 02.1			270			
		eL		20 14 38.6						
	PCU	eP		21 16 32.1			45		South of Sunnyside, Utah.	
		ePg		21 16 37.8						
		eL		21 16 43.3						
	DUG	eP*		21 57 37.8	0.5	10.7			Bingham Blast.	
	DUG	ePn		22 57 13.7	0.5	3.6	234		Probable McGill, Nevada blast.	
		ePg		22 57 19.0						
		eL		22 57 44.0						
	21	PCU	eP		04 06 28.6			45		South of Sunnyside, Utah.
			ePg		04 06 37.4					
			eL		04 06 39.7					
CCU		eP		12 08 43.3			25		*Northwest of Parowan, Utah 37.91 N, 112.90 W	
PCU		ePg		12 09 13.0			245		12 08 37.6 h = 30 km	
		eL		12 09 39.9					Mag. 2.2 (6 sta).	
DUG		eP		12 09 13.5	0.5	0.9	256	*2.2		
		eL		12 09 43.5						
DUG		eP		17 12 31.5			512		Hebgen Lake Region 44.7 N, 111.2 W	
		eL		17 12 31.5					17 11 16.0 h = 33 km.	
22	DUG	eP		22 51 52.5			189		Local.	
		eL		22 52 18.5						
	DUG	eP		22 58 10.0			234		Probable McGill, Nevada blast.	
		eL		22 58 41.5						
	DUG	ePg		23 09 15.0	0.5	3.6	67		Local.	
		eL		23 09 24.0						
	22	SIC	ePg		17 19 06.6			46		Local.
			eL		17 19 12.2					
		DUG	ePg		17 19 08.5	0.5	3.6	67		
			eL		17 19 17.5					

Date 1969	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Feb 23	DUG	eP		16 03 52.5	0.4	1.1	122		Local.
		eL		16 04 06.0					
	DUG	eP		16 16 55.5	0.5	0.9	223		Local.
		eL		16 17 26.7					
	DUG	eP		16 41 37.5	0.5	1.8	115		Local.
		eL		16 41 51.7					
	DUG	eP		19 04 30.5	0.5	0.9	76		Local.
		eL		19 04 39.5					
	DUG	eP		21 00 35.5	0.5	1.8	122		Local.
		eL		21 00 50.0					
	DUG	eP		22 45 35.2	0.5	0.9	190		Local.
		eL		22 46 02.0					
	DUG	eP		23 00 40.5	0.5	1.0	200		Local.
		eL		23 01 08.0					
24	PCU	eP		00 26 22.3			45		South of Sunnyside, Utah.
		ePg		00 26 28.2					
		eL		00 26 32.3					
	PCU	eP		07 17 28.3			45		South of Sunnyside, Utah.
		ePg		07 17 35.5					
		eL		07 17 39.9					
	PCU	eP		10 56 38.2			45		South of Sunnyside, Utah.
		ePg		10 56 42.8					
		eL		10 56 51.8					
	PCU	eP		11 21 20.4			45		South of Sunnyside, Utah.
		ePg		11 21 26.8					
		eL		11 21 30.7					
	PCU	eP		11 50 38.7			45		South of Sunnyside, Utah.
		ePg		11 50 44.8					
	eL		11 50 49.5						
PCU	eP		16 26 49.6			156		Local.	
	eL		16 27 11.0						
DUG	eP		16 26 53.0	0.5	2.7	189			
	eL		16 27 19.0						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Feb 24 (con't)	DUG	eP	17 02 03.3	0.5	1.8	120		Local.
		eL	17 02 17.0					
	PCU	eP	17 30 25.8			140		Local.
		eL	17 30 43.2					
	CCU	eP	18 42 03.2			212		Local.
		ePg	18 42 10.5					
		eL	18 42 32.7					
	SLC	ePg	20 14 23.1			21		Near Salt Lake City, Utah.
		eL	20 14 25.6					
	DUG	eP	20 14 40.3	0.5	3.6	135		
	eL	20 14 57.0						
DUG	eP*	22 08 50.3	0.5	10.7				Bingham blast.
DUG	eP	22 23 33.0	0.5	0.9	267			Local.
	eL	22 24 10.5						
CCU	eP	23 07 52.7			75			Near Cedar City, Utah
	ePg	23 07 56.7						
	eL	23 08 01.2						
25	PCU	ePg	00 08 53.1			250		Local.
		eL	00 09 31.6					
	LOG	eP	11 11 45.6			234		Eastern Idaho 43.9 N, 111.0 W
		ePg	11 11 49.6					11 11 09.7 h = 33 km Mag. 3.6.
		eL	11 12 14.6					
	PCU	ePn	11 12 14.7			445		
		ePg	11 12 25.1					
		eL	11 13 18.9					
	DUG	eP	11 12 16.8			434	3.6	
	PCU	ePg	16 56 07.6			111		Local.
	eL	16 56 21.1						
DUG	eP	20 14 12.5	0.5	0.9	300			Local.
	eL	20 14 56.5						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Feb 26	CCU	ePg	00 59 35.0			111		Local.
		eL	00 59 49.0					
	SLC	ePg	15 24 37.8			23		*South Salt Lake City, Utah 40.80 N, 111.86 W
		eL	15 24 40.5					15 24 35.9 h = 0 km Mag. 1.6. (4 sta).
	DUG	eP	15 24 54.5			160	*1.6	
		eL	15 25 17.0					
	PCU	eP	15 24 59.2			170		
		eL	15 25 23.7					
	DUG	eP	17 35 43.3	0.4	2.1	140		Local.
		eL	17 36 01.5					
CCU	ePg	17 25 46.0			37		Near Cedar City, Utah.	
	eL	17 25 50.4						
DUG	eP	21 14 34.0	0.5	1.8	130		Local.	
	eL	21 14 49.5						
PCU	ePg	21 14 37.3			178			
	eL	21 15 02.0						
DUG	eP	22 53 14.5	0.5	0.9	230			Local.
	eL	22 53 46.5						
27	CCU	ePg	00 02 48.0			78		Near Cedar City, Utah.
		eL	00 02 56.0					
	DUG	eP	02 55 06.0			160		Local.
		eL	02 55 27.5					
	DUG	eP	19 10 13.0			278		Local.
		eL	19 10 55.0					
	PCU	eP	19 10 15.8			312		
		eP	19 10 59.0					
	DUG	eP	20 06 18.0			567		Near Regional.
		eL	20 07 31.5					
DUG	eP	22 58 52.5			46		Local.	
	eL	22 59 58.0						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Feb 28	DUG	ePn		04 42 22.2	0.6	25.3	256	*3.8	Central Nevada Mag. 3.8 (U. of U.).
		ePg		04 42 27.5					
		eL		04 42 56.2					
	CCU	ePn		04 42 27.4			290		
		ePg		04 42 37.1					
		eL		04 43 05.6					
	SIC	ePn		04 42 32.4			356		
		ePg		04 42 41.3					
		eL		04 43 22.3					
	PCU	eP		04 42 41.4			445		
		ePg		04 42 57.5					
		eL		04 43 45.9					
	DUG	eP		17 43 36.0			134		Local.
		eL		17 43 51.5					
DUG	eP		19 09 53.0			334		Local.	
	eL		19 10 30.5						
DUG	ePn		20 31 08.5	0.4	2.1	318		Local.	
	ePg		20 31 16.2						
	eL		20 31 51.5						
DUG	eP		22 51 51.0			200		Local.	
	eL		22 52 19.2						
DUG	eP		23 02 33.0	0.4	3.2	245		Probable McGill, Nevada blast.	
	eL		23 03 07.5						
1969 Mar 1	PCU	eP		00 14 39.2			345		Local.
		eL		00 15 18.7					
	PCU	eP		02 47 38.3			45		South of Sunnyside, Utah.
		ePg		02 47 43.8					
		eL		02 47 50.5					
	DUG	eP		04 13 02.3			189		Local.
		eL		04 13 28.5					
	DUG	eP*		23 52 42.8	0.6	11.1			Bingham blast.

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Mar 2	DUG	ePn		05 57 40.0	0.5	1.8	295		Local.
		ePg		05 57 43.2					
		eL		05 58 20.0					
	PCU	eP		06 06 52.8			122		Local.
		eL		06 07 07.3					
	DUG	ePn		06 07 05.0	0.5	1.8	156		
		ePg		06 07 08.0					
		eL		06 07 26.0					
	CCU	ePg		08 03 04.9			31		Near Cedar City, Utah.
		eL		08 03 08.5					
	DUG	eP*		22 01 57.0	0.5	13.4			Bingham blast.
	DUG	eP		22 10 25.0	0.4	2.1	70		Local.
		eL		22 10 33.5					
	CCU	ePg		22 34 43.1			34		Near Cedar City, Utah.
	eL		22 34 47.1						
1969 3	PCU	eP		13 53 13.4			140		Local.
		ePg		13 53 21.4					
		eL		13 53 30.2					
	PCU	eP		14 38 53.4			32		Central Utah Mag 2.5 (U. of U.).
		eL		14 38 57.2					
	DUG	eP		14 39 18.0	0.8	1.7	180	*2.5	
		eL		14 39 43.5					
	SIC	eP		14 39 33.7					
	DUG	eP		18 13 04.5	0.4	1.1	140		Local.
		eL		18 13 21.5					
	DUG	eP		21 21 30.0	0.5	1.8	312		Local.
		eL		21 22 15.0					
	CCU	ePg		22 13 34.9			85		Near Cedar City, Utah.
		eL		22 13 42.5					
1969 4	CCU	eP		19 53 57.8			115		Local.
		ePg		19 54 08.2					
		eL		19 54 11.2					

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Mar 4 (con't)	CCU	eP		21 36 52.3			156		Local.
		ePg		21 37 06.2					
	eL		21 37 13.5						
	DUG	eP*		21 51 08.8	0.6	12.6			Bingham blast.
5	PCU	eP		05 00 08.5			45		South of Sunnyside, Utah.
		ePg		05 00 13.2					
	eL		05 00 19.6						
	DUG	eP		05 00 35.5			45		South of Sunnyside, Utah.
	PCU	eP		09 52 45.6					
		ePg		09 52 51.4					
		eL		09 52 56.1					
	DUG	eP		17 00 46.0			140		Local.
	DUG	eL		17 01 03.5			323		Local.
		eP		19 07 16.0	0.4	1.1			
		eL		19 07 53.0					
	DUG	eP*		20 55 34.2	0.5	10.7			Bingham blast.
DUG	ePn		23 01 01.0	0.5	2.7	229		Probable McGill, Nevada blast.	
	ePg		23 01 06.5						
	eL		23 01 31.0			267			
CCU	ePg		23 01 09.3						
	eL		23 01 39.5			67		Near Cedar City, Utah.	
CCU	ePg		23 21 36.5						
	eL		23 21 43.3						
7	LOG	eP		00 22 46.9			122		Southern Idaho.
		eL		00 23 01.9					
	SLC	ePn		00 23 03.7					
		ePg		00 23 06.0					
		eL		00 23 29.1					
	DUG	ePn		00 23 12.0	0.5	3.6	295		
		ePg		00 23 18.5					
		eL		00 23 52.5					
	PCU	ePn		00 23 19.7			325		
		ePg		00 23 24.7					

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Mar 7 (con't)	DUG	eP		08 40 00.8				5.5	Eastern Kazakh SSR 49.8 N, 78.2 E 08 26 57.5 h = 0 km Mag. 5.5.
	DUG	eP		09 57 46.0			280		Local.
		eL		09 58 24.5					
	DUG	eP		17 22 01.8	0.5	0.9	334		Local.
		eL		17 22 49.0					
	PCU	ePn		17 22 10.8			345		
		ePg		17 22 20.8					
		eL		17 22 56.4					
	DUG	eP		20 01 22.5	0.5	1.8	156		Local.
		eL		20 01 43.0					
	CCU	ePg		22 37 24.7			56		Near Cedar City, Utah.
		eL		22 37 30.2					
8	DUG	ePg		00 18 16.8	0.6	6.3	122		Local.
		eL		00 18 31.0					
	PCU	ePg		00 18 31.5			167		
		eL		00 18 54.1					
	DUG	ePg		00 34 38.5	0.5	6.2	122		Near Promontory Point, Utah.
		eL		00 34 52.0					
	PCU	ePg		00 34 52.9			200		
		eL		00 35 20.5					
	PCU	ePg		00 47 38.5			89		Near Price, Utah.
		eL		00 47 48.5					
	PCU	eP		02 06 13.5			45		South of Sunnyside, Utah.
		ePg		02 06 18.5					
	eL		02 06 24.2						
LOG	eP		08 27 09.3						
DUG	eP		08 27 31.0	0.6	6.3	545		4.1	Montana 45.0 N, 111.5 W 08 26 18.2 h = 33 km Mag. 4.1.
PCU	ePg		08 27 39.2						
	eL		08 27 56.9						
DUG	eP		23 16 00.5	0.5	0.9	334			
	eL		23 16 46.0						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Feb 9	DUG	eP		02 55 46.0			1046	3.9	Gulf of California 30.9 N, 114.2 W 02 53 19.8 h = 33 km Mag. 3.9.
	DUG	eP		03 24 06.0			945	4.2	Gulf of California 31.7 N, 113.9 W 03 21 58.3 h = 33 km Mag. 4.2. Probable McGill, Nevada blast.
	DUG	ePn		20 03 12.5	0.5	2.7	245		
		ePg		20 03 16.0			278		
		eL		20 03 44.5					
	CCU	eP		20 03 15.1			272		Local.
		ePg		20 03 20.5					
		eL		20 03 51.7					
	CCU	ePn		23 48 39.7					
		ePg		23 48 43.5					
	eL		23 49 15.1						
10	PCU	ePg		19 38 11.8			235		Local.
		eL		19 38 45.5			256		
	DUG	eP		19 38 15.0					
		eL		19 38 49.0					Bingham blast.
	DUG	eP*		22 15 37.2	0.6	11.1	45		South of Sunnyside, Utah.
11	PCU	eP		16 46 30.2					
		ePg		16 46 36.9					
		eL		16 46 41.3					
	DUG	eP		19 00 09.0			300		Local.
		eL		19 00 50.0			289		Local.
12	DUG	eP		22 55 23.2	0.5	0.9			
		eL		22 55 55.0			150		Local.
	PCU	eP		00 57 45.4					
		ePg		00 58 01.9					
		eL		00 58 05.7			290		Local.
DUG		ePg		01 10 45.9					
		eL		01 11 26.2			278		Local.
		eP		15 19 25.0					
	eL		15 20 06.5						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Mar 12 (con't)	DUG	eP*		22 04 09.7	0.6	17.4			Bingham blast.
	DUG	eP		23 01 44.0	0.4	1.1	189		Local.
		eL		23 02 10.0					
13	DUG	eP		23 08 54.2	0.5	1.8	190		Local.
		eL		23 09 21.5					
	DUG	eP		01 47 07.2	0.5	0.9	280		Local.
		eL		01 47 45.0					
	DUG	eP		03 25 14.0	0.7	1.6	813	4.4	Northern California 38.0 N, 121.8 W 03 23 23.6 h = 8 km Mag. 4.4.
PCU		eL		03 27 22.0			130		*Southeast of Columbia, Utah 39.45 N, 110.35 W 07 03 15.8 h = 0 km Mag. 2.8.
		eP		07 03 22.4					
		ePg		07 03 25.2					
SLC		eL		07 03 37.9			200		
		ePn		07 03 47.1					
		eL		07 04 13.3					
DUG		ePn		07 03 48.7	0.5	2.7	234	*2.8	
		ePg		07 03 53.0					
		eL		07 04 27.0			380		
LOG		ePg		07 03 59.9					
		eL		07 04 33.3			145		Local.
		eP		07 45 48.6					
PCU		ePg		07 45 53.9					
		eL		07 46 06.1			45		Probable rockburst near Sunnyside, Utah.
		eP		08 15 48.4					
DUG		ePg		08 15 53.7					
		eR		08 16 05.9					
		eP		08 16 20.3					
PCU		eP		19 01 18.1			100		*Near Columbia, Utah 39.52 N, 110.36 W 19 01 12.2 h = 0 km Mag. 2.8. (5 sta)
		ePg		19 01 21.7					
		eL		19 01 29.9			167		
SLC		eP		19 01 43.4					
		ePg		19 01 51.5					
		eL		19 02 06.6					
DUG		ePn		19 01 46.0	0.5	1.8	267	*2.8	
		ePg		19 01 49.0					
		eL		19 02 21.0					

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Remarks	
Mar 13 (con't)	SLC	eP		19 44 12.3			160	Local.	
		eL		19 44 34.6			212		
	DUG	eP		19 44 27.0					
		eL		19 44 56.0					
	PCU	eP		20 20 20.7			230	Local.	
		eL		20 20 52.8			401		
	DUG	eP		20 20 44.8					
		eL		20 21 41.0					
	PCU	eP		21 00 47.7			89	Near Price, Utah.	
		eL		21 00 57.4					
14	DUG	eP		15 17 46.7			234	Local.	
		eL		15 18 18.0					
	DUG	eP*		22 55 23.6	0.6	11.9	200	Bingham blast.	
	DUG	eP		23 01 07.0				Local.	
		eL		23 01 35.0					
	15	PCU	eP		02 06 09.1			140	Local.
			ePg		02 06 14.1				
			eL		02 06 26.4				
		DUG	eP		07 39 04.5			1692	Gulf of California 25.2 N, 108.9 W 07 35 22.1 h = 33 km Mag. 4.2.
			eL		12 31 16.5			122	Local.
PCU		eP		12 31 22.4					
		ePg		12 31 31.0					
		eL		20 33 27.5			134	Local.	
DUG		eP		20 33 44.0					
		eL							

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Remarks	
1969 Mar 16	PCU	eP		09 27 18.3			15	Probable rockburst Castle Gate, Utah area.	
		eS		09 27 22.5					
		eR		09 27 23.3					
	DUG	eP		09 27 44.0			140	Local.	
	DUG	eP		14 39 17.0					
		eL		14 39 35.0					
	DUG	eP*		21 28 22.7	0.6	10.3		Bingham blast.	
	17	DUG	eP		02 18 39.0			245	Local.
			eL		02 19 13.0				
		DUG	eP		03 09 04.0			777	4.5 Southern California 34.2 N, 117.4 W 03 06 51.7 h = 4 km Mag. 4.5.
		eL		18 43 02.8			45	Felt at San Bernardino. *Northeast of Price, Utah 39.69 N, 110.45 W 18 42 58.1 h = 0 km Mag. 2.1. (4 sta).	
PCU		eP		18 43 05.4					
		eL		18 43 18.8					
DUG		eP		18 43 31.0	0.5	0.9	212	*2.1	
		eL		18 44 05.5					
CCU		eP		18 43 45.5			45	South of Sunnyside, Utah.	
PCU		eP		22 29 57.8					
18	DUG	ePg		22 30 02.3			267	Local.	
		eL		22 30 08.8					
	DUG	ePn		22 51 36.0	0.5	1.8			
		ePg		22 51 40.0					
		eL		22 52 11.0			312		
	CCU	ePg		22 51 43.9					
		eL		22 52 18.5					
	DUG	eP		00 04 43.0			991	4.2 Gulf of California 31.2 N, 114.0 W 00 01 50.8 h = 33 km Mag. 4.2.	
	PCU	eP		05 26 33.5			134	Local.	
		ePg		05 26 39.8					
	eL		05 26 49.8						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Mar 18 (con't)	DUG	ePn		14 41 02.5	0.5	0.9	434	4.4	Southern Nevada 37.2 N, 116.0 W 14 40 02.7 h = 33 km Mag. 4.4.	
		ePg		14 41 15.5						
		eL		14 42 06.0						
	SLC	ePn		14 41 16.8				567		
		ePg		14 41 37.9						
		eL		14 42 41.8						
	PCU	eP		14 41 17.9				545		
		ePg		14 41 35.7						
		eL		14 42 38.4				145		Local.
	DUG	eP		16 56 42.0						
		eL		16 56 59.5				345		Local.
		ePg		17 33 37.5						
DUG	eL		17 34 16.7				212		Local.	
	eP		23 11 48.0	0.5	1.8					
	eL		23 12 16.5							
19	PCU	eP		00 08 55.5			45		South of Sunnyside, Utah.	
		ePg		00 08 57.9						
		eL		00 09 07.3						
	PCU	eP		08 40 35.4				45		South of Sunnyside, Utah.
		ePg		08 40 39.4						
		eL		08 40 47.0						
	CCU	eP		09 52 21.7				29		*Northwest of Cedar City, Utah 37.71 N, 113.22 W 09 52 15.9 h = 30 km
		ePn		09 52 53.0	0.5	4.5		295	*2.8	Mag. 2.8. (7 sta).
		ePg		09 52 58.0						
	PCU	eL		09 53 33.0				300		
		ePg		09 52 58.5						
		eL		09 53 32.6						
DUG	eP		11 21 25.0				600	4.0	California-Nevada Border Region 38.7 N, 119.5 W 11 19 23.5 h = 33 km	
	eL		11 21 15.0						Mag. 4.0.	
	eP		12 36 34.9				45		South of Sunnyside, Utah.	
PCU	eL		12 36 46.7							

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Mar 19 (con't)	DUG	eP		17 24 11.0			312		Local.	
		eL		17 24 53.0						
	DUG	ePn		08 18 33.2	0.8	2.6	1035	4.3	Gulf of California 31.4 N, 114.0 W 08 16 23.0 h = 33 km Mag. 4.3.	
		ePg		08 20 33.0						
		eL		08 22 43.0						
	DUG	eP		09 29 19.5			979	4.2	Gulf of California 31.4 N, 114.1 W 09 27 02.8 h = 6 km Mag. 4.2.	
		ePn		18 13 05.3	0.7	3.2	445	*4.6	Nevada Test Site "Barsac" 37.11 N, 116.04 W 18 12 00.0 h = 0 km Mag. 4.6 (U. of U.).	
		ePg		18 13 15.0						
	SLC	eL		18 14 08.5			156			Local.
		eP		20 59 56.6						
		ePg		20 59 59.7						
	DUG	eL		21 00 17.8			300			
eP			21 00 09.3	0.4	1.1					
eL			21 00 50.5							
DUG	eP*		22 00 22.7	0.6	10.3				Bingham blast.	
	eP		22 16 38.5	0.5	1.8	356			Local.	
	eL		22 17 28.0							
DUG	ePn		22 59 30.5			423			Local.	
	eL		23 00 31.0							
	eP		03 09 51.5			1000	4.9		Gulf of California 31.3 N, 114.7 W 03 07 31.9 h = 33 km Mag. 4.9.	
DUG	eP		06 36 43.0			1031	5.5		Gulf of California 31.1 N, 114.5 W 06 34 22.2 h = 4 km Mag. 5.5.	
	eP		07 23 18.0			991	5.1		Gulf of California 31.2 N, 114.2 W 07 21 11.6 h = 33 km Mag. 5.1.	
	eP		07 56 17.0			1024	4.8		Gulf of California 31.0 N, 114.4 W 07 54 11.5 h = 13 km Mag. 4.8.	
DUG	eP		09 38 23.5			1013	4.7		Gulf of California 31.1 N, 114.0 W 09 36 04.1 h = 33 km Mag. 4.7.	
	eP		11 00 48.0			991	4.5		Gulf of California 31.3 N, 114.0 W 10 58 08.1 h = 33 km Mag. 4.5.	
	eL									

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Mar 21 (con't)	DUG	eP		13 12 40.0			979	4.1	Gulf of California 31.5 N, 114.0 W 13 10 10.9 h = 33 km Mag. 4.1.	
	DUG	eP		14 18 25.0			1000	4.5	Gulf of California 31.2 N, 114.1 W 14 16 06.1 h = 33 km Mag. 4.5.	
	DUG	ePn		14 31 02.7			445	*5.1	Nevada Test Site "Coffer" 37.20 N, 116.10 W 14 30 00.00 h = 0 km Mag. 5.1 (U. of U.).	
	PCU		ePn		14 31 16.7			512		
			ePg		14 31 29.3					
	SLC		eL		14 32 32.0			556		
			ePn		14 31 17.2					
			ePg		14 31 33.2					
	DUG		eL		14 32 40.5					
			eP		15 04 31.0					
			eP		16 00 00.0			1013	4.6	Gulf of California 31.1 N, 114.2 W 15 02 13.6 h = 18 km Mag. 4.6.
			eP		16 31 54.0			1000	5.1	Gulf of California 31.2 N, 114.2 W 15 57 42.0 h = 2 km Mag. 5.1.
			eP		16 31 54.0			924	4.7	Gulf of California 31.3 N, 114.1 W 16 29 40.4 h = 33 km Mag. 4.7.
			eP		17 58 04.5			991	4.7	Gulf of California 31.3 N, 114.0 W 17 55 47.2 h = 33 km Mag. 4.7.
			eP		19 54 49.5	0.4	2.1	212		Local.
			eL		19 55 19.0					
			eP		20 14 05.5			1024	4.3	Gulf of California 31.0 N, 113.9 W 20 11 51.0 h = 33 km Mag. 4.3.
		eP		20 39 05.0			1000	4.2	Gulf of California 31.2 N, 114.1 W 20 36 50.3 h = 33 km Mag. 4.2.	
DUG		eP		20 39 05.0			991	4.2	Gulf of California 31.3 N, 114.0 W 21 05 38.1 h = 33 km Mag. 4.2.	
		eP		21 07 55.0			991	4.6	Gulf of California 31.3 N, 114.1 W 23 03 25.1 h = 33 km Mag. 4.6.	
		eP		23 05 36.0						
		eP		23 05 36.0						
22	PCU	ePg		01 18 29.2			345		Local.	
		eL		01 19 08.4						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Mar 22 (con't)	DUG	eP		01 44 40.5	0.4	1.1	345		Local.	
		eL		01 45 30.0						
	DUG	eP		02 21 06.5			991	4.0	Gulf of California 31.4 N, 114.0 W 02 18 53.8 h = 33 km Mag. 4.0.	
	DUG	eP		07 27 42.8			991	5.1	Gulf of California 31.5 N, 114.1 W 07 25 35.6 h = 33 km Mag. 5.1.	
	DUG	eP		09 42 45.0			1000	3.9	Gulf of California 31.2 N, 114.0 W 09 40 17.7 h = 33 km Mag. 3.9.	
	DUG	eP		11 22 46.0			979	4.1	Gulf of California 31.4 N, 114.1 W 11 20 29.2 h = 33 km Mag. 4.1.	
	PCU	eP		17 43 22.9			45		South of Sunnyside, Utah.	
		ePg		17 43 27.1						
		eL		17 43 34.9						
	DUG	eP		18 25 16.0			979	4.8	Gulf of California 31.5 N, 114.2 W 18 23 02.1 h = 18 km Mag. 4.8.	
	DUG	eP		22 58 49.0			1000	4.8	Gulf of California 31.2 N, 114.0 W 22 56 34.7 h = 33 km Mag. 4.8.	
	23	DUG	eP		07 11 55.7			1000	4.3	Gulf of California 31.2 N, 114.0 W 07 09 48.4 h = 33 km Mag. 4.3.
		DUG	eP		11 14 52.0			991	4.2	Gulf of California 31.4 N, 114.1 W 11 12 42.0 h = 33 km Mag. 4.2.
		DUG	eP		15 41 14.0			968	4.7	Gulf of California 31.5 N, 114.1 W 15 39 01.1 h = 16 km Mag. 4.7.
DUG		eP		21 55 43.0	0.5	0.9	134		Local.	
		eL		21 55 59.0						
DUG		ePn		23 05 10.5	0.5	1.8	234		Probable McGill, Nevada blast.	
		ePg		23 05 14.5						
		eL		23 05 43.5						
CCU			eP		23 05 15.2			256		
			ePg		23 05 20.1					
	eL		23 05 48.7							

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Mar 24	CCU	eP		04 56 43.2			278		Local.	
		ePg		04 56 50.7						
	DUG	eL		04 57 19.7						
		eP		09 04 46.0			1000	4.9	Gulf of California 31.3 N, 114.2 W 09 02 32.1 h = 25 km Mag. 4.9.	
	CCU	ePg		12 52 02.5			145		Local.	
		eL		12 52 21.2						
	DUG	eP		16 39 40.5			979	4.4	Gulf of California 31.4 N, 113.9 W 16 37 28.2 h = 33 km Mag. 4.4.	
		eP		20 43 06.3			167		Local.	
	25	DUG	eL		20 43 29.3					
			eP		01 00 15.7	0.5	1.8	245		Local.
PCU	eP		01 00 51.0							
	eP		01 15 23.7			45		South of Sunnyside, Utah.		
DUG	ePg		01 15 27.8							
	eL		01 15 34.7							
PCU	eP		14 06 47.7			968	4.4	Gulf of California 31.6 N, 114.0 W 14 04 41.6 h = 33 km Mag. 4.4.		
	eP		15 53 41.1			45		South of Sunnyside, Utah.		
DUG	ePg		15 53 44.8							
	eL		15 53 52.1							
DUG	eP		17 05 20.0	0.4	1.1	78		Local.		
	eL		17 05 28.0							
DUG	ePn		19 46 06.0	0.5	2.7	195		Local.		
	ePg		19 46 08.5							
PCU	eL		19 46 33.0							
	eP		21 23 30.1			312		Local.		
DUG	eL		21 24 12.8							
	eP		21 49 47.5	0.4	1.1	85		Local.		
DUG	eL		21 49 56.0							
	eP		21 55 17.5	0.7	3.2	350		Local.		
		eL		21 56 06.5						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Mar 25 (con't)	PCU	ePn		22 59 13.0			334		Local.
		ePg		22 59 32.1					
		eL		22 59 59.1					
26	PCU	ePg		01 30 45.3			323		Local.
		eL		01 31 22.3					
	DUG	eP		01 31 15.5					
27	DUG	eP		12 57 19.0			979	4.3	Gulf of California 31.4 N, 113.9 W 12 55 17.8 h = 33 km Mag. 4.3.
		eP		13 18 45.5			134		Local.
		ePg		13 18 51.5					
28	DUG	eL		13 18 59.3					
		eP		19 33 20.0	0.5	1.8	212		Local.
		eL		19 33 48.5					
29	DUG	eP		20 53 12.0			1447	4.9	Baja, California 27.1 N, 112.1 W 20 50 02.9 h = 33 km Mag. 4.9.
		eP		10 55 15.4			45		*Northwest of Randolph, Utah 41.73 N, 111.20 W
		eL		10 55 20.2					10 55 05.9 h = 30 km Mag. 2.0. (4 sta).
30	DUG	eP		10 55 36.0			280	*2.0	
		eL		10 56 16.0			323		
		eP		10 55 40.8					
31	PCU	eL		10 56 24.4					
		eP		10 56 40.8					
		eL		10 56 24.4					
32	PCU	eP		16 08 23.9			312		Local.
		eL		16 09 07.0					
		ePn		18 50 21.5	0.5	2.7	223		Local.
33	DUG	ePg		18 50 23.5					
		eL		18 50 50.0					
		ePg		18 50 26.2					
34	PCU	eL		18 51 02.9					
		eP		20 41 00.5					
		ePg		20 41 10.9					
35	PCU	eL		20 41 27.2			189		Local.
		eP		04 55 23.0	0.7	1.6	757	4.0	Northern California 40.9 N, 121.7 W
		eL		04 57 06.0					04 53 37.0 h = 14 km Mag. 4.0.

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Mar 28 (con't)	PCU	eP		10 06 21.0			45		Probable rockburst near Sunnyside, Utah.	
		ePg		10 06 26.1						
		eR		10 06 36.7						
	DUG	eP		10 06 52.5				746	4.5	Northern California 41.0 N, 121.5 W 18 12 56.6 h = 3 km Mag. 4.5.
		eP		18 14 37.7				1057	4.1	
	DUG	eP		18 28 26.5						
	DUG	eP		21 09 42.5	0.5	2.7	189			Local.
		eL		21 10 08.5						
	DUG	eP		22 04 29.0	0.4	3.2	85			Local.
		eL		22 04 37.5						
DUG	eP		23 18 01.8			200			Local.	
	eL		23 18 30.0							
DUG	eP		23 28 09.5	0.4	3.2	212			Probable McGill, Nevada blast.	
	eL		23 28 36.0							
PCU	eP		23 28 10.3							
	eP		23 28 14.5							
29	PCU	eP		03 24 06.0			140		Local.	
		ePg		03 24 11.5						
		eL		03 24 23.8						
	DUG	eP		03 55 20.0			991	4.1		Gulf of California 31.4 N, 113.9 W 03 52 52.2 h = 33 km Mag. 4.1.
		eP		18 29 01.2			145			
	DUG	eP		18 29 19.0						Local.
		eL		19 41 50.2	0.4	2.1	49			
	DUG	eP		19 42 06.5						Local.
		eL								
	DUG	eP		08 12 41.5			289			Local.
eL			08 13 20.5							
DUG	eP		14 47 26.0	0.5	0.9	323			Local.	
	eL		14 48 11.0							
DUG	eP		19 52 11.5	0.4	1.1	122			Local.	
	eL		19 52 25.0							

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Apr 1	SLC	ePn		16 47 02.0			800		Montana 47.9 N, 114.3 W 16 45 09.1 h = 10 km Mag. 4.3 Minor Damage in Procter. Felt in Northwestern Montana.	
		ePg		16 47 17.9						
		eL		16 49 07.0						
	DUG	ePn		16 47 04.3	0.5	5.3	868	4.3		Local.
		ePg		16 47 29.0						
	DUG	eL		16 49 23.0						Local.
		ePn		17 38 34.5	0.7	2.4	250			
	SLC	eL		17 39 07.0						Salt Lake City, Utah area.
		ePg		18 45 10.6						
	DUG	eL		18 45 13.0						Bingham blast. Near Cedar City, Utah.
eP*			21 30 06.4	0.5	18.7	111				
CCU	eP		23 14 30.7						Southern Utah.	
	ePg		23 14 39.2							
PCU	eL		23 14 43.5						Local.	
	ePn		23 44 41.5							
DUG	ePg		23 44 57.1						Local.	
	eL		23 45 04.9							
PCU	ePg		02 10 01.3			200			Local.	
	eL		02 10 29.0							
DUG	ePg		02 10 06.5						Local.	
	eL		02 10 41.0							
DUG	ePg		12 30 02.0	0.4	2.1	378			Local.	
	eL		12 30 44.5							
PCU	eP		17 34 26.5						South of Sunnyside, Utah.	
	ePg		17 34 44.3							
DUG	eL		17 34 47.2						Local.	
	eP									
PCU	eP		05 50 25.3			45			South of Sunnyside, Utah.	
	ePg		05 50 31.2							
DUG	eL		05 50 36.9						Local.	
	eP		10 58 04.7			957	4.6			
PCU	eP		15 19 07.2			210			Local.	
	eL		15 19 36.5							
PCU	eP		21 09 15.1			178			Southern Utah.	
	ePg		21 09 27.3							
		eL	21 09 40.7							

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Apr 4	LOG	eP	02 11 57.5			67		*North of Manila, Utah 41.16 N, 110.11 W
		eL	02 12 04.7					02 11 35.7 h = 20 km Mag. 2.7. (5 sta).
	PCU	eP	02 12 01.5			212		
		eL	02 12 30.9					
	DUG	eP	02 12 02.5	0.5	0.9	312	*2.7	
		eL	02 12 39.0					
	SIC	eP	02 12 10.2					Gulf of California 24.4 N, 109.8 W
	DUG	eP	16 20 03.7			1781	5.6	16 16 17.2 h = 31 km Mag. 5-5½ (BRK) 5.6 (CGS).
						45		South of Sunnyside, Utah.
	PCU	eP	19 44 35.2					
	ePg	19 44 38.0						
	eL	19 44 46.9						
PCU	ePg	21 39 13.8			170		Southern Utah.	
	eL	21 39 47.6						
DUG	eP*	22 12 02.8	0.6	13.4				Bingham blast.
5	DUG	eP	06 01 06.5			1804	4.5	Gulf of California 24.2 N, 109.8 W
		e(P)	10 57 17.4			267		05 57 18.1 h = 32 km Mag. 4.5.
	DUG	ePn	10 57 24.5	0.7	2.4	345		Eastern Idaho 43.1 N, 111.3 W 10 56 35.4 h = 33 km.
		ePg	10 57 35.5					
		eL	10 58 16.5					
	PCU	ePn	10 57 33.0			412		
		ePg	10 57 37.3					
		eL	10 58 32.3					
	PCU	eP	11 04 10.3			134		Southern Utah.
		ePg	11 04 17.0					
		eL	11 04 26.2					
	DUG	eP	13 20 03.0	0.4	1.1	134		Local.
		eL	13 20 20.5					
	PCU	eP	13 58 03.3			140		Local.
		eL	13 58 22.1					
DUG	eP	13 58 05.7	0.4	1.1	156			
	eL	13 58 26.5						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Apr 6	PCU	eP	00 10 00.7			45		South of Sunnyside, Utah.
		ePg	00 10 05.2					
		eL	00 10 11.5					
	PCU	eP	00 29 26.5			45		South of Sunnyside, Utah.
		ePg	00 29 31.5					
		eL	00 29 37.5					
	PCU	eP	07 30 01.9			45		South of Sunnyside, Utah.
		ePg	07 30 06.6					
		eL	07 30 12.9					
	DUG	eP	14 14 02.5			1090	4.3	Off Coast of Northern California 40.4 N, 125.6 W 14 11 40.3 h = 33 km Mag. 4.0 (BRK), 4.3 (CGS).
8	DUG	ePn	19 47 16.0			523		Hebgen Lake Region 44.7 N, 111.1 W 19 46 04.2 h = 33 km.
	PCU	eP	03 20 35.9			120		Local.
		ePg	03 20 42.7					
		eL	03 20 49.5					
	DUG	ePn	19 40 00.7	0.7	1.6	1369	4.8	Off Coast of Oregon 44.1 N, 128.6 W 19 37 21.8 h = 33 km Mag. 4.8.
		e	19 40 34.0					
	PCU	eP	19 40 07.9			195		Local.
	DUG	ePn	23 10 44.0	0.5	1.8			
		ePg	23 10 47.2					
9		eL	23 11 11.0					
	DUG	ePn	00 36 30.2	0.5	0.9	378		Local.
		ePg	00 36 40.8					
		eL	00 37 21.7					
	DUG	eP	00 55 52.0	0.5	0.9	334		Local.
		eL	00 56 38.0					
	PCU	eP	06 41 59.9			111		Local.
		ePg	06 42 03.7					
		eL	06 42 13.3					
	DUG	eP	10 03 12.0	0.5	0.9	145		Local.
	eL	10 03 42.5						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Apr 9 (con't)	PCU	eP	16 59 33.9			134		Local.
		ePg	16 59 39.1					
		eL	16 59 50.1					
	DUG	ePn	21 18 06.2	0.5	1.8	340		Local.
		ePg	21 18 10.0					
		eL	21 18 53.0					
	SIC	eP	22 52 07.4			167		*Northeastern Idaho 43.84 N, 111.41 W 22 51 19.3 h = 40 km Mag. 3.0. (4 sta).
		ePg	22 52 11.3					
		eL	22 52 30.3					
	DUG	ePn	22 52 14.8	0.5	3.6	289	*3.0	
		ePg	22 52 22.5					
		eL	22 52 53.5					
Apr 10	SIC	ePn	00 09 17.0			278		Southern Wyoming Mag. 3.0 (U. of U.).
		ePg	00 09 22.0					
		eL	00 09 54.2					
	DUG	ePn	00 09 26.8	0.6	2.4	378	*3.0	
		ePg	00 09 38.0			478		
		eL	00 10 19.0					
	PCU	ePg	00 09 33.0					Local.
		eL	00 10 29.4					
		eP	01 23 08.5			378		
	PCU	eL	01 23 50.5			45		Probable rockburst near Sunnyside, Utah.
		eP	01 30 45.7					
		ePg	01 30 51.3					
DUG	eR	01 31 00.8					South of Sunnyside, Utah.	
	eP	01 31 17.2			45			
	eP	03 27 23.9						
PCU	ePg	03 27 29.8					Local.	
	eL	03 27 35.1			300			
	ePg	04 20 09.5						
DUG	eL	04 20 43.0			135		Local.	
	eP	04 49 35.3						
	ePg	04 49 45.6						
PCU	eL	04 49 52.7						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Apr 10 (con't)	SIC	ePg	06 44 19.4			312		Southern Nevada Mag. 4.0 (U. of U.).
		eL	06 44 54.7					
		eP	06 44 21.0			440	*3.0	
	DUG	eL	06 45 19.0			445		
		ePg	06 44 36.8					
		eL	06 45 28.1					
	PCU	eP	08 15 09.3			33		Near Price, Utah.
		eL	08 15 13.2					
		eP	08 37 29.1			78		
	CCU	ePg	08 37 32.2					*Near Elsinore, Utah 38.66 N, 112.12 W 08 37 08.2 h = 20 km Mag. 3.7 (6 sta).
		eL	08 37 37.1					
		eP	08 37 30.4			135		
DUG	ePg	08 37 34.0						
	eL	08 37 48.2						
	ePn	08 37 33.7	0.8	25.5	178	*3.7		
SIC	ePg	08 37 35.7						
	eL	08 37 58.0			245			
	eP	08 37 43.7						
LOG	ePg	08 37 54.7						
	eL	08 38 15.2			287			
	ePn	08 37 56.8						
PCU	ePg	08 38 01.6					South of Sunnyside, Utah.	
	eL	08 38 36.3						
	eP	11 28 51.3			45			
SIC	ePg	11 28 58.7					Near Salt Lake City, Utah.	
	eL	11 29 08.4			80			
	eP	20 44 03.6						
PCU	ePg	20 44 08.9					South of Sunnyside, Utah.	
	eL	20 44 14.6			45			
	eP	00 06 19.9						
PCU	ePg	00 06 26.6						
	eL	00 06 31.2						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Apr 12 (con't)	PCU	eP		00 07 55.9			160		South of Moab, Utah Mag. 2.3 (U. of U.).
		ePg		00 08 02.3					
	SLC	eL		00 08 16.9			234		
		eP		00 08 03.6					
		ePg		00 08 22.5					
		eL		00 08 34.6					
	DUG	ePn		00 08 08.0			390 *2.3		
		eL		00 09 02.5					
	PCU	eP		03 08 15.9			122		Local.
		ePg		03 08 22.3					
	DUG	eL		03 08 30.9					
		ePg		10 52 52.3	0.5	1.8	478 *2.7		Southern Nevada Mag. 2.7 (U. of U.).
		eL		10 53 47.5					
		eP		16 33 05.8					
SLC	ePg		16 33 13.1			122		Local.	
	eL		16 33 21.1						
DUG	ePn		16 33 12.5	0.5	4.5	140			
	ePg		16 33 16.0						
	eL		16 33 30.5						
	ePn		07 47 33.0			487		Southern Nevada.	
13	DUG	eL	07 48 43.5						
		ePn	19 40 10.6			272		Local.	
14	DUG	ePg	19 40 12.8	0.5	3.6				
		eL	19 40 46.0						
	CCU	ePn	19 40 17.7			300			
		e	19 40 26.3						
	DUG	ePg	19 40 48.0						
		eL	19 40 57.5						
	DUG	eP*	22 00 52.7	0.5	15.1				Bingham blast.
		ePn	22 57 35.7	0.5	1.8	223			Probable McGill, Nevada blast.
	DUG	ePg	22 57 41.6						
		eL	22 58 04.0						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Apr 14	DUG	eP		19 12 53.3	0.5	2.7	160		Local.
		eL		19 13 15.0					
	DUG	eP*		22 03 24.1	0.6	11.9			Bingham blast.
		ePg		23 11 34.5	0.4	3.2	134		Local.
	15	DUG	eL	23 11 50.3					
			ePn	10 31 16.2			334		Local.
		DUG	ePg	10 31 24.8					
			eL	10 32 03.3					
	DUG	ePn	10 31 24.0	0.5	2.7	356			
		ePg	10 31 30.5						
	PCU	eL	10 32 14.5						
		eP	14 18 18.0			45			South of Sunnyside, Utah.
	DUG	ePg	14 18 22.1						
		eL	14 18 28.8						
DUG	eP*	21 52 28.8	0.5	13.4				Bingham blast.	
	ePn	23 03 06.5	0.5	2.7	245			Local.	
16	DUG	ePg	23 03 11.0						
		eL	23 03 38.0						
	DUG	eP	00 05 30.2	0.5	16.0	135			Local.
		eL	00 05 46.5						
	PCU	eP	00 05 31.1			215			
		eL	00 06 00.7						
	PCU	eP	02 28 18.8			45			South of Sunnyside, Utah.
		ePg	02 28 21.4						
	SLC	eL	02 28 30.0						
		eP	18 23 56.1			160			Southern Wyoming Mag. 2.5 (U. of U.).
	DUG	eL	18 24 17.6						
		ePn	18 24 11.7	0.5	2.7	312 *2.5			
	PCU	ePg	18 24 16.0						
		eL	18 24 53.5						
DUG	ePn	19 38 12.8			223			Local.	
	eL	19 38 44.1							
DUG	ePn	19 38 14.3	0.5	1.8	245				
	ePg	19 38 19.2							
		eL	19 38 46.5						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Apr 16 (con't)	PCU	ePn		20 24 04.7			178		*Northwest of Woodside, Utah 39.28 N, 110.49 W 20 23 57.0 h = 10 km Mag. 3.3 (4 sta).	
		ePg		20 24 08.1						
	eL		20 24 28.1							
	DUG	ePn		20 24 30.2	0.5	2.7	295	*3.3		
		ePg		20 24 39.0						
	eL		20 25 10.0							
	DUG	eP*		22 20 03.3	0.6	18.2				Bingham blast.
	DUG	ePn		22 58 27.0	0.5	0.9	295			Local.
	ePg		22 58 38.0							
	eL		22 59 07.0							
DUG	ePn		23 27 31.0	0.5	0.9	385		Local.		
ePg		23 27 42.0								
eL		23 28 25.0								
17	PCU	eP		07 19 08.1			45		Near Price, Utah.	
		ePg		07 19 13.1						
	eL		07 19 24.2							
	ePg		11 13 37.1			156		Cedar City, Utah area.		
	eL		11 13 58.1			134		Local.		
	eP		17 43 26.3							
	eL		17 43 43.6							
	ePg		17 43 34.0	0.4	2.1	145				
	eL		17 43 52.0							
	ePn		22 48 11.0	0.4	1.1	234		Local.		
ePg		22 48 17.0								
eL		22 48 42.0								
18	DUG	eP		09 40 46.7			167		Local.	
	eL		09 41 09.4							
	DUG	eP		17 47 41.0			1792	5.0	Gulf of California 24.3 N, 109.7 W 17 43 53.7 h = 33 km Mag. 5.0 Minor damage at La Paz, Mexico.	
DUG	eP*		18 57 37.8	0.5	10.7			Bingham blast.		
SIC	ePg		19 18 54.4			83		Local.		
eL		19 19 03.5								

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Apr 19	PCU	ePn		01 02 18.0			45		South of Sunnyside, Utah.	
		ePg		15 48 01.0						
	eL		15 48 05.3							
	SIC	ePn		15 48 12.1			111			Local.
		ePg		16 20 36.7						
	DUG	ePn		16 20 49.9			122			Local.
	ePg		16 20 38.5	0.4	1.1					
	eL		16 20 53.0							
	PCU	ePn		01 18 22.9			140			Southern Utah.
		ePg		01 18 28.7						
DUG	eL		01 18 38.2			278		Local.		
DUG	eP		03 27 47.5	0.5	0.9			Local.		
DUG	eL		03 28 25.0							
DUG	eP		03 28 11.2			134		Local.		
DUG	eP		03 37 05.2	0.5	2.7			Local.		
eL		03 37 20.0				234		Local.		
DUG	eP		20 30 57.0							
DUG	eL		20 31 28.0			456		Local.		
DUG	eP		21 32 04.5							
DUG	eL		21 33 17.0			100		Local.		
DUG	ePn		02 40 15.0							
PCU	ePg		02 40 20.4	0.5	13.4			Southern Utah.		
ePg		02 40 25.3								
DUG	eL		02 40 31.2			45		South of Sunnyside, Utah.		
PCU	eP		07 10 08.1							
ePg		07 10 14.6								
eL		07 10 19.1								
PCU	eP		23 07 53.8			111		Local.		
eL		23 08 05.5								
DUG	ePg		23 07 55.0	0.5	2.7	278		Local.		
eL		23 08 27.0								
(con't) Apr 22	PCU	ePn		10 30 01.1			15		Probable rockburst, Castle Gate area, Utah.	
		ePg		00 41 58.7						
	eL		00 42 01.1							
DUG	eP		00 42 05.2							
DUG	eP		00 42 14.8							

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Apr 22 (con't)	CCU	eP	10 28 54.9			89		Near Cedar City, Utah.
		ePg	10 29 01.2					
		eL	10 29 05.6					
	DUG	ePn	13 25 03.3			456	3.6	Western Idaho 44.2 N, 114.6 W 13 24 02.6 h = 33 km Mag. 3.6.
		ePg	13 25 16.0	0.5	5.3			
		eL	13 26 15.0			504		
	SLC	eP	13 25 10.2					
		ePg	13 25 44.2					
		eL	13 26 08.2			578		
	PCU	ePg	13 25 32.3					
	eL	13 26 40.7						
	eP*	22 04 37.2	0.6	10.3				Bingham blast.
DUG	ePg	22 12 14.0	0.5	13.4				Bingham blast.
DUG	eP	22 57 26.2			100			Local.
	eL	22 57 53.5			200			Local.
DUG	eP	23 39 00.7			200			Local.
	eL	23 39 27.0						Local.
	eP	01 09 34.0			356			Local.
23	PCU	eL	01 10 14.2					Local.
	eP	01 41 35.0			200			Local.
	eL	01 42 01.0						Local.
	eP	02 00 11.0			156			Local.
	eL	02 00 29.5						Local.
	eP	05 06 43.2			156			Local.
	ePg	05 07 01.5						Local.
	eL	05 07 04.0			100			Local.
	eP	05 41 41.6						Local.
	ePg	05 41 45.8						Local.
	eL	05 41 53.8						Local.
	eP	06 46 23.4			75			Near Price, Utah.
	eL	06 46 32.7						Southern Utah.
	eP	07 05 13.4			111			Local.
	ePg	07 05 18.7						Local.
	eL	07 05 27.5						Local.
	eP	22 23 42.8			340			Local.

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Apr 24	PCU	eP	02 01 50.2			256		Local.
		eL	02 02 26.2					Local.
	PCU	eP	07 36 43.9			45		South of Sunnyside, Utah.
		ePg	07 36 48.1					Local.
		eL	07 36 55.1					Local.
	DUG	ePn	13 05 05.5	0.5	6.2	429	*4.3	Southern Nevada Mag. 4.3 (U. of U.).
		ePg	13 05 16.0					Local.
		eL	13 06 06.5			623		Local.
	PCU	ePn	13 05 16.7					Local.
		ePg	13 05 21.4					Local.
	eL	13 06 33.0					Local.	
SLC	ePg	13 05 38.3			435		Local.	
	eL	13 06 41.3					Local.	
	eP	01 48 48.4			45			Near Cedar City, Utah.
25	CCU	ePg	01 48 49.4					Local.
	eL	01 48 52.9						Local.
DUG	eP	19 47 58.5	0.5	3.6	200			Local.
	eL	19 47 25.0						Local.
DUG	ePn	23 29 07.0	0.6	2.4	234			Central Utah.
	ePg	23 29 14.5						Local.
	eL	23 29 38.0						Local.
	eP	23 29 35.3						Local.
PCU	ePg	23 29 51.6			334			Local.
	eL	23 30 13.4						Local.
	eP	07 10 30.7			111			Southern Utah.
26	PCU	eL	07 10 44.0					Local.
	eP	07 10 33.7	0.4	1.1	156			Local.
	eL	07 10 53.0						Local.

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks				
1969 Apr 26 (con't)	LOG	ePn	10 42 43.1	0.6	63.2	323	4.9	Western Idaho 44.2 N, 114.5 W, 10 41 53.0 h = 13 km Mag. 4.9 Felt at Boise, Idaho Mag. 4 3/4 (BRK).				
		eP*	10 42 44.7									
	ePg	10 42 49.2										
	eL	10 43 27.7										
	ePn	10 42 53.4										
	eP*	10 42 56.4										
	ePg	10 43 03.4										
	eL	10 43 50.9										
	ePn	10 42 55.7										
	ePg	10 43 03.5										
	eL	10 44 01.5										
	ePn	10 43 14.4										
	ePg	10 43 27.3										
	eL	10 44 38.2										
LOG	ePn	10 43 30.8	0.4	1.1	134	Local.	Western Idaho.					
	ePg	10 43 36.6										
eL	10 45 09.8											
ePn	10 53 05.1											
ePg	10 53 09.5											
eL	10 53 46.0											
ePn	10 53 23.4											
ePg	10 53 27.9											
eL	10 54 10.4											
ePn	10 53 25.8											
ePg	10 53 37.0											
eL	10 54 22.0											
eP	16 24 14.5											
eL	16 24 31.0											
LOG	eP	18 10 08.0	0.5	0.9	140	Local.	Hebgen Lake Region 44.7 N, 111.1 W 08 18 57.5 h = 33 km. Hebgen Lake Region 44.7 N, 111.3 W 10 50 14.1 h = 33 km. South of Sunnyside, Utah.					
	ePg	18 10 20.0										
eL	18 10 51.0											
DUG	eP	02 49 51.5						0.5	1.8	512	3.7	Western Idaho 44.2 N, 114.6 W 21 31 31.8 h = 33 km Mag. 3.7.
	ePg	02 49 57.5										
eL	02 50 09.8											
eP	08 20 06.0											
eL	08 20 21.0											
eP	10 51 00.6											
e	10 51 12.3											
eP	10 51 23.5											
eL	10 52 37.8											
eP	11 04 06.6											
ePg	11 04 11.5											
eL	11 04 17.0											
ePg	21 32 23.7											
eL	21 33 03.5											
ePn	21 32 33.3											
ePg	21 32 44.0											
eL	21 33 43.5											
eP	22 07 08.2											
eL	22 07 40.0											
ePg	22 27 15.0											
e	22 27 27.8											
eL	22 27 47.0											
eP	22 27 23.9											
ePg	22 27 27.4											
eL	22 28 26.3											
ePn	22 27 25.0											
ePg	22 27 40.0											
eL	22 28 31.0											
eP	23 18 55.0											
eL	23 19 52.0											
1969 Apr 27	PCU	eP	12 27 58.9	0.5	0.9	100	Local.	Southern Utah.				
		ePg	12 28 04.0									
	eL	12 28 11.5										
	eP	18 37 14.5										
DUG	eL	18 37 43.0										

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Apr 27	PCU	eP	02 49 51.5	0.4	1.1	467	3.7	Western Idaho 44.2 N, 114.6 W 21 31 31.8 h = 33 km Mag. 3.7.
		ePg	02 49 57.5					
	eL	02 50 09.8						
	eP	08 20 06.0						
	eL	08 20 21.0						
	eP	10 51 00.6						
	e	10 51 12.3						
	eP	10 51 23.5						
	eL	10 52 37.8						
	eP	11 04 06.6						
	ePg	11 04 11.5						
	eL	11 04 17.0						
	ePg	21 32 23.7						
	eL	21 33 03.5						
DUG	ePn	21 32 33.3	0.5	1.8	289	Local.	Southern Utah.	
	ePg	21 32 44.0						
eL	21 33 43.5							
eP	22 07 08.2							
eL	22 07 40.0							
ePg	22 27 15.0							
e	22 27 27.8							
eL	22 27 47.0							
eP	22 27 23.9							
ePg	22 27 27.4							
eL	22 28 26.3							
ePn	22 27 25.0							
ePg	22 27 40.0							
eL	22 28 31.0							
eP	23 18 55.0							
eL	23 19 52.0							
1969 Apr 28	PCU	eP	12 27 58.9	0.5	2.7	212	Local.	Southern Utah.
		ePg	12 28 04.0					
	eL	12 28 11.5						
	eP	18 37 14.5						
DUG	eL	18 37 43.0						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Apr 28 (con't)	DUG	eP	21 50 12.7	0.5	2.7	278		Local.
		eL	21 50 48.0					
	DUG	ePn	23 22 30.8	0.5	3.6	818	*6.2	Southern California 33.4 N, 116.4 W 23 20 42.9 h = 20 km Mag. 5.9 (PAS), 6.1 (BRK) 5.7 (CGS), 6.2 (U. of U.). Felt in Southern Nevada and Northern Baja.
		ePg	23 23 00.0					
		eL	23 24 31.0					
	PCU	ePn	23 22 38.1			834		
		ePg	23 23 04.8					
		eL	23 24 42.5					
	SIC	ePn	23 22 47.4			803		
		ePg	23 23 08.4					
	eL	23 24 49.4						
29	DUG	eP	04 54 22.0			775		Southern California aftershock.
		eL	04 56 21.0					
	PCU	eP	21 43 42.8			160		Local.
		ePg	21 43 47.3					
		eL	21 43 55.1					
	PCU	eP	22 36 40.1			100		Local.
		ePg	22 36 47.6					
		eL	22 36 52.1					
	SIC	eP	23 31 11.8			190		Local.
		ePg	23 31 17.7					
30	DUG	ePn	17 01 02.4	0.5	6.2	467	*5.3	Nevada Test Site "Thistle" 37.09 N, 116.01 W 17 00 00.0 h = 0 km Mag. 5.3 (U. of U.) Second event at same time located 37.04 N, 116.00 W "Blenton"-AEC.
		ePg	17 01 11.3					
		eL	17 02 10.0					
	PCU	ePn	17 01 15.6			501		
		ePg	17 01 27.5					
		eL	17 02 28.2					
	SIC	ePn	17 01 17.5			534		
		ePg	17 01 27.9					
		eL	17 02 36.9					
	PCU	eP*	19 25 39.0			267		Local.

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Apr 30 (con't)	PCU	ePg	19 28 22.5			356		Local.
		eL	19 29 02.8					
	DUG	eP	20 36 50.0	0.7	3.2	390		Local.
		eL	20 37 45.0					
	DUG	eP*	21 30 12.7	0.6	15.8			Bingham blast.
	DUG	ePn	23 14 52.3	0.5	0.9	445		Southern Nevada.
		ePg	23 15 06.5					
		eL	23 15 56.5					
	DUG	ePn	03 01 00.0	0.5	1.8	380		Local.
		ePg	03 01 10.0					
May 1	DUG	eL	03 01 52.5					
	DUG	eP	03 12 05.2	0.6	0.8	722	3.9	Montana 46.7 N, 112.8 W 03 10 23.8 h = 33 km Mag. 3.9 Felt Northwestern Montana.
		eL	03 13 59.0					Local.
	PCU	eP	03 22 40.5			111		
		ePg	03 22 47.5					
		eL	03 22 52.3					
	DUG	ePn	05 07 29.0	0.5	1.8	456	3.6	Western Idaho 44.1 N, 114.7 W 05 06 27.9 h = 33 km Mag. 3.6.
		ePg	05 07 40.0					
	DUG	eL	05 08 36.5					
	DUG	eP	20 40 20.0			122		Local.
2	DUG	eL	20 40 34.0					
	DUG	ePn	21 46 15.0	0.7	6.3	278		Local.
		ePg	21 46 16.5					
		eL	21 46 52.0					
	PCU	eP	16 25 48.8			45		South of Sunnyside, Utah.
		ePg	16 25 55.9					
		eL	16 26 00.1					
	DUG	eP*	20 59 20.0	0.6	11.1			Bingham blast.

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 May 4	DUG	ePn	01 42 57.0	0.5	0.9	223		Local.
		ePg	01 43 02.0					
		eL	01 43 26.0					
	PCU	ePg	01 43 03.4			278		
		eL	01 43 34.7					
	PCU	eP	19 46 50.8			45		South of Sunnyside, Utah.
		ePg	19 47 00.2					
		eL	19 47 02.7					
	DUG	ePg	21 25 09.5	0.5	0.9	134		Local.
			21 25 25.5					
5	DUG	ePn	00 24 10.0	0.5	1.8	467		Southern Nevada.
		ePg	00 24 21.5					
		eL	00 25 18.5					
	PCU	ePg	01 25 08.7			178		Local.
		eL	01 25 31.6					
	DUG	eP	01 30 43.2	0.5	0.9	323		Local.
		eL	01 31 20.5					
	LOG	ePn	07 10 01.3			300		Western Idaho 44.0 N, 115.5 W 07 09 10.8 h = 33 km Mag. 4.6 (CGS).
		ePg	07 10 06.2					
		eL	07 10 42.5			412		
	PCU	ePn	07 10 08.9					
		ePg	07 10 21.4					
		eL	07 11 06.9					
	DUG	ePn	07 10 12.4	0.5	12.5	456	4.6	
		ePg	07 10 25.0					
6	CCU	eL	07 11 25.0			600		
		eP	07 11 03.2					
		ePg	07 11 16.3					
		eL	07 12 33.6					
	DUG	ePn	16 03 56.5	0.5	3.6	779	4.8	Southern California 34.3 N, 117.6 W 16 02 08.8 h = 6 km Mag. 4.5 (PAS), 4½ (BRK), 4.8 (CGS).
		ePg	16 04 20.0					
		eL	16 05 56.0					

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 May 6	PCU	eP	03 51 37.9			122		Local.	
		ePg	03 51 44.8						
		eL	03 51 53.2						
	DUG	eP	07 05 02.5			167		Local.	
		eL	07 05 23.0						
	PCU	ePg	18 14 17.9			156		Local.	
		eL	18 14 38.7						
	DUG	ePg	18 28 10.7	0.4	1.1	134		Local.	
		eL	18 28 26.8						
	DUG	eP*	20 58 41.5	0.6	11.9			Bingham blast.	
	7	PCU	eP	00 04 24.6			45		South of Sunnyside, Utah.
			ePg	00 04 29.8					
			eL	00 04 36.0					
		PCU	eP	00 22 23.8			356		Local.
			eP	00 23 03.8					
PCU		eP	00 25 55.7			140		Local.	
		ePg	00 26 01.2						
		eL	00 26 12.4						
DUG		eP	00 51 37.5			212		Local.	
		eL	00 52 05.5						
PCU		eP	01 00 09.5			122		Local.	
		ePg	01 00 18.7						
		eL	01 00 24.9						
PCU		eP	02 58 56.7			122		Local.	
		ePg	02 59 02.7						
	eL	02 59 11.3							
DUG	eP	08 15 06.5			250		Local.		
	eL	08 15 39.5							
DUG	ePn	13 46 03.8			478	*5.7	Nevada Test Site "Purse" 37.28 N, 116.50 13 45 00.00 h = 0 km Mag. 5.7 (U. of U.).		
	ePg	13 46 16.6							
	eL	13 47 12.0							
PCU	ePn	13 46 18.2							
SLC	ePn	13 46 18.3			556				
	e	13 46 35.2							

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks			
May 7 1969	DUG	eP	16 19 33.0	0.7	4.7	467		Probable "Purse" Cavity Collapse.			
		ePg	16 20 01.5								
		eL	16 20 41.0								
8	PCU	eP	01 26 56.2	0.5	2.7	223		South of Sunnyside, Utah.			
		ePg	01 27 02.2								
		eL	01 27 07.2								
	DUG	eP	05 15 13.5					45			South of Sunnyside, Utah.
		ePg	05 15 20.4								
		eL	05 15 25.0								
DUG	eP	18 49 36.0	0.6	11.1			Bingham blast.				
	eL	18 50 06.0									
	eP*	22 21 30.0									
9	DUG	ePg	14 55 57.3	0.4	1.1	67		Local.			
		eL	14 55 06.0								
		eP	20 58 17.5								
10	PCU	eP	13 01 09.8	0.5	14.2	89		Near Price, Utah.			
		ePg	13 01 17.6								
		eL	13 01 19.8								
DUG	eP	21 59 57.2	212			Local.					
	eL	22 00 25.0									
	eP	22 15 01.0									
	eL	22 15 23.0									
	eL	22 15 23.0									
11	PCU	eP	01 15 07.0	45			South of Sunnyside, Utah.				
		ePg	01 15 08.4								
		eL	01 15 18.0								
PCU	eP	07 45 14.3	45			South of Sunnyside, Utah.					
	ePg	07 45 19.0									
	eL	07 45 24.8									
12	PCU	eP	05 14 20.8	45			South of Sunnyside, Utah.				
		eL	05 14 31.9								

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
May 12 1969 (con't)	DUG	eP*	12 03 59.8	0.6	12.6	134		Bingham blast.
		ePn	23 59 02.3					
		ePg	23 59 09.3					
DUG	eL	23 59 18.5	378			Local.		
	eP	12 04 03.0						
	eL	12 04 59.0						
CGU	eP	12 05 08.5	85			Local.		
	ePg	13 21 36.3						
	eL	13 21 49.0						
PCU	eP	13 21 58.1	115			Local.		
	ePg	13 22 18.4						
	eL	13 22 33.0						
DUG	ePg	13 22 04.7	200	1.8		Local.		
	eL	13 22 35.0						
	eL	13 22 35.0						
14	PCU	eP	01 28 54.2	0.2	0.3	134		Local.
		ePg	01 29 03.4					
		eL	01 29 10.0					
DUG	ePn	01 59 17.0	0.5	1.8	289		Local.	
	ePg	01 59 51.5						
	eL	01 59 56.5						
PCU	eP	06 40 14.5	45			South of Sunnyside, Utah.		
	ePg	06 40 19.4						
	eL	06 40 25.7						
PGU	eP	10 22 38.5	45			South of Sunnyside, Utah.		
	ePg	10 22 45.4						
	eL	10 22 49.5						
15	PCU	eP	08 31 50.6	0.2	1.9	134		Southern Utah.
		ePg	08 31 57.7					
		eL	08 32 06.2					
	PCU	eP	09 15 24.3	45			South of Sunnyside, Utah.	
		ePg	09 15 30.5					
		eL	09 15 35.4					

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 May 15 (con't)	PCU	eP	10 52 43.2			45		South of Sunnyside, Utah.
		ePg	10 52 49.9					
		eL	10 52 54.5					
	CCU	eP	18 00 40.5			334		Southern Nevada 37.0 N, 115.9 W
		eL	18 01 18.5					17 59 59.3 h = 3 km Mag. 4.6 (PAS), 4.0 (BRK), 4.5 (CGS), 4.4 (U. of U.).
	DUG	ePn	18 01 03.7	0.5	1.8	440		
		ePg	18 01 18.5					
	PCU	eL	18 02 06.5			578		
		ePn	18 01 17.3					
		ePg	18 01 31.0					
SLC	eL	18 02 42.7			556			
	ePn	18 01 19.2						
	ePg	18 01 38.1						
16	DUG	eL	18 02 40.1					
		eP	04 16 01.0					
17	DUG	ePg	19 15 54.5	0.5	0.9	267	5.3	Eastern Kazakh SSR 49.8 N, 78.1 E 04 02 57.1 h = 0 km Mag. 5.3.
		eL	19 16 24.5					Local.
	DUG	ePg	00 45 43.5	0.5	2.7	156		Local.
		eL	00 46 01.3					
	DUG	ePg	16 09 59.0	0.4	2.1	167		Local.
		eL	16 10 18.0					
	DUG	ePg	19 37 07.5	0.4	1.1	250		Local.
		eL	19 37 35.5					
	PCU	eP	22 26 51.8			134		Local.
		ePg	22 27 05.1					
		eL	22 27 08.1					
	16	DUG	ePn	22 37 27.0	0.4	1.1	223	
ePg			22 37 30.0					
eL			22 37 56.5					
16	CCU	ePn	22 37 34.3			256		
		e	22 37 36.2					
		ePg	22 37 54.5					
		eL	22 38 06.2					

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 May 18	PCU	eP	00 41 01.7			140		Local.
		ePg	00 41 11.5					
	DUG	eL	00 41 28.5					
		ePg	00 56 16.0	0.4	1.1	234		Local.
	PCU	eL	00 56 38.0					
		eP	06 17 57.6			45		South of Sunnyside, Utah.
	PCU	ePg	06 18 04.8					
		eL	06 18 08.8					
	PCU	eP	13 28 56.1			45		South of Sunnyside, Utah.
		ePg	13 29 02.5					
	PCU	eL	13 29 07.1					
		ePg	14 28 09.2			56		Near Price, Utah.
PCU	eL	14 28 14.7						
	eP	15 21 55.7			115		Local.	
DUG	ePg	15 22 04.5						
	eL	15 22 09.5	1.0	2.5	340		Local.	
DUG	ePn	18 36 31.5						
	ePg	18 36 54.5						
PCU	eL	18 37 18.1			122		Local.	
	eP	19 03 53.6						
19	PCU	ePg	19 04 00.0					
		eL	19 04 09.1					
PCU	ePg	08 36 48.6			67		Near Price, Utah.	
	eL	08 36 54.6						
PCU	eP	10 34 26.0			167		Southern Utah.	
	ePg	10 34 30.2						
PCU	eL	10 34 48.9						
	eP	10 43 16.2			134		Southern Utah.	
19	DUG	ePg	10 43 23.4					
		eL	10 43 32.7					

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 May 19 (con't)	CCU	ePn	14 41 47.5			556		Southern California 33.3 N, 116.2 W 14 40 33.0 h = 9 km Mag. 4.3 (PAS), 4.7-4.9 (BRK), 4.5 (CGS). Felt at Borrego Springs, Palm Springs and San Diego area.
		ePg	14 42 01.9					
		eL	14 43 08.8					
	DUG	ePn	14 42 29.5	0.5	0.9	813	4.5	Bingham blast. Near Cedar City, Utah. South of Emery, Utah.
		ePg	14 42 51.0			780		
		eL	14 44 21.5					
	PCU	eP	14 42 35.7					Bingham blast. Near Cedar City, Utah. South of Emery, Utah.
		ePg	14 43 00.6					
		eL	14 44 33.4					
	DUG	eP*	20 55 37.5	0.6	11.1	35		Bingham blast. Near Cedar City, Utah. South of Emery, Utah.
		ePg	21 38 50.5					
		eL	21 38 54.7					
	PCU	ePn	22 11 29.5			167		Bingham blast. Near Cedar City, Utah. South of Emery, Utah.
		ePg	22 11 39.4					
		eL	22 11 51.3					
DUG	ePn	22 12 10.5	0.4	1.1	223		Bingham blast. Near Cedar City, Utah. South of Emery, Utah.	
	ePg	22 12 12.5						
	eL	22 12 41.0						
CCU	ePn	22 12 12.7			234		Bingham blast. Near Cedar City, Utah. South of Emery, Utah.	
	ePg	22 12 18.5						
	eL	22 12 43.7						
CCU	eP	22 19 27.9			111		Bingham blast. Near Cedar City, Utah. South of Emery, Utah.	
	eP	22 19 40.5						
	eL	22 19 40.5						
20	PCU	eP	00 17 25.6			45		South of Sunnyside, Utah.
		ePg	00 17 30.3					
		eL	00 17 36.6					
	DUG	ePg	16 20 18.5	1.0	5.0	200		Local.
		eL	16 20 38.5					
		ePg	17 40 58.5	0.4	3.2	415		
	PCU	eL	17 41 14.0			134		Local.
		eP	18 42 19.4					
		eL	18 42 35.5					
	DUG	eP	18 42 23.0	0.5	2.7			Local.
		eP						
		eL						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 May 20 (con't)	PCU	ePg	19 03 14.3			76		Local.
		eL	19 03 23.3					
		ePg	19 03 14.5	0.6	2.4	105		
	DUG	eL	19 03 26.5					Bingham blast.
		eP*	21 05 27.5	0.6	15.8			
		eP	17 23 27.5			80		
	SLC	eL	17 23 36.6					*Mills Junction, Utah 40.65 N, 112.28 W 17 23 22.2 h = 0 km. (4 sta).
		ePg	17 23 34.0	0.7	3.2	134		
		eL	17 23 50.5			150		
	PCU	ePg	17 23 48.6					Local.
		eL	17 24 08.2					
		eP	19 28 38.7			170		
	DUG	eL	19 29 02.3					Probable McGill, Nevada blast.
		ePn	21 56 07.0	0.5	1.8	223		
		ePg	21 56 11.5					
DUG	eL	21 56 36.0					Local.	
	eP	22 26 03.0	0.5	0.9	401			
	eL	22 26 48.0						
23	PCU	eP	01 21 43.8			45		South of Sunnyside, Utah.
		ePg	01 21 48.0					
		eL	01 21 55.0					
	PCU	eP	05 25 10.5			111		*West of Redmond, Utah 39.00 N, 111.95 W 05 24 52.0 h = 0 km Mag. 3.2. (6
		ePg	05 25 13.0					
		eL	05 25 25.0					
	DUG	ePn	05 25 15.5	0.7	4.7	167	*3.2	Local.
		ePg	05 25 17.0					
		eL	05 25 37.5					
	CCU	ePn	05 25 19.6			178		Local.
		ePg	05 25 23.8					
		eL	05 25 42.1					
	SLC	ePn	05 25 24.0			189		Local.
		ePg	05 25 35.3					
		eL	05 25 50.6					

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
May 23 (con't)	PCU	eP	08 26 43.8			111		Utah 39.0 N, 111.9 W 08 26 26.8 h = 33 km Mag. 2.5 (U. of U.).
		ePg	08 26 51.0					
	DUG	eL	08 27 04.5				167	*2.5
		ePn	08 26 49.0	0.5	4.5			
		ePg	08 26 50.2				178	
		eL	08 27 10.0					
		ePn	08 26 53.4				200	
		ePg	08 26 58.5					
	SLC	eL	08 27 18.3					
		ePn	08 26 57.1					
DUG	ePg	08 27 01.5				156		Local.
	eL	08 27 24.4				278		Local.
24	DUG	ePg	17 09 38.5	0.4	1.1			Local.
		eL	17 09 57.0					
25	DUG	ePg	21 57 20.0					Local.
		eL	21 57 57.0				178	Local.
26	DUG	eP	22 01 36.5					Near Wanship, Utah.
		eL	22 02 01.5				78	
27	SLC	eP	21 31 37.3					
		eL	21 31 45.6				135	
28	DUG	ePg	21 31 40.5	1.0	3.8			
		eL	21 31 57.0				145	
29	PCU	eP	21 31 55.0					Colorado 40.3 N, 104.4 W 01 30 08.6 h = 33 km Mag. 4.2 Felt in Denver area Mag. 3.5 (GOL).
		eL	21 32 14.4				667	4.2
30	PCU	ePn	01 31 22.5					Local.
		ePg	01 31 32.0				122	
31	DUG	eL	01 32 29.2					
		ePn	01 31 41.5	0.4	1.1			
32	PCU	eL	01 33 24.0					
		eP	03 15 18.4					
33	DUG	ePg	03 15 24.0					
		eL	03 15 33.7					

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
May 26 (con't)	PCU	eP	03 31 41.6			45		South of Sunnyside, Utah.	
		ePg	03 31 46.6						
	DUG	eL	03 31 52.6				45		South of Sunnyside, Utah.
		eP	06 58 00.9						
		ePg	06 58 06.0						
		eL	06 58 12.2						
		eP*	21 00 52.0	0.6	11.9				Bingham blast.
		ePn	01 29 09.0	0.5	1.8		250		Local.
	27	DUG	eLg	01 29 13.0					
			eL	01 29 41.5				223	Local.
28	DUG	ePn	04 01 01.2						
		ePg	04 01 07.0				434		
29	DUG	eL	04 01 30.3						
		eP	04 01 26.0	0.4	1.1				
30	DUG	eL	04 02 15.0						
		eP	14 15 03.0	0.4	6.4		435	*5.2	
31	PCU	ePn	14 15 35.2				501		
		ePg	14 15 49.4						
32	SLC	eL	14 16 50.9						
		ePn	14 16 17.1						
33	DUG	ePg	14 16 32.9						
		eL	14 17 37.1				280	Local.	
34	DUG	ePg	15 47 03.5	0.5	3.6				
		eL	15 47 45.0						
35	PCU	eP	15 45 41.3					South of Sunnyside, Utah.	
		ePg	15 45 47.6				45		
36	DUG	eL	15 45 52.2						
		ePg	21 19 40.0				80		
37	DUG	eL	21 19 49.5					Near Cedar City, Utah.	
		ePg							

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
May 29	LOG	ePg	00 05 50.0			134		Near Castle Rock, Utah.
		eL	00 06 06.0					
	DUG	eP	00 06 21.5	0.5	3.6	189		
	PCU	eP	00 06 25.9			212		
		eL	00 06 53.7					
	PCU	eP	11 22 09.1			45		South of Sunnyside, Utah.
		ePg	11 22 15.1					
		eL	11 22 20.1					
	CCU	ePg	15 02 37.2			89		Near Cedar City, Utah.
		eL	15 02 47.7					
31	DUG	eP	20 30 03.0	0.6	3.2	122		Local.
	CCU	eP	20 30 33.3					
		eL	20 30 47.8					
	PCU	eP	23 34 50.3			134		Local.
		ePg	23 34 55.5					
		eL	23 35 06.0					
	DUG	eP	02 25 32.0	0.4	1.1	467	3.3	Western Idaho 44.2 N, 114.5 W 02 24 32.3 h = 33 km Mag. 3.3.
	DUG	eP	05 15 00.0	0.6	12.6	45	5.4	Eastern Kazakh SSR 50.0 N, 77.7 E 05 01 56.6 h = 0 km Mag. 5.4. South of Sunnyside, Utah.
	PCU	eP	22 28 17.9					
		ePg	22 28 24.7					
June 1	PCU	eL	22 28 29.1					
		eP	03 14 56.1			45		South of Sunnyside, Utah.
		ePg	03 15 00.7					
		eL	03 15 07.2					
	PCU	eP	17 42 23.7			45		South of Sunnyside, Utah.
		ePg	17 42 28.2					
		eL	17 42 34.4					
	PCU	eP	20 12 49.0			115		Local.
		ePg	20 12 54.2					
		eL	20 13 03.0					
1969	PCU	eP	23 18 31.1			137		Local.
		ePg	23 18 41.3					
		eL	23 18 49.3					

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
June 2	PCU	eP	05 51 05.4			45		South of Sunnyside, Utah.
		ePg	05 51 12.5					
		eL	05 51 16.9					
	DUG	eP	05 51 30.5	0.4	1.1			
	PCU	eP	10 26 07.2			45		South of Sunnyside, Utah.
		ePg	10 26 12.9					
		eL	10 26 18.6					
	CCU	eP	11 54 16.2			134		*Southwest of Beaver, Utah 38.05 N, 112.85 W 11 54 09.0 h = 20 km Mag. 2.0 (5 sta).
		ePg	11 54 20.2					
		eL	11 54 32.3					
3	PCU	eP	11 54 42.6			167		
		eL	11 55 07.1					
	DUG	ePn	11 54 43.0	0.7	1.1	245	*2.0	
		eLg	11 54 51.0					
		eL	11 55 13.0					
	CCU	ePg	14 21 48.0			122		Local.
		eL	14 22 02.8					
	DUG	eP	18 11 54.0	0.7	4.0	440		Southern Nevada.
		eL	18 12 43.5					
		eP*	21 10 20.5	0.6	24.5			Bingham blast.
3	PCU	eP	00 11 37.0			45		South of Sunnyside, Utah.
		ePg	00 11 44.4					
		eL	00 11 48.5					
	PCU	eP	00 50 29.8			51		Near Price, Utah.
		ePg	00 50 32.8					
		eL	00 50 35.8					
	DUG	eP	01 03 04.3	0.6	1.6	100		Local.
	PCU	eP	01 03 40.3					
		ePg	01 03 47.0					
		eL	01 03 51.8					
1969	LOG	ePg	06 02 50.3			345		Local.
		eL	06 03 28.8					
	DUG	eP	06 02 58.5	0.4	1.1	45		South of Sunnyside, Utah.
	PCU	eP	06 14 46.1					
		ePg	06 14 50.1					
	eL	06 14 57.1						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 June 3 (con't)	DUG	ePg eL	16 22 02.5 16 22 14.0	0.5	2.7	80		Local.	
	4	PCU	eP eL	00 27 29.3 00 28 10.2			312		Local.
		DUG	ePg eL	06 44 06.0 06 44 18.5	0.6	2.4	89		Local.
		PCU	ePg eL	06 44 11.0 06 45 27.5			135		
	PCU	eP ePg eL	07 17 11.6 07 17 15.9 07 17 22.6			45		South of Sunnyside, Utah.	
	DUG	ePn ePg eL	07 47 03.0 07 47 09.0 07 47 56.0	0.4	1.1	467		Southern Nevada.	
	DUG	eP	10 12 30.5	0.7	3.2	1380	4.2	Off Coast of Oregon 44.5 N, 129.8 W 10 09 20.8 h = 33 km Mag. 4.2.	
	PCU	ePg eL	10 47 42.1 10 47 48.1			60		Near Price, Utah.	
	CCU	ePg eL	10 56 10.9 10 56 44.5			300		Local.	
	DUG	ePg eL	14 50 06.5 14 50 18.0	0.6	1.6	82		Local.	
	PCU	ePg eL	14 50 20.9 14 50 43.0			160			
	DUG	eP* ePg eL	20 57 33.0 22 48 40.6 22 49 24.9	0.6	11.9	390		Bingham blast. Local.	
	5	PCU	eP ePg eL	01 46 01.9 01 46 11.9 01 46 15.7			115		Local.
		PCU	eP ePg eL	05 03 05.4 05 03 12.1 05 03 17.7			111		Local.

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 June 5 (con't)	DUG	ePg eL	16 43 52.0 16 44 08.0	0.4	1.1	134		Local.
	6	PCU	eP ePg eL	09 01 04.1 09 01 08.0 09 01 15.2			45	
PCU		eP ePg eL	10 01 44.8 10 01 49.2 10 01 56.0			45		South of Sunnyside, Utah.
PCU		ePg eL	15 41 10.2 15 41 29.4			145		South of Hanksville, Utah.
DUG	ePg eL	15 41 28.5 15 41 59.5	0.4	1.1	278			
DUG	ePn ePg eL	17 15 06.0 17 15 12.0 17 15 49.0	0.4	2.1	278		Local.	
DUG	ePn ePg eL	18 19 10.0 18 19 15.0 18 19 41.0	0.4	1.1	234		Local.	
DUG	eP ePg eL	22 00 40.0 22 00 44.0 22 01 15.5	0.6	1.6	280		Local.	
PCU	eP ePg eL	22 04 20.9 22 04 25.2 22 04 31.9			45		South of Sunnyside, Utah.	
DUG	eP eL	22 06 53.0 22 07 33.5	0.4	1.1	350		Local.	
PCU	eP ePg eL	23 41 07.2 23 41 13.5 23 41 18.2	0.5		45		South of Sunnyside, Utah.	

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
June 7	S LC	ePg		00 42 34.5	0.3		156		*Southwestern Wyoming 42.66 N, 110.53 W 00 41 55.2 h = 0 km. (5 sta).
		eL		00 42 55.8					
	DUG	eP		00 42 42.0	0.4	1.1	390		
	PGU	ePg		00 42 43.5					
		eL		00 43 17.4					
	PCU	ePg		05 43 42.3			78		Near Price, Utah.
		eL		05 43 50.7					
	DUG	eP		05 43 51.0	0.4	1.1	170		
		eL		05 44 15.0					
	PCU	eP		08 19 30.5			45		South of Sunnyside, Utah.
		ePg		08 19 37.0					
	PCU	eL		08 19 41.5			45		South of Sunnyside, Utah.
		eP		10 06 29.6					
	PCU	ePg		10 06 36.2			45		South of Sunnyside, Utah.
		eL		10 06 40.9					
8	PCU	eP		18 11 22.7			134		Local.
		ePg		18 11 29.2					
		eL		18 11 36.4					
	DUG	eP*		21 22 20.0	0.6	10.7	134		Bingham blast.
	PCU	eP		21 28 02.2					Local.
		ePg		21 28 09.0					
		eL		21 28 18.5					
	DUG	ePn		23 19 14.0	0.4	2.1	500		Local.
		ePg		23 19 30.5					
		eL		23 20 24.0					
		eP		04 18 36.7			115		Local.
	PCU	ePg		04 18 42.7					
		eL		04 18 50.9					
	PCU	eP		04 31 54.4			111		Local.
		ePg		04 31 59.7					
9	PCU	eL		04 32 07.1			45		South of Sunnyside, Utah.
		eP		06 04 42.2					
	PCU	ePg		06 04 49.0					
		eL		06 04 53.7					
		eP		09 58 30.0	0.5	2.7	467		Local.
	DUG	eL		09 59 40.5					
	CCU	ePg		14 01 08.4			567		Southern California 33.2 N, 115.9 W 13 59 37.6 h = 3 km.
		eL		14 02 14.4					
	DUG	eP		14 01 56.5	1.0	5.0	824		Local.
	DUG	ePn		20 28 59.2	0.1	1.1	167		
		eL		20 29 22.0					
	PCU	ePg		20 29 01.7			178		
		eL		20 29 25.2					
	DUG	ePn		22 08 30.0	0.4	1.1	456		Southern Nevada.
		ePg		22 08 46.0					
	eL		22 09 35.0						
10	LOG	eP		08 55 02.9			746		Montana 47.8 N, 114.3 W 08 53 30.8 h = 5 km Mag. 4.2.
		ePg		08 55 28.4					
		eL		08 56 55.5					
	DUG	ePn		08 55 26.0	0.4	1.1	857	4.2	
		ePg		08 55 55.5					
		eL		08 58 00.0					
	DUG	ePg		16 34 37.0	0.4	1.1	167		Local.
		eL		16 34 50.0					
	DUG	eP		17 51 04.0	0.4	1.1	56		Local.
		eL		17 51 11.0					
	DUG	ePn		21 51 15.5	0.4	1.1	245		Local.
		ePg		21 51 20.5					
		eL		21 51 47.0					
	DUG	ePn		03 43 45.5	0.5	8.9	991	4.8	Baja California 31.6 N, 116.2 W 03 41 32.7 h = 0 km Mag. 4.8.
		ePg		03 43 56.5					
CCU	eL		03 44 49.0						
DUG	eP		03 42 52.5	1.0	3.8	722		Regional.	
	ePn		08 19 52.5						
	ePg		08 20 16.5						
DUG	eL		08 21 31.0	0.4	1.1	134		Local.	
	ePg		15 15 15.5						
	eL		15 15 31.5						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
June 8 (con't)	DUG	eP		09 58 30.0	0.5	2.7	467		Local.
	CCU	ePg		14 01 08.4			567		Southern California 33.2 N, 115.9 W 13 59 37.6 h = 3 km.
	DUG	eP		14 02 14.4	1.0	5.0	824		Local.
	DUG	ePn		20 28 59.2	0.1	1.1	167		
	PCU	eL		20 29 22.0			178		
	DUG	ePg		20 29 01.7			456		Southern Nevada.
		eL		20 29 25.2					
	DUG	ePn		22 08 30.0	0.4	1.1	746		Montana 47.8 N, 114.3 W 08 53 30.8 h = 5 km Mag. 4.2.
		ePg		22 08 46.0					
		eL		22 09 35.0					
	LOG	eP		08 55 02.9			746		Montana 47.8 N, 114.3 W 08 53 30.8 h = 5 km Mag. 4.2.
		ePg		08 55 28.4					
		eL		08 56 55.5					
	DUG	ePn		08 55 26.0	0.4	1.1	857	4.2	
		ePg		08 55 55.5					
		eL		08 58 00.0					
	DUG	ePg		16 34 37.0	0.4	1.1	167		Local.
		eL		16 34 50.0					
	DUG	eP		17 51 04.0	0.4	1.1	56		Local.
		eL		17 51 11.0					
	DUG	ePn		21 51 15.5	0.4	1.1	245		Local.
		ePg		21 51 20.5					
		eL		21 51 47.0					
	DUG	ePn		03 43 45.5	0.5	8.9	991	4.8	Baja California 31.6 N, 116.2 W 03 41 32.7 h = 0 km Mag. 4.8.
		ePg		03 43 56.5					
	CCU	eL		03 44 49.0					
	DUG	eP		03 42 52.5	1.0	3.8	722		Regional.
		ePn		08 19 52.5					
		ePg		08 20 16.5					
	DUG	eL		08 21 31.0	0.4	1.1	134		Local.
		ePg		15 15 15.5					
		eL		15 15 31.5					

Date 1969 Sta Phase Dir Time (GCT) Per (sec) Gnd Mot Amp (Mu) Dist (km) Mag Remarks

June 10	DUG	ePn	17 11 14.0	0.6	1.6	449		Southern Nevada.
(con't)		ePg	17 11 27.0					
	DUG	eL	17 12 37.0	0.4	1.1	134		Local.
	DUG	eP	18 07 30.0					
	DUG	ePg	18 07 32.0					
	DUG	eL	18 07 45.5					
	DUG	eP	20 09 52.5	0.4	1.1	140		Local.
	DUG	eL	20 10 08.0					
	DUG	eP*	20 58 11.0	0.6	11.9	45		Bingham blast. South of Sunnyside, Utah.
	PCU	eP	23 27 52.0					
	DUG	ePg	23 27 55.8					
	DUG	eL	23 28 03.2					
11	LOG	ePg	03 48 55.0			80		*North of Logan, Utah 41.81 N, 111.81 W 03 48 54.2 h = 0 km Mag. 3.0 (4 sta).
	SLC	eL	03 49 03.8			110		
	DUG	ePg	03 49 06.5					
	DUG	eL	03 49 18.7					
	DUG	ePn	03 49 16.5	0.6	4.7	212	*3.0	
	DUG	ePg	03 49 21.0					
	DUG	eL	03 49 41.0			300		
	PCU	ePg	03 49 28.0					
	SLC	eL	03 50 01.7					
	DUG	ePg	05 32 04.4			150		Near Park Valley, Utah Mag. 2.8 (U. of U.).
	DUG	eL	05 32 24.4			234	*2.8	
	DUG	ePn	05 32 09.0	0.4	1.6			
	DUG	ePg	05 32 15.0					
	DUG	eL	05 32 36.0			400		Local.
	DUG	ePn	07 43 05.0					
	DUG	ePg	07 43 16.6	0.4	1.1			
	DUG	eL	07 43 51.0			182		Local.
	DUG	eP	09 39 55.5	0.4	1.1			
	DUG	eL	09 40 21.0			122		Local.
	DUG	eP	17 17 36.0	0.4	1.1			
	DUG	eL	17 17 51.0					

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Date 1969 Sta Phase Dir Time (GCT) Per (sec) Gnd Mot Amp (Mu) Dist (km) Mag Remarks

June 11	DUG	ePn	18 15 25.0	6.4	1.1	634		Near Regional.
(con't)		ePg	18 15 49.5					
	DUG	eL	18 17 03.0			80		Local.
	DUG	eP	20 43 15.0	0.6	2.4			
	DUG	eL	20 43 24.0			234		Local.
	DUG	ePg	22 26 20.0	0.5	1.8			
	DUG	eL	22 26 46.0					
12	PCU	eP	02 26 23.1			45		South of Sunnyside, Utah.
	PCU	ePg	02 26 28.7					
	PCU	eL	02 26 34.1			45		South of Sunnyside, Utah.
	PCU	eP	03 28 51.7					
	PCU	ePg	03 28 53.5					
	PCU	eL	03 29 02.8			45		South of Sunnyside, Utah.
	PCU	eP	06 20 47.0					
	PCU	ePg	06 20 53.3			45		South of Sunnyside, Utah.
	PCU	eL	06 20 58.0					
	PCU	eP	08 50 12.9			45		South of Sunnyside, Utah.
	PCU	ePg	08 50 18.5					
	PCU	eL	08 50 23.9			45		South of Sunnyside, Utah.
	PCU	eP	10 01 05.0					
	PCU	ePg	10 01 09.3					
	DUG	eL	10 01 16.0			162		Local.
	DUG	eP	10 08 50.2	0.4	1.1			
	DUG	eL	10 09 12.5			979	4.3	Off Coast of California 34.2 N, 121.0 W 11 18 53.2 h = 22 km Mag. 4.3.
	DUG	eP	11 21 36.0	0.8	2.6	45		South of Sunnyside, Utah.
	PCU	eP	11 40 21.3					
	PCU	ePg	11 40 26.8					
	PCU	eL	11 40 32.3			134		Local.
	PCU	eP	13 54 50.5					
	PCU	ePg	13 54 59.2					
	PCU	eL	13 55 06.7					

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Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
June 12 (con't)	DUG	ePn		14 01 06.0	0.4	2.1	440	*4.6	Nevada Test Site "Tapper" 37.11 N, 116.04 W 14 00 00.00 h = 0 km Mag. 4.6 (U. of U.).
		ePg		14 01 07.5					
		eL		14 02 22.0					
	SIC	eP		14 01 18.9			589		
		ePg		14 01 38.0					
		eL		14 02 47.6					
	DUG	ePn		14 23 31.0	0.4	2.1	561		Near Regional.
		ePg		14 23 52.0					
		eL		14 24 54.0					
	DUG	eP		14 54 49.0	0.8	1.6	89		Local.
		eL		14 54 51.5					
	PCU	eP		15 45 56.7			45		South of Sunnyside, Utah.
		ePg		15 46 01.2					
		eL		15 46 07.7					
DUG	eP		17 29 52.5	0.4	3.2	89		Local.	
	ePg		17 29 55.0						
	eL		17 30 07.5						
PCU	eP		21 13 12.3			312		Local.	
	ePg		21 13 21.4						
	eL		21 13 54.8						
13	CCU	eP		00 04 53.0			56		Near Cedar City, Utah.
		ePg		00 04 55.0					
		eL		00 04 58.3					
	PCU	eP		04 28 28.3			115		Local.
		ePg		04 28 37.3					
		eL		04 28 41.5					
	PCU	eP		13 47 52.5			45		South of Sunnyside, Utah.
		ePg		13 47 57.7					
		eL		13 48 03.5					
	DUG	eP		15 21 33.5	1.0	2.5	523		Near Regional.
		ePg		15 21 50.0					
		eL		15 22 51.0					
	DUG	ePg		16 00 36.0	0.4	1.1	122		Local.
		eL		16 00 51.5					

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Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
June 13 (con't)	DUG	ePg		17 09 01.0	1.3	2.5	85		Local.
		eL		17 09 12.5					
	DUG	ePn		17 34 16.0	1.0	1.2	534		Near Regional.
		ePg		17 34 30.0					
		eL		17 34 32.0					
	PCU	eP		21 03 58.3			445		Denver, Colorado.
		ePg		21 04 03.7					
		eL		21 05 02.3					
	DUG	eP		21 04 09.0	1.0	3.8	45		South of Sunnyside, Utah.
	PCU	eP		21 42 48.9					
		ePg		21 42 53.3					
		eL		21 43 00.1					
	14	DUG	ePg		15 24 48.0	0.4	1.1	175	
	eL		15 25 02.5						
PCU	eP		15 44 38.0			45		South of Sunnyside, Utah.	
	ePg		15 44 42.3						
	eL		15 44 49.1						
PCU	eP		18 39 25.5			45		South of Sunnyside, Utah.	
	ePg		18 39 29.5						
	eL		18 39 36.5						
PCU	eP		19 48 42.7			45		South of Sunnyside, Utah.	
	ePg		19 48 46.9						
	eL		19 48 53.7						
DUG	eP		19 49 07.0	1.0	1.3				
DUG	ePn		21 53 09.0	0.4	1.1	256		Local.	
	ePg		21 53 13.5						
	eL		21 53 42.0						
15	PCU	eP		00 52 40.7			45		South of Sunnyside, Utah.
	ePg		00 52 45.3						
	eL		00 52 51.7						
PCU	eP		01 23 29.5			45			South of Sunnyside, Utah.
	ePg		01 23 35.7						
	eL		01 23 40.5						

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
June 15 (con't)	PCU	eP	16 03 11.5			45		South of Sunnyside, Utah.
		ePg	16 03 15.2					
		eL	16 03 22.5					
16	PCU	eP	01 48 27.5			45		South of Sunnyside, Utah.
		ePg	01 48 33.8					
		eL	01 48 38.5					
PCU	eP	04 38 06.4			45		South of Sunnyside, Utah.	
	ePg	04 38 13.5						
	eL	04 38 17.4						
PCU	eP	04 58 21.1			45		South of Sunnyside, Utah.	
	ePg	04 58 25.5						
	eL	04 58 32.1						
DUG	eP	07 33 14.0	0.4	2.1	634	4.4	Northern California 39.4 N, 120.1 W 07 31 46.2 h = 7 km Mag. 4.4. South of Sunnyside, Utah.	
PCU	eP	08 13 27.6			45		South of Sunnyside, Utah.	
	ePg	08 13 33.5						
	eL	08 13 38.6						
PCU	eP	13 26 27.7			45		South of Sunnyside, Utah.	
	ePg	13 26 32.2						
	eL	13 26 38.8						
DUG	eP	13 26 49.5			45		South of Sunnyside, Utah.	
PCU	eP	14 45 26.7						
ePg	14 45 30.9							
PCU	eL	14 45 37.9			45		South of Sunnyside, Utah.	
	eP	21 56 18.3						
	ePg	21 56 24.6						
DUG	eL	21 56 29.3			45		Bingham blast. South of Sunnyside, Utah.	
	eP*	22 49 46.5	0.6	11.1				
	eP	23 46 37.0						
PCU	ePg	23 46 41.5			45		South of Sunnyside, Utah.	
	eL	23 46 48.0						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
June 17	PCU	eP	00 33 11.0			45		South of Sunnyside, Utah.
		ePg	00 33 15.5					
	PCU	eL	00 35 22.0			45		South of Sunnyside, Utah.
		eP	10 24 46.9					
	PCU	ePg	10 24 51.1			45		South of Sunnyside, Utah.
		eL	10 24 57.9					
	DUG	eP	12 43 35.8			617		Near Regional.
		ePg	12 43 40.9					
	DUG	eL	12 43 46.9			111		Local.
		ePn	15 08 02.0	0.5	1.8			
	DUG	eL	15 09 33.9			550		Near Regional.
		eP	19 08 29.5	0.5	2.7			
	DUG	eL	19 08 43.5			180		Bingham blast. Local.
		ePn	19 18 42.0					
	DUG	ePg	19 18 59.5			150		Local.
		eL	19 20 02.0					
	DUG	eP*	20 58 40.0	0.6	14.2	330		Local.
		ePn	21 39 52.0	0.4	1.6			
	DUG	ePg	21 39 55.0			150		Local.
		eL	21 40 17.5					
DUG	ePn	22 00 29.0	0.5	0.9	330		Local.	
	ePg	22 00 33.5						
DUG	eL	22 00 52.0			330		Local.	
	ePn	22 27 10.0	0.4	1.1				
DUG	ePg	22 27 17.0			23		Near Cedar City, Utah.	
	eL	22 27 55.0						
18	CCU	ePg	00 27 15.7			45		South of Sunnyside, Utah.
		eL	00 27 18.4					
PCU	eP	01 15 24.6			45		South of Sunnyside, Utah.	
	ePg	01 15 28.8						
CCU	eL	01 15 35.6			26		Near Cedar City, Utah.	
	eP	03 48 20.4						
CCU	eL	03 48 23.5			26		Near Cedar City, Utah.	

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 June 18 (con't)	CCU	ePg	04 26 58.0			134		*West of Richfield, Utah 38.78 N, 112.30 W
		eL	04 27 15.3					04 26 37.3 h = 20 km Mag. 3.3. (5 sta).
	PCU	ePn	04 26 59.1			160		
		ePg	04 27 17.7					
		eL	04 27 21.2			178	*3.3	
	DUG	ePn	04 27 01.5					
		ePg	04 27 03.5					
		eL	04 27 24.0			45		South of Sunnyside, Utah.
	PCU	eP	08 16 35.4					
		ePg	08 16 42.5					
		eL	08 16 46.5			45		South of Sunnyside, Utah.
	PCU	eP	12 30 58.0					
		ePg	12 31 04.8					
		eL	12 31 09.6			100		Local.
	SIG	ePg	16 59 48.8					
		eL	16 59 59.3			150		
	DUG	eP	16 59 54.0	0.4	3.2			South of Sunnyside, Utah.
	eL	17 00 11.5			45			
PCU	eP	20 17 24.0						
	ePg	20 17 31.5						
	eL	20 17 35.0						
19	PCU	eP	01 16 17.5			45		South of Sunnyside, Utah.
		ePg	01 16 24.5					
		eL	01 16 28.5					
	PCU	eP	02 45 19.0			45		South of Sunnyside, Utah.
		ePg	02 45 25.8					
		eL	02 45 30.0					
	PCU	eP	03 44 34.5			45		South of Sunnyside, Utah.
		ePg	03 44 38.5					
		eL	03 44 45.5					

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 June 19 (con't)	PCU	eP	05 42 07.0			45		South of Sunnyside, Utah.
		ePg	05 42 11.5					
		eL	05 42 18.0					
	PCU	eP	06 30 55.5			45		South of Sunnyside, Utah.
		ePg	06 30 58.9					
		eL	06 31 06.5					
	PCU	iP	06 32 56.5			78		*East of Castle Gate, Utah 39.72 N, 110.77 W
		ePg	06 32 58.7					06 32 55.1 h = 0 km. (4 sta).
		eL	06 33 06.5					
	DUG	eP	06 33 23.0	1.0	3.8	167		
		eL	06 33 52.0					
	CCU	ePg	06 33 40.8			334		
		eL	06 34 18.5					
	PCU	eP	06 38 36.5			45		South of Sunnyside, Utah.
		ePg	06 38 43.2					
		eL	06 38 47.5					
	DUG	ePn	07 03 37.5	0.4	1.1	467		Southern Nevada.
		ePg	07 03 53.5					
		eL	07 04 45.5					
	CCU	ePn	07 03 46.5			556		
		ePg	07 04 03.8					
		eL	07 05 08.0					
	PCU	eP	15 02 31.9			45		South of Sunnyside, Utah.
	ePg	15 02 36.0						
	eL	15 02 43.3						
DUG	ePg	15 03 29.0	0.7	2.4	167		Local.	
	eL	15 03 51.0						
DUG	ePn	19 16 45.0	0.4	1.1	490		Local.	
	ePg	19 16 51.0						
	eL	19 17 56.0						
PCU	eP	19 22 08.0			45		South of Sunnyside, Utah.	
	ePg	19 22 13.6						
	eL	19 22 19.0						
DUG	eP*	21 00 51.0	0.6	11.9			Bingham blast.	

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Date

1969

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
June 20	PCU	eP		02 02 24.7			45		South of Sunnyside, Utah.
		ePg		02 02 28.7					
	PCU	eL		02 02 35.5					
		eP		08 48 18.7			45		South of Sunnyside, Utah.
	DUG	ePg		08 48 23.5					
		eL		08 48 29.7					
	PCU	eP		08 48 42.5	0.8	1.7	45		South of Sunnyside, Utah.
		eP		12 39 37.3					
	DUG	ePg		12 39 42.6					
		eL		12 39 47.3					
	DUG	eP		14 12 46.6			15		Probable rockburst, Castle Gate, Utah area.
		eR		14 12 51.4					
	DUG	eP		14 13 13.0	1.0	2.5	223		Local.
		ePg		16 59 44.5	0.5	2.7			
	DUG	eL		16 59 57.0					
		ePg		19 03 42.0	0.6	1.6	67		Local.
	DUG	eL		19 03 51.0					
		ePn		18 52 34.0	0.4	1.1	345		Local.
	DUG	ePg		18 52 39.0					
		eL		18 53 09.0					
DUG	eP		19 16 21.0	1.0	1.2	489		Local.	
	eL		19 17 32.0						
PCU	eP		20 41 40.0			45		South of Sunnyside, Utah.	
	ePg		20 41 44.0						
21	PCU	eL	20 41 51.4						
		eP	00 00 28.1			45		South of Sunnyside, Utah.	
PCU	ePg		00 00 33.6						
	eL		00 00 38.2						
DUG	eP		01 48 25.6			122		*South of Wallsburg, Utah 40.33 N, 111.42 W 01 48 09.5 h = 10 km Mag. 2.3 (4 sta).	
	ePg		01 48 35.6						
DUG	eL		01 48 40.6						
	ePg		01 48 29.0	0.6	8.7	140	*2.3		
PCU	eL		01 48 48.5						
	eP		05 10 16.5			45		South of Sunnyside, Utah.	
DUG	ePg		05 10 21.3						
	eL		05 10 27.5						

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Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
June 21 (cont)	PCU	eP		09 17 22.3			45		South of Sunnyside, Utah.	
		ePg		09 17 26.8						
		eL		09 17 33.3						
	PCU	eP		20 48 37.2			134		Local.	
		ePg		20 48 44.0						
	PCU	eL		20 48 52.8			45		South of Sunnyside, Utah.	
		eP		22 50 57.2						
	22	DUG	ePg		22 51 03.2			289		Local.
			eL		22 51 08.7					
	DUG	ePn		00 37 41.0	0.4	1.1	45		South of Sunnyside, Utah.	
ePg			00 37 49.0							
PCU	eL		00 38 21.5							
	eP		08 25 01.5			45		South of Sunnyside, Utah.		
DUG	ePg		08 25 09.0							
	eL		08 25 13.0							
CCU	eP		08 56 29.1			45		South of Sunnyside, Utah.		
	ePg		08 56 35.6							
DUG	eL		08 56 40.3							
	ePg		09 16 48.3			667		Southern California 33.9 N, 118.7 W 09 15 18.8 h = 8 km Mag. 4.0.		
PCU	eL		09 18 28.7							
	eP		09 17 44.5	0.4	1.1	868	4.0			
DUG	ePg		17 00 28.1			131	*1.5	*Northwest of Elsinore, Utah 38.73 N, 112.27 W 17 00 08.0 h = 20 km Mag. 1.5 (4 sta).		
	eL		17 00 45.1			150				
SILC	eP		17 00 30.5							
	ePg		17 00 45.5							
DUG	eL		17 00 50.5							
	ePg		18 46 10.0			67		Local.		
DUG	eL		18 46 17.0							
	ePg		18 46 12.5	1.0	1.2	200				
DUG	eL		18 46 23.0							
	eP		18 58 26.0	0.4	1.1	156		Local.		
DUG	ePg		18 58 32.0							
	eL		18 58 50.5							

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Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
June 23 (con't)	PCU	eP		08 31 29.0			45		South of Sunnyside, Utah.
		ePg		08 31 32.5					
		eL		08 31 40.0					
	PCU	eP		11 04 34.7			45		South of Sunnyside, Utah.
		ePg		11 04 39.0					
		eL		11 04 45.7					
	PCU	eP		11 15 11.8			45		South of Sunnyside, Utah.
		ePg		11 15 16.1					
		eL		11 15 23.8					
	DUG	ePn		19 14 20.0			512		Near Regional.
		ePg		19 14 41.0					
		eLg		19 15 40.5					
	DUG	eP*		20 58 49.0	0.6	14.2			Bingham blast.
		eP		21 34 14.3			78		Local.
	DUG	ePg		21 34 20.3					
eL			21 34 22.9						
ePg			21 34 25.0	0.6	2.4	111			
DUG	eL		21 34 37.5						
	eP		01 47 06.5			45		South of Sunnyside, Utah.	
	ePg		01 47 10.8						
PCU	eL		01 47 17.5						
	eP		07 21 53.3			45		South of Sunnyside, Utah.	
	ePg		07 21 59.5						
LOG	eL		07 22 05.2						
	eP		07 37 49.9			78		*Idaho, Northeast of Snowville, Utah	
	eL		07 38 00.0					42.17 N, 112.58 W 07 37 38.8	
DUG	eP		07 38 12.0	1.0	1.2	100		h = 0 km (4 Sta).	
	eL		07 38 37.5						
	eP		19 36 54.7			45		South of Sunnyside, Utah.	
PCU	ePg		19 36 59.3						
	eL		19 37 06.7						
	ePn		21 02 51.0	0.4	2.1	223		Local.	
DUG	eL		21 03 14.0						

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
June 25	DUG	ePn		00 47 47.0	0.4	1.0	223		Local.
		ePg		00 47 51.0					
		eL		00 48 16.5					
	DUG	eP*		20 53 09.0	0.6	11.1			Bingham blast.
		ePg		15 17 12.0	0.4	2.1	67		Local.
		eL		15 17 23.0					
	DUG	eP		16 01 05.5	0.4	6.4	445	4.4	Southern Nevada 37.1 N, 116.0 W
		eP		16 01 14.1					16 00 03.1 h = 28 km Mag. 4.4.
		ePg		16 01 30.7					
	DUG	eL		16 01 59.7			300		Local.
		ePn		17 40 39.0	0.4	2.1			
		ePg		17 40 47.0					
	DUG	eL		17 41 13.0					
		ePg		19 28 36.5	0.4	1.1	128		Local.
		eL		19 28 52.6					
DUG	eP*		20 59 40.2	0.6	19.8			Bingham blast.	
	eP		21 04 01.5	0.6	15.8				
DUG	ePn		21 47 39.5	0.4	1.1	289		Bingham blast.	
	ePg		21 47 45.0					Local.	
	eL		21 48 17.0						
DUG	ePn		21 58 17.0	0.4	1.1	289		Southern Nevada.	
	ePg		21 58 24.0						
	eL		21 58 56.0						
PCU	eP		00 30 19.7			45		South of Sunnyside, Utah.	
	ePg		00 30 26.1						
	eL		00 30 30.7						
DUG	eP		04 09 35.5	1.0	10.0	979	4.5	Near Coast of Northern California	
	ePn		16 17 40.0	0.4	1.1	200		40.3 N, 124.4 W 04 07 26.7 h = 39	
	ePg		16 17 43.5					Mag. 4.5.	
DUG	eL		16 18 00.0					Local.	

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
June 28 (con't)	DUG	ePg	18 06 18.0	0.4	1.1	115		Local.	
		eL	18 06 32.5						
	DUG	ePg	20 51 11.0	0.4	1.1	156		Local.	
		eL	20 51 29.6						
	DUG	eP*	21 10 13.0	0.6	11.1			Bingham blast.	
	DUG	ePn	21 52 27.0	0.4	1.1	220		Local.	
		ePg	21 52 30.0						
		eL	21 52 54.5						
	29	CCU	ePg	12 28 32.1			289		Local.
			eL	12 29 25.3					
DUG		eP	12 29 49.0	0.4	1.1				
DUG		ePg	17 08 07.0	0.4	1.1	122		Local.	
		eL	17 08 22.0						
DUG		ePg	19 38 22.5	0.6	3.2	67		Local.	
		eL	19 38 31.5						
DUG		eP*	20 57 31.3	0.6	13.4			Bingham blast.	
PCU		eP	21 42 04.3			45		South of Sunnyside, Utah.	
		ePg	21 42 10.7						
SIC		eL	21 42 16.0						
		eP	22 25 34.8						
		ePg	22 25 45.3						
		eL	22 25 48.0						
	30	CCU	ePn	02 22 18.4			423		Central California 35.0 N, 116.6 W
			ePg	02 22 29.8					02 21 18.2 h = 8 km Mag. 4.1.
			eL	02 23 18.6					
		DUG	ePn	02 22 53.0	0.4	1.1	722	4.1	
			ePg	02 23 16.5					
			eL	02 24 41.5					
DUG		ePn	07 37 28.0	0.4	1.1	434		Local.	
		ePg	07 37 40.0						
		eL	07 38 29.0						

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Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
June 30 (con't)	SIC	ePn	12 06 23.5			200		Eastern Idaho 42.7 N, 111.2 W
		ePg	12 06 28.0					12 05 52.3 h = 33 km Mag. 3.7 (CGS),
		eL	12 06 52.0					3.4 (U. of U.).
	DUG	ePn	12 06 36.5	0.4	1.1	267	*3.4	
		ePg	12 06 39.7					
		eL	12 07 11.0					
	PCU	ePn	12 06 40.2			323		
		ePg	12 06 46.5					
		eL	12 07 24.1					
	LOG	ePg	12 07 08.9					
DUG		e	12 07 24.9					Local.
		eP	15 55 32.0	0.5	0.9	122		
		ePg	15 55 35.0					
		eL	15 55 46.5					
	PCU	ePg	15 55 48.2			345		
		eL	15 56 27.5					
	DUG	eP	17 47 22.5	0.6	0.9	111		Local.
		eL	17 47 32.5					
	PCU	ePg	17 47 36.1					
		eL	17 47 52.2			134		
DUG	eP*	21 07 21.8	0.6	15.8			Bingham blast.	

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
July 1	PGU	eP	04 01 48.4			45		South of Sunnyside, Utah.	
		ePg	04 01 54.9						
	PGU	eL	04 01 59.4			250		Local.	
		ePn	04 05 23.4						
		ePg	04 05 29.4						
		e	04 05 38.4						
		eL	04 05 55.9						
		ePg	05 16 42.3			44			Near Logan, Utah Mag. 1.3 (U. of U.).
		eL	05 16 46.1						
		ePg	05 17 04.6			189 *1.3			
eL	05 17 30.5								
eP	12 02 54.3	0.9	6.9	979	4.6	Near Coast of Northern California 40.3 N, 124.3 W 12 00 45.6 h = 26 km Mag. 4.6.			
2	DUG	ePg	15 23 50.0	0.4	1.1	145		Local.	
		eL	15 24 07.0						
	DUG	eP*	20 57 14.5	0.6	15.8			Bingham blast. Local.	
		ePg	21 07 22.0	0.6	0.8	145			
	DUG	eL	21 07 40.5					Local.	
		eP	21 57 22.0	0.4	1.1	230			
	PCU	ePg	21 57 52.0					Local.	
		eL	23 24 12.4						
	DUG	eP	23 24 45.2			290		Southern Wyoming Mag. 1.8 (U. of U.).	
		ePg	23 24 22.5			345 *1.8			
DUG	ePg	23 24 43.5					Local.		
	eL	23 25 22.0							
2	DUG	eF	00 04 17.5	0.5	1.8	256		Local.	
		ePg	00 04 22.5						
	PCU	eL	00 04 51.5					Local.	
		eP	02 34 25.5			134			
		ePg	02 34 30.8						
eL	02 34 41.8								

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
July 2 (con't)	DUG	ePn	06 47 20.0	0.4	1.1	150		Local.
		eL	06 47 40.5					
	DUG	ePg	07 54 32.0	0.4	1.1	167		Local.
		eL	07 54 51.0					
	PCU	ePg	16 35 42.4			178		Local.
		eL	16 36 19.4					
	PCU	ePn	17 38 30.8					Local.
		ePg	17 38 34.1			234		
		eL	17 39 00.4					
	DUG	eP	17 38 32.0	0.4	1.1	256		Local.
		ePg	17 38 37.0					
	DUG	eL	17 39 04.0					Local.
		eP	18 59 04.0			140		
	DUG	ePg	18 59 07.0					Bingham blast. Local.
		eL	18 59 20.5					
DUG	eP*	20 57 35.5	0.6	15.8			Local.	
	ePn	22 02 40.5	0.4	1.1	178			
DUG	ePg	22 02 42.5					Local.	
	eL	22 03 05.0						
3	PCU	eP	04 23 54.0			45		South of Sunnyside, Utah.
		ePg	04 24 00.6					
	DUG	eL	04 24 05.1					Local.
eP		22 28 34.5	0.4	1.1	401			
DUG	ePg	22 28 46.5					Local.	
	eL	22 29 31.0						
4	DUG	eP	03 00 01.0	0.8	17.0		5.3	Eastern Kazakh SSR 49.7 N, 78.2 E 02 46 57.0 h = 0 km Mag. 5.3.
		ePg	10 50 07.5	0.4	1.1	67		
DUG	eL	10 50 14.0					Local.	
	eL							

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Jul 4 (con't)	PCU	ePn		14 44 52.2			523		New Mexico 36.07 N, 106.12 W 14 43 33.99 h = 10 km Mag. 4.4.	
		ePg		14 45 05.5						
	CCU	eL		14 46 09.5				545		
		ePn		14 45 11.3						
		ePg		14 45 21.7						
	DUG	eL		14 46 31.4				750	4.4	
		ePn		14 45 21.0						
	SIC	ePg		14 45 44.0						
		eL		14 47 13.0						
	5	DUG	eP		14 45 31.6					
ePn				03 20 19.0	0.4	1.1	518		Near Regional.	
CCU		ePg		03 20 35.0						
		eL		03 21 35.0				278		Local.
PCU		eP		05 01 04.4						
		eL		05 01 34.8						
		eP		11 29 45.1				45		South of Sunnyside, Utah.
		ePg		11 29 49.6						
		eL		11 29 56.1						
		ePg		15 44 55.0	0.4	1.1	134			Local.
6	DUG	eL		15 45 10.5						
		ePg		15 29 26.0	0.4	1.1	134		Local.	
	DUG	eL		15 29 42.0						
		ePn		21 45 45.0	0.4	1.1	250		Local.	
7	DUG	ePg		21 45 50.0						
		eL		21 46 13.0						
	DUG	ePn		11 38 45.0				169		Local.
		eL		11 39 09.0						
DUG	eP		20 13 14.0	0.5	0.9	567			Near Regional.	
	ePg		20 13 35.0							
DUG	eL		20 14 38.0							
	eP*		21 19 25.5	0.6	15.8				Bingham blast.	

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Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks		
Jul 8	DUG	eP		17 51 41.0	0.4	1.1	150		Local.		
		eL		17 51 58.5							
	DUG	ePn		18 42 36.0	0.4	1.1	223		Local.		
		ePg		18 42 40.0							
	DUG	eL		18 43 05.0							
		eP		00 24 18.5				45		South of Sunnyside, Utah.	
	10	PCU	ePg		00 24 25.3						
			eL		00 24 29.5						
		PCU	eP		05 48 37.5				45		South of Sunnyside, Utah.
			ePg		05 48 43.7						
DUG	eL		05 48 48.5								
	eP		09 12 54.7	0.4	2.1	378			Western Wyoming.		
DUG	ePg		09 13 04.7								
	eL		09 13 57.5								
DUG	ePg		13 14 13.7				134		Local.		
	eL		13 14 31.0								
DUG	eP		14 03 11.0				45		South of Sunnyside, Utah.		
	ePg		14 03 17.9								
DUG	eL		14 03 22.0								
	ePg		14 57 48.0	0.4	1.1	156			Local.		
	eL		14 58 06.0								
	ePg		15 13 02.5	0.4	1.1	145			Local.		
DUG	eL		15 13 18.0								
	ePn		19 14 21.0	0.4	1.1	448			Southern Nevada.		
DUG	ePg		19 14 33.0								
	eL		19 15 26.0								
DUG	eP*		21 03 28.5	0.6	11.7				Bingham blast.		
	eP		08 43 35.2				140		Near San Rafael Swell.		
11	PCU	ePg		08 43 40.3							
		eL		08 43 53.5							

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969	Jul 11	PCU	eP	16 14 50.0		134		Local.
			ePg	16 14 54.9				
			eL	16 14 05.7				
	DUG	ePn	18 33 21.5	0.4	1.1	267		Local.
		ePg	18 33 30.0					
		eL	18 33 57.5					
	PCU	eP	21 06 28.4			45		South of Sunnyside, Utah.
		ePg	21 06 33.2					
		eL	21 06 39.4					
		eP	13 53 20.0			45		South of Sunnyside, Utah.
12	PCU	ePg	13 53 24.6					
		eL	13 53 31.0					
13	PCU	eP	01 50 56.7			45		South of Sunnyside, Utah.
		ePg	01 52 01.2					
	eL	01 52 07.7						
	eP	02 45 17.4			45		South of Sunnyside, Utah.	
	ePg	02 45 24.5						
	eL	02 45 28.4						
	eP	03 06 07.3			45		South of Sunnyside, Utah.	
	ePg	03 06 14.3						
	eL	03 06 18.3						
	eP	09 04 43.4			45		South of Sunnyside, Utah.	
14	DUG	ePg	09 04 49.7					
		eL	09 04 54.4					
		eP	09 36 13.0			45		South of Sunnyside, Utah.
		ePg	09 36 17.2					
		eL	09 36 24.0					
		eP	18 49 10.5	0.4	1.1	138		Local.
ePg	18 49 12.5							
eL	18 49 27.0							

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969	Jul 15	PCU	eP	00 25 37.6		134		Local.
			ePg	00 25 42.2				
			eL	00 25 54.7				
	DUG	ePn	14 59 43.0	0.4	1.1	589		Near Regional.
		ePg	15 01 01.0					
	DUG	eL	15 02 11.0			140		Local.
		ePg	17 57 37.0	0.5	0.9			
	DUG	eL	17 57 53.5			412		Local.
		ePn	21 49 04.0	0.4	1.1			
	DUG	ePg	21 49 21.0			334		Local.
eL		21 50 03.0						
16	CCU	ePn	21 55 59.0	0.4	1.1			
		ePg	21 56 16.0					
eL	21 56 45.0							
DUG	ePn	13 03 11.3			278		Nevada Test Site "Ildrin" 37.17 N, 116.08 W	
	ePg	13 03 13.7					13 02 30.0 h = 0 km	
DUG	eL	13 03 35.0			440	*4.3	Mag. 4.3 (U. of U.).	
	ePn	13 03 32.6						
PCU	ePg	13 03 45.6			512			
	eL	13 04 41.0						
DUG	ePn	13 03 46.7						
	ePg	13 04 00.0						
PCU	eL	13 05 01.5						
	eP	14 56 03.0			445	*5.6	Nevada Test Site "Hutch" 37.21 N, 116.11 W	
DUG	ePg	14 56 14.0					14 55 00.0 h = 0 km	
	eL	14 57 06.0			463		Mag. 5.6 (U. of U.).	
DUG	ePn	14 56 15.7						
	ePg	14 56 30.0						
DUG	eL	14 57 23.5			134		Local.	
	ePg	23 53 30.0						
eL	23 53 46.5							

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Jul 17 1969	PCU	eP	13 09 09.9			45		South of Sunnyside, Utah.
		ePg	13 09 14.0					
		eL	13 09 21.0					
	PCU	eP	13 15 09.7			45		South of Sunnyside, Utah.
		ePg	13 15 16.7					
	DUG	eL	13 15 21.1					
		eP	15 03 09.5	0.4	1.1	578		Near Regional.
		ePg	15 03 28.0					
	PCU	eL	15 04 36.0					
		ePg	20 10 30.7			111		Local.
	DUG	eL	20 10 43.9					
		ePg	20 10 53.5	0.5	1.8	134		
	DUG	eL	20 11 09.5					
		iP* C	20 51 46.0	0.4	21.2			Bingham blast.
	PCU	ePg	20 52 00.7					
eP		22 29 06.8			45		South of Sunnyside, Utah.	
PCU	ePg	22 29 13.1						
	eL	22 29 17.8						
	eP	03 51 02.8			145		Local.	
PCU	ePg	03 51 08.6						
	eL	03 51 22.2						
	ePn	03 58 14.5			145		Local.	
PCU	ePg	03 58 20.0						
	eL	03 58 33.8						
	eP	07 11 57.5			122		Local.	
DUG	ePg	07 12 03.2						
	eL	07 12 12.8						
	eP	15 00 26.0	0.4	1.1	530		Near Regional.	
DUG	ePg	15 00 43.0						
	eL	15 01 44.5						
	eP	15 49 12.0			200		Local.	
DUG	ePg	15 49 17.0						
	eL	15 49 47.0						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Jul 18 1969 (con't)	DUG	eP	20 25 36.0	0.4	1.1	189		Local.
		ePg	20 25 42.0					
		eL	20 26 01.0					
	DUG	ePn	20 29 54.0	0.4	1.1	245		Local.
		ePg	20 29 55.0					
	DUG	eL	20 30 17.0					
		eP	20 38 31.0	0.4	1.1	234		Local.
		ePg	20 38 33.5					
	DUG	eL	20 38 55.0					
		eP*	20 58 24.0	0.6	10.3	120		Bingham blast.
	CCU	ePg	22 19 04.7					Local.
		eL	22 19 18.7					
eP		22 48 06.4			45		South of Sunnyside, Utah.	
PCU	ePg	22 48 11.6						
	eL	22 48 17.4						
	ePn	18 21 20.2	0.4	1.1	200		Local.	
DUG	ePg	18 21 24.0						
	eL	18 21 44.0						
	eP	21 57 08.0	0.4	1.1	200		Local.	
DUG	ePg	21 57 11.0						
	eL	21 57 31.5						
	eP	22 04 33.0			295		Local.	
DUG	ePg	22 04 39.0						
	eL	22 05 12.0						
	ePn	18 26 40.0			290		Local.	
DUG	ePg	18 26 46.0						
	eL	18 27 20.5						
	eP	01 49 33.2			45		South of Sunnyside, Utah.	
PCU	ePg	01 49 38.2						
	eL	01 49 44.2						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Jul 21 (con't)	PCU	eP	07 30 46.6			45		South of Sunnyside, Utah.
		ePg	07 30 50.9					
		eL	07 30 57.6					
		eP	07 30 55.0					
22	PCU	eP	11 32 15.0			122		Local.
		ePg	11 32 19.4					
	PCU	eL	11 32 29.5			45		South of Sunnyside, Utah.
		eP	12 30 57.9					
	DUG	ePg	12 31 01.9			140		Local.
		eL	12 31 08.9					
	DUG	eP	13 27 22.5	0.4	1.1	245		Local.
		eL	13 27 41.0					
	DUG	eP	18 37 51.0	0.4	1.1	150		Local.
		ePg	18 37 56.0					
DUG	eL	18 38 04.0						
	ePn	19 50 08.4	0.5	1.8	290		Local.	
PCU	eP	19 50 13.5						
	eL	19 50 28.0						
PCU	eP	20 40 42.0						
	eL	20 41 15.0						
23	DUG	eP	03 00 01.0	1.0	25.0	550	5.5	Eastern Kazakh SSR 49.9 N, 78.3 E 02 46 58.1 h = 0 km Mag. 5.5.
		eL	03 00 01.0					Local.
	PCU	eP	05 35 49.2			140		Local.
		ePg	05 35 57.3					
	PCU	eL	05 36 05.7			89		Local.
		eP	09 21 52.7					
	PCU	ePg	09 21 56.7			156		Local.
		eL	09 22 02.7					
	PCU	eP	09 40 05.4					
		ePg	09 40 10.5					
PCU	eL	09 40 26.2						
	eL	09 40 26.2						

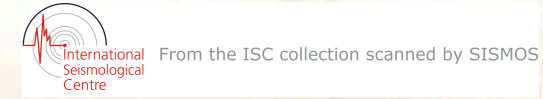
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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Jul 23 (con't)	PCU	ePg	18 49 49.1			345		Local.
		eL	18 50 24.0					
	DUG	ePn	21 48 53.0	0.4	2.1	250		Local.
		ePg	21 49 00.2					
DUG	eL	21 49 28.5						
	eL	21 49 28.5						
24	PCU	eP	00 14 05.7			45		South of Sunnyside, Utah.
		ePg	00 14 10.7					
	PCU	eL	00 14 16.6			45		Probable rockburst near Sunnyside, Utah.
		eP	01 13 59.6					
	DUG	ePg	01 14 04.5			45		South of Sunnyside, Utah.
		eR	01 14 15.6					
	PCU	eP	01 14 03.5			100		Local.
		eP	07 46 49.7					
	DUG	ePg	07 46 55.7			270		Central Nevada.
		eL	07 47 00.9					
DUG	eP	09 12 46.4			295			
	ePg	09 12 53.2						
DUG	eL	09 12 58.6			656	3.9	Central California 36.3 N, 118.4 W 18 43 57.6 h = 8 km Mag. 3.9.	
	eP	18 37 38.2	0.4	1.1	45		South of Sunnyside, Utah.	
CCU	ePg	18 37 42.5						
	eL	18 38 13.0						
DUG	ePg	18 37 45.5						
	eL	18 38 18.4						
DUG	eP	18 45 46.9	0.5	1.8	45		South of Sunnyside, Utah.	
	eP	18 45 46.9						
25	PCU	eP	01 47 22.7			140		Local.
		ePg	01 47 29.4					
	PCU	eL	01 47 34.2					
		eP	02 41 09.8					
PCU	ePg	02 41 15.8						
	eL	02 41 27.4						

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Jul 25 (con't)	PCU	eP	04 12 37.9			45		South of Sunnyside, Utah.
		ePg	04 12 44.3					
		eL	04 12 48.9					
	PCU	eP	04 41 58.0			45		South of Sunnyside, Utah.
		eL	04 42 09.5					
	PCU	eP	09 52 19.8			45		South of Sunnyside, Utah.
		ePg	09 52 24.5					
		eL	09 52 30.8			140		Local.
	DUG	ePg	12 14 56.5					
		eL	12 15 01.8					
eL		12 15 13.5			545		Near Regional.	
DUG	ePn	16 21 41.5	0.4	1.1				
	ePg	16 21 57.5						
	eL	16 23 02.0						
DUG	ePn	18 26 21.5	0.4	1.1	200		Local.	
	ePg	18 26 23.5						
	eL	18 26 43.5						
SIC	ePg	18 26 22.6			295			
	eL	18 26 55.1						
	eP	21 50 11.0	0.4	1.1	245		Local.	
DUG	ePg	21 50 16.0						
	eL	21 50 43.0						
	eP	05 34 28.5	0.6	1.6	634	4.0	Central California 36.3 N, 118.2 W 05 32 39.7 h = 8 km Mag. 4.0.	
CGU	eP	17 19 29.7			178		Southern Nevada 37.2 N, 115.0 W 17 19 10.7 h = 33 km.	
	ePg	17 19 37.5						
	eL	17 20 05.7						
DUG	eP	17 20 02.3	0.4	1.1	378			
	ePg	17 20 12.0						
	eL	17 20 55.0						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Jul 28	DUG	ePn	21 50 21.0	0.4	1.6	212		Local.
		eL	21 50 50.0					
29	DUG	eP	13 55 35.0	0.4	1.1	150		Local.
		ePg	13 55 37.5					
		eL	13 55 54.5					
		ePg	15 25 28.5	0.4	1.1	134		Local.
		eL	15 25 44.5					
SIC	DUG	ePg	18 00 40.0			105		Local.
		eL	18 00 52.1					
DUG	DUG	eP	18 00 42.0	0.4	1.1	140		
		eL	18 00 59.5					
		eP	15 29 13.0	0.5	4.5	39		Local.
30	DUG	eL	15 29 17.5					
		eP	15 23 29.5	0.4	2.1	150		Local.
PCU	DUG	ePg	15 23 32.5					
		eL	15 23 50.0					
		eP	22 26 47.5			45		South of Sunnyside, Utah.
31	PCU	ePg	22 26 54.6					
		eL	22 26 59.0					
		eP	00 00 03.5			122		*Southwest of Santaquin, Utah 39.87 N, 111.65 W 00 00 05.1 h = 0 km Mag. 2.9. (5 sta).
DUG	DUG	ePg	00 00 10.5					
		eL	00 00 25.7					
		ePn	00 00 10.0	0.4	5.3	225	*2.9	
SIC	DUG	eL	00 00 39.5			140		
		ePg	00 00 12.6					
		eL	00 00 29.1					
CCU	DUG	ePg	00 00 38.5			189		
		eL	00 01 15.0					
DUG	DUG	iPn	10 55 10.5	1.8		1448	4.9	Gulf of California 27.1 N, 111.3 W 10 52 01.2 h = 30 km Mag. 4.9.
		eL						



Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Jul 31 (con't)	DUG	ePn	16 01 38.0	0.4	1.1	401		Local, 09°25'01"50"N 108°00'00"00"W
		ePg	16 01 49.0					Local, 09°25'01"50"N 108°00'00"00"W
		eL	16 02 35.5					Local, 09°25'01"50"N 108°00'00"00"W
	DUG	eP	16 50 45.6	0.4	1.1	130		Local, 09°25'01"50"N 108°00'00"00"W
		ePg	16 50 47.5					Local, 09°25'01"50"N 108°00'00"00"W
		eL	16 51 02.0					Local, 09°25'01"50"N 108°00'00"00"W
DUG	eP	21 44 20.0					Local, 09°25'01"50"N 108°00'00"00"W	
	eL	21 44 41.3					Local, 09°25'01"50"N 108°00'00"00"W	
Aug 1	DUG	ePn	00 21 43.5	0.4	1.1	312		Local, 09°25'01"50"N 108°00'00"00"W
		ePg	00 21 49.0					Local, 09°25'01"50"N 108°00'00"00"W
		eL	00 22 24.5					Local, 09°25'01"50"N 108°00'00"00"W
		eP	17 02 24.2	0.4	1.1	134		Local, 09°25'01"50"N 108°00'00"00"W
		eL	17 02 41.0					Local, 09°25'01"50"N 108°00'00"00"W
		eP	18 35 06.0	0.4	1.1	190		Local, 09°25'01"50"N 108°00'00"00"W
	DUG	eP	18 35 07.5					Local, 09°25'01"50"N 108°00'00"00"W
		eL	18 35 33.0					Local, 09°25'01"50"N 108°00'00"00"W
		eP	19 20 02.5	0.4	1.1	145		Local, 09°25'01"50"N 108°00'00"00"W
		eL	19 20 19.5					Local, 09°25'01"50"N 108°00'00"00"W
		eP	21 00 19.0	0.4	1.1	134		Local, 09°25'01"50"N 108°00'00"00"W
		eL	21 00 35.0					Local, 09°25'01"50"N 108°00'00"00"W
PCU	eP	21 02 07.5					South of Sunnyside, Utah.	
	ePg	21 02 14.5					South of Sunnyside, Utah.	
	eL	21 02 19.0					South of Sunnyside, Utah.	
	eP	21 23 47.1					South of Sunnyside, Utah.	
	ePg	21 23 53.0					South of Sunnyside, Utah.	
	eL	21 23 59.0					South of Sunnyside, Utah.	
3	PCU	eP	02 19 30.5					South of Sunnyside, Utah.
		ePg	02 19 37.5					South of Sunnyside, Utah.
	DUG	eL	02 19 41.5					South of Sunnyside, Utah.
		eP	02 19 51.5					South of Sunnyside, Utah.

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Aug 3 (con't)	PCU	eP	05 43 58.4			45		South of Sunnyside, Utah.
		ePg	05 44 05.5					South of Sunnyside, Utah.
		eL	05 44 09.4					South of Sunnyside, Utah.
	PCU	eP	14 27 02.0			45		South of Sunnyside, Utah.
		ePg	14 27 06.3					South of Sunnyside, Utah.
		eL	14 27 13.0					South of Sunnyside, Utah.
	PCU	eP	15 37 08.7			45		South of Sunnyside, Utah.
		ePg	15 37 14.2					South of Sunnyside, Utah.
		eL	15 37 29.7					South of Sunnyside, Utah.
	PCU	eP	16 49 20.2			45		South of Sunnyside, Utah.
		ePg	16 49 27.0					South of Sunnyside, Utah.
		eL	16 49 31.2					South of Sunnyside, Utah.
PCU	eP	21 48 00.1			45		South of Sunnyside, Utah.	
	ePg	21 48 06.5					South of Sunnyside, Utah.	
	eL	21 48 11.1					South of Sunnyside, Utah.	
4	PCU	eP	00 37 06.7			140		Local.
		ePg	00 37 11.7					Local.
		eL	00 37 23.9					Local.
	PCU	eP	07 06 24.9			45		South of Sunnyside, Utah.
		ePg	07 06 31.5					South of Sunnyside, Utah.
		eL	07 06 36.0					South of Sunnyside, Utah.
	DUG	eP	15 43 40.5	0.4	1.1	138		Local.
		eL	15 43 58.0					Local.
		eP	16 41 41.5					Local.
	PCU	ePg	16 41 48.3					Local.
		eL	16 41 52.5					Local.
		ePn	19 48 07.0	0.4	1.1	356		Local.
DUG	ePg	19 48 16.0					Local.	
	eL	19 48 57.0					Local.	

Date	Sta	Phase	Dir	Time (GGT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Aug 5	PCU	eP		04 32 49.0			45		South of Sunnyside, Utah.	
		ePg		04 32 56.0						
		eL		04 33 00.0						
	PCU	eP		06 04 46.0			45		South of Sunnyside, Utah.	
		ePg		06 05 02.5						
		eL		06 05 07.1						
	PCU	eP		09 59 17.5			45		South of Sunnyside, Utah	
		ePg		09 59 24.5						
		eL		09 59 28.5						
	DUG	eP		18 19 20.6	0.4	1.1	334		Local.	
		ePg		18 19 28.7						
		eL		18 20 06.0						
	DUG	ePn		18 41 31.0	0.6	1.6	234		Local.	
		eNg		18 41 33.7						
		eLg		18 42 02.0						
6	DUG	eP		20 10 31.4			145	*2.2	Near Fillmore, Utah Mag. 2.2 (U. of U.).	
		ePg		20 10 32.3						
		eL		20 10 51.5						
	PCU	ePg		20 10 31.9			160		Local.	
		eL		20 10 52.7						
		ePn		22 07 46.0	0.4	1.1				
	DUG	ePg		22 07 49.8			223		Local.	
		eL		22 08 24.5						
		eP		16 16 07.0						
	7	DUG	eL		16 16 21.5			150		Local.
			ePn		19 48 58.2	0.4	1.1			
			ePg		19 49 02.0					
	8	DUG	eL		19 49 46.0			345		Local.
			eP		15 22 21.5					
			ePg		15 22 26.0					
9	DUG	eL		15 23 06.0			350		Local.	
		eP		20 10 49.0						
		ePg		20 10 53.7						

Date	Sta	Phase	Dir	Time (GGT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Aug 8 (con't)	PCU	eP		20 10 49.0			134		Local.	
		ePg		20 10 53.7						
		eL		20 11 04.7						
	DUG	iPn	C	20 11 17.2	1.0	12.5	220		Local.	
		ePn		23 37 08.0	0.4	1.1				
		ePg		23 37 09.0						
	9	DUG	eL		23 37 40.0			833		Regional.
			eP		18 53 43.0	0.7	0.8			
			ePg		18 54 28.0					
	10	PCU	eL		18 55 29.0			267		Southern Utah-Nevada Border.
			ePn		21 58 00.0	0.6	2.6			
			ePg		21 58 03.8					
	12	DUG	eL		21 58 30.5			345		South of Watson, Utah.
			eP		21 58 24.1					
			ePg		21 58 24.1					
13	DUG	eL		21 59 12.6			134		Local.	
		eP		00 48 57.8						
		ePg		00 49 04.6						
12	DUG	eL		00 49 14.3			45		South of Sunnyside, Utah.	
		eP		08 19 53.7						
		ePg		08 19 57.7						
13	DUG	eL		08 20 04.7			134		Local.	
		eP		12 36 53.9						
		ePg		12 37 00.9						
12	DUG	eL		12 37 10.0			378		Local.	
		ePn		18 56 01.0	0.4	3.2				
		ePg		18 56 11.0						
13	DUG	eL		18 56 52.0			145		Local.	
		eP		18 39 06.0	0.4	1.1				
		eL		18 39 23.0						

Date 1969 Sta Phase Dir Time (GCT) Per (sec) Gnd Mot Amp (Mu) Dist (km) Mag Remarks

Aug 14	DUG	eP*	20 56 45.7	0.6	18.8				Bingham blast.
15	CCU	ePg	00 30 33.6			11			Utah 37.8 N, 113.1 W 00 30 31.1 h = 4 km
	DUG	eL	00 31 04.2						Mag. 2.7 (U. of U.).
15	PCU	ePn	00 31 11.0	0.4	1.1	267	*2.7		
		ePg	00 31 15.0						
		eL	00 31 49.8						
		ePn	00 31 15.6			278			
15	PCU	ePg	00 31 19.3			300			Local.
		eL	00 31 52.8						
15	DUG	ePg	17 05 48.4						
		eL	17 06 23.7						
15	DUG	eP	17 06 51.3	0.4	1.1				
		eP	18 47 30.5	0.4	1.1	250			Local.
15	DUG	eP	18 47 37.5						
		eL	18 47 05.0						
15	DUG	ePn	21 55 16.2	0.4	2.1	267			Local.
		ePg	21 55 21.0						
15	DUG	eL	21 55 50.5						
		eP	09 58 34.5						
16	PCU	ePg	09 58 39.3			45			South of Sunnyside, Utah.
		eL	09 58 45.5						
16	DUG	eP	11 59 36.5			656	4.0		Central California 35.7 N, 117.6 W
		eP	15 23 49.5	0.4	1.1	178			11 57 46.9 h = 16 km Mag. 4.0.
16	PCU	eL	15 24 07.4						Local.
		eP	18 57 22.5			45			South of Sunnyside, Utah.
16	DUG	ePg	18 57 28.5						
		eL	18 57 33.5						
16	DUG	ePn	21 55 46.2	0.4	1.1	256			Local.
		ePg	21 55 51.4						
16	DUG	eL	21 56 20.5						

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Date 1969 Sta Phase Dir Time (GCT) Per (sec) Gnd Mot Amp (Mu) Dist (km) Mag Remarks

Aug 17	PCU	ePn	05 50 47.3			150			Local.
		ePg	05 50 52.5						
17	PCU	eL	05 51 06.2						
		eP	13 16 15.2			189			Local.
17	PCU	ePg	13 16 26.9						
		eL	13 16 41.7						
17	DUG	eP	22 47 07.5			45			South of Sunnyside, Utah.
		ePg	22 47 12.5						
17	DUG	eL	22 47 18.5						
		eP	01 43 05.2	2.0	94.6	1553	4.9		Gulf of California 24.8 N, 109.2 W
17	PCU	eP	01 04 37.4						01 39 24.3 h = 33 km Mag. 4.9.
		ePg	01 04 44.2			45			South of Sunnyside, Utah.
17	DUG	eL	01 04 48.8						
		eP	03 01 12.5	1.5	18.2	1550	4.6		Gulf of California 25.2 N, 109.8 W
17	DUG	eP	04 36 26.5	1.0	2.5	1556	4.5		02 57 43.0 h = 33 km Mag. 4.6.
		eP	07 17 50.8						Gulf of California 24.6 N, 109.2 W
17	PCU	ePg	07 17 57.8			45			04 32 37.9 h = 33 km Mag. 4.5.
		eL	07 18 01.8						South of Sunnyside, Utah.
17	DUG	eP	07 54 52.0	1.2	18.0	1634	4.8		Gulf of California 24.8 N, 109.1 W
		eP	11 42 35.3						07 51 06.9 h = 29 km Mag. 4.8.
17	DUG	ePg	11 42 39.8			45			South of Sunnyside, Utah.
		eL	11 42 46.2						
17	DUG	ePn	20 38 36.2	0.4	1.1	434			Local.
		ePg	20 38 41.0						
17	DUG	eLg	20 39 33.0						
		eP*	20 58 36.2	0.6	16.0				Bingham blast.
17	DUG	ePn	21 57 00.1	0.5	1.8	256			Local.
		ePg	21 57 04.5						
17	DUG	eL	21 57 33.3						

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969	Aug 19	PCU	ePn	08 51 41.1		178	*2.0	*South of Fruitland, Utah 40.07 N, 110.80 W 08 51 32.8 h = 0 km Mag. 2.0 (4 sta).
			eL	08 52 06.4				
		DUG	ePn	08 52 00.0	0.6	312		
			eL	08 52 43.1				
		DUG	eP	10 25 16.2	1.0	1576	4.7	Gulf of California 25.2 N, 108.9 W 10 21 24.6 h = 33 km Mag. 4.7.
		DUG	eP	20 37 23.8	0.5	145		Local.
			eL	20 37 42.5				
		DUG	ePn	21 55 29.5	0.4	212		Local.
			ePg	21 55 31.0				
			eLg	21 55 52.5				
20	DUG	ePn	08 47 39.0		178			Local.
		eL	08 48 04.5					
	PCU	eP	09 35 16.0		170			Local.
		ePg	09 35 26.5					
		eL	09 35 40.0					
	DUG	eP	15 32 22.5	1.2	875	4.3		Southern California 33.0 N, 116.2 W 15 29 57.2 h = 16 km Mag. 4.3.
	PCU	eP	16 14 29.5		289			Local.
		ePg	16 14 32.5					
		eL	16 15 09.0					
		DUG	eP	16 14 30.0		45		South of Sunnyside, Utah.
21	PCU	ePn	17 16 07.3		325			Local.
		ePg	17 16 13.8					
		eL	17 16 18.3					
	DUG	ePn	17 24 27.0		189			Local.
		ePg	17 24 41.5					
	PCU	eL	17 25 16.0					
		eP	18 35 17.5					
		ePg	18 35 26.9					
		eL	18 35 43.2					
	PCU	eP	19 20 01.1		45			South of Sunnyside, Utah.
22	PCU	ePg	19 20 08.1					
		eL	19 20 12.1					
	Aug 20 (con't)	PCU	eP	19 14 26.3		45		South of Sunnyside, Utah.
		ePg	19 41 32.6					
		eL	19 41 37.3					
	PCU	eP	21 30 28.8		45			South of Sunnyside, Utah.
		ePg	21 30 35.6					
		eL	21 30 39.8					
	21	PCU	eP	04 31 43.5		45		South of Sunnyside, Utah.
		ePg	04 31 50.5					
	eL	04 31 54.5						
PCU	eP	18 49 21.6		45			South of Sunnyside, Utah.	
	ePg	18 49 28.4						
	eL	18 49 32.6						
PCU	eP	19 10 12.1		45			South of Sunnyside, Utah.	
	ePg	19 10 20.6						
	eL	19 10 23.1						
23	PCU	eP	03 55 17.2		45			South of Sunnyside, Utah.
		ePg	03 55 23.7					
		eL	03 55 28.2					
	DUG	eP	10 08 37.0	1.4	2114	5.1		Baja California 23.3 N, 110.4 W 10 04 36.8 h = 11 km Mag. 5.1.
	PCU	eP	22 18 55.9		45			South of Sunnyside, Utah.
		ePg	22 19 00.4					
		eL	22 19 06.9					
	PCU	eP	01 04 17.9		45			South of Sunnyside, Utah.
		ePg	01 04 21.9					
		eL	01 04 28.9					
PCU	eP	04 41 59.3		45			South of Sunnyside, Utah.	
	ePg	04 42 01.3						
	eL	04 42 10.3						
CCU	eP	19 18 06.5		70			*North of Parowan, Utah 37.95 N, 112.71 W 19 17 59.2 h = 20 km Mag. 2.0 (5 sta)	
	ePg	19 18 09.3						
	eL	19 18 14.5						
PCU	ePg	19 18 33.7		200				
	eL	19 19 01.7						
DUG	ePn	19 18 34.5	0.5	1.8	234	*2.0		
	ePg	19 18 36.0						
	eL	19 19 07.0						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969	Aug 20 (con't)	PCU	eP	19 14 26.3		45		South of Sunnyside, Utah.
		ePg	19 41 32.6					
		eL	19 41 37.3					
	PCU	eP	21 30 28.8		45			South of Sunnyside, Utah.
		ePg	21 30 35.6					
		eL	21 30 39.8					
	21	PCU	eP	04 31 43.5		45		South of Sunnyside, Utah.
		ePg	04 31 50.5					
		eL	04 31 54.5					
	PCU	eP	18 49 21.6		45			South of Sunnyside, Utah.
	ePg	18 49 28.4						
	eL	18 49 32.6						
PCU	eP	19 10 12.1		45			South of Sunnyside, Utah.	
	ePg	19 10 20.6						
	eL	19 10 23.1						
22	PCU	eP	03 55 17.2		45			South of Sunnyside, Utah.
		ePg	03 55 23.7					
		eL	03 55 28.2					
	DUG	eP	10 08 37.0	1.4	2114	5.1		Baja California 23.3 N, 110.4 W 10 04 36.8 h = 11 km Mag. 5.1.
	PCU	eP	22 18 55.9		45			South of Sunnyside, Utah.
		ePg	22 19 00.4					
		eL	22 19 06.9					
	PCU	eP	01 04 17.9		45			South of Sunnyside, Utah.
		ePg	01 04 21.9					
		eL	01 04 28.9					
PCU	eP	04 41 59.3		45			South of Sunnyside, Utah.	
	ePg	04 42 01.3						
	eL	04 42 10.3						
CCU	eP	19 18 06.5		70			*North of Parowan, Utah 37.95 N, 112.71 W 19 17 59.2 h = 20 km Mag. 2.0 (5 sta)	
	ePg	19 18 09.3						
	eL	19 18 14.5						
PCU	ePg	19 18 33.7		200				
	eL	19 19 01.7						
DUG	ePn	19 18 34.5	0.5	1.8	234	*2.0		
	ePg	19 18 36.0						
	eL	19 19 07.0						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Aug 23 1969 (con't)	PCU	eP	20 01 30.8			45		South of Sunnyside, Utah.	
		ePg	20 01 36.3						
	DUG	eL	20 01 41.8						Bingham blast, New Mexico 34.8 N, 108.7 W 21 41 54.2 h = 33 km Mag. 3.9.
		eP*	20 56 11.2	0.6	10.3				
		ePn	21 43 10.6						
		ePg	21 43 24.9						
		eL	21 44 29.8						
		ePn	21 43 48.5	0.6	1.6	689	3.9		
		ePg	21 43 54.0						
		eLg	21 45 12.0						
24	PCU	eP	05 43 42.0			45		South of Sunnyside, Utah.	
		ePg	05 43 46.8						
		eL	05 43 53.0						
	DUG	eP	14 34 05.2			15		Probable rockburst, Castle Gate, Utah area.	
		ePg	14 34 07.7						
		eR	14 34 09.4						
		eP	14 34 33.0	0.4	1.1				
		eP	04 11 13.5			100			Local.
		ePg	04 11 15.6						
		eL	04 11 24.5						
25	DUG	ePn	08 05 54.3	0.6	0.8	512	3.7	California-Nevada Border Region 37.61 N, 118.74 W 08 03 33.98 h = 33 km Mag. 3.7.	
		ePg	08 06 11.5						
	DUG	eL	08 06 18.4					Bingham blast.	
		eP*	20 55 11.0	0.6	11.9				
		eP	03 42 05.0			45			South of Sunnyside, Utah.
		ePg	03 42 12.0						
		eL	03 42 16.0						
		ePn	16 39 12.0	0.4	1.1	545			Near Regional.
		ePg	16 39 22.0						
		eL	16 40 26.2						
26	DUG	ePg	18 06 32.6	0.4	2.1	170		Local.	
		eL	18 06 51.0						
	PCU	eP	03 42 05.0			45		South of Sunnyside, Utah.	
		ePg	03 42 12.0						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Aug 26 1969 (con't)	DUG	ePn	18 17 08.5	0.4	1.1	323		Local.	
		ePg	18 17 12.6						
	DUG	eL	18 17 49.6					Local.	
		eP	19 23 42.0			334			
		ePg	19 23 54.0						
		eL	19 24 32.5						
		ePn	21 46 29.0			245			Local.
		ePg	21 46 33.4						
		eL	21 47 00.6						
		27	PCU	eP	01 13 48.7				223
ePg	01 13 54.7								
DUG	eL		01 14 20.8					Nevada Test Site "Pliers" 37.11 N, 116.04 W 13 45 00.00 h = 0 km Mag. 4.7 (U. of U.). Southern Nevada.	
	eP		01 13 50.0			445	*4.7		
	eP		13 45 17.5						
	ePn		14 08 44.0			489			Wyoming 42.9 N, 110.8 W 15 59 28.4 h = 1 km Mag. 4.1.
	ePg		14 08 54.0						
	eL		14 09 51.0						
	ePn		16 00 11.5			245			
	ePg		16 00 16.0						
28	DUG	eP	16 00 46.0	0.4	18.0	345	4.1	Local.	
		ePg	16 00 19.0						
	PCU	eP	16 00 26.0					Local.	
		eL	16 01 06.1						
		ePn	16 00 23.6			557			
		ePg	16 00 32.4						
		eL	16 01 35.1						
		eP	17 43 06.1			45			South of Sunnyside, Utah.
		ePg	17 43 10.6						
		eL	17 43 17.1						
DUG	eP	17 43 26.4	1.0	5.0					

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Aug 27 (con't)	PCU	eP	18 14 16.2			45		South of Sunnyside, Utah.	
		ePg	18 14 19.1						
		eL	18 14 27.2						
	DUG	eP	18 14 31.2	0.8	3.4	256		Wyoming 43.00 N, 110.72 W 18 35 18.90 h = 1 km Mag. 3.9.	
		e(Pn)	18 36 00.7						
	DUG	eLg	18 36 36.2					Probable McGill, Nevada blast.	
		eP	18 36 11.2	1.0	25.0	367			
		ePn	18 36 13.5						
	PCU	ePg	18 36 21.9					South of Sunnyside, Utah.	
		eL	18 37 05.2						
	DUG	ePn	21 43 15.5	0.4	1.1	223		South of Sunnyside, Utah.	
		ePg	21 43 20.5						
		eL	21 43 45.5						
	29	PCU	ePg	08 07 00.1			45		South of Sunnyside, Utah.
			eL	08 07 05.3					
eP			10 19 04.1						
PCU		ePg	10 19 08.3					South of Sunnyside, Utah.	
		eL	10 19 15.1						
DUG		eP	20 25 29.4					South of Sunnyside, Utah.	
		ePg	20 25 37.1						
		eL	20 25 40.4						
DUG		eP	22 24 17.8	0.4	2.1	250		Local.	
		ePg	22 24 19.8						
		eLg	22 24 51.5						
30		PCU	eP	02 23 20.1			45		South of Sunnyside, Utah.
			eL	02 23 31.1					
			eP	16 20 33.6	0.4	2.1	140		
		DUG	ePg	16 20 35.5					Local.
	eLg		16 20 51.7						
	DUG	eP	20 48 11.3	0.4	2.1	145		Local.	
		eL	20 48 29.0						
		eP	23 50 07.3						
	PCU	ePg	23 50 14.3					South of Sunnyside, Utah.	
		eL	23 50 18.3						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Aug 30	LOG	ePg	02 01 31.5			189		Wyoming 43.1 N, 110.7 W 02 01 02.5 h = 1 km Mag. 3.6.
		eL	02 01 57.0					
		eP	02 01 55.0	1.0	6.3	356	3.6	
	DUG	eP	02 01 57.9					South of Sunnyside, Utah.
		ePg	08 55 22.0					
	DUG	eLg	08 55 28.6					Local.
		eL	08 55 33.0					
		eP	15 31 13.0	0.4	1.1	156		
	DUG	eL	15 31 31.0					Local.
		eP	17 32 03.0	0.4	1.1	134		
	PCU	eLg	17 32 19.0					South of Sunnyside, Utah.
		eP	18 01 37.9					
		ePg	18 01 44.7					
	DUG	eL	18 01 48.9					Bingham blast.
		eP*	20 49 52.1	0.6	11.9	45		
DUG	eP	21 22 15.4					South of Sunnyside, Utah.	
	ePg	21 22 23.4						
	eL	21 22 26.4						
DUG	ePn	21 48 41.6	0.4	1.1	250		Local.	
	ePg	21 48 46.0						
	eL	21 49 14.0						
PCU	eP	23 11 56.7					South of Sunnyside, Utah.	
	ePg	23 12 03.2						
	eL	23 12 07.7						
31	PCU	eP	03 43 10.6			15		Probable rockburst near Sunnyside, Utah.
		eR	03 43 14.3					
		eP	03 43 36.5	1.0	3.8	325		
	DUG	eP	18 49 32.5					Local.
		ePg	18 49 59.5					
	DUG	eL	18 50 17.0					Local.
		ePn	21 47 41.0	0.4	1.1	245		
		ePg	21 47 45.2					
	DUG	eLg	21 48 13.5					

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Sept 1	DUG	eP*		01 59 47.7	0.6	15.8			
	PGU	eP		14 53 40.9			45		Bingham blast. South of Sunnyside, Utah.
		eS		14 53 47.7					
		eL		14 53 51.9					
2	DUG	eP		00 39 05.0			145		Local.
	PCU	eP		02 05 10.6			145		Local.
		eL		02 05 29.5					
3	PCU	eP		05 54 39.3			45		South of Sunnyside, Utah.
	DUG	eP		21 42 44.0			278		Local.
	DUG	eP		22 43 52.2			134		Local.
4	CCU	eP		04 30 22.4			140	*2.0	*East of Escalante, Utah 37.80 N, 111.30 W 04 29 56.6 h = 0 km Mag. 2.0 (4 sta).
	PCU	eP		04 30 26.8			167		
	PCU	eP		14 31 50.5			45		South of Sunnyside, Utah.
	DUG	eP		19 18 32.0			323		Local.
	DUG	eP		23 12 48.0	0.5	1.1	200		Local.
		eL		23 13 11.8					
		eP		04 30 40.5					
		eP		04 30 49.8					
		eP		14 31 58.0					
		eP		14 32 01.5					
		eP		19 18 41.8					
		eP		19 19 16.1					

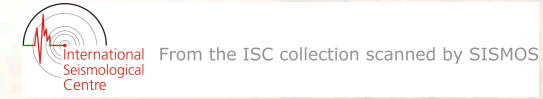
Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Sept 5	PCU	eP		02 56 21.5			111		Local.
		eP		02 56 26.0					
		eL		02 56 35.4					
	PCU	eP		06 07 35.6			120		Local.
		eP		06 07 42.6					
		eL		06 07 50.1					
	PCU	eP		10 43 33.2			122		Local.
		eP		10 43 39.7					
		eL		10 43 48.2					
	DUG	eP*		20 56 21.6	0.6	10.7	57		Bingham blast. Near Price, Utah.
	PCU	eP		21 54 04.0					
	7	DUG	eP		22 07 09.0	0.4	1.1	223	
		eP		22 07 12.0					
		eL		22 07 37.5					
8	DUG	eP*		22 05 39.8	0.6	12.6			Bingham blast.
	PCU	eP		18 29 09.1			45		South of Sunnyside, Utah.
	PCU	eP		18 29 14.6					
9	PCU	eP		22 12 38.2			240		Local.
	DUG	eP		22 13 12.0					
		eP		22 12 41.0					
	PCU	eP		10 35 05.2			45		South of Sunnyside, Utah.
	DUG	eP		16 26 52.5	0.5	7.1	140		Local.
	PCU	eP		17 54 08.6			45		South of Sunnyside, Utah.
	eL		17 54 15.1						
	eL		17 54 19.6						

Date 1969 Sta Phase Dir Time (GCT) Per (sec) Gnd Mot Amp (Mu) Dist (km) Mag Remarks

Sept 10	PCU	eP	12 00 19.1	0.4	8.5	122	Local.
			12 00 24.5				
			12 00 33.7				
PCU	ePg	21 00 39.9	0.4	4.8	245	Colorado "Project Rulison" (AEC)	
		21 00 54.5					
DUG	eL	21 01 49.3	0.4	*4.8	356	39.40 N, 107.94 W 21 00 00.10 h = 0 km	
		21 01 00.5					
CCU	ePn	21 01 14.0	0.4	4.2	478	Mag. 5.3 (CGS), 4.8 (U. of U.).	
		21 01 53.5					
DUG	eP	21 01 09.9	0.4	4.2	145	Local.	
		21 22 37.5					
DUG	eL	21 22 54.2	0.7	7.9	5.0	Eastern Kazakh SSR 49.69 N, 78.11 E	
		04 15 01.4					
DUG	eP	05 30 49.0	1.0	7.5	1278	4.7	
		04 01 57.15 h = 0 km Mag. 5.0.					
PCU	eP	14 59 46.3	0.7	7.5	45	Off Coast of Northern California	
		14 59 53.1					
PCU	eL	14 59 57.3	0.7	7.5	45	40.3 N, 128.0 W 05 28 01.2	
		21 13 59.1					
PCU	eP	21 14 06.0	0.7	7.5	45	h = 33 km Mag. 4.7.	
		21 14 10.1					
PCU	eL	00 46 18.9	0.7	7.9	45	South of Sunnyside, Utah.	
		00 46 25.4					
PCU	eP	00 46 29.9	0.7	7.9	45	South of Sunnyside, Utah.	
		06 30 43.6					
PCU	eP	06 30 50.9	0.7	7.9	45	South of Sunnyside, Utah.	
		06 30 54.6					
PCU	eL	14 56 21.0	0.7	7.9	15	Probable rockburst, Castle Gate, Utah area.	
		14 56 23.0					
DUG	eP	14 56 30.0	1.0	1.2	15	Probable rockburst, Castle Gate, Utah area.	
		14 56 47.5					

Date 1969 Sta Phase Dir Time (GCT) Per (sec) Gnd Mot Amp (Mu) Dist (km) Mag Remarks

Sept 12 (con't)	DUG	eP	17 47 34.1	0.6	0.9	51	Local.
			17 47 45.5				
SIC	eL	17 47 49.6	0.6	0.9	167	California-Nevada Border Region Nevada Test Site "Minute Steak" 36.97 N, 115.97 W	
		17 48 10.4					
DUG	eP	18 03 24.8	0.9	2.0	456	*4.5	
		18 02 20.40 h = 0 km Mag. 4.5 (U. of U.).					
DUG	ePn	21 48 25.0	0.9	2.0	567	Near Regional.	
		21 48 44.0					
PCU	eP	21 49 49.1	0.9	2.0	45	South of Sunnyside, Utah.	
		23 47 20.8					
DUG	eL	23 47 28.0	0.9	2.0	45	South of Sunnyside, Utah.	
		23 47 31.8					
DUG	eP	05 10 50.0	0.4	1.1	48	Near Price, Utah.	
		05 10 52.1					
PCU	eL	05 10 55.7	0.4	1.1	45	South of Sunnyside, Utah.	
		08 27 58.2					
DUG	eP	08 28 04.8	0.4	1.1	256	Local.	
		08 28 09.1					
DUG	eL	16 40 54.2	0.4	1.1	256	Local.	
		16 40 58.2					
DUG	ePn	16 41 28.3	0.5	1.8	105	Local.	
		18 03 01.2					
DUG	eL	18 03 05.5	0.5	1.8	278	Local.	
		18 03 31.5					
SIC	eP	20 16 34.8	0.5	1.8	300	Local.	
		20 16 36.5					
DUG	eL	20 16 46.5	0.5	1.8	300	Local.	
		20 16 38.3					
DUG	eP	20 16 43.3	0.5	1.8	300	Local.	
		20 17 25.0					
DUG	eL	21 48 18.0	0.5	1.8	300	Local.	
		21 48 24.8					
DUG	eP	21 48 58.0	0.5	1.8	300	Local.	
		21 48 58.0					



Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Sept 13 (con't)	PCU	eP		22 51 09.3			45		South of Sunnyside, Utah.
		ePg		22 51 15.3					
		eL		22 51 20.3					
14	PCU	eP		11 35 00.2			45		South of Sunnyside, Utah.
		ePg		11 35 07.3					
		eL		11 35 11.2					
		eP		13 46 00.1			45		South of Sunnyside, Utah.
		ePg		13 46 07.3					
15	DUG	eL		13 46 11.1					
		eP		18 29 45.0	1.4	12.0	1835	4.5	Gulf of California 24.0 N, 108.7 W 18 25 51.6 h = 33 km Mag. 4.5.
		eP		00 04 32.0	0.8	0.9	855	4.3	Montana 47.9 N, 114.2 W 00 02 38.9 h = 19 km Mag. 4.3 Felt at Flathead Lake area. Minor damage at Big Arm. Local.
16	DUG	eP		12 58 33.5	0.6	1.6	130		Local.
		eL		12 58 49.0					
		eP		12 58 35.2			345		
		e		12 59 25.2					
		eP		19 39 40.0	0.4	1.1	595		Near Regional.
		ePg		19 39 58.0					
		eL		19 41 08.2					
17	DUG	eP*		21 00 02.0	0.6	15.8			Bingham blast.
		eP		01 57 00.8			45		South of Sunnyside, Utah.
		ePg		01 57 08.1					
18	PCU	eL		01 57 11.8			45		South of Sunnyside, Utah.
		eP		02 59 20.1					
		ePg		02 59 26.6					
		eL		02 59 31.1					
		eL							

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Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Sept 16 (con't)	CCU	eP		14 30 45.8			445	*6.3	Nevada Test Site "Jorum" 37.37 N, 116.49 W 14 30 00.00 h = 0 km Mag. 6.3 (U. of U.).
		ePn		14 31 03.0					
		ePg		14 31 16.2					
	PCU	eL		14 32 05.5			478		
		ePn		14 31 17.5					
		ePg		14 31 18.8					
	SLC	eL		14 32 27.9					
		eP		14 31 18.8					
		eP		15 44 25.5					
	CCU	ePg		15 44 30.2			367		Southern Nevada 37.30 N, 116.47 W 15 43 39.20 h = 4 km Mag. 4.9.
		eL		15 45 16.6					
		eP		15 44 31.0	0.5	3.8	445	4.9	
	DUG	eL		15 44 52.5	1.0	3.8	445		Southern Nevada.
		ePn		16 25 32.5					
		ePg		16 25 42.0					
DUG	eL		16 26 31.5						
	ePn		17 32 19.0	1.0	3.8	445	5.0	Southern Nevada 37.30 N, 116.50 W 17 31 14.70 h = 4 km Mag. 5.0.	
	ePg		17 32 31.0						
DUG	eL		17 33 18.5						
	eP*		20 58 28.8	0.6	13.4			Bingham blast.	
	ePn		20 54 36.0	0.4	1.1	234		Local.	
DUG	ePg		20 54 41.0						
	eL		20 55 17.5						
	eP		16 04 07.5			111		Local.	
17	PCU	ePg		16 04 13.5					
		eL		16 04 21.0					
		eP		16 45 26.6			167		Local.
		ePg		16 45 37.0					
		eL		16 45 48.5					
PCU	eP		21 02 49.6			45		South of Sunnyside, Utah.	
	ePg		21 02 57.1						
	eL		21 03 00.6						
PCU	ePg		21 43 00.7			323		Local.	
	eL		21 43 46.1						
	eP		21 43 04.2	0.5	1.8				

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Sept 17 (con't)	DUG	eP	21 49 43.0	0.4	3.2	250		Local.
		ePg	21 49 48.3					
		eL	21 50 16.2					
18	PCU	eP	12 14 49.0			45		South of Sunnyside, Utah.
		ePg	12 14 53.5					
	eL	12 15 00.0						
	eP	20 12 30.2			140		Local.	
	ePg	20 12 38.3						
	eL	20 12 47.4						
	eP	20 51 30.5	0.6	7.9	200		Local.	
	ePg	20 51 32.0						
	eL	20 51 59.0						
	eP	21 16 06.4			45		South of Sunnyside, Utah.	
19	DUG	ePg	21 16 11.5					
		eL	21 16 17.9					
	DUG	eP	02 10 47.5	0.4	3.2	189		Local.
		ePg	02 10 50.5					
	eL	02 11 13.0						
	DUG	eP	02 41 52.5	0.4	1.1	189		Local.
		ePg	02 41 54.0					
	eL	02 42 17.0						
	SLC	ePg	09 44 18.0			256		Eastern Idaho.
		eL	09 44 50.5					
	DUG	eP	09 44 32.4	0.5	4.5	378		
		ePn	09 44 38.3					
	PCU	ePg	09 44 51.1					
		eL	09 45 30.6					
	SLC	ePg	13 33 54.0			245	4.9	Eastern Idaho 43.0 N, 111.4 W
		eL	13 34 26.5			334		13 33 14.9 h = 5 km Mag. 4.9.
	DUG	eP	13 34 03.5	0.4	21.2	378		
eP		13 34 10.1			412			
CCU	eP	13 34 40.0						
	ePg	13 34 59.3						
eL	13 35 24.2							

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Sept 19 (con't)	DUG	eP	14 16 03.0					Local.
		ePg	14 16 05.4			379		
	eL	14 17 00.9						
	DUG	eP	14 24 10.7	0.5	0.9	312		Local.
		ePg	14 24 23.7					
	eL	14 24 33.8						
	eL	14 25 09.1						
	DUG	eP	16 50 16.8	0.6	11.9			Bingham blast.
		ePn	17 18 17.0	0.4	1.1	423		Local.
	DUG	ePg	17 18 26.5					
		eL	17 19 17.0			445		
	PCU	ePg	17 18 26.6					
		eL	17 19 17.9					
	SLC	eP	19 57 58.4			256	4.4	Eastern Idaho 43.0 N, 111.3 W 19 57 18.7
		ePg	19 58 14.3			378		h = 5 km Mag. 4.4.
	DUG	eL	19 59 04.1			445		
		ePn	19 58 17.3					
DUG	ePg	19 58 18.2						
	eL	19 59 09.5			600		Local.	
CCU	eP	19 58 33.9			245			
	ePg	20 52 04.2						
eL	20 52 36.6							
DUG	eP	20 52 52.6	0.8	8.5				
	eP*	21 03 03.5	0.6	15.8			Bingham blast.	
PCU	ePn	23 11 21.3			378		Local.	
	ePg	23 11 29.0						
DUG	eL	23 12 13.5						
	ePn	23 11 15.8	0.5	9.8	356		Local.	
SLC	eL	23 12 05.5						
	ePn	23 58 43.4			245		Eastern Idaho 43.0 N, 111.5 W 23 58 06.5	
DUG	ePg	23 58 57.0					h = 5 km Mag. 3.9.	
	eL	23 59 17.4						
DUG	eP	23 58 54.2	0.5	16.9	323			
	ePg	23 59 01.0						
PCU	eL	23 59 50.5						
	eP	23 59 01.2			378			

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Sept 20	PCU	eP	00 33 38.7			45		South of Sunnyside, Utah.	
		ePg	00 33 45.2						
		eL	00 33 49.7						
	DUG	ePn	09 12 23.0	0.4	1.1	145	3.8		Eastern Idaho 43.1 N, 111.4 W 09 12 06.7 h = 5 km Mag. 3.8.
		ePg	09 12 41.5						
		eL	09 12 42.5						
	LOG	ePg	09 12 32.1			156			
		eL	09 12 52.3			267			
	SLC	eP	09 12 34.6						
		ePg	09 12 47.4						
	PCU	eL	09 13 19.9						
		eP	09 13 02.2			386			
		eL	09 13 53.6						
	DUG	ePn	14 31 04.5	0.4	1.1	445	*4.0		Southern Nevada 37.14 N, 116.03 W 14 30 03.29 h = 33 km Mag. 4.0 (U. of U.).
		ePg	14 31 16.0						
eL		14 32 07.0							
21	DUG	eP	00 08 14.2	0.4	1.1	323		Local.	
		ePg	00 08 20.2						
		eL	00 08 54.6						
	PCU	eP	01 03 51.9			45			South of Sunnyside, Utah.
		ePg	01 03 56.7						
		eL	01 04 02.9						
	PCU	eP	04 54 14.7			45			South of Sunnyside, Utah.
		ePg	04 54 21.7						
		eL	04 54 25.7						
	PCU	eP	11 26 51.2			45			South of Sunnyside, Utah.
		ePg	11 26 56.2						
		eL	11 27 02.2						
	DUG	ePn	14 19 06.6	0.4	1.1	395			Local.
		ePg	14 19 17.0						
		eL	14 20 02.0						
DUG	eP*	21 27 49.0	0.6	11.1				Bingham blast.	

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Sept 22	PCU	eP	00 21 16.7			45		South of Sunnyside, Utah.	
		ePg	00 21 22.8						
		eL	00 21 27.8						
	SLC	ePg	13 07 01.0			67			*East of Bountiful, Utah 40.83 N, 111.77 W 13 06 58.6 h = 10 km Mag. 2.3 (4 sta).
		eL	13 07 08.7						
		ePg	13 07 17.2	0.4	5.3	145	*2.3		
	DUG	eL	13 07 36.5						
		ePg	13 11 39.4			56			*East of Salt Lake City, Utah (4 sta) 40.76 N, 111.76 W 13 11 37.9 h = 20 km Mag. 2.0.
		eL	13 11 46.1						
	DUG	ePg	13 11 55.4	0.4	4.2	145	*2.0		
		eL	13 11 15.0						
		ePn	16 56 16.0	0.4	7.4	145			Local.
	PCU	ePg	16 56 18.0						
		eL	16 56 34.0						
		ePg	17 31 09.6			234			Local.
DUG	eL	17 31 42.9							
	eP	17 31 15.5	0.4	1.6					
	eP*	20 56 23.7	0.6	15.8				Bingham blast.	
23	PCU	ePg	00 43 34.1			312		Local.	
		eL	00 44 17.8						
	PCU	eP	00 54 56.6			45			South of Sunnyside, Utah.
		ePg	00 55 00.4						
	DUG	eL	00 55 07.6						
	PCU	eP	01 55 46.0			189		Local.	
PCU	ePg	01 55 50.1							
PCU	eL	01 56 16.4							
	ePn	02 09 25.2							
	ePg	02 09 33.8							
	e	02 09 39.6							
	eL	02 09 42.1			140			Local.	

Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Sept 23 1969 (con't)	LOG	eP		12 58 36.9			134		Eastern Idaho 42.9 N, 111.5 W 12 58 13.5 h = 5 km Mag. 3.8.
		ePg		12 58 39.7					
		eL		12 58 57.4					
	SLC	eP		12 58 50.7			234		
		ePg		12 58 54.3					
	DUG	eL		12 59 24.3					
		ePn		12 59 00.5	0.6	11.9	323	3.8	
	PCU	ePg		12 59 08.5					
		eL		12 59 38.0			367		
		ePn		12 59 08.2					
	PCU	ePg		12 59 19.4					
		eL		12 59 58.8					
	PCU	ePg		19 09 38.2			267		Local.
e			19 09 56.0						
24	PCU	eL		19 10 16.3					
		eP		01 20 46.1					
		ePg		01 20 58.0					
	DUG	eL		01 21 02.1					
		eP		15 47 04.4	0.7	1.6	600	4.0	Montana 45.58 N, 112.05 W 15 46 15.19 h = 22 km Mag. 4.0.
	PCU	ePg		15 47 44.9					
		e(L)		15 48 41.3			156		Local.
	PCU	eP		16 00 35.1					
		ePg		16 00 42.8					
	PCU	eL		16 00 54.6					
		eP		17 26 26.1			45		South of Sunnyside, Utah Mag. 1.8 (U. of U.).
	DUG	ePg		17 26 32.3					
		eL		17 26 37.1					
DUG	eP		17 26 33.0	0.4	0.8		*1.8		
	eL		03 20 06.5						
25	LOG	ePg		03 20 35.2			122		Eastern Idaho 42.9 N, 111.7 W 03 19 45.0 h = 5 km Mag. 3.9.
		eL		03 20 21.0			234		
	SLC	eP		03 20 24.6					
		ePg		03 20 55.3					
	DUG	eL		03 20 32.3	0.5	9.8	312	3.9	
		ePg		03 20 42.8					
	DUG	eL		03 21 23.0					
		eL							

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Date	Sta	Phase	Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Sept 25 1969 (con't)	PCU	eP		16 10 32.6			45		South of Sunnyside, Utah.
		ePg		16 10 37.6					
		eL		16 10 53.6					
	DUG	eP*		20 58 39.6	0.6	13.4			Bingham blast.
		ePn		21 21 04.0	0.6	2.1	367		Local.
	PCU	ePg		21 21 17.5					
		eL		21 21 55.0			412		
	DUG	eP		21 21 09.1					
		ePg		21 21 19.9					
	DUG	eL		21 22 04.3					
		ePn		21 45 10.0	0.5	1.8	195		Local.
	PCU	ePg		21 45 14.0					
		eL		21 45 37.0					
DUG	ePn		21 55 09.6			156		*East of Hiawatha, Utah 39.45 N, 110.94 W 21 55 06.2 h = 10 km Mag. 2.2 (4 sta).	
	ePg		21 55 21.2						
DUG	eL		21 55 30.9						
	ePn		21 55 33.0	0.7	4.7	240	*2.2		
DUG	eL		21 56 06.0						
	eL								
26	PCU	ePg		01 09 57.9			212		Local.
		eL		01 10 26.5					
	DUG	eP		01 10 01.0					
		eP		08 31 07.6			45		South of Sunnyside, Utah.
	PCU	ePg		08 31 12.9					
		eL		08 31 18.6					
	PCU	eP		09 37 35.1					
		ePg		09 37 38.6					
	PCU	eL		09 37 46.1					
		eP		12 35 25.3					
	PCU	ePg		12 35 31.4			78		Local.
		eL		12 35 33.9					
	SLC	eP		16 26 32.0					
ePg			16 26 42.7						
DUG	eL		16 26 52.3						
	ePn		16 26 38.2	0.6	0.8	156	*2.4		
DUG	eL		16 26 58.6						
	eL								

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Sept 26 (con't)	DUG	eP*	18 53 57.0	0.6	12.6			Bingham blast.
	DUG	ePn	21 47 26.0			245		Local.
		ePg	21 47 28.0					
		eL	21 47 58.6					
27	PCU	eP	02 46 17.8			45		South of Sunnyside, Utah.
		ePg	02 46 24.4					
		eL	02 46 28.8					
		eP	03 33 06.8			45		South of Sunnyside, Utah.
	ePg	03 33 13.3						
	eL	03 33 17.8						
	eP	05 06 37.8			45		South of Sunnyside, Utah.	
	ePg	05 06 42.8						
	eL	05 06 48.8						
	ePn	09 46 02.8			167		Local.	
ePg	09 46 08.8							
28	PCU	eL	09 46 22.3			45		South of Sunnyside, Utah.
		eL	09 46 26.3					
		eP	11 55 48.8			45		South of Sunnyside, Utah.
		ePg	11 55 55.0					
	eL	11 56 59.8						
	ePn	22 06 24.0	0.4	1.1	200		Local.	
	ePg	22 06 29.0						
	eL	22 06 51.5						
	ePn	22 17 26.5	0.5	1.8	245		Local.	
	ePg	22 17 31.5						
eL	22 17 58.0							
28	PCU	eP	02 11 32.5			45		South of Sunnyside, Utah.
		ePg	02 11 38.0					
	eL	02 11 43.5						
	eP*	17 46 51.2	0.6	19.8	45		Bingham blast.	
	eP	18 47 37.8					South of Sunnyside, Utah.	
	ePg	18 47 45.8						
	eL	18 47 48.8						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Sept 29	PCU	eP	09 16 47.3			45		South of Sunnyside, Utah.
		ePg	09 16 50.8					
	PCU	eL	09 16 58.5			45		South of Sunnyside, Utah.
		eP	10 00 37.0					
		ePg	10 00 43.3					
		eL	10 00 48.0					
	DUG	eP	15 53 41.0	0.4	1.1	134		Local.
		eL	15 53 56.6					
	DUG	ePn	18 50 05.7			223		Local.
		ePg	18 50 09.8					
	DUG	eL	18 50 34.9					
		eP*	21 01 16.0	0.6	13.4			Bingham blast.
	PCU	ePn	21 49 55.4			245		Local.
		ePg	21 49 59.2					
	DUG	eL	21 50 27.2			278		
		ePn	21 50 00.0					
ePg		21 50 07.0						
eL		21 50 38.0						
DUG	ePn	22 03 23.1			278		Local.	
	ePg	22 03 30.5						
	eL	22 03 03.5						
	eP	22 52 34.0	1.0	7.5	1222	5.4	Off Coast of Oregon 43.6 N, 127.3 W 22 49 51.0 Mag. 5.4.	
30	PCU	eP	14 38 10.8			45		South of Sunnyside, Utah.
		ePg	14 38 18.2					
	PCU	eL	14 38 21.8			45		South of Sunnyside, Utah.
		eP	18 22 55.8					
		ePg	18 23 02.8					
		eL	18 23 06.8					

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Oct 1	DUG	eP	04 16 01.2	0.6	15.8		5.9	Eastern Kazakh SSR 49.8 N, 78.2 E 04 02 57.6 h = 0 km Mag. 5.9.	
	DUG	ePg	16 12 41.5			134		Local.	
	DUG	eL	16 12 57.5						
	DUG	ePn	19 53 48.4	0.6	19.0	140		Local.	
	DUG	ePg	19 53 51.0						
	DUG	eL	19 54 05.5						
	DUG	eP*	20 52 27.1	0.6	14.2	156		Bingham blast.	
	DUG	eP	20 57 54.0	0.4	1.1			Local.	
	DUG	eL	20 58 12.5						
	DUG	eP	21 51 05.0	0.5	0.9	223	*2.6	Nevada Mag. 2.6 (U. of U.).	
	DUG	ePg	21 51 09.0						
	DUG	eL	21 51 34.5						
	1969 Oct 2	CCU	ePn	04 58 41.8			489		Northern California 38.5 N, 122.7 W 04 56 45.5 h = 2 km Mag. 5.2 (CGS), 5.4 (U. of U.).
		DUG	ePg	04 59 07.5					
		DUG	eL	05 00 53.4					
DUG		ePn	04 58 42.5	2.0	31.5	888	*5.4	Several slightly injured, extensive property damage in Santa Rosa area.	
DUG		ePg	04 59 18.0						
DUG		eL	05 01 06.0						
SIC		ePn	04 58 59.5			946			
DUG		ePg	04 59 22.3						
DUG		eL	05 02 29.8						
LOG		ePg	04 59 03.8						
CCU		ePn	06 02 16.5			367	4.8	Central California 36.3 N, 120.4 W 06 00 59.7 h = 6 km Mag. 4.8.	
DUG		ePg	06 02 52.5						
DUG		eL	06 03 07.5			788			
DUG		eP	06 02 49.5						
DUG		ePg	06 03 10.0						
DUG	eL	06 04 39.5							

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Oct 2	CCU	ePn	06 21 47.2			777		Northern California 38.5 N, 122.7 W 06 19 56.1 h = 2 km Mag. 5.1 (CGS), 5.5 (U. of U.).
	DUG	ePg	06 22 00.5					
	DUG	eL	06 23 45.6					
	DUG	ePn	06 21 52.9	1.0	5.0	850	*5.5	
	DUG	ePg	06 22 28.0					
	DUG	eL	06 24 22.0					
	SIC	ePn	06 22 07.6			987		
	DUG	ePg	06 22 26.8					
	DUG	eL	06 24 41.3					
	DUG	eP	06 22 13.5					
	DUG	eP	12 29 05.0			888	4.8	Northern California 38.5 N, 122.6 W 12 27 05.5 h = 4 km Mag. 4.8. Felt in Santa Rosa area.
	DUG	eL	12 31 21.5					
	DUG	eP	16 58 23.0	0.4	1.1	134		Local.
	DUG	eL	16 58 39.0					
	DUG	eP	18 01 31.0	0.4	1.1	156		Local.
DUG	eL	18 01 49.0						
DUG	eP*	20 57 41.6	0.6	11.1			Bingham blast.	
DUG	ePn	21 56 19.0	0.5	0.9	245		Local.	
DUG	ePg	21 56 23.5						
DUG	eL	21 56 50.5						
DUG	iPn	22 14 32.5				6.5	Rat Islands, Aleutian Islands "Milrow" shot on E. Amchitka Islands 51. N, 179.2 E 22 06 00.00 h = 1 km Mag. 6.5 Elevation 1177.1 M. (AEC). Felt on Adak.	
SIC	ePn	22 14 34.4						
PCU	ePn	22 14 45.1						
1969 Oct 3	PCU	eP	00 56 38.2			45		South of Sunnyside, Utah.
	PCU	ePg	00 56 41.5					
	PCU	eL	00 56 49.2					
	PCU	eP	01 55 14.0			45		South of Sunnyside, Utah.
	PCU	ePg	01 55 20.3					
	PCU	eL	01 55 25.0					
	PCU	eP	08 41 41.9			45		South of Sunnyside, Utah.
	PCU	ePg	08 41 47.9					
	PCU	eL	08 41 52.9					

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Oct 3 (con't)	PCU	eP	09 54 12.4			45		South of Sunnyside, Utah.	
		ePg	09 54 17.9						
		eL	09 54 23.4						
	DUG	ePn	13 11 32.0			600	4.6	California-Nevada Border Region 37.6 N, 118.9 W 13 10 12.4 h = 17 km Mag. 4.6.	
		ePg	13 11 52.0						
		eL	13 13 03.0						
	SLG	eP	13 12 07.0						
		eP	16 02 48.0	0.4	1.1	189		Local.	
		eL	16 03 15.4						
	PCU	eP	16 09 24.3			156		Local.	
		ePg	16 09 29.3						
		eL	16 09 44.8						
DUG	ePn	21 53 53.0	0.4	1.1	245		Local.		
	ePg	21 53 57.7							
	eL	21 54 25.0							
PCU	eP	22 39 23.7			56		Near Price, Utah.		
	eL	22 40 31.7							
	eL								
4	PCU	eP	01 27 22.1			45		South of Sunnyside, Utah.	
		ePg	01 27 26.6						
		eL	01 27 32.0						
	PCU	eP	17 13 30.0			45		South of Sunnyside, Utah.	
		ePg	17 13 34.3						
		eL	17 13 41.0						
PCU	ePg	18 06 50.2			145		Local.		
	eL	18 07 09.3							
	eP*	20 54 55.0	0.6	14.2			Bingham blast.		
5	PCU	eP	16 27 34.3			45		South of Sunnyside, Utah.	
		ePg	16 27 40.3						
		eL	16 27 45.3						

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Oct 5 (con't)	SLC	ePg	17 53 17.0			115		*Near Wallsburg, Utah 40.36 N, 111.39 W 17 53 07.2 h = 0 km Mag. 2.6 (5 sta).	
		eL	17 53 30.5						
		eP	17 53 23.3			134			
	DUG	ePg	17 53 29.8						
		eL	17 53 39.3						
		ePn	17 53 28.4	0.5	1.8	180	*2.6		
	DUG	ePg	17 53 31.2						
		eL	17 53 49.0						
		eP*	20 57 41.9	0.6	11.9			Bingham blast.	
	6	SLC	eP	04 04 55.0			390		Yellowstone National Park, Wyoming 44.2 N, 110.4 W 04 03 51.6 h = 33 km Mag. 3.9.
			eP	04 04 56.8	0.7	4.0	545		
			eP	04 04 58.7					
DUG		eP	14 30 06.0	0.7	1.6	850	4.4	Northern California 38.5 N, 122.7 W 14 28 06.38 h = 2 km Mag. 4.4. Local.	
		ePg	18 59 19.0			234			
		ePn	18 59 24.0						
DUG	eL	18 59 50.0			134		Local.		
	ePg	21 04 44.5							
	eL	21 05 01.0							
7	DUG	ePg	21 04 59.0			278			
		eL	21 05 30.4						
		eP	21 52 13.0						
PCU	eP	21 52 20.1							
	ePg	21 52 24.7							
	eL	21 52 53.7			178	*2.3	Southwest of Woodruff, Utah Mag. 2.3 (U. of U.).		
7	DUG	eP	08 40 56.5	1.0	5.0	1080	4.1	Off Coast of Northern California 40.4 N, 125.6 W 08 38 34.9 h = 33 km Mag. 4.1. Local.	
		ePg	15 22 02.5	0.4	2.1	145			
		eL	15 22 19.5						
	PCU	ePg	19 38 56.0	0.5	1.8	145		North of Fillmore, Utah.	
		eL	19 39 12.5						
		ePg	19 38 57.2			130			

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969								
Oct 7 (con't)	DUG	eP*	20 56 59.3	0.6	11.9			Bingham blast.
8	PCU	eP	01 06 25.1			45		South of Sunnyside, Utah.
		ePg	01 06 29.7					
		eL	01 06 36.1					
	PGU	eP	06 51 40.7			45		South of Sunnyside, Utah.
		ePg	06 51 47.7					
		eL	06 51 51.7					
	PGU	eP	08 36 13.9			45		South of Sunnyside, Utah.
		ePg	08 36 21.4					
		eL	08 36 24.9					
	DUG	ePn	14 31 04.0	1.0	40.0	445	*5.5	Nevada Test Site "Pipkin" 37.33 N, 116.48 W 14 30 00.00 h = 0 km Mag. 5.5 (U. of U.)
		ePg	14 31 17.0					
		eL	14 32 09.0					
	PCU	eP	14 31 18.7			545		South of Sunnyside, Utah.
	SLC	ePn	14 31 20.4					
		ePg	14 31 26.8					
		eL	14 32 41.0					
9	PCU	eP	01 04 09.8			45		South of Sunnyside, Utah.
		ePg	01 04 14.3					
		eL	01 04 20.8					
	PCU	eP	05 30 58.3			45		South of Sunnyside, Utah.
		ePg	05 31 03.1					
		eL	05 31 09.3					
	DUG	eP	07 48 02.0	1.0	3.8	45	4.8	Off Coast of Oregon 43.7 N, 127.4 W 07 45 16.3 h = 10 km Mag. 4.8. South of Sunnyside, Utah.
	PCU	eP	08 20 45.8			650		Near Regional.
		ePg	08 20 51.5					
		eL	08 20 56.8					
	DUG	ePn	19 46 47.0			200		Bingham blast. Local.
		ePg	19 47 07.0					
		eL	19 48 23.5					
	DUG	eP*	20 54 10.5	0.6	13.4			
	DUG	ePn	22 00 21.0					
		eL	22 00 49.5					

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969								
Oct 10	PCU	eP	00 40 13.8			150		Local.
		ePg	00 40 20.8					
		eL	00 40 33.8					
	PCU	eP	07 14 42.3			45		South of Sunnyside, Utah.
		ePg	07 14 50.0					
		eL	07 14 53.0					
	PCU	eP	09 10 46.3			45		South of Sunnyside, Utah.
		ePg	09 10 53.7					
		eL	09 10 57.3					
	PCU	eP	12 11 01.8			160		Local.
		eL	12 11 23.5					
	PCU	eP	12 47 54.2			45		South of Sunnyside, Utah.
		ePg	12 48 00.3					
		eL	12 48 05.2					
	PCU	eP	17 20 56.8			145		Local.
		ePg	17 21 01.8					
		eL	17 21 15.8					
	PCU	eP	23 28 53.8			140		Local.
		ePg	23 29 02.3					
		eL	23 29 10.8					
11	PCU	eP	01 19 55.8			75		Local.
		ePg	01 20 02.0					
		eL	01 20 04.3					
	PCU	eP	02 41 09.8			78		Local.
		ePg	02 41 15.8					
		eL	02 41 28.8					
	DUG	eP	20 52 06.5			130		Local.
		eL	20 52 22.0					
12	PCU	eP	05 27 34.9			145		Local.
		ePg	05 27 40.6					
		eL	05 27 54.1					
	SLC	ePg	19 15 57.6			111		Local.
		eL	19 16 08.1					
	DUG	ePn	19 15 58.0	0.5	1.8	138		
		ePg	19 16 00.0					
		eL	19 16 16.0					

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Oct 12 (con't)	DUG	eP*	23 18 24.0	0.6	10.3			Bingham blast.
13	DUG	eP	09 25 46.7	0.5	1.8	80	*2.1	*Southwest of Mona, Utah 39.74 N, 112.08 W 09 25 32.8 h = 0 km Mag. 2.1 (5 sta).
	PCU	ePg	09 25 51.5			110		
	PCU	eL	09 26 08.0					South of Sunnyside, Utah.
	PCU	eP	11 48 28.0			45		
	PCU	ePg	11 48 32.7					
	PCU	eL	11 48 39.0			45		South of Sunnyside, Utah.
	PCU	eP	13 37 29.5					
	PCU	ePg	13 37 31.0					
	PCU	eL	13 37 39.7					
	DUG	eP*	21 04 37.5	0.6	11.1			Bingham blast.
	DUG	ePn	21 36 39.0			134		Local.
	DUG	eL	21 36 57.0					
14	PCU	eP	12 07 28.6			45		South of Sunnyside, Utah.
	PCU	ePg	12 07 36.6					
	PCU	eL	12 07 39.6					
	DUG	ePn	13 21 00.0	0.4	2.1	870	4.5	California-Nevada Border Region 32.6 N, 116.5 W 13 18 39.9 h = 33 km Mag. 4.5. Felt widely in San Diego County.
	DUG	ePg	13 21 17.5					
	DUG	eL	13 23 59.9			140		Local.
	DUG	eP	16 49 02.0	0.4	1.1			
	DUG	eL	16 49 20.5					
	DUG	eP*	20 57 14.8	0.6	11.1			Bingham blast.
15	DUG	eP*	20 56 59.9	0.6	11.1			Bingham blast.
16	PCU	eP	02 57 21.4			45		South of Sunnyside, Utah.
	PCU	ePg	02 57 27.8					
	PCU	eL	02 57 32.4					
	DUG	eP	02 57 46.2					
	PCU	eP	04 31 25.6			45		South of Sunnyside, Utah.
	PCU	ePg	04 31 30.6					
	PCU	eL	04 31 48.6					

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Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Oct 16 (con't)	PCU	eP	17 05 53.0			45		South of Sunnyside, Utah.
	PCU	ePg	17 06 01.2					
	PCU	eL	17 06 14.0					
	DUG	eP*	21 05 52.6	0.6	15.8			Bingham blast.
17	PCU	ePn	13 22 58.8			323		Local.
	PCU	ePg	13 23 14.3					
	PCU	eL	13 23 41.0					
	PCU	eP	15 05 05.8			189		*North of Emery, Utah 39.00 N, 111.32 W 15 04 54.0 h = 0 km Mag. 2.0 (5 sta).
	PCU	ePg	15 05 16.3					
	PCU	eL	15 05 30.8			289	*2.0	
	DUG	ePn	15 05 23.0					
	DUG	ePg	15 05 30.5					
	DUG	eL	15 06 02.6					
	DUG	eP*	21 03 28.8	0.6	15.8			Bingham blast.
	DUG	eP	21 16 00.1	0.4	2.1	145		Local.
	DUG	eL	21 16 19.0					
18	DUG	eP	15 52 07.5	0.4	2.1	150		Local.
	DUG	eL	15 52 27.3					
	DUG	eP	17 47 58.5	0.4	1.1	140		Local.
	DUG	eL	17 48 16.5					
	DUG	eP*	21 09 19.5	0.6	11.1	267		Bingham blast.
	CCU	eP	21 46 22.2					Local.
	CCU	ePg	21 46 35.2					
	CCU	eL	21 46 57.2					
19	PCU	eP	00 09 56.3			45		South of Sunnyside, Utah.
	PCU	ePg	00 10 02.8					
	PCU	eL	00 10 07.3					
	PCU	ePg	05 53 43.2			456		Local.
	PCU	eL	05 54 34.7					
	PCU	eP	16 27 31.4			45		South of Sunnyside, Utah.
	PCU	ePg	16 27 37.1					
	PCU	eL	16 27 42.4					

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Oct 19 (con't)	DUG	eP*	21 00 34.4	0.6	11.1			Bingham blast.
	DUG	eP	21 24 17.4	0.4	1.1	128	*2.1	Northeast of Fillmore, Utah Mag. 2.1 (U. of U.).
	PCU	eL	21 24 33.0			167		
		ePg	21 24 33.2					
		eL	21 24 56.2					
20	PCU	eP	07 38 34.1			45		South of Sunnyside, Utah.
		ePg	07 38 40.8					
	PCU	eL	07 38 45.1			45		South of Sunnyside, Utah.
		eP	08 35 38.6					
		ePg	08 35 43.3					
	DUG	eL	08 35 49.6					
		eP	18 44 43.0	0.4	1.1	245		Local.
	DUG	ePg	18 44 47.0					
		eL	18 45 14.5					
	SLC	ePg	18 44 53.0			312		
eL		18 45 28.2						
DUG	eP*	22 55 15.6	0.6	12.6				Bingham blast.
	21	PCU	ePn	15 48 28.1			290	
ePg			15 48 36.1					
SLC		e	15 48 42.6					
		eL	15 49 08.1			115		Near Promontory Mountains, Utah Mag. 1.5 (U. of U.).
		eP	16 03 49.5					
DUG	ePg	16 03 56.3						
	eL	16 04 03.2			145	*1.5		
DUG	eP	16 04 00.3	0.4	1.1				
	eL	16 04 19.0						
DUG	eP*	21 38 59.0	0.6	11.1	67			Bingham blast.
	SLC	eP	21 27 49.8					Local.
DUG	ePg	21 27 51.3						
	eL	21 27 56.8						

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Oct 22	LOG	eP	01 34 05.1			140		Local.	
		ePg	01 34 16.4						
	PCU	eL	01 34 22.6			145		Local.	
		eP	21 19 01.6						
		ePg	21 19 13.5						
	DUG	eL	21 19 26.0			955	5.9	Off Coast of California 34.8 N, 121.3 W 22 51 33.5 h = 15 km Mag. 5.9. Felt from Paso Robles to Lompoc.	
		eP	22 53 42.3						
	SLC	eP	22 53 55.4						
		23	DUG	eP	00 05 42.5			966	5.0
	eP			01 42 42.5	0.4	2.1	250	*2.0	*Western Wyoming 42.55 N, 110.65 W 01 41 57.9 h = 20 km Mag. 2.0 (4 sta).
DUG	ePg		01 42 43.6			122		Local.	
	eL		01 43 19.1			156		Local.	
DUG	eP		15 37 42.1						
	eL	15 37 57.5							
PCU	eP	15 52 03.7							
	ePg	15 52 15.9							
DUG	eL	15 52 24.7			634		Near Regional.		
	ePn	18 35 53.0							
DUG	ePg	18 35 58.1							
	eL	18 37 28.0							
24	LOG	eP	01 38 04.7			140		Local.	
		ePg	01 38 12.2						
	PCU	eL	01 38 22.2			140		Local.	
		eP	03 05 09.7						
		ePg	03 05 14.7						
PCU	eL	03 05 33.5			178		Local.		
	eP	05 07 52.7							
DUG	ePg	05 08 00.8							
	eL	05 08 15.2							
DUG	eP	05 08 22.0							

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Oct 24 (con't)	DUG	eP	08 31 19.0	1.0	2.5	933		Southern California 33.3 N, 119.2 W
	SLC	eP	08 31 34.2					08 29 12.1 h = 10 km Mag. 5.1. Felt from San Pedro to San Fernando Valley.
	DUG	eP	13 14 16.0			955	4.6	Off Coast of California 34.8 N, 121.3 W
	PCU	ePg	18 14 10.1			100		Local.
	DUG	ePn	18 14 23.0			334		Local.
	DUG	ePg	19 01 04.0					
	DUG	ePg	19 01 13.5					
	DUG	eL	19 01 52.0					
	CCU	ePn	20 28 51.3	1.0	7.5	944	4.9	Southern California 33.3 N, 119.1 W
	PCU	ePg	20 29 24.5					20 26 42.5 h = 2 km Mag. 4.9.
25	PCU	eP	15 22 47.6			45		South of Sunnyside, Utah.
	SLC	ePg	15 22 54.1			167		Southern Wyoming.
	PCU	ePg	15 22 58.6			234		
	DUG	ePg	18 29 25.4			323		
	DUG	eL	18 29 47.9					
	DUG	ePn	18 29 36.9					
	DUG	ePg	18 29 40.4					
	DUG	eL	18 30 07.4					
	DUG	ePn	18 29 37.0	0.4	1.1			Bingham blast.
	DUG	ePg	18 29 40.5					
26	PCU	eP*	18 30 17.0			45		South of Sunnyside, Utah.
	CCU	eP	20 56 35.0	0.6	13.4	390		Southern California 33.77 N, 119.18 W
	DUG	eP	05 11 49.1					09 41 55.50 h = 10 km Mag. 4.3.
	DUG	ePg	05 11 55.9					
	DUG	eL	05 12 00.9					
	DUG	ePn	09 43 33.6					
	DUG	ePg	09 44 04.2					
	DUG	eL	09 45 28.6					
	DUG	eP	09 44 04.0			946	4.3	
	DUG	ePg	09 44 40.0					
DUG	eL	09 45 41.0						
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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Oct 26 (con't)	CCU	eP	10 15 45.4			944	4.4	Southern California 33.4 N, 119.1 W
	DUG	ePn	10 16 17.0					10 14 07.1 h = 10 km Mag. 4.4.
	DUG	ePg	10 16 47.0					
	DUG	eL	10 18 45.5					
	DUG	eP	13 56 03.6			534	4.3	Yellowstone National Park, Wyoming
	DUG	eP	14 29 08.0					44.6 N, 110.3 W 13 54 51.1
	DUG	eP	20 26 57.1					h = 33 km Mag. 4.3.
	DUG	eL	20 27 13.7			944	4.4	Southern California 33.4 N, 119.1 W
	PCU	ePn	23 09 12.7			134		14 26 54.3 h = 11 km Mag. 4.4.
	PCU	eL	23 10 14.7			434		Local.
27	DUG	ePn	11 01 36.5	0.4	1.1	833	4.6	Central California 36.8 N, 121.2
	DUG	ePg	11 02 09.0					10 59 42.5 h = 13 km Mag. 4.6.
	DUG	eL	11 03 56.3					Felt at Hollister.
	DUG	ePn	13 17 57.0			855	4.5	Southern California 33.5 N, 117.8 W
	DUG	ePg	13 18 27.5					13 16 02.3 h = 6 km Mag. 4.5.
	DUG	eL	13 20 13.5			140		Felt from San Diego to Pasadena.
	PCU	eP	17 00 09.8					Local.
	DUG	ePg	17 00 44.3					
	DUG	eL	17 01 31.3			274		
	DUG	e(Pn)	17 00 14.0					
DUG	e(Pg)	17 00 20.5						
DUG	eL	17 01 51.5						
28	DUG	eP	00 24 51.1	1.0	5.3	1033	4.5	Off Coast of California 34.3 N, 121.9 W
	CCU	ePn	02 33 24.8			380		00 22 33.7 h = 26 km Mag. 4.5.
	DUG	ePg	02 33 31.6					California-Nevada Border Region
	DUG	eL	02 34 18.4			560	4.2	37.2 N, 117.9 W 02 32 10.0
	DUG	e(Pn)	02 33 31.2					h = 4 km Mag. 4.2.
	DUG	e(Pg)	02 33 47.0					
	DUG	eL	02 34 53.4					
	DUG	eP	00 24 51.1	1.0	5.3	1033	4.5	Off Coast of California 34.3 N, 121.9 W
	DUG	ePn	02 33 24.8			380		00 22 33.7 h = 26 km Mag. 4.5.
	DUG	ePg	02 33 31.6					California-Nevada Border Region
DUG	eL	02 34 18.4			560	4.2	37.2 N, 117.9 W 02 32 10.0	
DUG	e(Pn)	02 33 31.2					h = 4 km Mag. 4.2.	
DUG	e(Pg)	02 33 47.0						
DUG	eL	02 34 53.4						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Oct 28 (cont)	PCU	eP	04 00 28.6	1.0	2.3	45		South of Sunnyside, Utah.
		ePg	04 00 34.6					
	DUG	eL	04 00 39.6					
		eP	14 36 14.0	3.1				Southern Nevada 37.3 N, 116.4 W 14 34 58.1 h = 5 km Mag. 3.1. Local.
	PCU	ePn	14 41 35.8			160		
		eP*	14 41 47.3					
		ePg	14 41 50.3					
	PCU	eL	14 41 59.1			45		South of Sunnyside, Utah.
		eP	18 52 57.5					
		ePg	18 53 01.5					
PCU	eL	18 53 08.5			187		Local.	
	ePg	23 29 11.2						
	eL	23 29 35.7						
29 PCU	eP	18 32 21.9			45		South of Sunnyside, Utah.	
	ePg	18 32 28.4						
	eL	18 32 32.9						
DUG	ePn	19 31 03.0			450	*4.4	Nevada Test Site "Cruet"	
	ePg	19 31 16.0					37.20 N, 116.15 W 19 30 00.0 h = 0 km Mag. 4.4 (U. of U.).	
	eL	19 32 11.5			545			
SLC	ePn	19 31 19.1						
	ePg	19 31 38.7						
	eL	19 32 39.8						
DUG	ePn	20 01 02.0			445	*4.7	Nevada Test Site "Pod" 37.21 N, 116.16 W 20 00 00.00 h = 0 km Mag. 4.7 (U. of U.).	
	ePg	20 01 16.5						
	eL	20 02 11.0			589			
SLC	ePn	20 01 18.9						
	ePg	20 01 34.8						
	eL	20 02 47.3						
DUG	ePn	22 02 53.0			445	*5.5	Nevada Test Site "Calabash"	
	ePg	22 03 05.1					37.24 N, 116.09 W 22 01 51.40 h = 0 km Mag. 5.5 (U. of U.).	
	eL	22 04 00.5						

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Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Oct 30	PCU	eP	19 09 19.2			170		Local.
		e	19 09 26.4					
	PCU	ePg	19 09 32.7					
		eL	19 09 43.2			223		Local.
		ePn	20 02 18.8					
	DUG	ePg	20 02 29.5					
		eL	20 02 49.5					
		eP	20 02 41.0	0.5	3.6	167		
	DUG	eP	22 53 59.6	0.5	1.8	223		Probable McGill, Nevada blast.
		eL	22 54 28.0					
CGU	eP	23 18 34.6			100		Near Cedar City, Utah.	
	ePg	23 18 41.3						
DUG	eL	23 18 48.8						
	eP	04 50 58.9			156		Local.	
	ePg	04 51 04.4						
DUG	eL	04 51 19.4						
	eP	09 14 22.4			1888	5.0	Off Coast of California 34.6 N, 121.2 W 09 12 13.6 h = 10 km Mag. 5.0 Felt in Pasadena.	
	eP	10 41 36.6			1334	4.9	Southern California 33.4 N, 119.1 W 10 39 29.0 h = 7 km Mag. 4.9. Felt in Pasadena.	
DUG	eP	10 41 46.4						
	eP	10 41 50.5			35		*East of Salt Lake City, Utah	
	e(P)	13 14 28.0						
DUG	ePg	13 14 30.5			108	*1.9	40.73 N, 111.76 W 13 14 26.0 h = 20 km Mag. 1.9 (4 sta).	
	eL	13 14 43.2	0.5	8.9				
	eP	13 14 48.4						
PCU	eP	13 15 11.4						
	eL	16 03 14.4			145		Local.	
	ePn	16 03 17.6						
SLC	ePg	16 03 33.4						
	eL	16 03 33.4						
	eP	16 03 20.0	0.5	1.8	168			
DUG	ePg	16 03 20.0						
	eS	16 03 34.3						

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Oct 31 (cont)	DUG	eP	19 45 12.5			200		Local.	
		eL	19 45 40.5						
	DUG	ePn	22 55 08.0			178		Local.	
		ePg	22 55 11.0						
		eL	22 55 36.5						
	PCU	eP	23 09 11.7			320		Local.	
		ePg	23 09 16.4						
		eL	23 09 56.4						
	1969 Nov 1	PCU	ePg	04 36 11.4			300		Local.
			eL	04 36 51.4					
PCU		eP	08 51 47.3			45		Probable rockburst near Sunnyside, Utah.	
		ePg	08 51 56.8						
		eR	08 52 04.1						
DUG		eP	08 52 13.5		5.0	1890	4.1	Gulf of California 23.84 N, 107.10 W	
DUG		eP	09 35 04.0	1.0				09 31 03.48 h = 7 km Mag. 4.1.	
		eP	11 12 26.5	1.3	50.0	1944	5.6	Gulf of California 23.15 N, 107.93 W	
SIC		eP	11 12 30.0					11 08 20.90 h = 33 km Mag. 5.6.	
DUG		eL	11 16 12.0			1111	4.1	Washington 47.9 N, 121.7 W 15 44 24.6	
1969 Nov 2	DUG	eP	15 46 53.0					h = 5 km Mag. 4.1.	
		eP			6.3	140	*1.9	Felt in Seattle area.	
	DUG	eP	16 03 33.0	0.6				Near Bloom, Utah Mag. 1.9 (U. of U.).	
		eL	16 03 49.8						
	PCU	ePg	16 03 47.1			200		Local.	
		eL	16 04 15.0						
	PCU	eP	18 58 52.1			278		Local.	
		ePg	18 59 04.9						
		eL	18 59 29.1						
	DUG	eP	22 23 04.5	0.6	12.6	267		Bingham blast.	
1969 Nov 3	DUG	ePn	22 54 46.3					Local.	
		ePg	22 54 49.5						
		eL	22 55 18.5						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Nov 2	PCU	eP	22 23 43.5			45		South of Sunnyside, Utah.	
		ePg	22 23 48.2						
		eL	22 23 54.5						
	1969 Nov 3	DUG	ePn	09 24 29.7			156		Local.
			ePg	09 24 31.0					
			eL	09 24 52.0					
		PCU	ePg	09 24 31.6			189		Local.
			eL	09 24 54.5					
		PCU	eP	16 29 22.7			45		South of Sunnyside, Utah.
			ePg	16 29 28.3					
		eL	16 29 33.7						
PCU		eP	17 05 53.1			45		South of Sunnyside, Utah.	
		ePg	17 05 58.6						
1969 Nov 4	DUG	eL	17 06 04.1						
	DUG	eP*	21 57 29.1	0.6	11.9	223		Bingham blast.	
	DUG	ePn	22 56 07.0					Probable McGill, Nevada blast.	
		ePg	22 56 11.0						
		eL	22 56 36.6						
	PCU	eP	23 36 41.2			45		South of Sunnyside, Utah.	
		ePg	23 36 45.4						
		eL	23 36 52.2						
	1969 Nov 4	PCU	eP	09 32 50.2			45		South of Sunnyside, Utah.
			ePg	09 32 56.9					
		eL	09 33 00.7						
PCU		eP	09 58 21.8			45		South of Sunnyside, Utah.	
		ePg	09 58 28.0						
		eL	09 58 32.8						
DUG		eP	16 21 42.5	0.5	5.0	134		Local.	
		eL	16 21 58.5						
PCU		eP	18 20 47.6			45		South of Sunnyside, Utah.	
		ePg	18 20 53.9						
	eL	18 20 58.8							
DUG	eP*	22 08 37.9	0.6	10.3			Bingham blast.		

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Nov 4	PCU	eP	22 15 12.6			134		Local.
		eP*	22 15 17.1					
		ePg	22 15 23.7					
		eL	22 15 28.2					
	PCU	ePg	22 45 12.3			200		Local.
		eL	22 45 40.5					
		eP	22 45 20.5			234		
	DUG	ePg	22 45 25.0					
		eL	22 45 51.5					
	5	DUG	eP	00 19 15.5	0.4	1.1	117	
eL			00 19 30.0					
PCU		eP	01 14 47.6			45		South of Sunnyside, Utah.
		ePg	01 14 54.1					
		eL	01 14 58.6					
PCU		ePn	11 28 07.5			140		Local.
		ePg	11 28 13.0					
		eL	11 28 27.0					
PCU		eP	14 58 04.9			45		South of Sunnyside, Utah.
		ePg	14 58 11.2					
		eL	14 58 14.2					
DUG		eP	15 08 15.0	0.4	1.1	245		Local.
		ePg	15 08 20.0					
		eL	15 08 47.0					
DUG		eP	17 56 21.0	1.2	160.0	944	5.8	Off Coast of California 34.8 N, 121.2 W 17 54 13.6 h = 33 km Mag: 5.8.
	eP	17 56 34.0					Felt in Santa Barbara and San Luis Obispo.	
DUG	eP*	21 55 41.5	0.6	10.3			Bingham blast.	
	ePn	23 04 14.0	0.4	1.1	256		Local.	
	ePg	23 04 19.0						
	eL	23 04 43.8						

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Nov 6	PCU	eP	11 50 33.7			45		South of Sunnyside, Utah.
		ePg	11 50 38.0					
		eL	11 50 44.7					
	PCU	eP	14 40 58.0			45		South of Sunnyside, Utah.
		ePg	14 41 04.8					
		eL	14 41 09.0					
	PCU	eP	16 03 38.0			45		South of Sunnyside, Utah.
		ePg	16 03 44.0					
		eL	16 03 49.0					
	DUG	eP	18 22 27.4			115		Local.
		eL	18 22 41.5					
		ePn	21 50 24.7	0.4	10.6	156		Local.
	DUG	eL	21 50 40.0					
		eP	00 05 26.8			140		Local.
		ePg	00 05 33.6					
PCU	eL	00 05 43.4			156		Local.	
	eP	04 31 23.3						
	ePg	04 31 29.3						
PCU	eL	04 31 44.4			156		Local.	
	eP	18 47 57.4						
	ePg	18 48 08.0						
PCU	eL	18 48 37.9						
	eP	00 43 41.0	0.5	5.3	1077	4.7	Off Coast of California 34.1 N, 122.3 W 00 33 19.9 h = 33 km Mag: 4.7.	
	ePn	06 58 34.5			140		Southern Nevada 37.1 N, 115.0 W 06 58 01.3 h = 4 km Mag: 3.3.	
CCU	ePg	06 58 40.5						
	eL	06 58 53.3			378	*3.0		
	ePn	06 58 59.0						
DUG	ePg	06 59 08.2						
	e	06 59 54.5			545			
	ePg	06 59 13.2						
PCU	eL	06 59 17.2						
	eP	10 31 50.2			45		South of Sunnyside, Utah.	
	ePg	10 31 55.4						
PCU	eL	10 32 02.0						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Nov 8 (con't)	PCU	eP	21 03 46.0			45		South of Sunnyside, Utah.
		ePg	21 03 50.6					
		eL	21 03 57.0					
9	DUG	eP	01 29 53.2			1009	4.4	Off Coast of California 34.4 N, 121.6 W 01 27 40.8 h = 33 km Mag. 4.4.
		eP	01 30 07.5			45		South of Sunnyside, Utah.
		ePg	05 19 50.4					
	PCU	ePg	05 19 56.6			140		Local.
		eL	05 20 01.9					
		eP	15 21 06.4					
DUG	ePg	15 21 11.4						
	eL	15 21 25.0						
	eP*	22 04 05.3	0.6	11.9			Bingham blast.	
10	DUG	eP	07 41 14.8	1.3	7.5	1044	4.3	Washington 48.5 N, 121.5 W 07 38 44.1 h = 33 km Mag. 4.3.
	DUG	eP	19 23 40.6	1.0	7.5	966	4.6	Off Coast of California 34.6 N, 121.4 W 19 21 27.3 h = 33 km Mag. 4.6.
11	DUG	eP	03 12 00.5	0.4	1.1	118		Local.
		eL	03 12 14.8					
	PCU	eP	09 38 44.2			45	*1.5	South of Sunnyside, Utah Mag. 1.5 (U. of U.).
		ePg	09 38 49.2					
	PCU	eL	09 38 55.2			80		*Near Moore, Utah 38.94 N, 111.14 W 14 59 09.6 h = 0 km Mag. 3.0. (5 sta).
		ePn	14 59 22.1					
		ePg	14 59 30.1					
	DUG	eL	14 59 52.6			200	*3.0	
		eP	14 59 41.0					
		ePg	14 59 45.5					
		eL	15 00 13.0			45		South of Sunnyside, Utah.
eP		20 26 53.0						
ePg		20 26 59.6						
PCU	eL	20 27 04.3			245		Local.	
	ePn	20 33 22.0						
	ePg	20 33 26.0						
	eL	20 33 53.5						

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Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Nov 11 (con't)	DUG	ePg	21 20 37.0	0.5	1.8	87	*3.0	*Northwest of Nephi, Utah 39.74 N, 111.99 W 21 20 22.0 h = 0 km Mag. 3.0. (4 sta).
		eL	21 20 47.0			108		
	PCU	eP	21 20 39.5					
		ePg	21 20 48.5					
	DUG	eL	21 20 52.2					
		eP*	21 53 44.1	0.6	11.9			Bingham blast.
12	PCU	eP	13 54 24.1			45		South of Sunnyside, Utah.
		ePg	13 54 28.8					
		eL	13 54 35.1					
	PCU	eP	16 42 54.7			45		South of Sunnyside, Utah.
		ePg	16 43 00.2					
	CCU	eL	16 43 05.7					
		ePg	20 11 49.3			51		*West of Panguitch, Utah 37.79 N, 112.62 W 20 11 41.4 h = 30 km Mag. 3.5. (4 sta).
DUG	eL	20 11 55.3			234			
	ePg	20 12 18.3						
	eL	20 12 44.5			268	*3.5		
	ePn	20 12 18.5	0.5	1.8			South of Sunnyside, Utah.	
PCU	ePg	20 12 23.5			45		South of Sunnyside, Utah.	
	eL	20 13 00.0						
	eP	23 28 14.2						
13	PCU	ePg	23 28 18.9			45		South of Sunnyside, Utah.
		eL	23 28 25.2					
	CCU	eP	10 19 52.3			45		South of Sunnyside, Utah.
		ePg	10 19 57.5					
		eL	10 20 03.5					
DUG	eP	13 03 53.8			45		South of Sunnyside, Utah.	
	ePg	13 04 01.3						
DUG	eL	13 04 04.8			300		Local.	
	ePn	15 15 44.8						
	ePg	15 15 47.3						
	eL	15 16 25.8						
	ePn	15 16 06.0	0.4	1.1	412			

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Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Nov 13 (con't)	DUG	eP	19 44 12.1			200		Local.
		eL	19 44 40.5			250		
	PCU	ePg	19 44 26.6					
		eL	19 44 50.1			45		South of Sunnyside, Utah.
	PCU	eP	20 31 40.6			45		South of Sunnyside, Utah.
		ePg	20 31 48.1			89		Near Cedar City, Utah.
		eL	20 31 51.6					
	PCU	eP	20 33 38.1			78		Near Cedar City, Utah.
		ePg	20 33 44.2					
		eL	20 33 49.1					
	CCU	eP	22 42 48.7			45		South of Sunnyside, Utah.
		ePg	22 42 54.5					
		eL	22 42 58.8					
14	PCU	eP	02 18 18.9			45		South of Sunnyside, Utah.
		ePg	02 18 25.2					
		eL	02 18 29.9			156		Local.
	PCU	ePn	10 12 05.1					
		ePg	10 12 15.6					
		eL	10 12 26.3					
	DUG	eP	10 12 40.7			45		South of Sunnyside, Utah.
	PCU	eP	10 37 08.1					
		ePg	10 37 14.1					
		eL	10 37 19.1					
	DUG	eP	20 52 23.8	0.5	3.6	156		Local.
		eL	20 52 46.5					
	DUG	eP*	21 58 50.7	0.6	15.8			Bingham blast.
15	SIC	ePg	16 12 02.5			67		Near Huntsville, Utah.
		eL	16 12 09.4					
	DUG	eP	16 12 05.8	0.7	1.6	140		
		eP	16 12 24.2					
		eP						

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Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Nov 15 (con't)	PCU	eP	18 30 44.1			45		South of Sunnyside, Utah.
		ePg	18 30 50.8					
		eL	18 30 55.1					
	DUG	ePn	20 59 56.5			833	4.2	Central California 36.7 N, 121.4 W 20 58 03.6 h = 11 km Mag. 4.2.
		ePg	21 00 30.1					
16		eL	21 02 06.5					
	PGU	eP	02 27 22.5			45		South of Sunnyside, Utah.
		ePg	02 27 27.2					
		eL	02 27 33.5					
	PGU	eP	07 40 32.6			45		South of Sunnyside, Utah.
		ePg	07 40 37.1					
		eL	07 40 43.6					
	PGU	eP	16 02 36.4			45		South of Sunnyside, Utah.
		ePg	16 02 48.5					
		eL	16 02 47.4					
17	PGU	eP	18 10 57.0			45		South of Sunnyside, Utah.
		ePg	18 11 01.4					
		eL	18 11 08.0					
	DUG	ePn	08 17 01.0	0.6	1.6	245		North of Green River, Utah.
		ePg	08 17 06.0					
		eL	08 17 34.5					
	DUG	ePn	10 29 03.5			167		East of Kamas, Utah.
		ePg	10 29 05.5					
		eL	10 29 24.0					
	CCU	ePg	16 37 24.5			37	*2.0	*Near New Harmony, Utah 37.43 N, 113.27 W 16 37 23.4 h = 0 km Mag. 2.0 (5 sta)
DUG	eL	16 37 28.7			312			
	ePn	16 38 07.2						
	ePg	16 38 12.0						
	eL	16 38 50.1						
DUG	eP	20 51 11.5	0.7	3.2	833	4.5	Central California 36.4 N, 121.0 W 20 49 19.5 h = 8 km Mag. 4.5. Felt at Salinas.	

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Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
1969 Nov 17 (con't)	DUG	ePn	22 56 10.5			223		Central Nevada.	
		ePg	22 56 15.1						
		eL	22 56 40.5			289			
	CCU	eP	22 56 13.5						
		eL	22 56 47.7						
		ePg	22 56 35.6						
		eL	22 56 59.8						
	18	CCU	eP	06 30 37.0			63		Near Cedar City, Utah.
		ePg	06 30 42.0						
		eL	06 30 45.5						
	eP	13 34 53.6			45		South of Sunnyside, Utah.		
	ePg	13 35 00.9							
	eL	13 35 04.6			140		Local.		
	eP	16 42 17.2							
	ePg	16 42 25.9							
	eL	16 42 35.6							
19	DUG	ePn	06 30 47.0	0.7	1.6	879	4.3	Central California 36.4 N, 121.5 W 06 28 48.0 h = 3 km Mag. 4.3.	
	ePg	06 31 29.0							
	eL	06 32 51.0			124			*Near Johnson Valley Reservoir, Utah 38.63 N, 111.53 W 09 32 10.7 h = 0 km Mag. 2.2 (5 sta).	
	eP	09 32 27.5							
	ePg	09 32 32.9			170				
	eL	09 32 51.6							
	ePg	09 32 37.9							
	eL	09 32 57.0			206		*2.2		
	ePn	09 32 43.2							
	ePg	09 32 47.0							
	eL	09 33 15.2			137			Local.	
	ePg	19 16 52.6							
	eL	19 17 09.0							

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
1969 Nov 20	CCU	eP	02 35 01.6			78		North of Lund, Utah.
		ePg	02 35 03.8					
		eL	02 35 09.5					
	DUG	ePn	02 35 30.6	0.5	4.5	240		
		ePg	02 35 36.8					
		eL	02 36 02.4					
	PCU	eP	04 14 45.3			145		Local.
		ePg	04 14 49.3					
		eL	04 15 04.3					
	PCU	ePn	11 55 30.3			300		Local.
	ePg	11 55 39.3						
	eL	11 56 11.8						
DUG	eP	21 55 23.2	0.6	17.3				Bingham blast.
21	PCU	ePn	04 34 57.9			190		Local.
	ePg	04 35 03.6						
	eL	04 35 25.0						
DUG	eP	14 53 03.0	0.8	6.0	445	*4.6		Nevada Test Site "Piccalilly" 37.11 N, 116.02 W 14 52 00.00 h = 0 km Mag. 4.6 (U. of U.).
SIC	eP	14 53 18.7						*East of Moore, Utah 38.93 N, 110.95 W 21 09 06.1 h = 0 km Mag. 1.8 (5 sta).
PCU	eP	21 09 17.4						
	ePg	21 09 28.3						
	eL	21 09 42.1						
DUG	eP	21 09 39.7	0.5	1.8				
DUG	eP*	21 55 43.4	0.6	10.3				Bingham blast.
22	PCU	eP	02 15 16.1			89		*East of Redmond, Utah 39.07 N, 111.59 W 02 15 03.2 h = 10 km Mag. 3.5 (7 sta)
	ePg	02 15 27.3						
	eL	02 15 42.3			190			
SIC	ePg	02 15 29.1						
	eL	02 15 56.6						
DUG	ePn	02 15 29.4	0.6	3.2	285	*3.5		
	ePg	02 15 35.0						
	eL	02 16 08.5						
CCU	eP	02 15 34.0			195			
	ePg	02 15 44.3						
	eL	02 16 00.4						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Nov 22 (con't)	PCU	ePg	02 24 23.1			122		Local.	
		eL	02 24 38.1					Bingham blast.	
	DUG	eP*	21 58 13.6	0.6	11.1			South of Sunnyside, Utah.	
23	PCU	eP	05 01 41.0			45		South of Sunnyside, Utah.	
		ePg	05 01 48.0						
		eL	05 01 52.0			45		South of Sunnyside, Utah.	
	PCU	eP	18 44 45.9						
		ePg	18 44 51.7						
		eL	18 44 56.9						
	DUG	ePn	22 33 00.5	0.8	3.4	234	*3.0	Central Nevada Mag. 3.0 (U. of U.).	
		ePg	22 33 04.5						
	CCU	eL	22 33 31.0			378			
		eP	22 33 27.5						
24	PCU	ePg	22 33 31.7			356			
		eL	22 34 14.3						
		eP	22 33 35.1						
		ePg	22 33 44.6						
		eL	22 34 25.0						
	DUG	ePn	21 08 46.6	0.4	8.5	390		Local.	
		ePg	21 08 55.0						
		eL	21 09 39.4						
	25	PCU	eP	00 38 31.8			45		South of Sunnyside, Utah.
		ePg	00 38 37.5						
	eL	00 38 42.8			45		South of Sunnyside, Utah.		
PCU	eP	03 05 53.8							
	ePg	03 06 01.5							
	eL	03 06 04.8							
DUG	ePn	05 04 30.0	0.6	4.0	445		Local.		
	eL	05 05 34.5							
PCU	eP	17 45 55.3			140		Local.		
	ePg	17 46 05.8							
	eL	17 46 31.4							
DUG	eP	17 46 30.5							

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Nov 25 (con't)	PCU	eP	18 45 36.5			140		Local.	
		ePg	18 45 45.9						
		eL	18 45 53.8						
	PCU	eP	20 37 32.8					South of Sunnyside, Utah.	
		ePg	20 37 43.9						
		eL	20 37 53.5						
	DUG	eP*	21 53 04.7	0.6	12.6			Bingham blast.	
	26	CCU	eP	00 55 20.9			78		Near Cedar City, Utah.
		eL	00 55 30.5						
	PCU	eP	09 30 52.1			150		Local.	
	ePg	09 30 59.4							
	eL	09 31 10.5			45		South of Sunnyside, Utah.		
PCU	eP	11 59 21.4							
	ePg	11 59 25.5							
	eL	11 59 32.2			45		South of Sunnyside, Utah.		
PCU	eP	12 44 10.8							
	ePg	12 44 16.1							
	eL	12 44 21.8							
DUG	eP*	21 24 24.9	0.6	13.4				Bingham blast.	
27	PCU	eP	00 01 08.6			140		Local.	
		ePg	00 01 19.1						
		eL	00 01 21.2						
	CCU	eP	14 07 29.7			367		Central Nevada.	
		ePg	14 07 45.0						
		eL	14 08 20.5			390			
	DUG	ePn	14 07 34.5						
		ePg	14 07 44.5						
		eL	14 08 29.1						
	PCU	eP	17 47 59.1			45		South of Sunnyside, Utah.	
	ePg	17 48 04.1							
	eL	17 48 10.4							
28	PCU	eP	00 41 36.1			45		South of Sunnyside, Utah.	
		ePg	00 41 40.2						
		eL	00 41 47.1						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Nov 28 (con't)	PCU	eP	03 33 56.1			45		South of Sunnyside, Utah.
		ePg	03 34 03.1					
	DUG	eL	03 34 07.1			200		Local.
		eP	08 08 10.2	0.4	1.1			
	PCU	eL	08 08 41.5			240		
		ePg	08 08 18.0					
	PCU	eL	08 08 48.1			45		South of Sunnyside, Utah.
		eP	12 48 25.6					
	DUG	ePg	12 48 31.6			145		Local.
		eL	12 48 36.6					
DUG	eP	16 37 22.5	0.4	1.1				
	eL	16 37 41.5						
30	DUG	iPn	03 45 59.4	1.0	75.0		6.0	Eastern Kazakh SSR 49.9 N, 79.0 E 03 32 57.2 h = 0 km Mag. 6.0. South of Sunnyside, Utah.
		C						
Dec 1	PCU	eP	03 35 37.2			45		
		ePg	03 35 41.6					
	DUG	eL	03 35 48.2			234		Local.
		eP	19 52 13.5					
	DUG	ePg	19 52 19.0					
		eLg	19 52 45.0					
	DUG	eP	15 17 59.6	1.0	5.0	844	4.3	California-Mexico Border Region 32.9 N, 116.2 W 15 15 35.0 h = 10 km Mag. 4.3. South of Sunnyside, Utah.
		C						
	DUG	eP	17 34 02.0			45		
		ePg	17 34 09.5					
DUG	eL	17 34 13.0						
	eP*	21 57 16.3	0.6	11.9			Bingham blast.	
2	PCU	eP	13 10 22.1			150		Local.
		ePg	13 10 31.6					
SIC	PCU	eL	13 10 42.1			14	*1.5	Near Salt Lake City, Utah Mag. 1.5 (U. of U.).
		ePg	23 03 45.8					
DUG	PCU	eL	23 03 47.4			140		Local.
		eP	23 20 16.2					
DUG	PCU	ePg	23 20 27.2					
		eL	23 20 51.4					

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Dec 3	DUG	eP	13 26 27.3	0.9	5.9	1556	4.2	Gulf of California 26.3 N, 110.0 W 13 22 57.7 h = 33 km Mag. 4.2.	
		eP	20 56 45.0			1667	4.6	Gulf of California 25.7 N, 109.7 W 20 53 12.6 h = 33 km Mag. 4.6.	
	DUG	eP	22 12 48.2	1.1	6.5	970	4.5	Off Coast of California 34.6 N, 121.4 W 22 10 37.0 h = 33 km Mag. 4.5.	
		C							
	DUG	eP	23 25 19.1			140		Local.	
		ePg	23 25 24.8						
	DUG	eL	23 25 40.1						
		C							
	4	DUG	eP	02 41 28.3			1560	4.4	Gulf of California 26.0 N, 110.0 W 02 38 02.1 h = 33 km Mag. 4.4.
			C						
DUG	eP	04 15 11.3			45		South of Sunnyside, Utah.		
	ePg	04 15 18.3							
SIC	DUG	eL	04 15 22.3			21		*East of Salt Lake City, Utah 40.73 N, 111.80 W 22 42 24.2 h = 0 km Mag. 1.6 (4 sta).	
		ePg	22 42 24.7						
DUG	PCU	eL	22 42 27.3	0.6	4.7	106	*1.6		
		eP	22 42 42.2			145			
DUG	DUG	ePg	22 42 48.1			722		Regional.	
		eL	22 43 07.1						
DUG	PCU	ePn	22 48 05.3			190		Local.	
		ePg	22 48 32.4						
DUG	PCU	eL	22 49 57.0			156		Local.	
		eP	23 58 41.5			370		Local.	
DUG	PCU	ePg	23 58 54.4						
		eL	23 59 20.8						
5	DUG	eP	01 28 06.8			156		Local.	
		ePg	01 28 35.6						
DUG	PCU	eL	01 28 55.4						
		eP	05 46 07.9						
DUG	PCU	ePg	05 46 27.2						
		eL	05 47 02.3						
DUG	PCU	eP	05 46 14.1						
		C							

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks					
Dec 5 1969 (con't)	CGU	eP	17 00 42.0	0.4	6.4	445	*4.7	Nevada Test Site "Diesel Train" 37.27 N, 116.25 W 17 00 00.00 h = 0 km Mag. 4.7 (U. of U.).					
	DUG	ePn	17 01 03.0										
		ePg	17 01 16.0										
		eL	17 02 09.3										
	SIC	eP	17 01 17.8										
	PCU	eP	18 21 46.2										
		ePg	18 21 58.3										
		eL	18 22 15.3										
	6	PCU	eP						00 11 46.1		45		South of Sunnyside, Utah.
		ePg	00 11 52.6										
	eL	00 11 58.5											
	eP	07 16 27.6	0.9	11.9	223	5.8	Western Kazakh SSR 43.8 N, 54.8 E 07 02 57.4 h = 0 km Mag. 5.8.						
	DUG	ePn	23 03 05.7	0.4	1.1		Local.						
	DUG	ePg	23 03 11.0										
	DUG	eL	23 03 36.5										
7	PCU	eP	00 41 04.9		111		Local.						
	ePg	00 41 10.4											
	eL	00 41 17.9											
	eP	12 28 57.9			312		Local.						
	ePg	12 29 13.8											
	eL	12 29 40.4											
	eP	18 58 08.9			340		Local.						
	eL	18 58 58.4											
	eP	18 58 15.1											
	DUG	eP*	21 57 59.1	0.6	11.1	111	5.8	Bingham blast. Near Cedar City, Utah.					
	DUG	eP	22 23 51.9										
	CGU	ePg	22 23 53.8										
		eL	22 24 04.5										
	DUG	eP	22 24 33.0										

Date	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks					
Dec 8 1969	DUG	eP	02 27 48.1	0.5	10.7			Bingham blast. South of Sunnyside, Utah.					
	PCU	eP	06 08 10.7										
		ePg	06 08 12.3										
		eL	06 08 22.5										
	9	PCU	eP						02 14 29.0		134		Local.
		ePg	02 14 35.7										
		eL	02 14 45.2										
		eP	12 05 30.4								45		South of Sunnyside, Utah.
		ePg	12 05 33.0										
		eL	12 05 41.4										
	eP	14 28 38.2			45		South of Sunnyside, Utah.						
	ePg	14 28 44.2											
	eL	14 28 49.2											
	eP	19 10 26.7			78	*3.0	South of Cedar City, Utah Mag. 3.0 (U. of U.).						
	ePg	19 10 34.5											
	eL	19 10 40.0			300								
	ePn	19 10 57.2											
	ePg	19 11 03.8											
	eL	19 11 31.2											
	eP	20 17 54.7			156		Local.						
	ePg	20 18 04.3											
	eL	20 18 15.3											
	eP	23 04 18.0			278		Local.						
	ePg	23 04 22.8											
	eL	23 04 49.0											
10	PCU	eP	06 59 25.0		45			Probable rockburst near Sunnyside, Utah.					
	ePg	06 59 32.4											
	eR	06 59 43.5											
	eP	06 59 40.5	0.4	1.1	156		Local.						
	ePn	10 39 02.3											
	ePg	10 39 09.3											
	eL	10 39 23.4											

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Dec 10	DUG	ePn	15 31 02.5			450	*4.6	Southern Nevada Mag. 4.6 (U. of U.).	
		ePg	15 31 14.8						
	PCU	eL	15 32 07.2			45			Probable rockburst near Sunnyside, Utah.
		eP	19 15 15.1						
		ePg	19 15 25.3						
		eR	19 15 33.3						
		eP	19 15 35.1	0.4	5.3				
							350		Local.
	11	PCU	ePn	01 24 47.9					
			ePg	01 24 58.2					
DUG	PCU	eL	01 25 39.9			45		South of Sunnyside, Utah.	
		eP	08 41 41.9						
DUG	DUG	ePg	08 41 48.4			140		Local.	
		eL	08 41 52.9		1.1				
PCU	PCU	eP	16 05 18.4	0.4		89		*Near San Rafael Swell, Utah 38.90 N, 110.81 W 17 16 37.9 h = 0 km Mag. 2.5 (5 sta).	
		eL	16 05 37.0						
DUG	DUG	eP	17 16 49.4			225	*2.5	Local.	
		ePg	17 16 59.9	0.4	2.1	223			
SIC	PCU	ePn	17 58 56.9			108		*North of Hanna, Utah 40.89 N, 110.58 W 18 49 59.3 h = 20 km Mag. 2.3 (5 sta).	
		ePg	17 59 02.0						
DUG	DUG	eL	17 59 27.8			149			
		ePg	18 50 17.6						
DUG	DUG	eL	18 50 28.3			206	*2.3		
		eP	18 50 18.4						
DUG	DUG	ePg	18 50 28.5			30		Bingham blast. Near Park City, Utah Mag. 1.7 (U. of U.).	
		eL	18 50 47.1	0.6	15.8	160			
DUG	DUG	ePn	18 50 29.0						
		ePg	18 50 34.2						
DUG	DUG	eL	18 51 01.5						
		eP*	21 53 42.8			30			
DUG	DUG	ePg	22 42 01.4						
		eL	22 42 04.9						
DUG	DUG	ePg	22 42 19.4						
		eL	22 42 41.8						
DUG	DUG	eP	22 42 19.5				*1.7		

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Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Dec 11 (con't)	PCU	ePg	23 24 26.1			350		Local.
		eL	23 25 15.3					
12	PCU	ePg	00 04 40.0			212		Local.
		eL	00 05 08.1					
12	PCU	eP	05 29 02.0			150		Local.
		ePg	05 29 10.9					
12	PCU	eL	05 29 21.5			45		South of Sunnyside, Utah.
		eP	11 51 30.6					
12	PCU	ePg	11 51 37.6			350		Local.
		eL	11 51 41.6					
12	PCU	ePn	17 58 11.5			51		Near Price, Utah.
		ePg	17 58 19.2					
12	PCU	eL	17 59 03.5			278		Local.
		ePg	18 31 04.4					
12	PCU	eL	18 31 10.5					
		ePg	20 16 44.5					
12	DUG	eL	20 17 24.5					
		eP*	21 54 22.2	0.6	10.3			Bingham blast. South of Sunnyside, Utah.
12	SIC	eP	22 14 26.8					
		eL	22 14 38.1					
12	SIC	eP	22 14 41.9			35		Near Salt Lake City, Utah.
		ePg	23 47 10.9					
12	SIC	ePg	23 47 12.6					
		eL	23 47 15.4					
13	PCU	ePn	00 11 32.8			223		Local.
		ePg	00 11 36.9					
13	PCU	eL	00 12 01.3			45		South of Sunnyside, Utah.
		eP	00 43 02.4					
13	PCU	ePg	00 43 09.0			45		South of Sunnyside, Utah.
		eL	00 43 13.4					
13	PCU	eP	05 59 51.5			45		South of Sunnyside, Utah.
		ePg	05 59 59.1					
13	PCU	eL	06 00 02.5					

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Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Dec 13 (con't)	PCU	eP	16 03 33.9			150		Local.
		ePg	16 03 40.9					
		eL	16 03 52.1					
14	DUG	eP	11 03 58.5			921	4.2	Northern California 40.3 N, 123.7 W 11 01 45.6 h = 24 km Mag. 4.2.
		eP*	22 02 22.2	0.6	10.3			Bingham blast.
		eP	23 17 11.5	0.4	1.1	245		Local.
		ePg	23 17 16.5					
		eL	23 17 42.4					
15	DUG	eP	02 22 21.8				4.0	Off Coast of California 34.6 N, 121.5 W 02 20 08.7 h = 33 km Mag. 4.0 (CGS), 3.7 (PAS).
		eP	21 34 38.6			45		South of Sunnyside, Utah.
16	PCU	eP	21 34 43.1					
		eL	21 34 49.8					
	DUG	eP	22 59 35.5			245		Local.
		ePg	22 59 40.5					
	PCU	eL	23 00 07.5					
		ePg	00 27 30.8			350		Local.
		eL	00 28 18.7					
		eP	04 55 40.7			156		Local.
		ePg	04 55 49.7					
		eL	04 56 00.5					
17	PCU	eP	14 55 05.8			150		Local.
		ePg	14 55 14.5					
		eL	14 55 23.8					
		ePn	19 08 56.3			280		Local.
18	PCU	ePg	19 09 07.5					
		eL	19 09 28.1					

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Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Dec 16 (con't)	SLC	eP	20 46 33.8			78		Local.
		ePg	20 46 39.0					
	DUG	eL	20 46 42.0					
		eP	20 46 52.1	0.5	1.8			
		eP	22 13 17.9			278		Local.
		ePg	22 13 27.5					
	PCU	eL	22 13 55.8					
		eP	23 14 00.1			120		Local.
		ePg	23 14 04.7					
		eL	23 14 14.0					
17	PCU	eP	01 04 42.3			120		Local.
		e	01 04 47.6					
	DUG	ePg	01 04 52.9					
		eL	01 05 05.9					
		eP	10 15 03.6			179		Local.
		ePg	10 15 09.1					
	DUG	eL	10 15 27.9					
		ePn	15 01 02.5	0.4	14.2	445	*5.5	Nevada Test Site "Grape A" 37.17 N, 116.01 W 15 00 00.00 h = 0 km Mag. 5.5 (U. of U.).
		ePg	15 01 14.6					
		eL	15 02 06.0					
eP		15 01 17.4						
ePn		15 01 18.6						
DUG	ePg	15 01 36.7						
	eL	15 02 23.6						
	ePn	15 16 06.5			445	*4.8	Nevada Test Site "Lovage" 37.09 N, 116.03 15 15 00.00 h = 0 km Mag. 4.8 (U. of U.).	
	ePg	15 16 19.4						
DUG	eL	15 17 14.5			556	*4.3	Southern Nevada Mag. 4.3 (U. of U.).	
	ePn	16 18 13.2						
	ePg	16 18 31.0						
	eL	16 19 36.2						
DUG	eP	20 10 07.0			556		Local.	
	ePg	20 10 25.6						
	eL	20 11 30.5						
DUG	eP	22 00 46.0	0.6	10.3			Bingham blast.	

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Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks	
Dec 17 (con't)	DUG	eP	22 45 41.1	1.0	3.8	567	4.2	California-Nevada Border Region 37.3 N, 118.2 W 22 44 07.0 h = 6 km Mag. 4.2.	
	18	DUG	eP	19 01 02.5	0.6	28.5	445	*5.3	Nevada Test Site "Terrine" 37.20 N, 116.03 W 19 00 00.00 h = 0 km Mag. 5.3 (U. of U.).
		DUG	ePg	19 01 15.5					
		DUG	eL	19 02 07.5			487		
		PCU	ePn	19 01 15.6			589		
	19	DUG	ePg	19 01 27.6					
		DUG	eL	19 02 25.1					
		DUG	ePn	19 01 16.5					
		DUG	ePg	19 01 33.4					
	20	DUG	eL	19 02 43.6	0.6	0.8	150		Local.
DUG		eP	21 56 13.8						
DUG		eL	21 56 33.6						
DUG		eP	23 11 06.0			189		Local.	
DUG		eL	23 11 32.5						
DUG		eP	21 59 55.9	0.6	11.9			Bingham blast.	
PCU		eP	03 33 36.5			45		South of Sunnyside, Utah.	
PCU		ePg	03 33 41.2						
DUG		eL	03 33 47.5						
DUG		eP*	23 05 36.9	0.6	10.3	245		Bingham blast. Local.	
21	DUG	eP	23 25 37.5						
	DUG	ePg	23 25 50.5						
	PCU	eL	23 26 17.6						
	PCU	eP	23 29 18.5			140		Local.	
	PCU	ePg	23 29 27.7						
	PCU	eL	23 29 35.6						
	PCU	eP	05 44 32.2			150		Local.	
	PCU	ePg	05 44 39.0						
	PCU	eL	05 44 52.2						

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Dec 22	DUG	ePn	09 54 21.5			315		Central Nevada.
	DUG	ePg	09 54 24.6					
	PCU	eL	09 55 04.5			401		
	PCU	ePn	09 54 22.6					
	PCU	ePg	09 54 36.3					
	DUG	eL	09 55 19.3					
	DUG	eP	18 03 12.1	0.6	2.4	130		Local.
	PCU	eL	18 03 27.5					
	PCU	eP	19 04 59.8			160		Local.
	PCU	ePg	19 05 06.6					
23	DUG	eL	19 05 21.3					
	DUG	eP	21 15 27.1			478		Near Rangley, Colorado.
	DUG	ePg	21 15 49.5					
	DUG	eL	21 16 36.0					
	PCU	ePn	03 14 32.8			280		Local.
	PCU	ePg	03 14 46.8					
	PCU	eL	03 15 10.5					
	PCU	eP	16 11 16.7			170		Local.
	PCU	ePg	16 11 21.8					
	PCU	eL	16 11 40.6			278		Local.
24	PCU	eP	17 42 32.8					
	PCU	ePg	17 42 47.8					
	PCU	eL	17 43 18.5					
	PCU	eP	21 31 18.6			125		Local.
	PCU	ePg	21 31 48.8					
	PCU	eL	21 32 03.3					
	PCU	eP	22 15 08.6			45		South of Sunnyside, Utah.
	PCU	ePg	22 15 15.0					
	PCU	eL	22 15 19.6					
	PCU	eP	03 59 25.6			140		Local.

Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Dec 24 (con't)	PCU	eP	10 49 30.8			45		South of Sunnyside, Utah.
		ePg	10 49 37.8					
		eL	10 49 41.8					
	DUG	eP	17 45 53.1	0.4	1.1	134		Local.
		eL	17 46 09.2					
	PCU	eP	20 07 44.7			45		South of Sunnyside, Utah.
		ePg	20 07 49.2					
		eL	20 07 55.7					
	DUG	eP*	21 12 05.7	0.6	11.1	46		Bingham blast, Near Salt Lake City, Utah.
	SIG	eP	22 40 20.2					
	ePg	22 40 23.5						
	eL	22 40 25.7						
25	PCU	ePn	12 50 44.2			478		Eastern Arizona 33.4 N, 110.6 W 12 49 10.1 h = 15 km Mag. 4.4. Felt at Globe and Cutter.
		ePg	12 50 51.7					
		eL	12 51 53.4					
	DUG	ePn	12 51 01.0	0.8	2.6	777	4.4	
		ePg	12 51 22.1					
		eL	12 52 51.0					
	PCU	eP	10 21 19.6			45		South of Sunnyside, Utah.
	ePg	10 21 23.2						
	eL	10 21 30.6						
26	DUG	eP	23 16 41.4			290		Local.
		eL	23 17 21.0					
	PCU	eP	00 51 10.8			175		Local.
		ePg	00 51 16.0					
28	PCU	eL	00 51 35.8					
		eP	12 02 06.8			45		South of Sunnyside, Utah.
		ePg	12 02 12.0					
		eL	12 02 18.6					
	DUG	eP	12 02 31.5					
	DUG	ePn	22 57 19.9			267		Local.
		ePg	22 57 24.8					
		eL	22 57 54.3					

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Date 1969	Sta	Phase Dir	Time (GCT)	Per (sec)	Gnd Mot Amp (Mu)	Dist (km)	Mag	Remarks
Dec 28 (con't)	PCU	eP	23 18 48.0			134		Local.
		ePg	23 18 58.0					
		eL	23 19 04.5					
29	PCU	eP	20 56 50.8			278		Local.
		ePg	20 57 04.6					
		eL	20 57 28.3					
30	DUG	eP	00 24 32.6	0.6	11.1	45		Bingham blast. South of Sunnyside, Utah.
	PCU	eP	06 34 55.4					
		ePg	06 35 01.3					
		eL	06 35 06.4					
	PCU	eP	11 09 20.9			89		*Near Scipio, Utah 39.27 N, 112.04 W 11 09 03.2 h = 0 km Mag. 2.5. (4 sta).
		ePg	11 09 25.0					
		eL	11 09 32.9					
DUG	ePn	11 09 23.8	0.4	12.7	130	*2.5		
	ePg	11 09 25.3						
	eL	11 09 41.0						
SIG	ePg	11 09 29.6			160			
	eL	11 09 47.2						
PCU	ePg	20 24 23.8			350			Local.
	eL	20 25 11.5						
DUG	eP	22 18 43.5			278			Local.
	ePg	22 18 51.0						
	eL	22 19 22.0						
31	PCU	eP	02 34 53.5			45	*2.0	South of Sunnyside, Utah Mag. 2.0 (U. of U.).
		ePg	02 34 57.6					
		eL	02 35 04.5					
	DUG	eP	18 44 46.6	0.4	6.4	134		Local.
	eL	18 45 02.1						

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CORRECTIONS TO PREVIOUS BULLETINS

1. The "Addendum to 'Acknowledgments'" on page "x" of this bulletin should be included in the following two previously published Bulletins:

<u>Contribution No.</u>	<u>Period</u>	<u>Date Published</u>
93	Jan. 1, 1967 - Dec. 31, 1967	Aug. 16, 1974
101	Jan. 1, 1968 - Dec. 31, 1968	Aug. 16, 1974

2. Notwithstanding the statement made to the contrary on pages "iii" and "iv" of the above-mentioned bulletins for 1967 and 1968, respectively, the symbol "##" in the "Remarks" column was not actually used in these bulletins.

3. Bulletin for calendar year 1967 (Contribution No. 93):

Page 6: The latitude of Echo City, Utah earthquake should read "39.20 N."
 Page 99: The blast in Salt Lake Desert by Air Force should read: "250,000 lbs. of explosives on surface."

4. Bulletin for calendar year 1968 (Contribution No. 101):

Page ii: The principal facts for the Cedar City, Utah station (CCU) should be corrected to read as follows:

Latitude: 37° 40.52' N, Longitude: 113° 04.11' W,
 Elevation: 1775 meters

5. Corrections of phase designations for previous bulletins.--In the bulletins for the period July 1, 1966 to December 31, 1966 (Contribution No. 92)*, and the years 1967 and 1968 (Contribution Nos. 93 and 101, respectively) the phase designations for the Price station, Utah (PCU) have been inconsistent for rockbursts and earthquakes in the coal-mining areas of Carbon County, Utah, and should generally be changed to read as follows, to conform with the phase designations defined elsewhere in this bulletin:

For Probable Rockbursts

P
Pg
R

For Earthquakes

P
Pg
L

If only two phases are interpreted, the designations are generally P and R for probable rockbursts and P and L for earthquakes in the coal-mining areas of Carbon County, Utah.

The corrections of phase designations for the above-mentioned 1966, 1967, and 1968 bulletins are given in the Appendix of this bulletin for 1969.

*It should be noted (see p. iii in the bulletin for the period July 1, 1966 to December 31, 1966, Contribution No. 92) that for rockbursts prior to October 1, 1966, the surface wave phase "R" was designated "B". It is not intended that the designation of "B" for this surface wave phase from probable rockbursts prior to October 1, 1966 should be changed in the bulletins.

CORRECTIONS TO PREVIOUS BULLETINS

Bulletin for Period July 1, 1966 - December 31, 1966 (Contribution No. 92)

Date 1966	Sta	Time (GCT)	Change:	Phase	To read:
July 5	DUG	19 39 08.5	ePn		eP
			Dist (km) 60		373
24	PCU	17 47 06.0	iPn		iP
Aug 4	PCU	16 23 57.2	iPn		iP
13	PCU	16 35 34.2	ePn		eP
Sept 2	PCU	23 23 45.0	iPn		iP
24	PCU	03 42 30.6	ePn		eP
	PCU	18 47 19.2	ePn		eP
Oct 22	PCU	02 13 20.5	iPn		iP
23	PCU	13 04 45.3	iPn		iP
24	PCU	01 39 21.6	ePn		eP
Nov 11	PCU	16 45 39.6	ePg		eP
	PCU	16 45 44.2	eS		ePg
16	PCU	21 06 53.1	eS		ePg
20	PCU	14 40 55.2	eS		ePg
Dec 1	DUG	17 51 02.1	ePn		eP
11	PCU	23 03 56.2	eS		ePg
24	PCU	03 58 42.0	eS		ePg

CORRECTIONS TO PREVIOUS BULLETINS

Bulletin for Period January 1, 1967 - December 31, 1967 (Contribution No. 93)

Date 1967	Sta	Time (GCT)	Change:	Phase	To read:
Jan 3	PCU	09 19 26.8	iPn		iP
4	PCU	08 04 23.0	ePg		eP
		08 04 29.0	eS		ePg
5	PCU	13 34 32.9	ePg		eP
		13 34 39.1	eS		ePg
7	DUG	08 41 45.2	ePn		eP
10	PCU	08 16 09.4	iPn		iP
		08 16 13.4	eS		eR
11	DUG	18 46 14.8	ePn		eP
Feb 5	PCU	10 07 25.8	eS		ePg
13	PCU	03 24 51.5	eS		ePg
Mar 2	LOG	20 21 34.4	iPn		iP
3	PCU	19 10 21.4	ePg		eP
		19 10 27.2	eS		ePg
	PCU	22 29 28.8	ePg		eP
		22 29 34.7	eS		ePg
5	PCU	16 28 12.8	eS		ePg
	PCU	19 13 59.4	eS		ePg
9	PCU	01 24 58.6	iPn		iP
		01 25 03.4	eS		ePg
10	PCU	18 19 55.0	eS		ePg
19	PCU	10 28 16.9	eS		ePg
22	PCU	17 14 53.2	ePg		eP
		17 14 58.6	eS		ePg
24	PCU	12 29 02.1	eS		ePg
27	PCU	14 42 14.1	eS		ePg
	PCU	21 22 37.0	eS		ePg
29	PCU	13 33 56.5	ePg		eP
30	PCU	00 14 03.5	eS		ePg
	PCU	10 51 39.7	eS		ePg
Apr 6	PCU	06 47 11.8	ePg		eP
8	PCU	02 44 47.4	ePg		eP
		02 44 53.4	eS		ePg
11	PCU	18 10 54.8	ePg		eP
12	PCU	09 56 36.7	ePg		eP
		09 56 42.1	eS		ePg
	PCU	10 33 32.9	ePg		eP
		10 33 38.3	eS		ePg
Apr 14	PCU	04 58 14.1	ePg		eP
		04 58 21.4	eS		ePg

CORRECTIONS TO PREVIOUS BULLETINS

Bulletin for Period January 1, 1967 - December 31, 1967 (Contribution No. 93)

Date 1967	Sta	Time (GCT)	Change:	Phase	To read:
Apr 16	PCU	15 51 40.6	ePg		eP
		15 51 45.7	eS		ePg
18	PCU	23 24 58.2	ePg		eP
	PCU	01 49 42.2	ePg		eP
		01 49 47.8	eS		ePg
	PCU	05 17 40.8	ePg		eP
05 17 46.0		eS		ePg	
21	PCU	01 25 07.2	ePg		eP
	PCU	04 48 41.9	ePg		eP
22	PCU	23 17 23.0	iPg		iP
		06 31 09.1	ePg		eP
24	PCU	06 31 15.0	eS		ePg
		07 06 05.8	ePg		eP
		07 06 10.8	eS		ePg
		00 10 30.6	ePg		eP
		00 10 38.1	eS		ePg
		16 13 28.1	ePg		eP
26	PCU	16 13 36.9	eS		ePg
		16 23 40.3	ePg		eP
		16 23 45.8	eS		ePg
		00 44 36.7	ePg		eP
May 1	PCU	15 26 10.7	ePg		eP
		15 26 15.6	eS		ePg
3	PCU	19 20 08.7	ePg		eP
		19 20 13.7	eS		ePg
		06 05 55.5	ePg		eP
		06 05 59.7	eS		ePg
7	PCU	20 23 44.4	ePg		eP
		20 23 46.7	eS		ePg
		04 23 04.0	ePg		eP
		04 23 10.2	eS		ePg
9	PCU	22 11 01.6	ePg		eP
		22 11 10.3	eS		ePg
10	PCU	04 44 32.0	ePg		eP
		04 44 39.1	eS		ePg
15	PCU	11 40 47.6	ePg		eP
		11 40 53.7	eS		ePg
16	PCU	23 45 14.7	ePg		eP
		23 45 19.2	eS		ePg
17	PCU	22 49 06.1	ePg		eP
		22 49 12.1	eS		ePg
	PCU	20 06 25.6	ePg		eP
		20 06 31.4	eS		ePg

CORRECTIONS TO PREVIOUS BULLETINS

Bulletin for Period January 1, 1967 - December 31, 1967 (Contribution No. 93)

Date 1967	Sta	Time (GCT)	Change:	Phase	To read:
May 24	PCU	01 41 44.8	ePg		eP
		01 41 50.8	eS		ePg
25	PCU	10 33 20.3	ePn		eP
	PCU	11 20 03.0	eS		ePg
26	PCU	23 01 22.8	ePg		eP
		23 01 26.8	eS		ePg
27	PCU	11 30 00.9	ePg		eP
	PCU	12 26 02.1	ePg		eP
	PCU	12 28 14.4	ePg		eP
	PCU	18 01 16.3	ePg		eP
28	PCU	11 44 59.3	ePg		eP
		20 06 09.1	ePg		eP
June 3	PCU	00 02 17.9	ePg		eP
	PCU	21 11 04.9	ePg		eP
5	PCU	21 11 10.8	eS		ePg
		05 45 49.2	ePg		eP
		05 45 54.9	eS		ePg
		08 48 04.1	ePg		eP
6	PCU	08 48 09.2	eS		ePg
		17 10 21.1	ePg		eP
7	PCU	17 10 26.5	eS		ePg
		21 39 55.9	ePg		eP
8	PCU	21 40 01.0	eS		ePg
		03 33 10.4	ePg		eP
15	PCU	03 33 15.9	eS		ePg
		07 31 58.1	ePg		eP
16	PCU	07 31 59.9	eS		ePg
		19 31 30.7	ePg		eP
21	PCU	19 31 37.6	eS		ePg
		10 26 26.9	ePg		eP
23	PCU	10 26 32.1	eS		ePg
		07 23 45.9	ePg		eP
27	PCU	07 23 50.5	eS		ePg
		03 51 07.6	ePg		eP
	PCU	03 51 12.3	eS		ePg
		03 53 23.5	ePg		eP
	PCU	03 53 28.4	eS		ePg
		04 10 53.3	ePg		eP
	PCU	04 11 02.0	eS		ePg
		04 56 21.7	ePg		eP
	PCU	04 56 26.0	eS		ePg
		11 12 11.4	ePg		eP
		11 21 17.4	eS		ePg

CORRECTIONS TO PREVIOUS BULLETINS

Bulletin for Period January 1, 1967 - December 31, 1967 (Contribution No. 93)

Date 1967	Sta	Time (GCT)	Change:	Phase	To read:
July 1	PCU	07 32 13.0	ePn		eP
3	PCU	23 34 53.7	ePg		eP
		23 34 58.7	eS		ePg
10	PCU	01 21 15.7	ePg		eP
12	PCU	04 29 30.3	ePg		eP
		04 29 34.5	eS		ePg
	PCU	06 59 57.6	ePg		eP
		07 00 00.6	eL		eR
13	PCU	15 34 14.7	ePg		eP
		15 34 16.5	eS		ePg
14	PCU	08 15 05.6	ePg		eP
		08 15 07.2	eS		ePg
18	PCU	13 45 27.6	ePg		eP
		13 45 29.0	eS		ePg
19	PCU	14 11 38.8	ePg		eP
	PCU	23 11 18.7	ePn		eP
20	PCU	18 15 17.7	ePn		eP
25	PCU	16 07 40.6	ePg		eP
		16 07 43.7	eS		ePg
	PCU	20 25 57.1	ePg		eP
26	PCU	03 11 32.0	ePn		eP
27	PCU	09 42 28.0	ePg		eP
		09 42 30.5	eS		ePg
29	PCU	03 25 30.6	ePg		eP
		03 25 35.0	eS		ePg
	PCU	03 48 53.7	ePg		eP
		03 48 56.4	eS		ePg
Aug 2	PCU	04 54 21.4	ePg		eP
10	PCU	22 57 55.5	ePg		eP
12	PCU	06 48 54.4	ePg		eP
13	PCU	07 24 05.1	ePg		eP
	PCU	14 21 31.2	ePg		eP
16	PCU	11 40 37.1	iPg		iP
18	DUG	04 28 52.6	ePn		eP
19	PCU	10 10 23.0	ePg		eP
	PCU	23 51 36.8	ePg		eP
25	PCU	23 16 16.1	ePg		eP
27	PCU	06 43 05.8	ePg		eP
		07 24 08.7	ePg		eP
31	PCU	21 01 37.3	ePg		eP

CORRECTIONS TO PREVIOUS BULLETINS

Bulletin for Period January 1, 1967 - December 31, 1967 (Contribution No. 93)

Date 1967	Sta	Time (GCT)	Change:	Phase	To read:
May 24	PCU	01 41 44.8	ePg		eP
		01 41 50.8	eS		ePg
25	PCU	10 33 20.3	ePn		eP
	PCU	11 20 03.0	eS		ePg
26	PCU	23 01 22.8	ePg		eP
		23 01 26.8	eS		ePg
27	PCU	11 30 00.9	ePg		eP
	PCU	12 26 02.1	ePg		eP
	PCU	12 28 14.4	ePg		eP
	PCU	18 01 16.3	ePg		eP
28	PCU	11 44 59.3	ePg		eP
30	PCU	20 06 09.1	ePg		eP
June 3	PCU	00 02 17.9	ePg		eP
	PCU	21 11 04.9	ePg		eP
		21 11 10.8	eS		ePg
5	PCU	05 45 49.2	ePg		eP
		05 45 54.9	eS		ePg
6	PCU	08 48 04.1	ePg		eP
		08 48 09.2	eS		ePg
	PCU	17 10 21.1	ePg		eP
		17 10 26.5	eS		ePg
7	PCU	21 39 55.9	ePg		eP
		21 40 01.0	eS		ePg
8	PCU	03 33 10.4	ePg		eP
		03 33 15.9	eS		ePg
15	PCU	07 31 58.1	ePg		eP
		07 31 59.9	eS		ePg
16	PCU	19 31 30.7	ePg		eP
		19 31 37.6	eS		ePg
21	PCU	10 26 26.9	ePg		eP
		10 26 32.1	eS		ePg
23	PCU	07 23 45.9	ePg		eP
		07 23 50.5	eS		ePg
27	PCU	03 51 07.6	ePg		eP
		03 51 12.3	eS		ePg
	PCU	03 53 23.5	ePg		eP
		03 53 28.4	eS		ePg
	PCU	04 10 53.3	ePg		eP
		04 11 02.0	eS		ePg
	PCU	04 56 21.7	ePg		eP
		04 56 26.0	eS		ePg
	PCU	11 12 11.4	ePg		eP
		11 21 17.4	eS		ePg

CORRECTIONS TO PREVIOUS BULLETINS

Bulletin for Period January 1, 1967 - December 31, 1967 (Contribution No. 93)

Date 1967	Sta	Time (GCT)	Change:	Phase	To read:
July 1	PCU	07 32 13.0	ePn		eP
3	PCU	23 34 53.7	ePg		eP
		23 34 58.7	eS		ePg
10	PCU	01 21 15.7	ePg		eP
12	PCU	04 29 30.3	ePg		eP
		04 29 34.5	eS		ePg
	PCU	06 59 57.6	ePg		eP
		07 00 00.6	eL		eR
13	PCU	15 34 14.7	ePg		eP
		15 34 16.5	eS		ePg
14	PCU	08 15 05.6	ePg		eP
		08 15 07.2	eS		ePg
18	PCU	13 45 27.6	ePg		eP
		13 45 29.0	eS		ePg
19	PCU	14 11 38.8	ePg		eP
	PCU	23 11 18.7	ePn		eP
20	PCU	18 15 17.7	ePn		eP
25	PCU	16 07 40.6	ePg		eP
		16 07 43.7	eS		ePg
	PCU	20 25 57.1	ePg		eP
26	PCU	03 11 32.0	ePn		eP
27	PCU	09 42 28.0	ePg		eP
		09 42 30.5	eS		ePg
29	PCU	03 25 30.6	ePg		eP
		03 25 35.0	eS		ePg
	PCU	03 48 53.7	ePg		eP
		03 48 56.4	eS		ePg
Aug 2	PCU	04 54 21.4	ePg		eP
10	PCU	22 57 55.5	ePg		eP
12	PCU	06 48 54.4	ePg		eP
13	PCU	07 24 05.1	ePg		eP
	PCU	14 21 31.2	ePg		eP
16	PCU	11 40 37.1	iPg		iP
18	DUG	04 28 52.6	ePn		eP
19	PCU	10 10 23.0	ePg		eP
	PCU	23 51 36.8	ePg		eP
25	PCU	23 16 16.1	ePg		eP
27	PCU	06 43 05.8	ePg		eP
		07 24 08.7	ePg		eP
31	PCU	21 01 37.3	ePg		eP

CORRECTIONS TO PREVIOUS BULLETINS

Bulletin for Period January 1, 1967 - December 31, 1967 (Contribution No. 93)

Date 1967	Sta	Time (GCT)	Change:	Phase	To read:
Sept 2	PCU	18 38 59.0	ePg		eP
	PCU	19 19 02.5	ePg		eP
		19 19 07.1	eS		ePg
5	PCU	01 01 19.3	ePg		eP
		01 01 22.5	eS		ePg
	PCU	19 04 18.8	ePg		eP
		19 04 22.6	eS		ePg
9	PCU	19 52 03.2	iPg		iP
10	PCU	12 10 19.0	iPn		iP
16	PCU	19 56 08.3	ePg		eP
		19 56 12.9	eS		ePg
18	PCU	08 59 36.9	ePg		eP
		08 59 39.4	eS		ePg
24	PCU	19 36 50.8	ePg		eP
		19 36 56.9	eS		ePg
	PCU	23 33 43.5	ePn		eP
25	PCU	07 08 17.7	ePg		eP
		07 08 23.7	eS		ePg
28	PCU	07 12 31.2	ePg		eP
		07 12 35.7	eS		ePg
30	PCU	22 27 07.3	ePg		eP
		22 27 13.7	eS		ePg
Oct 7	PCU	00 30 55.7	ePg		eP
		00 31 01.9	eS		ePg
	PCU	13 01 48.5	ePg		eP
12	PCU	08 35 21.3	ePg		eP
		08 35 25.7	eS		ePg
	PCU	23 47 24.7	ePg		eP
		23 47 30.1	eS		ePg
19	PCU	22 15 36.4	iPn		iP
25	PCU	01 33 08.3	iPn		iP
	PCU	01 33 11.6	eS		ePg
	PCU	02 17 53.3	ePg		eP
	PCU	02 41 42.1	iPn		iP
		02 41 44.8	eS		ePg
	PCU	05 53 16.2	iPn		iP
	PCU	06 06 47.6	ePg		eP
		06 06 52.9	eS		ePg
29	PCU	01 38 14.3	ePg		eP

CORRECTIONS TO PREVIOUS BULLETINS

Bulletin for Period January 1, 1967 - December 31, 1967 (Contribution No. 93)

Date 1967	Sta	Time (GCT)	Change:	Phase	To read:
Nov 5	PCU	19 04 22.1	ePg		eP
6	PCU	09 54 53.3	ePg		eP
	PCU	10 51 20.8	ePg		eP
7	PCU	13 57 48.2	ePg		eP
8	PCU	23 30 04.4	ePg		eP
		23 30 06.1	eS		ePg
9	PCU	03 17 09.8	ePg		eP
		03 17 13.5	eS		ePg
10	PCU	09 34 37.9	ePg		eP
		09 34 40.8	eS		ePg
13	PCU	15 40 03.1	ePg		eP
		15 40 09.1	eS		ePg
16	PCU	00 10 55.2	iPn		iP
18	PCU	22 38 07.3	ePg		eP
21	PCU	11 23 55.3	iPg		iP
		11 23 57.5	eS		ePg
22	PCU	22 12 13.3	ePg		eP
28	PCU	05 32 33.1	ePg		eP
29	PCU	21 45 17.8	ePn		eP
Dec 3	PCU	04 58 06.5	ePg		eP
		04 58 10.5	eS		ePg
	PCU	17 21 11.8	ePg		eP
4	PCU	12 08 58.0	ePn		eP
	PCU	20 24 04.5	ePg		eP
		20 24 09.6	eS		ePg
6	PCU	06 45 24.7	ePn		eP
		06 45 42.4	eS		eL
	PCU	09 21 45.5	ePn		eP
7	LOG	13 33 31.7	ePn		eP
9	PCU	09 30 33.0	ePg		eP
		09 30 36.2	eS		ePg
11	PCU	21 56 16.1	ePg		eP
		21 56 28.1	eS		ePg
	PCU	22 08 50.4	ePn		eP
12	PCU	07 48 18.7	ePg		eP
		07 48 23.2	eS		ePg
	PCU	17 08 10.4	ePn		eP
		17 08 12.0	eS		ePg
14	PCU	22 14 27.0	ePn		eP
15	PCU	16 02 29.5	ePn		eP

CORRECTIONS TO PREVIOUS BULLETINS

Bulletin for Period January 1, 1967 - December 31, 1967 (Contribution No. 93)

Date 1967	Sta	Time (GCT)	Change:	Phase	To read:
Dec 16	PCU	11 46 15.8	ePg		eP
		11 46 21.7	eS		ePg
	PCU	15 16 40.6	ePg		eP
		15 16 47.6	eS		ePg
20	PCU	04 30 12.0	iPg		iP
		04 30 14.3	eS		ePg
	PCU	09 00 16.8	ePg		eP
		09 00 23.7	eS		ePg
		22 58 57.6	ePn		eP
21	PCU	10 10 00.6	ePg		eP
		10 10 07.7	eS		ePg
	PCU	16 00 46.6	iPg		iP
23	PCU	17 53 11.2	ePg		eP
		17 53 18.5	eS		ePg
24	PCU	00 25 37.1	ePn		eP
28	PCU	19 06 13.8	ePn		eP
29	PCU	13 11 02.9	ePg		eP
		13 11 07.5	eS		ePg
30	PCU	11 00 51.1	ePg		eP
		11 00 55.6	eS		ePg
31	PCU	01 25 10.7	ePg		eP
		01 25 14.7	eS		ePg

CORRECTIONS TO PREVIOUS BULLETINS

Bulletin for Period January 1, 1968 - December 31, 1968 (Contribution No. 101)

Date 1968	Sta	Time (GCT)	Change:	Phase	To read:
Jan 3	DUG	22 38 07.3	ePn		eP
5	PCU	10 55 58.3	ePn		eP
		10 56 04.4	eS		eL
6	PCU	03 17 47.7	iPn		iP
		03 17 49.5	eS		ePg
	PCU	21 59 00.6	ePn		eP
7	PCU	22 57 14.7	iPn		iP
19	PCU	11 19 43.7	ePn		eP
21	PCU	12 55 11.6	eL		eR
22	PCU	16 00 48.1	ePn		eP
	PCU	22 40 22.2	ePn		eP
25	PCU	10 05 05.3	ePg		eP
Feb 2	LOG	18 38 52.8	ePn		eP
3	PCU	01 18 53.8	ePg		eP
		01 18 59.8	eS		ePg
7	PCU	03 12 55.3	ePg		eP
8	PCU	01 36 21.8	ePn		eP
9	PCU	21 48 27.8	ePg		eP
11	PCU	08 05 51.6	ePn		eP
14	PCU	05 23 41.6	iPn		iP
15	PCU	16 24 16.3	iPn		iP
	PCU	19 07 58.3	ePn		eP
16	PCU	01 43 04.0	ePn		eP
	PCU	10 57 25.0	ePg		eP
		10 57 30.0	eS		ePg
17	PCU	18 38 24.8	ePg		eP
		18 38 29.8	eS		ePg
18	PCU	13 31 51.4	ePn		eP
20	PCU	05 58 32.3	eS		ePg
22	PCU	04 23 22.9	ePn		eP
	PCU	07 49 36.9	ePg		eP
		07 49 44.3	eS		ePg
25	DUG	04 28 37.4	ePn		eP
	DUG	06 02 21.5	ePn		eP
	PCU	17 59 42.5	eS		ePg
26	PCU	18 16 14.3	ePn		eP
27	PCU	06 56 45.1	ePg		eP
28	PCU	05 15 18.2	ePg		eP
		19 07 09.3	eS		ePg
Mar 1	PCU	10 45 00.4	ePg		eP
		10 45 06.0	eS		ePg

CORRECTIONS TO PREVIOUS BULLETINS

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Date 1968	Sta	Time (GCT)	Change:	Phase	To read:
Mar 4	PCU	04 11 53.9	ePg		eP
		04 11 58.0	eS		ePg
	PCU	23 33 01.3	ePn		eP
6	PCU	18 34 38.9	iPn		iP
11	PCU	04 54 21.1	ePg		eP
		04 54 25.2	eS		ePg
12	PCU	19 08 26.5	ePn		eP
13	PCU	03 08 47.3	ePn		eP
	DUG	03 09 09.6	ePn		eP
14	PCU	23 06 00.6	ePg		eP
16	PCU	04 47 58.9	ePn		eP
17	PCU	19 57 26.1	eP*		e
25	PCU	13 28 34.7	ePn		eP
Apr 1	PCU	16 04 20.3	ePn		eP
3	PCU	23 47 28.2	ePn		eP
4	PCU	13 09 42.7	eL		eR
5	DUG	20 39 50.0	ePn		eP
12	PCU	10 09 26.5	ePn		eP
16	PCU	09 27 42.4	ePn		eP
21	PCU	02 04 54.8	ePg		eP
		02 05 00.8	eS		ePg
22	DUG	18 39 00.9	ePn		eP
	DUG	22 22 54.5	ePn		eP
27	PCU	09 54 18.0	ePn		eP
28	PCU	06 05 11.0	ePg		eP
		06 05 17.3	eS		ePg
		06 05 27.1	eR		eL
May 2	PCU	17 38 57.5	eS		ePg
	SLC	17 40 14.5	ePg		eP
3	PCU	02 26 36.9	eS		ePg
8	PCU	01 43 39.4	ePn		eP
12	PCU	02 46 42.0	ePg		eP
		02 46 44.8	eS		ePg
	LOG	12 40 04.1	ePn		eP
18	PCU	02 58 44.3	ePg		eP
		02 58 52.2	eS		ePg
19	DUG	16 26 20.7	ePn		eP
20	PCU	05 08 40.1	ePg		eP
	PCU	10 58 36.4	ePn		eP
27	PCU	08 22 02.0	ePn		eP
	PCU	18 00 53.1	ePg		eP

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Date 1968	Sta	Time (GCT)	Change:	Phase	To read:
May 28	PCU	15 30 27.0	ePg		eP
	DUG	17 39 39.5	ePn		eP
	DUG	21 35 07.6	ePn		eP
29	PCU	08 00 51.7	ePn		eP
June 2	PCU	18 59 29.8	ePn		eP
	6	PCU	17 46 43.5	ePn	eP
	11	PCU	22 21 37.3	ePn	eP
		PCU	22 29 52.3	ePn	eP
	12	PCU	22 00 56.2	eS	ePg
	23	PCU	01 42 52.7	eS	ePg
26	PCU	17 44 19.8	ePn	eP	
July 1	PCU	00 17 51.2	ePg		eP
		00 17 57.7	eS		ePg
	2	DUG	21 33 02.0	ePn	eP
		PCU	23 42 31.3	ePn	eP
	10	PCU	21 55 15.4	ePn	eP
	14	PCU	07 21 35.1	ePn	eP
	19	PCU	07 05 35.3	ePn	eP
	20	PCU	05 27 42.6	ePn	eP
	21	PCU	05 01 56.0	ePn	eP
			05 02 01.0	eP*	e
	23	PCU	04 36 30.3	ePn	eP
	24	PCU	04 05 22.3	ePn	eP
			00 31 52.9	ePn	eP
26		00 31 55.9	eS	ePg	
	PCU	02 01 14.3	ePn	eP	
	PCU	02 55 07.1	ePn	eP	
	PCU	03 22 27.0	ePn	eP	
Aug 2	DUG	16 57 19.5	ePn	eP	
	DUG	21 35 05.8	ePn	eP	
	3	PCU	12 18 47.5	ePn	eP
		PCU	13 45 15.5	ePn	eP
	DUG	17 49 25.2	ePn	eP	
	DUG	21 19 11.8	ePn	eP	
	4	PCU	06 23 49.6	ePn	eP
		PCU	14 51 33.5	eS	ePg
		DUG	17 10 07.4	ePn	eP
		DUG	20 59 27.7	ePn	eP

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Date 1968	Sta	Time (GCT)	Change:	Phase	To read:
Aug 7	PCU	19 00 01.5	ePn		eP
	10	DUG	17 51 04.9	ePn	eP
	11	DUG	16 17 11.8	ePn	eP
		DUG	17 52 24.8	ePn	eP
	12	PCU	02 33 53.5	eS	ePg
	20	PCU	07 22 11.3	ePg	eP
			07 22 15.7	eS	ePg
	21	PCU	22 32 50.5	ePn	eP
	23	PCU	16 01 41.1	eS	ePg
	25	PCU	06 14 30.8	ePn	eP
		PCU	07 24 51.9	ePn	eP
27		07 24 53.8	eP*	e	
	PCU	09 29 45.3	ePn	eP	
Sept 1	PCU	09 31 30.7	ePn	eP	
	8	DUG	16 43 32.6	ePn	eP
		PCU	20 31 54.6	ePg	eP
		DUG	20 50 00.0	ePn	eP
	9	DUG	21 27 17.3	ePn	eP
	11	DUG	16 58 49.2	ePn	eP
	13	PCU	22 03 32.1	ePg	eP
	16	PCU	09 03 58.6	ePn	eP
	19	DUG	00 44 07.0	ePn	eP
	20	DUG	16 51 38.5	ePn	eP
	21	PCU	06 29 26.4	ePn	eP
			06 29 29.7	eS	ePg
	23	DUG	09 03 40.0	ePn	eP
24	PCU	01 41 35.6	ePg	eP	
		01 14 09.3	DUG	PCU	
25		01 14 13.8	DUG	PCU	
		01 14 20.3	DUG	PCU	
	DUG	23 06 04.5	ePn	eP	
29	PCU	07 52 15.4	eS	ePg	
30	PCU	05 45 52.1	ePn	eP	
Oct 1	DUG	18 11 02.0	ePn	eP	
	DUG	18 47 41.5	ePn	eP	
	3	PCU	02 29 08.5	ePn	eP
		PCU	08 56 41.4	ePn	eP
	4	PCU	10 23 43.4	ePn	eP
	7	PCU	01 43 16.7	ePn	eP
		DUG	04 48 55.6	ePn	eP

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Date 1968	Phase	Sta	Time (GCT)	Change:	Phase	To read:
Oct	8	DUG	15 28 52.2	ePn		eP
	11	PCU	05 00 23.0	ePn		eP
	12	PCU	09 16 17.9	ePn		eP
	17	DUG	17 07 05.5	ePn		eP
		DUG	23 14 07.0	ePn		eP
	23	PCU	18 12 40.0	ePn		eP
	27	DUG	22 18 17.0	ePn		eP
	28	PCU	01 41 07.9	ePn		eP
		DUG	22 33 23.5	ePn		eP
	29	PCU	08 07 01.2	ePn		eP
		PCU	12 19 03.1	ePn		eP
	30	PCU	02 45 37.0	ePn		eP
Nov	2	PCU	09 24 11.3	ePn		eP
		DUG	21 58 25.6	ePn		eP
	4	SLC	18 38 55.2	ePn		eP
		DUG	18 39 04.0	ePn		eP
	6	PCU	00 13 42.8	eS		ePg
		PCU	06 46 50.8	ePn		eP
	8	DUG	18 47 09.2	ePn		eP
	9	DUG	01 48 36.8	ePn		eP
	10	PCU	23 35 45.7	ePn		eP
	14	PCU	06 35 14.1	ePn		eP
	17	PCU	13 18 19.8	ePn		eP
		PCU	17 02 02.4	ePn		eP
	18	PCU	22 45 53.2	ePn		eP
	21	DUG	18 50 39.2	ePn		eP

ADDENDUM

In the bulletin for 1968 (Contribution No. 101), only those probable rockbursts in Carbon County, Utah, that were recorded at the Price (PCU) station and, in addition, one or more other stations (i.e., a total of two or more stations) are included.