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Hawaiian Volcano Observatory
1970 Quarterly Administrative reports

Introductory Note By Thomas L. Wright and Jennifer S. Nakata

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Summary 57
January, February, and March 1970
By Elliot T. Endo, Robert Y. Koyanagi, and Arnold T. Okamura

Summary 58
April, May, and June 1970
By Elliot T. Endo, Robert Y. Koyanagi, and Arnold T. Okamura

Summary 59
July, August, and September 1970
By Elliot T. Endo, Robert Y. Koyanagi, and Arnold T. Okamura

Summary 60
October, November, and December 1970
By Robert Y. Koyanagi, Arnold T. Okamura, and Patricia Stevenson

Trilateration Network on Kīlauea, Fall 1970
By Donald A. Swanson and Reginald T. Okamura

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INTRODUCTORY NOTE

The Hawaiian Volcano Observatory Summaries have been published in the current format since 1956. The Quarterly Summaries (1956 through 1973) and the Annual Summaries (1974 through 1985) were originally published as Administrative Reports. These reports have been compiled and published as U.S. Geological Survey Open-File Reports. The quarterly reports have been combined and published as one annual summary. All the summaries from 1956 to the present are now available as .pdf files at http://www.usgs.gov/pubprod.

The earthquake summary data are presented as a listing of origin time, depth, magnitude, and other location parameters. Network instrumentation, field station sites, and location algorithms are described. Tilt and other deformation data are included until Summary 77, January to December 1977. From 1978, the seismic and deformation data are published separately, due to differing schedules of data reduction.

There are eight quarters—from the fourth quarter of 1959 to the third quarter of 1961—that were never published. Two of these (4th quarter 1959, 1st quarter 1960) have now been published, using handwritten notes of Jerry Eaton (HVO seismologist at the time) and his colleagues. The seismic records for the remaining six summaries went back to California in 1961 with Jerry Eaton. Other responsibilities intervened, and the seismic summaries were never prepared.

Chronology

The following Kīlauea eruption chronology covers the two recent reports and the six missing quarters:

Location	Beginning Date	Ending Date	Comment
Kīlauea Iki crater (Kīlauea's summit)	11/14/1959	12/20/1959	19 eruptive episodes
Kapoho (lower east rift zone)	1/13/1960	2/18/1960	4 eruption stages
Halemaumau (Kīlauea's summit)	2/24/1961	2/24/1961	Intermittent activity during uninterrupted inflation following the 1960 eruption
Halemaumau (Kīlauea's summit)	3/22/1961	3/25/1961	Same as above.
Halemaumau (Kīlauea's summit)	7/10/1961	7/17/1961	Same as above.
Heiheiahulu (middle east rift zone)	9/22/1961	9/25/1961	First historical east rift eruption at this location

The 1959-1960 eruptions were among two of the most spectacular Kīlauea eruptions. The HVO staff was kept busy with acquisition of unusually high quantities of instrumental data and observations of the two sequences, which were separated by less than one month. Even with a year's interval before the beginning of the summit-east rift sequence in 1961, the staff never caught up, and the seismic records were set aside for later study.

A total of 1,672 earthquakes—1,106 for 1960 and 566 for 1961—are part of HVO's cataloged database. The annual listings have been appended to the 1st Quarter Report of 1960 and to the 4th Quarter Report for 1961. The number of earthquakes is probably low, biased toward the larger magnitudes. The entire HVO catalog, including 1960 and 1961, is accessible from the ANSS CATALOG SEARCH site at http://www.ncedc.org/anss/catalog-search.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HAWAIIAN VOLCANO OBSERVATORY

SUMMARY 57

January, February, and March 1970

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Issued May 1972

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CONTENTS

Illustrations

Tables

INTRODUCTION

During the last few years the Hawaiian Volcano Observatory's seismic network has undergone important changes. The telemetered network around the summit of Kilauea has been reinforced and extended, and more stations (mostly telemetered by radio) have been added to the broader Island of Hawaii network (fig. 1). All the telemetered stations are recorded side by side, along with the Uwekahuna chronometer and the WWHV radio trace, on a single 16 mm film strip on a Develocorder at the observatory. Outstation timing has also been improved substantially by the use of crystal chronometers instead of the old mechanical ones. As a result of these improvements, the volume of usable recorded seismic data has increased tremendously, both in the number of stations available for each earthquake and in the number of earthquakes that are sufficiently well recorded to be located. Methods of analysis previously used with the HVO network are too slow and too subjective to enable using the improved network data to fullest advantage.

Detailed studies of microearthquakes in California and Nevada by the Geological Survey's National Center for Earthquake Research (NCER) have generated similar voluminous sets of seismic data. Efficient computer-oriented procedures for data reduction and computer programs for data analysis have been developed and used extensively at NCER. The HVO seismic data are now being analyzed by a joint HVO-NCER team; and the methods and computer programs used are virtually identical with those employed with other networks at NCER.

Seismogram readings are punched on computer cards to provide an input deck for use in the location program HYPOLAYR (Eaton, 1969), which generates an output deck summarizing the solution of each event. The output deck is a convenient source of material for further analyses of the earthquakes, and the input deck is saved for possible reanalysis when better velocity-depth models of the crust are worked out. The velocity-depth model currently used in the determination of hypocenters (as tabulated below) is based on very limited data and represents a broad average of crustal structure along the Hawaiian Ridge. It is anticipated that further refinements in the model will not lead to large changes in hypocenters calculated for events within the network, but hypocenter solutions for some "poorly controlled" events outside the network may be changed substantially.

Velocity model used for locating earthquakes in Hawaii (Eaton, 1962)

Depth to layer (km)	Layer velocity (km/sec)
0.00	3.90
3.10	5.00
11.20	6.80
14.80	8.25

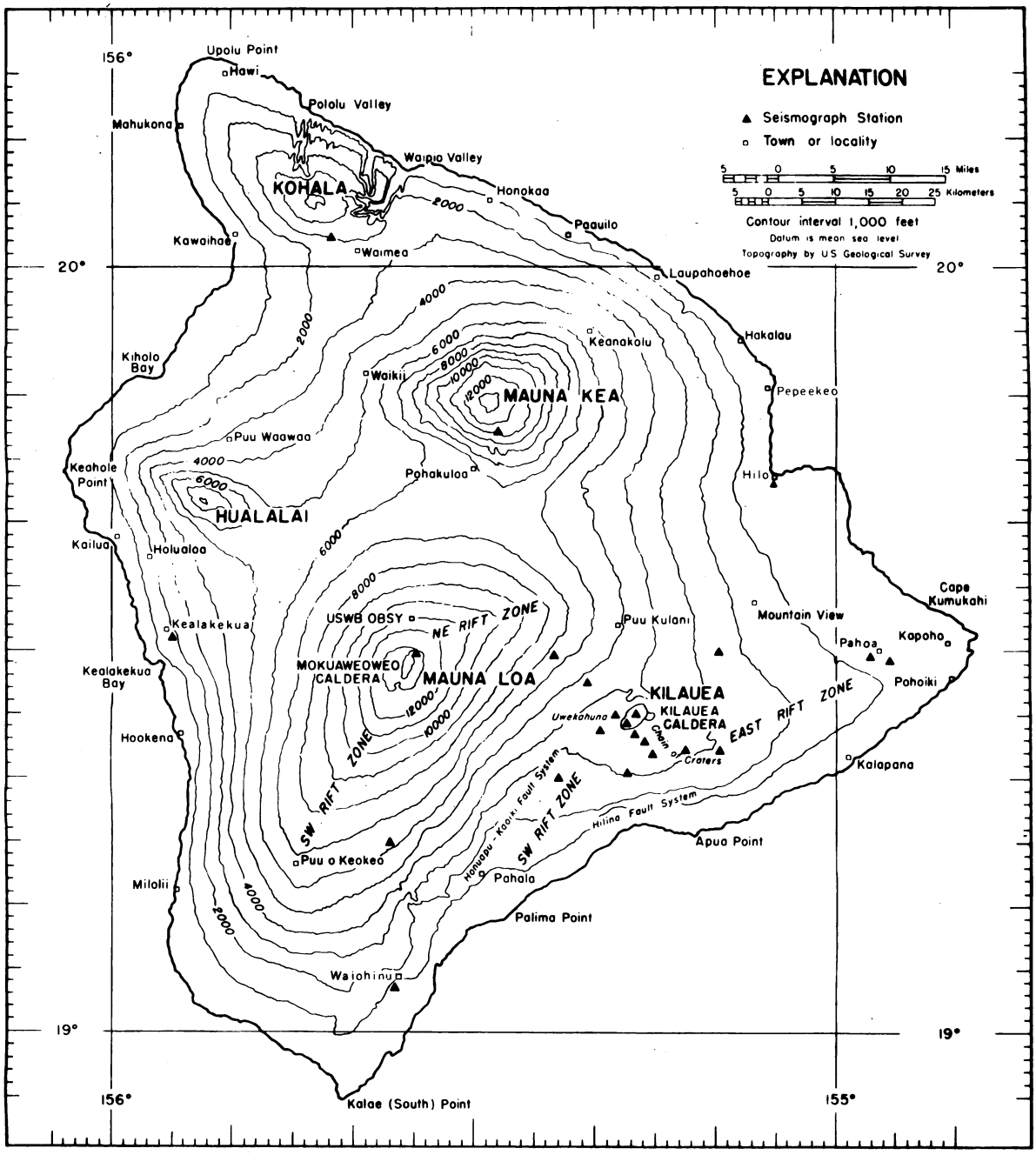

Figure 1.--Map of the Island of Hawaii showing seismograph stations operated by the U.S. Geological Survey, principal settlements, and selected geologic features. Epicenters of local earthquakes are given in table 2 in terms of geographic coordinates, which are indicated at the edges of the map.

To permit more adequate reporting of results on individual earthquakes and to bring the HVO earthquake reports into conformity with those produced at NCER, some revisions in the format of the HVO summary are required. Beginning with the 1st quarter 1970 the following changes are introduced:

a) The list of local earthquakes includes all events for which satisfactory hypocenters can be determined. This list includes statistics on the hypocenter determination as well as a summary hypocenter quality rating.

b) A map of epicenters on and near Kilauea volcano during the quarter is included.

c) The station list is augmented to describe the timing system, the type of preamplifier (for telemetered stations), and the mode of recording.

d) The velocity-depth model of the crust used in the hypocenter determinations is described.

CHRONOLOGICAL SUMMARY

Mauna Ulu eruption

Eruptive activity continued between Aloi and Alae craters on the east rift. Shallow tremor and degassing were continuous, and on January 25 and 30, February 15, and March 1, weak fountaining and overflow were observed at the vent. Flows reached Aloi and also spread north and eastward. The broad lava shield built by these and earlier overflows is nearly 60 meters high and has overrun a considerable part of the complex pumice and spatter cone built during earlier phases of major fountaining. On April 1, 1970, the volume of lava erupted since the last major fountaining on December 30, 1969 is in the neighborhood of 2×10^6 m^3.

Deformation studies

New tilt and Geodimeter stations were established on the rift zone between Alae and Kane Nui o Hamo to replace those flooded on December 30.

Horizontal strain increased to high levels during the first 3 months of 1970. The distances exhibiting greatest extensions were those that cross the southern part of the caldera. These extensions are consistent with the summit tilt changes as recorded at Uwekahuna and Outlet vaults, although the extensions seem to be larger than would be predicted on the basis of the tilt alone.

Attention is being focused on the Koae fault system. Detailed mapping at a scale of about 1:5,000 was initiated. One continuously recording INVAR-wire creepmeter is being tested on the Kalanaokuaiki Pali about 1 km east of the Ainahou road crossing. Level lines across the Koae system were rerun, and five new tilt triangles between Ahua seismometer and the top of Kalanaokuaiki Pali were located and measured. In addition, a detailed horizontal strain network, consisting of 99 Geodimeter lines averaging 1 km long, was established across the southern part of Kilauea caldera and adjacent part of the Koae fault zone.

Lower east rift earthquakes

About the middle of February, the Pahoa seismograph started to record an increasing number of local earthquakes. Many of these events were recorded in earlier years, but recent instrumental improvements and the change of seismometer location from Pahoa School to Kaniahiku Village (PAX, a site closer to the seismic area) greatly increased recording capabilities. Consequently, larger numbers of earthquakes are being recorded, although there may actually be no more events than in earlier swarms.

To get a better idea of the source of the recent activity, a temporary station was installed at Puu Honuaula (PHO), about 5 km east of the new Pahoa station (PAX). In addition, a portable seismograph was operated at key sites. From the recordings obtained, the center of activity appeared to be near the vents of the 1955 rift eruption, and a few earthquakes scattered as far as 5 km from this center.

The magnitudes of these shocks were relatively small. Of approximately 6,600 recorded quakes, 16 were between magnitudes 2 and 3, and 2 were between magnitudes 3 and 4. Local residents reported feeling the two larger events.

A segment of the level line from Pahoa to Pohoiki was releveled to see if the current earthquake swarm caused any surface deformation. The new altitudes show no significant change from those in March 1969, relative to a bench mark at Pahoa High School. Likewise, the Geodimeter lines along the lower east rift south of Pahoa show no evidence for local swelling but do show changes consistent with long-term trends.

SEISMIC SUMMARY

Events recorded by the U.S. Geological Survey seismograph network in Hawaii fall into two categories:

1) Local earthquakes and tremor originating in the region of the Hawaiian Islands (usually within 100 km of at least one seismograph),

2) Distant earthquakes originating more than 3,000 km from Hawaii.

As an index of seismic activity at Hawaiian volcanoes, daily counts of earthquakes and minutes of tremor recorded by seismographs in Hawaii are listed in table 1. The earthquakes are separated in groups on the basis of region of origin as determined by the analysis of records obtained daily at the observatory (UWE, MLO, MLX, AHU, DES, NPT, WPT, MPH, KMO, OTL).

Computer locations of well-recorded events are listed in table 2. The location of each seismograph station is listed in table 4, along with a description of the equipment at each station.

Acknowledgments.--Several people or agencies "felt" earthquakes during the first quarter, 1970. Their assistance is gratefully acknowledged.

Table 1.--Number of earthquakes and minutes of tremor recorded on seismographs around Kilauea Caldera

Tremor is separated into three categories: deep, intermediate, and shallow, on the basis of relative amplitude on seismographs in the summit region. Unless otherwise stated, tremor is presumed to be associated with movement of magma within the central complex of Kilauea Volcano.

Earthquake categories are: Kilauea summit, 30 km, earthquakes from a source about 30 km beneath the Kilauea summit region; long-period, earthquakes characterized by low-frequency waves that originate about 5 km beneath Kilauea summit; and shallow earthquakes in the Kilauea Caldera region; shallow earthquakes along the SW. rift zone of Kilauea and the adjacent portions of the Kaoiki fault system; earthquakes from the upper east rift zone and the adjacent fault systems of Kilauea's south flank; shallow earthquakes along the northeast-trending Koae fault system south of Kilauea caldera; and earthquakes from other regions: west Hawaii, Mauna Kea, etc.

Date (1970)	Tremor (m = minutes h = hours)			Earthquakes							
				Kilauea Summit			SW rift and Kaoiki	Upper east rift	Lower east rift	Others	Remarks
	Deep	Inter-mediate	Shallow	30KM	Long Period	Shallow					
Jan 1					?	47	42	8			
2					?	58	21	22			
3					?	53	3	23			
4					?	45	?	3			
5					35?	48	6	11			
6					63?	159	11	54			
7					98	239	12	21			
8					42?	229	17	40			
9					23?	267	9	27			
10					9?	38	9	24			

	11				1	31?	69	9	20		
	12					8	61	12	36		
	13					2	32	69	14		
	14	15				2	42	17	20		
	15				1		28	8	23	5	
	16	60					59	7	14		
	17					2	57	15	11		
	18				1	4	389	10	37		
	19				6	5	445	9	32	1	
	20				2	4	331	6	43		
	21					2	1290	9	60		
	22				1	10?	611	6	72		
	23					16?	456	7	60		
	24					8?	187	4	35		
	25				1	6?	115	8	26		
	26					4?	144	6	42		
	27	27				2?	133	10	80		
	28	30			1	2?	165	5	15		
	29				2	10?	266	11	21		
	30		45	1		15?	123	5	6		
	31					?	171	4	6		
Feb	1				10	570?	303	?	7		
	2	36			4	9?	502	9	13		
	3				2		920	8	28	1	
	4				12		465	15	38		
	5				1		372	9	56		
	6						361	3	20		
	7						260	4	18		
	8				6		312	7	177	1	
	9				2		424	7	180	2	
	10				1	1	190	7	75		
	11					22?	222	15	29	2	
	12					18?	39	12	26		

Table 1.--Number of earthquakes and minutes of tremor recorded on seismographs around Kilauea Caldera--Continued

Date (1970)	Tremor (m = minutes h = hours)			Earthquakes							
				Kilauea Summit			SW rift and Kaoiki	Upper east rift	Lower east rift	Others	Remarks
	Deep	Inter-mediate	Shallow	30KM	Long Period	Shallow					
Feb 13					17?	27	16	190			
14					2	35	28	42			
15				3		70	19	15			
16				2		62	8	13	1		
17				8		117	6	6	2		Lower East Rift
18				10		163	10	28	242		swarm - counts
19	20			20	2?	160	5	16	449		taken from new
20					?	110	6	7	792		Pahoa station
21					?	125	8	8	978		PAX located at
22	4				?	101	10	8	538		Kaniahiku
23				4		58	6	15	468		Village
24		4		1	2	126	5	8	139		
25				7		190	11	8	?		
26				2	2	188	10	10	81		
27						580	7	12	26		
28			(1)			413	5	7	?		
Mar 1				4	3	79	7	7	152		
2				3		120	9	7	486		
3					4	159	5	44	430		
4				4		164	10	16	311		
5				4	2	160	3	9	239		

Mar	6					1	162	9	5	397	
	7						66	9	5	113	
	8				1		187	12	17	212	West Pit
	9				1		207	15	21	118	seismometer
	10	20			4		151	13	14	207	changed -
	11				9		99	12	17	36	1.0 sec Benioff
	12				4	6?	171	10	15	226	replaced with
	13					5?	79	14	9	27	0.5 sec. HS-10
	14	1				71?	378	5	10	39	
	15				2	61?	1467	18	29	19	
	16					34?	251	9	23	?	
	17				2		236	10	40	3	
	18				2		375	8	32	3	
	19						248	12	18	13	
	20					5?	534	6	34	6	
	21					2?	282	3	32	4	
	22				3		315	15	51		
	23				2		677	10	49		
	24				2		218	62	36		
	25					6?	134	24	35		
	26					5?	99	17	20		
	27					4?	57	11	14		
	28						81	7	13		
	29				2	1	138	14	37		
	30				1		169	15	31		
	31				2	1	351	8	85	1	

Computer analysis of the HVO network data permits the systematic treatment of far more earthquakes than was possible previously. This extended coverage should permit a more detailed examination of the relationship between earthquakes and volcanism in Hawaii.

Table 2 is a chronological listing of successfully located earthquakes. For each event the following data are presented:

Origin time in Greenwich Civil Time: date, hour (HR), minute (MN), and second (SEC).

Epicenter in degrees and minutes of North latitude (LAT N) and West longitude (LONG W). Poor convergence of the epicenter solution is indicated by "?".

Depth - depth of focus in km. Assumed depth is indicated by "x".

Mag - magnitude, if determined.

NO - number of stations used in locating earthquakes.

GAP - largest azimuthal separation in degrees between stations.

DMIN - epicentral distance in km to the nearest station.

ERT - standard error of the origin time in seconds.

ERH - standard error of the epicenter in km.

ERZ - standard error of the depth in km.

MD - mean deviation of the time residuals. $\left[= \sum_i R_i /NO \right]$ where R_i is the observed seismic wave arrival time less the computed time at the i^{th} station.

Q - solution quality of the hypocenter. This measure is intended to indicate the general reliability of each solution:

Q	Epicenter	Focal Depth
A	excellent	good
B	good	fair
C	fair	poor
D	poor	poor

Q is based both on the nature of the station distribution with respect to the earthquake and the statistical measures of the solution. These two factors are each rated independently according to the following scheme:

Station Distribution

	NO	GAP	DMIN
A	$\geq$ 8	$\leq$ 120°	$\leq$ DEPTH or 5 km
B	$\geq$ 6	$\leq$ 150°	$\leq$ 2 x DEPTH or 10 km
C	$\geq$ 6	$\leq$ 225°	$\leq$ 50 km
	$\geq$ 4	$\leq$ 180°	
D	Others		

Statistical Measures

	ERH(km)	ERZ(km)	MD(sec)	RMAX(sec)*
A	$\leq$ 1.0	$\leq$ 2.0	$\leq$ 0.10	$\leq$ 0.25
B	$\leq$ 2.5	$\leq$ 5.0	$\leq$ 0.20	$\leq$ 0.50
C	$\leq$ 5.0		$\leq$ 0.30	$\leq$ 0.75
D	Others			

Q is taken as the average of the ratings from the two schemes, that is, an A and a C yield a B, and two B's yield a B. When the two ratings are only one level apart the lower one is used, that is, an A and a B yield a B (Hamilton and others, 1969).

The criteria for Q are the same as used by the Office of Earthquake Research and Crustal Studies, U.S. Geological Survey.

*RMAX is the maximum residual

TABLE 2

SUMMARY OF SEISMIC EVENTS

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JAN 1	3	29	17.4	19-19.1	155-13.8	9.9	1.9	12	199	6.5	0.17	1.3	0.6	0.17	C
1	4	44	53.8	19-22.6	155-23.7	11.1	1.9	14	113	4.6	0.06	0.6	0.3	0.11	B
1	5	22	45.8	19-10.9	155-29.8	36.1	2.7	14	161	14.8	0.29	1.2	2.9	0.09	C
1	9	37	42.6	19-16.9	155-21.4	7.2	1.8	12	177	6.9	0.11	0.8	0.6	0.12	C
1	10	11	58.4	19-18.4	155-14.1	8.4	1.6	12	212	6.5	0.25	1.6	0.8	0.21	C
1	23	28	0.3	19-15.2	155- 7.0	4.3	1.8	10	251	13.3	0.53	2.5	2.0	0.16	C
2	5	50	7.7	19-24.4	155-17.1	13.9	1.4	12	72	0.9	0.12	1.0	1.0	0.11	B
2	5	50	57.8	19-24.0	155-17.0	16.8	1.5	11	74	1.2	0.08	0.5	0.8	0.05	A
2	12	20	32.6	19-23.0	155-36.5?	10.6	3.3	18	168	15.0	0.14	0.9	1.3	0.14	C
2	21	21	27.1	19-21.6	155-23.9	9.6	2.1	9	194	2.9	0.14	0.9	0.7	0.08	B
2	22	8	53.8	19-22.9	155-23.6	11.1	1.9	18	114	5.0	0.08	0.7	0.4	0.14	B
2	22	18	38.0	19-22.3	155-10.1	6.3	2.8	9	164	1.0	0.23	1.3	1.1	0.12	C
3	1	11	41.3	19-17.4	155-28.1	8.8	2.5	15	135	9.9	0.09	0.8	0.6	0.16	B
3	1	58	56.7	19-25.1	155-23.2	11.1	1.5	11	169	6.4	0.10	0.9	0.4	0.11	C
3	3	47	9.9	19-17.9	155- 9.0?	10.8		12	237	7.3	0.25	1.7	1.2	0.10	C
3	3	47	32.9	19-19.9	155-10.4	10.0	1.4	7	259	3.5	1.44	4.6	6.0	0.14	D
3	4	28	1.8	19-25.4	155-38.3	4.0	1.9	5	212	19.5				0.15	D
3	5	54	43.4	19-23.6	155-16.5	14.3	1.7	17	68	0.6	0.07	0.8	0.6	0.14	B
3	13	24	57.1	19-23.0	155-17.8	18.0	2.0	10	89	1.9	0.12	0.9	1.4	0.09	B
3	15	6	27.8	19-16.2	155- 5.1	3.9	2.9	14	234	17.3	0.46	2.2	1.9	0.20	C
3	15	29	59.0	19-18.1	155- 5.7	6.7	2.5	16	223	10.1	0.34	1.7	0.9	0.23	C
3	22	57	15.0	19-15.2	155- 4.3	4.8	2.0	15	255	15.8	0.69	3.2	2.0	0.25	D
4	0	30	17.6	19-54.5	155-29.4	34.6	2.5	13	299	15.0	0.27	1.9	3.0	0.13	C
4	6	59	2.0	19-21.0	155- 1.7	4.4	2.2	15	225	14.6	0.35	1.9	1.3	0.21	C
4	11	40	23.6	19-19.0	155- 8.5	9.6	2.5	11	283	5.8	0.59	3.1	0.8	0.17	D
5	17	54	45.8	19-31.2	155-52.8	6.3	1.0	6	184	4.3	0.48	10.3	7.6	0.03	D
6	4	14	59.1	19-26.7	155-26.5	14.9		7	249	7.9	0.97	4.4	7.6	0.07	D
6	6	16	25.3	19-19.8	155-25.1	11.1		11	160	3.2	0.08	0.8	1.3	0.09	B
6	19	48	38.4	19-22.1	155-12.6	5.6	2.1	15	141	0.5	0.20	1.3	1.0	0.26	C
6	21	50	57.6	19-47.6	155-58.9?	16.5*	2.7	18	240	30.9	0.46	3.1		0.30	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JAN 7	5	18	46.6	19-20.6	155-13.3	9.1	3.0	16	186	2.7	0.12	0.9	0.5	0.15	C
7	7	33	41.0	19-19.8	155- 5.9	5.6	2.1	15	215	8.1	0.33	1.9	1.3	0.22	C
7	7	58	28.9	19-24.6	155-49.3	7.3	1.6	12	189	16.1	0.35	4.8	1.8	0.10	C
7	18	26	60.0	19-31.0	155-41.3	5.4	1.5	13	183	24.5	0.14	1.0	0.8	0.14	C
7	22	25	17.7	19-20.3	155-13.8	9.4		14	165	3.7	0.11	0.9	0.7	0.15	C
7	23	22	54.8	19-19.5	155-14.5	9.1	1.9	15	172	4.5	0.11	0.9	0.5	0.15	C
7	23	32	57.6	19-20.0	155-11.3	8.3		10	223	4.0	0.22	1.7	1.2	0.15	C
8	0	41	19.8	19-21.0	155-13.0	9.0	2.4	16	157	1.8	0.09	0.8	0.4	0.14	C
8	2	5	45.2	19-23.2	155-27.0?	11.7	2.3	14	75	8.6	0.12	0.9	0.7	0.14	B
8	4	40	4.0	19-22.5	155-26.0	12.2		8	146	6.4	0.12	1.0	2.2	0.08	B
8	7	17	36.6	19-19.9	155-13.7	10.1		14	195	4.3	0.06	0.6	0.3	0.08	B
8	7	25	33.5	19-12.8	155-22.9	2.2		14	221	13.6	0.74	1.4	3.4	0.16	C
8	9	35	53.9	19-21.9	155- 7.4	7.0	1.8	14	199	4.5	0.18	1.4	1.0	0.18	C
8	12	20	42.9	19-30.8	155-27.3	10.9		13	246	7.2	0.15	1.0	0.4	0.08	C
8	16	33	27.2	19-23.6	155-23.5	8.2		13	150	6.2	0.12	0.9	0.7	0.15	B
8	17	38	40.4	19-19.0	155-14.1	10.6		12	224	6.0	0.18	1.1	0.4	0.11	C
8	18	13	37.3	19-18.7	155-13.9?	10.2		9	229	6.4	0.28	1.6	0.8	0.12	C
8	18	53	56.5	19-20.4	155-13.9	10.9		10	196	3.6	0.11	0.9	0.4	0.10	B
8	19	0	46.1	19-19.6	155-14.0	10.0		14	172	4.9	0.10	0.8	0.5	0.13	C
8	20	57	21.3	19-17.7	155-13.9	10.0		9	229	7.6	0.19	1.3	0.8	0.10	C
8	21	10	21.6	19-50.4	155-35.5?	60.5*	2.6	17	282	43.5	3.89	32.6		1.77	D
8	21	43	39.6	19-53.9	155-29.0	5.6	1.8	21	208	27.0	0.32	2.2	2.8	0.23	C
8	22	48	41.7	19-20.1	155-15.9	9.3		14	157	2.5	0.06	0.7	0.4	0.10	B
8	22	55	6.0	19-20.0	155-15.8	9.3		15	158	2.8	0.06	0.6	0.4	0.10	B
9	3	20	1.5	19-21.7	155-24.3	11.7		14	125	3.2	0.09	0.7	1.4	0.11	B
9	3	54	13.3	19-20.8	155-28.7	9.5	2.2	17	106	9.6	0.09	0.9	0.6	0.17	B
9	4	49	47.9	19-24.9	155-25.8	10.2		14	233	9.8	0.19	1.0	0.4	0.11	C
9	7	46	56.1	19-48.5	155-48.7	7.2*		13	320	56.2	3.11	18.9		0.11	D
9	13	17	31.8	19-19.9	155-11.4	13.5	1.8	12	238	4.3	0.26	1.3	1.5	0.08	C
9	14	23	27.5	19-18.9	155-13.7	12.9	1.7	12	228	5.9	0.10	0.5	0.7	0.04	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JAN 9	14	56	56.3	19-19.5	155-28.4	13.2	1.6	7	161	9.0	0.13	1.3	2.3	0.06	C
9	17	43	5.6	19-19.0	155-14.5	12.5	1.5	8	293	5.3	0.14	1.0	0.7	0.04	C
9	20	44	17.8	19-25.9	155-22.5	10.8	1.6	16	137	4.4	0.08	0.8	0.4	0.15	B
9	23	7	18.4	19-17.6	155-16.2	10.1	2.5	18	175	5.1	0.10	0.8	0.4	0.11	C
9	23	13	40.9	19-17.6	155-16.1	14.5	0.9	9	237	5.2	0.14	0.6	1.1	0.03	C
9	23	22	46.7	19-17.8	155-16.1	10.1		15	202	4.8	0.10	0.7	0.3	0.10	B
10	5	48	37.4	19-20.1	155-11.8	11.0	1.4	15	211	3.9	0.10	0.8	0.3	0.11	C
10	12	33	32.1	19-25.6	155-24.6	13.1	1.5	8	209	7.8	0.27	1.0	2.3	0.05	C
10	18	56	33.7	19-10.4	155- 5.2	0.5	2.0	14	274	22.6	1.59	3.2	5.4	0.18	D
10	19	9	20.8	19-16.1	155- 5.9	9.1	1.9	12	247	12.7	0.61	3.3	1.2	0.14	D
10	19	41	42.8	19-19.1	155-14.6	9.2	1.5	15	217	5.1	0.20	1.4	0.8	0.17	C
10	23	48	3.2	19-20.1	155-28.6	12.7	1.6	9	168	9.3	0.11	1.2	2.4	0.08	C
11	2	15	39.4	19-21.2	155-17.9	29.5	2.0	18	73	2.2	0.13	0.9	1.3	0.10	A
11	9	30	1.9	19-20.2	155-12.4	11.4	1.4	14	208	3.4	0.09	0.9	0.3	0.11	C
11	15	29	52.4	19-18.4	155-15.7	8.9	1.8	15	224	4.3	0.21	1.3	0.7	0.15	C
11	15	55	57.0	19-18.0	155-17.2	8.2	1.7	11	230	3.9	0.26	1.8	0.9	0.20	D
12	0	59	16.5	19-19.4	155-11.4	11.2	1.7	10	217	5.1	0.18	1.3	0.6	0.10	C
12	2	23	41.8	19-24.7	155-15.7	9.5		9	178	2.3	0.62	1.8	3.8	0.17	C
12	4	34	12.1	19-17.4	155-24.5	17.2	1.5	7	302	5.6	1.50	8.0	8.4	0.09	D
12	8	3	30.6	19-18.3	155-14.4	14.5	1.3	9	234	6.3	0.14	0.6	1.1	0.03	C
12	8	51	17.3	19-22.4	155-23.3	9.9	1.9	9	181	4.0	0.67	1.4	4.0	0.11	C
12	14	8	59.5	19-25.4	155-23.5	11.5	1.8	12	185	6.4	0.16	0.7	1.3	0.06	B
12	17	10	42.1	19-19.4	155-11.9	13.8	1.6	5	238	5.5				0.04	D
12	17	16	8.9	19-19.4	155-11.9	8.8	1.3	10	236	5.0	0.30	1.8	0.9	0.16	C
12	17	26	59.4	19-17.2	155-10.1	12.9	1.7	9	282	8.5	0.33	2.3	1.1	0.08	C
12	17	39	35.0	19-19.8	155-10.3	13.2	1.2	9	265	3.7	0.21	1.0	1.3	0.04	C
12	17	41	2.6	19-20.6	155-12.6	9.0	1.5	8	201	2.7	0.52	2.5	2.9	0.21	C
12	17	43	46.6	19-17.5	155-10.2?	13.7	1.4	8	279	7.9	0.38	1.6	1.8	0.08	C
12	18	31	45.2	19-16.9	155- 4.4	7.5	2.2	13	246	13.3	0.59	3.1	1.6	0.22	D
12	20	50	26.6	19-19.1	155-13.9	10.9	1.7	11	223	5.5	0.15	1.0	0.4	0.11	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JAN 12	20	52	18.8	19-19.4	155-15.9	9.0	2.1	15	211	3.0	0.15	1.0	0.6	0.14	C
12	23	15	9.3	19-24.3	155-18.2	18.5	1.9	12	94	1.5	0.20	1.1	2.1	0.10	B
12	23	54	55.0	19-20.1	155-14.5	11.0	1.1	10	232	3.5	0.12	0.9	0.3	0.08	C
13	6	20	6.5	19-25.0	155- 9.1?	53.0*	2.5	16	123	6.0	0.55	6.8		0.44	C
13	6	23	31.5	19-20.0	155-12.1	8.3	1.2	10	223	3.8	0.30	1.5	1.7	0.16	C
13	6	29	30.9	19-19.8	155-12.0	9.1	1.4	12	229	4.3	0.21	1.2	0.7	0.14	C
13	6	32	32.6	19-20.5	155-12.3	9.2		11	205	2.8	0.26	1.2	1.5	0.17	C
13	6	47	49.6	19-20.7	155-13.4	10.0		9	190	2.7	0.44	1.1	2.3	0.09	C
13	10	30	44.6	19-20.5	155-12.6	15.3	1.5	8	272	2.8	0.18	1.1	1.2	0.03	C
13	20	27	22.9	19-12.8	155-27.9	8.9	2.3	13	168	15.8	0.10	1.0	0.7	0.14	C
13	23	29	28.6	19-22.8	155-21.6	5.8	1.0	6	158	3.7	0.30	0.8	2.5	0.05	C
14	0	38	59.2	19-20.4	155-26.9	14.8	1.9	6	288	6.4	1.45	6.2	8.2	0.08	D
14	7	29	38.3	19-23.4	155-31.5	22.2	2.1	11	298	15.5	0.30	2.2	3.6	0.11	C
14	11	17	40.4	19-18.6	155-16.2	9.6		9	239	3.4	0.15	1.0	0.6	0.09	C
14	12	14	57.8	19-19.7	155-11.6	11.4		10	238	4.8	0.28	1.5	1.7	0.10	C
14	12	15	53.6	19-19.6	155-11.7	8.1	1.6	8	235	4.7	0.42	2.7	1.3	0.17	D
14	16	44	56.7	19-19.4	155-10.5	11.2	1.4	11	219	4.5	0.10	0.9	0.2	0.06	B
14	17	18	25.4	18-53.0	155-25.5	8.0*		5	337	50.3	6.35	37.4		0.04	D
14	21	12	47.6	19-25.1	155-22.2	10.3	2.4	15	136	5.1	0.09	0.8	0.4	0.14	B
14	22	12	10.0	19-18.7	155-15.5	14.2		7	244	4.2	0.36	1.4	2.4	0.04	C
14	22	15	12.5	19-18.0	155-27.3	8.3	1.7	13	133	8.1	0.10	1.1	0.9	0.17	B
14	22	17	54.1	19-18.7	155-25.7?	11.5		8	156	5.0	0.16	1.7	2.2	0.13	C
14	23	2	34.2	19-16.3	155-26.6	3.2	1.8	14	146	9.2	0.15	1.4	1.8	0.25	C
15	2	14	4.9	19-19.0	155-12.7	10.8	1.1	14	219	5.5	0.14	1.0	0.3	0.12	C
15	2	28	7.6	19-16.1	155-20.9	9.9		11	168	8.5	0.09	0.8	0.5	0.08	B
15	2	33	59.4	19-16.5	155-21.0	9.8		11	166	7.9	0.09	0.8	0.5	0.09	B
15	3	11	49.3	19-19.6	155-11.5	11.0		9	216	4.9	0.22	1.9	0.6	0.15	C
15	5	32	10.1	19-19.4	155-16.2	11.2		10	225	2.4	0.34	1.0	1.7	0.08	C
15	11	51	37.9	19-16.7	155- 8.9	7.8		10	239	9.5	0.50	2.7	1.6	0.16	D
15	12	13	6.2	19-49.4	155- 2.8?	37.1	1.4	22	297	39.4	0.28	2.7	2.4	0.22	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JAN 15	13	34	23.6	19-11.4	155-31.7	7.6	2.1	12	148	11.4	0.11	1.1	0.8	0.17	B
15	20	7	24.5	19-10.1	155-31.2	8.2		10	158	13.6	0.11	1.1	0.9	0.14	C
15	23	57	55.0	19- 3.9	155- 7.9?	7.2		17	244	33.1	0.37	3.6	8.1	0.23	D
15	23	58	18.0	19- 9.4	155-30.4?	7.8		9	172	15.2	0.19	2.0	1.7	0.23	C
16	0	50	46.2	19-24.0	155-27.6	8.4	1.7	17	136	13.1	0.13	1.0	0.8	0.20	B
16	7	1	17.4	19-21.0	155-18.5	28.0	1.1	17	96	2.5	0.15	0.9	1.5	0.12	B
16	9	27	59.3	19-19.4	155-13.6	10.6		8	221	5.0	0.10	0.9	0.4	0.05	B
16	15	10	40.0	19-21.2	155-17.9	23.0	2.2	16	92	2.2	0.16	1.2	1.5	0.11	B
16	16	44	24.7	19-57.6	155-26.4?	13.2	1.6	11	302	20.4	0.49	4.1	2.2	0.21	D
17	9	50	4.3	19-18.4	155-20.2	27.5		14	195	5.9	0.45	3.8	3.7	0.24	C
17	12	8	36.6	19-10.2	155-34.4	5.2		13	135	9.9	0.08	0.8	0.6	0.12	B
17	16	5	19.3	19-11.4	155-29.9	8.2		12	162	14.1	0.11	1.0	0.7	0.14	C
17	16	35	12.2	19-16.3	155-25.5?	11.5		9	199	8.2	0.26	1.4	3.0	0.10	C
17	18	52	44.3	19-21.5	155-29.1	7.9		8	135	10.4	0.16	1.6	1.5	0.16	B
17	22	23	37.1	19-14.4	155-48.0	8.3	2.4	15	282	19.1	0.31	2.0	1.1	0.16	C
18	0	56	24.4	19-15.1	155- 5.6	5.6		13	254	14.7	0.61	2.9	1.7	0.21	D
18	1	44	43.3	19-14.2	155- 4.5	3.7	1.6	14	260	20.5	0.77	3.4	2.2	0.22	D
19	1	40	50.1	19-22.8	155-26.4?	7.7	0.8	15	126	7.3	0.11	0.9	0.8	0.18	B
19	6	57	32.4	19-22.5	155-16.3	27.4		16	78	0.8	0.21	1.3	2.0	0.13	B
19	7	3	5.9	19-22.0	155-23.5?	7.6		12	111	3.4	0.11	1.1	1.1	0.18	B
19	8	8	24.8	19-21.3	155-13.9	8.5	2.5	19	149	2.4	0.09	0.8	0.4	0.17	B
19	8	52	23.9	19-23.5	155-17.2	17.5		16	67	0.7	0.05	0.5	0.6	0.08	A
19	9	1	34.0	19-10.5	155-35.1	8.7		8	145	8.8	0.07	0.8	0.5	0.08	B
19	21	15	9.2	19-10.4	155-25.7	22.7		10	196	18.5	0.27	2.3	4.4	0.09	C
19	22	10	55.2	19-28.0	155-52.8	10.4	1.6	17	175	7.3	0.12	2.7	2.4	0.11	C
20	1	19	34.9	19-23.6	155-35.8	9.4	2.0	19	104	16.2	0.15	0.9	1.0	0.16	B
20	2	1	22.8	19-16.8	155-19.8	31.2		17	169	7.4	0.18	0.9	1.7	0.08	B
20	2	56	19.6	19-17.3	155- 7.4	5.3		16	238	9.5	0.40	1.9	1.1	0.22	D
20	4	11	11.0	19-19.3	155-16.9	30.8		17	209	1.7	0.19	1.9	1.4	0.12	C
20	7	54	40.7	19-23.5	155- 4.2	6.6	2.2	15	198	10.5	0.25	2.0	1.2	0.22	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JAN 20	10	35	54.0	19-21.4	155-10.4	9.6	1.4	15	208	1.0	0.16	1.2	0.6	0.14	C
20	18	20	54.2	19-21.4	155-11.2	6.2		12	185	2.2	0.23	1.6	0.9	0.19	C
20	20	50	36.4	19-23.3	155-16.7	14.6	0.7	18	59	0.2	0.06	0.8	0.5	0.14	B
21	7	5	36.0	19-18.5	155-18.8	36.1		11	227	3.8	0.35	1.6	2.6	0.05	C
21	7	55	56.6	19-19.6	155-10.9	7.9		9	237	4.4	0.40	2.9	1.2	0.17	D
21	15	31	26.8	19-18.5	155-16.1	8.0		13	199	3.7	0.15	1.0	0.7	0.15	C
21	18	2	36.9	19-16.6	155- 9.6	8.2	1.2	13	240	9.7	0.79	4.1	2.3	0.29	D
21	20	16	5.1	19-22.4	155-25.9	9.1	1.9	16	77	6.1	0.09	0.9	0.8	0.19	B
22	0	29	24.9	19-24.0	155-16.5?	3.0	0.5	8	111	1.3	0.08	0.6	0.4	0.08	B
22	0	31	27.8	19-23.9	155-16.3	4.0	0.8	11	85	1.3	0.10	0.5	0.9	0.11	B
22	0	33	28.9	19-24.3	155-16.4	3.5		7	111	1.5	0.08	0.4	0.7	0.05	B
22	0	33	49.2	19-23.9	155-16.1	3.1		6	142	1.5	0.12	0.9	0.6	0.08	B
22	0	36	56.2	19-24.1	155-16.0	2.6		6	99	2.2	0.11	0.7	0.7	0.08	B
22	0	37	39.1	19-24.3	155-16.4	2.7		5	114	1.6				0.03	D
22	0	38	23.4	19-23.1	155-17.0	11.3		6	87	4.9	1.15	2.3	8.0	0.18	C
22	0	43	36.0	19-24.3	155-15.4	1.7		10	110	2.9	0.05	0.3	0.6	0.07	A
22	0	49	10.8	19-24.1	155-17.0	2.9		7	95	1.4	0.13	0.8	1.4	0.09	B
22	0	50	46.4	19-22.1	155-16.1	9.9		6	122	4.3	2.11	5.0	14.0	0.29	C
22	0	55	3.8	19-24.4	155-16.7	6.5	1.7	12	58	1.1	0.10	0.9	0.9	0.20	B
22	0	58	52.0	19-24.5	155-16.2	1.6		7	112	1.6	0.08	0.5	0.6	0.08	B
22	0	59	24.4	19-23.9	155-17.0?	3.4		9	54	1.7	0.13	0.7	1.4	0.19	B
22	1	0	40.7	19-23.6	155-16.8	3.9		8	93	2.7	0.18	1.0	3.1	0.18	B
22	1	1	11.1	19-24.1	155-16.6	2.8		11	79	1.3	0.06	0.5	0.3	0.11	B
22	1	3	20.2	19-24.2	155-16.0	1.9		7	101	3.3	0.10	0.8	1.3	0.11	B
22	1	3	44.6	19-24.2	155-16.4?	2.2		8	104	1.6	0.06	0.5	0.5	0.07	B
22	1	4	53.1	19-24.3	155-16.0	2.8		7	124	2.1	0.09	0.7	1.0	0.08	B
22	1	5	57.2	19-24.6	155-16.7	2.4		7	106	0.8	0.08	0.6	0.6	0.06	B
22	1	9	24.1	19-24.8	155-16.9	1.6	-0.1	7	204	1.0	0.04	0.3	0.2	0.03	B
22	1	10	10.9	19-23.9	155-16.5	2.9		13	76	1.0	0.06	0.5	0.3	0.15	B
22	1	11	17.9	19-21.9	155-25.6	8.4	1.7	14	119	5.1	0.14	1.2	0.9	0.26	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JAN 22	1	12	28.8	19-24.1	155-16.6	2.8		9	108	1.4	0.05	0.4	0.3	0.05	A
22	1	13	12.1	19-24.2	155-16.1	3.1		6	232	1.9	0.12	0.6	0.5	0.03	C
22	1	14	48.1	19-24.7	155-15.8	0.1		9	110	2.2	0.12	0.4	10.6	0.08	B
22	1	15	9.8	19-24.1	155-16.3	2.3		11	92	1.6	0.08	0.6	0.7	0.11	B
22	1	18	17.1	19-24.5	155-16.4	0.5		7	178	1.3	0.11	0.4	1.4	0.05	B
22	1	19	16.5	19-23.8	155-16.0	3.9		12	90	1.6	0.07	0.4	0.8	0.10	A
22	1	20	18.6	19-23.9	155-16.4?	3.1		11	78	1.1	0.07	0.6	0.4	0.14	B
22	1	21	53.0	19-21.9	155-27.4?	11.0	2.4	13	118	8.0	0.12	1.0	0.6	0.17	B
22	1	22	52.6	19-26.3	155-14.7	7.9	0.6	7	304	4.7	1.51	8.7	6.9	0.26	D
22	1	24	44.7	19-24.4	155-15.8	2.0		9	118	2.4	0.07	0.5	0.8	0.08	A
22	1	26	5.8	19-27.5	155-13.1	8.0*		5	329	8.4	0.58	2.6		0.02	D
22	1	26	54.8	19-24.3	155-16.6	2.7		8	100	1.4	0.04	0.3	0.3	0.03	A
22	1	29	17.2	19-24.3	155-16.2	3.1		6	223	1.8	0.63	2.6	2.9	0.09	C
22	1	29	42.4	19-24.4	155-16.5	2.5		6	110	1.3	0.03	0.3	0.3	0.02	B
22	1	30	9.9	19-24.2	155-16.7	3.7		8	105	1.4	0.13	0.7	1.0	0.08	A
22	1	32	12.8	19-32.2	155-11.1?	8.0*		5	337	19.1	3.56	13.9		0.07	D
22	1	32	38.4	19-24.2	155-15.9	3.1		5	238	2.1				0.01	D
22	1	33	58.6	19-24.3	155-16.4	3.4		6	227	1.8	0.07	0.3	0.3	0.01	C
22	1	36	4.2	19-24.8	155-16.0	0.5		8	147	2.6	0.09	0.5	0.9	0.08	B
22	1	37	23.4	19-28.5	155-15.6?	3.1*	0.2	7	324	6.6	1.15	5.5		0.31	D
22	1	38	42.0	19-24.3	155-16.7	2.9		6	115	1.6	0.03	0.2	0.1	0.02	B
22	1	40	43.3	19-24.4	155-16.5	2.7		7	103	1.3	0.03	0.2	0.2	0.02	B
22	1	45	37.7	19-24.7	155-16.2	3.4		7	242	1.4	0.25	1.0	1.1	0.05	C
22	1	46	4.7	19-25.0	155-16.7	0.0*	-0.5	10	112	0.5	0.04	0.2		0.06	B
22	1	48	9.8	19-24.3	155-16.6	2.7		7	101	1.4	0.07	0.4	0.4	0.05	B
22	1	50	20.4	19-24.8	155-15.2	4.1		6	274	3.8	0.51	1.9	1.7	0.04	C
22	1	54	10.2	19-25.0	155-16.6?	0.0*		7	164	0.8	0.14	0.7		0.14	C
22	1	55	31.8	19-24.2	155-16.7	3.4		9	97	1.4	0.07	0.4	0.6	0.07	A
22	1	57	14.8	19-30.2	155-15.0?	8.0*	0.5	8	328	10.0	1.00	6.7		0.31	D
22	2	2	58.3	19-20.8	155-23.9	8.3		9	220	1.5	0.18	1.1	0.8	0.10	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JAN 22	2	5	43.5	19-24.2	155-16.5	2.9		9	102	1.5	0.05	0.4	0.3	0.05	A
22	2	7	41.9	19-24.6	155-16.4	3.1		7	217	1.2	0.13	0.6	0.6	0.03	B
22	2	17	58.1	19-30.8	155-14.8?	8.0*	1.4	8	330	11.0	0.81	7.3		0.37	D
22	2	19	23.4	19-23.9	155-16.6	3.1	0.3	12	98	1.1	0.07	0.5	0.7	0.10	B
22	2	20	10.3	19-27.7	155-13.9	8.0*		5	318	8.4	2.06	9.7		0.08	D
22	2	22	5.8	19-24.8	155-16.4	2.3	0.6	8	119	2.0	0.07	0.5	0.7	0.07	A
22	2	23	10.1	19-24.1	155-16.4?	2.7	0.9	10	90	1.5	0.07	0.4	0.7	0.07	B
22	2	31	24.6	19-28.1	155-11.8	8.0*		7	328	10.8	1.46	6.0		0.07	D
22	2	33	19.5	19-24.7	155-16.3	3.3		6	236	1.3	0.17	1.1	0.4	0.05	C
22	2	39	51.2	19-26.9	155-13.3	8.0*		5	326	7.4	1.38	6.5		0.07	D
22	2	41	7.5	19-24.4	155-16.6?	3.0		6	195	1.1	0.10	0.5	0.5	0.02	C
22	2	41	24.9	19-28.7	155-13.1	8.0*		7	326	9.8	1.40	5.7		0.06	D
22	3	13	27.1	19-24.1	155-16.2	2.8		8	108	1.7	0.02	0.2	0.1	0.03	A
22	3	25	21.2	19-25.1	155-17.0	8.0*		5	289	0.4	0.24	4.3		0.06	D
22	3	28	11.0	19-30.4	155-12.4	8.0*		7	331	13.0	2.63	10.3		0.07	D
22	3	36	2.8	19-24.0	155-16.6?	4.0	0.9	9	174	1.2	0.16	0.8	1.1	0.14	C
22	3	41	41.3	19-31.9	155-14.9?	8.0*	1.3	7	333	12.9	1.19	10.4		0.46	D
22	3	48	55.7	19-19.9	155-28.5	10.0		9	149	9.1	0.11	1.2	0.8	0.11	B
22	5	1	10.6	19-24.0	155-27.4	11.0		10	226	10.1	0.16	1.0	0.4	0.08	C
23	4	51	46.4	19-22.8	155- 3.7	4.2	2.2	16	188	11.2	0.19	1.2	1.1	0.18	C
23	5	0	32.9	19-21.0	155-12.9	9.8	1.2	16	181	1.8	0.09	0.8	0.4	0.13	C
23	11	8	40.7	19-20.5	155- 6.3	5.8	1.8	13	210	6.9	0.29	2.0	1.1	0.20	C
23	13	15	27.2	19-26.3	155-14.2	29.7		14	112	5.5	0.18	1.1	1.8	0.13	B
23	14	54	3.3	19-54.6	155-53.1?	41.7	3.4	12	256	110.6	2.19	9.3	19.4	0.12	D
23	17	39	38.1	19-22.1	155-10.0	6.5	1.0	11	172	0.5	0.15	0.8	0.7	0.08	C
23	19	6	50.5	19-17.5	155- 7.1	5.0		15	237	13.0	0.37	1.9	1.6	0.18	C
23	19	16	17.8	19-24.1	155-16.4	3.2	0.9	11	91	1.6	0.04	0.4	0.3	0.09	A
23	21	59	27.8	19-23.5	155-16.9	14.0	1.7	17	55	0.2	0.04	0.5	0.4	0.09	B
23	22	9	38.4	19-20.6	155-11.5	10.7		15	197	3.4	0.11	0.9	0.4	0.13	C
23	22	26	38.7	19-23.1	155-16.5	14.2	1.3	14	66	0.8	0.08	0.9	0.6	0.14	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JAN 24	1	52	50.4	19-19.7	155-18.5	7.4	1.8	17	151	2.1	0.10	0.8	0.7	0.13	C
24	7	38	48.1	19- 4.4	155-21.3	14.0*	2.0	17	223	26.8	0.22	1.7		0.14	C
24	10	18	11.1	19-25.9	155-23.7	11.0	1.1	11	175	6.2	0.06	0.5	0.2	0.07	B
24	14	18	36.1	19-28.8	155-53.1	11.8	2.0	11	188	5.9	0.26	4.3	5.4	0.12	C
24	19	44	38.1	19-20.3	155- 1.5	7.3	2.0	13	229	15.1	0.34	2.0	1.1	0.18	C
25	7	20	41.8	19-19.2	155-11.8	21.8	1.3	13	179	5.7	0.27	2.2	3.3	0.17	C
25	12	24	5.9	19-30.6	155-19.4	15.4	1.4	12	76	5.9	0.06	0.6	1.1	0.07	A
25	13	58	55.3	19-19.7	155- 8.9	8.2	2.0	16	207	4.4	0.20	1.3	0.7	0.16	C
25	15	11	8.6	19-23.2	155-15.1	3.3		9	166	2.0	0.10	0.8	1.4	0.10	C
25	15	24	51.9	19-20.2	155-13.7	9.9		15	192	3.8	0.10	0.8	0.4	0.12	C
25	16	42	34.3	19-20.7	155-12.4	9.5	1.9	17	169	2.5	0.11	0.9	0.5	0.16	C
25	19	18	34.4	19-24.6	155-30.0	10.4	2.2	15	152	14.3	0.13	0.8	0.5	0.13	C
26	0	49	47.1	19-25.7	155-30.4	22.6	2.4	15	157	14.5	0.26	1.3	3.7	0.13	C
26	4	52	29.0	19-31.4	155-16.1	19.0	2.4	12	253	11.4	0.44	3.6	4.2	0.15	D
26	6	0	36.4	19-10.0	155-34.3	3.3	2.8	17	136	10.3	0.12	0.8	0.8	0.15	B
26	7	2	48.5	19-21.5	155-26.1	9.5	2.8	19	93	5.4	0.09	0.8	0.6	0.19	B
26	16	2	4.5	19-18.4	155-10.8	6.3		12	249	6.5	0.40	2.2	1.3	0.20	C
26	18	58	13.6	19-16.8	155-23.6	6.4		12	154	6.4	0.12	0.9	1.2	0.15	C
27	3	30	28.3	19-24.2	155-24.7	8.3	1.6	18	141	7.8	0.10	0.8	0.7	0.16	B
27	3	34	16.7	19-10.9	155-31.1	8.6		13	155	12.9	0.11	1.2	1.0	0.16	C
27	8	57	28.1	19-17.4	155- 6.2	5.4	3.3	18	204	103.2	0.33	1.7	1.3	0.23	C
27	9	2	38.1	19-19.6	155-10.5	7.1		9	260	4.2	0.49	2.8	1.3	0.18	D
27	9	8	44.2	19-21.2	155- 9.9	8.0	1.8	16	250	1.2	0.18	1.1	0.6	0.14	C
27	9	9	9.1	19-16.9	155- 5.9	4.2	3.8	18	207	104.3	0.30	1.4	1.2	0.20	C
27	9	23	55.3	19-19.6	155-10.7	7.4		11	256	4.2	0.39	2.2	1.0	0.18	C
27	12	17	46.6	19-19.0	155-14.2	8.3	1.9	16	204	5.6	0.17	1.1	0.7	0.17	C
27	13	29	0.3	19-19.9	155-15.7	7.9		13	201	3.1	0.14	0.8	0.6	0.12	C
27	15	41	36.0	19-18.6	155-16.0	8.2		15	199	3.7	0.15	1.0	0.7	0.15	C
27	17	15	49.0	19- 8.4	155-26.0	43.6	2.7	11	253	22.2	1.76	5.4	15.1	0.14	D
27	18	42	0.9	19-19.5	155-12.7	7.9	1.9	15	211	4.6	0.18	1.1	0.7	0.18	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JAN 27	19	41	15.7	20- 2.1	155-21.5	6.7	2.8	19	232	30.3	0.52	2.0	1.9	0.16	C
27	21	27	3.9	19-19.4	155-12.6	10.6	2.0	15	216	4.9	0.11	0.9	0.3	0.10	B
27	21	31	54.3	19-23.6	155-17.6	15.0		11	60	1.4	0.08	0.7	0.9	0.07	A
28	2	47	37.2	19-19.3	155-10.1?	10.5		10	271	4.7	0.44	2.6	2.1	0.13	D
28	7	49	58.1	19-16.3	155-23.9	4.7	2.1	13	164	7.2	0.10	0.9	1.2	0.13	C
28	16	47	25.6	19-20.4	155-25.4	10.4	1.8	14	148	3.6	0.08	0.7	0.5	0.11	B
29	0	31	38.4	19-20.4	155-12.7	9.9		15	195	2.9	0.10	0.8	0.4	0.14	C
29	9	3	14.9	19-21.6	155-28.9	8.4	2.4	13	135	10.1	0.12	1.1	0.8	0.17	B
29	17	51	8.1	19-24.1	155-25.1	10.7	1.9	16	124	7.8	0.08	0.7	0.4	0.13	B
29	18	14	43.0	19-19.0	155-17.7	30.7	2.9	17	160	2.2	0.15	1.0	1.4	0.11	C
29	19	43	20.9	19-20.8	155-12.3	9.7	1.9	15	190	2.3	0.13	0.9	0.5	0.14	C
29	20	44	1.4	19-18.0	155-14.5	8.5	2.1	17	214	6.4	0.20	1.1	0.7	0.18	C
29	20	55	11.9	19-18.5	155-13.3	10.6		10	222	6.4	0.19	1.5	0.9	0.11	C
29	22	50	19.2	19-19.6	155-16.1	9.6		16	187	2.4	0.06	0.4	0.3	0.08	B
30	1	28	50.8	19-19.2	155-14.1	9.5	1.9	16	199	5.2	0.08	0.6	0.3	0.10	B
30	3	6	20.2	19-43.8	155-54.0	8.7		17	293	105.4	0.19	3.6	3.6	0.10	D
30	6	2	49.7	19-21.6	155-24.1	10.2		14	111	2.9	0.10	0.9	0.5	0.16	B
30	6	25	16.5	19-29.5	155-41.8	5.1		9	236	28.2	0.21	0.9	0.7	0.06	C
30	19	3	1.5	19-22.9	155-26.1?	13.8	2.0	15	124	6.9	0.11	1.1	2.2	0.13	B
30	19	51	47.5	19-17.9	155- 7.5	6.4	2.4	15	219	8.5	0.35	1.9	1.5	0.22	C
31	14	44	53.7	19-22.0	155-26.9	9.8	2.6	17	116	7.1	0.10	0.9	0.7	0.18	B
31	18	7	36.9	19-25.8	155-32.9	31.0	2.3	13	174	18.4	0.35	1.7	4.2	0.18	C
31	20	10	19.8	19-37.1	155-17.0	22.6	1.6	12	158	17.4	0.28	1.4	5.0	0.14	C
31	20	44	16.4	19-26.0	155-26.3	10.7	2.4	19	58	8.7	0.10	0.8	0.5	0.16	B
FEB 1	1	55	0.4	19-20.9	155-26.3	11.1		9	255	5.4	0.32	2.3	0.8	0.13	C
1	3	6	16.8	19-20.0	155- 0.6	9.4	1.9	15	243	16.8	0.32	1.8	0.7	0.13	C
1	18	26	6.1	19-26.9	155-24.4	9.7	1.9	13	115	5.6	0.05	0.5	0.4	0.09	A
1	21	12	10.2	19-45.7	155-21.4?	13.0	2.5	12	228	10.4	0.52	5.3	4.3	0.10	D
2	6	28	49.2	19-16.7	155-24.1	6.3		16	157	6.6	0.12	0.9	1.0	0.20	C
2	10	14	44.4	19-23.8	155-17.6	7.5		7	145	1.6	0.28	1.0	1.8	0.04	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
FEB	2	16	42 42.7	19-22.4	155- 6.1	5.2		14	201	6.9	0.21	1.7	1.1	0.21	C
	2	16	51 46.3	19-19.3	155-15.7	9.8	1.9	15	193	3.4	0.07	0.6	0.3	0.09	B
	3	3	13 20.2	19-21.0	155-12.4	9.5		17	185	2.0	0.11	0.8	0.4	0.16	C
	3	6	7 17.4	19-23.5	155-17.1	3.1	1.0	9	109	0.5	0.03	0.2	0.2	0.04	A
	3	6	37 29.5	19-28.2	155-50.8	7.7	3.5	20	154	9.6	0.14	1.2	1.0	0.17	C
	3	7	7 10.0	19-20.1	155-28.3	10.0	3.4	20	115	8.8	0.08	0.7	0.5	0.16	B
	3	7	59 14.9	19-23.8	155-30.4?	8.6	2.2	9	110	13.3	0.09	0.8	0.7	0.13	B
	3	15	3 36.1	19-23.6	155-17.2	7.7	1.7	13	98	0.7	0.14	0.9	0.9	0.17	B
	3	18	17 23.7	19-23.5	155-16.9	2.3	1.0	10	86	0.2	0.06	0.3	0.4	0.07	A
	3	19	41 16.6	19-16.3	155- 8.1	3.9	2.4	16	225	13.4	0.42	1.9	1.6	0.24	C
	3	22	50 3.4	19-24.7	155-17.2	0.0	1.0	12	91	0.4	0.13	0.6	13.8	0.17	B
	3	23	10 35.7	19-24.7	155-16.9?	0.1	0.6	10	95	0.3	0.09	0.5	2.4	0.13	B
	3	23	28 39.0	19-24.4	155-17.4	0.1	0.7	10	106	0.6	0.13	0.6	3.4	0.13	B
	3	23	40 34.0	19-28.5	155-13.6?	8.0*	2.0	9	276	8.9	1.07	7.3		0.71	D
	3	23	59 37.7	19-29.5	155-15.1?	8.0*	2.1	8	324	8.7	0.76	6.1		0.34	D
	4	0	29 44.6	19-23.6	155-17.1	5.6	2.5	14	99	0.7	0.09	0.6	0.7	0.15	B
	4	1	5 24.6	19-23.6	155-17.2	6.1	2.7	20	53	0.9	0.06	0.6	0.5	0.17	B
	4	1	15 24.4	19-23.4	155-17.1	1.8		6	143	0.6	0.06	0.2	0.4	0.02	B
	4	1	20 6.4	19-23.4	155-17.2	1.9		6	148	0.8	0.21	0.5	1.3	0.04	B
	4	5	17 32.6	19-23.7	155-17.2	2.0	0.9	9	101	0.9	0.06	0.2	0.4	0.03	A
	4	6	8 25.2	19-22.4	155-18.2	27.8	3.1	22	60	3.0	0.16	1.0	1.6	0.14	B
	4	7	47 3.1	19-23.8	155-16.9	2.7		8	121	0.7	0.14	0.4	0.8	0.05	B
	4	9	20 57.1	19-20.2	155-16.9	28.2	2.3	17	152	0.9	0.13	0.9	1.2	0.11	C
	4	15	4 48.5	19-19.6	155-13.0	8.5		17	198	4.4	0.18	1.3	0.7	0.20	C
	4	16	59 29.4	19-24.3	155-15.6	2.8		8	198	2.6	0.12	0.7	0.4	0.07	B
	4	19	51 16.2	19-23.2	155-17.1	2.8		9	152	0.7	0.06	0.3	0.3	0.05	B
	4	20	42 56.9	19-24.6	155-17.4	0.3	0.9	11	75	0.3	0.11	0.5	1.5	0.16	B
	4	20	43 48.0	19- 1.6	155-21.8?	32.7		17	249	26.3	0.25	1.9	3.4	0.13	C
	4	20	56 59.6	20- 1.5	155-33.0?	8.0*		15	233	15.6	0.24	4.2		0.31	D
	4	22	29 59.7	19-24.5	155-17.2	0.1	0.8	11	90	0.6	0.11	0.5	4.5	0.15	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
FEB 4	22	38	10.1	19-25.1	155-17.8?	11.1*	1.6	7	158	0.7	1.60	11.8		0.45	D
5	0	20	53.3	19-20.4	155-28.4	8.2	3.5	20	112	177.6	0.07	0.6	0.5	0.16	B
5	1	40	43.4	19-22.9	155-17.5?	0.5		9	170	1.4	0.18	0.8	1.0	0.13	C
5	2	9	12.5	19-17.3	155- 6.7	3.1		16	224	10.1	0.38	1.8	1.8	0.21	C
5	2	18	42.3	19-17.8	155- 7.6	5.8	1.3	18	219	8.5	0.33	1.7	1.2	0.23	C
5	5	32	58.4	19-20.2	155-14.4	8.4	2.4	18	163	3.3	0.11	0.9	0.5	0.16	C
5	6	59	59.3	19-23.3	155-16.7	2.5	-0.0	9	117	0.3	0.21	0.6	1.4	0.11	B
5	7	26	31.5	19-24.9	155-57.3	8.0*		6	295	39.9	1.23	7.8		0.10	D
5	7	43	37.8	20- 6.8	155-38.2?	13.3*		15	346	41.9	0.24	4.0		0.15	D
5	12	7	0.7	19-34.1	155-20.3?	10.0	2.0	18	85	9.4	0.13	1.1	2.7	0.21	B
5	12	10	27.8	19-23.3	155-17.3	6.2	2.3	18	54	1.0	0.07	0.7	0.5	0.18	B
5	15	58	39.3	19-21.9	155- 7.9	7.2	2.3	16	178	3.7	0.15	1.1	0.7	0.19	C
5	16	35	43.1	19-23.7	155-17.3	2.3	0.8	10	115	1.0	0.03	0.2	0.2	0.03	A
5	18	49	10.6	19-23.7	155-17.3	1.5		7	106	1.1	0.09	0.2	0.7	0.03	B
5	21	23	57.9	19-23.7	155-17.3	2.3	0.7	13	56	1.0	0.09	0.6	0.6	0.14	B
5	22	19	24.1	19-23.4	155-17.6	3.0	1.4	15	63	1.4	0.05	0.4	0.3	0.11	B
6	0	26	58.3	19-23.9	155-16.1?	3.0	0.1	8	109	1.5	0.04	0.3	0.5	0.04	B
6	0	32	14.5	19-23.2	155-16.9	5.3	1.7	14	92	0.5	0.11	0.7	0.7	0.15	B
6	1	59	7.7	19-23.9	155-17.4	1.0	0.2	8	109	1.3	0.06	0.2	0.6	0.03	A
6	2	22	30.9	19-23.6	155-22.4	9.2	1.1	14	158	4.7	0.14	0.8	0.7	0.13	C
6	3	2	46.0	19-23.8	155-17.1	2.0	1.2	12	99	0.9	0.07	0.5	0.5	0.12	B
6	4	39	59.9	19-23.6	155-15.3	3.3	0.7	11	95	2.5	0.14	0.7	1.6	0.16	B
6	5	45	13.1	19-21.5	155-10.6	7.7	1.0	11	196	1.3	0.18	1.3	0.7	0.10	C
6	6	37	45.9	19-23.2	155-17.1	5.8	2.1	16	58	0.7	0.07	0.6	0.5	0.16	B
6	8	10	27.3	19-23.6	155-17.0	5.2	2.5	16	75	0.6	0.06	0.5	0.4	0.14	B
6	10	14	12.2	19-23.6	155-17.3	2.1		7	105	0.9	0.03	0.1	0.2	0.01	B
6	12	37	9.3	19-23.4	155-17.2	2.2		6	144	0.7	0.10	0.2	0.6	0.02	B
6	14	12	21.6	19-23.4	155-17.4	2.7		9	73	1.1	0.12	0.6	1.2	0.07	A
6	20	3	29.3	19-23.6	155-14.7	3.3		8	190	3.0	0.07	0.3	0.7	0.03	B
7	1	38	16.8	19-23.3	155-17.5	2.9	1.6	13	62	1.2	0.05	0.3	0.7	0.08	A

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
FEB 7	4	5	30.3	19-23.3	155-15.1	3.0	0.4	10	90	2.3	0.05	0.3	0.4	0.08	A
7	6	22	9.3	19-23.6	155-15.2	4.1	1.7	12	94	2.6	0.06	0.5	1.4	0.10	B
7	8	0	56.4	19-22.1	155- 7.1?	5.7	2.0	18	201	5.1	0.42	2.7	1.7	0.42	D
7	11	48	43.4	19-24.0	155-15.6	3.8	1.5	10	224	2.3	0.11	0.6	0.6	0.05	B
7	18	18	18.7	19-20.5	155-17.3	30.0	1.8	17	109	0.8	0.12	0.9	1.1	0.10	A
7	20	25	21.1	19-24.0	155-15.8	2.9	0.5	9	120	2.1	0.07	0.5	0.5	0.08	A
7	21	21	56.4	19-20.4	155-10.9	7.3		12	234	3.0	0.31	1.7	1.0	0.18	C
7	22	43	51.1	19-23.6	155-17.3	5.0	2.1	14	58	0.9	0.05	0.4	0.4	0.11	B
7	22	49	52.4	19-23.8	155-16.9	2.1	1.3	10	81	0.8	0.04	0.2	0.3	0.06	A
7	22	51	50.8	19-23.7	155-17.0	2.6	0.5	9	112	0.7	0.16	0.4	1.0	0.08	A
7	22	58	46.6	19-23.2	155-17.4	1.5	0.4	9	102	1.1	0.05	0.2	0.5	0.03	A
8	5	31	43.7	19-21.9	155-12.4	3.8		8	159	0.7	0.11	0.7	1.1	0.08	B
8	6	53	39.0	19-23.3	155-17.1	2.6	0.9	12	94	0.5	0.03	0.2	0.2	0.05	A
8	7	33	49.9	19-10.5	155-27.6	9.5		15	173	18.5	0.11	1.0	0.9	0.12	C
8	7	35	58.8	19-23.3	155-15.1	2.7		9	89	2.2	0.05	0.4	0.3	0.08	A
8	8	19	10.3	19-22.9	155-15.3	6.5	2.2	16	68	1.4	0.07	0.6	0.5	0.13	B
8	9	33	0.9	19-20.6	155-17.5	30.1	2.4	21	93	0.9	0.15	0.9	1.4	0.13	B
8	9	36	19.1	19-23.1	155-17.3	2.9	1.4	12	61	1.0	0.03	0.3	0.2	0.08	A
8	10	1	26.0	19-17.4	155-13.5	9.0	2.0	19	183	8.4	0.17	1.1	0.6	0.17	C
8	10	54	59.4	19-16.6	155-12.9	9.1		12	214	10.0	0.34	2.1	1.2	0.14	C
8	11	32	32.5	19-23.5	155-16.2	5.7	1.8	15	73	1.0	0.08	0.5	0.6	0.13	B
8	11	58	47.8	19-18.8	155-15.9	8.6	2.5	18	171	3.6	0.11	0.8	0.5	0.15	C
8	13	42	7.9	19-10.9	155-34.8?	8.3		9	137	8.5	0.31	7.1	5.7	0.28	C
8	14	57	44.1	19-23.5	155-17.1	2.9		9	100	0.5	0.04	0.2	0.2	0.04	A
8	16	2	20.1	19-22.8	155-14.4	3.0		9	103	2.3	0.06	0.5	0.3	0.09	A
8	16	15	45.6	19-18.9	155-10.3	8.0	1.8	15	208	5.5	0.28	1.8	1.0	0.21	C
8	17	2	1.3	19-22.8	155-15.3	6.0	2.2	14	77	1.4	0.08	0.6	0.6	0.12	B
8	19	42	23.3	19-23.3	155-14.9	2.1	1.2	11	91	2.4	0.06	0.4	0.6	0.08	A
8	19	47	14.2	19-23.2	155-15.0	2.9	1.3	11	89	2.2	0.07	0.4	1.0	0.10	A
8	20	16	46.2	19-23.1	155-15.1	3.0	1.3	10	85	1.9	0.07	0.4	0.8	0.07	A

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
FEB	8	20	17 32.9	19-24.5	155-14.7	13.2	2.5	21	53	4.1	0.06	0.7	0.6	0.14	B
	8	21	23 1.8	19-23.1	155-15.0	3.1		11	86	2.0	0.06	0.5	0.4	0.12	B
	9	0	11 58.3	19-22.8	155-14.9	4.5	1.7	12	86	1.8	0.10	0.5	0.9	0.10	A
	9	0	39 16.7	19-23.4	155-15.3	2.7		10	90	2.2	0.06	0.3	0.5	0.06	A
	9	1	26 3.8	19-23.2	155-17.3	2.8	1.1	12	61	1.0	0.05	0.3	0.7	0.07	A
	9	2	36 3.9	19-23.1	155-17.1	3.0	1.4	14	58	0.7	0.03	0.2	0.2	0.08	A
	9	2	58 39.9	19-21.1	155-25.7	6.9		16	114	11.6	0.09	0.7	0.8	0.16	B
	9	3	4 10.1	19-22.9	155-15.3	5.9	2.2	16	78	1.3	0.06	0.4	0.4	0.09	B
	9	3	35 2.9	19-23.4	155-17.6?	1.9	0.9	9	81	1.4	0.34	1.1	2.7	0.13	B
	9	4	22 54.8	19-19.3	155-14.7	8.6	3.0	19	172	4.8	0.12	0.9	0.5	0.17	C
	9	4	24 20.6	19-19.6	155-14.6	8.4	2.3	19	169	4.2	0.10	0.7	0.4	0.14	C
	9	4	26 54.5	19-18.7	155-14.0	10.3		15	221	6.2	0.13	0.9	0.3	0.11	C
	9	5	33 24.7	19-23.5	155-17.2	1.8		7	142	0.8	0.04	0.1	0.3	0.01	B
	9	9	10 10.9	19-23.8	155-16.2	4.0	1.0	13	84	1.3	0.08	0.4	0.8	0.11	B
	9	9	12 34.1	19-27.5	155-11.4?	8.0*		8	329	10.9	0.97	7.5		0.48	D
	9	9	28 1.2	19-24.6	155- 8.9	8.0*		7	329	12.3	1.71	6.8		0.07	D
	9	9	44 1.3	19-23.1	155- 8.7	8.1		10	287	3.4	1.38	4.3	5.7	0.17	D
	9	9	50 33.6	19-23.1	155-15.5	4.0	1.3	11	143	1.5	0.12	0.6	1.1	0.11	B
	9	10	5 16.8	19- 9.5	155-34.9	7.9		14	144	10.7	0.11	1.2	0.8	0.14	B
	9	11	19 42.6	19-23.4	155-17.2	2.3		7	92	0.7	0.07	0.2	0.4	0.02	B
	9	13	26 36.4	19-23.2	155-17.0	1.9	0.3	9	94	0.5	0.18	0.6	1.4	0.11	B
	9	14	29 7.6	19-18.4	155-15.1	9.6	1.9	13	206	5.1	0.16	1.2	0.7	0.15	C
	9	14	43 39.5	19-26.4	155-26.8?	10.8	2.4	16	74	8.8	0.10	0.9	0.5	0.16	B
	9	14	59 58.5	19-23.5	155-17.1	2.6		6	140	0.6	0.05	0.1	0.3	0.01	B
	9	15	15 34.5	19-24.1	155-17.2?	0.2	0.9	9	132	1.2	0.41	1.2	7.1	0.20	C
	9	15	22 51.0	19-23.8	155-16.0	5.2	1.3	13	150	1.6	0.13	0.6	1.0	0.12	B
	9	15	25 57.8	19-20.6	155-13.3	8.4		13	188	2.8	0.13	1.0	0.6	0.14	C
	9	16	13 49.9	19-24.1	155-14.5	2.9		7	214	4.0	0.10	0.5	0.3	0.04	B
	9	17	21 33.6	19-23.3	155-17.0	5.6	2.4	14	60	0.3	0.08	0.5	0.6	0.12	B
	9	18	26 37.4	19-32.0	155-14.3	2.2*	1.6	7	333	13.5	0.94	5.7		0.26	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
FEB 9	19	23	16.9	19-22.7	155-23.9	11.0	1.3	15	71	4.7	0.08	0.5	1.2	0.10	A
9	20	48	13.5	19-23.6	155-16.8	2.3	0.6	10	120	0.3	0.12	0.4	1.0	0.09	B
9	21	7	53.3	19-24.2	155-17.6?	0.0*	0.8	8	125	0.9	0.08	0.5		0.12	C
9	21	8	48.7	19-22.5	155-14.8	6.5	1.5	15	109	1.5	0.08	0.5	0.5	0.10	B
9	21	10	17.9	19-23.3	155-15.0	2.7		9	98	2.2	0.05	0.4	0.4	0.08	A
9	21	14	35.7	19-23.5	155-17.3	2.9	0.9	13	59	0.9	0.03	0.3	0.2	0.07	A
9	21	26	24.0	19-23.9	155-17.4	1.6		6	128	1.3	0.05	0.1	0.4	0.01	B
9	22	37	49.3	19-23.4	155-17.1	2.7	0.8	11	91	0.6	0.03	0.2	0.2	0.05	A
9	23	19	13.0	19-23.5	155-14.8	2.2		10	96	2.8	0.04	0.4	0.5	0.07	A
9	23	37	8.5	19-16.2	155- 6.9	7.2	1.4	14	245	11.6	0.52	2.6	1.5	0.23	D
9	23	42	50.5	19-55.8	155-36.6	1.8		9	315	23.5	0.33	3.8	2.0	0.11	D
10	0	0	29.7	19-23.0	155-15.1	4.2	1.1	12	83	1.7	0.09	0.5	0.9	0.11	B
10	0	11	39.3	19-19.3	155-12.3	11.7		10	234	5.1	0.24	1.5	1.4	0.09	C
10	0	31	5.1	19-17.6	155-13.2	11.8		9	249	8.2	0.34	2.0	1.9	0.09	C
10	0	36	20.3	19-20.2	155-16.8	32.7		11	188	1.0	0.17	1.1	1.6	0.07	C
10	0	46	56.6	19-23.0	155-15.2	4.9	1.4	12	82	1.6	0.13	0.5	1.1	0.11	B
10	2	36	23.1	19-23.4	155-17.1	5.7	2.3	18	52	0.6	0.06	0.6	0.4	0.16	B
10	2	39	11.5	19-23.4	155-14.8	2.2	1.2	12	92	2.7	0.07	0.5	0.6	0.12	B
10	5	55	30.7	19-19.8	155-12.7	10.8		14	212	4.0	0.09	0.8	0.3	0.10	B
10	6	46	6.5	19-23.3	155-17.0	2.6	0.9	11	91	0.3	0.05	0.3	0.3	0.07	A
10	8	35	0.3	19-23.6	155-14.4	3.1		7	198	3.4	0.05	0.3	0.9	0.02	B
10	9	52	18.4	19-24.1	155-15.8	6.7	2.6	16	85	2.2	0.07	0.6	0.4	0.13	B
10	10	56	57.9	19-23.5	155-17.1	3.0	0.1	8	106	0.5	0.03	0.2	0.2	0.03	A
10	14	7	51.0	19-24.3	155-16.5	3.2	1.2	9	150	1.4	0.09	0.5	0.7	0.06	B
10	14	26	6.8	19-21.1	155-12.5	8.2		7	185	1.8	0.06	0.6	0.2	0.02	B
10	14	39	1.5	19-24.7	155-16.0	5.5		8	209	1.9	0.53	1.6	2.9	0.13	C
10	18	42	56.0	19-23.2	155-17.2	2.7		7	152	0.7	0.13	0.4	0.8	0.05	B
10	19	44	42.9	19-23.1	155-14.5	0.2*	0.7	10	89	2.8	0.04	0.3		0.08	B
10	20	22	27.9	19-23.3	155-17.4?	2.7	0.3	10	75	1.1	0.16	0.7	1.3	0.10	B
10	21	13	21.0	19-23.1	155-15.1	2.8	0.6	11	85	1.9	0.08	0.6	0.5	0.15	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
FEB	10	21	49	27.9	19-23.6	155-17.0	2.4		7	133	0.6	0.03	0.2	0.2	0.02	B
	10	22	57	48.1	19-24.5	155-16.5	0.0*	0.5	10	104	1.1	0.04	0.2		0.07	B
	10	23	28	36.0	19-23.4	155-15.1	2.7		9	91	2.3	0.09	0.5	1.2	0.10	A
	11	0	30	36.1	19-23.8	155-16.9	2.2	0.0	9	91	0.7	0.10	0.5	0.7	0.10	B
	11	0	46	45.3	19-23.2	155-17.2	3.0	1.3	13	60	0.8	0.04	0.3	0.2	0.09	A
	11	1	6	39.1	19-23.5	155-15.4	3.0		8	131	2.2	0.06	0.3	0.7	0.05	B
	11	1	53	54.7	19-23.1	155-15.1	4.3	0.9	14	84	1.9	0.08	0.4	0.8	0.10	B
	11	1	55	43.2	19-23.5	155-16.6	2.6	1.4	14	62	0.3	0.06	0.4	0.4	0.14	B
	11	2	11	37.3	19-20.3	155-13.7	8.0	0.9	13	201	3.6	0.16	1.0	0.6	0.15	C
	11	4	14	45.4	19-20.0	155-12.5	10.8		11	211	3.7	0.12	1.0	0.4	0.11	C
	11	4	15	7.5	19-23.5	155-15.1	2.9		9	95	2.5	0.05	0.3	0.3	0.07	A
	11	4	19	9.6	19-19.1	155- 8.2	9.3		9	224	5.9	0.26	1.9	1.0	0.12	C
	11	4	59	17.7	19-24.0	155-14.7	4.4		8	206	3.7	0.20	0.6	1.3	0.06	B
	11	5	14	54.2	19-24.1	155-14.7	3.0		8	207	3.7	0.08	0.4	0.2	0.04	B
	11	21	45	36.9	20-16.9	156- 0.7	18.1*	2.3	20	328	143.6	0.26	2.6		0.17	D
	11	21	59	19.7	19-24.7	155-23.3	9.5	2.1	16	139	6.6	0.09	0.7	0.5	0.12	B
	11	23	2	11.6	19-23.6	155-23.2	10.3	2.2	18	102	6.1	0.08	0.8	0.5	0.16	B
	12	2	51	49.0	19-15.4	154-60.0	4.7	1.8	14	266	21.1	0.77	3.5	1.9	0.18	D
	12	3	35	44.9	19-22.7	155-15.2?	0.0*		7	147	1.4	0.11	0.6		0.11	C
	12	4	58	3.5	20- 0.1	156-36.2	3.8	2.6	24	249	184.6	0.34	3.9	4.0	0.24	D
	12	6	17	31.3	19-26.6	156-26.6?	3.0	3.3	15	325	124.1	1.27	23.2	16.6	0.39	D
	12	6	47	24.8	19-20.2	155-12.9	8.5		13	196	3.3	0.13	1.1	0.5	0.15	C
	12	11	24	3.6	19-23.8	155-23.2	10.3	2.1	16	86	6.2	0.08	0.8	0.6	0.16	B
	12	18	10	56.3	19-19.3	155-14.0	10.1	3.2	18	174	5.2	0.11	0.9	0.5	0.15	C
	12	22	46	29.4	19-26.5	155-25.9	10.3	2.2	19	76	7.7	0.07	0.7	0.5	0.16	B
	12	23	8	34.8	19-18.9	155-13.9	9.7	1.9	17	201	5.8	0.12	0.9	0.4	0.14	C
	12	23	55	33.4	19-19.6	155-14.1	9.9		16	197	4.5	0.10	0.7	0.4	0.13	C
	13	3	55	25.2	19-57.1	155-26.5	9.4	2.2	8	206	19.4	0.71	4.1	2.7	0.16	C
	13	5	6	11.8	19-18.3	155-14.6	8.2	2.5	17	184	5.9	0.14	1.0	0.6	0.17	C
	13	7	31	32.1	19-56.6	155-25.5	7.9		5	336	18.7				0.23	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
FEB 13	7	55	2.7	19-19.5	155-13.9	8.5		15	199	4.8	0.15	1.1	0.6	0.15	C
13	8	50	10.9	19-15.5	155-22.9?	12.7		9	300	8.7	1.30	4.0	6.0	0.11	D
13	11	22	13.2	19-22.8	155-15.0	19.2		11	237	1.7	0.30	1.6	2.2	0.06	C
13	11	29	27.4	19-20.9	155-14.0	11.1	1.8	12	178	2.9	0.07	0.8	0.3	0.11	C
13	13	37	40.7	19-19.2	155-13.8	9.9		12	205	5.5	0.11	0.9	0.4	0.11	C
13	19	21	49.3	19-25.4	155-29.4	6.2	1.8	12	102	12.3	0.09	0.7	0.8	0.13	B
13	20	2	49.4	19-24.3	155-24.8	10.8	2.0	15	144	9.1	0.08	0.7	0.3	0.11	B
14	2	40	35.2	19-21.1	155-11.5	9.6	1.0	13	192	2.8	0.15	1.3	0.6	0.18	C
14	3	6	10.1	19-24.3	155-24.4	11.6	1.0	11	204	7.7	0.20	0.9	1.8	0.07	B
14	3	28	22.4	19-22.5	155-25.9	13.7	2.0	15	127	11.0	0.11	1.2	1.4	0.17	B
14	4	54	0.2	19-18.6	155- 2.7?	0.1	2.1	13	232	22.8	1.04	2.0	4.4	0.16	C
14	5	37	14.3	19-19.2	155-11.3	11.0		8	223	5.3	0.20	1.6	1.0	0.10	C
14	5	52	29.4	19-18.9	155-10.9	9.8		9	206	5.5	0.29	2.7	1.2	0.12	C
14	9	13	3.7	19-24.3	155-25.2	13.6		9	222	8.2	0.43	1.5	3.3	0.07	C
14	9	41	19.2	19-24.5	155- 8.2	5.8	3.0	15	143	6.0	0.11	0.9	1.0	0.16	B
14	15	35	26.4	19-20.7	155-28.1	7.5		10	143	15.6	0.11	1.0	1.3	0.13	B
14	17	13	3.3	19-24.0	155-24.8	11.4	1.2	13	195	7.6	0.08	0.6	0.7	0.07	B
14	19	0	32.8	19-24.3	155-14.1	29.6	1.6	15	133	4.8	0.20	1.3	1.8	0.11	B
14	23	54	46.8	19-17.9	155- 8.5	11.2	1.3	13	232	7.6	0.38	2.4	0.8	0.13	D
15	0	36	39.1	19-16.9	155- 7.6	12.0		9	292	9.9	0.56	3.5	1.6	0.09	D
15	1	5	16.7	19-53.8	155-17.5?	85.2*		12	294	45.4	4.91	50.4		3.06	D
15	2	57	39.4	19-24.5	155-24.0	10.9	2.2	17	87	7.7	0.09	0.8	0.5	0.15	B
15	5	6	5.4	19-20.4	155- 1.9	7.9	1.2	11	235	14.4	0.34	2.1	0.9	0.16	C
15	19	53	21.9	19-21.8	155-26.7	9.7	1.9	12	124	6.6	0.09	0.7	0.7	0.13	B
16	0	56	57.6	19-10.4	155-33.2?	7.9	1.9	16	146	10.7	0.11	2.3	1.9	0.17	B
16	5	48	30.2	19-20.5	155-19.7	4.8		8	165	4.1	0.16	0.5	1.7	0.05	B
16	6	2	5.4	19-24.0	155-25.9	8.1		10	157	8.3	0.13	0.9	1.0	0.14	C
16	20	51	51.4	19-23.5	155-24.3	9.9	1.9	16	118	6.3	0.09	0.7	0.5	0.14	B
17	2	56	58.4	19-51.3	155-41.7?	8.8	1.9	19	184	19.5	0.38	5.7	13.9	0.25	D
17	4	58	19.0	19-20.9	155-13.9	9.9		16	179	2.9	0.07	0.6	0.4	0.11	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
FEB	17	14	31	52.0	19-24.8	155-23.8	11.1	2.2	16	63	7.4	0.05	0.5	0.3	0.11	B
	17	19	24	47.8	19-24.7	155-25.1	6.5	1.9	14	126	8.9	0.17	1.4	1.5	0.23	C
	17	20	42	35.2	19-22.3	155-16.2	27.3	3.4	19	88	0.6	0.19	1.2	1.6	0.13	B
	18	10	57	31.0	19-21.8	155-17.5	22.5		16	86	3.0	0.16	0.9	1.5	0.10	A
	18	12	13	54.6	19-22.0	155-16.8	23.6	2.5	15	101	1.7	0.17	1.0	1.5	0.09	A
	18	19	20	12.3	19-26.1	155-49.8	7.6	2.7	18	181	13.5	0.10	0.9	0.5	0.11	C
	18	20	15	10.3	19-50.3	154-58.7?	8.0*		6	310	39.5	7.54	65.6		2.03	D
	18	22	58	22.8	19-21.0	155- 5.7	5.8	2.4	14	209	12.5	0.29	2.0	1.0	0.20	C
	18	23	12	32.4	19-55.4	156- 2.3	8.0*		6	315	63.2	4.58	27.8		0.18	D
	19	2	5	37.0	19-20.5	155-11.0	7.7		14	222	2.9	0.16	1.1	0.5	0.15	C
	19	4	43	14.0	19-21.4	155-16.4	30.6	2.1	17	130	2.2	0.24	1.4	2.0	0.14	B
	19	7	37	14.5	19-20.6	155-15.3	23.2		14	178	3.5	0.20	1.4	1.8	0.14	C
	19	10	41	32.3	19- 7.8	155-27.3	35.3		9	270	21.6	1.61	6.0	12.7	0.08	D
	19	10	41	34.8	19-17.9	155-28.9?	24.3	2.2	17	170	10.8	0.72	3.7	8.6	0.37	D
	19	10	43	4.2	19- 9.6	155-26.8	29.4		10	256	20.4	1.04	4.0	8.7	0.08	D
	19	12	57	59.8	19-22.4	155-16.0	28.8		17	93	0.2	0.20	1.2	1.8	0.12	B
	19	13	45	2.0	19-21.7	155-17.4	22.3	2.1	16	91	2.8	0.15	0.9	1.4	0.08	A
	19	14	53	50.4	19-14.3	155-47.5?	13.5*		14	305	18.3	0.51	3.4		0.16	D
	19	15	8	19.3	19-40.4	156-14.2?	8.0*	2.3	16	289	108.6	2.96	20.1		0.68	D
	19	18	46	6.6	19-30.7	154-59.5	8.5		7	214	7.1	0.52	10.6	1.7	0.21	D
	19	23	30	15.1	19-18.9	155-14.3	9.1	1.7	17	206	5.6	0.12	0.8	0.4	0.13	C
	20	16	22	55.5	19-20.9	155-10.2	7.8		14	248	1.7	0.14	1.0	0.4	0.11	C
	20	17	40	27.2	19-22.1	155-26.4	12.7	1.8	12	146	6.5	0.11	0.8	1.9	0.10	B
	20	20	28	10.4	19-20.1	155-17.2	7.6	0.8	10	225	0.4	0.15	0.8	0.6	0.07	B
	20	20	59	25.3	19-48.5	155-30.2	8.0*		8	302	35.6	1.21	7.5		0.11	D
	20	21	13	23.4	19-44.6	155-27.1	7.8		11	150	3.6	0.14	1.7	0.9	0.12	B
	20	21	50	47.9	19-21.8	155-16.2	25.8	2.1	16	124	1.3	0.17	1.1	1.6	0.12	B
	20	22	25	17.1	19-45.0	155-29.8	7.6		10	224	5.3	0.17	1.4	0.6	0.09	C
	20	22	34	52.9	19-29.4	155- 0.4?	8.0*		12	187	8.0	4.51	28.3		2.10	D
	21	0	42	24.6	19-22.9	155- 2.2?	0.5	2.3	13	212	16.0	0.79	1.7	3.5	0.18	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
FEB 21	8	21	58.7	19- 7.1	155-35.1	6.7		10	292	14.9	0.82	3.8	1.9	0.09	D
21	11	55	28.1	19-24.9	155-27.9	10.3	1.2	10	190	12.1	0.10	0.9	0.5	0.09	B
21	12	27	48.0	19-21.4	155-13.3	12.9		7	169	1.4	0.25	1.1	1.9	0.04	C
21	13	4	53.7	19-18.2	155- 6.1	11.2		11	235	9.6	0.43	2.9	0.9	0.11	D
21	14	3	51.2	19-21.1	155-14.3	8.5	1.1	14	169	2.1	0.13	1.0	0.5	0.17	C
21	14	21	39.4	19-19.1	155-26.8	8.9		8	163	6.4	0.18	1.9	1.6	0.15	C
21	16	35	20.9	20- 4.7	155-19.9	3.7	2.6	19	245	35.8	0.39	1.8	1.6	0.13	C
21	16	48	17.9	19-15.9	155-21.0	6.7		13	214	8.9	0.18	1.0	0.8	0.13	C
21	23	24	46.8	19-23.8	155-23.1	6.2	1.0	10	114	5.9	0.17	0.6	2.1	0.10	B
22	1	48	18.8	19-29.4	154-53.7	6.8	2.7	10	287	3.8	0.40	2.3	0.7	0.13	C
22	3	9	50.3	19-24.2	154-45.9?	0.1	2.1	14	303	42.9	6.01	27.7	52.1	0.49	D
22	9	37	31.8	19-22.8	155-29.5	14.3		9	198	11.9	0.14	1.3	0.9	0.06	C
22	9	38	1.6	19- 5.5	155-15.9	19.1*		10	315	27.0	1.85	11.4		0.12	D
22	9	47	24.9	19-19.7	155- 4.8	10.4	1.2	11	273	9.9	0.76	4.1	1.2	0.16	D
22	11	9	23.8	19-20.3	155-25.3	12.0		9	151	3.4	0.18	1.6	2.8	0.13	C
22	11	53	8.4	19-21.6	155-11.4	8.3	1.2	12	174	2.5	0.17	1.1	0.7	0.17	C
22	12	1	44.9	19-24.2	155-28.4	6.4	1.8	12	110	13.6	0.08	0.6	1.0	0.11	B
22	12	25	40.4	18-58.2	155- 4.9	8.0*	2.3	16	283	44.5	0.66	4.1		0.15	D
22	14	50	21.8	19-20.6	155-19.9	3.2		7	163	4.5	0.17	0.7	10.5	0.07	C
22	16	0	26.1	19-23.2	155-29.1	9.2		8	117	15.7	0.10	0.8	1.1	0.11	B
22	17	31	13.6	19-28.7	155-23.5	11.8	1.3	12	102	2.1	0.05	0.6	0.6	0.08	A
23	1	33	44.9	19-20.7	155-25.1	8.6		9	207	3.3	0.25	1.4	1.3	0.17	C
23	3	2	18.3	19-49.6	155-48.9	7.9	3.0	18	190	100.2	0.20	1.8	2.6	0.09	C
23	3	21	43.2	19-22.0	155-25.5	11.7		9	138	5.1	0.11	0.9	1.9	0.10	B
23	4	51	34.6	19-27.3	154-50.5	5.0	2.3	12	295	9.9	1.29	6.2	2.6	0.27	D
23	5	33	17.4	19-20.4	155- 8.5	8.5		15	205	3.7	0.31	2.1	1.0	0.27	C
23	14	33	50.5	19-23.5	155-16.9	15.1	2.3	17	56	0.2	0.08	0.8	1.0	0.13	B
23	16	8	38.7	19-22.1	154-43.5?	0.2	3.5	15	311	25.1	8.44	15.6	26.4	0.25	D
23	22	23	20.6	19-54.7	155-41.0?	8.0*	2.9	18	178	13.4	0.60	6.7		0.58	D
24	4	4	57.2	19-22.2	155-22.6	9.6	2.1	16	108	4.0	0.08	0.7	0.5	0.14	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
FEB 24	11	33	14.6	19-22.3	155- 4.5	3.6	2.0	15	206	14.6	0.19	1.2	0.9	0.14	C
25	16	28	27.1	19-19.4	155-15.6	10.3	1.9	14	193	3.5	0.06	0.6	0.3	0.07	B
26	0	23	20.1	19-20.4	155-16.0	33.1	3.0	19	177	2.5	0.22	1.2	1.9	0.12	C
26	3	33	54.5	19-25.0	155-14.6	31.2	2.4	18	77	4.2	0.15	0.8	1.4	0.09	A
26	7	41	33.9	19-12.5	155- 5.8	1.7		12	265	18.7	1.65	3.5	6.2	0.19	D
26	8	47	27.4	19-21.6	155-14.3	9.2	2.9	20	142	1.8	0.08	0.7	0.4	0.16	B
26	9	33	8.0	19-21.0	155-14.1	7.8		14	176	2.5	0.14	1.0	0.6	0.15	C
27	1	1	53.9	19-27.7	155-51.2	6.2	1.6	16	178	9.7	0.12	1.2	0.7	0.13	C
27	2	27	36.5	19-25.4	155-14.6	29.8		17	81	5.3	0.14	0.8	1.4	0.09	B
27	3	42	59.0	19-20.3	155-25.5	11.5	1.7	19	118	3.9	0.07	0.7	1.1	0.15	B
27	7	45	35.4	19-49.5	155-28.4	9.9		12	323	5.6	0.62	4.8	1.3	0.20	D
27	8	21	28.2	19-25.4	155-14.6	29.5	1.1	17	107	4.3	0.14	0.8	1.3	0.08	A
27	11	6	36.7	19-22.5	155-13.2	29.3	2.7	21	86	1.2	0.17	1.1	1.5	0.13	B
27	12	6	26.6	19-23.7	155-22.5?	11.0	1.9	16	66	4.9	0.07	0.6	1.1	0.14	B
27	12	14	8.4	19-24.0	155-23.0	10.5	1.4	9	166	5.9	0.10	0.8	0.6	0.07	B
27	17	33	23.4	19-20.6	155-15.9	12.1	1.0	11	184	2.4	0.11	0.9	0.8	0.09	B
27	21	14	46.8	19-21.6	155-10.2	7.5		10	220	0.5	0.23	1.3	0.9	0.12	C
27	21	17	34.7	19-19.2	155-13.7	9.2	1.0	15	199	5.4	0.12	0.9	0.5	0.13	C
27	23	58	9.3	19-25.8	155-14.5	29.2	1.6	16	84	5.4	0.16	0.9	1.6	0.09	A
28	1	26	33.0	19-22.2	155-16.2	25.0	1.5	13	94	0.7	0.24	1.2	2.1	0.08	B
28	2	40	21.3	19-17.9	155-14.1	7.1		11	240	7.5	0.29	1.5	0.9	0.14	C
28	3	48	29.3	19-18.7	155-13.7	10.4	1.8	15	201	6.3	0.10	0.7	0.3	0.11	C
28	4	38	1.4	19-19.6	155-11.4	11.1		11	216	4.7	0.13	1.1	0.3	0.10	C
28	5	6	54.3	19-14.1	155-22.1	8.4		13	193	13.8	0.15	1.1	0.6	0.13	C
28	6	15	14.1	19-19.2	155-13.0	14.8		9	228	5.1	0.06	0.6	0.4	0.03	C
28	6	21	1.3	19-21.4	155-12.6	8.1		13	174	1.2	0.16	0.9	0.7	0.14	C
28	14	41	45.3	19-20.9	155-13.2	7.5		10	186	2.2	0.15	1.1	0.7	0.11	C
28	17	33	36.2	19-18.4	155-16.8	9.9	1.8	15	198	3.4	0.16	1.3	0.7	0.16	C
28	21	33	53.0	19-19.1	155- 7.1	7.2	1.2	10	229	7.1	0.33	2.0	1.3	0.15	C
MAR 1	3	9	59.7	19-16.9	155- 3.8	8.2		11	248	14.1	0.41	2.3	1.0	0.15	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAR 1	4	39	38.8	19-19.4	155-16.1	9.4	0.9	14	194	2.6	0.10	0.8	0.4	0.11	C
1	11	54	17.2	19-18.7	155-14.7	26.9		15	174	5.4	0.20	1.5	1.9	0.16	C
1	19	53	16.9	19-25.5	154-48.7	1.0*	2.0	9	303	14.0	0.28	1.8		0.12	D
2	1	4	10.5	19-19.7	155-15.4	7.9	1.5	18	163	3.5	0.08	0.6	0.4	0.13	C
2	4	53	55.3	19-19.6	155-19.9	29.1		14	146	4.4	0.12	0.7	1.2	0.08	B
2	6	0	41.5	19-23.7	155-24.8	7.2	1.8	9	121	6.9	0.15	1.5	1.5	0.21	C
2	7	40	15.2	19-24.1	154-57.4?	8.0*		9	309	23.7	7.09	42.5		0.21	D
2	13	43	14.8	19-24.8	155-25.7	11.3		11	147	9.4	0.07	0.7	0.3	0.09	B
2	14	30	2.9	20- 4.9	155-39.6?	8.0*	4.0	26	163	113.2	9.49	66.0		5.05	D
2	15	13	22.0	19-18.1	155-13.8	8.4	1.9	19	205	7.4	0.21	1.3	0.7	0.20	C
2	19	6	45.6	19-17.4	155-14.2	10.0		10	232	7.5	0.26	1.7	0.7	0.12	C
2	19	30	11.4	19-21.0	155-16.2	30.4	3.3	20	145	2.1	0.17	1.0	1.6	0.13	B
3	2	22	42.3	19-21.1	155-16.2	28.0		11	145	2.0	0.17	1.1	1.8	0.11	B
3	8	20	1.8	19-22.8	155-23.0	9.0	2.5	16	70	4.7	0.07	0.6	0.5	0.12	B
3	8	42	40.0	19-19.6	155-13.8	10.0	2.4	16	197	4.8	0.13	1.0	0.5	0.14	C
3	12	50	20.6	19-21.2	155-12.2	8.3	2.6	17	158	1.8	0.12	0.9	0.5	0.16	C
3	13	41	12.8	19-24.9	154-50.9	7.3		11	307	11.6	1.12	6.4	1.6	0.09	D
3	16	12	25.3	19-19.7	155-10.9	7.8	1.9	15	237	4.2	0.20	1.3	0.6	0.16	C
3	16	30	4.6	19-54.3	155-22.2	38.1	2.9	19	203	16.7	0.30	1.5	3.3	0.11	C
3	16	45	14.4	19-55.0	155-22.3	38.9	2.8	17	206	17.7	0.35	1.7	3.6	0.13	C
3	16	51	28.0	19-10.7	155-32.8	8.6	2.5	17	144	10.8	0.09	0.8	0.6	0.13	B
3	18	38	10.9	19-27.2	154-52.2	5.0	2.0	6	295	3.7	0.69	3.9	1.9	0.10	D
3	19	30	53.1	19-25.1	154-51.7?	2.4	2.1	8	281	7.6	0.80	3.4	2.5	0.10	D
3	20	0	40.3	19-27.8	154-52.6	4.8	2.8	19	283	2.4	0.39	2.2	0.9	0.21	D
3	20	50	12.3	19-18.3	155-16.4	7.9	2.0	18	173	3.7	0.12	0.8	0.5	0.15	C
4	1	25	1.7	19-21.0	154-52.5?	8.0*		9	274	14.7	0.68	9.3		0.86	D
4	5	19	41.9	19-21.1	155- 3.2	7.2	2.5	21	191	101.3	0.24	1.7	0.9	0.26	C
4	10	21	20.9	19-26.5	154-52.4	5.5	2.0	9	276	4.7	0.59	3.8	1.1	0.19	D
4	13	23	53.7	19-19.9	155- 1.6	4.8	2.2	16	221	15.2	0.35	2.1	1.4	0.20	C
4	16	27	33.4	19-22.3	155-24.0	10.8	1.9	16	76	4.1	0.07	0.7	0.4	0.13	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAR 4	16	51	36.2	19-22.6	155-25.3	11.9		16	93	5.7	0.09	0.8	1.6	0.14	B
4	19	36	34.9	19-20.7	155- 7.1	6.7	2.1	18	201	5.6	0.22	1.4	0.8	0.21	C
4	21	0	34.1	19-27.4	154-53.5	4.5	2.3	14	249	2.8	0.31	2.3	1.2	0.19	D
5	3	7	0.2	19-21.2	155- 1.4	2.0		13	214	15.2	0.59	1.4	2.9	0.14	C
5	3	32	29.4	19-24.0	154-58.5?	0.3		7	224	10.5	0.37	2.0	2.2	0.12	C
5	4	17	6.5	19-30.1	154-52.1?	8.0*		7	319	3.2	0.42	4.3		0.25	D
5	12	57	32.8	19-20.5	155- 9.6	7.4		10	260	2.5	0.29	1.8	1.0	0.14	C
5	13	42	58.6	19-13.0	155-23.6	29.8		12	191	13.4	0.42	1.4	4.6	0.09	C
5	15	9	38.4	19-38.2	155-11.3	35.4	2.0	18	109	13.9	0.23	0.8	2.4	0.08	B
5	15	53	18.4	19-31.8	155- 2.7?	10.5*		12	319	13.6	1.27	6.5		0.16	D
5	18	22	16.0	19-20.3	154-57.0	1.7		10	247	16.4	0.94	2.6	3.4	0.14	D
5	19	9	3.5	19-12.0	155-29.3	31.5	1.9	16	166	14.7	0.30	1.2	3.2	0.10	C
6	2	3	28.3	19-18.8	155-10.9	7.1		13	261	5.8	0.35	1.9	0.8	0.18	C
6	2	24	59.0	19-19.9	155- 9.4	7.6		16	200	3.8	0.18	1.2	0.7	0.17	C
6	3	47	0.9	19-19.4	155-17.5	34.9		13	184	1.3	0.14	0.7	1.3	0.06	B
6	6	43	46.4	19-27.3	154-51.8	4.8	2.6	19	280	4.0	0.72	3.6	1.6	0.26	D
6	9	42	23.1	19-20.4	155-16.3	8.6		9	220	2.0	0.07	0.4	0.2	0.04	B
6	15	44	54.0	19-22.7	155-23.9	12.0		13	71	4.7	0.07	0.7	1.0	0.10	B
6	19	11	18.1	19- 4.0	155- 0.8?	8.0*		17	272	36.6	0.60	4.0		0.25	D
6	22	12	28.8	19-25.9	155-31.7	33.2		12	117	8.9	0.93	2.8	9.5	0.22	B
7	3	7	1.2	19-25.4	154-53.9?	0.9	3.1	20	235	107.7	1.09	4.1	3.4	0.39	D
7	3	48	44.7	20-30.0	155-24.7?	8.0*	2.7	18	309	129.7	5.93			6.62	D
7	4	26	30.9	19-20.9	155-13.5	8.2		15	183	2.4	0.16	0.9	0.7	0.15	C
7	8	28	58.3	19-26.5	154-52.8?	8.0*	2.0	11	268	4.6	1.41	9.1		0.44	D
7	10	19	51.6	19-25.5	155-24.3	13.0		8	123	7.4	0.10	0.6	1.3	0.05	B
7	12	1	20.8	19-27.5	154-52.2	6.0	2.3	8	291	3.3	0.35	2.3	0.6	0.10	C
7	12	48	24.4	19-21.1	155-28.1	13.9	2.2	10	223	8.6	0.28	1.4	3.1	0.09	C
8	3	49	7.1	19-22.3	155-29.0?	10.3	2.1	13	115	10.8	0.08	0.9	2.2	0.13	B
8	7	36	24.9	19-23.6	155-13.9	29.1		17	101	3.5	0.23	1.4	2.2	0.11	B
8	8	8	42.1	19-23.3	154-58.6	6.3		6	222	11.9	0.59	3.3	2.7	0.07	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAR 8	8	38	16.4	19-19.3	155- 7.5	10.9		14	219	6.3	0.22	1.7	0.5	0.13	C
8	13	0	26.9	19-23.6	155-24.1	8.2	2.2	21	52	6.5	0.10	0.9	0.8	0.25	B
8	15	5	31.0	19-11.1	155-36.9	10.7	2.1	8	141	6.9	0.17	1.9	1.2	0.16	B
8	17	5	7.2	19-23.7	155-25.2	11.5		16	79	7.2	0.05	0.5	1.1	0.11	B
8	17	15	48.1	19-20.6	155-12.8	8.1	2.4	21	166	2.5	0.14	1.0	0.6	0.21	C
9	0	59	45.6	19-22.5	155- 2.8?	10.4	2.0	9	215	12.7	0.22	1.7	0.8	0.14	C
9	16	12	36.3	19-26.4	155-22.0	9.7	2.2	14	109	3.2	0.07	0.8	0.6	0.12	B
9	20	50	12.7	19-20.5	155- 7.7	7.8	2.2	19	201	4.6	0.21	1.5	0.7	0.23	C
9	22	49	30.3	19-26.2	155-27.3	11.5	2.4	17	76	9.7	0.04	0.5	0.7	0.08	A
10	0	45	59.1	19-25.3	155-16.7	2.9	1.2	12	114	0.9	0.06	0.5	0.3	0.10	B
10	4	51	8.7	19-21.3	155-12.0	8.9	1.7	19	157	1.9	0.10	0.9	0.5	0.18	C
10	18	9	32.3	19-27.1	154-58.1?	8.0*		11	181	5.5	2.09	12.9		0.70	D
11	12	9	48.6	19-19.1	155-12.0	7.7		9	246	6.1	0.49	1.8	3.2	0.18	C
11	12	47	34.8	19-19.8	155-23.7	37.6		12	162	1.0	0.95	2.2	8.9	0.11	C
11	12	57	51.7	19-20.1	155-25.8?	9.5		10	154	4.5	0.26	2.3	1.4	0.26	D
11	14	41	38.2	19-48.2	155-22.9?	23.5	2.0	16	218	8.2	0.35	1.9	4.0	0.10	C
11	17	22	50.6	19-24.2	155-25.6	12.5		7	230	8.4	0.39	1.7	3.1	0.06	C
11	18	29	36.7	19-23.2	155-47.6	7.9		12	247	23.9	0.36	1.7	0.8	0.10	C
11	19	6	46.4	19-18.5	155-17.0	30.7		12	167	7.4	0.22	1.5	2.5	0.12	C
11	21	42	57.4	19-12.8	155-26.7?	8.0*		5	251	15.0	1.07	5.5		0.13	D
11	21	49	21.5	19-18.2	155-15.9	9.6	1.5	17	204	4.4	0.12	0.8	0.4	0.13	C
12	0	34	12.9	19-20.5	155-26.5	7.0		13	115	5.7	0.10	0.8	1.1	0.18	B
12	1	38	12.5	19-59.3	155-34.8	10.8	2.5	17	189	102.8	0.14	2.5	2.7	0.13	C
12	3	17	59.3	19-21.8	155-10.5	6.4		12	177	0.9	0.18	1.0	0.7	0.11	C
12	5	9	8.6	19-20.2	155-26.0	7.8		9	228	4.8	0.32	1.7	1.3	0.16	C
12	5	16	16.2	19-20.1	155-26.1	7.6		11	153	5.0	0.16	1.1	1.5	0.19	C
12	7	24	22.9	19-20.3	155-12.8	8.5	1.7	18	206	3.1	0.16	1.1	0.6	0.19	C
12	8	33	36.5	19-23.6	155-14.9	5.9		10	168	2.8	0.17	0.6	1.1	0.07	B
12	8	36	28.0	19-27.4	154-49.2?	8.0*	1.7	8	299	7.9	1.08	8.1		0.36	D
12	8	37	19.7	19-24.3	154-49.4?	8.0*	1.7	8	299	11.0	0.60	5.0		0.46	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAR	12	10	34	15.1	19-21.9	155-14.6	27.3	2.1	19	137	1.2	0.11	0.8	1.1	0.10	B
	12	16	44	55.1	19-26.9	154-49.6?	8.0*	2.6	16	297	7.6	0.31	2.8		0.28	D
	12	20	7	29.8	19-23.3	155-24.9	6.8	1.9	18	70	6.4	0.10	0.8	0.9	0.22	B
	12	21	25	12.8	19-20.7	155-10.0	8.3	2.5	20	173	2.0	0.19	1.4	0.8	0.27	C
	13	5	49	9.1	19-23.4	155-24.6	8.4	1.7	17	76	6.3	0.11	0.9	1.0	0.21	B
	13	17	53	42.5	19-16.8	155- 4.1	4.8	2.1	16	241	13.9	0.41	2.1	1.2	0.20	C
	13	19	11	18.7	19-26.6	155-25.1	6.7	1.8	13	124	6.7	0.30	1.2	3.9	0.19	C
	13	23	43	41.2	19-24.4	155-16.6	11.4		11	89	1.2	0.12	0.9	1.2	0.12	B
	13	23	44	12.7	19-17.9	155-22.7	18.4	2.5	8	299	14.5	1.86	11.1	7.2	0.13	D
	14	8	51	23.9	19-23.3	155-37.2	11.8	2.1	15	116	12.5	0.07	0.5	0.8	0.08	A
	14	11	15	9.0	19-25.8	156- 3.3	7.3	2.3	11	301	17.1	2.15	10.2	3.4	0.13	D
	14	18	38	25.6	19-14.1	155-28.1?	8.0*		9	302	14.1	1.94	12.5		1.20	D
	15	1	17	25.6	19-20.3	155- 8.7	8.3	1.5	16	261	3.6	0.38	2.2	0.8	0.20	C
	15	1	20	37.8	19-19.7	155- 8.9	9.8	1.3	14	264	4.3	0.34	2.0	0.6	0.18	C
	15	1	51	14.9	19-13.5	155-23.4	28.5		14	189	12.4	0.21	1.0	2.2	0.08	C
	15	3	14	31.6	19-15.3	155-24.7	25.5		5	213	9.4				0.03	D
	15	3	56	39.8	19- 0.5	155-18.2?	8.0*		9	289	36.2	1.35	8.8		0.30	D
	15	5	33	54.2	19-18.5	155- 1.6	9.4	2.1	19	238	16.0	0.62	3.7	1.4	0.28	D
	15	12	22	23.7	19-29.5	155-13.6?	8.0*		6	342	10.4	1.33	9.6		0.32	D
	15	13	21	8.2	19-30.7	155-16.6?	8.0*	2.0	8	329	10.0	1.24	8.1		0.41	D
	15	15	50	6.6	19-32.1	155-18.8?	8.0*	2.4	8	325	12.5	1.88	11.1		0.59	D
	15	16	40	47.6	19-29.3	155- 7.1?	8.0*	2.1	5	349	19.2	6.13	61.1		0.17	D
	15	19	16	34.9	19-22.6	155-45.3	8.8		10	261	20.2	0.49	2.4	0.9	0.07	C
	16	3	6	51.6	19-27.7	155-42.1	9.3	2.4	18	118	13.4	0.13	1.1	0.9	0.19	B
	16	4	18	45.3	19-24.1	155-25.5	7.6	1.9	19	72	8.1	0.11	0.9	1.0	0.25	B
	16	9	25	45.6	18-48.6	155-34.9?	8.0*	3.1	16	293	101.4	2.40	15.1		0.30	D
	16	19	59	34.2	20-28.4	156- 2.2?	9.4	2.6	26	164	159.3	0.70	6.5	22.7	0.75	D
	16	22	49	28.7	19-20.1	155-10.5	8.2	2.0	18	243	3.2	0.22	1.3	0.6	0.20	D
	17	6	59	53.3	19-23.6	155-17.6?	3.2	2.0	15	61	1.5	0.06	0.4	0.4	0.13	B
	17	7	27	57.2	19-23.5	155-17.2	1.9		6	140	0.7	0.04	0.1	0.2	0.01	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAR 17	10	37	5.1	19-24.3	155-27.2	11.8	1.9	17	82	10.2	0.05	0.5	0.9	0.11	B
17	11	23	35.9	19-25.4	155-15.0	11.4		8	255	3.7	1.65	3.2	8.0	0.09	D
17	12	15	53.6	19-20.8	155-15.8	12.0	1.1	8	169	2.1	0.34	1.6	2.4	0.09	C
17	15	45	45.2	19-23.7	155-17.2	1.9	0.9	7	121	1.0	0.06	0.1	0.4	0.02	B
17	19	21	17.0	19-22.5	155-24.2	10.4		14	129	4.5	0.10	0.9	0.6	0.15	B
17	19	50	44.0	19-21.5	155- 7.9	7.0	2.4	20	195	3.8	0.19	1.4	0.8	0.26	C
17	19	59	33.3	19-24.1	155-25.1	10.9		15	74	7.8	0.06	0.6	0.4	0.12	B
17	21	4	2.8	19-23.2	155-17.1	3.0	0.6	13	59	0.7	0.04	0.3	0.3	0.09	A
17	21	7	32.5	19-23.0	155-17.6	3.0	1.5	15	66	1.5	0.05	0.4	0.3	0.12	B
17	21	23	42.4	19-23.2	155-17.2	3.0		13	59	0.7	0.03	0.2	0.2	0.08	A
17	21	49	19.6	19-20.9	155-12.6	7.8		11	190	2.1	0.15	0.9	0.6	0.11	C
17	22	51	14.2	19-23.4	155-17.2	2.1		7	145	0.7	0.14	0.4	0.9	0.04	B
17	23	13	38.7	19-23.4	155-17.5	2.9	1.0	12	61	1.2	0.04	0.3	0.3	0.08	A
18	0	11	55.7	19-23.4	155-17.1	3.0	0.8	8	144	0.5	0.05	0.3	0.3	0.04	B
18	2	36	48.4	19-23.3	155-17.4	2.5	1.1	14	61	1.1	0.05	0.3	0.3	0.10	B
18	3	29	48.8	19-23.8	155-17.3	1.7	0.8	7	132	1.1	0.09	0.3	0.7	0.04	B
18	6	21	6.5	19-18.3	155-11.6	5.9	1.6	12	257	7.0	0.29	1.5	0.9	0.16	C
18	6	23	30.7	19-22.7	155- 3.4	7.2	4.1	18	182	11.7	0.15	1.3	0.6	0.18	C
18	6	37	26.6	19-20.6	155- 1.9	5.0	2.5	18	216	14.4	0.30	1.8	1.0	0.23	C
18	6	41	33.2	19-15.8	154-55.9?	0.1*	2.3	7	325	27.1	0.29	2.0		0.10	D
18	6	53	0.4	19-23.6	155-17.3	2.4	0.9	6	141	0.9	0.31	0.7	1.9	0.05	B
18	6	55	35.0	19-21.9	155- 4.4	9.2		13	293	9.7	0.61	3.0	0.9	0.15	D
18	6	57	49.5	19-23.3	155-17.0	2.9	1.4	11	91	0.4	0.04	0.3	0.2	0.06	A
18	7	48	55.7	19-17.3	155-16.4	8.1		14	210	5.5	0.25	1.6	1.0	0.20	C
18	9	3	50.3	19-23.3	155-17.2	1.8	0.5	5	153	0.8				0.02	D
18	11	5	35.5	19-23.6	155-17.1	7.4	2.3	13	102	0.6	0.13	0.9	0.9	0.16	B
18	12	34	27.8	19-23.7	155-17.4	1.4	0.8	8	102	1.1	0.17	0.5	1.4	0.08	A
18	12	53	4.6	19-23.5	155-17.0	1.8		7	137	0.4	0.11	0.3	0.7	0.03	B
18	13	47	23.4	19-23.4	155-17.4	2.8	1.3	11	78	1.0	0.04	0.4	0.3	0.07	A
18	15	12	22.9	19-23.4	155-17.3	2.8	1.0	10	74	0.9	0.08	0.5	1.0	0.08	A

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAR 18	16	43	2.8	19-22.6	155-17.9	4.0	1.3	10	137	2.4	0.16	0.7	1.8	0.14	B
18	18	38	59.5	19-41.5	155-57.3?	1.0	2.1	17	225	19.4	0.76	6.3	5.0	0.47	D
18	19	21	51.5	19-23.6	155-16.9	3.3		5	147	0.4				0.01	D
18	19	27	31.9	19-24.4	155-24.0	12.0	1.9	12	128	7.7	0.08	0.6	1.2	0.09	B
18	19	43	59.4	19-23.4	155-17.5	3.9	1.9	17	62	1.3	0.06	0.5	0.6	0.15	B
18	19	52	3.6	19-23.3	155-17.2	2.1		7	96	0.8	0.07	0.2	0.5	0.02	B
18	21	37	59.3	19-23.0	155-38.9?	10.5	1.9	12	130	14.2	0.22	1.7	2.4	0.27	C
19	0	37	46.9	19-23.5	155-17.1	2.5	1.3	11	106	0.6	0.03	0.2	0.2	0.05	A
19	1	11	59.6	19-56.8	155-34.1?	13.6	2.5	19	173	16.7	0.12	1.1	1.0	0.13	C
19	1	51	7.3	19-27.7	155-15.4	4.5	1.3	8	314	5.8	1.02	5.4	7.7	0.22	D
19	3	8	45.9	19-23.4	155-17.2	2.8		8	147	0.6	0.11	0.3	0.7	0.04	B
19	3	34	19.1	19-23.7	155-17.0	2.0	0.9	6	140	0.7	0.23	0.5	1.3	0.04	B
19	4	53	53.2	19-28.0	155-14.9	3.2*	1.4	6	317	6.8	9.85	35.5		0.17	D
19	5	8	48.2	19-23.4	155-17.5?	2.7		8	83	1.2	0.46	1.5	3.1	0.11	B
19	5	21	31.8	19-21.8	155- 3.0	7.7	2.0	12	227	12.3	0.26	1.7	0.8	0.13	C
19	6	17	30.7	19-23.5	155-17.1	2.2	0.1	7	141	0.6	0.06	0.2	0.4	0.02	B
19	8	46	20.0	19-20.5	155-16.8	30.4	3.0	20	149	1.3	0.14	1.0	1.4	0.13	B
19	10	8	51.4	19-15.4	155- 6.1	4.1	3.0	18	227	13.6	0.37	1.7	1.4	0.20	C
19	11	8	35.0	19-23.6	155-17.8?	3.7	1.5	11	72	1.8	0.07	0.5	0.6	0.11	B
19	18	31	51.2	19-23.4	155-17.1	2.4	1.0	12	91	0.5	0.04	0.3	0.3	0.08	A
20	0	10	57.3	19-21.4	155- 8.9	8.4	1.7	15	252	2.0	0.21	1.3	0.6	0.15	C
20	4	46	52.5	19-20.2	155-25.6	7.4	1.6	12	154	4.1	0.12	0.9	1.0	0.18	C
20	5	49	39.6	19-23.6	155-17.3	2.9	1.3	12	100	0.9	0.03	0.3	0.2	0.07	A
20	6	19	49.4	19-23.5	155-17.1	2.9	1.0	9	142	0.6	0.02	0.2	0.1	0.03	B
20	7	41	58.3	19-23.8	155-17.2	2.1	0.9	8	122	1.0	0.10	0.2	0.6	0.03	B
20	8	31	29.4	19-23.7	155-14.6	2.8		7	195	3.2	0.12	0.5	0.4	0.05	B
20	10	5	43.1	19-23.5	155-17.1	7.6	2.3	12	99	0.5	0.21	1.7	1.3	0.23	B
20	12	42	19.7	19-23.3	155-17.3	1.2	0.7	6	156	0.9	0.12	0.4	1.2	0.03	B
20	13	54	20.2	19-21.8	155-26.7	8.8	2.2	13	119	6.7	0.10	0.9	1.0	0.18	B
20	13	55	7.5	19-20.4	155-26.2	9.7	2.0	8	147	5.2	0.15	1.8	1.7	0.15	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAR 20	16	3	28.9	19-23.1	155-16.8	3.1	0.8	6	149	0.6	0.04	0.4	0.3	0.03	B
20	16	55	8.4	19-10.1	155-39.4	7.6		7	221	9.8	0.35	2.9	1.2	0.12	C
20	17	54	41.4	19-23.1	155-17.2	2.9	1.3	13	59	0.9	0.05	0.3	0.7	0.08	A
20	18	13	39.2	19-23.4	155-17.1	2.7	0.3	9	93	0.5	0.08	0.2	0.5	0.04	A
20	22	52	36.2	19-16.7	155-52.9?	1.3*	2.4	15	267	27.1	0.62	3.7		0.53	D
20	23	17	57.8	19-24.0	155-23.6	7.8	2.0	14	109	6.9	0.10	0.8	0.8	0.17	B
20	23	19	27.3	19-19.0	155-12.7	7.6		11	234	5.5	0.31	1.9	0.8	0.17	C
20	23	21	27.4	19-23.6	155-17.4	0.9	-0.3	7	141	1.1	0.11	0.3	1.1	0.04	B
21	0	11	51.5	19-23.4	155-17.1	2.6		6	142	0.5	0.27	0.6	1.5	0.05	B
21	1	4	26.8	19-19.3	155-10.7	8.1		9	260	4.7	0.43	1.7	2.8	0.16	C
21	1	11	10.1	19-23.8	155-14.8	4.2		6	254	3.2	0.12	0.4	0.5	0.01	C
21	1	33	53.5	19-23.0	155-14.7	3.0	1.3	10	102	2.3	0.13	1.0	0.7	0.19	B
21	1	49	4.0	19-17.5	155-16.0	8.5	1.6	17	228	5.3	0.21	1.2	0.6	0.16	C
21	1	51	1.9	19-23.3	155-17.3	1.7	0.1	7	152	0.9	0.10	0.3	0.8	0.03	B
21	2	21	54.8	19-23.8	155-17.3	2.7	1.3	10	87	1.2	0.05	0.3	0.3	0.08	A
21	2	22	36.0	19-23.7	155-17.4	2.1	0.8	9	100	1.3	0.11	0.6	0.8	0.10	B
21	3	57	24.6	19-23.7	155-17.1	2.0	0.7	9	107	0.8	0.09	0.2	0.6	0.05	A
21	4	45	10.3	19-23.2	155-17.4?	2.8	1.2	12	61	1.1	0.06	0.4	0.8	0.08	B
21	5	42	47.8	19-19.9	155-24.5	10.6	1.4	9	227	2.2	0.17	1.2	1.1	0.10	C
21	5	43	40.7	19-19.0	155-24.8	11.2		8	287	3.5	0.32	2.1	0.6	0.10	C
21	7	2	26.3	20-14.8	154-59.2?	4.6*		6	355	101.7	6.10	22.3		0.16	D
21	7	55	40.3	19-20.6	155-10.4	14.4		9	248	2.4	0.23	1.6	1.5	0.05	C
21	9	5	17.2	19-18.1	155-23.4?	8.0*		6	336	15.2	2.08	54.5		0.54	D
21	10	14	29.4	19-18.0	155- 6.6	6.4	2.1	14	215	9.2	0.25	1.5	0.9	0.16	C
21	12	36	3.9	19-23.0	155-17.6?	3.2	1.3	12	67	1.6	0.07	0.5	0.5	0.12	B
21	14	2	29.1	19-23.7	155-16.1	4.4	1.9	10	124	1.4	0.11	0.5	0.8	0.10	B
21	15	51	54.5	19-23.8	155-16.0	4.5	1.8	11	89	1.6	0.11	0.5	0.9	0.11	B
21	16	8	29.5	19-23.4	155-17.3	2.2	1.3	10	97	1.0	0.03	0.2	0.2	0.03	A
21	17	32	34.5	19-24.1	155-16.2	4.7		9	199	1.6	0.50	1.6	2.6	0.10	C
21	18	58	38.9	19-23.3	155-17.1	3.0	1.1	12	95	0.5	0.04	0.3	0.2	0.07	A

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAR 21	21	13	58.6	19-23.6	155-17.1	2.8	1.4	12	87	0.6	0.03	0.2	0.2	0.05	A
21	21	21	19.3	19-23.5	155-17.7	2.6	1.4	11	63	1.6	0.06	0.4	0.4	0.10	A
21	21	55	24.0	19- 2.9	155-19.7	44.2*	2.8	27	262	32.0	0.24	1.9		0.26	D
21	23	47	46.0	19-23.6	155-17.2	2.1		6	136	0.9	0.12	0.3	0.7	0.02	B
22	0	8	35.3	19-23.4	155-17.3	2.6		10	96	0.8	0.03	0.2	0.2	0.05	A
22	0	31	20.0	19-23.8	155-14.8	2.9		8	193	3.1	0.04	0.2	0.1	0.03	B
22	0	38	25.0	19-19.5	155-17.2	10.3		7	239	1.2	0.65	1.2	3.3	0.04	C
22	1	5	42.1	19-23.8	155-17.7	1.7		7	147	1.7	0.03	0.2	0.3	0.01	B
22	1	5	44.7	19-51.6	155-44.4?	6.7	2.1	13	165	19.5	0.99	5.3	28.7	0.46	D
22	1	11	25.9	19-23.5	155-17.2	2.6		6	140	0.7	0.21	0.4	1.2	0.04	B
22	1	15	56.0	19-23.4	155-15.2	3.1		10	91	2.3	0.07	0.5	0.4	0.12	B
22	1	19	9.1	19-23.1	155-15.3	6.5	1.7	16	66	1.6	0.06	0.5	0.4	0.10	B
22	1	33	32.8	19-23.8	155-17.4	2.8		11	102	1.4	0.06	0.4	0.4	0.10	A
22	2	2	0.3	19-23.3	155-17.2	3.6		8	113	0.7	0.11	0.7	0.9	0.09	A
22	2	5	49.4	19-23.8	155-17.5	5.8	2.4	16	59	1.5	0.08	0.6	0.6	0.15	B
22	3	34	25.5	19-21.6	155-13.5	11.8		9	293	3.1	1.62	7.9	6.8	0.17	D
22	4	2	27.5	19-23.1	155-14.3	5.4		6	273	2.9	0.23	0.7	1.0	0.02	C
22	4	48	4.1	19-21.9	155-20.5	29.4	2.6	21	117	3.7	0.19	1.1	1.8	0.13	B
22	4	53	1.9	19-23.9	155-14.8	2.9		8	200	3.4	0.07	0.4	0.2	0.04	B
22	5	3	37.8	19- 6.7	155-29.4	8.9		9	335	27.1	0.66	7.7	6.6	0.30	D
22	5	11	21.6	19-23.2	155-17.3	3.2		12	61	0.9	0.05	0.3	0.3	0.10	B
22	5	53	5.2	19-23.1	155-17.4	4.1	2.2	13	106	1.2	0.14	0.7	1.3	0.16	B
22	5	54	6.9	19-23.3	155-17.0	0.6		8	93	0.5	0.21	1.1	3.0	0.20	B
22	7	45	28.0	19-20.0	155-12.6	9.0	2.4	15	194	3.8	0.14	1.2	0.5	0.17	C
22	8	17	13.5	19-22.4	155-17.5	0.7		6	126	2.3	0.32	0.5	5.6	0.06	C
22	14	15	15.0	19-16.6	155-26.2	6.7	2.5	14	194	8.4	0.16	1.1	0.9	0.18	C
22	15	58	50.7	18-43.0	155-15.0	17.9*	3.0	16	320	119.3	0.47	3.8		0.20	D
22	17	19	18.8	19-22.8	155-15.4	6.0	2.1	14	77	1.2	0.08	0.6	0.6	0.12	B
22	17	33	44.2	19-23.9	155-16.4	0.0		11	77	1.1	0.08	0.4	1.6	0.13	B
22	18	3	43.3	19-24.5	155-17.1	0.1	1.0	12	115	0.7	0.11	0.5	4.4	0.12	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAR	22	19	14	20.2	19-23.2	155-17.4	3.9	2.1	15	62	1.1	0.08	0.4	0.8	0.12	B
	22	20	3	59.0	19-23.3	155-14.9	3.7	1.3	9	172	2.4	0.16	0.6	1.4	0.09	B
	22	20	24	55.5	19-23.6	155-14.6	2.8	1.3	9	191	3.2	0.08	0.4	1.1	0.06	B
	22	21	26	10.5	19-23.3	155-17.6	4.8	2.4	16	64	1.4	0.07	0.4	0.6	0.14	B
	22	23	40	20.7	19-23.7	155-17.4	0.4	0.8	7	136	1.1	0.09	0.3	2.2	0.04	B
	23	1	38	44.9	19-23.8	155-17.5	0.7	0.7	9	90	1.4	0.08	0.2	1.2	0.05	A
	23	5	20	36.3	19-23.9	155-17.0	2.1	1.2	9	115	0.9	0.10	0.3	0.6	0.05	A
	23	6	39	54.2	19-23.5	155-15.1	3.2	1.6	9	175	2.4	0.10	0.6	1.2	0.08	B
	23	7	27	25.3	19-14.4	155-32.0?	6.5*		5	225	9.0	1.43	11.6		0.25	D
	23	15	45	22.7	19-24.0	155-17.3	1.6	1.0	8	125	1.4	0.09	0.2	0.7	0.03	B
	23	22	0	41.3	19-21.7	155-25.3	10.7	2.3	16	111	4.5	0.08	0.6	0.4	0.12	B
	23	22	6	37.1	19-27.4	155-50.5	6.7	2.3	16	176	10.9	0.11	1.1	0.6	0.12	C
	23	22	54	4.2	19-21.7	155-25.9	9.1	2.9	18	115	5.3	0.09	0.7	0.5	0.14	B
	24	1	46	18.2	19-19.9	155-15.9	31.6		18	185	2.6	0.23	1.3	1.9	0.12	C
	24	8	4	51.1	19-20.4	155- 9.1	8.7	2.0	16	198	3.0	0.17	1.2	0.6	0.16	C
	24	15	16	44.9	19-23.4	155-17.4	4.7	2.3	16	61	1.0	0.11	0.6	1.0	0.16	B
	24	15	17	45.3	19-23.6	155-17.5	5.8	2.7	16	51	1.3	0.09	0.7	0.7	0.22	B
	24	20	6	54.9	19-22.1	155-24.3	5.5	2.2	15	85	4.0	0.08	0.7	0.9	0.16	B
	24	20	17	54.2	19-23.0	155-15.4	6.1	2.4	16	66	1.3	0.07	0.5	0.5	0.11	B
	24	22	19	8.9	19-23.4	155-17.2	2.3	1.5	13	93	0.7	0.04	0.3	0.3	0.08	A
	25	2	38	29.5	19-23.4	155-16.9	6.0	2.5	17	75	0.2	0.08	0.7	0.5	0.16	B
	25	10	37	56.1	19-10.8	155-35.0	10.7	2.4	15	252	8.5	0.38	2.7	0.9	0.14	D
	25	15	33	46.8	19-23.8	155-17.4	2.7	1.6	13	85	1.4	0.03	0.2	0.2	0.06	A
	25	15	34	11.5	19-23.7	155-17.4	2.5	1.6	13	85	1.3	0.03	0.2	0.2	0.07	A
	26	3	47	34.9	19-46.0	155-23.7?	22.6		14	221	6.3	0.43	2.1	4.1	0.08	C
	26	3	48	27.1	19-25.9	155-34.4	2.7*		7	145	20.7	0.13	1.0		0.15	C
	26	9	54	39.9	19-17.7	155-13.6	10.2	2.6	19	203	8.1	0.17	1.1	0.5	0.16	C
	26	11	10	5.7	19-23.3	155-24.8	13.1		13	78	6.3	0.05	0.5	1.1	0.08	A
	26	11	27	47.8	19-15.8	155-13.3	8.2		10	241	10.8	0.40	2.2	1.2	0.15	C
	26	11	31	51.7	19-18.4	155-13.6	11.4	2.7	14	200	6.8	0.11	0.9	0.8	0.10	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAR 26	13	40	22.3	19-20.3	154-58.6?	9.7		9	252	16.9	0.43	4.6	3.3	0.13	D
26	18	28	6.6	19-22.2	155-24.9?	11.7		13	167	4.7	0.14	1.2	0.6	0.15	C
26	20	11	9.2	19-23.5	155-17.1	2.7		7	138	0.5	0.07	0.2	0.4	0.02	B
26	20	18	10.7	19-22.9	155-22.8	0.0		10	112	4.9	0.22	1.0	3.4	0.23	B
26	21	17	46.0	19-22.5	155-19.8	0.2*		10	99	2.2	0.10	0.5		0.13	B
27	1	34	44.6	19-24.6	155-28.3?	11.0	2.1	17	89	11.9	0.13	0.7	0.8	0.13	B
27	3	12	23.8	19-17.5	155-13.9	7.9		13	246	7.8	0.32	1.6	0.9	0.14	C
27	6	6	51.0	19-22.0	155-24.0	9.3	1.9	11	193	3.4	0.17	1.1	0.9	0.13	C
27	6	56	44.5	19-20.7	155-12.1	7.6		16	201	2.7	0.20	1.2	0.7	0.19	C
27	9	57	6.7	19-21.8	155-28.7	11.5	1.4	11	134	9.9	0.09	1.4	3.0	0.11	B
27	13	27	16.2	20-15.3	155-31.6	8.0*	3.1	19	195	132.5	0.28	2.9		0.26	D
27	18	22	16.4	19-21.9	155-24.3	8.3		8	214	3.6	0.78	1.9	4.7	0.11	C
27	20	38	40.5	19-18.3	155-13.7	9.5	2.2	18	225	7.1	0.23	1.4	0.6	0.18	C
27	21	14	39.4	19-21.1	155-25.0	10.9	2.0	16	125	3.4	0.11	1.0	1.8	0.18	B
27	23	15	28.3	19-20.3	155-19.7	5.7	1.5	12	173	4.1	0.26	0.7	2.0	0.11	C
28	1	56	37.8	19-23.0	155-28.1	9.9	2.3	20	81	9.9	0.07	0.6	0.5	0.17	B
28	6	52	26.4	19-19.6	155-19.7	9.2	1.6	14	202	4.1	0.09	0.5	0.5	0.08	B
28	13	2	16.1	19-19.2	155-15.8	8.0	1.7	17	212	3.2	0.14	0.9	0.4	0.15	C
28	15	22	38.8	19-24.7	155-24.3	11.0		13	127	8.2	0.06	0.5	0.4	0.08	B
28	21	22	51.9	19- 8.7	155-32.1	6.6		9	169	12.3	0.11	1.1	0.9	0.10	C
28	21	23	59.2	19-22.1	155- 7.3	9.4	1.5	19	283	4.8	0.33	1.9	0.8	0.29	D
29	9	46	27.6	19-20.0	155- 9.2	8.9	2.0	19	200	3.6	0.18	1.3	0.7	0.21	C
29	15	4	5.6	19-24.3	155-17.4	13.5		17	54	0.7	0.05	0.6	0.5	0.10	A
29	16	4	49.1	19-20.1	155-17.8	7.8	1.7	17	165	0.7	0.08	0.6	0.5	0.12	C
29	17	18	15.4	19-18.5	155-15.9	8.3	1.9	17	200	3.9	0.14	0.9	0.6	0.15	C
29	22	2	51.9	19-20.2	155-13.4	8.3	1.5	18	193	3.5	0.13	0.9	0.5	0.16	C
29	22	59	14.1	18-58.2	155-30.3?	1.1		6	314	33.1	3.96	28.5	42.0	0.14	D
30	2	35	26.7	19-31.7	155-15.4	27.8	4.3	23	77	10.9	0.12	0.7	1.6	0.12	B
30	3	12	12.2	19-19.5	155-25.8	6.9	2.0	12	174	4.6	0.16	1.1	1.3	0.18	C
31	10	11	52.6	19-23.7	155-15.3	3.3	1.8	10	163	2.6	0.06	0.4	1.0	0.07	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAR 31	21	0	17.3	19-18.2	155- 8.3	7.3	2.4	18	216	7.4	0.30	1.7	0.9	0.22	C
31	22	30	2.3	19-19.0	155- 3.2	6.8	3.8	17	220	13.0	0.33	2.0	1.1	0.22	C
31	22	35	58.9	19-22.3	155- 7.1	6.7	2.0	16	250	5.1	0.36	2.1	1.2	0.21	D
31	23	0	15.8	19-21.8	155- 8.8	8.0	1.6	14	264	2.0	0.20	1.2	0.5	0.12	C
31	23	19	34.5	19-15.8	155- 2.3	3.6	2.2	17	261	17.5	0.71	3.4	1.8	0.22	D
31	23	53	13.5	19-20.3	155-13.1	9.2	2.3	18	194	3.3	0.13	1.0	0.5	0.19	C

Table 3.--Felt earthquakes

Date	Time H	Time M	Time S	Magnitude	Felt report
Jan 2	12	20	32.6	3.3	Kealakekua
3	15	06	27.8	2.9	Hilo
27	09	09	09.1	3.8	Hilo, Mt. View
Feb 4	06	08	25.2	3.1	Kapapala Ranch
5	00	20	53.3	3.5	Kapapala Ranch
17	20	42	35.2	3.4	Kapapala Ranch
Mar 2	14	30	02.9	4.0	Pahoa, Hilo, Laupahoehoe, Kapapala Ranch
18	06	23	30.7	4.1	Paauilo, Hilo
19	08	46	20.0	3.0	Paauilo
30	02	35	26.7	4.3	Hilo, Paauilo Kapapala Ranch, Kamuela, Mt. View, Volcano
31	22	30	02.3	3.8	Kapapala Ranch

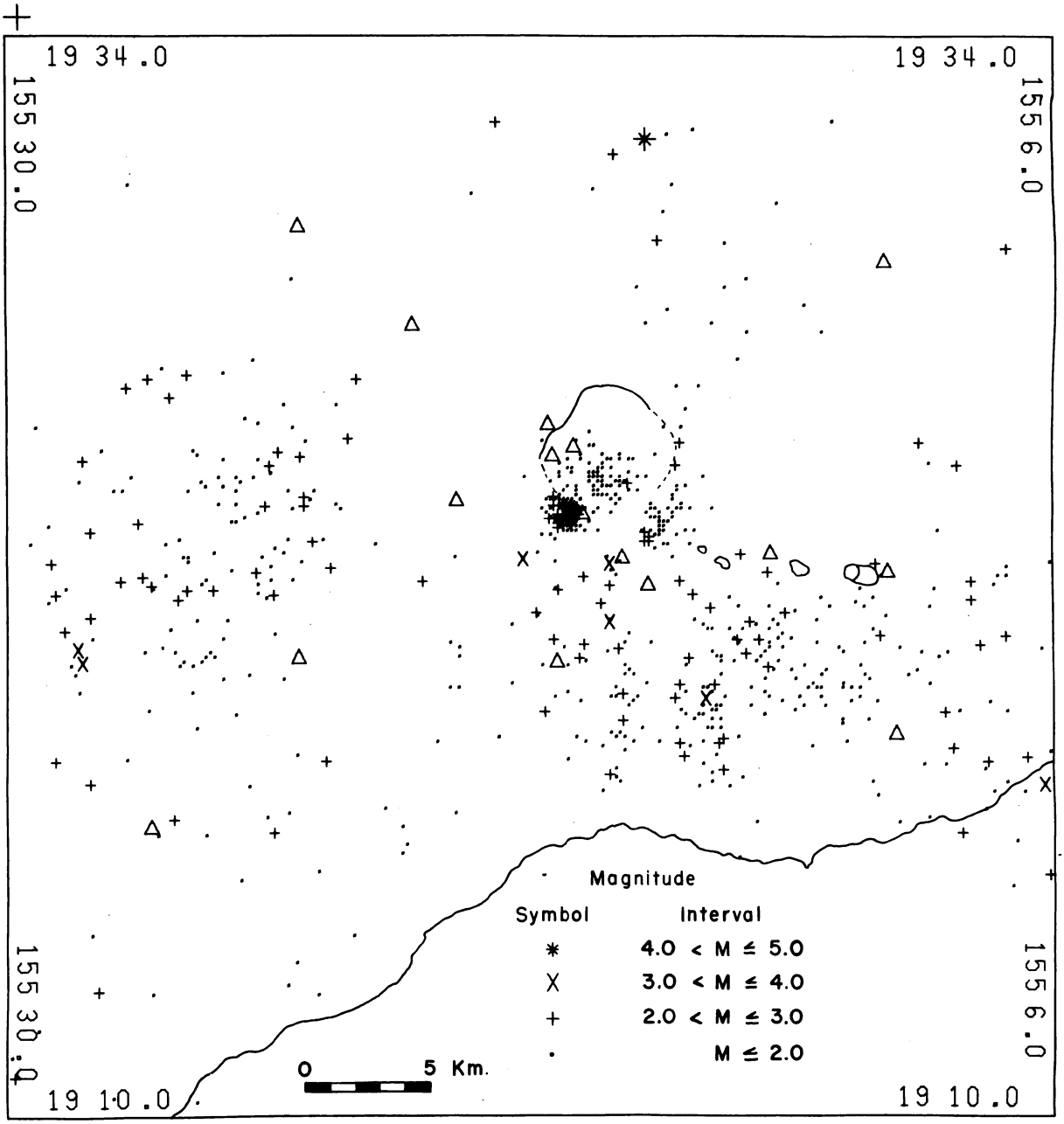

Figure 2.--Plot of epicenters in the Kilauea region. Triangles are seismometer locations. Kilauea Caldera and the major pit craters on the east rift are shown in outline. The Pacific Ocean lies in the lower right portion of the illustration.

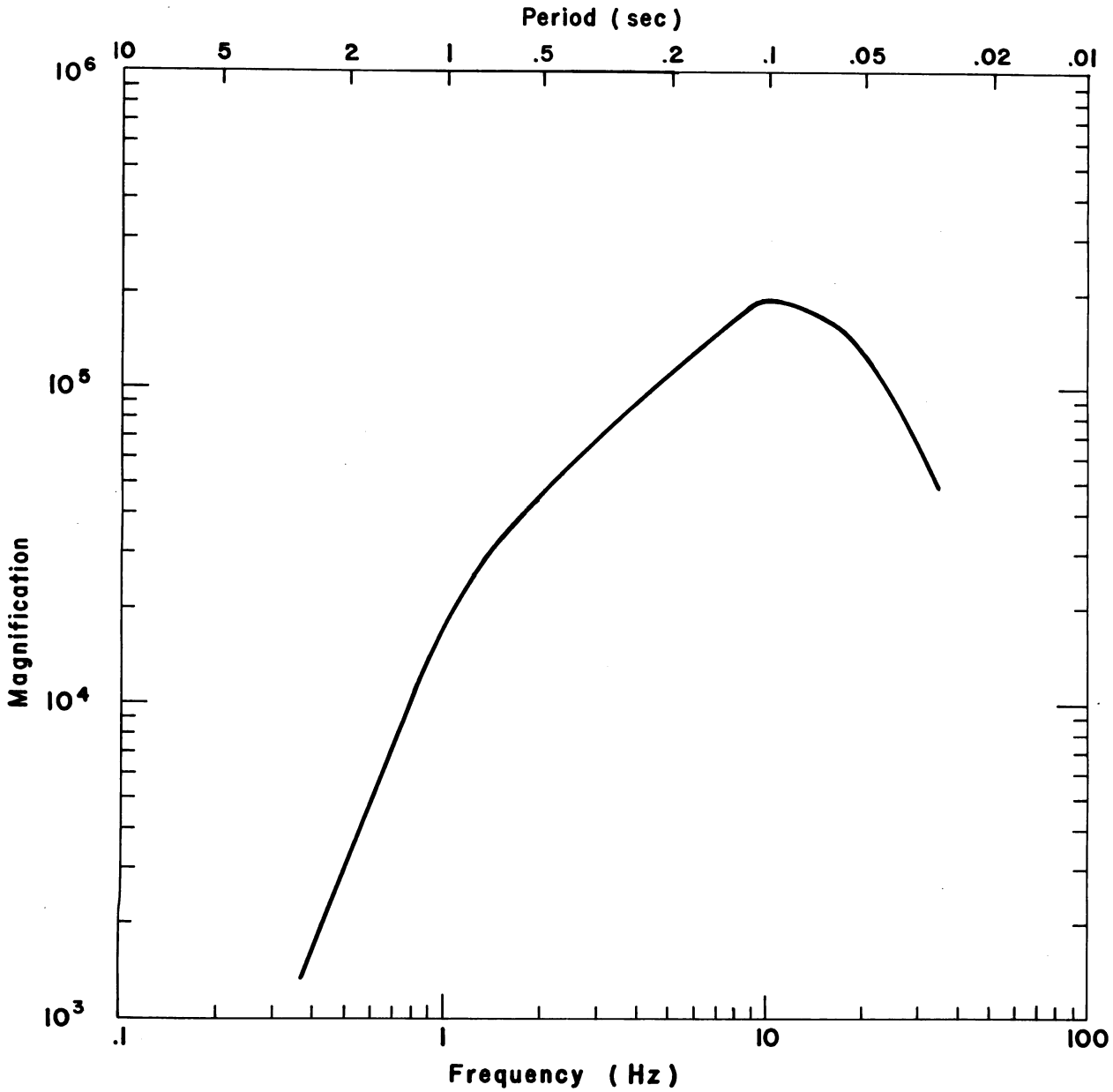

Figure 3.--Response curve for System II, EV-17, Teledyne seismic preamplifier.

Table 4.--U.S. Geological Survey seismograph stations in Hawaii
[on island of Hawaii unless otherwise stated]

Station	Symbol	Location	Instrumentation	Recording	Timing
Uwekahuna	UWE	19° 25.4'N, 155° 17.6'W	a) 15-90 Press Ewing system b) HVO-1 vertical system c) Sprengnether short period vertical and horizontal (E-W)	Local drum recorded " "	HVO master chron. (RM-USGS) " "
Mauna Loa	MLO	19° 29.8'N, 155° 23.3'W	EV-17/system I	HVO Develocorder	"
Mauna Loa X	MLX	19° 27.6'N, 155° 20.7'W	EV-17/system I	"	"
Ahua	AHU	19° 22.4'N, 155° 15.9'W	HVO-2/system I	"	"
Desert	DES	19° 20.2'N, 155° 23.3'W	EV-17/system I	"	"
North Pit	NPT	19° 24.9'N 155° 17.0'W	EV-17/system I	"	"
West Pit[1/]	WPT	19° 24.7'N, 155° 17.5'W	HS-10/system I	"	"
Kipuka Nene	KPN	19° 20.1'N, 155° 17.4'W	EV-17 system I	"	"
Outlet	OTL	19° 23.4'N, 155° 16.8'W	EV-17/system I	"	"
Cone Peak	CPK	19° 23.7'N, 155° 19.7'W	EV-17/system I	"	"
Makaopuhi	MPR	19° 22.1'N, 155° 9.8'W	EV-17 system II	"	"
East Koae	EKO	19° 21.8'N, 155° 15.3'W	EV-17/system I	"	"
Aloi[2/]	ALO	19° 22.0'N, 155° 12.8'W	EV-17/system I	"	"
Glenwood[3/]	GLN	19° 29.0'N, 155° 9.9'W	EV-17/system II	"	"
Puu Huluhulu	PHH	19° 22.5'N, 155° 12.5'W	EV-17/system II	"	"
Kahuku	KHU	19° 14.9'N, 155° 37.1'W	EV-17/system II	"	"
Hale Pohaku	HPU	19° 46.6'N, 155° 27.3'W	EV-17/system II	"	"
Pohoa[4/]	PAX	19° 29.1'N, 154° 55.8'W	EV-17/system II	"	"
Puu Honuaula	PHO	19° 28.9'N, 154° 53.4"W	EV-17/system II	"	"
Waiohinu	WAO	19° 3.6'N, 155° 36.6'W	EV-17/system II	"	"
Hilo	HIL	19° 43.2'N, 155° 5.3'W	a) HVO-1 vertical system b) Wood-Anderson NS and EW	Local drum recorder	RM-USGS
Kamuela	KAM	20° 2.1'N, 155° 42.2'W	EV-17/2.0 cps galv	"	TS-100
Kealakekua	KLK	19° 31.2'N 155° 55.3'W	EV-17/3.5 cps galv (vertical) EV-17H/3.5 cps galv (NS and EW)	" "	 RM-USGS
North Bay	NBY	19° 29.7'N, 155° 34.8'W	HS-10/Geotech PTA	"	RM-USGS
Maui (Hakeakala)	HAL	20° 46.0'N, 156° 15.0'W	HVO-1 vertical system Wood-Anderson NS and EW	"	TS-100
Oahu (EWA Beach)	KIP	21° 19.0'N, 158° 1.0'W	HVO-1 vertical system	"	Local chronometer

[1/] HS-10 replaced by Benioff 4681A (vertical, 1.0 second period).

[2/] Aloi discontinued on April 15, 1970.

[3/] Glenwood temporarily discontinued April 30, 1970.

[4/] Pahoa discontinued April 15, 1970. Replaced by Puu Honuala (PHO).

Table 5.--Seismic instrumentation

1. Seismometers

EV-17	Electrotech EV-17 1.0 sec. period moving magnet vertical component seismometer
EV-17 H	Same as above, but horizontal component
HS-10	Hall-Sears 0.5 sec. period moving coil seismometer
HVO-2	0.8 sec. period moving coil seismometer

2. Seismographs

HVO-1	Vertical-component electromagnetic seismograph with a peak magnification of about 20,000 at 0.25 sec. period.
15-90	Press-Ewing System: 3-component long period Press-Ewing seismograph system with pendulum and galvanometer periods of 15 and 90 seconds, respectively.
EV-17/3.5	cps galv, EV-17 H/3.5 cps galv, etc.: Short period electromagnetic seismographs composed of the seismometers and galvanometers indicated. Response similar to HVO-1. Poorly calibrated.

3. Amplifier and signal transmission systems

System I: HVO-built solid state seismic preamplifier (voltage gain, 200x), direct signal transmission over "hard" wire to HVO, HVO-built solid state amplifier and galvanometer driver.

System II: Develco or Teledyne seismic preamplifier--voltage controlled oscillator, signal transmission on audio FM carrier over "hard" wire or FM radio link to HVO, discriminator.

Geotech PTA: Short period Geotech photo-tube amplifier.

4. Timing systems

RM-USGS: Crystal-controlled chronometer employing solid-state binary dividers to produce minute and

hour marks. Typical drift rates are a few milliseconds per day.

TS-100: Sprengnether crystal controlled chronometer. Output and performance characteristics are similar to those of RM-USGS.

5. Telemetered system response

The peak magnification of the standard telemetered systems (System II, with the film strip magnified 20 times for viewing) is about 2×10^5 at a period of 0.1 second. For periods between 0.1 and about 1.0 second, the response falls off 6 db/octave. (fig. 3)

TILTING OF THE GROUND AROUND KILAUEA CALDERA

Tilting of the ground around the summit of Kilauea is monitored daily by a short-base water-tube tiltmeter in Uwekahuna Vault, and at irregular intervals it is measured on a regional scale by means of a network of field tilt-bases and a portable water-tube tiltmeter. The attitude of the ground surface at each tilt-base is reported in terms of north-south and east-west tilt coordinates. Both coordinates at each station were arbitrarily set equal to 500 when measurements at that station were begun. Increasing tllt coordinates correspond to northward and eastward tilting of the earth's surface; that is, to a relative subsidence toward the north and east. A one-unit change in coordinate corresponds to a tilting of 1 microradian (1 mm per km) in the direction indicated.

Location of and essential data on each tiltmeter station are listed in table 8, which is published only in the first quarter issue each year.

Table 6.--Tilt Coordinates at Uwekahuna, January, February, and March, 1970

Date (1970)	N-S	E-W	Date (1970)	N-S	E-W
Jan. 4	544	402	Mar. 1	552	384
11	546	395	8	552	385
18	548	392	15	553	386
25	547	391	22	557	381
Feb. 1	548	391	29	559	379
8	550	383			
15	551	386			
22	551	386			

Table 7.--Tilt coordinates and changes at bases around Kilauea caldera. (See fig. 4)

Tilt base	Date (1970)	Tilt N-S	Coordinates E-W	Rate (10^{-6} rad/mo) and direction of tilting since last reading		Date of last reading (1969)
Uwekahuna (U on fig. 4)	27 Feb	606.0	357.2	7.55	N46.7°W	3 Dec
Tree Molds (TM)	9 Feb	485.6	495.8	3.79	N21.6°W	30 Oct
Sand Spit (SS)			Not read this epoch			
Keamoku (Kea).	11 Feb	530.1	375.1	3.81	N79.7°W	27 Oct
Ahua Kamokukolau (Kam).			Not read this epoch			
Kipuka Nene (KN)	13 Feb	295.5	1/ 507.5	0.95	S17.6°W	28 Oct
Hilina Pali (HP)			Not read this epoch			
Kapapala Ranch (Kap).	11 Feb	487.7	519.3	1.72	S63.8°E	27 Oct
Mehana (M)	9 Feb	579.2	587.0	2.36	N45.4°E	30 Oct

1/ The hundreds digit of the E-W tilt coordinate of Kipuka Nene is 5 instead of 3 as reported in the last 10 summaries.

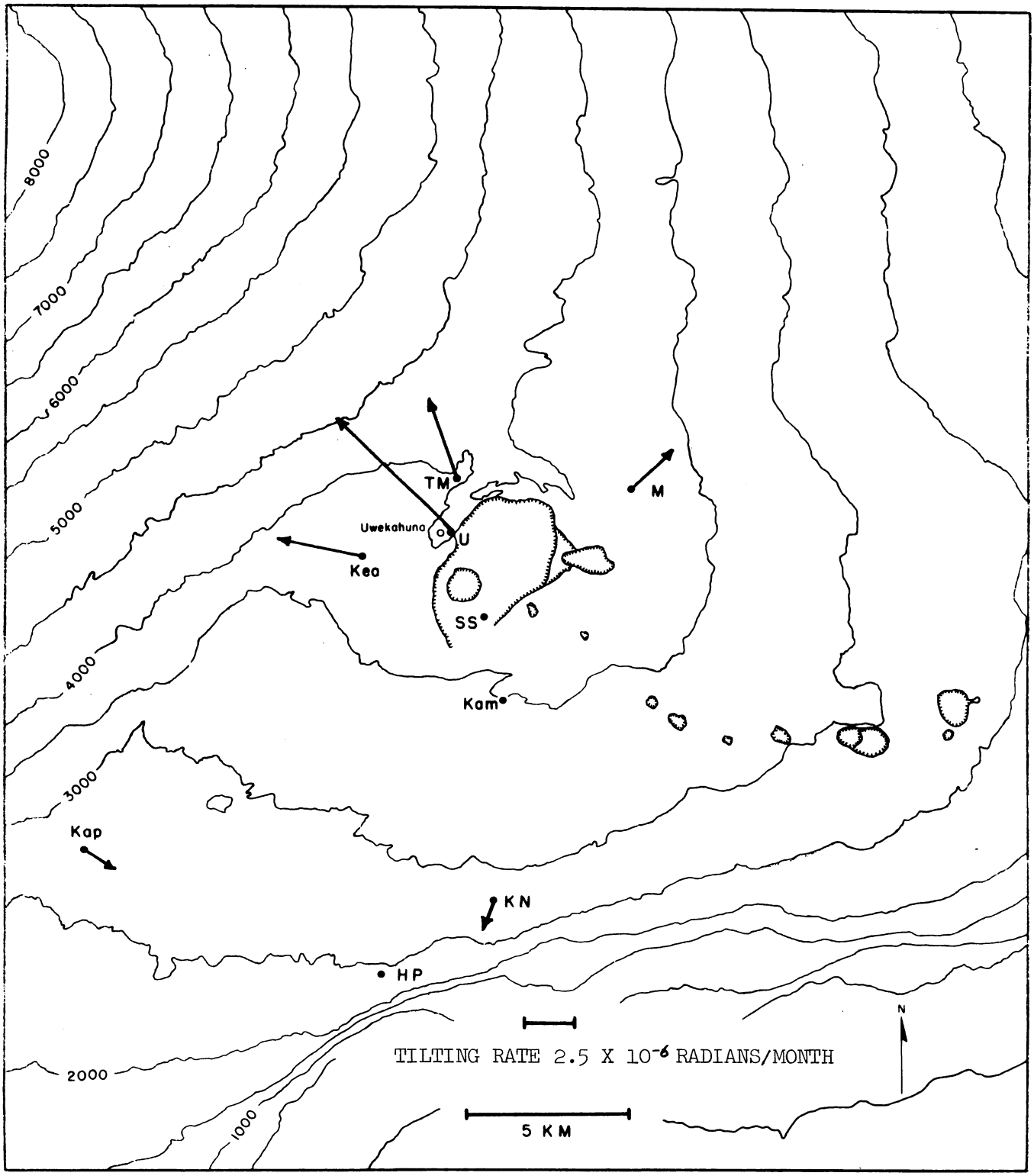

Figure 4.--Tilting of the ground around Kilauea Caldera between Oct. 27, 1969, and Feb. 9, 1970. The vector depicting tilting at a given tilt base points in the direction of maximum relative subsidence, and its length is proportional to the rate of tilting during the measurement interval. Closed circles represent field tilt bases; open circles, short-base water-tube tiltmeters. See table 7 for explanation of abbreviations.

Table 8.--U.S. Geological Survey water-tube tiltmeter stations in Hawaii

Station	Symbol	Location		Frequency of reading	Base length M	Description
		Lat. N.	Long. W.			
Tree Molds	TM	19° 26.3'	155° 17.3'	Quarterly	50.79	NS. and EW.
Sand Spit	SS	19° 24.1'	155° 16.8'	---do---	25.40	Equilateral triangle.
Keamoku	Kea	19° 25.1'	155° 19.0'	---do---	47.55	Do.
Ahua Kamokukolau	Kam	19° 22.7'	155° 16.6'	---do---	50.79	Do.
Kipuka Nene	KN	19° 19.4'	155° 16.7'	---do---	50.79	Do.
Hilina Pali	HP	19° 18.2'	155° 18.6'	---do---	47.73	Do.
Kapapala Ranch	Kap	19° 20.5'	155° 23.8'	---do---	50.79	Do.
Mehana	M	19° 26.2'	155° 14.3'	---do---	25.00	Do.
Uwekahuna	U	19° 25.5'	155° 17.4'	---do---	50.79	Do.
Uwekahuna Vault		19° 25.4'	155° 17.6'	Daily	3.48	NS. and EW.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HAWAIIAN VOLCANO OBSERVATORY

SUMMARY 58

April, May, and June 1970

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CONTENTS

Illustrations

Tables

INTRODUCTION

During the last few years the Hawaiian Volcano Observatory's seismic network has undergone important changes. The telemetered network around the summit of Kilauea has been reinforced and extended, and more stations (mostly telemetered by radio) have been added to the broader Island of Hawaii network (fig. 1). All the telemetered stations are recorded side by side, along with the Uwekahuna chronometer and the WWVH radio trace, on a single 16 mm film strip on a Develocorder at the Observatory. Outstation timing has also been improved substantially by the use of crystal chronometers instead of the old mechanical ones. As a result of these improvements, the volume of usable recorded seismic data has increased tremendously, both in the number of stations available for each earthquake and in the number of earthquakes that are sufficiently well recorded to be located.

Detailed studies of microearthquakes in California and Nevada by the Geological Survey's National Center for Earthquake Research (NCER) have generated similar voluminous sets of seismic data. Efficient computer-oriented procedures for data reduction and computer programs for data analysis have been developed and used extensively at NCER. The HVO seismic data are now being analyzed by a joint HVO-NCER team, and the methods and computer programs used are virtually identical with those employed with other networks at NCER.

Seismogram readings are punched on computer cards to provide an input deck for use in the location program HYPOLAYR (Eaton, 1969), which generates an output deck summarizing the solution of each event. The output deck is a convenient source of material for further analyses of the earthquakes, and the input deck is saved for possible reanalysis when better velocity-depth models of the crust are worked out. The velocity-depth model currently used in the determination of hypocenters (as tabulated below) is based on very limited data and represents a broad average of crustal structure along the Hawaiian Ridge. It is anticipated that further refinements in the model will not lead to large changes in hypocenters calculated for events within the network, but hypocenter solutions for some "poorly controlled" events outside the network may be changed substantially.

Velocity model used for locating earthquakes in Hawaii
(Eaton, 1962)

Depth to top of layer (km)	Layer velocity (km/sec)
0.00	3.90
3.10	5.00
11.20	6.80
14.80	8.25

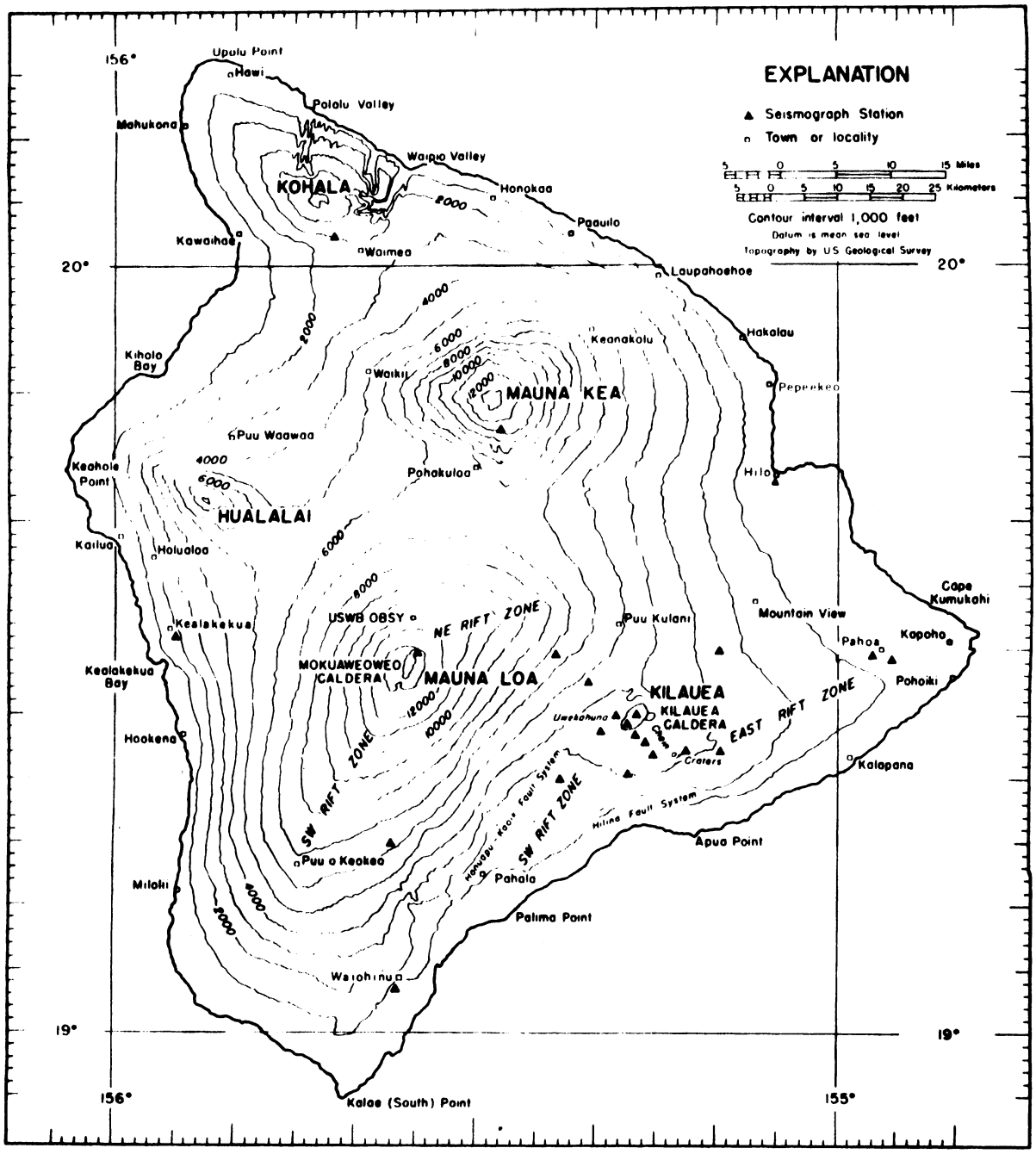

Figure 1.--Map of the Island of Hawaii showing seismograph stations operated by the U. S. Geological Survey, principal settlements, and selected geologic features. Epicenters of local earthquakes are given in table 2 in terms of geographic coordinates, which are indicated at the edges of the map.

To permit more adequate reporting of results on individual earthquakes and to bring the HVO earthquake reports into conformity with those produced at NCER, some revisions in the format of the HVO summary are required. Beginning with the first quarter 1970 the following changes were introduced:

a) The list of local earthquakes includes all events for which satisfactory hypocenters can be determined. This list includes statistics on the hypocenter determination as well as a summary hypocenter quality rating.

b) A map of epicenters on and near Kilauea Volcano during the quarter is included.

c) The station list is augmented to describe the timing system, the type of preamplifier (for telemetered stations), and the mode of recording.

d) The velocity-depth model of the crust used in the hypocenter determinations is described.

SUMMARY OF PRINCIPAL EVENTS

Eruptive and intrusive activity

The long-lived upper east rift eruption that began in May of 1969 continued through this period. The shield that grew around the central vent of this eruption was informally named Mauna Ulu ("Growing Mountain" in Hawaiian) early in 1970; this name was soon adopted formally.

The first two years of the Mauna Ulu eruption were described by Swanson and others (1971). The period covered by the present summary was principally a time of rapid growth of the Mauna Ulu shield. Growth was sustained by repeated brief periods of overflow with or without accompanying fountains up to 20 or 30 m, adding scores of thin layers of pahoehoe around the central vent. Ground deformation over the summit reservoir was virtually negligible during this type of activity, suggesting a state of dynamic equilibrium. Two distinct events, however, punctuated this period of remarkable shield building; one began in early April and the other in mid-May.

At 0830 April 9 a new radial fissure was discovered on the southwest flank of Mauna Ulu. In a period of several hours, the fissure grew about 1.5 km to the southwest, crossing the floor of Aloi Crater en route. When the fissure was discovered, lava was gushing from where it cut the floor and east wall of Aloi, and small flows that had quietly oozed from the fissure immediately southwest of the crater had already puddled and were cooling. By 1000 the crater was filled and overflowing to the south.

Although no one saw the onset of activity, examination of seismic and tilt records suggests initial fissure formation at about 2200 April 8, followed by the outbreak of lava at about 0600 April 9. The rate of summit deflation and the frequency of earthquake activity near Aloi increased slightly between 2100 and 2200, April 8. The frequency of local Aloi quakes increased to 160/hr between 0400 and 0500, April 9, and there was some local tremor. The rate of summit deflation and the amplitude of tremor both increased sharply at about 0600.

The new fissure erupted sporadically until about April 21, feeding new flows that extended as much as 5.5 km to the south, and creating a levee-contained lava lake in Aloi. This lake was perched above the pre-April level of the crater rim at the height of activity, but subsided just below the rim when activity ceased. The central Mauna Ulu vent appeared to behave independently. Summit overflows added to the height of the shield several times immediately preceding and during the Aloi filling.

On May 15 and 16 seismicity increased greatly from the area of Devil's Throat on the upper east rift to the summit caldera (see following section) and two episodes of minor summit collapse took place. Collapse amounted to 4 and 7 microradians, respectively, at Uwekahuna and was recovered entirely by May 27. Small open cracks formed across the Chain of Craters Road near Lua Manu. Analysis of subsequent tilt, level, and geodimeter surveys suggested that these events resulted from the shallow intrusion of magma into the southeast caldera-upper east rift area.

In general, behavior of the active lava in the central vent at Mauna Ulu appeared to be unaffected by the May 15-16 events. May 21 marked the beginning of a new series of overflows there that lasted until late June. By the end of June all vestiges of Aloi Crater were buried and the top of the Mauna Ulu shield stood about 100 m above surrounding terrain.

Seismic activity around the summit of Kilauea

The swarm of shallow earthquakes that began on the morning of May 15 was centered in the Kokoolau Crater-Devil's Throat area of the upper east rift. The activity started about 0435, at the rate of 1 to 3 quakes per minute. The frequency rapidly increased, and for several hours during the peak of activity the records were so obscured that earthquake arrival times were impossible to read. Several of the quakes were felt locally.

By May 16, the initial seismicity near Kokoolau and Devil's Throat had diminished, but high activity spread northwest toward the southeastern rim of Kilauea Caldera. At about 0100, May 16, many quakes were centered near the southern part of the caldera, and at 0200-0400 seismicity was climaxed by a flurry of small quakes near Halemaumau. Shallow tremor accompanied the May 15-16 events and together with minor summit deflation suggest movement of magma. This earthquake swarm was studied in some detail by Endo (1971).

Lower east rift earthquakes

Following a month of quiescence, lower east rift quakes picked up in mid-April. Activity peaked on April 26, when nearly a thousand small shocks recorded on the local Puna station (PHO). Activity leveled after a few days, and shocks continued to occur in moderate numbers. The continued activity prompted the installation of two temporary stations near the permanent station, Puu Honuaula, making a small tripartite array with stations located about 1 to 1-1/2 km apart. Signals were wired from the seismometer sites to the base of Puu Honuaula, and transmitted over FM radio to the Observatory. Recording was made on Develocorder 16 mm film. The data showed that activity was centered near the 1955 vents (see HVO Summary 57).

SEISMIC SUMMARY

Events recorded by the U. S. Geological Survey seismograph network in Hawaii fall into two categories:

1) Local earthquakes and tremor originating in the region of the Hawaiian Islands (usually within 100 km of at least one seismograph),

2) Distant earthquakes originating more than 3,000 km from Hawaii.

As an index of seismic activity at Hawaiian volcanoes, daily counts of earthquakes and minutes of tremor recorded by seismographs in Hawaii are listed in table 1. The earthquakes are separated in groups on the basis of region of origin as determined by the analysis of records obtained daily at the observatory (UWE, MLO, MLX, AHU, DES, NPT, WPT, MPR, OTL).

Computer locations of well-recorded events are listed in table 2. The location of each seismograph station is listed in table 4, along with a description of the equipment at each station.

Table 1.--Number of earthquakes and minutes of tremor recorded on seismographs around Kilauea Caldera

Tremor is separated into three categories: deep, intermediate, and shallow on the basis of relative amplitude on seismographs in the summit region. Unless otherwise stated, tremor is presumed to be associated with movement of magma within the central complex of Kilauea Volcano.

Earthquake categories are: Kilauea summit: 30 km, earthquakes from a source about 30 km beneath the Kilauea summit region; long period, earthquakes characterized by low-frequency waves that originate about 5 km or deeper beneath Kilauea summit; and shallow earthquakes in the Kilauea Caldera region. Shallow earthquakes along the SW rift zone of Kilauea and the adjacent portions of the Kaoiki fault system. Earthquakes from the upper east rift zone and the adjacent fault systems of Kilauea's south flank. Shallow earthquakes along the northeast-trending Koae fault system south of Kilauea Caldera. Earthquakes from other regions: west Hawaii, Mauna Kea, etc.

Date (1970)	Tremor (m = minutes)			Number of Earthquakes								
				Kilauea Summit			SW Rift and Kaoiki	Upper[1] East Rift	Lower[2] East Rift	Others	Remarks
	Deep	Intermediate	Shallow	30 KM	Long Period	Shallow					
April 1			Fluctuating from moderate to low levels near eruptive site on the upper east rift	1		597+	14	64	1		
2				1		620+	18	16	?		
3						408+	8	40	?		
4					4	282	6	33	?		
5				1		228	24	41	?		
6						1355	11	83	?		Shallow Caldera swarm 0925-1200
7						502	13	109	2		
8				1		196	13	75	2		
9						66	11	26			
10					2	48	6	11			
11					5	103	15	17			
12						102	36	16+	1		
13				2		117	33	12+			
14				4		129	28	10			

Table 1.--Number of earthquakes and minutes of tremor recorded on seismographs around Kilauea Caldera (cont'd)

Date (1970)	Tremor (m = minutes)			Number of Earthquakes							
				Kilauea Summit			SW Rift and Kaoiki	Upper[1] East Rift	Lower[2] East Rift	Others	Remarks
	Deep	Intermediate	Shallow	30 KM	Long Period	Shallow					
April 15			Fluctuating from moderate to low levels near eruptive site on the upper east rift	2		115	28	9	1		
16						126	15	12			
17						120	7	7			
18						116	15	8			
19				5	7	103	17	8	36		
20						81	9	7	4		
21				2	3	121	8	18	9		
22				4		177	17	19	8		
23				3		216	14	14	80		
24	33m					119	10	9	158		
25					2	75	14	5?	409		
26				1	1	75	11	6	956		
27				3	3+	114	13	17	754		
28				1		102	17	13	800		
29				2		126	13	10	297		
30						129	23	6	386		
May 1						93	8	5	303		
2					38	78	13	5	625		
3				3		254	17	13	446		
4						222	15	6	186		
5				2		215	11	18	185		
6						370	19	27	252		
7						277	12	45	140		
8				2		179	12	33	75		
9				1		78	16	27	63		
10				2		72	18	38	30		

	11						55	9	19	42
	12				1		66	10	9	29
	13				5		57	12	30	73
	14				2		65	8	220+	?
	15				2?		698?	8?	1815+	?
	16				2		221	14	210+	?
	17				1		241	8	125	?
	18				2		175	9	70	?
	19				5?		87	11	73	?
	20				4?		104	5	68	?
	21				5?		143	13	33	?
	22				3?	3	87	11	37	?
	23				10?	37	73	16	81	?
	24				2	125	78	8	65	?
	25				1	193	88	12	37	?
	26				2	233	70	16	32	?
	27	35m				360	47	5	31	?
	28					309	63	7	28	?
	29					185	49	8	26	?
	30	25m			2	110	43	8	15	?
	31				3	130	95	2	48	?
June	1				2	2	70	8	7	?
	2					1	57	8	14	?
	3				3	2	112	5	11	?
	4				3		675	22	56	?
	5				3		323	11	40	?
	6				7	12	117	25	7	?
	7					23	113	22	20	20
	8	55m			4	33	120	5	14	?
	9	103m			1	45+	68	9	24	20
	10				4	220+	52	8	34	?
	11				5	16	106	18	20	?
	12				4		97	16	16	?
	13				2	2	92	17	13	?
	14	49m			1	1	240	12	52	?
	15					1	175	14	38	?

Fluctuating from moderate to low levels near eruptive site on the upper east rift

Table 1.- -Number of earthquakes and minutes of tremor recorded on seismographs around Kilauea Caldera (Cont'd)

Date (1970)	Tremor (m = minutes)			Number of Earthquakes							
				Kilauea Summit			SW Rift and Kaoiki	Upper[1/] East Rift	Lower[2/] East Rift	Others	Remarks
	Deep	Inter-mediate	Shallow	30 KM	Long Period	Shallow					
June 16			Fluctuating from moderate to low levels near eruptive site on the upper east rift		1	143	14	24	?		
17	39m				11	132	15	11	?		
18					12	92	22	15	?		
19					71	123	11	23	?		
20					18	80	14	11	?		
21					5	42	11	12	?		
22				10		151	22	19	?		
23				5		456	18	37	?		
24				2	11	140	16	18	?		
25				1		88	8	7	?		
26	9m			1		51	12	12	?		
27				2	4	75	13	11	?		
28				3		82	11	12	?		
29				5		57	12	12	?		
30				1		319	16	15	34		

1/ Upper East Rift count poor due to continuous tremor and traffic.

2/ Count taken from station Puu Honuaula (PHO).

Computer analysis of the HVO network data permits the systematic treatment of far more earthquakes than was possible previously. This extended coverage should permit a more detailed examination of the relationship between earthquakes and volcanism in Hawaii.

Table 2 is a chronological listing of successfully located earthquakes. For each event the following data are presented:

Origin time in Hawaii Standard Time: date, hour (HR), minute (MN), and second (SEC).

Epicenter in degrees and minutes of North latitude (LAT N) and West longitude (LONG W). Poor convergence of the epicenter solution is indicated by "?".

Depth - depth of focus in km. Assumed depth is indicated by "x".

Mag - magnitude, if determined.

NO - number of stations used in locating earthquakes.

GAP - largest azimuthal separation in degrees between stations.

DMIN - epicentral distance in km to the nearest station.

ERT - standard error of the origin time in seconds.

ERH - standard error of the epicenter in km.

ERZ - standard error of the depth in km.

MD - mean deviation of the time residuals. $\left[= \sum_i R_i / NO \right]$ where R_i is the observed seismic wave arrival time less the computed time at the i^{th} station.

Q - solution quality of the hypocenter. This measure is intended to indicate the general reliability of each solution:

Q	Epicenter	Focal Depth
A	excellent	good
B	good	fair
C	fair	poor
D	poor	poor

Q is based both on the nature of the station distribution with respect to the earthquake and the statistical measures of the solution. These two factors are each rated independently according to the following scheme:

Station Distribution

	NO	GAP	DMIN
A	≥ 8	≤ 120°	≤ DEPTH or 5 km
B	≥ 6	≤ 150°	≤ 2 x DEPTH or 10 km
C	≥ 6	≤ 225°	≤ 50 km
	≥ 4	≤ 180°	
D	Others		

Statistical Measures

	ERH(km)	ERZ(km)	MD(sec)	RMAX(sec)*
A	≤ 1.0	≤ 2.0	≤ 0.10	≤ 0.25
B	≤ 2.5	≤ 5.0	≤ 0.20	≤ 0.50
C	≤ 5.0		≤ 0.30	≤ 0.75
D	Others			

Q is taken as the average of the ratings from the two schemes, that is, an A and a C yield a B, and two B's yield a B. When the two ratings are only one level apart the lower one is used, that is, an A and a B yield a B (Hamilton and others, 1969).

The criteria for Q are the same as used by the Office of Earthquake Research and Crustal Studies, U.S. Geological Survey.

*RMAX is the maximum residual

SUMMARY OF SEISMIC EVENTS

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 1	2	19	35.4	19-23.9	155-16.9	7.1	1.7	11	93	1.0	0.13	0.4	0.8	0.06	A
1	8	10	49.4	19-25.6	155-11.3	25.4	2.3	18	86	6.8	0.19	1.1	1.9	0.14	B
1	15	33	36.5	19-18.8	155-15.5	9.2	2.4	18	198	4.0	0.12	0.9	0.5	0.14	C
2	3	3	9.4	19-23.8	155-17.2	3.0	1.8	13	86	1.0	0.03	0.3	0.2	0.07	A
2	4	58	12.2	19-24.4	155-25.6?	11.1	2.0	16	77	8.7	0.06	0.6	0.3	0.12	B
2	5	57	6.9	19-18.7	155-14.1	9.3	2.2	18	201	6.0	0.15	1.0	0.5	0.16	C
2	7	50	1.7	19-23.1	155-17.3	3.5	1.4	9	119	1.0	0.06	0.5	0.9	0.09	A
2	8	32	6.7	19-13.3	155-23.6	32.6		12	220	12.8	0.70	2.5	6.5	0.13	C
2	12	13	21.7	19-22.0	155-20.1?	9.7	2.2	11	115	3.1	1.15	2.7	6.9	0.36	C
2	12	18	47.5	19-23.1	155-17.6?	3.3	2.0	13	65	1.5	0.06	0.4	0.4	0.12	B
2	14	21	59.2	19-20.0	155-39.1	7.0	2.5	11	223	10.0	0.25	1.6	0.7	0.12	C
2	15	47	31.4	19-23.6	155-17.1	2.9	1.7	10	111	0.7	0.03	0.2	0.2	0.04	A
2	21	30	46.7	19-20.1	155-34.2?	3.2*		5	212	10.9	2.78	16.6		0.72	D
2	22	45	38.5	19-23.3	155- 4.4	4.1	2.0	16	199	10.1	0.22	1.4	1.2	0.20	C
3	1	35	36.9	19-23.4	155-17.6	2.4	1.8	12	69	1.3	0.11	0.7	1.4	0.14	B
3	5	16	19.2	19-25.6	155-24.1	10.5	2.2	15	63	7.0	0.05	0.5	0.4	0.09	B
3	13	20	24.2	19-23.4	155-14.1?	3.8		8	172	3.7	0.17	0.4	2.0	0.06	C
3	13	30	29.4	19-26.2	155-24.2	9.7		7	180	6.7	0.06	0.6	0.4	0.04	B
3	13	38	21.7	19-23.2	155-17.4	3.0	1.6	11	62	1.1	0.03	0.3	0.2	0.06	A
3	15	17	49.4	19-23.3	155-17.2	3.0	1.1	11	97	0.8	0.03	0.2	0.2	0.05	A
3	15	22	56.9	19-23.8	155-17.2	2.2	1.0	9	122	1.0	0.07	0.2	0.5	0.04	A
3	16	0	8.8	19-20.8	155-18.5	5.4	2.0	12	141	2.4	0.14	0.4	1.1	0.07	B
3	16	42	5.7	19-23.1	155-17.4?	2.6	1.0	9	71	1.1	0.27	1.1	3.0	0.16	B
3	17	33	13.6	19-23.8	155-17.3	2.2	0.9	9	112	1.2	0.08	0.4	0.5	0.07	A
3	18	41	21.8	19-22.3	155-17.1?	9.2	1.6	14	82	2.1	0.24	1.6	1.5	0.33	C
3	22	24	9.2	19-23.0	155-15.2	3.6	1.3	11	83	1.7	0.08	0.5	1.0	0.11	B
4	0	25	46.2	19-23.5	155-17.1	2.1		7	141	0.6	0.04	0.1	0.2	0.01	B
4	0	38	12.3	19-22.0	155-19.4	1.2		8	161	3.2	0.10	0.5	0.8	0.08	B
4	0	58	10.5	19-23.8	155-17.9?	0.1*	0.1	8	137	1.8	0.24	1.2		0.35	C
4	1	45	44.9	19-24.2	155-17.3	1.9	2.0	14	62	1.0	0.08	0.5	0.5	0.19	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 4	1	52	40.7	19-24.2	155-17.3?	3.6	1.0	8	121	1.0	0.10	0.6	0.8	0.10	B
4	2	21	12.2	19-21.3	155-14.4	30.0	1.8	18	147	1.8	0.16	1.0	1.5	0.12	B
4	2	53	27.7	19-20.4	155-10.4	7.4		15	252	2.7	0.25	1.4	0.7	0.17	C
4	5	11	24.0	19-22.8	155-23.5	11.8		10	123	4.7	0.12	0.8	1.7	0.10	B
4	5	33	31.5	19-23.5	155-17.0	2.3	1.0	10	139	0.4	0.04	0.3	0.2	0.05	B
4	7	2	39.0	19-23.6	155-17.0	2.3		7	136	0.5	0.10	0.3	0.6	0.04	B
4	10	37	27.5	19-24.1	155-14.7	3.1		8	209	3.8	0.07	0.3	0.2	0.04	B
4	16	38	42.9	19-19.4	155-10.5	7.0		11	248	4.5	0.42	2.4	1.1	0.24	D
4	16	41	43.2	19-13.9	155- 0.2?	7.5	2.7	18	271	22.5	0.88	4.2	1.8	0.36	D
4	16	43	37.9	19-21.4	155- 9.0	7.3		11	262	1.9	0.26	1.5	0.8	0.14	C
4	17	26	57.2	19-21.1	155-12.6	9.2		14	181	1.7	0.16	1.0	0.8	0.15	C
4	18	35	29.4	19-18.0	155-14.2	8.1		11	237	6.8	0.31	1.8	0.8	0.17	C
4	18	44	18.1	19-41.0	156- 0.3	8.0*		5	328	63.0	7.53	45.2		0.10	D
4	20	13	38.8	19-21.7	155-44.6	9.6		12	237	18.2	0.38	2.1	0.8	0.16	C
4	20	36	18.6	19-23.3	155-15.3	4.4	1.3	12	87	2.0	0.11	0.5	1.0	0.11	B
4	20	48	17.5	19-20.2	155-16.2	8.5		13	203	2.0	0.11	0.7	0.5	0.09	B
4	21	29	2.1	19-23.8	155-17.9	3.5	2.3	13	71	1.8	0.10	0.6	1.2	0.15	B
4	22	24	33.7	19-24.0	155-17.3	2.3	0.7	11	84	1.3	0.02	0.2	0.1	0.04	A
4	22	43	16.9	19-19.3	155- 0.6	17.1*		11	342	17.1	1.55	9.5		0.08	D
4	23	58	9.9	19-22.0	155-17.7	4.1	1.1	13	81	3.0	0.12	0.5	1.3	0.13	B
5	2	28	23.0	19- 9.2	156- 3.1?	20.6*		6	323	46.7	8.46	67.8		0.75	D
5	3	48	51.2	19-23.5	155-17.1	2.3	1.0	11	91	0.6	0.02	0.1	0.1	0.03	A
5	3	54	59.9	19-21.1	155-14.2	7.5		16	172	2.3	0.14	0.9	0.6	0.16	C
5	5	13	12.5	19-23.4	155-15.0	1.9	1.0	12	93	2.5	0.05	0.4	0.6	0.10	A
5	6	38	55.9	19-28.5	155-53.0?	5.6		14	173	6.4	0.19	1.6	1.3	0.23	C
5	7	0	43.9	19-23.2	155-17.9	4.5	1.2	12	119	2.0	0.17	0.8	1.5	0.16	B
5	7	16	37.7	19-23.4	155-15.1	2.5	0.5	10	91	2.4	0.08	0.5	0.8	0.10	B
5	7	59	8.7	19-23.2	155-17.3?	3.1	1.6	13	60	0.9	0.04	0.3	0.2	0.07	B
5	8	30	49.3	19-23.0	155-17.3	3.0	1.1	13	62	1.2	0.04	0.3	0.3	0.10	A
5	9	25	31.0	19-26.8	155-22.7	11.1	2.4	16	99	3.8	0.07	0.8	0.4	0.13	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 5	10	32	57.0	19-23.4	155-17.4	1.9	0.5	6	147	1.0	0.23	0.5	1.6	0.05	B
5	10	59	6.9	19-18.3	155-15.0	8.0*	1.5	5	310	6.5	0.33	1.7		0.01	D
5	11	32	10.3	19-20.6	155-18.8	3.1		7	152	2.7	0.03	0.3	0.2	0.02	B
5	12	9	18.8	19-25.0	155-23.2?	8.0*		5	338	9.9	2.49	13.7		0.07	D
5	12	18	27.7	19-15.1	155-19.2	15.7*		5	329	14.1	3.11	18.8		0.02	D
5	12	48	2.2	19-23.1	155-17.1	6.4	2.6	14	72	0.8	0.08	0.7	0.6	0.14	B
5	12	52	16.9	19-23.7	155-14.6	4.8	1.0	8	183	3.3	0.14	0.6	1.2	0.06	B
5	13	12	29.8	19-23.7	155-17.0?	2.4		5	165	0.6		0.0		0.02	D
5	13	41	46.7	19-28.0	155-14.4?	8.0*	1.3	7	319	8.1	1.59	10.9		0.74	D
5	13	55	3.7	19-26.8	155-15.0?	8.0*		6	308	5.9	1.37	8.8		0.41	D
5	14	45	40.9	19-18.1	155- 4.0	8.4	2.0	9	303	12.5	0.91	4.3	1.2	0.21	D
5	15	17	53.2	19-23.5	155-17.7	4.8	2.6	15	62	1.5	0.12	0.6	1.1	0.17	B
5	15	19	14.3	19-23.8	155-17.4	1.9	0.3	8	132	1.4	0.07	0.4	0.5	0.06	B
5	15	21	31.9	19-18.1	155-12.9	14.6		8	245	7.2	0.16	1.5	0.9	0.05	C
5	15	22	33.4	19-22.7	155-14.4	3.7		11	107	2.2	0.05	0.4	0.9	0.08	A
5	15	29	33.4	19-23.8	155-14.3	0.1*	0.8	10	106	3.8	0.12	0.6		0.16	B
5	16	51	47.2	19-20.0	155-16.9	10.4		8	209	0.9	0.11	0.3	0.6	0.02	B
5	16	58	38.9	19-23.6	155-17.3	1.9	0.7	6	139	0.9	0.11	0.3	0.8	0.03	B
5	18	29	52.9	19-23.1	155-14.9	2.9		10	86	2.1	0.06	0.4	0.3	0.10	A
5	18	55	12.0	19-23.4	155-17.1	0.7		7	145	0.5	0.06	0.3	0.6	0.03	B
5	21	26	40.7	19-23.8	155-14.7	4.6	0.8	8	198	3.3	0.18	0.6	1.3	0.06	B
5	21	35	16.8	19-26.5	155-35.9	10.7	2.6	13	99	6.2	0.09	0.8	0.6	0.10	B
5	22	5	11.9	19-18.3	155-13.6	11.7	1.4	12	238	7.0	0.28	1.6	1.6	0.11	C
5	22	57	41.2	19-19.2	155-11.2?	2.9	0.7	8	281	5.3	0.74	2.3	3.0	0.20	C
5	23	0	37.9	19-23.5	155-17.6	4.6	2.4	16	50	1.4	0.07	0.5	0.7	0.15	B
5	23	7	48.0	19-28.3	155-14.5?	8.0*		7	320	7.6	1.43	9.6		0.47	D
5	23	8	11.8	19-20.6	155-10.6	7.1	1.1	13	240	2.6	0.27	1.4	0.9	0.16	C
6	1	13	10.9	19-18.5	155- 7.0	7.2	3.0	18	197	8.0	0.27	1.5	0.9	0.22	C
6	1	23	54.8	19-22.7	155-25.5	6.3	2.1	19	68	6.1	0.08	0.7	0.7	0.19	B
6	1	29	38.7	19-22.2	155-25.3	7.2	2.6	21	74	5.1	0.07	0.6	0.5	0.16	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970		HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR	6	2	38	52.3	19-23.9	155-17.3	2.1	0.6	6	125	1.3	0.06	0.1	0.4	0.01	B
	6	4	13	52.5	19-22.3	155-27.8	8.4	1.9	18	88	8.8	0.07	0.6	0.6	0.16	B
	6	4	57	10.7	19-30.8	155-15.8?	8.0*	2.2	8	329	10.5	0.83	7.4		0.41	D
	6	5	34	48.3	19-24.1	155-14.8	5.2		7	207	3.7	0.08	0.3	0.5	0.01	B
	6	5	36	14.9	19-23.9	155-17.1	2.7		8	134	1.0	0.03	0.3	0.2	0.03	B
	6	6	6	9.7	19-13.5	155-31.9	5.7	2.4	10	148	9.4	0.11	1.0	1.0	0.15	B
	6	6	8	8.8	19-23.1	155-17.4	3.0	1.9	14	61	1.1	0.03	0.2	0.2	0.08	A
	6	6	16	59.8	19-11.8	155-28.8	35.9	2.6	12	235	15.7	1.31	4.0	11.5	0.14	D
	6	7	49	37.1	19-23.3	155-17.6	4.2	2.1	16	64	1.4	0.10	0.5	1.0	0.14	B
	6	8	4	6.9	19-23.2	155-17.2	1.5	0.4	6	155	0.8	0.15	0.4	1.1	0.04	B
	6	8	48	36.0	19-23.3	155-17.2	2.9		8	96	0.7	0.04	0.2	0.2	0.04	A
	6	9	14	34.7	19-18.3	155-20.0	9.4		11	232	5.8	0.24	1.3	0.7	0.12	C
	6	10	20	34.4	19-24.6	155-16.9?	2.6	0.8	9	177	0.5	0.44	2.8	1.6	0.30	C
	6	10	20	57.2	19-22.5	155-15.8	5.2		5	138	0.3		0.0		0.01	D
	6	10	27	8.1	19-23.0	155-15.3	5.7	2.6	14	81	1.6	0.06	0.5	0.6	0.10	B
	6	10	41	41.1	19-29.8	155-14.3?	8.0*	1.7	7	327	10.2	0.93	9.4		0.45	D
	6	11	7	4.5	19-22.9	155-14.8	3.0		8	157	2.0	0.06	0.5	0.3	0.07	B
	6	11	19	25.9	19-23.8	155-17.1	3.0	1.1	11	112	0.8	0.06	0.6	0.4	0.14	B
	6	11	42	54.5	19-24.1	155-17.3	1.6	0.8	9	122	1.2	0.17	1.7	1.6	0.23	C
	6	11	52	30.8	19-25.8	155-14.4?	8.0*	2.0	11	257	4.9	0.27	3.2		0.56	D
	6	11	57	55.4	19-23.4	155-17.0	1.7		7	98	0.4	0.14	0.4	1.0	0.05	B
	6	12	11	36.7	19-30.8	155-16.5?	1.2	1.9	8	330	10.1	1.33	8.8	8.1	0.29	D
	6	13	1	29.0	19-22.9	155-15.4	5.1	1.7	13	78	1.3	0.13	0.6	1.1	0.13	B
	6	14	53	19.8	19-23.4	155-17.3	2.0	0.7	6	146	0.8	0.12	0.3	0.8	0.02	B
	6	15	4	22.6	19-23.7	155-16.9	2.1	0.6	11	146	0.5	0.06	0.4	0.4	0.07	B
	6	15	20	50.0	19-26.2	155-16.5	4.8		8	271	2.7	0.60	2.2	2.1	0.09	C
	6	15	31	58.0	19-23.9	155-17.2	2.8	1.9	14	54	1.2	0.06	0.4	0.7	0.11	B
	6	16	29	25.6	19-23.5	155-17.1	2.9		7	141	0.6	0.02	0.1	0.1	0.02	B
	6	16	46	24.9	19-20.1	155- 9.6	10.1	1.9	12	272	3.2	0.32	1.9	0.8	0.16	C
	6	16	54	13.1	19-20.4	155-25.4	11.7	1.3	10	146	3.7	0.10	0.9	1.6	0.10	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 6	17	22	14.1	19-23.7	155-16.6	3.5	1.1	10	134	0.7	0.10	0.5	0.9	0.09	B
6	17	39	11.1	19-23.7	155-16.9	2.1		10	120	0.6	0.07	0.3	0.4	0.07	A
6	17	49	8.8	19-23.6	155-17.1	2.4		6	138	0.7	0.13	0.3	0.7	0.02	B
6	17	52	13.6	19-24.0	155-17.1	2.9		6	140	1.2	0.09	0.2	0.4	0.01	B
6	17	59	58.3	19-18.9	155- 8.3	10.8		12	226	6.1	0.36	2.7	0.6	0.16	D
6	18	17	1.8	19-23.5	155-16.9	2.0	0.8	12	115	0.3	0.05	0.3	0.4	0.08	A
6	18	24	34.6	19-23.5	155-17.3	2.1		7	142	0.8	0.06	0.1	0.4	0.02	B
6	18	48	46.7	19-23.5	155-17.1	2.1		6	141	0.6	0.06	0.1	0.3	0.01	B
6	19	20	24.4	19-23.8	155-17.2	2.6	1.0	13	61	1.0	0.05	0.3	0.3	0.09	B
6	19	57	24.4	19-30.9	155-14.4?	8.0*		6	330	11.6	3.10	15.0		0.30	D
6	21	35	7.1	19-13.9	155- 7.2?	33.9*	2.3	13	290	20.3	0.39	12.7		0.65	D
6	21	41	40.7	19-23.1	155-17.4	6.0	2.5	21	56	1.1	0.06	0.6	0.4	0.17	B
6	21	50	37.3	19-24.0	155-16.9	3.3	0.3	8	125	1.2	0.09	0.5	0.7	0.05	B
6	21	51	6.9	19-23.5	155-17.4	2.8	0.7	12	85	1.1	0.04	0.4	0.3	0.08	A
6	23	25	35.8	19-23.8	155-17.2	2.2	0.5	7	128	1.1	0.08	0.2	0.5	0.02	B
7	1	22	33.2	19-23.0	155-17.9	0.2*		9	125	2.1	0.12	0.6		0.18	C
7	2	18	53.2	19-23.3	155-17.2	1.8		7	150	0.8	0.07	0.2	0.5	0.02	B
7	2	21	49.7	19-23.5	155-14.7	2.9		9	184	2.9	0.08	0.5	0.3	0.07	B
7	2	55	38.8	19-21.4	155-15.8?	7.1*	0.9	7	256	1.1	0.38	2.5		0.20	D
7	3	49	22.1	19-22.8	155-15.1	4.9	0.8	7	150	1.6	0.15	0.6	1.0	0.03	B
7	3	54	44.2	19-22.8	155-18.1?	3.3	0.8	6	191	2.5	3.36	13.9	8.1	0.28	D
7	3	59	57.4	19-24.0	155-17.2	1.9		7	132	1.2	0.07	0.2	0.4	0.02	B
7	4	24	52.5	19-23.3	155-17.3	1.8	1.8	14	60	0.9	0.06	0.4	0.5	0.11	B
7	4	44	57.2	19-23.2	155-14.7	3.3	0.6	7	173	2.5	0.06	0.4	0.9	0.03	B
7	4	46	14.2	19-23.5	155-17.3	1.9	0.2	7	142	0.9	0.18	0.5	1.3	0.06	B
7	5	4	19.6	19-22.1	155-12.6	7.2	1.0	13	142	0.4	0.18	1.0	1.0	0.17	B
7	5	24	13.7	19-23.5	155-14.4	0.2	0.5	10	99	3.3	0.05	0.3	0.8	0.09	A
7	5	31	6.4	19-23.2	155-14.8	2.7	0.1	10	90	2.4	0.05	0.4	0.3	0.09	A
7	6	12	11.3	19-23.2	155-15.5?	3.6		10	83	1.6	0.14	1.0	2.2	0.18	B
7	6	16	41.6	19-23.6	155-17.3	1.5	0.7	6	140	1.0	0.18	0.5	1.3	0.04	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970		HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR	7	6	23	16.0	19-23.8	155-17.4	2.5	0.6	8	131	1.2	0.29	0.7	1.6	0.07	B
	7	6	26	34.4	19-23.8	155-14.7	4.2	1.0	6	260	3.3	0.16	0.5	0.7	0.01	C
	7	7	25	13.1	19-23.9	155-17.1	2.1	0.3	6	133	1.1	0.07	0.2	0.4	0.01	B
	7	8	2	23.1	19-19.0	155-15.8	12.1	1.5	9	217	3.4	0.12	0.7	1.0	0.04	B
	7	8	23	30.9	19-27.0	155-25.6?	10.0		12	124	6.5	0.13	1.0	2.1	0.10	B
	7	9	2	4.2	19-23.9	155-14.7	3.4	1.1	8	201	3.4	0.08	0.3	0.7	0.03	B
	7	10	9	25.6	19-22.4	155-15.4	5.3	0.9	7	140	0.8	0.18	0.6	1.2	0.05	B
	7	10	13	37.1	19-20.6	155-18.7	2.9	0.7	7	151	2.5	0.03	0.2	0.2	0.02	B
	7	10	17	30.6	19-24.5	155-11.6?	8.0*	1.4	7	317	8.3	0.34	5.9		0.30	D
	7	10	27	1.1	19-23.9	155-17.2	2.2	0.7	6	131	1.1	0.10	0.2	0.6	0.02	B
	7	13	33	17.3	19-23.6	155-17.1	2.0	0.8	7	132	0.7	0.22	0.5	1.2	0.05	B
	7	13	44	1.8	18-58.3	155-23.4	12.9	2.7	16	250	25.2	0.33	2.2	5.8	0.13	D
	7	14	0	32.5	19-32.2	155-57.2?	0.2	2.3	15	277	47.5	0.64	8.4	6.0	0.30	D
	7	14	17	10.2	19-23.8	155-23.7	11.1	1.5	10	189	6.6	0.46	0.8	2.8	0.08	C
	7	14	24	27.3	19-21.1	155-12.6	9.9	2.6	17	157	1.6	0.07	0.7	0.4	0.13	C
	7	14	29	57.8	19-23.7	155-17.1	2.7	0.5	6	132	0.8	0.13	0.3	0.7	0.02	B
	7	15	38	16.1	19-23.5	155-14.8	3.1	0.8	8	184	2.8	0.06	0.3	0.2	0.04	B
	7	15	40	3.8	19-23.9	155-16.9	2.7	0.7	6	147	0.9	0.15	0.3	0.8	0.02	B
	7	15	42	49.3	19-20.4	155-19.4	3.7	0.6	6	169	3.6	0.14	0.6	2.3	0.03	C
	7	15	50	3.5	19-23.1	155-11.6?	8.0*	1.2	8	316	6.9	0.38	4.7		0.43	D
	7	15	58	59.0	19-23.1	155-11.3?	8.0*	1.3	7	317	7.3	0.42	5.3		0.38	D
	7	16	34	48.2	19-23.7	155-17.0	3.6	0.7	7	140	0.6	0.09	0.5	0.5	0.05	B
	7	17	41	43.1	19-23.6	155-17.0	2.7	1.3	11	110	0.5	0.03	0.3	0.2	0.06	A
	7	18	17	9.4	19-24.2	155-15.9	3.7	0.5	6	224	2.2	0.12	0.5	0.6	0.02	B
	7	18	26	0.9	19-24.1	155-16.5	2.0	0.7	7	179	1.3	0.25	0.7	1.4	0.06	B
	7	18	27	42.3	19-23.3	155-15.3	4.1	2.0	12	88	2.0	0.10	0.5	1.1	0.11	B
	7	18	30	13.4	19-23.9	155- 9.6	6.8	1.1	8	285	4.0	0.44	5.4	5.1	0.13	D
	7	18	35	17.1	19-23.1	155-15.5	4.4	0.6	6	209	1.4	0.15	0.5	0.8	0.02	B
	7	18	41	45.4	19-23.8	155-14.6	3.0	1.3	8	201	3.4	0.06	0.3	0.2	0.03	B
	7	18	51	59.3	19-23.6	155-17.0	2.8	0.6	10	112	0.4	0.02	0.2	0.1	0.03	A

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 7	18	59	49.7	19-23.9	155-17.2	2.5	0.4	7	126	1.2	0.05	0.1	0.3	0.01	B
7	19	4	59.8	19-23.2	155-17.0	2.9	1.3	12	65	0.5	0.06	0.5	0.3	0.10	B
7	19	15	26.3	19-23.1	155-14.8	3.5	0.7	7	171	2.4	0.11	0.8	1.5	0.05	B
7	19	43	26.6	19-19.9	155-17.0	9.1	1.0	11	210	0.7	0.14	0.7	0.6	0.07	B
7	19	43	51.9	19-25.4	155-16.4?	3.4	0.7	9	255	1.4	0.56	1.5	2.2	0.14	C
7	19	52	5.7	19-23.9	155-14.9	3.9	1.5	8	197	3.3	0.16	0.6	1.3	0.05	B
7	20	11	32.7	19-23.4	155-17.4?	2.8	2.1	15	61	1.1	0.08	0.5	1.1	0.16	B
7	20	18	13.8	19-23.4	155-17.1	2.6	0.1	8	143	0.5	0.07	0.2	0.4	0.03	B
7	20	42	13.1	19-21.4	155-16.8	11.1	0.7	8	130	2.5	0.06	0.5	0.3	0.04	B
7	21	0	11.9	19-23.7	155-17.3	1.9	0.3	6	133	1.0	0.04	0.1	0.3	0.01	A
7	21	39	34.0	19-20.4	155-15.8	11.9	1.5	10	181	2.6	0.17	1.0	1.3	0.10	C
7	22	27	11.8	19-23.4	155-17.1	2.8	1.0	12	92	0.6	0.03	0.2	0.2	0.06	A
7	22	37	5.4	19-54.7	155-32.9	9.7	2.3	13	164	17.9	0.14	1.5	0.9	0.15	C
7	22	53	57.6	19-18.9	155-11.0	15.3	1.6	8	263	5.6	0.32	1.9	2.0	0.04	C
7	23	3	43.3	19-20.3	155-15.6?	8.0*	1.1	7	317	7.4	0.95	9.7		0.60	D
7	23	9	38.9	19-23.4	155-24.7	11.3	1.6	8	213	6.4	0.21	1.0	1.9	0.05	B
7	23	28	3.0	19-23.7	155-14.9	0.2*	1.0	12	168	3.0	0.09	0.4		0.12	C
7	23	38	5.9	19-24.3	155-15.6	4.2	0.5	6	240	2.7	0.15	0.6	0.7	0.02	C
7	23	46	48.4	19-23.9	155-17.3	1.0	0.6	7	127	1.3	0.09	0.2	0.8	0.03	B
7	23	54	37.2	19-22.7	155-14.8	5.9	0.7	6	165	2.0	0.09	0.3	0.6	0.01	B
8	0	15	29.8	19-23.4	155-17.0	1.9	0.8	11	91	0.4	0.06	0.4	0.4	0.08	A
8	0	18	7.1	19-23.1	155-15.1	3.1	0.6	10	85	1.9	0.06	0.4	0.4	0.09	A
8	0	21	10.9	19-23.1	155-17.3?	3.1	0.8	14	61	1.0	0.05	0.3	0.3	0.11	B
8	0	42	12.3	19-23.7	155-17.4	0.7	0.2	7	136	1.1	0.16	0.6	2.4	0.07	B
8	0	55	12.8	19-23.9	155-17.5	1.8	0.5	7	128	1.4	0.12	0.3	0.8	0.04	B
8	1	3	23.6	19-23.3	155-14.6	4.4	0.8	7	184	2.9	0.10	0.4	0.8	0.03	B
8	1	9	6.2	19-23.5	155-14.9	1.8	0.9	12	94	2.7	0.06	0.4	0.5	0.10	B
8	1	40	46.7	18-56.9	154-58.8?	8.0*	2.2	7	356	54.3	7.71	0.0		1.79	D
8	1	55	26.4	19-21.1	155-16.9?	8.0*	1.0	6	273	2.9	0.41	3.2		0.17	D
8	1	56	51.0	19-15.1	155-18.3	16.1*	1.4	5	328	13.5	0.42	2.9		0.01	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970		HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR	8	3	13	40.5	19-23.2	155-17.4	2.8	0.4	9	115	1.1	0.07	0.6	0.5	0.10	A
	8	3	14	50.2	19-23.7	155-14.9	1.8	1.0	12	97	3.0	0.08	0.4	0.8	0.10	B
	8	3	21	59.4	19-23.1	155-17.4	3.2	0.9	10	118	1.1	0.06	0.3	0.7	0.06	A
	8	3	24	55.6	19-23.9	155-13.5	5.5	0.7	7	297	4.9	0.14	1.2	1.5	0.04	C
	8	4	55	4.2	19-24.3	155-17.7?	0.1	0.5	10	93	0.7	0.14	0.6	4.3	0.15	B
	8	5	21	0.6	19-22.4	155-16.6	4.4	0.7	7	223	1.2	0.16	1.5	1.1	0.06	C
	8	6	18	5.6	19-23.5	155-17.6	2.5	0.9	12	111	1.4	0.06	0.5	0.4	0.11	B
	8	6	30	29.4	19-23.3	155-17.0	3.1		7	147	0.4	0.05	0.4	0.5	0.04	B
	8	6	31	33.1	19-23.4	155-17.3	2.5	0.6	6	148	0.8	0.06	0.1	0.4	0.01	B
	8	6	38	34.5	19-23.6	155-14.7	3.9	1.0	7	200	3.1	0.03	0.2	0.3	0.01	B
	8	7	17	33.8	19-23.8	155-17.5	4.0	0.8	10	104	1.4	0.24	1.1	2.1	0.18	B
	8	7	33	45.4	19-23.7	155-17.0	2.4	0.4	7	181	0.7	0.20	1.1	0.9	0.05	C
	8	8	30	34.2	19-24.0	155-17.2	3.0		8	101	1.3	0.03	0.2	0.1	0.03	A
	8	9	23	31.9	19-23.4	155-17.1	1.9	0.1	7	93	0.6	0.17	0.4	1.0	0.04	B
	8	10	1	17.0	19-23.5	155-17.1	2.2	0.9	6	141	0.6	0.05	0.1	0.3	0.01	B
	8	10	19	27.1	19-23.2	155-17.2	3.2		8	98	0.8	0.03	0.2	0.2	0.03	A
	8	11	0	49.8	19-20.8	155-13.2	8.3	1.9	18	182	2.3	0.10	0.8	0.4	0.15	C
	8	11	17	16.7	19-23.9	155-14.2	3.9	0.7	7	275	4.0	0.42	1.5	1.5	0.04	C
	8	12	7	30.6	19-23.6	155-17.5	4.1	2.1	14	59	1.3	0.10	0.5	1.0	0.15	B
	8	12	11	43.2	19-21.2	155-17.0?	8.0*	1.0	7	133	2.1	1.63	8.5		0.46	C
	8	12	19	0.1	19-19.9	155-16.4	12.0	1.1	7	244	1.7	0.21	0.8	1.4	0.02	C
	8	12	30	47.6	19-23.4	155-17.3	2.4		7	97	0.9	0.13	0.3	0.8	0.04	B
	8	12	31	24.2	19-23.3	155-17.1	3.1	0.7	6	149	0.6	0.20	0.4	1.0	0.04	B
	8	13	18	9.5	19-23.4	155-14.5	3.4	1.0	8	189	3.1	0.06	0.3	0.7	0.03	B
	8	13	49	18.3	19-23.5	155-17.3	2.0	0.5	6	144	0.8	0.07	0.2	0.5	0.02	B
	8	13	52	45.8	19-23.5	155-17.1	2.8	0.5	7	141	0.6	0.10	0.5	0.4	0.04	B
	8	14	7	54.6	19-23.5	155-17.3	3.0	0.9	7	141	0.8	0.13	0.5	0.5	0.05	B
	8	14	8	23.8	19-29.5	155-50.8	5.4	2.3	15	154	8.5	0.06	0.7	0.5	0.11	C
	8	14	59	53.2	19-23.6	155-17.2	2.3	0.9	9	109	0.7	0.03	0.2	0.2	0.03	A
	8	15	36	4.2	19-21.9	155-10.1	5.7	1.2	7	208	0.2	0.76	5.2	3.1	0.22	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 8	16	4	3.8	19-18.3	155-12.9	11.2		11	242	6.7	0.21	1.4	0.4	0.10	C
8	16	21	32.1	19-20.2	155-15.8	9.8	1.0	8	208	2.8	0.29	0.7	1.6	0.05	B
8	16	38	31.1	19-23.7	155-14.6	4.1	1.1	8	195	3.3	0.10	0.3	0.7	0.03	B
8	16	59	22.7	19-23.5	155-17.1	2.2	0.1	8	109	0.6	0.06	0.2	0.4	0.03	A
8	17	27	34.5	19-23.1	155- 1.6	7.8	1.9	15	208	15.0	0.26	2.0	0.9	0.27	C
8	18	28	17.2	19-20.9	155- 0.9	6.7	1.8	18	227	16.1	0.27	1.7	0.7	0.21	D
8	18	42	54.4	19-23.4	155-15.4	4.3	1.0	7	231	2.0	0.20	0.9	0.8	0.05	C
8	18	45	29.0	19-23.6	155-14.5	2.9	0.9	6	206	3.4	0.12	0.6	0.4	0.04	B
8	18	48	29.4	19-23.6	155-17.0	2.5	0.7	8	164	0.6	0.12	0.4	0.5	0.06	B
8	18	50	25.4	19-23.4	155-17.1	2.2	0.7	6	143	0.6	0.08	0.2	0.5	0.01	B
8	19	0	32.2	19-24.4	155-16.7	4.4	1.0	7	226	1.5	0.26	0.8	1.5	0.06	C
8	20	1	34.5	19-24.6	155-10.0?	8.0*	1.5	8	276	5.2	0.27	6.8		0.21	D
8	20	4	38.1	19-22.1	155-10.6?	6.3	1.1	6	193	1.1	1.10	6.6	5.4	0.13	D
8	20	11	38.8	19-17.4	155- 1.9	7.8	1.8	12	243	16.3	0.46	2.7	1.2	0.18	D
8	21	39	13.9	19-20.4	155-17.9?	2.7	1.0	7	206	1.1	0.33	2.0	1.0	0.07	C
8	21	51	19.6	19-29.9	155-52.1	6.1		15	143	6.1	0.11	1.4	0.9	0.20	B
8	21	56	56.3	19-22.6	155-14.8	5.1	1.1	5	161	1.8		0.0		0.01	D
8	22	56	15.7	19-22.3	155-22.9	7.2	1.1	8	167	3.8	0.48	1.1	3.2	0.09	C
9	0	47	58.1	19-22.6	155-21.5	3.9	1.1	11	93	3.8	0.20	0.9	3.3	0.19	B
9	1	0	11.5	19-17.9	155- 8.8?	10.9	1.3	9	304	7.5	0.68	4.0	0.6	0.16	D
9	1	59	10.6	19-14.7	155-13.5?	8.0*	1.1	6	319	13.5	2.56	27.8		0.89	D
9	2	1	36.7	19-21.6	155-13.6	2.6	0.3	6	187	1.5	0.19	2.4	1.5	0.07	C
9	2	29	51.0	19-20.6	155-12.8	14.4	1.4	9	199	2.6	0.20	0.9	1.5	0.04	B
9	3	28	18.0	19-21.6	155-12.4?	6.1*	1.0	6	189	1.0	1.14	6.1		0.28	D
9	3	32	47.9	19-19.9	155-11.8	14.5	1.5	9	231	4.4	0.07	0.7	0.5	0.04	C
9	6	30	44.3	19-21.6	155-12.5?	0.2	0.5	6	187	0.8	0.26	5.0	10.6	0.12	D
9	7	24	16.4	19-20.0	155- 7.1?	15.5*	1.8	10	328	6.1	0.97	7.4		0.27	D
9	8	19	21.8	19-21.9	155-12.5	2.1		8	154	0.5	0.12	0.9	0.7	0.11	C
9	8	35	20.0	19-23.4	155-15.9	3.4	1.3	10	140	1.5	0.12	0.6	1.1	0.12	B
9	16	46	19.0	19-28.9	155-52.1?	7.0	2.9	19	157	7.0	0.16	1.4	1.2	0.15	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 9	18	24	2.7	19-27.4	155-22.3	7.3	2.0	15	111	2.9	0.21	1.7	1.4	0.29	C
9	19	57	25.5	19-22.6	155-24.1	7.7	1.7	13	67	4.7	0.09	0.8	0.9	0.17	B
10	2	59	41.2	19-22.1	155-18.2	28.5		7	141	4.0	0.49	2.5	4.4	0.06	B
10	4	42	55.8	19-10.9	155-25.6	34.2	2.6	20	193	17.7	0.31	2.0	2.6	0.26	C
10	7	54	13.7	19-21.4	155-11.7	9.5	1.9	16	178	2.3	0.12	1.0	0.5	0.17	C
10	8	34	15.1	19-16.4	155-12.6	17.3		6	285	10.9	0.55	3.0	3.5	0.02	D
10	10	26	35.1	19-18.7	155-14.2	11.3		5	298	6.1		0.0		0.02	D
10	10	48	25.4	19-19.7	155-16.8	9.0	0.3	8	240	1.2	0.21	0.5	1.1	0.02	C
10	13	18	53.3	19-21.0	155-11.4	8.8		7	196	3.0	0.23	2.9	1.3	0.14	C
10	13	54	57.8	18-56.8	155-24.1	8.5		10	285	25.3	0.69	6.6	4.4	0.26	D
10	15	37	17.8	19-20.3	155-12.0?	11.0		12	204	3.5	0.11	0.9	0.5	0.11	C
10	15	46	38.7	19-36.5	155-14.8	15.0*	1.6	13	233	19.3	0.12	1.0		0.10	D
10	16	27	36.9	19-20.9	155-18.5	20.0		11	125	2.5	0.26	1.7	2.3	0.11	B
10	17	55	36.9	19-21.9	155-21.8	3.3		7	152	4.1	0.49	1.5	4.7	0.10	C
10	18	14	38.2	19-20.7	155-12.7	14.0	0.7	10	196	2.4	0.20	0.9	1.5	0.05	B
10	23	13	31.4	19-22.9	155-24.4	9.1		8	194	5.4	0.15	1.0	0.9	0.08	C
11	0	55	54.2	19-19.2	155-13.2	15.1		8	226	6.0	0.14	0.9	1.3	0.04	C
11	1	32	34.9	19-22.3	155-19.7	25.5	1.9	14	87	2.7	0.16	0.9	1.6	0.09	A
11	1	32	47.1	19-22.4	155-21.1?	50.1*		5	220	7.7	1.88	10.0		0.65	D
11	3	30	51.7	19-22.9	155-23.6	12.1		6	188	4.9	0.28	1.0	2.6	0.04	C
11	3	50	37.9	19-29.8	155-47.1	8.0	1.9	12	128	14.6	0.09	0.8	0.7	0.11	B
11	6	44	56.6	19-22.3	155-10.2	9.0		8	231	1.0	0.27	2.2	1.7	0.08	C
11	8	7	31.8	19-20.4	155-15.2	13.2	0.6	9	189	2.7	0.23	1.0	1.9	0.07	C
11	8	10	39.4	19-20.6	155-11.3	15.2*	0.8	6	320	7.3	0.24	2.0		0.04	D
11	8	35	24.8	19-18.4	155-13.8	8.7		7	234	7.1	0.73	3.2	4.5	0.17	D
11	12	0	17.2	19-19.6	155-16.6	10.9		7	245	1.6	0.48	1.0	2.4	0.02	C
11	12	15	21.3	19-19.8	155-16.6	11.3		7	241	1.5	0.14	0.7	1.0	0.02	C
11	15	57	43.9	19-26.6	155- 9.8?	15.5	0.7	7	267	8.8	1.19	2.8	7.2	0.11	D
11	17	11	27.3	19-20.5	155-12.4	15.8	0.6	9	203	2.8	0.19	1.2	1.6	0.05	C
11	18	46	14.3	19-23.0	155-12.3	6.4		10	150	4.6	0.15	1.2	1.2	0.16	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 11	19	0	16.5	19-18.1	155-12.0	8.0*	0.8	5	292	7.6	2.93	15.8		0.16	D
11	19	29	21.3	19-20.9	155-23.4	9.1		8	180	1.2	0.17	1.1	0.8	0.08	C
11	21	20	55.5	19-18.5	155-13.2	12.3		13	237	6.5	0.16	0.9	1.0	0.07	C
11	22	41	23.4	19-15.1	155- 7.8	7.4		10	306	12.9	0.75	3.7	1.3	0.23	D
11	23	17	4.6	19-10.6	155-18.9?	32.2	2.7	16	231	17.6	0.24	1.6	1.8	0.11	C
12	1	26	50.0	19-27.4	155-24.6	9.2	1.5	7	215	5.0	0.31	0.8	2.4	0.06	C
12	2	9	52.6	19-23.1	155-25.7	10.8	1.3	12	123	6.8	0.08	0.8	0.8	0.12	B
12	2	11	15.2	19-19.9	155-14.5	7.8	1.1	14	206	3.7	0.19	1.1	0.8	0.16	C
12	4	29	15.0	19-22.5	155-22.6	9.2		11	154	4.5	0.11	0.7	0.7	0.09	C
12	9	13	43.7	19-22.9	155-25.3	10.5	4.3	21	65	6.0	0.07	0.6	0.4	0.15	B
12	9	17	40.0	19-23.4	155-25.9	8.2	2.2	17	107	7.5	0.10	0.9	0.7	0.19	B
12	9	20	19.3	19-23.0	155-26.5	9.0	1.8	10	127	7.7	0.10	0.9	1.1	0.13	B
12	11	19	48.4	19-23.9	155-26.1	7.6	2.5	18	72	8.5	0.08	0.7	0.6	0.15	B
12	19	43	21.3	19-22.7	155-29.2	9.9	2.3	17	86	11.4	0.08	0.7	0.5	0.16	B
12	20	8	6.4	19-21.5	155-12.5	9.2	2.3	17	149	1.1	0.09	0.9	0.5	0.16	C
13	0	14	41.2	19-23.6	155-25.9	12.6	1.9	11	151	7.7	0.09	0.7	1.6	0.09	B
13	1	8	48.2	19-23.7	155-24.8	9.2	3.2	19	76	6.9	0.09	0.8	0.5	0.14	B
13	1	14	26.3	19-22.0	155-23.8	9.7	1.8	11	111	3.5	0.09	0.8	0.7	0.12	B
13	2	59	59.9	19-23.4	155-25.3	10.8	1.9	11	122	6.9	0.07	0.6	0.5	0.10	B
13	4	43	20.7	19-23.9	155-26.6	11.1	2.0	15	145	9.0	0.07	0.6	0.3	0.08	B
13	5	28	3.9	19-12.6	155-22.4	29.6	2.0	9	204	14.1	0.32	1.7	3.0	0.07	C
13	7	4	25.5	19-13.8	155-23.8	35.3	2.6	20	168	11.9	0.16	0.9	1.5	0.10	C
13	9	39	47.0	19-22.6	155-25.9	7.0	2.7	17	101	11.0	0.09	0.8	0.7	0.16	B
13	9	51	21.5	19-20.2	155-15.0	9.9	1.8	14	185	3.1	0.07	0.6	0.3	0.10	B
13	12	55	1.1	19-19.5	155-13.6	8.5	2.4	16	198	4.7	0.14	1.0	0.5	0.17	C
13	21	36	24.7	19-13.3	155- 8.0	7.8	1.9	8	253	16.1	0.71	3.5	2.2	0.13	D
13	21	47	10.4	19-21.4	155-23.4	10.2		7	188	2.2	0.71	1.5	4.0	0.07	C
13	22	26	14.2	19-21.5	155-24.9	8.7	2.2	12	115	3.7	0.13	0.9	1.1	0.16	B
13	22	41	8.1	19-23.0	155-25.7	10.7	1.8	12	123	6.7	0.09	1.0	0.9	0.14	B
13	23	13	11.2	19-24.2	155- 2.5	5.6	2.1	13	190	13.8	0.14	1.2	1.1	0.19	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 13	23	24	26.9	19-22.1	155-13.1?	3.3	1.3	6	181	0.5	0.71	2.5	3.8	0.08	C
13	23	49	54.6	19-18.3	155-16.7	9.8	2.2	18	167	3.4	0.08	0.6	0.3	0.12	C
14	2	18	1.8	19-19.6	155-16.3	10.1	1.6	13	203	2.1	0.09	0.6	0.5	0.07	B
14	7	31	24.4	19-19.0	155-15.8	9.9		12	217	3.5	0.16	0.9	0.6	0.10	B
14	11	7	57.4	19-27.4	155-14.4	24.3	3.6	24	62	6.6	0.14	1.0	1.6	0.18	B
14	12	58	25.9	19- 7.4	156- 4.1	8.0*	3.2	17	281	46.5	0.60	3.9		0.14	D
14	14	13	6.0	19-12.3	155-21.8	29.7	2.5	11	251	14.9	0.99	4.2	8.3	0.12	D
14	15	52	5.7	19-39.4	155-59.0	45.1	2.7	7	239	16.5	1.26	5.5	11.2	0.16	D
14	17	10	29.7	19-14.3	155-30.9	8.3	2.3	13	141	11.0	0.08	0.8	0.6	0.14	B
15	0	7	12.3	19-21.4	155-16.7	28.8		18	121	2.2	0.16	1.0	1.5	0.14	B
15	7	27	12.7	19-21.8	155-13.2	9.9	2.1	16	141	0.8	0.08	0.8	0.4	0.13	B
15	8	42	19.6	19-20.6	155-24.5	10.7	2.3	14	109	2.2	0.08	0.8	0.6	0.14	B
15	15	39	16.8	19-19.6	155-16.0	8.9	2.4	16	162	2.6	0.09	0.7	0.5	0.14	C
15	22	39	45.5	19-15.7	155-21.5	6.1	2.3	17	166	8.9	0.09	0.7	0.8	0.13	C
15	22	41	31.2	19-16.7	155-22.2	8.3	2.0	16	160	6.8	0.10	0.9	0.8	0.17	C
16	2	25	33.5	19-18.8	155-15.0	28.4	3.2	21	170	4.9	0.15	1.0	1.3	0.13	C
16	23	7	39.5	19-23.0	155-25.0	10.5	1.9	14	205	6.0	0.14	0.9	0.4	0.11	C
17	12	9	24.9	19-21.1	155-13.9	9.5	1.5	14	173	2.8	0.14	0.9	0.7	0.15	C
17	12	12	13.6	19-31.6	155-55.5	10.4	4.1	21	227	0.7	0.23	2.5	1.4	0.22	D
17	16	58	12.1	19-20.6	155-11.5	7.5	2.0	13	206	3.3	0.18	1.1	0.7	0.17	C
17	17	46	2.9	19-30.1	155-45.0	2.0	2.8	14	130	18.2	0.44	1.0	2.2	0.16	B
17	18	54	26.5	19-25.0	155-26.6	10.4	2.0	12	168	10.6	0.10	0.8	0.6	0.11	C
17	22	34	27.8	19-25.2	155-50.2	7.9	1.9	12	276	29.9	1.33	11.8	2.1	0.13	D
18	1	47	41.4	19-18.3	155-11.6	11.3	1.3	11	222	7.1	0.27	1.9	0.6	0.14	C
18	6	38	19.7	19-13.9	155-23.9	27.1	1.9	16	171	11.7	0.20	1.0	2.3	0.10	C
18	6	45	6.8	19-19.1	155-16.3	10.1		8	261	2.7	1.03	2.4	4.8	0.05	C
18	7	31	47.5	19-19.6	155-10.5	7.4		10	247	4.1	0.26	1.7	0.8	0.15	C
18	11	40	30.9	19-46.0	155- 2.3?	4.2	2.0	9	283	7.3	0.28	1.4	0.5	0.06	C
18	12	54	37.9	19-19.6	155-16.1	7.9		12	206	2.4	0.19	1.1	0.8	0.15	C
18	14	53	38.5	19-10.3	155-38.9	10.3	3.0	12	161	9.1	0.12	1.1	0.6	0.11	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 18	15	24	38.9	19-20.7	155-27.6	9.9		10	140	7.6	0.13	1.1	1.3	0.16	B
18	16	3	56.3	19-20.0	155-11.0	9.2		11	196	3.7	0.14	1.1	0.6	0.12	C
18	17	14	34.7	19-26.1	155-10.9?	9.8	1.5	9	250	8.1	0.81	3.9	8.1	0.11	D
19	3	12	30.7	19-20.2	155-15.9	7.8		14	192	2.7	0.16	0.9	0.7	0.15	C
19	3	18	8.3	19-28.9	155-46.5	6.6	2.1	14	125	16.0	0.16	1.4	1.6	0.15	B
19	5	30	38.8	19-15.7	155-46.5	26.1	3.2	23	153	9.2	0.16	1.1	2.4	0.19	C
19	6	7	1.4	19-13.4	155-23.4	32.9	2.3	17	171	12.5	0.28	1.5	2.8	0.15	C
19	8	48	45.9	19-22.9	155-25.3?	10.7		9	209	6.1	0.21	1.5	0.8	0.11	C
19	8	53	19.2	19-16.8	155-21.6	23.4		10	300	9.5	1.05	5.9	5.5	0.12	D
19	9	29	48.1	19-24.9	155-26.2	9.5		14	131	10.0	0.11	0.9	0.7	0.14	B
19	16	1	16.4	19-19.0	154-56.9?	0.0	2.2	8	254	19.3	1.07	2.5	3.9	0.11	C
19	19	45	19.1	19-11.3	155-30.7	5.8		7	164	13.0	0.12	1.1	1.1	0.10	C
20	1	3	52.5	19-24.1	155- 2.7	0.3	1.9	14	177	18.6	0.46	0.9	2.3	0.12	C
20	1	52	21.7	19-20.0	155- 2.1	5.2	1.9	9	237	21.5	0.55	3.2	1.6	0.22	D
20	8	12	44.1	19-23.9	155- 7.5	6.7		9	252	5.8	0.32	1.8	1.0	0.11	C
20	17	41	19.2	19-21.3	155-25.3	8.5	2.1	16	120	4.0	0.09	0.8	0.6	0.18	B
21	14	58	44.7	19-22.0	155-17.2	29.4	2.5	19	90	2.5	0.19	1.1	1.7	0.11	B
21	21	4	3.7	19-10.3	155-38.1	7.6	2.6	13	204	8.7	0.14	1.5	0.7	0.08	C
22	0	26	40.1	19-21.7	155- 2.0	6.8	2.3	13	218	14.1	0.35	2.5	1.4	0.25	C
22	3	8	19.1	19-24.5	155- 4.1	3.2	2.5	13	169	20.3	0.14	0.9	1.0	0.15	C
22	10	0	6.9	19-18.9	155-17.8	26.2	2.3	13	218	2.3	0.29	1.6	2.5	0.10	C
22	17	5	9.7	19-17.9	155-16.4	9.3	2.2	14	204	4.5	0.10	0.7	0.6	0.10	B
22	19	15	54.4	19-23.1	155-24.7	10.4	2.4	15	200	5.8	0.16	1.0	0.5	0.13	C
22	20	56	11.8	19-23.4	155-24.7	9.5	2.0	15	75	6.4	0.07	0.7	0.5	0.12	B
23	9	16	1.4	20- 2.3	155-47.6?	14.0*	3.3	20	262	9.7	0.72	4.9		0.31	D
24	4	36	5.4	19-22.8	155-25.9	10.7	3.0	18	79	6.5	0.09	0.7	0.4	0.15	B
24	15	56	49.4	19-56.4	155-31.5	10.0	2.3	7	219	19.5	0.25	2.6	0.8	0.08	C
24	19	51	21.7	19-17.5	155-28.0	5.4		10	136	9.6	0.09	0.9	1.4	0.15	B
24	20	38	14.5	20- 9.7	156-18.6	2.7	3.3	23	313	5.4	0.34	11.3	11.0	0.18	D
24	23	50	34.4	19-20.7	155-13.2	9.8	1.8	14	186	4.2	0.13	0.8	0.5	0.14	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 25	0	46	59.3	19-22.9	155-29.0	9.3	2.1	15	97	16.2	0.08	0.7	0.7	0.14	B
25	1	26	47.8	19- 9.4	155-27.1?	40.1		13	178	19.8	0.39	1.8	3.8	0.12	C
25	2	29	2.3	19-16.1	155-27.3	7.0		8	202	10.3	0.25	2.2	1.2	0.08	C
25	3	47	53.5	19-21.3	155-12.0	9.9		13	181	3.6	0.17	1.2	0.6	0.16	C
25	6	48	32.5	19-17.5	155-25.3	5.8		8	196	15.1	0.20	1.5	1.6	0.14	C
25	12	6	33.6	19-24.0	155-24.1	8.1	2.4	13	83	7.1	0.06	0.6	0.6	0.08	A
25	14	32	52.1	19-23.6	155-24.6	11.4		9	137	6.7	0.07	0.6	1.2	0.06	B
25	20	10	15.8	19-21.2	155-24.8	9.5		10	230	3.2	0.19	1.2	0.9	0.11	C
25	20	34	8.8	19-11.4	155-29.0?	8.5	2.7	16	163	15.6	0.10	0.8	0.6	0.13	C
25	21	2	52.7	19-20.5	155-19.9	5.0		9	164	4.4	0.17	0.5	2.0	0.06	B
25	21	55	10.1	19-18.5	155-39.3	9.1		6	243	27.8	0.92	5.0	3.0	0.09	D
26	2	10	57.7	19-10.6	155-28.8	7.6		9	181	16.6	0.14	1.2	0.8	0.12	C
26	2	26	6.9	19-23.8	155-24.8	9.4	3.2	18	75	7.1	0.07	0.6	0.4	0.12	B
26	3	18	8.8	19-12.2	155-47.9	12.1		9	338	19.5	0.54	5.8	3.1	0.12	D
26	4	46	18.6	19-20.2	155-38.4?	13.4*		7	292	26.4	0.33	2.1		0.16	D
26	5	49	26.8	19-17.2	155-41.9	6.4		5	255	26.8		0.0		0.08	D
26	12	48	45.9	19-21.5	155-13.6	8.4	2.6	15	163	2.6	0.11	1.1	0.5	0.18	C
26	16	56	48.6	19-11.6	154-57.9?	0.3*		9	276	28.4	0.50	2.8		0.23	D
26	19	41	59.6	19-23.3	155- 2.6	7.8		9	199	13.2	0.24	3.0	1.1	0.15	C
27	16	0	18.3	19-12.0	155-28.7	8.3	2.7	18	161	15.7	0.09	0.8	0.5	0.14	C
27	19	15	11.6	19-20.4	155- 8.6	6.3	2.0	14	179	3.7	0.19	1.2	1.0	0.19	C
28	3	14	29.7	19-25.2	154-51.8	3.5	2.5	7	283	7.4	1.01	4.6	3.4	0.13	D
28	6	9	20.8	19-26.3	155-14.1	31.3	2.1	17	87	5.7	0.19	1.2	1.8	0.15	B
28	6	47	5.2	19-23.2	155- 3.6	14.3		8	197	11.5	0.06	0.7	0.4	0.03	B
28	7	57	10.1	19- 4.2	156-21.9?	8.0*		9	335	81.1	4.30	26.5		0.13	D
28	8	6	17.7	19-20.6	155-11.7	10.6	2.3	15	204	3.6	0.16	1.1	0.5	0.16	C
28	9	1	2.5	19-48.8	155-46.1?	3.6	2.9	22	171	25.2	1.54	17.9	11.3	0.57	D
28	13	36	35.5	19-20.6	155-29.2	8.6	2.2	15	108	10.4	0.09	0.9	0.7	0.14	B
28	15	23	5.3	19-26.7	154-54.9	1.5	3.5	17	208	4.9	0.31	1.7	1.4	0.21	C
28	16	39	38.9	19-45.9	156- 6.9?	0.2	2.6	9	270	33.9	1.98	4.8	6.5	0.15	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
APR 28	16	55	56.4	19-15.7	154-42.6	28.7	2.7	19	295	30.9	0.61	3.5	4.0	0.10	D
28	22	22	25.9	19-19.4	155-13.8	9.8	1.8	16	194	5.1	0.09	0.7	0.4	0.12	C
29	6	11	17.2	19-19.9	155-28.9	8.4	1.8	13	117	9.8	0.10	1.1	0.9	0.17	B
29	20	58	57.1	19-21.6	155-16.7	27.7	2.7	19	117	2.1	0.12	0.8	1.2	0.11	B
29	21	45	45.3	19-19.6	155-14.1	10.2	1.6	16	193	4.6	0.07	0.6	0.3	0.10	B
30	2	18	6.8	19-13.2	155-27.9	28.0	2.4	16	158	15.2	0.25	1.2	2.9	0.11	C
30	5	32	13.5	19-19.5	155- 5.6	6.6	3.2	18	191	8.8	0.26	1.5	1.0	0.23	C
30	6	7	1.6	19-22.3	155- 7.8	10.7	3.9	21	230	4.0	0.17	1.1	0.4	0.16	C
30	6	40	14.7	19-21.9	155-10.5	6.8		10	163	0.9	0.25	1.4	1.0	0.14	C
30	8	46	30.5	19-25.2	154-55.5?	2.4*	2.1	7	286	37.4	0.34	1.7		0.13	D
30	14	58	44.6	19-24.2	155-24.9	10.8	1.9	14	123	7.8	0.05	0.4	0.3	0.09	B
30	16	55	25.8	19-23.4	155-13.4?	13.7*	1.7	5	308	7.7	0.38	6.9		0.25	D
30	18	56	30.7	19-12.3	155-22.3	29.5		12	206	14.7	0.30	1.6	3.0	0.08	C
30	21	32	39.1	19-14.4	155-24.8	32.4	3.9	23	161	11.0	0.29	1.6	2.9	0.22	C
30	21	56	17.8	19-12.2	155-22.9	30.9		12	204	14.8	0.31	1.7	2.9	0.09	C
30	23	32	32.5	19-12.3	155-22.8	31.8	2.3	10	204	14.7	0.43	2.2	4.0	0.09	C
1	5	10	11.1	19-20.2	155-27.8	11.4	1.9	9	149	7.9	0.12	1.1	0.7	0.09	B
1	6	31	17.5	19-30.8	155-35.2?	15.1	2.1	8	198	20.9	0.13	0.9	1.1	0.07	C
1	8	53	25.0	19-22.3	155-25.1	10.3	1.6	13	118	4.9	0.07	0.7	0.7	0.11	B
1	9	0	59.2	20- 3.8	155-53.1?	3.6	3.7	20	276	19.6	3.82	20.1	7.3	0.34	D
1	20	19	1.6	19-14.0	155-17.6	42.9	1.9	14	219	11.3	0.31	1.5	2.4	0.09	C
1	20	46	4.3	19-19.9	155- 1.5	4.9		8	241	19.7	0.44	2.5	1.3	0.15	D
2	4	12	44.1	19-19.6	155-10.0?	11.4	1.6	13	214	4.1	0.13	1.3	0.3	0.11	C
2	4	13	15.6	20- 4.1	155-57.6?	8.0*	2.0	18	319	27.6	4.10	27.9		4.26	D
2	8	47	33.9	19-29.5	155-17.4	16.8*	3.0	5	233	33.0	0.33	2.8		0.08	D
2	11	22	7.2	19-20.6	155-13.4	9.7	1.4	14	187	2.8	0.14	1.0	0.6	0.14	C
2	13	17	15.5	19-18.9	155-42.5	12.1		8	259	12.1	0.55	3.4	1.9	0.07	D
2	15	13	31.8	19-21.5	155-18.2	30.1	2.6	19	73	3.0	0.14	1.0	1.4	0.13	B
2	15	26	40.3	19-50.3	155-36.6	14.6*	2.3	10	137	17.7	0.08	0.9		0.10	C
3	1	56	57.2	19-44.6	155-43.3	37.3	2.7	18	144	31.9	0.48	1.5	6.3	0.14	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 3	3	36	15.2	19-12.0	155-34.5	8.2		6	141	7.1	0.13	1.4	1.1	0.08	B
3	3	50	49.8	19-12.3	155-33.0	8.6		7	147	8.6	0.12	1.3	1.0	0.13	B
3	5	26	16.9	19-22.4	155-23.1	9.7	0.9	12	137	4.0	0.07	0.7	0.6	0.10	B
3	6	47	32.3	19-21.9	155-16.1	32.0	2.4	20	117	1.0	0.14	0.9	1.3	0.12	B
3	7	30	35.3	19-26.2	154-51.7	8.0*	2.5	11	292	39.3	2.3?	15.4		0.29	D
3	9	26	2.3	20- 3.1	155-31.6	50.1	3.2	18	226	18.3	0.49	2.1	4.2	0.09	C
3	20	43	36.0	19- 2.5	155-24.0	27.2*	2.6	11	254	22.2	0.22	1.9		0.09	D
4	12	31	60.0	19-24.5	155-25.1	8.6	2.2	14	125	8.6	0.10	0.8	0.8	0.17	B
4	14	5	0.8	19-21.4	155-15.6	7.7	1.2	7	148	1.0	0.24	0.7	1.5	0.05	B
4	14	34	51.6	19-19.6	155-28.0	7.2	2.6	13	120	16.4	0.11	1.0	1.1	0.19	B
4	16	23	48.9	19-21.5	155- 9.9	14.1	1.3	6	194	0.6	0.08	1.3	0.7	0.03	C
4	16	57	25.4	19-19.2	155-16.2	12.9	1.5	8	212	2.6	0.08	0.4	0.7	0.02	B
4	17	32	29.3	19-25.4	155-11.2	9.8	1.2	10	232	6.9	0.15	1.0	0.7	0.07	C
4	18	6	17.9	19-13.8	155-31.1	7.1	1.8	12	143	10.6	0.08	0.7	0.8	0.11	B
4	18	36	19.4	19-19.6	155-15.9	9.7	1.0	14	189	2.8	0.07	0.6	0.4	0.09	B
4	23	2	3.1	19-27.6	155-14.2?	8.0*	1.8	10	266	7.0	0.72	5.0		0.57	D
5	0	52	15.8	19-20.5	155-13.3	8.0	2.1	17	166	4.0	0.13	1.0	0.5	0.19	C
5	5	26	5.2	19-21.4	155-11.4	7.5	1.5	14	159	2.5	0.17	1.3	0.7	0.19	C
5	7	14	2.2	19-19.1	155- 6.9	22.4*	1.9	6	336	7.4	0.04	0.8		0.01	D
5	11	39	52.0	20- 0.7	155-32.5	8.4	2.8	15	213	16.7	0.15	1.1	0.6	0.07	C
5	14	48	41.6	19-26.6	154-52.1?	8.0*	2.2	7	282	3.6	0.21	2.3		0.21	D
5	15	17	21.4	19-19.4	155-13.8	8.6	1.4	15	211	5.2	0.16	1.3	0.7	0.16	C
5	17	50	53.7	19-20.1	155-11.6	12.4	1.5	7	229	4.2	0.31	1.3	2.1	0.04	C
5	19	39	18.6	19-21.2	155-11.8	14.4	1.5	8	186	2.6	0.40	1.4	2.8	0.05	C
5	23	13	57.3	19-12.8	155-22.9	29.3	2.0	11	181	13.7	0.26	1.3	2.8	0.08	C
6	0	39	53.1	19-11.9	155-22.1	26.2	2.0	7	220	15.4	0.52	2.9	6.2	0.09	C
6	2	41	39.1	19-15.5	155- 8.1	24.4	1.8	8	242	17.1	0.23	2.0	2.8	0.04	C
6	4	4	26.8	19-19.9	155-14.0	9.0	1.2	16	168	4.1	0.08	0.8	0.5	0.13	C
6	5	20	39.4	19-27.7	155-13.3?	8.0*	1.6	11	276	8.4	0.26	5.1		0.43	D
6	5	22	18.7	19-20.6	155-16.4	22.8	1.6	10	175	3.0	0.18	1.0	1.7	0.06	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 6	6	21	38.7	19-18.0	155-15.3	7.8	3.2	17	182	7.0	0.14	1.0	0.6	0.17	C
6	6	23	36.7	19-18.9	155-13.7	15.6	1.6	9	227	6.0	0.04	0.3	0.4	0.02	C
6	6	24	12.4	19-19.2	155-14.8	9.1	1.5	9	198	4.8	0.20	1.8	1.3	0.16	C
6	6	28	60.0	19-18.8	155-14.1	15.4	1.7	6	227	5.9	0.18	1.6	1.6	0.03	C
6	9	46	17.4	19-24.0	155-16.7	2.6	0.8	8	164	1.1	0.20	0.5	1.1	0.05	B
6	12	32	2.0	19-23.6	155-17.1	1.9	0.7	7	135	0.6	0.02	0.1	0.2	0.01	B
6	18	10	12.5	19-20.3	155-10.0	9.0	2.5	19	175	2.7	0.12	1.0	0.5	0.17	C
6	22	27	45.7	19-24.1	155-15.7	6.0	1.2	8	224	2.3	0.77	2.1	3.6	0.09	C
6	22	31	3.3	19-34.0	155-41.1	17.4*	2.1	12	237	33.5	0.22	1.5		0.16	D
7	2	58	21.7	19-23.5	155-16.6	15.7	1.8	16	92	0.4	0.07	0.7	0.8	0.11	B
7	4	16	10.8	19-20.5	155-14.3	8.2	1.6	14	182	2.9	0.12	0.9	0.6	0.15	C
7	5	2	3.3	19-23.7	155-17.2	1.4	0.7	7	133	1.0	0.13	0.4	1.1	0.05	B
7	7	41	7.8	19-23.6	155-17.0	2.2	0.8	7	136	0.4	0.25	0.7	1.7	0.08	B
7	7	41	44.6	19-22.2	155- 9.8	7.1	1.8	14	243	0.9	0.17	1.1	0.6	0.13	C
7	10	30	40.8	19-12.1	155-31.3	6.7		10	152	11.4	0.10	0.9	1.1	0.11	C
7	17	22	57.4	19-19.4	155-13.6	9.9	1.8	16	194	5.4	0.08	0.7	0.4	0.10	C
7	23	25	18.0	19-33.2	155-56.9	30.7	2.8	12	278	4.7	0.59	2.9	4.7	0.07	D
7	23	58	46.6	19-18.6	155- 5.8?	15.2*	1.3	8	226	9.4	0.19	4.2		0.21	D
8	1	16	56.1	19-19.4	155-15.5	9.8	1.6	15	191	3.5	0.08	0.6	0.3	0.10	B
8	2	16	37.8	19-19.4	155-11.8	10.8	1.8	10	265	5.4	0.35	3.1	1.2	0.19	D
8	2	25	58.9	19-12.8	155- 7.9	4.2	1.9	12	257	17.0	0.63	2.9	1.8	0.19	D
8	3	15	55.4	19-22.7	155-22.3	9.3	1.3	11	149	4.9	0.09	0.6	0.5	0.08	B
8	9	0	19.8	20- 1.6	155-50.5	5.5	3.0	18	145	14.9	0.26	1.2	1.5	0.13	B
8	20	27	5.8	19-20.9	155-25.6?	5.5	2.2	16	115	11.6	0.11	0.9	0.8	0.19	B
9	9	10	50.1	19-22.9	155-11.1	9.1	2.1	16	129	2.6	0.04	0.5	0.3	0.09	B
9	18	4	41.7	19-14.1	155-24.4?	42.6	2.7	18	164	11.4	0.25	1.3	2.3	0.10	C
9	18	21	26.9	19-30.4	155-42.8	5.9	2.4	16	128	21.9	0.10	0.7	0.8	0.14	B
9	21	9	1.6	19-25.9	155-27.6	13.4	1.8	10	216	10.3	0.25	2.2	2.2	0.16	C
10	3	1	21.1	19-13.2	155-23.9	30.7	2.1	10	191	13.0	0.38	1.9	3.7	0.09	C
10	3	58	39.0	19-11.6	155-22.0	31.8	2.3	13	183	16.1	0.18	1.2	2.7	0.08	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 10	5	30	53.2	19-22.8	155- 3.8?	9.1	4.1	23	177	11.1	0.20	1.9	0.9	0.30	C
10	6	33	49.4	19-14.4	155- 7.8	2.2	2.1	14	228	14.1	1.02	1.7	4.4	0.18	C
10	9	55	16.9	19-19.5	155- 7.6	9.1	1.7	12	317	6.0	0.68	3.6	1.0	0.26	D
10	11	17	37.8	19-21.0	155-25.5	11.1	1.7	13	129	4.2	0.08	0.8	1.3	0.12	B
10	11	31	59.0	19-20.9	155-11.6	6.9	1.4	9	200	3.3	0.29	2.0	1.1	0.16	C
10	11	33	34.4	19-14.0	155-24.1	17.3	1.5	14	182	11.5	0.15	1.3	3.4	0.13	C
10	11	36	30.6	19-12.8	155-22.9	33.1	2.2	16	181	13.7	0.38	1.7	3.7	0.13	C
10	13	10	5.0	19-22.2	155-26.3	7.7	1.9	14	83	6.5	0.10	0.9	0.9	0.21	F
10	16	22	53.0	19-20.6	155-13.9	15.4	1.2	7	188	3.3	0.18	0.9	1.7	0.03	B
10	17	11	40.3	19-21.9	155-23.0	6.1	1.2	9	169	3.2	0.42	1.2	3.1	0.11	C
10	20	5	41.7	19-18.7	155-16.7	9.7	1.4	16	166	2.9	0.06	0.5	0.4	0.09	B
10	20	47	55.6	19-20.4	155-18.8	8.2	1.1	11	151	2.5	0.10	0.7	0.6	0.11	C
10	20	50	36.9	19-20.5	155-17.5	10.0	1.1	13	90	0.8	0.09	0.7	0.6	0.11	B
10	20	51	48.2	19-20.1	155-17.9	8.7	1.2	14	159	0.9	0.09	0.7	0.5	0.12	C
10	20	55	4.5	19-20.6	155-18.8	8.1	1.3	10	140	2.6	0.11	1.0	0.7	0.12	B
11	1	15	13.2	19-19.7	155-16.5	11.8		7	247	1.8	0.24	0.9	1.6	0.02	C
11	2	18	57.1	19- 7.9	155-35.1	9.6	2.2	15	136	8.4	0.09	1.0	0.7	0.11	B
11	6	16	14.6	19-26.8	155-27.0?	13.8	1.3	7	258	8.4	0.52	2.6	4.2	0.04	D
11	7	40	57.4	19-43.7	156- 7.2	32.2	2.6	13	302	31.0	1.06	5.8	5.7	0.08	D
11	21	12	32.3	19-22.0	155- 7.3	7.4	2.1	14	191	4.8	0.12	1.3	0.7	0.15	C
12	6	49	7.7	19-10.6	155- 4.4	3.4	2.6	12	268	22.9	0.80	3.4	2.0	0.15	D
12	9	24	25.9	19-21.4	155-18.5	26.9		13	107	3.1	0.23	1.2	2.1	0.09	B
12	12	48	43.9	19-20.8	155- 7.3	5.2	2.0	16	198	14.2	0.13	1.0	0.7	0.15	C
13	11	59	10.0	19-24.5	154-46.3?	8.0*	2.7	17	319	14.0	1.59	12.7		0.72	D
13	14	2	25.8	19-19.9	155-18.5	26.2	1.7	10	144	1.9	0.18	0.8	1.8	0.06	B
13	14	28	50.1	19-28.5	155-13.9?	8.0*	1.2	8	322	8.6	0.78	7.0		0.45	D
13	14	29	26.4	19-26.1	155-14.7?	1.8	1.0	10	292	4.6	1.19	4.4	14.7	0.37	D
13	15	12	57.1	19-23.5	155-25.3	8.4	3.2	17	82	7.0	0.09	0.8	0.7	0.18	B
13	15	21	39.4	19-23.5	155-25.4	7.4	2.7	18	59	7.1	0.09	0.8	0.7	0.16	B
13	16	32	36.1	19-18.7	155-17.2	27.6	1.3	11	193	6.6	0.16	1.3	1.7	0.07	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 13	16	42	7.2	19-20.9	155- 3.5	4.0	2.1	10	263	20.7	1.36	5.4	5.0	0.12	D
13	19	36	37.0	19- 8.4	155-28.7?	17.2	1.9	12	195	16.4	0.21	1.5	5.1	0.14	C
13	20	4	25.4	19-25.5	155-22.9	10.5	1.3	9	171	5.5	0.28	0.5	1.8	0.04	B
13	21	38	19.0	19-15.8	155- 9.7	2.8	1.7	8	218	14.7	1.02	1.9	4.4	0.12	C
13	22	9	17.1	19-11.7	155-35.0	8.6	1.8	6	139	7.0	0.18	1.9	1.4	0.11	B
13	22	36	7.4	19-21.3	155-15.2	11.2	1.1	7	156	0.9	0.07	0.7	0.4	0.04	B
13	23	45	44.7	19-54.8	155-33.3	9.5	2.3	12	194	18.4	0.14	1.9	0.9	0.14	C
14	0	32	7.2	19-24.8	155-24.9	8.6	2.3	16	74	8.9	0.07	0.6	0.5	0.11	B
14	5	11	37.7	19-20.2	155- 5.5	4.3	2.2	14	188	17.4	0.19	1.2	1.0	0.15	C
14	6	29	27.0	19-24.9	155-24.0	10.6	1.7	12	180	7.6	0.06	0.5	0.4	0.06	B
14	7	35	37.7	19-24.3	155-17.4	8.4	1.1	9	112	0.8	0.08	0.3	0.5	0.02	A
14	11	12	21.4	19-17.6	155-47.6	10.2	3.3	14	189	19.2	0.22	1.3	1.0	0.13	C
14	17	14	6.0	19-25.7	155-10.9	10.2	1.6	10	238	7.4	0.38	1.1	2.7	0.06	C
14	20	10	45.2	19-19.4	155-16.2	9.9	1.7	14	189	2.4	0.06	0.5	0.3	0.08	B
15	2	13	14.0	19-28.0	155-54.2?	19.2*	3.5	14	213	6.2	0.72	6.5		0.59	D
15	2	40	22.0	19-20.9	155-16.4	28.1	1.8	11	171	2.6	0.36	1.5	3.2	0.08	C
15	2	53	7.8	19-21.5	155- 2.0	0.1	2.1	13	211	20.3	0.50	1.1	2.4	0.12	C
15	3	38	23.0	19-19.6	155-15.9	9.7	1.7	12	188	2.8	0.09	0.8	0.5	0.11	C
15	4	34	47.9	19-23.6	155-14.9?	1.5	0.5	6	167	2.8	0.15	0.9	2.1	0.06	C
15	4	40	11.6	19-23.1	155-13.3	6.9	1.2	6	299	4.3	0.45	1.2	1.7	0.01	C
15	4	40	55.9	19-21.7	155-16.1	3.5	1.1	6	220	1.4	1.11	4.5	6.5	0.12	C
15	4	41	17.1	19-23.1	155-15.2	6.3	1.5	11	146	1.7	0.11	0.8	0.7	0.12	B
15	4	41	46.5	19-23.2	155-14.9	6.2	1.8	13	156	2.3	0.08	0.5	0.5	0.09	C
15	4	42	26.5	19-23.4	155-15.1	2.3	1.6	11	160	2.4	0.06	0.5	0.4	0.10	B
15	4	43	13.6	19-23.1	155-14.8	6.6	2.1	9	114	2.4	0.07	0.7	0.5	0.11	B
15	4	44	42.8	19-22.4	155-14.4	6.9	2.2	6	133	2.6	0.30	2.7	1.9	0.20	C
15	4	45	22.9	19-22.6	155-14.6	6.8	2.2	6	139	2.4	0.32	2.4	1.7	0.15	B
15	4	48	28.8	19-23.5	155-14.9	3.0	1.3	6	166	2.6	0.06	0.4	0.3	0.03	B
15	4	48	55.4	19-24.5	155- 5.8	2.4	2.1	8	333	18.1	0.38	1.9	1.8	0.08	C
15	4	49	36.3	19-23.1	155-13.8	7.2	1.9	5	174	2.6		0.0		0.11	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 15	4	51	43.1	19-23.1	155-14.9	6.4	1.7	12	153	2.2	0.09	0.6	0.6	0.10	C
15	4	52	11.8	19-23.5	155-14.4	6.9	2.0	5	175	3.3		0.0		0.10	D
15	4	52	28.2	19-23.8	155-14.3	6.8	1.8	7	190	3.8	0.12	0.8	0.5	0.05	B
15	4	53	12.3	19-23.3	155-15.0	6.7	2.2	15	108	2.3	0.05	0.5	0.4	0.10	A
15	4	54	43.6	19-27.9	155-15.2	1.9		4	277	10.3		0.0		0.0	D
15	4	55	20.3	19-23.1	155-14.6	6.7	1.4	8	272	2.6	0.42	2.4	1.0	0.15	C
15	4	55	46.1	19-23.6	155-14.8	6.4	2.2	8	100	2.9	0.07	0.8	0.6	0.10	A
15	4	56	28.9	19-23.4	155-15.0	6.5	2.7	11	103	2.5	0.07	0.8	0.5	0.13	B
15	5	0	23.9	19-22.1	155-13.9	6.9	2.0	5	167	2.5		0.0		0.14	D
15	5	0	36.1	19-22.9	155-14.1	7.0	2.5	6	121	2.9	0.10	1.1	0.6	0.06	B
15	5	1	12.6	19-24.4	155-14.7	6.3	2.2	5	203	4.2		0.0		0.03	D
15	5	2	24.2	19-23.3	155-14.2	6.8	2.2	6	108	3.3	0.11	1.2	0.7	0.07	B
15	5	4	46.5	19-23.0	155-14.9	6.8	2.6	8	116	2.1	0.12	1.1	0.7	0.13	B
15	5	8	34.0	19-23.1	155-15.0	6.1	2.5	9	114	1.9	0.10	1.0	0.6	0.15	B
15	5	12	9.1	19-23.6	155-14.7	3.1		7	179	3.0	0.03	0.2	0.1	0.02	B
15	5	12	20.4	19-23.2	155-14.8	6.3	2.7	16	112	2.4	0.05	0.5	0.3	0.12	B
15	5	14	5.8	19-23.3	155-15.0	6.1	2.5	14	84	2.3	0.07	0.6	0.3	0.10	B
15	5	17	1.8	19-23.6	155-14.4	6.2		7	184	3.5	0.19	1.3	0.8	0.09	C
15	5	17	41.3	19-23.3	155-14.9	5.7	2.1	15	108	2.4	0.06	0.5	0.4	0.13	B
15	5	19	30.6	19-23.5	155-14.6	6.3	2.2	9	103	3.0	0.07	0.8	0.4	0.10	A
15	5	20	28.6	19-23.3	155-14.9	6.3	2.1	9	86	2.5	0.09	0.8	0.5	0.11	B
15	5	22	20.0	19-23.1	155-14.7	6.3	2.5	15	95	2.5	0.05	0.6	0.4	0.13	B
15	5	23	35.4	19-23.1	155-14.7	2.9	1.9	7	156	2.5	0.25	0.5	1.8	0.07	B
15	5	24	23.3	19-23.2	155-14.4	6.7	2.4	9	163	2.9	0.14	0.9	0.6	0.10	B
15	5	25	26.9	19-23.2	155-14.8	6.3	2.2	11	160	2.5	0.13	0.8	0.6	0.12	C
15	5	27	35.2	19-23.2	155-15.0	6.6	2.2	14	85	2.1	0.06	0.5	0.4	0.10	B
15	5	28	55.4	19-23.3	155-14.6	2.5	1.3	9	167	2.9	0.07	0.4	0.3	0.06	B
15	5	29	13.4	19-23.8	155-14.2	6.5	1.8	11	181	3.8	0.09	0.6	0.5	0.08	B
15	5	29	55.3	19-23.4	155-14.4	6.5	1.8	10	172	3.1	0.14	0.9	0.6	0.10	B
15	5	33	48.4	19-23.1	155-14.4	4.2		5	168	2.8		0.0		0.04	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 15	5	34	9.7	19-23.2	155-13.7	5.2	1.4	9	171	2.5	0.26	0.8	2.1	0.11	C
15	5	34	26.6	19-23.5	155-14.9	2.9	1.6	9	169	2.7	0.07	0.4	0.3	0.06	B
15	5	35	33.9	19-23.2	155-14.9	6.3	2.1	10	90	2.3	0.07	0.7	0.5	0.11	B
15	5	38	22.8	19-23.1	155-14.4?	2.0	1.2	9	161	2.9	0.15	0.9	1.7	0.09	C
15	5	38	47.5	19-22.7	155-14.2	6.2	1.5	11	147	2.5	0.13	0.9	0.8	0.14	B
15	5	40	40.6	19-22.4	155-14.8	6.0	1.6	10	125	1.3	0.04	0.4	0.3	0.04	B
15	5	41	11.6	19-23.4	155-14.4	6.4	1.8	10	168	3.2	0.11	0.8	0.7	0.11	C
15	5	42	35.3	19-23.1	155-14.8	6.4	2.1	15	92	2.3	0.05	0.5	0.3	0.09	A
15	5	43	33.9	19-23.5	155-14.6	2.1		6	176	3.1	0.22	0.4	1.8	0.04	B
15	5	43	51.0	19-23.3	155-14.6	6.5	2.2	14	92	2.8	0.06	0.6	0.4	0.12	B
15	5	44	28.7	19-13.5	155-17.4	3.2*	2.0	9	319	15.7	0.60	2.6		0.18	D
15	5	44	46.7	19-23.4	155-14.8	3.3	1.6	9	165	2.7	0.11	0.6	1.5	0.08	B
15	5	45	51.4	19-23.4	155-14.5	3.1	1.4	10	167	3.1	0.06	0.5	1.6	0.08	B
15	5	46	0.1	19-22.8	155-14.6	6.1	2.1	12	113	2.2	0.09	0.7	0.5	0.12	B
15	5	46	43.9	19-23.4	155-14.7	2.8	1.3	8	167	2.8	0.32	0.6	2.3	0.08	C
15	5	47	31.8	19-23.2	155-15.5	2.1	1.4	8	144	1.7	0.19	0.5	1.3	0.09	B
15	5	48	21.3	19-23.2	155-14.7	1.0	1.9	9	161	2.6	0.08	0.4	0.6	0.06	B
15	5	49	18.1	19-23.1	155-14.9?	10.0	1.5	9	155	2.3	0.57	2.5	4.9	0.21	C
15	5	50	2.9	19-22.6	155-14.6	6.2	1.7	10	138	1.9	0.16	1.2	1.0	0.17	B
15	5	51	18.4	19-23.2	155-14.5	6.6	1.7	10	163	2.9	0.16	1.0	0.7	0.13	C
15	5	51	57.9	19-22.1	155-14.7?	7.2	1.5	12	139	1.1	0.46	1.8	2.7	0.26	C
15	5	52	20.3	19-23.5	155-14.8	3.0		7	171	2.8	0.07	0.4	0.3	0.04	B
15	5	52	41.5	19-22.8	155-14.6	6.0	1.9	11	145	2.2	0.14	1.0	0.9	0.16	B
15	5	53	27.5	19-21.0	155-15.7	2.6	1.9	9	189	1.5	0.14	0.8	0.6	0.10	B
15	5	54	30.3	19-23.2	155-14.8	6.1	1.7	11	157	2.4	0.10	0.7	0.6	0.11	C
15	5	55	11.1	19-21.8	155-14.5	4.2	2.1	12	159	1.4	0.06	0.5	0.4	0.08	B
15	5	55	57.9	19-22.6	155-14.4	4.4	3.2	15	128	2.1	0.08	0.7	0.6	0.18	B
15	5	58	7.5	19-22.8	155-14.8	2.4	1.6	9	143	2.0	0.17	0.5	1.4	0.10	B
15	6	0	42.3	19-22.5	155-14.0	6.8	1.6	11	144	2.5	0.26	1.7	1.2	0.21	C
15	6	2	16.4	19-23.4	155-14.4	6.5	1.5	10	171	3.1	0.14	0.9	0.6	0.10	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 15	6	2	23.7	19-22.8	155-14.8	7.1	2.2	12	109	2.0	0.10	0.8	0.5	0.13	B
15	6	3	4.0	19-22.2	155-14.8	5.9	1.6	9	149	1.1	0.09	0.8	0.5	0.08	B
15	6	3	35.2	19-22.6	155-15.2	4.7	1.9	9	130	1.3	0.10	0.8	0.6	0.09	B
15	6	6	8.7	19-23.0	155-15.4	3.3	1.2	8	215	1.4	0.27	1.2	1.4	0.09	C
15	6	7	9.7	19-22.9	155-14.8	5.2	2.3	8	148	2.2	0.27	1.1	2.1	0.10	B
15	6	9	13.0	19-23.2	155-14.6	3.4	1.5	10	160	2.7	0.07	0.4	1.0	0.06	B
15	6	9	57.0	19-23.6	155-14.8	6.2	1.7	10	168	2.9	0.09	0.7	0.5	0.10	B
15	6	12	52.6	19-23.1	155-14.5	2.5	1.7	8	160	2.8	0.11	0.5	0.5	0.07	B
15	6	15	14.1	19-16.5	155-19.1	10.5	2.4	8	323	11.8	0.46	3.2	6.2	0.08	D
15	6	15	22.7	19-26.4	155- 5.1	8.0*		7	174	19.7	0.05	1.3		0.05	C
15	6	16	25.1	19-23.0	155-14.7	6.4	2.2	15	101	2.3	0.06	0.5	0.4	0.08	B
15	6	19	35.8	19-23.5	155-14.8	6.6	1.5	11	164	2.8	0.09	0.6	0.5	0.08	B
15	6	20	8.7	19-22.9	155-14.8	4.2	1.1	8	146	2.1	0.26	0.9	2.1	0.07	B
15	6	20	41.0	19-23.0	155-14.8	6.2	2.4	16	95	2.2	0.06	0.5	0.4	0.11	B
15	6	22	26.0	19-23.4	155-15.3	2.7		7	154	2.0	0.05	0.1	0.4	0.01	B
15	6	25	14.0	19-22.5	155- 8.6?	12.1	1.8	8	335	11.9	0.41	5.0	4.6	0.08	D
15	6	32	8.8	19-22.5	155-13.9	6.1	1.8	10	143	2.4	0.18	1.1	0.8	0.13	B
15	6	34	14.0	19-23.2	155-14.5	3.7	1.2	7	261	2.9	0.42	1.5	2.1	0.05	C
15	6	36	44.9	19-23.9	155-13.8	6.3	1.4	9	282	4.6	0.47	2.5	0.7	0.10	C
15	6	37	24.2	19-23.4	155-14.9	6.4	1.5	11	161	2.5	0.12	0.9	0.7	0.13	C
15	6	37	44.0	19-23.2	155-14.7	6.4	1.5	11	158	2.6	0.10	0.7	0.6	0.11	C
15	6	38	28.9	19-23.5	155-15.6	6.0	1.2	10	150	2.0	0.07	0.5	0.4	0.08	B
15	6	40	38.7	19-23.1	155-14.8	4.7	1.8	12	154	2.3	0.07	0.5	0.5	0.07	C
15	6	41	0.9	19-22.9	155-14.9	6.4	2.1	13	145	2.0	0.09	0.6	0.6	0.11	B
15	6	42	20.1	19-23.4	155-14.7	3.0	1.1	8	166	2.8	0.05	0.4	0.3	0.04	B
15	6	42	49.4	19-23.1	155-14.6	3.4	1.5	10	159	2.6	0.05	0.3	0.7	0.05	B
15	6	43	31.2	19-23.1	155-15.3	4.2	1.2	7	226	1.7	0.41	1.5	2.1	0.09	C
15	6	46	43.6	19-23.3	155-14.8	3.8	1.3	9	162	2.6	0.12	0.5	1.1	0.07	B
15	6	46	59.2	19-23.5	155-14.8	0.0*	1.0	9	169	2.8	0.09	0.4		0.10	C
15	6	48	23.5	19-22.2	155-14.5	4.4		5	162	1.6		0.0		0.02	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 15	6	49	32.6	19-23.3	155-15.3	3.0	1.1	9	154	2.1	0.04	0.3	0.2	0.05	B
15	6	51	38.4	19-23.2	155-14.4?	4.4	0.7	7	166	3.0	0.48	0.9	8.5	0.09	C
15	6	52	15.4	19-23.1	155-14.2	2.8	3.0	13	109	3.1	0.07	0.5	0.5	0.14	B
15	6	55	29.3	19-24.3	155- 7.9	23.1	2.1	10	328	8.6	0.80	7.8	7.5	0.24	D
15	6	56	20.4	19-22.7	155-14.5	1.1	1.2	9	145	2.3	0.12	0.4	1.6	0.07	B
15	6	59	15.1	19-22.1	155-14.0	0.2*	1.5	8	143	2.3	0.10	0.6		0.14	C
15	7	0	21.9	19-23.2	155-15.2?	4.3	1.3	7	151	1.9	0.53	1.2	3.9	0.14	C
15	7	5	12.2	19-23.3	155-14.3	3.8		9	168	3.2	0.17	0.4	2.1	0.08	C
15	7	7	26.1	19-23.1	155-14.4	0.1*	1.0	10	161	2.9	0.07	0.4		0.11	C
15	7	7	44.0	19-24.8	155-10.5	8.0*		7	323	10.1	1.14	4.8		0.08	D
15	7	9	5.5	19-23.7	155-11.5	8.0*	1.5	6	319	7.5	0.41	2.0		0.04	D
15	7	21	9.2	19-23.0	155-14.7	6.4	2.2	13	99	2.4	0.06	0.6	0.4	0.11	B
15	7	43	31.4	19-23.2	155-15.4	3.3	1.4	9	146	1.7	0.09	0.5	0.9	0.09	B
15	7	43	59.5	19-23.4	155-14.6	3.6	1.2	8	255	2.9	0.33	1.3	1.4	0.07	C
15	7	45	5.2	19-23.5	155-14.6	0.2*	1.3	10	166	3.0	0.06	0.4		0.08	C
15	7	47	17.4	19-16.5	155-13.5	0.6	2.0	8	312	10.3	0.50	2.0	1.0	0.12	C
15	7	56	1.9	19-22.5	155-12.2	11.3	1.8	8	317	5.7	0.39	2.7	2.3	0.09	D
15	7	56	22.6	19-23.3	155-15.4	1.5	1.3	9	151	1.9	0.09	0.3	1.0	0.06	B
15	7	57	28.1	19-23.1	155-14.8?	1.8	1.7	11	155	2.3	0.18	1.3	1.0	0.21	C
15	8	8	58.2	19-22.9	155-14.4	0.1*	1.1	9	154	2.6	0.08	0.4		0.12	C
15	8	10	34.4	19-23.6	155-14.5	3.2	1.2	8	261	3.2	0.34	1.5	0.4	0.07	C
15	8	12	24.6	19-22.0	155-15.1	2.9	1.6	10	126	0.4	0.06	0.5	0.4	0.09	B
15	8	26	50.2	19-22.9	155-14.4	4.5	1.3	11	153	2.5	0.13	0.9	0.9	0.16	C
15	8	28	51.9	19-23.7	155-14.3	4.1	0.7	7	272	3.7	0.12	0.4	0.4	0.01	C
15	8	31	33.1	19-22.7	155-14.6	0.2*		8	149	2.1	0.07	0.4		0.09	C
15	8	38	35.7	19-22.9	155-14.6	2.7	0.9	8	159	2.4	0.06	0.4	0.4	0.06	B
15	8	41	38.3	19-22.6	155-14.2	2.3	1.4	11	142	2.4	0.09	0.4	0.6	0.11	B
15	9	3	24.0	19-23.5	155-14.3	3.8		7	270	3.4	0.50	1.9	1.7	0.05	C
15	9	35	43.5	19-22.1	155-15.0	7.4	1.6	9	157	1.7	0.16	2.1	1.4	0.15	C
15	9	42	8.6	19-25.2	155- 8.7	8.0*	1.8	6	332	13.2	2.96	11.8		0.09	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 15	9	43	39.9	19-25.0	155-10.0	8.0*		7	326	11.0	1.80	7.4		0.09	D
15	9	46	30.7	19-24.8	155- 9.5	8.0*	1.7	7	327	11.5	1.37	5.5		0.07	D
15	9	47	27.0	19-23.9	155-14.1	3.0	0.6	8	273	4.2	0.27	1.1	0.2	0.04	C
15	10	4	27.8	19-23.3	155-15.3	4.1	1.0	11	150	1.9	0.13	0.6	1.2	0.12	B
15	10	20	57.6	19-21.8	155-15.3	3.0	1.1	11	162	0.1	0.07	0.5	0.3	0.11	C
15	10	33	9.9	19-24.9	155- 9.8	8.0*	1.6	7	326	11.2	1.44	5.8		0.07	D
15	10	45	1.3	19-22.4	155-14.2	2.7		12	135	2.3	0.07	0.5	0.4	0.10	B
15	11	0	42.5	19-22.7	155-14.5	6.5	1.0	13	144	2.2	0.09	0.6	0.6	0.10	B
15	11	4	26.5	19-19.2	155-13.6	10.1	3.8	19	170	5.7	0.11	0.9	0.4	0.15	C
15	11	8	3.1	19-19.4	155-13.2	13.8	1.5	8	223	5.9	0.31	1.3	2.4	0.06	C
15	11	9	21.2	19-18.4	155-13.6	9.2	2.6	15	175	6.9	0.12	0.9	0.6	0.12	C
15	11	12	57.6	19-18.5	155-12.7	15.1	1.3	7	242	7.6	0.14	1.4	0.5	0.04	C
15	11	13	45.4	19-19.7	155-13.8	10.0	1.3	17	168	4.7	0.06	0.6	0.3	0.10	C
15	11	15	42.2	19-19.6	155-13.9	11.1	1.1	13	209	4.7	0.08	0.7	0.3	0.08	B
15	11	16	4.5	19-24.9	155-10.5	8.0*	1.5	7	324	10.2	0.96	4.0		0.06	D
15	11	16	39.3	19-23.6	155-14.7	3.9	1.0	8	176	3.0	0.05	0.2	0.5	0.02	B
15	11	17	19.4	19-17.7	155-12.6	14.5	1.7	9	252	8.8	0.12	1.2	0.7	0.05	C
15	11	19	3.4	19-18.1	155-12.9	14.6	1.5	9	245	8.0	0.28	1.3	2.1	0.06	C
15	11	22	9.2	19-17.4	155-12.7	13.8	1.5	10	255	9.2	0.22	1.1	1.4	0.04	C
15	11	22	58.6	19-19.4	155-13.9	9.7	1.2	13	203	5.1	0.13	0.9	0.5	0.13	C
15	11	23	44.3	19-19.5	155-13.9	10.1	1.5	12	200	4.9	0.12	0.9	0.7	0.11	C
15	11	26	41.6	19-17.7	155-12.2	16.3	1.0	6	256	8.4	0.35	2.6	2.9	0.05	D
15	11	27	31.8	19-18.5	155-12.6	15.1	1.5	6	244	7.6	0.14	1.2	1.1	0.02	C
15	11	30	18.1	19-18.2	155-13.1	13.5	1.5	10	243	7.7	0.20	0.9	1.3	0.04	C
15	11	37	56.6	19-18.5	155-13.1	13.1	1.3	10	239	7.3	0.24	1.2	1.6	0.07	C
15	11	38	54.1	19-17.5	155-12.8	13.8	1.4	8	253	9.2	0.44	1.9	3.3	0.06	C
15	11	40	22.9	19-23.4	155-14.1	0.8	0.7	6	179	3.6	0.08	0.3	2.1	0.02	C
15	12	3	42.6	19-24.7	155-23.7	12.5	1.1	13	133	7.3	0.06	0.6	0.8	0.07	B
15	12	6	34.5	19-18.6	155-12.8	15.5	1.6	9	238	7.2	0.08	0.5	0.7	0.02	C
15	12	11	46.8	19-19.0	155-13.3	14.7	1.3	6	228	6.2	0.06	0.6	0.2	0.01	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 15	12	12	34.7	19-25.3	155- 9.3	8.0*	1.5	7	329	12.3	2.00	7.9		0.07	D
15	12	17	13.7	19-18.8	155-13.1	15.2	1.3	7	233	6.7	0.06	0.5	0.5	0.02	C
15	12	29	17.9	19-23.4	155-15.0	2.5	0.7	10	158	2.4	0.04	0.2	0.3	0.04	B
15	12	46	33.6	19-26.3	155- 4.8?	8.0*	1.5	7	339	20.2	3.98	14.8		0.05	D
15	13	7	19.6	19-18.7	155-13.2	14.6	1.3	7	234	6.8	0.13	0.6	1.0	0.02	C
15	13	23	16.6	19-23.2	155-15.2	6.3	1.3	12	150	1.9	0.09	0.6	0.6	0.11	B
15	13	32	51.9	19-17.9	155-13.0	13.8	1.2	9	247	8.2	0.30	1.4	2.2	0.06	C
15	13	33	19.7	19-25.0	155- 9.7	8.0*	1.5	7	327	11.5	1.43	5.8		0.07	D
15	13	48	56.8	19-24.3	155-10.9?	8.0*	1.3	8	320	9.0	0.31	4.3		0.29	D
15	14	0	56.0	19-23.1	155-14.2	3.1	1.0	10	162	3.0	0.04	0.3	0.2	0.06	B
15	14	8	3.6	19-23.1	155-14.9	6.2	1.6	14	151	2.1	0.07	0.5	0.5	0.09	C
15	14	8	57.9	19-23.7	155-14.5	2.9		8	185	3.4	0.06	0.3	0.2	0.04	B
15	14	11	12.4	19-27.6	155- 1.1	8.0*	1.7	7	344	27.1	0.79	3.8		0.09	D
15	14	13	39.1	19-23.1	155-14.9	6.1	1.9	14	91	2.1	0.05	0.5	0.4	0.08	B
15	14	18	47.3	19-27.0	155-13.2?	8.0*	1.4	6	319	8.7	3.83	34.3		0.68	D
15	14	22	46.9	19-24.5	155-15.4	4.1	0.8	6	252	2.9	0.12	0.5	0.5	0.01	C
15	14	26	47.2	19-22.5	155-14.5	5.7	1.3	12	136	1.9	0.18	0.7	1.3	0.12	B
15	14	45	43.0	19-17.4	155-12.5	14.7	1.8	8	256	9.2	0.17	1.4	0.5	0.04	C
15	15	8	44.9	19-25.0	155- 9.7	8.0*	1.3	6	329	11.5	1.14	4.6		0.04	D
15	15	34	44.9	19-24.2	155-15.7	2.6	0.7	9	171	2.4	0.07	0.5	0.4	0.07	B
15	15	37	13.7	19-16.1	155-12.8	15.4	1.4	7	287	10.9	0.83	4.7	4.9	0.07	D
15	15	39	54.8	19-24.0	155-13.9	3.1*	0.8	8	284	4.5	0.06	0.3		0.02	D
15	15	43	24.4	19-23.3	155-14.8?	2.2	0.7	10	161	2.6	0.06	0.4	0.9	0.06	C
15	15	43	53.9	19-24.0	155-12.3?	8.0*	1.3	10	310	6.7	0.23	3.6		0.42	D
15	15	48	32.8	19-23.1	155-14.3	3.0	0.9	6	172	3.0	0.05	0.4	0.2	0.03	B
15	15	48	49.8	19-24.8	155-11.2?	8.0*	1.4	5	322	9.0	9.61	36.6		0.08	D
15	16	5	40.4	19-22.7	155-14.9	6.2	2.0	16	98	1.8	0.06	0.5	0.4	0.12	B
15	16	28	59.7	19-14.4	155-33.7	7.9	2.4	10	124	6.0	0.08	0.9	0.7	0.11	B
15	16	50	13.6	19-23.6	155-14.5	3.9	0.8	8	181	3.3	0.05	0.3	1.3	0.03	B
15	18	7	34.8	19-23.9	155-10.7	8.0*	1.3	6	325	9.0	0.48	2.1		0.03	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 15	18	15	6.0	19-19.9	155-14.1	10.6	1.2	14	192	4.1	0.08	0.7	0.3	0.10	C
15	18	40	2.1	19-21.6	155- 3.2	0.6	2.4	15	188	16.4	0.61	1.2	2.9	0.16	C
15	18	41	47.7	19-30.2	155- 9.9	8.0*		7	336	15.8	3.65	13.9		0.06	D
15	18	48	53.6	19-23.1	155-14.2	2.8	0.9	7	171	3.1	0.05	0.4	0.2	0.04	B
15	19	3	5.6	19-24.1	155-15.3	4.8	0.9	6	243	2.9	0.23	0.7	1.1	0.02	C
15	19	31	28.5	19-23.9	155-16.2	4.2	1.4	11	150	1.5	0.13	0.6	1.0	0.11	B
15	20	0	13.3	19-23.4	155-15.0?	0.3*	0.7	11	160	2.4	0.07	0.4		0.10	C
15	20	1	7.3	19-22.9	155-14.6	2.6	0.8	7	159	2.4	0.07	0.4	0.3	0.05	B
15	20	13	2.7	19-18.8	155-13.1	14.9	1.4	9	234	6.8	0.13	0.9	1.0	0.04	C
15	20	31	28.1	19-24.7	155-15.0	4.1	0.8	7	216	3.5	0.08	0.3	0.7	0.02	B
15	21	9	20.3	19-27.2	155-26.4	7.9	2.2	15	76	7.3	0.08	0.7	0.6	0.12	B
15	21	18	19.6	19-23.4	155-14.6	3.2	0.7	9	165	2.9	0.06	0.4	1.0	0.06	B
15	21	35	12.8	19-23.5	155-15.0	3.3	0.9	9	167	2.6	0.06	0.4	0.9	0.06	B
15	21	38	44.6	19-24.1	155-15.9	3.1	0.7	8	215	1.9	0.19	1.1	0.5	0.07	C
15	22	18	45.9	19-23.2	155-15.3	3.3	0.8	7	147	1.8	0.06	0.7	1.2	0.05	B
15	23	29	10.7	19-23.9	155-15.5	4.5	0.8	6	230	2.4	0.09	0.3	0.4	0.01	C
15	23	34	58.6	19-24.7	155-16.0	5.3		9	195	1.7	0.26	1.1	1.5	0.11	C
15	23	39	21.2	19-24.1	155-16.2	0.1	0.9	8	153	1.6	0.19	0.6	9.7	0.13	C
15	23	40	15.8	19-23.8	155-15.0	0.5		7	179	3.0	0.13	0.4	2.5	0.05	C
15	23	47	7.5	19-25.3	155-16.7	4.3	2.0	7	160	0.9	0.29	1.4	2.2	0.10	C
15	23	50	26.4	19-23.9	155-15.3	0.2*	1.0	8	167	3.0	0.10	0.6		0.13	C
15	23	53	46.5	19-23.3	155-15.0	6.1	1.9	9	84	2.3	0.09	0.8	0.9	0.10	B
15	23	57	13.8	19-24.3	155-16.0	2.4	0.3	8	172	2.0	0.13	0.8	0.9	0.10	C
15	23	59	49.3	19-23.6	155-14.3	4.6	3.6	15	98	3.5	0.08	0.6	0.5	0.14	B
16	0	3	39.3	19-23.8	155-14.3	0.1*	1.5	7	189	3.7	0.08	0.4		0.07	C
16	0	4	18.8	19-23.8	155-15.5	2.1	0.4	9	164	2.4	0.16	0.5	1.9	0.10	B
16	0	9	1.3	19-23.3	155-15.9	4.4	1.4	11	137	1.6	0.09	0.7	0.7	0.13	B
16	0	13	46.9	19-24.1	155-16.8	2.3	0.3	7	122	1.3	0.14	0.4	0.8	0.04	B
16	0	14	34.4	19-24.0	155-15.5	2.5	0.5	9	170	2.5	0.03	0.2	0.2	0.03	B
16	0	14	59.1	19-23.7	155-15.7	5.0	2.2	12	82	2.0	0.07	0.6	0.5	0.13	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 16	0	16	51.4	19-22.3	155-15.6	5.5		10	113	0.6	0.07	0.6	0.5	0.08	A
16	0	20	44.3	19-24.5	155-16.0	1.2	1.2	9	170	1.9	0.06	0.2	0.6	0.04	B
16	0	21	17.3	19-23.9	155-16.2	0.1*	1.2	8	145	1.3	0.06	0.4		0.08	C
16	0	22	32.5	19-23.3	155-14.3	1.9		8	168	3.2	0.10	0.6	0.7	0.09	B
16	0	23	18.4	19-24.8	155-15.7	4.9	2.4	12	115	2.3	0.09	0.7	0.7	0.14	B
16	0	26	41.1	19-24.5	155-14.5	3.6	0.9	10	204	4.4	0.16	1.0	1.1	0.12	C
16	0	27	25.7	19-24.3	155-15.6	4.2	1.1	6	240	2.7	0.15	0.6	0.7	0.02	C
16	0	28	6.2	19-24.4	155-16.7	2.2	1.1	9	147	1.1	0.09	0.5	0.5	0.10	B
16	0	30	31.5	19-23.4	155-16.3?	4.5	1.8	11	82	1.0	0.13	0.7	1.2	0.17	B
16	0	32	8.9	19-23.9	155-15.6	3.1	2.0	11	165	2.3	0.10	0.7	0.4	0.13	C
16	0	32	56.5	19-23.9	155-15.9	2.2		8	158	1.7	0.26	0.7	1.8	0.12	C
16	0	33	37.9	19-23.4	155-15.2	3.1		6	156	2.8	0.22	1.5	5.0	0.14	C
16	0	34	18.2	19-24.3	155-15.5	0.3*	1.1	8	192	2.8	0.06	0.3		0.06	C
16	0	36	1.2	19-20.9	155- 8.3?	8.0*	2.9	13	251	3.4	1.05	9.7		1.92	D
16	0	38	5.9	19-23.0	155-14.1	0.2*	-0.3	7	169	3.0	0.06	0.4		0.07	C
16	0	39	55.3	19-22.4	155-16.1?	3.0	0.9	8	124	0.4	0.13	0.8	1.2	0.11	B
16	0	41	37.7	19-23.5	155-15.7	4.5	2.0	12	147	1.9	0.11	0.8	0.8	0.16	B
16	0	45	13.2	19-23.9	155-15.5?	0.9	1.6	11	165	2.4	0.16	0.8	1.8	0.14	C
16	0	48	44.7	19-24.3	155-15.4	2.3	0.8	7	194	3.0	0.06	0.5	0.6	0.04	B
16	0	50	31.1	19-25.0	155-15.7	0.2	1.0	8	181	2.2	0.18	0.8	4.9	0.12	C
16	0	52	22.8	19-28.8	155-13.4?	8.0*	1.5	6	325	9.6	1.30	12.4		0.58	D
16	0	54	7.9	19-24.7	155-15.6	4.7	2.2	11	202	2.6	0.16	1.0	0.8	0.14	C
16	0	57	10.9	19-23.9	155-16.4	4.1	0.9	9	182	1.1	0.26	1.0	1.6	0.11	C
16	1	6	35.3	19-15.0	155-15.4?	8.0*	1.5	6	298	12.6	1.28	17.4		0.57	D
16	1	8	27.2	19-23.8	155-15.1	3.4		6	247	3.0	0.23	1.0	1.3	0.03	C
16	1	9	25.7	19-23.2	155-14.6	2.7	1.1	7	170	2.7	0.08	0.6	0.4	0.08	B
16	1	22	29.7	19-21.9	155-16.9	5.9		6	256	2.0	0.29	3.8	2.2	0.05	D
16	1	22	49.8	19-23.3	155-15.2	2.1		9	154	2.1	0.19	0.5	1.7	0.10	B
16	1	25	51.5	19-23.5	155-14.9	2.2		8	165	2.7	0.09	0.6	1.3	0.08	B
16	1	26	9.7	19-23.5	155-14.7	2.9		8	169	2.9	0.04	0.3	0.2	0.05	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 16	1	29	26.0	19-23.9	155-15.9	6.4	1.3	7	209	1.8	1.49	4.0	7.2	0.14	C
16	1	31	17.8	19-20.1	155-15.3	8.9	2.1	16	160	3.2	0.11	1.0	0.5	0.17	C
16	1	36	45.2	19-24.3	155- 7.5	8.0*	1.8	5	337	14.5	3.20	50.7		0.17	D
16	1	46	20.6	19-22.8	155-14.6?	3.4	1.4	8	147	2.3	0.21	0.6	2.9	0.09	B
16	1	58	3.1	19-23.4	155-15.3	3.9	0.8	9	153	2.6	0.08	0.4	0.9	0.06	B
16	2	1	33.8	19-24.2	155-16.7	0.1*	1.6	11	130	1.4	0.02	0.1		0.03	C
16	2	7	39.3	19-23.4	155-14.9	3.2	0.8	9	163	2.6	0.07	0.5	1.2	0.08	B
16	2	9	37.6	19-23.3	155-16.0	8.0*	1.2	5	185	1.4	0.06	2.3		0.03	D
16	2	22	20.3	19-27.4	155-13.6?	8.0*	1.9	8	314	7.6	0.40	5.6		0.40	D
16	2	25	47.5	19-26.1	155-13.4	8.0*	1.2	5	322	6.8	0.84	4.2		0.05	D
16	2	26	38.6	19-26.2	155-16.1	5.8	2.4	15	103	2.8	0.07	0.6	0.6	0.14	B
16	2	29	0.3	19-23.9	155-16.1	3.4	0.5	7	200	1.5	0.21	1.0	1.4	0.07	B
16	2	37	23.1	19-22.7	155-14.1	2.3		9	150	2.8	0.03	0.3	0.2	0.05	B
16	2	40	54.1	19-21.7	155-14.7	5.7	1.2	7	172	1.1	0.12	0.6	0.9	0.04	B
16	3	9	10.1	19-23.4	155-14.8	2.2	0.5	10	163	2.7	0.07	0.4	0.6	0.09	B
16	3	12	0.7	19-23.6	155-14.0	3.7	0.9	7	201	3.3	0.07	0.4	1.0	0.02	B
16	3	15	36.3	19-22.4	155-15.2	6.1	1.4	11	122	1.1	0.06	0.5	0.5	0.07	B
16	3	18	48.1	19-24.3	155-15.8	4.2	1.1	6	228	2.3	0.03	0.1	0.1	0.0	C
16	3	19	19.9	19-23.3	155-14.9	6.8	2.1	15	86	2.4	0.07	0.6	0.5	0.13	B
16	3	40	30.9	19-24.4	155-15.9	3.5		6	232	2.1	0.10	0.4	0.5	0.02	C
16	3	41	21.1	19-24.5	155-15.2	3.5		6	258	3.3	0.41	1.6	1.9	0.05	C
16	3	46	1.0	19-24.2	155-15.4	8.0*		5	242	2.9	0.33	4.2		0.06	D
16	4	4	49.8	19-27.1	155-13.5	8.0*		6	318	7.4	1.14	5.3		0.08	D
16	4	14	43.2	19-24.5	155-15.5	8.0*		5	251	2.8	0.24	2.6		0.03	D
16	4	16	36.6	19-26.7	155-11.7	8.0*		6	324	9.8	1.75	7.5		0.08	D
16	4	22	32.4	19-24.1	155-15.6	2.8	0.3	7	226	2.4	0.17	0.9	1.2	0.06	C
16	4	24	24.4	19-23.5	155-16.4	4.5	0.5	8	174	0.8	0.43	1.3	2.6	0.10	C
16	4	34	22.4	19-23.6	155-15.6	4.1	0.7	5	230	2.2		0.0		0.0	D
16	5	6	6.9	19-26.1	155-23.6	8.4	1.9	14	156	5.8	0.11	0.8	0.5	0.11	C
16	5	29	53.1	19-24.0	155-15.5	3.3	0.6	7	228	2.5	0.28	1.5	0.8	0.07	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 16	5	42	18.5	19-23.9	155-16.3	3.1	0.5	7	190	1.3	0.12	0.8	0.9	0.06	B
16	5	59	12.7	19-24.1	155-16.7	2.7	0.5	7	167	1.2	0.34	0.8	1.7	0.07	B
16	6	39	46.4	19-25.8	155-16.1	4.6	1.0	9	201	2.2	0.09	0.5	0.6	0.04	B
16	6	58	17.1	19-23.8	155-16.7	3.3	0.8	11	123	0.7	0.08	0.4	0.8	0.09	B
16	7	0	51.0	19-19.9	155- 8.2	12.0	1.9	14	213	4.6	0.14	1.2	1.1	0.10	C
16	7	17	21.2	19-23.8	155-16.4	1.4		8	136	1.0	0.11	0.7	0.8	0.10	B
16	7	22	56.0	19-24.3	155-15.7	3.8	1.2	6	234	2.5	0.02	0.1	0.1	0.0	C
16	7	35	33.6	19-24.9	155-15.3	4.6	1.0	6	272	3.0	0.42	1.4	1.6	0.02	C
16	7	59	12.5	19-24.4	155-16.1	6.2	1.0	11	176	1.9	0.11	0.7	0.5	0.09	B
16	8	6	50.1	19-23.9	155-15.5	3.1	1.0	9	169	2.5	0.07	0.4	0.3	0.06	B
16	8	8	9.6	19-23.1	155-13.9	1.6		8	167	2.7	0.12	0.3	1.4	0.05	B
16	8	30	20.3	19-22.9	155-14.4	2.2	0.1	7	161	2.5	0.16	0.4	2.0	0.07	B
16	8	37	25.1	19-23.6	155-14.6	3.0	0.8	8	180	3.2	0.06	0.3	0.2	0.04	B
16	8	42	46.9	19-23.1	155-14.9	6.0	1.3	13	153	2.2	0.07	0.5	0.4	0.08	B
16	8	53	20.8	19-24.4	155-16.3	3.2	0.9	7	215	1.5	0.05	0.2	0.3	0.01	B
16	10	8	19.8	19-19.3	155- 7.9	9.2	1.8	8	220	6.0	0.07	0.6	0.2	0.02	B
16	10	14	33.6	19-15.5	155-26.7	6.8	2.3	13	199	10.5	0.16	1.2	0.9	0.17	C
16	11	25	16.6	19-23.0	155-15.0	5.1	1.1	11	145	1.8	0.19	0.7	1.4	0.12	B
16	11	40	22.9	19-17.8	155-13.0	14.9	1.4	8	248	8.3	0.26	1.3	2.0	0.05	C
16	11	49	40.9	19-24.1	155-15.9	6.1	0.9	10	169	2.1	0.32	0.9	1.8	0.10	B
16	12	29	0.3	19-22.4	155-13.3	8.5	1.2	8	294	3.7	1.20	3.3	4.6	0.06	D
16	12	30	53.4	19-23.0	155-14.7	2.3	0.6	8	162	2.4	0.14	0.5	1.6	0.08	B
16	12	36	30.8	19-27.2	155-11.7	8.0*		7	327	10.2	1.10	4.6		0.05	D
16	13	0	21.7	19-19.6	155-27.4	8.8	2.0	13	156	7.2	0.14	1.2	1.1	0.21	C
16	13	7	4.4	19-19.8	155-16.9	9.7	1.2	8	235	1.0	0.80	1.6	4.1	0.06	C
16	13	11	47.9	19-19.5	155-27.6	6.5	1.8	9	156	15.8	0.12	1.4	1.6	0.12	C
16	13	59	32.6	19-24.2	155-15.7	3.3	0.5	7	244	2.5	0.25	1.4	0.5	0.06	C
16	14	5	57.0	19-24.3	155-15.7	3.3	0.8	7	179	2.5	0.22	1.4	2.7	0.10	C
16	14	19	15.4	19-23.3	155-14.2	0.3*		8	169	3.3	0.04	0.3		0.04	C
16	14	26	31.3	19-23.4	155-17.3	1.9	0.6	7	96	0.8	0.15	0.4	1.1	0.04	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 16	14	50	9.8	19- 9.5	155-23.7	7.0	1.0	10	237	19.8	0.59	3.0	1.7	0.21	D
16	15	11	25.9	19-24.1	155-15.9	2.5	0.3	7	233	2.1	0.26	1.2	1.2	0.05	C
16	15	25	58.1	19-23.5	155-14.7	3.0	1.3	8	174	3.0	0.07	0.4	0.3	0.05	B
16	15	37	51.8	19-23.6	155-14.3	11.9	1.1	9	177	3.6	0.23	1.2	1.7	0.08	C
16	15	53	23.9	19-24.0	155-16.2	3.3	0.7	8	202	1.6	0.12	0.8	0.4	0.05	B
16	17	15	26.1	19-25.7	155-10.0	8.0*	1.6	7	329	11.8	1.3*	5.3		0.05	D
16	18	3	42.1	19-19.2	155-15.0	8.3	1.9	15	197	4.5	0.16	1.0	0.6	0.17	C
16	18	45	51.7	19-25.7	155-16.1	0.7	0.4	7	289	2.1	0.73	2.1	13.7	0.13	D
16	19	2	55.9	19-24.2	155-16.5	3.1	0.6	8	190	1.6	0.08	0.5	0.3	0.04	B
16	19	11	38.2	19-27.0	155-14.5	3.9	1.3	8	307	5.8	0.76	3.7	8.9	0.17	D
16	19	39	14.3	19-22.8	155-14.6	6.9	2.6	15	110	2.2	0.05	0.5	0.3	0.10	A
16	20	12	50.3	19-13.5	155-23.3	27.5	2.1	14	175	12.4	0.37	1.5	4.6	0.12	C
16	21	5	16.2	19-24.6	155-15.0	5.5	1.1	6	266	3.6	0.43	1.3	1.8	0.02	C
16	21	10	32.7	19-23.5	155-15.8	2.9	0.7	7	201	1.7	0.26	1.3	1.8	0.10	C
16	22	25	42.7	19-23.7	155-16.7	3.4	0.2	10	119	0.5	0.11	0.6	1.0	0.12	B
16	23	23	27.1	19-24.2	155-15.8	3.0	0.5	8	226	2.4	0.21	1.0	1.2	0.07	C
16	23	24	12.7	19-24.1	155-11.5	8.0*	1.4	6	319	7.9	0.46	2.2		0.04	D
16	23	26	10.5	19-24.5	155-15.6	3.8	1.0	6	246	2.6	0.09	0.4	0.4	0.01	C
16	23	40	4.7	19-24.4	155-15.6	3.9	0.8	6	241	2.6	0.18	0.7	0.9	0.02	C
17	0	9	25.4	19-19.9	155-15.2	14.1	1.2	8	203	3.6	0.07	0.3	0.5	0.02	B
17	0	48	0.0	19-24.3	155-15.6	3.5		8	188	2.7	0.05	0.3	0.6	0.04	B
17	1	19	58.8	19-25.1	155-12.7?	8.0*	1.2	8	302	7.4	0.30	5.1		0.29	D
17	1	43	44.5	19-22.1	155-17.5	22.7	1.5	15	79	2.7	0.12	0.7	1.1	0.07	A
17	2	7	7.0	19-23.6	155-14.7	2.3		8	171	3.0	0.06	0.4	0.5	0.06	B
17	2	19	24.5	19-23.3	155-14.7	3.9	0.6	10	160	2.6	0.05	0.3	0.7	0.06	B
17	2	59	59.1	19-23.6	155-13.8	5.0	1.0	6	287	4.3	0.29	1.0	1.2	0.02	C
17	3	46	39.9	19-22.6	155-14.1	3.3	0.6	6	152	2.6	0.07	0.7	0.5	0.04	B
17	4	13	16.7	19-24.4	155-16.4	3.5	0.9	6	204	1.4	0.06	0.3	0.3	0.01	B
17	4	54	17.6	19-24.4	155-15.4	4.2	0.8	6	248	2.9	0.41	1.4	1.9	0.04	C
17	4	54	49.0	19-24.4	155-15.9	3.4	0.9	6	230	2.1	0.08	0.3	0.4	0.01	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 17	5	18	33.9	19-22.4	155-15.0	6.1	1.4	12	125	1.2	0.07	0.5	0.5	0.08	B
17	5	50	57.8	19-17.7	155-15.9	8.2	1.2	10	208	5.2	0.25	1.7	1.0	0.17	C
17	6	4	0.4	19-18.9	155-12.9	14.7	1.6	8	235	6.8	0.15	2.4	1.5	0.05	C
17	6	15	49.6	19-23.7	155-13.5	5.9	1.3	6	293	4.8	0.55	1.6	2.1	0.02	C
17	6	27	1.1	19-19.5	155-13.6	10.1	0.9	15	194	5.2	0.09	0.7	0.4	0.11	C
17	6	32	32.3	19-19.6	155-14.0	10.7		12	210	4.7	0.13	1.0	0.5	0.11	C
17	7	38	55.1	19-24.1	155-16.6	3.2	0.5	6	177	1.3	0.14	0.8	0.9	0.04	B
17	8	3	55.1	19-24.3	155-15.6	3.3	0.8	6	241	2.7	0.24	1.0	1.2	0.03	C
17	8	49	52.7	19-25.4	155-14.0	6.5		6	299	5.4	1.62	5.0	5.5	0.04	D
17	9	32	52.6	19-23.4	155-15.2	3.8		5	262	2.3		0.0		0.01	D
17	9	57	57.1	19-27.4	155-12.5	8.0*	1.6	6	324	9.1	1.00	4.3		0.07	D
17	9	59	54.4	19-21.5	155- 8.0	26.4*		8	331	3.5	0.22	4.1		0.11	D
17	10	4	11.6	19-21.5	155-25.1	8.0		11	139	10.2	0.11	0.8	1.1	0.12	B
17	10	18	9.6	19-27.3	155-14.0	8.0*	1.2	6	316	6.9	1.04	4.9		0.07	D
17	11	21	4.5	19-24.4	155-10.2?	8.0*	1.5	6	323	10.1	0.43	2.7		0.08	D
17	11	27	24.7	19-19.3	155-13.2	16.1	1.7	7	225	5.9	0.36	2.6	3.3	0.08	C
17	12	13	18.1	19-24.4	155-15.5	3.4		6	247	2.8	0.14	0.6	0.7	0.02	C
17	12	39	26.5	19-24.4	155-16.4	3.3	0.9	9	202	1.4	0.05	0.2	0.3	0.02	B
17	12	44	47.9	19- 4.7	155-52.1	21.1	2.8	10	259	27.2	0.78	4.4	10.0	0.12	D
17	13	10	2.4	19-23.2	155-31.0	4.0		4	154	14.6		0.0		0.0	D
17	13	12	3.4	19-27.3	155-11.6	11.4		8	327	10.4	0.48	2.6	0.7	0.07	D
17	14	29	53.0	19-23.8	155-16.1	6.0	1.6	14	148	1.5	0.09	0.6	0.6	0.14	B
17	15	16	40.5	19-24.3	155-15.9	4.0		7	227	2.3	0.25	0.9	1.2	0.04	C
17	16	21	7.3	19-19.4	155-11.2	14.7	1.6	8	248	4.9	0.14	1.6	0.8	0.05	C
17	16	32	11.0	19-23.1	155-14.7	3.1		8	158	2.5	0.07	0.6	0.4	0.09	B
17	16	35	57.1	19-24.8	155-15.2	4.3		7	268	3.1	0.28	1.0	1.1	0.03	C
17	17	50	25.3	19-24.0	155-16.8	2.5	1.2	9	161	1.0	0.08	0.4	0.4	0.06	B
17	18	4	38.7	19-19.9	155-16.7	8.8	1.2	11	236	1.3	0.34	0.9	1.6	0.04	C
17	18	16	0.1	19-16.2	155- 6.4	7.3		8	246	12.1	0.71	4.0	1.4	0.14	D
17	19	49	0.4	19-27.7	155-11.7	8.0*	1.4	6	328	10.6	1.37	5.6		0.05	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 17	19	58	22.9	19-24.0	155-13.7	6.3	1.3	6	289	4.8	0.47	1.4	1.8	0.02	C
17	20	1	26.4	19-23.1	155-13.4	8.0*	1.2	5	297	4.1	0.67	4.6		0.05	D
17	20	58	25.7	19-24.2	155-15.9	3.3	0.8	6	222	2.2	0.16	0.7	0.8	0.03	B
17	22	46	33.6	19-23.8	155-16.5	3.7	0.9	11	173	0.9	0.11	0.7	0.9	0.09	C
17	22	53	19.3	19-19.4	155-14.1	9.3	2.3	16	170	4.9	0.12	1.0	0.6	0.17	C
18	0	0	51.0	19-25.1	155-17.6	1.6	0.5	6	161	0.8	0.13	0.5	0.8	0.04	B
18	0	15	49.3	19-24.2	155-15.8	5.7	1.0	9	224	2.3	0.74	2.1	3.5	0.10	C
18	0	31	12.7	19-24.2	155-14.9	3.4	0.9	6	260	3.6	0.17	0.7	0.9	0.02	C
18	0	52	4.2	19-25.9	155-26.4	9.6		8	244	9.0	0.31	1.3	1.8	0.12	C
18	1	30	38.9	19-23.0	155-14.9	4.4	0.5	7	245	2.1	0.46	1.4	2.2	0.05	C
18	1	45	37.4	19-25.7	155-14.1	8.0*	1.2	5	303	5.3	0.57	3.2		0.03	D
18	2	15	41.6	19-24.1	155-16.3	0.1*		7	152	1.6	0.02	0.1		0.02	C
18	2	21	21.6	19-17.3	155-13.2	17.0	1.7	8	253	9.0	0.15	0.9	1.3	0.02	C
18	2	23	51.4	19-23.1	155-14.5	2.7	0.5	9	159	2.8	0.08	0.5	0.7	0.10	B
18	2	31	57.9	19-24.6	155-15.4	4.2	1.3	6	257	2.9	0.13	0.5	0.6	0.01	C
18	2	33	6.2	19-22.9	155-15.1	5.6	2.6	17	87	1.7	0.03	0.4	0.2	0.08	A
18	2	48	42.2	19-23.1	155-14.4	0.1*	0.9	7	170	3.0	0.06	0.4		0.08	C
18	3	28	7.3	19-24.5	155-15.3	3.6	0.8	6	256	3.1	0.06	0.3	0.3	0.01	C
18	3	52	23.0	19-23.8	155-15.1	2.2	0.6	10	167	2.9	0.08	0.5	1.1	0.08	B
18	4	39	48.3	19-23.5	155-14.7	2.8	1.0	10	175	3.0	0.08	0.4	0.8	0.06	B
18	5	20	49.4	19-23.6	155-14.9	5.2	0.8	7	173	2.8	0.19	0.5	1.3	0.04	B
18	5	37	31.6	19-25.4	155-12.7	8.3	1.4	7	312	7.6	2.17	6.5	6.9	0.05	D
18	8	45	4.0	19-19.6	155- 2.5	8.0	2.3	13	229	13.7	0.34	2.2	0.9	0.21	D
18	8	53	28.1	19-18.5	155-15.4	7.9	1.5	10	226	4.5	0.28	1.6	0.9	0.16	C
18	10	40	56.7	19-25.2	155-15.1	8.0*		3	294	3.4		0.0		0.0	D
18	10	40	58.0	19-23.7	155-16.3	1.5	0.4	5	188	2.8		0.0		0.02	D
18	11	55	17.8	19-25.9	155-25.3?	12.6	1.9	13	160	8.0	0.05	0.5	0.5	0.06	C
18	12	16	34.3	19-23.9	155-14.3	3.4	0.6	8	270	4.0	0.27	1.1	1.2	0.04	C
18	12	30	48.2	19-24.2	155-17.5	3.6	1.2	10	61	1.0	0.14	1.1	1.1	0.19	B
18	13	19	11.6	19-20.3	155-12.2	9.2	2.7	16	168	4.0	0.11	1.0	0.5	0.16	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 18	13	25	3.7	19-23.2	155-14.2	0.4		9	166	3.1	0.12	0.3	3.1	0.07	C
18	13	31	3.7	19-18.9	155-12.8	13.9	1.5	12	235	6.6	0.17	0.7	1.1	0.05	C
18	14	35	53.0	19-12.6	156-24.1	8.0*		7	317	82.4	2.47	14.9		0.11	D
18	14	56	55.6	19-22.1	155-23.8	9.8		8	112	3.6	0.10	1.0	0.9	0.12	B
18	16	26	59.2	19-21.1	155-16.2	7.4		10	174	2.0	0.13	0.8	0.5	0.09	B
18	20	7	4.3	19-23.4	155-14.6	3.0		8	172	2.9	0.06	0.3	0.2	0.04	B
18	20	15	59.8	19-57.4	155-40.0	13.4*		5	332	58.7	3.14	78.4		0.08	D
18	20	35	51.8	19-23.8	155-13.2	6.8		6	299	5.2	0.89	2.5	3.3	0.02	D
18	23	9	37.3	19-55.5	155-17.4	17.3	2.1	8	212	23.7	0.13	1.0	6.5	0.06	C
19	1	49	54.6	19- 1.5	155-29.6	4.3		5	309	28.0		0.0		0.02	D
19	3	23	9.2	19-27.9	155-34.6	16.7*		10	158	20.0	0.10	1.0		0.12	C
19	4	5	7.1	19-13.1	155-22.6	30.9	1.8	12	195	13.1	0.33	1.6	3.2	0.08	C
19	4	35	32.1	19-22.7	155-26.6	11.6		6	152	7.3	0.16	1.5	3.8	0.08	C
19	5	5	33.7	19-22.3	155-26.7	8.7	3.1	18	84	7.1	0.07	0.7	0.5	0.15	B
19	5	9	33.5	19-22.9	155-26.6	11.3		8	154	7.7	0.09	0.8	0.5	0.07	B
19	5	24	21.2	19-23.4	155-28.0	4.8		6	137	10.2	0.13	1.2	1.9	0.08	B
19	6	8	23.6	19-18.4	155- 8.3?	11.2	2.1	14	224	7.0	0.28	1.9	0.5	0.12	C
19	7	14	0.7	19-24.2	155-15.8	3.8	0.9	6	227	2.3	0.22	0.8	1.1	0.02	C
19	10	30	17.6	19-24.2	155-16.3	4.0	1.6	12	152	1.6	0.09	0.5	0.8	0.11	C
19	10	36	25.8	19-22.5	155- 4.5	2.2	2.0	14	197	14.0	0.64	1.6	3.3	0.18	C
19	10	43	16.7	19-24.0	155-17.3	2.3	0.9	10	121	1.3	0.03	0.2	0.2	0.04	B
19	10	50	15.9	19-17.6	155-15.7	6.8	1.3	14	210	7.8	0.19	1.1	0.9	0.14	C
19	10	50	48.2	19-19.4	155- 3.3	2.2		11	217	17.1	1.03	2.6	4.4	0.18	C
19	11	35	4.3	19-23.6	155-21.2?	6.9	2.6	15	157	2.7	0.29	2.4	1.8	0.41	D
19	12	28	40.6	19-16.3	155-23.4	3.5		11	169	12.5	0.08	0.7	1.1	0.10	B
19	12	33	25.1	19-19.3	155- 8.9	16.8		7	299	5.0	0.78	4.1	5.2	0.05	D
19	12	40	19.4	19-27.5	155-13.1	8.0*		6	321	8.4	1.63	7.4		0.10	D
19	12	57	24.1	19-17.7	155-12.6	14.5	1.6	9	253	8.8	0.29	1.4	1.8	0.06	C
19	13	6	15.4	19-18.6	155-12.9	17.3	1.3	8	238	7.2	0.28	1.5	2.4	0.05	C
19	17	14	39.9	19-17.4	155-13.9	7.7		10	223	7.9	0.27	1.7	1.0	0.15	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 19	17	25	5.3	19-19.6	155-11.0	15.1		8	250	4.4	0.39	1.8	2.7	0.07	C
19	17	25	30.9	19-24.1	155-11.1	8.0*	1.4	6	322	8.4	0.36	1.6		0.02	D
19	17	41	40.7	19-18.2	155-12.8	14.5	1.5	6	314	7.9	0.67	3.9	2.8	0.02	D
19	17	41	51.2	19-19.8	155-15.8	10.7	1.2	5	261	2.9		0.0		0.0	D
19	17	52	45.6	19-20.9	155- 4.2	12.9	1.7	11	214	10.3	0.09	1.1	0.5	0.05	C
19	18	30	45.9	19-18.7	155-15.6	7.5	1.6	8	223	4.1	0.27	1.6	0.9	0.14	C
19	18	33	3.6	19-19.2	155-15.5	10.1		11	194	3.6	0.10	0.9	0.7	0.10	B
19	18	49	40.1	19-24.9	155-27.4?	11.2	1.5	13	138	11.3	0.08	0.6	0.4	0.10	B
19	19	6	7.7	19-55.0	155-32.1	10.4	2.3	11	204	17.7	0.18	1.6	0.8	0.11	C
19	20	16	20.9	19-20.5	155-25.3	7.1		5	257	3.5		0.0		0.09	D
19	21	30	54.9	19-19.7	155-13.3	8.0	1.6	12	202	5.2	0.21	1.5	0.9	0.22	C
19	21	56	9.6	19-24.5	155-28.6	11.0	1.5	7	232	12.2	0.23	1.4	0.6	0.08	C
19	23	36	29.8	19-31.8	155-46.2	8.5		6	189	15.9	0.30	2.7	4.3	0.05	C
19	23	57	45.7	19-24.0	155-16.3	3.7	0.6	6	191	1.4	0.32	1.2	1.8	0.05	C
20	0	29	8.6	19-18.4	155-24.0	10.8		6	191	3.4	0.27	3.4	1.6	0.14	C
20	0	50	54.4	19-16.2	155-13.0	7.8		11	212	11.1	0.39	2.2	1.5	0.19	C
20	1	52	53.6	19-37.8	155-17.9	38.4	2.3	14	207	17.6	0.18	1.1	1.7	0.06	C
20	2	16	17.8	19-30.1	155-40.0	7.0	2.2	10	122	26.8	0.09	0.7	0.7	0.09	B
20	2	24	10.7	19-29.8	155-38.9	4.4	1.7	9	118	27.7	0.14	0.9	1.4	0.15	B
20	2	37	42.1	19-23.8	155-16.2	3.4	0.4	6	190	1.2	0.07	0.3	0.4	0.02	B
20	4	1	49.1	19-21.8	155-13.0	4.0	1.0	6	178	1.5	0.19	1.8	1.7	0.06	C
20	5	25	34.0	19-23.2	155-14.9	5.9	1.1	11	156	2.3	0.17	0.6	1.2	0.09	B
20	5	33	59.2	19-24.3	155-15.5	3.8	0.8	6	245	2.9	0.09	0.4	0.4	0.01	C
20	5	44	29.0	19-20.3	155- 8.4	8.4		9	200	4.0	0.24	2.0	0.8	0.14	C
20	6	15	39.9	19-23.4	155-26.9	7.8	2.1	13	130	8.7	0.11	0.9	1.0	0.17	B
20	6	24	14.8	19-24.9	155-15.5	4.2		6	265	2.6	0.52	1.9	2.1	0.04	C
20	7	30	3.0	19-27.5	155-30.0	6.6		9	160	12.5	0.25	1.6	2.2	0.20	C
20	7	51	40.5	19-19.2	155- 7.5	32.9		11	295	6.5	0.32	1.6	2.0	0.05	C
20	10	19	26.9	19-23.1	155-26.9	7.3	2.7	16	74	8.2	0.11	1.0	1.0	0.20	B
20	12	7	24.3	19-17.9	155-13.7	10.5		9	220	7.6	0.21	1.9	1.2	0.13	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 20	13	29	41.8	19-20.6	155-12.9	8.5		10	189	3.5	0.12	1.0	0.5	0.11	C
20	14	8	0.2	19-17.8	155- 3.1	38.2	2.4	16	225	14.2	0.26	1.4	2.1	0.08	C
20	14	37	6.1	19-16.1	155-13.8	6.5	1.3	8	261	10.8	0.52	2.5	1.3	0.10	C
20	14	57	23.9	19-18.3	155-12.9	14.6	1.7	8	242	7.6	0.17	1.8	1.0	0.06	C
20	15	56	35.6	19-13.3	155- 6.6	3.7		7	315	16.9	1.37	5.2	3.3	0.06	D
20	17	43	5.3	19-25.0	155-23.3	11.0	2.2	14	118	6.6	0.06	0.5	0.8	0.10	A
20	18	7	10.8	19-17.9	155- 2.9	39.0	2.4	16	226	18.8	0.28	1.4	2.2	0.08	C
20	18	24	39.8	19-28.5	155-13.5	8.0*		6	324	9.1	1.77	7.9		0.09	D
20	18	57	53.3	19-19.0	155-15.5	33.1		7	194	8.3	0.19	1.0	1.9	0.05	C
20	21	39	0.4	19-26.8	155-12.7	8.0*	1.3	6	321	8.3	0.80	3.7		0.05	D
20	22	12	26.3	19-18.2	155- 3.3	37.7	2.3	17	223	13.5	0.27	1.3	2.1	0.08	C
21	0	41	58.4	19-24.9	155-29.5	12.4		8	150	13.9	0.08	0.8	1.1	0.07	B
21	0	57	16.7	19-21.6	155-13.2	2.0		6	165	2.1	0.07	0.2	0.7	0.02	B
21	2	28	40.0	19-24.9	155-16.7	0.0	1.1	10	173	0.5	0.04	0.2	3.8	0.04	C
21	2	57	17.7	19-24.4	155-15.7	4.2		6	242	2.5	0.12	0.4	0.6	0.01	C
21	3	30	23.2	19-24.1	155-15.8	4.1	0.8	6	222	2.1	0.24	0.9	1.3	0.03	B
21	4	58	30.6	19-19.9	155-15.2	13.6	1.3	9	203	3.6	0.06	0.3	0.5	0.02	B
21	5	35	17.6	19-24.3	155-16.4	3.1		6	200	1.4	0.07	0.3	0.4	0.01	B
21	6	5	42.0	19-17.7	155- 3.4	37.3	2.4	16	225	13.9	0.25	1.3	2.0	0.08	C
21	6	20	57.1	19-19.2	155-15.0	13.0		6	216	4.6	0.08	0.5	0.7	0.02	B
21	7	40	28.4	19-24.1	155-16.3	4.3	1.2	9	152	1.6	0.16	0.7	1.0	0.08	B
21	9	44	38.5	19-16.6	155-13.6	8.2		11	233	9.3	0.34	1.9	1.2	0.17	C
21	9	47	23.8	19-10.2	155-34.4	8.3		13	135	9.8	0.08	0.8	0.5	0.11	B
21	10	10	12.8	19-18.1	155-14.1	8.1		10	236	6.8	0.33	1.8	0.9	0.16	C
21	10	19	24.4	19-12.8	155-27.6	8.6		12	170	15.6	0.10	1.0	0.7	0.12	C
21	10	56	16.0	19-19.8	155-16.6	11.3		8	243	1.6	0.11	0.6	0.7	0.02	C
21	12	1	14.9	19-23.1	155-27.8	14.3		7	268	9.4	0.45	2.8	1.4	0.08	D
21	12	24	26.2	19-23.7	155-17.5?	3.2	0.8	11	95	1.3	0.06	0.4	0.5	0.09	B
21	13	7	16.6	19-29.0	155-26.0	10.3	1.3	6	192	4.9	0.18	1.6	1.4	0.07	C
21	13	27	19.8	19-24.1	155-15.9	3.4	1.2	10	163	2.0	0.05	0.3	0.6	0.06	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 21	15	52	30.0	19-23.3	155-17.2	1.8	0.3	7	153	0.8	0.04	0.1	0.3	0.01	B
21	16	22	33.0	19-19.6	155-27.8	6.6		6	159	7.9	0.18	2.0	1.9	0.10	C
21	17	20	29.7	19-25.7	155-24.3	11.5		7	182	7.2	0.11	1.0	1.1	0.07	B
21	18	6	24.6	19-21.5	155-14.4	17.7	1.1	12	157	1.6	0.32	2.2	2.8	0.17	C
21	18	6	47.2	19-23.2	155-14.4	8.0*		5	265	2.9	0.24	2.4		0.03	D
21	18	57	55.7	19-18.7	155-12.7	14.6		9	238	7.0	0.21	1.0	1.3	0.04	C
21	19	4	18.3	19-24.3	155-17.1	2.9	0.6	8	134	1.0	0.03	0.2	0.2	0.03	B
21	20	11	42.4	19-18.4	155- 3.4?	34.9	2.2	19	203	21.8	0.16	1.0	1.6	0.11	C
21	21	52	12.8	19-23.8	155-25.4	11.1		8	205	7.5	0.17	1.2	0.5	0.11	C
21	21	57	12.8	19-17.7	155- 3.0	38.0	1.6	13	226	14.4	0.32	1.7	2.6	0.09	C
21	22	49	15.9	19-23.0	155-14.3	4.2		8	160	2.8	0.15	0.5	1.1	0.06	B
21	23	32	40.4	19-22.3	155-17.3	29.3	2.5	17	77	2.2	0.13	0.9	1.3	0.12	B
21	23	46	40.9	19-23.3	155-15.3	3.3	0.7	9	153	2.0	0.08	0.5	0.9	0.08	B
22	2	14	13.7	19-10.1	155-30.1?	1.3*		5	176	15.2	0.08	0.6		0.05	C
22	3	37	44.4	19-23.6	155-17.6	3.2	1.5	12	108	1.5	0.09	0.5	1.0	0.12	B
22	4	37	15.1	19-16.7	155-15.9	7.1	1.3	9	217	9.4	0.27	1.6	1.1	0.14	C
22	4	54	23.6	19-24.0	155-17.2	2.1	0.3	5	133	1.2		0.0		0.03	D
22	5	30	15.0	19-18.8	155-15.7	9.2	1.9	17	169	3.9	0.10	0.8	0.5	0.15	C
22	6	1	2.2	20- 2.4	155-27.7	8.0	2.3	14	224	24.9	0.24	1.4	1.0	0.10	C
22	6	25	12.6	19-19.1	155- 3.9	37.1	2.2	18	197	11.7	0.22	1.2	1.8	0.11	C
22	11	58	40.1	19-23.8	155-16.3	4.8	1.2	11	187	1.2	0.22	0.9	1.3	0.09	B
22	13	8	29.4	19-23.9	155-17.3	1.2		7	126	1.3	0.05	0.1	0.4	0.02	B
22	13	58	58.4	19-25.2	155-14.9	4.9	1.2	9	212	3.6	0.22	0.6	1.8	0.06	B
22	18	11	8.0	19-12.9	155-22.9	29.7		13	195	13.4	0.36	2.0	3.7	0.09	C
22	20	5	12.8	19-20.3	155-14.4	8.1	1.6	12	196	3.2	0.21	1.3	0.9	0.19	C
22	20	28	53.4	19-16.2	155- 3.0	38.6		12	246	16.0	0.53	2.6	4.0	0.07	D
22	21	56	32.8	20-21.5	156- 6.6	8.0*	3.2	11	336	94.1	5.46	32.2		0.09	D
22	23	8	26.3	19-23.8	155-17.0	1.6		7	139	0.9	0.03	0.1	0.2	0.01	B
22	23	11	57.8	19-21.4	155-25.2	8.2	1.7	11	140	10.5	0.09	0.7	0.9	0.11	B
23	1	58	1.9	19-25.6	155-22.0	8.1	1.5	12	151	4.4	0.08	0.6	0.5	0.08	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 23	3	5	42.5	19-23.7	155-17.1	2.8	0.7	8	131	0.9	0.05	0.3	0.3	0.04	B
23	3	39	31.3	19-19.5	155- 3.7	37.6	2.4	16	197	16.4	0.17	1.0	1.7	0.08	C
23	3	49	25.3	19-19.6	155-15.7	10.2	1.7	13	189	3.1	0.07	0.6	0.5	0.08	B
23	4	9	25.6	19-24.2	155-25.7	7.1	2.1	13	154	8.6	0.10	0.8	0.8	0.14	C
23	4	13	43.4	19-17.5	155-33.5	1.4*	2.1	7	298	18.6	0.55	3.1		0.06	D
23	4	16	2.3	19-25.1	155-24.7	11.3	1.8	11	188	9.0	0.07	0.5	0.9	0.07	B
23	4	51	40.9	19-23.2	155-25.1	10.8	1.8	12	121	6.4	0.06	0.6	0.4	0.10	B
23	7	27	24.6	19-17.6	155- 3.3	38.1*		15	225	14.1	0.10	1.3		0.09	C
23	9	42	37.7	19-19.3	155-16.0	13.7	1.5	8	210	2.8	0.11	0.5	0.9	0.03	B
23	10	1	29.3	19-24.9	155-17.3	8.7	1.3	8	109	0.5	0.11	0.3	0.6	0.01	A
23	10	56	29.7	19-19.0	155- 4.0?	33.6	2.2	18	198	11.7	0.30	1.5	2.4	0.11	C
23	12	46	5.9	20- 7.6	154-54.3	8.0*		5	303	69.4	1.63	10.3		0.08	D
23	13	38	51.6	19-12.2	154-58.5?	0.4		6	273	26.8	3.59	7.5	12.0	0.10	D
23	14	14	36.8	19-21.0	155- 3.8	7.9	2.2	15	208	15.5	0.36	2.7	1.1	0.27	C
23	15	11	26.9	19-14.3	155-26.3	5.8		11	217	12.1	0.23	1.4	1.3	0.14	C
23	16	15	38.7	19-17.9	155- 3.2	37.2	2.6	18	222	13.8	0.23	1.2	2.0	0.09	C
23	17	58	33.3	19-24.3	155-15.6	3.6	0.3	6	239	2.6	0.13	0.5	0.6	0.02	C
23	18	26	52.5	19-22.3	155-27.2	4.5		5	154	7.8		0.0		0.14	D
23	19	13	20.6	19-24.2	155-16.4	3.0	1.1	6	201	1.7	0.21	0.5	0.9	0.03	B
23	19	33	16.7	19-18.4	155-17.1	28.8		13	197	3.2	0.25	1.3	2.1	0.07	C
23	23	35	56.0	19-19.0	155-13.4	14.9		8	228	6.1	0.05	0.4	0.4	0.01	C
23	23	56	29.8	19-24.8	155-15.3	4.6	0.2	6	268	3.0	0.14	0.5	0.5	0.01	C
24	0	18	23.5	19-19.8	155- 3.8?	41.2	2.3	18	196	11.5	0.12	0.9	1.6	0.09	C
24	4	5	57.5	19-20.0	155-18.6	27.2		12	167	6.5	0.23	1.3	2.0	0.07	C
24	4	48	1.6	19-18.8	155-16.1	10.1	1.5	14	194	3.3	0.08	0.6	0.3	0.09	B
24	5	23	57.9	19- 8.9	155- 5.5?	8.0*	2.4	14	250	30.9	2.08	13.3		1.18	D
24	5	31	57.0	19-18.4	155-13.5	10.4	2.1	15	198	6.9	0.11	0.9	0.4	0.11	C
24	7	4	4.3	19-19.9	155- 8.2	31.5		9	294	4.8	0.37	2.0	2.4	0.07	C
24	7	20	52.8	19-19.9	155-13.5	7.4	1.4	9	212	6.3	0.27	1.7	1.1	0.18	C
24	12	38	37.2	19-27.4	155-37.8?	7.2		9	263	23.0	0.63	2.9	1.3	0.15	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 24	12	57	24.2	19-18.4	155- 3.1	35.6	2.4	18	201	13.5	0.17	0.9	1.6	0.09	B
24	16	31	12.2	19-21.9	155-11.0	9.8		6	176	1.7	1.03	2.9	5.3	0.05	C
24	17	55	20.8	19-26.2	155-29.6	10.8		9	154	12.9	0.05	0.4	0.2	0.05	B
24	19	18	35.0	19-24.1	155-25.2	11.4	1.6	12	124	7.8	0.06	0.6	1.2	0.10	B
24	19	54	6.1	19-20.7	155- 4.0	40.4	2.5	18	190	10.7	0.20	1.1	1.6	0.08	C
24	20	4	11.3	19-24.7	155-17.6	9.0	1.2	7	113	0.2	0.28	0.7	1.5	0.04	B
24	20	16	18.6	19-22.6	155-14.4	6.5	1.9	15	126	2.1	0.05	0.5	0.3	0.09	B
24	20	19	9.1	19-23.6	155-18.1	5.9		5	151	2.2		0.0		0.07	D
24	21	41	58.3	19-15.7	155-23.9	3.5		10	170	13.9	0.08	0.8	1.1	0.09	B
24	22	38	45.8	19-23.8	155-20.9	17.9*		6	323	2.0	0.17	3.2		0.05	D
24	22	47	28.9	19-24.7	155-17.6	7.5		6	114	0.1	0.31	0.8	1.8	0.03	B
24	22	49	2.2	19-24.5	155-17.6	8.7	1.2	8	103	0.5	0.15	0.6	0.9	0.04	A
24	23	21	29.7	19-24.1	155-18.4	7.6	1.1	7	126	1.9	0.19	0.5	1.1	0.03	B
25	0	3	23.7	19-23.7	155-18.2	6.1		7	144	2.1	0.28	0.9	1.7	0.07	B
25	0	13	18.8	19-17.3	155- 3.1	36.8	1.7	15	228	14.7	0.20	1.2	1.8	0.07	C
25	0	46	42.5	19-23.9	155-18.3	6.8		6	141	2.1	0.39	1.0	2.3	0.04	B
25	1	1	0.2	19-24.8	155-17.9	7.4	1.3	7	125	0.6	0.19	0.6	1.1	0.03	B
25	1	5	6.8	19-23.5	155-19.1	6.9	1.0	5	175	1.2		0.0		0.02	D
25	1	15	11.7	19-24.0	155-18.4	7.6		5	133	2.0		0.0		0.03	D
25	1	15	46.9	19-23.7	155-17.9	6.3	1.0	6	141	1.9	0.07	0.3	0.4	0.01	B
25	1	26	41.3	19-24.5	155-18.2	5.5	1.0	8	107	1.4	0.18	0.6	1.3	0.06	A
25	1	27	9.4	19-24.3	155-18.4	5.9	0.9	6	116	1.8	0.26	0.9	1.6	0.04	B
25	2	3	27.9	19-23.2	155-19.1	5.8	0.8	8	197	1.4	0.28	0.9	1.7	0.08	B
25	2	44	0.2	19-24.9	155-17.5	6.9	0.9	7	134	0.3	0.08	0.3	0.5	0.01	B
25	2	57	4.7	19-14.2	154-53.6?	4.4	2.0	10	280	26.2	1.33	5.5	4.0	0.40	D
25	3	45	14.0	19-15.4	155- 2.7	41.3		12	251	17.3	0.73	3.5	5.3	0.08	D
25	3	52	55.6	19-24.0	155-18.3	8.1	0.9	8	129	1.9	0.21	0.5	1.2	0.03	B
25	3	53	39.0	19-26.7	155-36.5	7.6	1.4	11	253	21.9	0.34	1.7	0.9	0.13	C
25	3	56	10.9	19-23.8	155-18.1	9.1	1.0	6	142	1.9	0.12	0.2	0.6	0.01	B
25	4	2	47.5	19-23.8	155-17.9	9.6	0.8	7	138	1.8	0.08	0.2	0.4	0.01	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 25	4	25	33.1	19-24.4	155-18.0	8.4	0.8	8	113	1.1	0.10	0.3	0.6	0.02	A
25	4	43	8.3	18-55.5	155- 5.0	8.0*	2.7	13	284	51.6	1.09	6.9		0.19	D
25	5	45	9.1	19-17.5	155- 3.1	37.7		14	226	14.4	0.23	1.3	2.0	0.08	C
25	5	51	18.7	19-24.5	155-17.7	8.2	0.9	6	105	0.5	0.35	0.8	2.0	0.03	B
25	5	52	40.4	19-21.3	155-16.2	25.7	1.8	16	139	2.2	0.12	0.9	1.2	0.11	B
25	6	8	32.3	19-24.4	155-17.4	9.6	1.0	7	107	0.6	0.21	0.6	1.2	0.02	B
25	6	38	8.4	19-24.6	155-17.0	9.2	1.4	7	148	0.6	0.25	0.7	1.4	0.03	B
25	7	6	28.5	19-24.9	155-18.5	15.4	1.3	6	128	1.8	1.04	5.0	9.5	0.09	C
25	7	48	34.5	19-20.6	155- 1.3?	8.0*		6	224	20.3	8.89	0.0		0.81	D
25	8	44	11.0	19-27.0	155-37.0	7.7	1.4	10	258	22.3	0.42	2.1	1.1	0.14	C
25	8	45	15.4	19-16.3	155- 2.6	40.6		14	247	16.6	0.50	2.4	4.0	0.08	C
25	11	3	35.3	19-27.5	155-37.4	6.0	1.7	10	261	23.3	0.19	0.9	0.6	0.09	C
25	11	23	38.9	19-21.3	155-26.1	7.1		10	138	5.3	0.12	1.1	1.4	0.18	B
25	11	31	1.6	19-36.7	154-57.6	8.0*		5	259	16.1	0.71	5.5		0.02	D
25	11	54	52.3	19-45.4	155-21.4	31.3	2.7	20	176	10.5	0.15	0.7	1.7	0.08	B
25	12	44	5.5	19-21.3	154-56.4?	8.4*		6	249	14.4	0.40	5.0		0.23	D
25	13	49	24.7	19-18.3	155- 3.2	36.3	2.2	17	221	13.6	0.25	1.4	2.1	0.09	C
25	14	2	53.1	19-16.4	155-10.7	6.5		8	281	10.0	0.83	3.8	1.7	0.13	D
25	14	21	36.7	19-48.3	156- 0.8	4.0	2.7	14	290	32.9	0.90	5.5	5.4	0.29	D
25	16	27	33.0	19-26.1	154-57.1?	8.2		5	195	7.6		0.0		0.11	D
25	18	59	13.3	19-15.1	155-46.0	12.6	3.0	15	247	15.5	0.27	1.5	1.2	0.08	C
25	21	7	59.6	19-19.0	155-14.2	7.6		11	223	5.5	0.25	1.4	0.9	0.16	C
25	21	21	9.3	19-24.4	155-23.8	3.4*	0.6	10	178	7.3	0.10	0.6		0.10	C
25	21	55	29.6	19-17.6	155- 3.0	38.6	1.9	16	226	14.5	0.33	1.7	2.5	0.09	C
25	22	13	59.4	19-23.2	155-17.9	2.3	0.5	6	166	2.0	0.49	0.8	3.4	0.07	C
25	22	40	48.9	19-23.8	155-18.3	11.1	1.2	8	141	2.1	0.34	0.7	1.8	0.03	B
25	22	46	49.4	19-12.3	155-26.6?	10.0	2.0	7	178	15.7	0.15	1.4	1.0	0.11	C
26	0	24	7.6	19-24.1	155-17.9	7.6	0.5	8	123	1.3	0.14	0.4	0.8	0.03	B
26	0	39	0.2	19-23.4	155-18.0	6.4	0.6	7	165	2.1	0.88	2.2	5.1	0.11	C
26	1	29	30.9	19-23.5	155-19.8	3.7	0.5	7	242	0.5	0.30	1.3	1.7	0.07	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 26	2	27	0.2	19-23.9	155-17.9	11.3	1.1	8	131	1.5	0.22	1.1	1.7	0.05	B
26	3	38	58.0	19-23.9	155-17.9	10.5	0.9	7	106	2.2	0.34	0.6	1.9	0.03	B
26	3	39	50.6	19-24.5	155-17.9	6.2		8	107	0.8	0.16	0.8	1.1	0.05	A
26	3	43	48.8	19-24.4	155-17.9	7.9	0.5	7	128	0.9	1.08	1.5	5.7	0.05	C
26	4	7	16.5	19-23.9	155-17.9	5.4	0.1	7	137	1.7	0.46	1.3	2.8	0.09	B
26	4	11	6.1	19-24.6	155-17.4	8.8	0.6	7	96	0.3	0.46	1.0	2.5	0.05	B
26	4	49	1.4	19-29.1	155-17.8	18.4*	1.3	7	312	6.8	0.14	1.3		0.03	D
26	5	27	35.0	19-26.5	155-26.6	16.4		7	250	8.4	0.38	1.7	3.2	0.03	C
26	6	15	37.4	19-18.7	155- 3.0?	40.8	2.3	18	203	13.5	0.24	1.3	1.9	0.09	C
26	8	2	22.5	19-25.5	155-19.8	17.6*		6	285	3.4	0.06	1.3		0.03	D
26	8	10	13.5	19-17.7	155-13.3	14.1		7	248	8.3	0.23	1.2	1.8	0.04	C
26	8	57	23.5	19-58.8	155-13.2?	81.7*	3.2	11	309	56.4	4.66	0.0		5.27	D
26	9	18	35.2	19-24.8	155-17.8	10.4*	0.8	4	221	0.5		0.0		0.0	D
26	9	33	8.0	19-23.7	155-18.0	5.2	0.7	5	142	2.0		0.0		0.01	D
26	10	0	27.9	19-12.5	155- 9.9?	8.0*	1.6	19	231	17.1	3.40	21.6		1.77	D
26	11	49	21.1	19-18.0	155-21.6?	11.4	1.5	11	196	5.0	0.13	1.1	0.7	0.10	C
26	12	8	46.3	19-28.9	155-39.4	8.3	1.8	8	276	26.2	0.44	2.4	1.0	0.12	C
26	12	25	9.0	19-18.6	155-21.2	6.2	1.3	8	242	4.8	0.93	2.4	4.6	0.07	C
26	12	51	29.1	19-25.8	155-18.7	14.4*		6	274	2.9	0.03	0.6		0.01	D
26	13	8	26.8	19-23.4	155-17.6	0.1*	0.1	6	151	1.3	0.08	0.5		0.09	C
26	13	14	48.8	19-23.8	155-20.4	15.0*	1.5	5	319	1.2	0.04	0.8		0.01	D
26	13	33	38.0	19-20.0	155- 8.8	12.0	1.6	10	304	3.9	0.20	1.5	1.5	0.08	C
26	13	41	37.5	19-17.4	155-20.6	20.3*	1.7	5	319	11.8	0.79	7.0		0.04	D
26	13	44	40.2	19-20.0	155-18.4	25.2	1.7	11	168	1.7	0.45	1.8	4.0	0.08	C
26	14	53	56.8	19-23.8	155-18.3	11.5	1.2	7	109	2.3	0.18	0.8	1.6	0.05	B
26	17	46	38.0	19-22.1	155- 8.5?	6.2	3.3	20	170	2.7	0.33	2.4	1.5	0.46	D
26	18	12	21.1	19-24.6	155-17.5	7.6		7	94	0.1	0.11	0.3	0.6	0.02	B
26	18	19	2.8	19-19.9	155-16.7	11.2	1.5	8	238	1.3	0.08	0.6	0.4	0.03	C
26	18	20	11.6	19-19.9	155-16.8	9.9	1.2	7	234	1.1	0.19	0.4	1.0	0.01	C
26	20	3	31.6	19-19.6	155- 2.1	11.0	2.1	12	230	14.4	0.34	2.5	0.8	0.09	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 26	20	45	2.3	19-24.9	155-17.5	7.0	0.9	7	99	0.4	0.18	0.5	1.0	0.02	B
26	20	51	23.6	19-24.0	155-18.3	7.7	1.0	8	128	1.9	0.30	0.8	1.7	0.06	B
26	21	39	30.5	19-16.7	155-11.3	6.5		7	274	9.7	0.74	3.5	1.7	0.11	D
26	22	3	21.6	19-24.9	155-17.6	6.9		6	132	0.3	0.06	0.2	0.4	0.01	B
26	22	19	36.8	19-24.1	155-18.0	7.6	0.9	7	126	1.4	0.34	0.8	1.9	0.04	B
26	22	30	20.9	19-24.8	155-17.5	9.5		6	120	0.1	2.12	4.4	11.5	0.13	C
26	22	33	59.7	19-19.6	155-25.6	7.4		8	161	4.2	0.13	1.1	1.1	0.13	C
26	22	39	46.9	19-22.8	155- 8.7	8.0*		6	338	6.7	0.57	3.2		0.07	D
26	22	56	30.1	19-24.5	155-18.3	4.1		6	109	1.4	0.16	0.7	1.3	0.05	B
26	23	21	13.5	19-24.0	155-18.1	10.8	0.7	7	194	1.8	0.09	2.4	0.5	0.05	C
27	0	4	28.2	19-18.9	155- 3.7	33.3		16	219	12.3	0.23	1.1	2.0	0.13	C
27	0	14	13.7	19-22.1	155-13.5	7.1	1.3	12	145	1.9	0.15	1.0	0.8	0.15	B
27	0	25	7.5	19-47.0	155- 3.9?	36.2	2.8	30	219	7.5	0.34	2.1	3.2	0.30	C
27	0	40	56.0	19-21.9	155-13.5	7.6	0.8	11	153	3.2	0.15	1.1	0.8	0.13	C
27	0	50	12.9	19-21.1	155-13.9	7.8		13	173	2.8	0.17	1.1	0.8	0.16	C
27	0	53	54.3	19-21.5	155-16.0	7.7		10	150	1.4	0.08	0.6	0.4	0.07	B
27	1	22	25.9	19-24.8	155-17.5	6.3	0.5	7	153	0.1	0.14	0.4	0.8	0.02	B
27	2	36	46.1	19-24.5	155-18.7	4.0	0.6	7	109	2.1	0.31	1.1	2.4	0.09	B
27	3	21	22.9	19-21.2	155-25.1	8.3		9	143	10.6	0.12	0.9	1.2	0.12	B
27	3	36	8.6	19-26.0	155-34.8	8.5	2.0	10	240	20.8	0.29	1.7	0.7	0.11	C
27	4	48	58.2	19-23.9	155-18.5	6.5		6	142	2.1	0.57	1.5	3.4	0.06	B
27	5	4	7.1	19-25.1	155-15.1	12.9	1.4	14	107	3.3	0.06	0.8	0.6	0.12	B
27	6	39	2.4	19-21.9	155-24.7	10.2		10	115	3.9	0.09	0.9	0.8	0.12	B
27	7	39	41.1	18-56.3	155-21.0	20.0		14	274	30.6	0.97	4.9	14.6	0.10	D
27	9	35	25.4	19-21.8	155-25.3	11.1		11	134	4.5	0.09	0.8	1.5	0.10	B
27	10	19	36.2	19-24.0	155-17.6	8.2	1.0	8	101	1.3	0.16	0.4	0.9	0.02	A
27	10	26	42.3	19-19.8	155- 0.6	20.0*		8	344	16.8	0.48	3.5		0.04	D
27	12	47	0.7	19-23.9	155-14.3	4.3		7	274	4.0	0.54	1.9	1.9	0.05	C
27	18	15	39.7	19-21.3	155-11.8	6.4		8	183	3.2	0.24	1.8	1.2	0.14	C
27	18	29	43.4	19-25.6	155-24.5	8.9	1.1	11	207	7.6	0.37	0.9	2.1	0.11	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 27	20	15	50.5	19-19.4	155-16.1	9.9	1.5	16	164	2.6	0.07	0.6	0.3	0.12	C
27	23	27	57.1	19-24.1	155-18.1	8.4	0.9	7	126	1.5	0.30	0.6	1.7	0.03	B
28	0	10	34.5	19-17.3	155- 3.2	37.4*	1.9	16	227	14.6	0.11	1.3		0.10	D
28	1	7	50.3	19-23.6	155-19.1	4.7	0.6	6	176	1.0	0.25	0.9	1.5	0.05	B
28	2	24	9.8	19-27.4	155-25.7	13.1	1.9	11	194	6.2	0.09	0.8	0.8	0.07	B
28	2	25	20.2	19-24.9	155-17.6	10.2	0.9	6	118	0.4	0.83	0.9	4.2	0.01	B
28	5	4	56.7	19-24.6	155-17.3	9.5	1.1	6	193	0.5	0.33	0.9	1.9	0.03	B
28	5	18	9.1	19-22.2	155-19.7	11.0		6	262	2.7	1.01	2.2	4.8	0.04	C
28	6	0	16.0	19-24.7	155-17.9	5.5	0.9	6	115	0.6	0.51	1.6	3.2	0.08	B
28	6	33	1.8	19-23.5	155-18.0	0.3*	0.4	6	157	2.2	0.13	0.7		0.13	C
28	7	12	35.6	19-25.2	155-16.9	8.5		8	180	0.6	0.36	1.2	2.2	0.08	C
28	7	33	49.6	19-24.6	155-17.5	7.5	0.8	6	95	0.1	0.16	0.4	0.9	0.01	B
28	12	24	25.8	19-17.9	155- 5.3	26.6*		10	327	10.9	0.45	4.7		0.13	D
28	18	22	13.5	19-25.5	155-16.0	3.0	2.5	14	93	2.1	0.07	0.4	0.3	0.11	B
28	22	31	35.8	19-23.7	155-25.2	10.2	3.5	17	129	7.3	0.10	0.8	0.5	0.14	B
29	0	0	14.3	19-24.2	155-18.1	7.1	1.0	7	121	1.4	0.54	1.3	3.1	0.07	B
29	4	2	34.8	19-24.6	155-18.0	5.7	0.9	7	105	0.9	0.29	0.9	1.8	0.06	B
29	4	5	29.8	19-23.8	155-19.3	6.4	1.1	6	149	0.7	0.41	1.1	2.3	0.05	B
29	4	42	8.5	19-15.5	155-13.5	7.0		8	269	10.8	0.85	4.1	1.9	0.15	D
29	6	26	48.4	19-19.5	155-14.1	7.7	0.9	13	216	4.8	0.23	1.3	0.9	0.18	C
29	8	19	30.8	19-22.0	155-24.3	9.5		9	202	3.9	0.18	1.2	1.0	0.12	C
29	8	20	8.9	19- 9.0	155-45.9	8.0*		3	290	18.8		0.0		0.0	D
29	9	37	33.1	19-24.6	155-18.2	6.0	1.0	7	114	1.2	0.27	0.9	1.7	0.06	B
29	9	54	57.1	19-24.9	155-17.9	12.5	1.5	5	156	0.8		0.0		0.01	D
29	10	15	18.4	19-27.6	155-24.9	19.3*		5	342	11.5	0.28	2.7		0.02	D
29	11	18	5.5	19-23.9	155-19.3	2.9		4	239	3.4		0.0		0.0	D
29	11	18	28.2	19-25.6	155-24.3	8.2		10	203	7.3	0.18	0.6	1.1	0.08	B
29	11	38	56.2	19-24.4	155-18.4	4.9	0.4	6	119	1.7	0.38	0.9	2.4	0.04	B
29	12	3	38.5	19-25.0	155-17.4	3.1	0.5	5	203	0.7		0.0		0.01	D
29	12	14	13.1	19-19.9	155-14.2	7.8		12	208	4.0	0.22	1.3	0.9	0.18	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 29	12	51	26.6	19-23.7	155-18.8	6.0	0.8	8	154	1.5	0.23	0.7	1.5	0.06	B
29	14	36	52.1	19-24.6	155-17.5	8.8	0.9	7	94	0.1	0.40	0.9	2.1	0.04	B
29	15	7	27.3	19-23.8	155-18.0	7.9		6	96	1.9	0.53	1.3	3.1	0.06	B
29	15	35	52.9	19-24.1	155-18.0	8.2	0.9	7	83	2.2	0.34	0.8	2.0	0.04	B
29	15	36	54.9	19-24.2	155-18.4	6.4	0.6	8	120	1.9	0.19	0.6	1.2	0.05	A
29	15	43	30.4	19-24.3	155-18.0	3.4	0.2	4	169	2.0		0.0		0.03	D
29	16	3	9.0	19-25.4	155-18.0	9.2	1.3	6	171	2.0	0.56	1.3	3.3	0.05	C
29	16	28	5.3	19-24.4	155-17.0	14.0	1.5	6	168	1.0	0.39	1.3	2.7	0.02	C
29	16	30	46.7	19-24.2	155-18.8	5.0	1.1	6	170	2.4	0.31	1.4	3.1	0.05	C
29	16	52	35.3	19-24.9	155-16.4	12.7	1.0	6	181	2.0	0.56	3.8	4.9	0.07	C
29	17	31	25.7	19-23.7	155-17.8	10.2	0.7	7	110	1.8	0.41	0.8	2.2	0.05	B
29	18	33	0.2	19-24.5	155-17.2	6.1	0.8	6	122	0.6	0.33	0.5	1.8	0.01	B
29	18	38	6.5	19-24.6	155-17.1	9.5		5	140	0.6		0.0		0.04	D
29	19	17	51.0	19-22.8	155-20.0	5.3	1.1	6	256	5.6	0.22	1.3	3.4	0.02	C
29	21	14	18.9	19-23.2	155-18.5	5.9	1.0	8	181	2.3	0.15	0.5	1.0	0.04	B
29	21	28	54.0	19-23.6	155-19.2	4.1		6	172	0.9	0.14	0.6	0.9	0.03	B
29	22	38	33.8	19-24.2	155-17.8	10.1	1.5	8	118	1.0	0.10	0.4	0.6	0.02	A
29	22	39	36.2	19-24.5	155-17.7	8.6	1.1	8	103	0.4	0.12	0.3	0.7	0.02	A
29	23	6	52.3	19-24.0	155-17.9	7.2	1.1	7	129	1.5	0.17	0.5	1.0	0.03	B
29	23	59	18.2	19-24.3	155-17.9	8.3	0.9	8	116	1.0	0.29	0.8	1.7	0.05	A
30	0	35	50.5	19-14.9	155-12.7	7.4	1.6	12	217	12.7	0.25	1.3	0.8	0.11	C
30	0	45	14.7	19-17.5	155-12.9	14.7	1.7	8	253	9.0	0.35	1.6	2.5	0.05	C
30	1	9	28.3	19-26.2	155-16.7	15.7*	1.4	6	294	2.1	0.05	0.8		0.02	D
30	1	33	15.0	19-23.2	155-18.4	4.3	1.1	6	183	2.4	0.35	1.1	2.3	0.06	C
30	2	18	30.7	19-23.8	155-18.2	4.8	0.7	7	143	2.1	0.23	0.9	1.6	0.07	B
30	2	20	19.5	19-24.4	155-18.3	5.0	0.9	7	112	1.6	0.23	0.7	1.6	0.06	B
30	2	22	16.6	19-23.7	155-17.8	7.8	1.0	8	143	1.8	0.21	0.6	1.2	0.03	B
30	3	31	14.8	19-24.0	155-18.1	10.2	1.0	8	131	1.7	0.59	1.3	3.3	0.06	B
30	3	43	42.8	19-24.5	155-18.1	8.9	1.2	6	107	1.1	0.71	1.5	3.9	0.06	B
30	4	21	44.5	19-24.6	155-17.9	9.8	1.1	8	90	0.8	0.34	0.7	1.9	0.03	A

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 30	4	24	43.3	19-22.5	155-17.8	8.1	0.8	7	198	2.5	0.85	2.3	4.7	0.09	C
30	5	13	44.1	19-23.9	155-18.4	7.6	1.0	8	106	2.2	0.28	0.6	1.7	0.06	A
30	5	48	18.5	19-23.8	155-17.7	3.4	0.9	8	137	1.7	0.16	0.7	1.3	0.10	B
30	6	16	43.5	19-24.1	155-17.9	10.1	1.1	6	122	1.2	0.20	0.5	1.1	0.01	B
30	7	15	1.6	19-23.8	155-18.0	10.7	1.4	10	108	1.9	0.35	0.9	2.0	0.10	A
30	7	16	7.6	19-23.3	155-18.0	6.2	1.1	7	162	2.1	0.21	0.7	1.3	0.04	B
30	9	56	30.5	19-12.8	155-32.5	8.1		10	136	9.0	0.08	0.9	0.7	0.11	B
30	11	44	47.8	19-23.8	155-18.4	10.1	1.4	8	100	2.2	0.49	0.9	2.8	0.06	B
30	11	47	11.0	19-24.3	155-17.9	6.3	0.7	7	86	1.1	0.23	0.7	1.4	0.05	B
30	11	51	31.5	19-23.8	155-18.1	9.7	1.0	7	142	2.0	0.33	1.0	1.8	0.04	B
30	11	54	28.0	19-24.1	155-18.0	11.0	1.3	8	82	1.3	0.62	1.2	3.4	0.05	B
30	12	17	10.9	19-24.4	155-17.3	11.4	1.5	9	87	0.7	0.12	0.7	1.0	0.06	A
30	12	28	49.5	19-24.1	155-18.0	8.5	0.9	7	128	1.5	0.36	0.8	2.0	0.04	B
30	12	35	33.6	19-24.2	155-17.9	8.3	0.9	8	81	2.1	0.30	0.7	1.8	0.05	A
30	12	53	58.6	19-24.3	155-17.7	9.2	0.8	8	90	0.7	0.37	0.9	2.0	0.05	A
30	13	1	22.2	19-24.5	155-17.7	9.3	1.2	9	83	0.6	0.22	0.5	1.2	0.03	A
30	13	2	59.3	19-24.2	155-17.9	8.9	1.2	9	98	1.1	0.24	0.6	1.4	0.05	A
30	13	11	24.1	19-25.1	155-17.7	13.2	1.7	8	97	0.5	0.35	1.3	2.6	0.05	B
30	13	17	55.9	19-36.8	155-14.3?	22.5*	2.1	9	235	20.4	0.40	15.3		0.32	D
30	13	26	43.0	19-23.5	155-18.3	12.3	1.5	7	120	2.4	0.32	1.0	2.6	0.04	B
30	14	55	39.7	19-55.2	155-56.8	5.4		9	247	28.6	0.49	5.5	3.5	0.10	D
30	18	17	0.2	19-23.8	155-27.8?	11.2	2.0	13	136	10.3	0.09	0.7	0.4	0.11	B
30	18	54	35.6	19-21.4	155-13.3	13.9	1.4	7	167	3.5	0.21	0.7	1.6	0.03	B
30	21	36	31.0	19-19.0	155-13.8	6.7	1.2	13	206	5.7	0.17	1.1	0.8	0.14	C
30	23	25	37.5	19-28.6	155-39.0	8.5		9	165	25.4	0.07	0.6	0.6	0.07	B
30	23	32	27.1	19-18.9	155-13.0	6.8		8	216	7.6	0.26	1.7	1.1	0.14	C
30	23	33	6.1	19-22.3	155-12.2	9.8	1.4	13	145	3.9	0.07	0.7	0.4	0.11	B
31	2	9	29.7	19-20.4	155-16.4	32.6		13	152	3.1	0.13	0.9	1.3	0.09	B
31	4	20	2.9	19-21.3	155- 5.4	4.6	2.6	18	180	17.3	0.14	1.1	0.8	0.17	C
31	11	42	1.1	19-19.0	155- 9.7	30.2	1.9	13	270	11.0	0.40	2.5	2.1	0.07	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
MAY 31	13	47	53.3	19-24.5	155-17.9	10.2	1.2	7	106	0.8	0.07	0.2	0.4	0.01	B
31	15	4	54.9	19-13.2	155-26.1?	9.2	2.1	11	165	13.8	0.14	1.2	0.7	0.14	C
31	15	35	1.9	19-23.7	155-17.8	5.7	1.0	8	141	1.8	0.11	0.4	0.7	0.03	B
31	15	44	32.9	19-24.3	155-17.7	9.2	1.2	9	91	0.9	0.21	0.5	1.2	0.04	A
31	16	23	55.2	19-24.2	155-17.8	8.7	1.1	9	84	1.1	0.25	0.6	1.4	0.04	A
31	18	47	53.4	19-25.4	155-17.1	10.9	0.9	7	218	0.9	0.53	1.1	2.7	0.04	C
31	19	16	4.6	19-24.1	155-18.7	4.7	0.6	7	126	1.9	0.21	0.7	1.4	0.06	B
31	19	41	46.7	19-23.2	155-14.4	3.2		8	166	3.0	0.12	0.6	1.5	0.07	B
31	19	52	44.1	19-23.4	155-18.9	5.9	1.0	7	178	1.5	0.43	1.1	2.5	0.08	C
31	20	37	48.2	19-23.6	155-16.0?	3.3	0.2	7	197	1.5	0.64	1.5	3.2	0.11	C
31	20	57	6.8	19-23.7	155-18.4	7.7	1.0	8	154	2.3	0.24	0.8	1.4	0.05	B
31	21	13	15.1	19-24.4	155-17.6	9.8	0.9	8	105	0.5	0.26	0.7	1.4	0.03	A
31	21	18	43.1	19-24.3	155-17.9	9.8	1.1	7	117	1.0	0.21	0.6	1.2	0.03	B
31	21	43	49.8	19-20.8	155-18.1	25.8	2.0	9	117	1.8	0.58	2.3	4.9	0.08	B
31	21	43	59.4	19-21.1	155-16.4	29.2	1.8	17	137	2.3	0.11	0.9	1.2	0.11	B
31	22	21	12.3	19-24.7	155-18.7	0.1*	0.4	7	104	2.2	0.11	0.6		0.13	C
31	22	25	36.7	19-24.7	155-18.3	7.1	0.9	6	98	1.4	0.15	0.4	0.9	0.02	B
31	23	18	35.9	19-18.1	155-16.9	30.2		13	171	3.7	0.34	1.5	3.2	0.09	C
31	23	41	25.9	19-17.4	155-12.0	8.4		9	262	8.8	0.38	1.9	0.9	0.10	C
1	0	48	52.4	19-19.3	155-16.2	11.4	1.0	7	259	2.6	0.16	0.8	1.0	0.02	C
1	0	56	3.9	19-24.1	155-17.7	3.4	1.3	7	124	1.2	0.33	0.7	1.8	0.04	B
1	1	48	3.4	19-24.3	155-18.0	4.0	0.8	6	117	1.2	0.17	0.7	1.3	0.06	B
1	1	56	37.4	19-25.7	155-11.0?	28.2		12	150	10.4	0.14	1.2	1.6	0.08	B
1	2	19	46.8	19-25.1	155-17.3	7.5	1.1	9	174	0.6	0.10	0.5	0.6	0.03	B
1	3	6	55.0	19-24.3	155-17.9	8.0	0.9	7	116	1.0	0.72	1.6	4.0	0.09	B
1	3	32	29.1	19-24.2	155-18.3	7.9	1.3	8	102	1.6	0.22	0.5	1.3	0.05	A
1	3	44	10.8	19-24.6	155-17.8	9.3	1.4	9	90	0.6	0.09	0.3	0.5	0.02	A
1	3	49	10.2	19-24.1	155-17.7	9.2	1.2	7	121	1.1	0.42	0.9	2.3	0.04	B
1	4	46	56.8	19-18.3	155- 1.8	5.7	2.0	12	236	23.7	0.44	2.9	1.0	0.15	D
1	4	56	15.5	19-24.1	155-18.3	5.5	0.8	7	126	1.8	0.41	1.2	2.6	0.09	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUN 1	5	3	14.3	19-24.2	155-18.2	6.1	0.8	7	120	1.5	0.16	0.4	1.0	0.03	B
1	5	22	48.9	19-24.0	155-16.8	11.8	1.3	7	167	1.2	0.29	1.1	2.0	0.03	C
1	6	39	15.0	19-23.5	155-17.8	8.5	1.2	7	155	1.8	0.73	2.2	4.0	0.10	C
1	7	18	20.8	19-24.8	155-16.0	11.5	1.1	7	237	1.8	0.36	1.6	2.3	0.04	C
1	7	23	36.8	19- 6.6	155-34.8	8.7		12	153	6.4	0.08	1.8	1.4	0.09	C
1	7	53	38.5	19-28.0	155-24.7	12.6	1.2	7	226	4.1	0.41	1.6	3.2	0.03	C
1	9	41	44.3	19-20.8	155-13.0	9.3	1.3	14	184	3.2	0.15	1.0	0.8	0.14	C
1	10	51	18.1	19-24.1	155-16.5?	3.2	1.4	9	139	1.3	0.06	0.4	0.3	0.05	B
1	19	30	5.7	19-18.2	155-17.1	28.5	1.7	10	170	3.6	0.27	1.3	2.7	0.07	C
1	21	29	10.5	19-27.6	155-14.3?	8.0*	1.3	9	279	7.0	0.67	4.9		0.46	D
2	1	17	44.3	19-20.3	155-25.9	7.8	1.3	8	166	12.6	0.13	1.1	1.2	0.11	C
2	8	56	48.3	19-24.2	155-24.7	12.2	1.5	9	212	7.7	0.28	1.3	2.4	0.09	C
2	16	33	56.4	19-21.5	155-12.9	9.0		13	168	1.9	0.17	1.2	0.9	0.16	C
3	1	8	19.3	19-20.9	155- 7.0	5.8	1.8	16	180	10.1	0.20	1.3	1.0	0.19	C
3	2	13	15.7	19-22.3	155-40.2	10.9	1.8	11	132	14.7	0.06	0.4	0.5	0.05	B
3	8	14	13.3	19-37.9	156- 5.7	5.3	2.0	10	262	22.1	0.97	4.3	2.6	0.17	D
3	8	53	44.9	19-22.3	155-11.3	9.6	1.7	11	169	2.1	0.12	1.0	0.4	0.10	C
4	7	52	49.0	19-21.0	155-12.3	10.1	1.3	15	184	2.7	0.10	0.9	0.4	0.12	C
4	12	5	21.9	19-20.3	155-16.7	34.6	2.5	17	153	1.2	0.16	1.0	1.5	0.09	C
4	12	12	36.2	19-24.2	155-25.6	13.7	1.5	8	231	8.5	0.46	1.7	3.6	0.07	C
4	15	55	10.1	19-49.3	155-25.9?	35.9	1.9	14	157	5.6	0.38	2.5	3.5	0.26	C
4	16	13	24.0	19-31.9	155-29.6?	15.4*		10	166	11.7	0.38	3.6		0.41	D
4	19	1	48.2	19-19.0	155-16.1	7.9	2.8	18	168	3.0	0.12	0.9	0.5	0.17	C
4	19	21	32.1	19-24.4	155-23.5	9.6	1.6	14	140	6.9	0.07	0.6	0.6	0.09	B
4	23	53	2.1	19-22.2	155-28.8	8.7	1.8	14	101	16.2	0.09	0.9	0.8	0.17	B
5	1	43	5.0	19-19.5	155-16.1	9.9	1.0	11	188	2.5	0.10	0.8	0.4	0.10	B
5	3	34	23.7	19-24.5	155-23.9	9.4	2.3	15	73	7.5	0.10	0.9	0.6	0.14	B
5	8	9	50.6	20- 1.8	155-46.5	18.0	2.6	19	253	7.9	0.48	2.9	4.3	0.10	D
5	13	7	6.7	19-19.9	155- 1.3	6.3	1.9	9	231	21.5	0.20	1.3	0.5	0.06	C
5	17	36	1.2	19-24.8	154-53.9	13.6*	2.1	10	289	28.7	1.04	6.8		0.13	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUN 5	19	25	16.5	19-21.3	155-18.4	30.6	2.9	20	83	2.9	0.12	0.8	1.2	0.11	B
5	20	3	49.3	19-17.6	155-13.7?	11.3	1.1	9	223	7.9	0.26	2.0	2.1	0.14	C
5	20	38	57.6	19-29.3	155-42.6?	7.2	1.9	14	170	22.4	0.22	1.5	1.8	0.21	C
5	22	1	0.0	19-21.5	155- 8.6	9.0	1.7	13	193	2.5	0.15	1.4	0.7	0.14	C
6	2	54	42.7	19-20.5	155-13.2	8.9		11	189	3.9	0.17	1.4	1.0	0.15	C
6	5	30	47.0	19-24.6	155-23.4?	11.2	3.4	18	71	6.7	0.06	0.6	0.3	0.13	B
6	7	41	1.6	19-33.9	155-33.9	1.0	2.3	15	83	20.0	0.58	0.9	3.0	0.22	B
6	8	12	52.7	19-21.6	155-10.1	7.9	1.3	10	244	0.4	0.19	1.4	0.7	0.10	C
6	9	9	57.1	19-22.2	155-22.8	10.1	1.4	10	114	3.8	0.09	0.8	0.9	0.10	A
6	9	12	12.5	19-22.5	155-21.9	8.0	1.0	11	138	4.5	0.12	0.8	0.8	0.12	B
6	9	47	39.4	19-22.7	155-10.8?	3.7	1.2	10	206	2.1	0.31	1.4	1.2	0.16	C
6	11	43	30.4	19-19.3	155-13.9	9.9	1.5	15	195	5.2	0.09	0.7	0.4	0.10	B
6	12	14	57.9	19-22.5	155-23.7	7.4	1.3	11	113	4.3	0.11	0.8	1.1	0.16	B
6	17	47	5.8	19-27.1	155-22.7?	10.1	1.6	10	165	3.7	0.34	1.0	2.3	0.12	C
7	5	59	41.1	19-11.2	155-20.4	28.0	1.7	7	231	17.3	0.47	3.2	5.0	0.05	D
7	9	49	11.6	19-23.2	155-18.3	21.1	1.8	10	73	2.6	0.45	1.3	4.2	0.06	B
7	10	18	17.5	19-27.6	155- 6.6	24.2*		7	311	12.2	0.20	2.0		0.03	D
7	11	30	58.6	18-56.7	155- 9.0	8.0*	2.5	19	260	45.6	0.25	1.6		0.11	D
7	16	29	16.1	19-25.5	155- 1.7	0.0	2.3	16	166	15.0	0.14	1.0	1.2	0.17	C
7	18	43	30.2	19-24.2	155- 3.6?	0.1	2.3	16	170	19.1	0.42	0.9	2.3	0.13	C
7	22	47	29.5	19-22.3	155-23.8	9.1	1.6	15	74	3.9	0.06	0.5	0.4	0.11	B
8	0	7	28.8	19-22.3	155-18.4	25.7	2.0	9	146	3.4	0.69	1.5	5.9	0.05	C
8	1	0	17.1	19-20.8	155-25.5	6.7	1.7	11	147	11.5	0.10	0.8	1.2	0.13	B
8	1	34	27.9	19-23.9	155-18.0	5.8	1.4	7	135	1.8	0.39	0.6	2.3	0.04	B
8	1	36	22.9	19-22.5	155-18.4	3.2	1.3	6	213	3.1	0.99	2.9	8.1	0.14	C
8	2	49	3.6	19-27.3	155-24.6	9.7	1.6	8	216	5.2	0.41	1.2	3.2	0.12	C
8	4	22	34.2	19-23.4	155-18.6	6.9	1.2	6	167	2.0	0.65	0.9	3.7	0.03	C
8	4	33	57.1	19-22.9	155- 9.2	8.6	1.7	12	145	2.6	0.08	1.2	0.6	0.13	B
8	5	16	56.9	19-20.7	155-14.1	8.0	0.6	15	181	3.0	0.12	0.8	0.5	0.15	C
8	5	54	44.3	19-23.1	155-17.9	5.4	1.1	6	173	2.1	0.60	1.1	3.8	0.06	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUN 8	13	1	26.6	19-23.9	155-18.2	10.7	1.6	9	138	2.0	0.48	1.6	2.7	0.07	B
8	13	31	25.8	19- 6.7	155-27.4	33.7		8	275	22.7	1.27	4.9	10.0	0.07	D
8	15	39	55.7	19-26.7	155-10.5	13.5	2.0	8	301	12.3	1.57	10.1	6.6	0.10	D
8	21	51	27.7	19-28.1	155-18.1	24.4	2.1	12	154	4.6	0.17	1.0	1.7	0.08	C
9	0	18	1.1	19-17.4	155-13.8	10.5		10	248	8.0	0.32	1.8	0.6	0.11	C
9	1	23	11.0	19-25.6	155-14.5	10.3	1.7	8	254	5.4	0.88	3.5	4.4	0.10	D
9	1	35	19.1	19-19.8	155-16.6	7.5	1.0	8	259	1.5	0.13	0.8	0.4	0.04	C
9	1	37	30.7	19-19.4	155-16.5	7.7	0.7	8	251	2.0	0.29	1.7	0.9	0.11	C
9	2	46	51.4	19-23.2	154-56.3	7.5	2.1	7	233	11.0	0.48	5.0	2.1	0.07	D
9	6	37	9.4	19-20.3	155-17.1	14.4	2.2	8	276	4.3	0.19	2.0	0.8	0.05	C
9	8	56	4.2	19-32.5	156-16.4	29.6*	3.0	11	318	37.1	1.85	11.6		0.16	D
9	10	27	29.3	19-21.6	155-12.2	5.9		9	168	3.8	0.19	1.4	1.1	0.13	C
9	11	47	14.9	19-25.3	155-17.8	4.3	1.1	8	119	0.4	0.40	1.8	2.5	0.15	B
9	13	26	40.4	19-21.5	155-15.9	19.1	2.1	8	235	1.2	1.36	4.9	10.7	0.08	D
9	14	57	30.4	19-19.4	155-15.7	9.4	1.6	12	165	3.2	0.08	0.8	0.6	0.11	C
9	15	33	47.3	19-24.6	155-17.1	8.9	1.3	10	119	0.5	0.14	0.5	0.8	0.04	A
9	17	10	6.5	19-43.3	155-25.9	21.3	2.3	15	177	6.6	0.21	1.7	2.4	0.13	C
9	18	32	47.8	19-22.2	155- 0.4	3.8	2.3	14	210	16.7	0.15	1.1	1.0	0.11	C
9	19	59	23.6	19-49.1	155-40.3	8.0*	2.6	8	177	23.2	0.07	0.7		0.08	C
9	21	18	55.3	19-24.7	155-17.7	6.4	1.3	7	96	0.4	0.11	0.4	0.7	0.03	B
9	23	0	39.1	19-20.2	155-12.9	9.6	2.5	20	168	4.3	0.09	0.8	0.4	0.15	C
9	23	9	50.4	19-12.4	155-34.7	8.9	3.0	18	124	6.2	0.09	0.9	0.6	0.14	B
10	0	2	34.1	19-18.9	155-14.6	7.8	0.8	12	222	5.4	0.28	1.5	1.0	0.20	C
10	0	9	19.3	19-21.4	155-24.9	7.2	1.8	11	114	3.5	0.11	0.9	1.1	0.15	B
10	1	34	44.6	19-24.3	155-18.2	6.9	1.2	10	98	1.4	0.25	0.8	1.6	0.11	B
10	3	11	38.9	19-24.5	155-17.4	8.3	1.3	9	101	0.4	0.14	0.6	0.8	0.04	A
10	4	14	2.8	19-24.6	155-13.3	19.3	2.2	10	193	6.1	0.64	3.3	5.6	0.17	C
10	5	7	24.4	19-24.6	155-16.8	10.7	1.6	9	192	0.7	0.13	0.5	0.7	0.02	B
10	6	24	9.0	19-24.4	155-17.6	6.7	1.5	7	128	0.6	0.06	0.2	0.4	0.01	B
10	7	14	51.6	19-24.7	155-17.7	12.1	1.6	7	97	0.4	0.35	2.2	2.7	0.07	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUN 10	7	26	35.0	19-18.1	155- 6.5?	4.1		11	215	13.2	0.79	2.4	2.7	0.22	C
10	10	42	12.9	19- 2.8	155-17.0	16.9*	2.3	14	253	31.9	0.31	2.3		0.16	D
10	18	8	13.3	19-24.1	155-17.9	10.2	1.5	11	75	1.3	0.20	0.5	1.2	0.05	A
10	22	55	18.7	19-40.2	156- 5.3	7.2	2.9	14	262	24.2	0.62	3.1	1.5	0.14	D
10	23	14	49.6	19-24.1	155-17.9	11.9	1.9	10	99	1.2	0.13	0.7	1.1	0.06	A
10	23	18	25.1	19-24.6	155-17.6	8.4	1.6	8	98	0.3	0.06	0.2	0.3	0.01	A
10	23	55	13.9	19-16.0	154-41.6	1.2*	2.6	9	316	31.5	0.82	5.2		0.15	D
11	0	1	10.2	19-21.6	155-16.1	27.5	2.0	15	139	1.5	0.13	1.1	1.4	0.11	B
11	1	8	16.7	19-21.1	155-17.4	22.6		12	142	3.6	0.16	0.9	1.7	0.07	B
11	2	25	49.4	19-18.3	155-24.4	7.7	1.8	11	150	4.0	0.16	1.3	1.3	0.18	B
11	3	1	14.5	19-17.8	155-16.2	7.0		10	207	7.6	0.17	1.0	0.8	0.11	C
11	3	6	30.6	19-23.9	155-18.2	9.6	1.3	10	104	1.8	0.13	0.3	0.8	0.03	A
11	3	22	26.6	19-24.1	155-18.6	8.4	1.6	10	102	2.1	0.29	0.7	1.8	0.10	A
11	4	30	24.6	19-24.4	155-17.7	9.2	1.4	6	108	0.6	0.23	0.5	1.2	0.01	B
11	4	37	32.6	19-24.3	155-16.6	12.2	1.9	11	145	1.3	0.14	0.9	1.1	0.10	B
11	5	2	53.7	19-18.9	155-11.5	10.2	2.2	15	217	5.9	0.19	1.5	0.5	0.16	C
11	5	46	58.9	19-25.0	155-17.8	6.4	1.7	7	104	0.8	0.32	1.1	1.9	0.06	B
11	5	48	47.4	19-25.5	155-18.2	11.5	1.8	7	244	1.1	1.05	3.1	6.6	0.05	D
11	6	33	33.6	19-24.6	155-17.4	9.9	1.8	9	95	0.3	0.08	0.3	0.5	0.02	A
11	7	5	12.4	19-21.5	155-16.1	28.4	2.1	13	165	1.5	0.18	1.6	1.8	0.11	C
11	7	13	46.1	19-23.4	155-17.6	5.0	1.1	7	153	1.4	0.13	0.3	0.9	0.02	B
11	8	45	35.5	19-22.0	155-15.3	30.2	2.2	18	102	0.4	0.14	0.9	1.3	0.13	B
11	8	50	38.6	19-20.4	155-27.6	5.7	1.9	12	145	15.2	0.10	0.9	1.3	0.15	B
11	10	0	36.7	19-24.2	155-17.9	9.6	2.0	11	74	1.2	0.23	0.5	1.3	0.06	A
11	10	45	34.6	19-24.3	155-17.5	10.4	1.7	10	101	0.7	0.15	0.5	0.8	0.03	A
11	11	22	22.4	19-22.1	155-16.9	31.1	3.6	21	92	1.9	0.15	1.1	1.5	0.16	B
11	15	44	19.1	19-17.6	154-59.8	7.3	2.1	7	249	19.5	0.16	1.0	0.4	0.02	C
11	19	56	52.9	19-25.2	155- 1.2	5.5	2.3	15	181	14.5	0.11	1.1	1.0	0.16	C
11	22	0	1.1	19-14.3	155-17.3?	29.8*	2.3	8	231	10.8	0.52	9.9		0.29	D
11	23	20	51.1	19-22.5	155-23.4	8.6	2.1	14	119	10.5	0.10	0.9	0.7	0.17	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUN 11	23	35	18.4	19-22.5	155-26.4	8.7	1.7	14	125	6.8	0.10	0.8	0.7	0.16	B
12	0	50	10.1	I9-20.4	155-44.3?	11.1	2.4	12	160	16.2	0.10	1.1	0.9	0.11	C
12	7	18	49.5	19-24.7	155-24.4	10.9	2.1	13	122	8.4	0.06	0.5	0.3	0.10	B
12	10	52	5.9	19-24.4	155-28.3	8.2	2.6	16	69	11.7	0.11	0.9	1.1	0.20	B
12	11	55	52.6	19-20.8	155-52.5?	1.3*	2.8	15	207	19.9	0.21	1.5		0.14	C
12	12	44	47.3	19-17.7	155-44.1	12.6	2.5	11	265	13.3	0.42	2.5	1.3	0.06	D
12	13	28	15.5	19-19.4	155-14.2	10.3	1.6	14	212	4.9	0.09	0.7	0.4	0.10	B
12	13	53	31.3	19-19.4	155-14.2	10.2	1.6	15	209	4.9	0.08	0.7	0.3	0.09	B
12	14	18	10.3	19-10.3	155-19.8	44.1	2.6	8	269	18.5	1.80	7.5	13.0	0.08	D
12	15	18	55.8	19-20.8	155-11.4	8.8	1.8	15	191	3.1	0.10	0.9	0.6	0.14	C
12	21	51	25.6	19-22.0	155-27.0	6.8	2.7	18	95	7.3	0.09	0.7	0.6	0.17	B
13	0	32	11.8	19-19.3	155-15.8	9.1	2.0	17	166	3.2	0.09	0.8	0.5	0.15	C
13	5	8	4.1	19-21.6	155-15.4	29.2	2.2	14	140	1.7	0.16	1.1	1.6	0.11	B
13	7	47	19.3	19-23.6	155-23.0	9.9	2.5	19	71	5.8	0.06	0.6	0.3	0.12	B
13	7	49	37.6	19-20.8	155-17.9	28.8	2.1	10	169	4.6	0.24	1.2	2.1	0.07	C
13	7	53	27.5	19-23.3	155-23.6	11.1	1.9	14	114	5.7	0.06	0.6	0.3	0.11	B
13	8	33	28.8	19-12.8	155-29.3	5.9	2.2	11	230	14.3	0.32	1.9	1.3	0.14	C
13	8	36	45.1	19-11.1	155-34.8?	8.6	2.1	7	139	8.0	0.14	2.8	1.9	0.12	C
13	10	40	24.1	19-20.1	155-12.1	9.1	2.7	18	170	4.5	0.12	1.0	0.5	0.18	C
13	18	14	14.4	18-51.1	155-14.4	8.0*	2.8	19	273	45.3	0.34	2.2		0.12	D
13	19	35	38.5	19-29.5	155-43.6?	1.0	2.2	7	176	20.7	1.69	3.5	8.8	0.48	D
13	20	42	12.1	19-24.8	155-22.5	9.3	2.0	15	136	5.3	0.09	0.8	0.5	0.13	B
13	23	2	9.2	19-19.1	155- 6.9	5.8	2.2	16	188	11.6	0.18	1.1	0.8	0.16	C
14	6	27	42.9	19-30.8	155- 6.6	8.0*	2.2	9	193	21.3	0.32	2.7		0.21	D
14	9	14	14.8	19-11.8	155-32.8	7.4	1.9	14	143	9.4	0.08	0.9	0.7	0.11	B
14	15	47	50.2	19-14.3	155- 7.1	4.9	1.1	14	250	14.7	0.53	2.5	1.6	0.19	D
14	23	3	8.4	19-10.5	155-34.9	8.3		7	142	9.0	0.18	2.0	1.4	0.18	B
14	23	34	55.9	19-10.7	155-30.9	5.3		9	165	13.5	0.13	1.0	1.5	0.12	C
15	3	53	36.6	19-11.4	155-30.9	5.4	2.5	17	151	12.6	0.11	0.8	0.7	0.18	C
15	4	9	37.3	19-10.5	155-30.5	4.7		10	160	14.1	0.12	1.0	1.1	0.13	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUN 15	4	37	35.6	19-10.9	155-30.9	3.9*	2.2	6	164	13.2	0.15	1.2		0.12	C
15	5	3	59.6	19-10.3	155-30.2	5.4	2.3	12	163	14.7	0.10	0.9	0.9	0.13	C
15	6	31	49.7	19-18.7	155- 6.4	4.2	3.2	18	190	8.6	0.19	1.2	0.9	0.18	C
15	11	38	36.3	19-20.6	155- 5.6	4.5	2.4	16	183	17.2	0.16	1.2	0.9	0.17	C
15	18	40	8.1	19-23.7	155-17.1	2.6	0.8	9	132	0.8	0.04	0.3	0.2	0.05	B
15	18	44	35.0	19-18.7	155-13.5	10.5	1.8	15	198	6.5	0.11	0.8	0.4	0.11	C
15	19	34	27.5	19-20.8	155-13.9	8.2	1.5	15	180	3.0	0.12	0.9	0.6	0.15	C
15	21	51	22.5	19-23.4	155-25.2	10.9		12	76	6.8	0.06	0.6	0.4	0.09	A
15	22	27	53.2	19-23.1	155-26.8	8.5	2.5	17	75	8.1	0.08	0.7	0.6	0.16	B
15	23	34	15.2	19-23.9	155-35.7	9.2	2.3	10	191	16.7	0.12	0.8	0.5	0.08	B
15	23	39	58.2	19-23.1	155-25.4	9.9	2.4	17	78	6.6	0.09	0.8	0.5	0.16	B
16	0	44	0.0	19-23.9	155-17.3	1.9	0.7	6	127	1.3	0.06	0.2	0.4	0.01	B
16	7	7	0.1	19-23.5	155-17.1	2.4		7	140	0.5	0.02	0.2	0.1	0.02	B
16	7	18	7.1	19-23.4	155-17.2	2.3	0.9	8	144	0.7	0.02	0.1	0.1	0.02	B
16	10	35	7.3	19-23.8	155-17.3	2.3	1.1	10	112	1.2	0.04	0.2	0.2	0.04	A
16	18	13	9.6	19-29.3	155-45.8	6.4	2.9	16	205	30.7	0.27	1.5	1.6	0.13	C
16	23	41	2.6	19-18.8	155- 8.4?	10.6	1.9	13	221	6.1	0.29	2.0	0.8	0.12	C
17	0	58	23.6	19-15.8	155-13.5	8.7	2.4	16	186	11.6	0.20	1.1	0.8	0.15	C
17	0	59	24.1	19-19.5	155-13.9	11.1	1.7	13	170	5.0	0.10	1.0	0.9	0.13	C
17	21	7	33.1	19-18.5	155-13.8	11.6	1.7	17	173	6.6	0.07	0.7	0.7	0.10	B
17	2	18	49.1	19-22.3	155-25.0	8.8	1.7	10	162	4.9	0.10	0.8	0.9	0.10	B
17	2	46	27.3	19-22.8	155-16.2	34.0*	2.3	10	126	0.9	0.04	1.8		0.07	C
17	5	55	44.5	19-23.6	155-17.7	25.7	2.1	8	108	1.6	1.24	2.7	10.7	0.07	B
17	6	10	42.4	19-19.6	155-25.4	5.8	2.3	14	128	12.5	0.07	0.6	0.6	0.13	B
17	6	23	2.3	19-19.4	155-25.3	6.5	2.5	17	129	12.6	0.07	0.6	0.5	0.12	B
17	9	26	7.9	19-19.5	155-16.3	69.5*		11	188	2.2	0.07	3.0		0.08	C
17	10	55	12.3	19-11.2	155-28.8	9.6		9	173	16.1	0.09	0.9	0.6	0.09	B
17	12	23	46.9	19-22.6	155-16.4	33.7*	2.3	10	119	1.6	0.05	1.9		0.09	B
17	14	57	31.8	19-19.0	155-24.5	8.6	3.4	22	136	3.0	0.08	0.7	0.4	0.17	B
17	16	29	54.9	19-24.3	155-35.1	8.7	2.8	12	134	17.7	0.13	0.9	0.7	0.11	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUN 17	17	26	44.9	19-22.2	155-11.6	9.7	1.6	15	127	1.7	0.09	0.9	0.4	0.13	B
17	17	53	21.2	19-20.1	155-10.6	9.7	2.2	17	194	3.3	0.13	1.2	0.6	0.17	C
17	20	45	7.7	19-24.6	155-21.7	16.6	2.0	5	140	3.8		0.0		0.11	D
17	20	58	17.8	19-17.1	156-27.7	8.0*	2.2	8	298	52.4	1.90	11.8		0.19	D
17	21	34	40.5	19-29.5	155-45.9	6.5	3.2	17	120	16.8	0.10	0.9	1.1	0.10	B
18	2	30	18.0	19-22.5	155-10.7	9.7	2.4	17	128	1.8	0.04	0.5	0.3	0.09	B
18	12	22	39.7	19-21.5	155-26.8	3.5*	1.8	11	146	13.1	0.15	1.1		0.15	C
18	13	43	12.0	19-20.4	155-29.8	9.0	2.5	9	115	16.3	0.07	0.7	0.6	0.10	A
18	14	39	39.8	19-26.4	155-34.4	14.5*	2.1	10	187	20.4	0.10	0.9		0.09	C
19	1	35	56.1	19-18.8	155-16.4	7.3	1.9	16	168	5.9	0.12	0.9	0.7	0.17	C
19	3	33	23.0	19-11.3	155-34.5	8.3		7	145	8.1	0.17	1.9	1.4	0.17	B
19	12	44	29.5	19-50.3	154-59.3	8.0*	2.6	12	297	40.9	0.78	5.0		0.08	D
19	13	42	29.3	19-22.6	155-23.5	10.1		10	113	4.4	0.12	1.3	1.1	0.16	B
19	17	21	7.4	19-20.4	155-13.6	10.2	2.0	16	164	3.9	0.07	0.7	0.4	0.11	C
19	19	14	51.5	19-47.1	155-33.4?	24.9*		10	268	10.8	0.19	1.5		0.07	D
19	20	44	33.9	19-21.2	155-25.2	6.9	2.2	16	114	10.7	0.07	0.6	0.6	0.14	B
20	4	0	21.9	19-22.4	155-25.7	6.0	1.9	14	102	10.7	0.10	0.9	0.9	0.18	B
20	6	4	1.0	19-20.6	155- 4.5	4.3	3.0	18	187	9.9	0.18	1.3	0.9	0.20	C
20	16	59	45.7	19-25.0	155-28.1	6.3	2.3	17	183	12.2	0.15	0.9	0.9	0.20	C
20	22	33	37.1	19-21.7	155- 8.4	5.3	2.2	16	173	7.3	0.15	1.1	1.0	0.19	C
21	7	3	53.4	19-17.1	154-53.7	7.7	2.4	11	280	20.8	0.73	4.0	1.3	0.09	D
21	19	21	57.4	19-22.9	155- 1.7	1.2	2.1	11	201	17.5	0.63	1.0	3.4	0.11	C
21	23	36	44.7	19-12.6	155-20.1	34.1	1.9	11	194	15.1	0.31	1.4	2.9	0.08	C
21	23	49	50.7	19-22.9	155-22.9	9.4	2.0	14	111	5.1	0.07	0.7	0.6	0.12	B
22	2	14	30.5	19-23.5	155- 2.4?	0.0	2.1	14	178	17.8	0.39	0.8	2.0	0.11	C
22	4	53	44.8	19-18.5	155- 0.6	1.5		8	242	22.4	1.29	4.8	5.0	0.13	D
22	12	38	42.1	19-22.5	155-25.7	10.3	4.2	17	130	6.0	0.12	0.9	0.5	0.16	B
22	13	32	39.4	19-22.0	155-24.8	11.0	2.3	15	115	4.1	0.09	0.8	0.4	0.14	B
22	13	34	12.5	19-21.9	155-25.2	10.2	2.0	12	118	4.7	0.07	0.7	0.7	0.10	A
22	15	45	58.1	19-21.0	155-16.8	26.8	2.0	8	170	7.0	0.19	1.0	1.7	0.05	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUN 22	17	35	30.3	19-19.5	155-24.9	45.1	2.4	16	130	3.1	0.28	1.2	2.7	0.11	B
22	18	49	49.7	19-37.2	156-11.6	8.0*	2.4	14	302	73.1	1.08	6.6		0.11	D
22	19	46	43.1	19-22.2	155-25.4	6.3	2.5	22	75	5.2	0.10	0.8	0.7	0.21	B
22	21	40	42.4	19-25.1	155- 1.5	1.1	2.2	14	181	15.0	0.54	1.0	3.1	0.18	C
22	23	32	4.7	19-17.9	155-25.4	6.6	1.9	10	148	14.6	0.11	1.1	1.5	0.16	B
23	0	43	2.8	19-19.9	155-16.0	9.6	1.7	14	158	2.4	0.07	0.7	0.6	0.12	C
23	1	0	58.3	19-23.8	155- 6.2	2.4	2.5	16	167	11.2	0.46	1.1	2.6	0.17	C
23	1	56	12.2	19-20.5	155-15.5	28.7	2.3	20	154	2.5	0.10	0.7	1.0	0.10	C
23	2	16	57.1	19-20.7	155-15.8	28.0	2.3	17	150	2.2	0.11	0.9	1.1	0.09	B
23	4	5	57.4	19-18.3	155- 7.0	3.5	2.1	14	212	12.4	0.31	1.8	1.6	0.18	C
23	5	1	14.1	19-21.3	155-13.7	9.9	1.7	17	150	2.9	0.08	0.8	0.4	0.15	B
23	6	53	6.3	19-25.6	155-14.8	26.0	1.2	11	144	4.9	0.12	1.0	1.3	0.07	B
23	9	54	56.7	19-18.6	155-14.6	8.5	2.1	16	180	5.6	0.14	1.0	0.7	0.17	C
23	16	54	57.6	19-23.4	154-59.2?	8.0*	2.0	11	213	13.6	1.72	11.5		0.40	D
23	17	26	35.6	19-22.0	155-12.6	10.2	1.6	13	152	0.9	0.05	0.6	0.3	0.07	B
24	3	34	38.8	19-20.9	155-16.5	31.1	1.5	17	146	2.7	0.14	0.9	1.4	0.12	B
24	4	10	21.3	19-20.5	155-28.4	9.5	2.2	14	112	9.0	0.08	0.8	0.6	0.14	B
24	6	54	40.4	19-21.4	155- 6.2	3.4	1.8	13	200	15.9	0.18	1.4	1.1	0.13	C
24	12	28	48.7	19-20.6	155-11.8	10.5	2.0	12	202	3.8	0.19	1.5	0.5	0.14	C
24	22	40	9.7	20- 2.8	155-22.4	8.0*	2.5	15	304	31.0	0.85	5.3		0.11	D
25	2	31	29.7	19-10.8	155-33.7	8.5		9	137	9.7	0.13	1.5	1.1	0.17	B
25	5	28	24.1	19-26.4	155-22.2	9.1	2.2	18	68	3.5	0.05	0.5	0.3	0.11	B
25	5	50	52.1	19-24.4	155-25.4	8.5	1.9	13	127	8.7	0.08	0.7	0.6	0.14	B
25	14	29	13.4	19-22.9	155-24.4	10.0	1.3	13	118	5.4	0.06	0.6	0.6	0.11	B
25	15	43	51.9	19-22.4	155-23.2	8.3	1.5	7	177	4.0	0.66	1.5	4.3	0.11	C
25	21	8	38.8	19-21.7	155-12.1	9.1	2.2	15	146	3.6	0.08	0.7	0.4	0.13	B
26	4	24	45.0	19-15.6	155-13.7	6.4	1.7	6	267	11.8	0.89	4.2	2.1	0.10	D
26	7	12	42.1	19-22.6	155-10.9	9.5	1.5	8	140	2.1	0.08	1.3	0.5	0.06	B
26	8	20	38.6	19-23.6	155-20.1	13.9	2.0	7	113	5.0	0.17	0.4	1.5	0.02	B
26	16	23	57.4	19-27.0	154-53.9	7.9	2.0	9	226	2.9	0.33	4.0	1.6	0.11	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUN 26	17	22	40.5	19-19.4	155- 6.4	4.7	2.5	18	187	12.1	0.24	1.7	1.3	0.27	A
26	22	58	22.2	20-41.1	155-30.5	8.0*	3.1	19	330	75.1	2.06	12.2		0.08	D
27	14	52	12.4	19-20.8	155-25.6	8.4	2.1	14	136	4.1	0.15	1.1	1.3	0.20	B
27	17	17	6.2	19-14.6	155-25.2	37.6	2.6	20	158	10.8	0.19	1.1	1.9	0.12	C
27	19	41	20.2	19-25.2	155-16.8	5.6	2.0	10	210	1.4	0.25	1.3	1.2	0.14	C
28	0	20	46.1	19-22.3	155-11.1	10.2	1.9	17	126	2.1	0.08	0.9	0.4	0.14	C
28	1	38	43.4	19-15.5	155-24.1	41.7	2.3	11	160	8.8	0.40	1.9	3.8	0.13	C
29	3	18	51.8	19-24.7	155- 1.8?	0.0	2.1	14	188	15.8	0.19	1.1	1.8	0.16	C
29	12	21	17.7	19-21.1	155-17.8	27.4	2.1	14	73	2.1	0.13	0.7	1.2	0.06	A
29	22	40	55.0	19-21.6	155-25.0	7.5	1.8	13	138	10.1	0.08	0.6	0.6	0.12	B
29	22	44	28.6	19-19.3	155-23.4	5.0	1.5	8	179	1.6	0.19	1.5	1.9	0.13	C
30	0	17	40.0	19-20.9	155-11.7	7.9	1.7	11	173	3.2	0.18	1.4	1.0	0.14	C
30	14	12	27.3	19-21.8	155-24.8	7.1	1.5	11	137	9.6	0.11	0.8	1.2	0.14	B
30	14	53	30.7	19-23.2	155-28.3	9.5	1.6	12	138	15.1	0.09	0.8	0.8	0.11	B
30	15	4	28.3	19-15.0	155-20.2	24.3	2.1	15	179	10.6	0.17	1.0	1.9	0.09	B
30	18	8	52.2	19-24.4	155-17.6?	0.1	0.6	9	95	0.7	0.14	0.6	4.5	0.14	B
30	18	23	30.9	19-22.2	155-12.7	6.9	1.6	14	144	0.6	0.08	0.7	0.6	0.12	B
30	22	19	30.9	19-24.4	155-15.6	3.4	0.6	7	235	2.5	0.09	0.4	0.5	0.02	C

Table 3.--Felt Earthquakes*

Date	Time H	Time M	Time S	Magnitude	Felt Report
Apr 9	16	46	19.0	2.9	Kealakekua
12	09	13	43.7	4.3	Hilo, Pohakuloa, Kapapala Ranch
14	11	07	57.4	3.6	Volcano
16	02	25	33.5	3.2	Kapapala Ranch
17	12	12	13.6	4.2	Holualoa, Kealakekua
19	05	30	38.8	3.2	Kapapala Ranch
28	15	23	05.3	3.5	Pahoa
30	06	07	01.6	3.9	Hilo, Volcano, Mt. View Kapapala Ranch, Kalapana, Paauilo
May 1	06	31	17.5	2.1	Naalehu
1	09	00	59.2 1/	3.7	Kamuela
2	08	47	33.9	3.0	Hilo
6	06	21	38.7	3.2	Hilo
8	20	27	05.8	2.3	Kapapala Ranch
10	05	30	53.2	4.1	Hilo, Volcano, Mt. View, Kalapana, Paauilo
13	15	12	57.1	3.2	Kapapala Ranch
15	04	56	28.9	2.7	Volcano
15	05	12	20.4	2.7	Volcano
15	05	55	57.9	3.2	Volcano
15	06	52	15.4	3.0	Volcano
15	11	04	26.5	3.8	Hilo
15	11	09	21.2	2.6	Volcano
15	23	59	49.3	3.6	Volcano
Jun 10	22	55	18.7	2.9	Kealakekua
11	11	22	22.4	3.6	Kapapala Ranch
15	22	27	53.2	2.5	Kapapala Ranch
17	14	57	31.8	3.4	Kapapala Ranch
22	12	38	42.1	4.3	Hilo, Kapapala Ranch Mt. View, Kealakekua

* Acknowledgements: Several people felt earthquakes during the second quarter of 1970 and reported their observations to HVO; that information is gratefully acknowledged.

1/ Kawaihae Harbor blast.

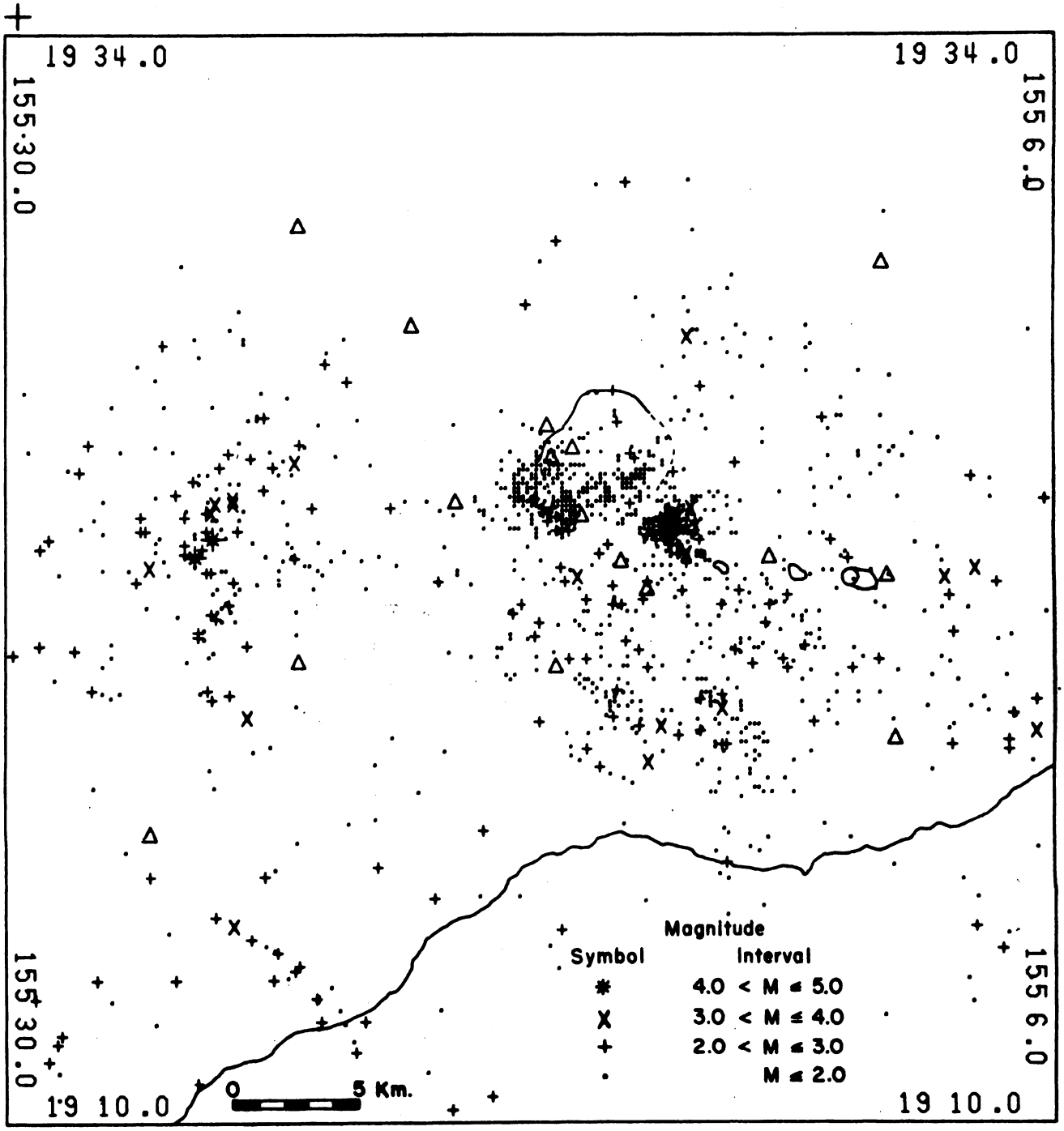

Figure 2.--Plot of epicenters in the Kilauea region. Triangles are seismometer locations. Kilauea Caldera and the major pit craters on the east rift are shown in outline. The Pacific Ocean lies in the lower right portion of the illustration.

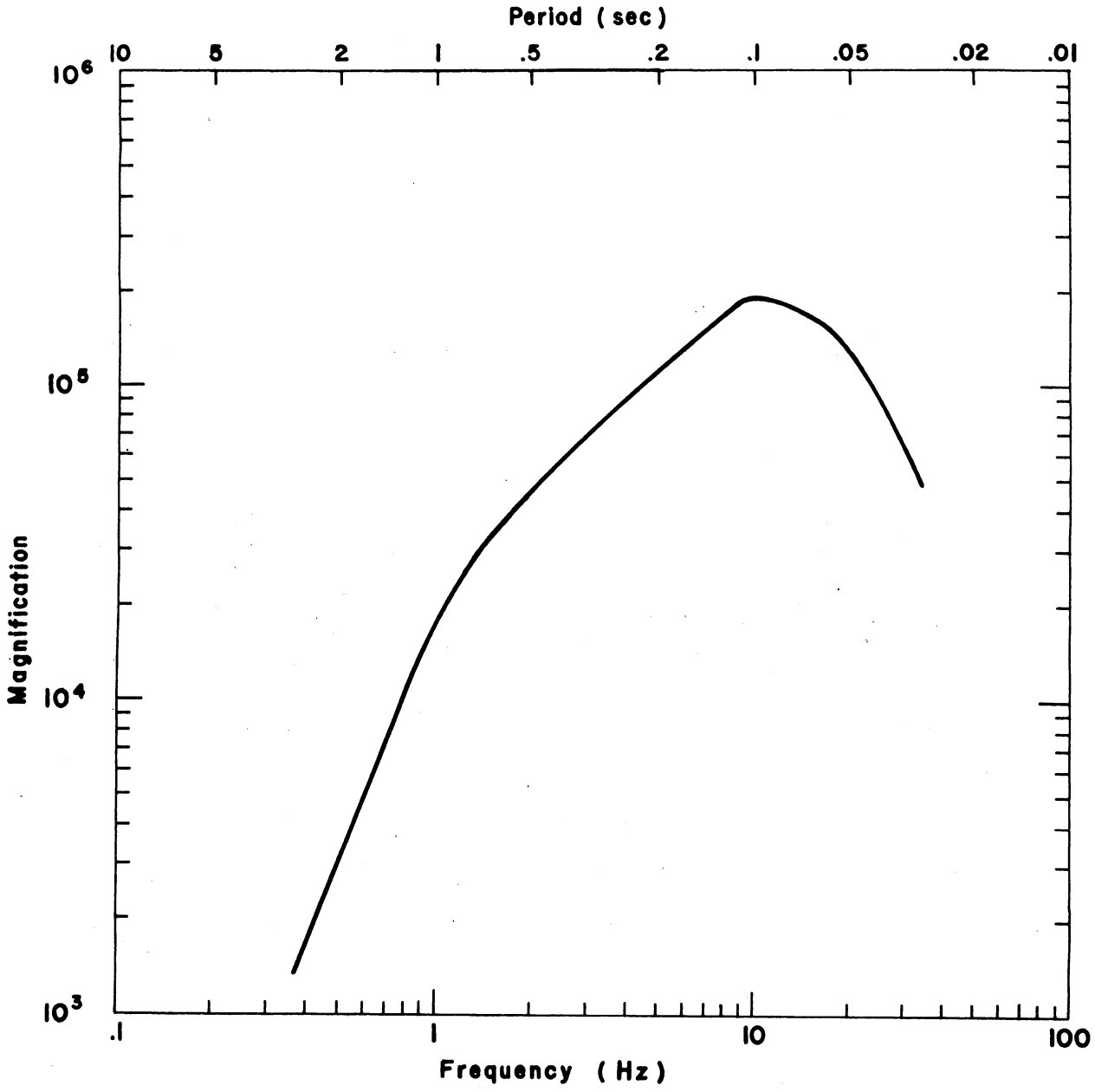

Figure 3.--Response curve for System II, EV-17, Teledyne seismic preamplifier.

Table 4. Seismometer stations in Hawaii operated by the U. S. Geological Survey.

STATION NAME	CODE	LAT-N	LONG-W	ELEV	TYPE	CAL	VCO	RADIO	REMARKS
AHUA	AHU	19 22.40	155 15.90	1070	3	6.0	2380		
CONE PEAK	CPK	19 23.70	155 19.70	1038	3	1.34			
DESERT	DES	19 20.20	155 23.30	815	3	1.34			
EAST KOAE	EKO	19 22.17	155 14.99	1090	3				
HALE POHAKU	HPU	19 46.85	155 27.50	3396	1	5.6	1360	RFS	
HILINA PALI	HLP	19 17.96	155 18.63	707	3	6.0	2040		
KAHUKU	KHU	19 14.90	155 37.10	1930	1	5.7	1700	RF3	
KIPUKA NENE	KPN	19 20.10	155 17.40	924	3	1.34			
LAVA FLOW	LAF	19 28.70	154 53.80	210	1				Temporary
LOWER STATION	LOS	19 28.40	154 53.10	180	1				Temporary
MAUNA LOA	MLO	19 28.80	155 23.30	2010	1	6.5	1360		
MAUNA LOA X	MLX	19 27.60	155 20.70	1475	3	1.34			
MAKAOPUHI	MPR	19 22.07	155 0.85	881	1	5.7	2720	RFS	
NORTH PIT	NPT	19 24.90	155 17.00	1115	3	1.34			
OUTLET	OTL	19 23.38	155 16.94	1038	3	5.0			
PUU HONUAULA	PHO	19 28.90	154 53.40	215	1	6.5	2720	RF1	
PUU HULUHULU	PHH	19 22.45	155 12.66	988	3				
WAIOHINU	WAO	19 3.60	155 36.80	425					Discontinued 9/1/70
WEST PIT	WPT	19 24.70	155 17.50	1115	3	1.34			
OPTICAL SEISMOGRAPHS									
HALEAKALA Z	HAL	20 46.00	156 15.00	2090	3	0.71			
HALEAKALA EW	HAE	20 46.00	156 15.00	2090	3	1.0			Wood-Anderson
HALEAKALA NS	HAN	20 46.00	156 15.00	2090	3	1.0			Wood-Anderson
HILO Z	HIL	19 43.20	155 5.30	20	3	1.0			
HILO EW	HIE	19 43.20	155 5.30	20	3	1.0			Wood-Anderson
HILO NS	HIN	19 43.20	155 5.30	20	3	1.0			Wood-Anderson
KAMUELA	KAH	20 1.90	155 42.00	740	2	0.7			
KEALAKEKUA Z	KLK	19 31.20	155 55.30	505	2	1.0			
KEALAKEKUA EW	KLE	19 31.20	155 55.30	505	2	0.34			
KEALAKEKUA NS	KLN	19 31.20	155 55.30	505	2	0.34			
KIPAPA	KIP	21 25.40	158 .90	76	3	0.56			
UWEKAHUNA Z	UWE	19 25.40	155 17.60	1240	3	0.7			
UWEKAHUNA Z	USZ	19 25.40	155 17.60	1240	4	1.0			
UWEKAHUNA EW	USE	19 25.40	155 17.60	1240	4	1.0			
UWEKAHUNA PEZ		19 25.40	155 17.60	1240					15-90 Press Ewing
UWEKAHUNA PEE		19 25.40	155 17.60	1240					
UWEKAHUNA PEN		19 25.40	155 17.60	1240					

Table 5.--Seismic Instrumentation

1. Seismometers

EV-17: Electrotech EV-17 1.0 sec. period moving magnet vertical component seismometer.

EV-17H: Same as above, but horizontal component.

HS-10: Hall-Sears 0.5 sec. period moving coil seismometer.

HVO-2: 0.8 sec. period moving coil seismometer.

2. Seismographs

HVO-1: Vertical-component electromagnetic seismograph with a peak magnification of about 20,000 at 0.25 sec. period.

15-90: Press-Ewing System: 3-component long-period Press-Ewing seismograph system with pendulum and galvanometer periods of 15 and 90 seconds, respectively.

EV-17/3.5 cps galv, EV-17H/3.5 cps galv, etc.: Short-period electromagnetic seismographs composed of the seismometers and galvanometers indicated. Response similar to HVO-1. Poorly calibrated.

3. Amplifier and Signal Transmission Systems

System I: HVO-built solid state seismic preamplifier (voltage gain, 200X), direct signal transmission over "hard" wire to HVO-built solid state amplifier and galvanometer driver.

System II: Develco or Teledyne seismic preamplifier--voltage controlled oscillator, signal transmission on audio FM carrier over "hard" wire or FM radio link to HVO discriminator.

Geotech PTA: Short-period Geotech photo-tube amplifier.

4. Timing Systems

RM-USGS: Crystal-controlled chronometer employing solid-state binary dividers to produce minute and hour marks; typical drift rates are a few milliseconds per day.

TS-100: Sprengnether crystal-controlled chronometer; output and performance characteristics are similar to those of RM-USGS.

5. Telemetered System Response

The peak magnification of the standard telemetered systems (System II, with the film strip magnified 20 times for viewing) is about 2×10^5 at a period of 0.1 second. For periods between 0.1 and about 1.0 second, the response falls off 6 db/octave. (fig. 3)

TILTING OF THE GROUND AROUND KILAUEA CALDERA

Tilting of the ground around the summit of Kilauea is monitored daily by a short-base water-tube tiltmeter in the Uwekahuna Vault; weekly results are summarized in table 6. At irregular intervals, tilt is measured on a regional scale by means of a network of field tilt-bases and a portable water-tube tiltmeter. These results are summarized in table 7. The attitude of the ground surface at each tilt-base is reported in terms of north-south and east-west tilt coordinates. Both coordinates at each station were arbitrarily set equal to 500 when measurements at that station were begun. Increasing tilt coordinates correspond to northward and eastward tilting of the earth's surface; that is, to a relative subsidence toward the north and east. A one-unit change in coordinate corresponds to a tilting of 1 microradian (1 mm per km) in the direction indicated.

Location of tiltmeter stations and essential data on each station are listed in table 8.

Table 6.--Tilt Coordinates at Uwekahuna Vault
April, May, and June 1970

Date	N-S	E-W	Date	N-S	E-W
Apr 5	561	376	Jun 7	557	382
12	561	381	14	557	383
19	561	379	21	557	383
26	562	375	28	558	381
May 3	561	375			
10	560	380			
17	556	385			
24	557	382			
31	557	382			

Table 7.--Tilt coordinates and rate of changes at bases around Kilauea Caldera (See fig. 4)

Tilt Base	Date (1970)	Tilt Coordinates		Rate (10^{-6} rad/mo) and Direction of Tilting Since Last Reading		Date of Last Reading (1970)
		N-S	E-W			
Uwekahuna (U on fig. 4)	22 May	619.6	344.4	6.67	N43.3°W	27 Feb
Tree Molds (TM)	18 May	490.8	495.6	1.58	N 2.7°W	9 Feb
Sand Spit (SS)	20 May	1039.9	602.1	18.27	N35.9°W	31 Oct 1969
Keamoku (Kea)	20 May	541.6	367.7	4.20	N32.9°W	11 Feb
Ahua Kamokukolau (Kam)	21 May	330.0	509.8	18.07	S14.2°W	31 Oct 1969
Kipuka Nene (KN)	21 May	291.6	505.6	1.36	S26.1°W	13 Feb
Hilina Pali (HP)	25 May	452.0	492.0	0.39	S84.5°W	29 Oct 1969
Kapapala Ranch (Kap)	20 May	486.3	518.8	0.47	S19.2°W	11 Feb
Mehana (M)	18 May	588.7	594.0	3.61	N36.2°E	9 Feb

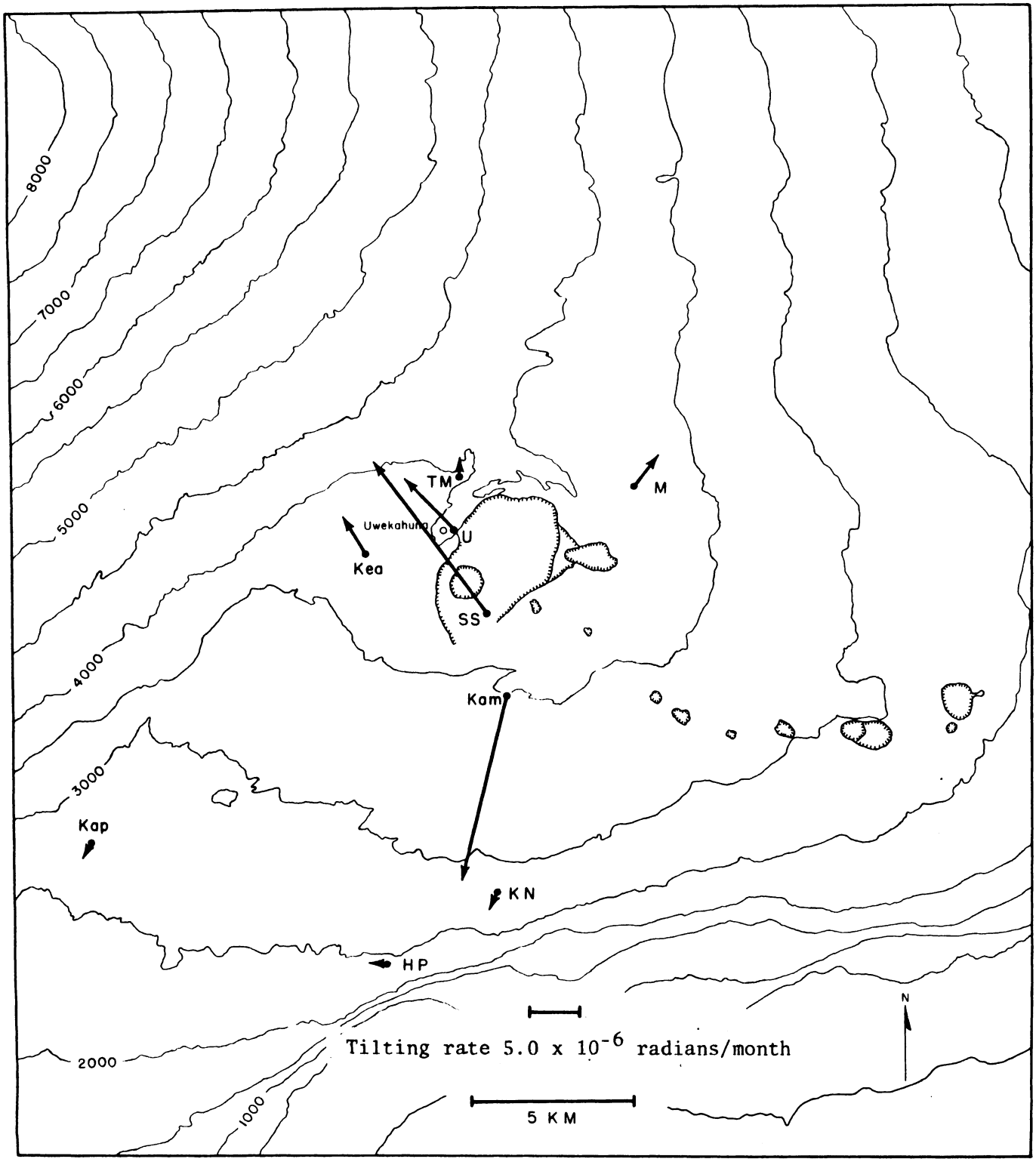

Figure 4.--Tilting of the ground around Kilauea Caldera. Time interval between measurements is given in table 7. Vector depicting tilting at a given tilt base points in the direction of maximum relative subsidence and has a length proportional to the rate of tilting during the measurement interval. Closed circles represent field tilt bases; open circles, short-base water-tube tiltmeters. See table 8 for explanation of abbreviations.

Table 8.--U.S. Geological Survey water-tube tiltmeter stations in Hawaii

Station	Symbol	Location		Frequency of Reading	Base Length M	Description
		Lat N	Long W			
Tree Molds	TM	19°26.3'	155°17.3'	Approx. Quarterly	50.79	NS and EW
Sand Spit	SS	19°24.1'	155°16.8'	"	25.40	Equilateral Triangle
Keamoku	Kea	19°25.1'	155°19.0'	"	47.55	"
Ahua Kamokukolau	Kam	19°22.7'	155°16.6'	"	50.79	"
Kipuka Nene	KN	19°19.4'	155°16.7'	"	50.79	"
Hilina Pali	HP	19°18.2'	155°18.6'	"	47.73	"
Kapapala Ranch	Kap	19°20.5'	155°23.8'	"	50.79	"
Mehana	M	19°26.2'	155°14.3'	"	25.00	"
Uwekahuna	U	19°25.5'	155°17.4'	"	50.79	"
Uwekahuna Vault		19°25.4'	155°17.6'	Daily	3.48	NS and EW

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HAWAIIAN VOLCANO OBSERVATORY

SUMMARY 59

July, August, and September, 1970

by Elliot T. Endo*/, Robert Y. Koyanagi

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Issued

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CONTENTS

Illustrations

Tables

SUMMARY OF PRINCIPAL EVENTS

The Mauna Ulu eruption (Swanson and others, 1971), which began on May 24, 1969, on the upper east rift, continued throughout the summary period. However, the focus of activity shifted from the summit of Mauna Ulu, where it had been during most of the eruption, to a set of new vents east of the summit.

On July 6, a swarm of small earthquakes preceded the opening of a new fissure about 150 m northwest of Alae Crater. Lava fountained from a "curtain of fire" about 200 m long, and flows advanced southward into Alae and eastward for about 3 km. Eruption at a reduced rate continued from three vents along the new fissure until July 9, and similar episodes of fountaining from the same vents took place on July 13 - 15, 16 - 17, and 20 - 21, and at several times during early August.

During this activity, the walls of the summit fissure of Mauna Ula sporadically caved in, eventually yielding a large pit with overhanging walls. A pool of lava occupied the pit. The level of this pool fluctuated between 25 and 35 m below the rim throughout the summary period, with no overflows taking place. Lava in the pool was in constant circulation generally but not always moving eastward along the 120 m length of the fissure.

A small vent opened on August 3 about 150 m east-northeast of the summit pit. Most activity was confined within the new fissure itself, but periodically lava spilled out onto the ground surface, forming small flows, the largest of which extended about 1 km from the vent.

Another new vent about 650 m east-northeast of the summit of Mauna Ulu opened sometime between August 4 and 7, probably on August 6. The new activity was not accompanied by any detectable change of seismicity or summit tilt. Lava welled quietly from the vent, flowed in a surface river for 50 to 100 m, and then disappeared into a tube (formed by crusting over of the river) which carried the lava for several tens of meters before feeding it beneath the crust of the lava lake in Alae Crater. Increased fluid pressure within the lake eventually broke a barrier that sealed an older tube leading out of the south rim of the filled crater, and lava poured from the lake through this outlet, finally emerging as a surface flow about 2.5 km southeast of the crater. This draining removed support for the lake crust, which subsided a maximum of 13 m between August 8 and 11. Details of this subsidence episode are given by Swanson and Peterson (1972) and Swanson and others (1972).

Lava continued to erupt from the August 6 vent and other nearby areas for the remainder of the summary period. Most of this lava flowed into and out of Alae through the tubes, feeding a flow south of Alae that slowly moved seaward as it developed and lengthened its complex tube system. The development of this tube system is described by Swanson (1973) and Peterson and Swanson (1973). The lava remained in tubes along the upper part of its course, but a complex braided pattern of tubes and surface flow units

marked the descent over Poliokeawe, Holei, and Kealakomo Palis. Lava flowing in tubes hidden from view was detected by electromagnetic surveys (Anderson and others, 1971). The tube-fed flow eventually reached the coastline on September 21, but the volume of lava was so small that only small toes entered the water. This flow stopped moving on September 26, apparently because of obstructions that developed in the tubes just south of Alae. These obstructions were only temporary, however; and on October 1, surface flows again began issuing from tubes about 2 km south of Makaopuhi Crater.

This three-month period ushered in a new phase of activity for the Mauna Ulu eruption. From this time until the end of the eruption in the fall of 1971, surface activity was concentrated east of Mauna Ulu's summit crater, which last filled to overflowing in June 1970. The tube system through Alae that developed in August 1970 was maintained, with some periods of inactivity, until late spring of 1971. It is interesting that despite this marked change in eruptive behavior the seismic and tilt behavior remained essentially unchanged.

SEISMIC SUMMARY

Events recorded by the U. S. Geological Survey seismograph network in Hawaii fall into two categories:

1) Local earthquakes and tremor originating in the region of the Hawaiian Islands (usually within 10 km of at least one seismometer),

2) Distant earthquakes originating more than 3,000 km from Hawaii.

As an index of seismic activity at Hawaiian volcanoes, daily counts of the number of earthquakes and minutes of tremor recorded by seismographs in Hawaii are listed in Table 1. The earthquakes are separated into groups on the basis of region of origin as determined by the analysis of records obtained daily at the Observatory (UWE, MLO, MLX, AHU, DES, NPT, WPT, MPR, OTL).

Computer locations of well-recorded events are listed in Table 2. The location of each seismograph station is listed in Table 4, along with a description of the equipment at each station.

Table 1.--Number of earthquakes and minutes of tremor recorded on seismographs around Kilauea Caldera

Tremor is separated into three categories: deep, intermediate, and shallow, on the basis of relative amplitude on seismographs in the summit region. Unless otherwise stated, tremor is presumed to be associated with movement of magma within the central complex of Kilauea Volcano.

Earthquake categories are: Kilauea Summit: 30 km, earthquakes from a source about 30 km beneath the Kilauea summit region; long-period, earthquakes characterized by low-frequency waves that originate about 5 km or deeper beneath Kilauea summit; and shallow earthquakes in the Kilauea Caldera region. Shallow earthquakes along the SW rift zone of Kilauea and the adjacent portions of the Kaoiki fault system. Earthquakes from the upper east rift zone and the adjacent fault systems of Kilauea's south flank. Shallow earthquakes along the northeast-trending Koae fault system south of Kilauea Caldera. Earthquakes from other regions, such as, west Hawaii, Mauna Kea, etc.

Date (1970)	Tremor (m = minutes)			Number of Earthquakes							
				Kilauea Summit			SW Rift and Kaoiki	Upper[1/] East Rift	Lower[2/] East Rift	Others	Remarks
	Deep	Inter-mediate	Shallow	30 KM	Long Period	Shallow					
Jul 1			Fluctuating from moderate to low levels near eruptive site on the upper east rift	2	51	931	16	37	30		
2						168	11	6	27		
3				2	1	167	12	10	31		
4					2	256	12	14	88		
5				3		940	15	129	31		Lava outbreak along new fissure north of former Alea Crater
6	31m			2		53	12	12	21		
7				2		34	12	11	12		
8	30m			5		81	14	14	11		
9				1		109	10	11	12		
10				2		101	9	10	10?		
11				2		60	18	5	9		
12	15m			3		195	19	13	16		
13						127	19	11	7		

Table 1.--Number of earthquakes and minutes of tremor recorded on seismographs around Kilauea Caldera (cont'd)

Date (1970)	Tremor (m = minutes)			Number of Earthquakes							
				Kilauea Summit			SW Rift and Kaoiki	Upper[1/] East Rift	Lower[2/] East Rift	Others	Remarks
	Deep	Inter-mediate	Shallow	30 KM	Long Period	Shallow					
Jul 14	40m			3	?	86	9	10	12		
15				4	?	101	7	14	4		
16				1	15?	165	10	7	4		
17				3	37	43	6	11	15		
18				5	98	35	11	8	9		
19				2		42	5	5	4		
20						48	11	14	151?		
21				4	12	151	10	22	5		
22				1	14	145	8	12	3		
23				4	5?	86	15	4	5		
24				1	7	203	15	7	3		
25				2	9	325	15	9?	2		
26				4	27	210	11	10	1		
27				3		174	11	11	7		
28				1		143	19	17	9		
29				1		181	18	25	9		
30				1		193	9	19	2		
31	48m			3		219	8	18	2		
Aug 1	3m			1	2	2025	15	48	11		
2	3m			3	29	69	21	18	2		
3				3	8	37	10	13	5		
4				3	2	53	19	14	4		
5				3		45	16	22	5		
6					?	54	9	22	8		
7					4	110	12	15	1		
8				3	3?	115	9	17	7		
9				1	13	148	16	13	5		

Fluctuating at low levels near eruptive site on the upper east rift

	10				3		85	9	10	1	
	11				2		88	8	15	6	
	12				2	2	107	7	19	?	
	13						104	10	23	6	
	14						41	15	14		
	15				3		96	17	14	3	
	16				1		81	23	15	3	
	17				6		199	18	24	1	
	18				3	7?	145	9	4	1	West Pit Seismometer Changed
	19				4	3	110	5	17	1	
	20				2	7	92	13	16	1	
	21				4	24	107	9	14	3	
	22				2	19	122	15	10	3	
	23				1	5	212	13	10	3	
	24						311	16	12	3	
	25					1	220	3	?	?	
	26				?	?	?	?	?	?	Electrical Storm
	27						?	10	9	?	
	28				2		?	15	27	?	
	29					1	148	18	31	?	
	30				2		135	11	24	?	
	31				5		139	3	21	3+	
Sep	1						134	8	17	2	
	2				1		133	12	13	3	
	3					2	264	4	7	4	
	4				1	3	221	7	9	4	
	5				2	5	55?	15	7	1	
	6				1		144	12	8	1	
	7				5	3?	295	20	3	4	
	8	20m			2		284	7	9	2	
	9	5m			2		245	6	18	4	
	10				1	1	140	4	12	6	
	11				1	2	308	25	11	5	

Fluctuating at low levels near eruptive site on the upper east

Table 1.--Number of earthquakes and minutes of tremor recorded on seismographs around Kilauea Caldera (cont'd)

Date (1970)	Tremor (m = minutes)			Number of Earthquakes							
				Kilauea Summit			SW Rift and Kaoiki	Upper[1/] East Rift	Lower[2/] East Rift	Others	Remarks
	Deep	Inter-mediate	Shallow	30 KM	Long Period	Shallow					
12	12m			4	7	294	34	20	6		
13				3	7	341	38	22	2		
14				3	3	292	38	34	?		
15				2		288	20	29	2		
16				1		324	27	12	7		
17						286	28	7	1		
18	40m			4		313	20	9			
19				4		237	20	17			
20				6		266	19	46	7		
21				6		223	29	34	4		
22				4	2	193	16	26	6		
23				3		227	21	25	2		
24				1	3	176	29	16	2		
25				2	5	189	25	31	2		
26	8m			5	1	478	39	28	1		
27				1	4	1851	46	52	4		
28	6m			9	16	1089	29	62	6		
29				2		437	26	32	3		
30				7		277	25	36	3		

Fluctuating at low levels near eruptive site on the upper east rift

1/ Upper east rift count poor due to continuous tremor and traffic.

2/ Count taken from station Puu Honuaula (PHO).

Table 2 is a chronological listing of successfully located earthquakes. For each event the following data are presented:

Origin time in Hawaii Standard Time: date, hour (HR), minute (MN), and second (SEC).

Epicenter in degrees and minutes of north latitude (LAT N) and west longitude (LONG W). Poor convergence of the epicenter solution is indicated by "?".

Depth - depth of focus in km. Assumed depth is indicated by "x".

Mag - magnitude, if determined.

NO - number of stations used in locating earthquakes.

GAP - largest azimuthal separation in degrees between stations.

DMIN - epicentral distance in km to the nearest station.

ERT - standard error of the origin time in seconds.

ERH - standard error of the epicenter in km.

ERZ - standard error of the depth in km.

MD - mean deviation of the time residuals. $\left[= \sum_i R_i/NO\right]$ where R_i is the observed seismic wave arrival time less the computed time at the i^{th} station.

Q - solution quality of the hypocenter. This measure is intended to indicate the general reliability of each solution:

Q	Epicenter	Focal Depth
A	Excellent	Good
B	Good	Fair
C	Fair	Poor
D	Poor	Poor

Q is based both on the nature of the station distribution with respect to the earthquake and the statistical measures of the solution. These two factors are each rated independently according to the following scheme:

Station Distribution

	NO	GAP	DMIN
A	≥ 8	$\leq 120°$	$\leq$ Depth or 5 km
B	≥ 6	$\leq 150°$	$\leq 2 \times$ Depth or 10 km
C	≥ 6 ≥ 4	$\leq 225°$ $\leq 180°$	≤ 50 km
D	Others		

Statistical Measures

	ERH (km)	ERZ (km)	MD (sec)	RMAX (sec)*
A	≤ 1.0	≤ 2.0	≤ 0.10	≤ 0.25
B	≤ 2.5	≤ 5.0	≤ 0.20	≤ 0.50
C	≤ 5.0		≤ 0.30	≤ 0.75
D	Others			

Q is taken as the average of the ratings from the two schemes; that is, an A and a C yield a B, and two B's yield a B. When the two ratings are only one level apart the lower one is used; that is, an A and a B yield a B (Hamilton and others, 1969).

The criteria for Q are the same as used by the Office of Earthquake Research and Crustal Studies, U.S. Geological Survey.

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* RMAX is the maximum residual

SUMMARY OF SEISMIC EVENTS

1970		HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUL	1	3	17	13.9	19-24.2	154-58.6	4.7	1.9	11	205	11.8	0.12	0.9	0.7	0.10	C
	1	5	23	43.0	19-17.2	155- 6.3	4.8	2.5	17	199	103.4	0.30	1.6	1.3	0.25	C
	1	6	22	46.6	19-24.3	155-15.6	3.8	1.0	6	239	2.6	0.28	1.1	1.4	0.03	C
	1	6	24	34.7	19-23.6	155-16.7?	3.3	1.1	9	119	0.4	0.10	0.7	0.6	0.12	B
	1	10	5	26.1	19-25.0	155-25.4	10.8	1.8	13	198	9.6	0.12	0.8	0.4	0.09	C
	1	13	8	57.9	19-26.7	155-13.7	26.0	2.3	21	59	6.7	0.10	0.7	1.2	0.13	B
	1	18	58	42.9	19-24.6	155-17.4?	0.1	0.8	9	88	0.2	0.17	0.8	1.7	0.16	B
	1	20	36	30.2	19-33.4	155-14.8	4.1*	1.9	7	336	15.6	0.82	5.0		0.22	D
	1	20	58	27.4	19-31.8	155-15.8?	8.0*	1.8	8	332	12.2	1.27	9.0		0.40	D
	1	22	2	29.9	19-24.2	155-15.6	3.6	1.0	8	227	2.5	0.10	0.5	0.6	0.03	C
	1	22	20	10.0	19-48.9	155-42.3	7.7	2.4	13	189	24.0	0.22	1.6	1.5	0.09	C
	1	22	48	35.2	19-20.7	155-29.2	8.5	2.2	15	107	10.4	0.09	0.9	1.0	0.17	B
	1	23	48	39.3	19-30.1	155-28.0	5.4	2.1	13	152	8.2	0.15	1.0	1.3	0.20	C
	2	4	54	47.3	19-25.1	155-17.1	7.9	1.8	8	198	0.4	0.39	1.3	2.1	0.07	C
	2	11	48	39.4	19-22.1	155- 8.1	8.0	1.7	13	189	3.3	0.11	1.1	0.6	0.12	C
	3	1	52	25.8	19- 8.0	155-32.9	8.7	2.8	15	158	100.8	0.12	1.2	1.1	0.14	C
	3	4	4	30.5	19-24.0	154-58.3	8.5	2.6	14	210	11.7	0.12	1.6	0.6	0.09	C
	3	6	41	6.7	19-19.4	155-15.8	9.8	1.5	12	191	3.1	0.09	0.7	0.4	0.09	B
	3	11	5	59.1	19-32.7	155-40.0	4.9	2.6	9	230	29.6	0.12	0.6	0.4	0.05	C
	3	19	27	57.2	19-12.0	155-34.9	8.6	2.6	17	124	6.6	0.09	0.8	0.6	0.13	B
	3	21	27	59.9	19- 8.1	155-31.4	6.8	2.4	11	182	12.3	0.12	1.1	0.9	0.10	C
	4	3	53	27.5	19- 8.2	155-31.6	6.3	2.4	14	170	12.2	0.14	1.2	0.9	0.17	C
	4	4	54	39.9	19- 8.1	155-32.1	7.5	2.3	14	166	11.4	0.13	1.3	1.0	0.15	C
	4	23	13	6.7	19-26.3	154-52.0	6.2	2.4	8	285	4.4	0.33	2.5	0.9	0.10	C
	5	0	20	54.8	18-59.1	155-12.3	21.9*	2.5	17	250	39.8	0.25	1.8		0.14	D
	5	12	21	50.5	19-21.6	155- 6.3	4.0	2.4	17	176	15.8	0.09	0.7	0.8	0.12	C
	5	17	51	8.6	19-23.9	155-16.5	2.2	0.7	7	177	1.1	0.32	0.8	1.8	0.08	B
	5	19	22	35.7	19-35.5	155-22.8	33.5	2.1	15	126	10.5	0.19	0.9	1.9	0.10	B
	6	0	36	19.7	19-19.2	155-13.5	10.6	1.5	12	224	5.7	0.23	1.4	0.6	0.14	C
	6	1	37	57.8	19-19.9	155-13.5	9.5	1.7	12	192	4.8	0.12	1.0	0.5	0.15	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUL	6	2	25 3.2	19-17.4	155- 9.5?	2.0	1.6	9	189	14.5	0.30	1.6	1.9	0.17	C
	6	2	56 7.2	19-22.6	155-12.4	0.7	0.8	6	175	0.3	0.17	1.5	1.8	0.08	C
	6	3	38 46.7	19-20.5	154-55.6?	5.1	2.3	9	252	15.2	1.84	4.8	5.9	0.10	D
	6	5	50 33.1	19-23.8	155-17.1	2.8	0.7	9	132	1.0	0.06	0.5	0.4	0.07	B
	6	6	38 28.1	19-29.6	155-28.1	6.4	1.7	11	153	8.4	0.13	0.8	1.3	0.14	C
	6	8	23 37.4	19-19.4	155-16.5	8.3	1.6	10	232	2.1	0.22	1.5	0.8	0.16	C
	6	10	59 39.2	19-22.8	155- 3.6	1.4	2.3	14	178	21.1	0.42	0.8	2.2	0.13	C
	6	11	6 54.2	19-23.8	155-24.1	10.5	1.7	13	119	6.8	0.07	0.7	0.6	0.11	B
	6	11	10 17.1	19-20.3	155-19.5	6.1	1.5	11	128	3.7	0.04	0.3	0.4	0.06	B
	7	2	12 35.6	19-22.7	155-25.6	10.4	1.8	13	122	6.1	0.07	0.7	0.7	0.10	B
	7	2	54 47.3	19-18.4	155-12.6	6.5	1.5	9	244	7.7	0.51	2.7	1.5	0.20	D
	7	11	41 1.4	19-13.3	155-32.3	7.1	2.6	16	135	8.9	0.07	0.6	0.5	0.12	B
	7	16	20 31.5	19-13.9	155-30.3	27.7	2.3	11	142	12.0	0.41	1.7	4.8	0.09	B
	7	23	39 45.2	19-21.8	155-26.8	7.6	2.5	18	91	6.8	0.07	0.6	0.5	0.14	B
	8	0	12 12.3	19-19.9	155-15.7	10.0	2.2	16	160	3.0	0.05	0.5	0.3	0.08	B
	8	0	25 4.2	19-24.1	155-17.6	14.7	1.7	9	98	1.2	0.18	0.7	1.4	0.06	A
	8	1	55 16.2	19-17.4	155- 2.0	29.6	2.4	11	212	25.3	0.12	0.6	1.6	0.04	B
	8	6	47 28.2	19-20.4	155- 6.5	5.8	1.8	13	203	6.7	0.28	2.1	1.4	0.23	C
	8	10	59 32.9	19-19.5	155-16.1	9.2	2.4	16	163	2.6	0.08	0.6	0.4	0.13	C
	8	16	48 2.3	19-24.8	155-17.9	9.2	1.9	11	77	0.8	0.39	1.0	2.3	0.10	B
	8	17	43 43.4	19-18.6	155-12.0	13.3	1.9	10	248	6.9	0.31	1.7	1.9	0.09	C
	8	17	46 53.6	19-22.9	155-11.9	10.0	1.7	8	132	3.9	0.12	1.7	1.2	0.09	B
	8	17	47 14.2	19-22.2	155-11.8	9.2	2.1	18	130	1.3	0.07	0.8	0.5	0.15	C
	8	17	54 1.9	19-22.8	155-11.8	9.3	1.6	15	128	3.7	0.04	0.5	0.3	0.09	B
	8	18	21 39.8	19-47.0	155-17.7?	3.2*	2.4	5	221	16.7	0.50	3.0		0.19	D
	8	18	42 14.3	19-20.8	155-15.5	27.8	2.3	17	150	2.0	0.15	1.1	1.5	0.14	B
	9	2	13 52.7	20- 2.6	155-34.5	8.0*	2.9	11	308	63.5	1.87	11.3		0.15	D
	10	3	48 40.6	19-26.5	155-24.4	9.0	2.1	14	181	6.4	0.12	0.9	0.5	0.14	C
	10	5	43 4.6	19-11.8	155- 4.3?	0.1	2.4	11	264	21.1	1.62	3.8	5.5	0.19	D
	10	14	43 28.6	19-26.7	155-14.5	25.7	2.0	15	104	5.9	0.09	0.7	1.0	0.09	A

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	RMS	ERH	ERZ	MD	Q
JUL	10	16	45	56.1	19-21.9	155-13.1	11.8	1.3	8	154	1.5	0.17	0.8	1.4	0.04	B
	10	18	0	43.1	19-21.8	155-12.2	9.9	1.8	15	161	1.4	0.05	0.6	0.3	0.09	B
	10	18	7	13.3	19-23.2	155- 4.1	3.6	2.8	18	175	14.8	0.11	0.9	0.9	0.17	C
	10	18	10	16.6	19-22.7	155- 3.8?	0.0	2.0	15	177	20.1	0.46	0.9	2.5	0.12	C
	10	19	58	27.3	19-19.9	155-16.0	9.8	1.7	15	158	2.5	0.06	0.6	0.4	0.09	B
	10	21	40	12.5	19-22.9	155- 4.0	5.7	3.2	18	176	14.9	0.10	0.9	0.6	0.13	C
	10	21	52	32.4	19-25.5	155- 4.5	9.4	3.0	17	159	11.8	0.05	0.8	0.4	0.10	C
	10	23	25	46.6	19-43.5	156- 6.7	8.0*	2.1	7	301	69.1	1.20	7.4		0.10	D
	11	11	36	28.1	19-25.2	155-23.2	9.9	1.4	12	169	6.2	0.08	0.6	0.5	0.08	B
	11	12	38	21.4	19-21.9	155-16.3	31.2	3.0	22	112	1.2	0.11	0.8	1.1	0.13	B
	11	18	59	14.9	19-19.3	155-15.2	7.9	1.1	13	214	4.1	0.21	1.1	0.8	0.15	C
	11	21	16	28.6	18-59.6	155-20.9	26.6	2.3	18	242	28.5	0.28	1.4	5.1	0.09	D
	11	21	32	39.5	19-29.3	155-35.5	5.1	1.7	6	262	21.3	1.03	5.0	3.8	0.14	D
	11	22	11	9.5	19-16.5	155-19.1	10.3	1.4	13	169	7.3	0.11	0.9	0.6	0.12	C
	11	23	30	7.9	19-26.4	155-25.9	8.5	1.5	12	173	7.7	0.09	0.6	0.5	0.09	B
	12	1	13	41.7	20-17.0	156- 0.3?	4.6	2.5	23	320	146.4	0.19	1.7	1.1	0.14	C
	12	5	11	37.3	19-28.2	155-52.3	9.1	2.7	18	168	7.5	0.14	2.0	1.8	0.17	C
	12	5	15	10.7	19-24.4	155-57.1	6.5	2.7	12	237	13.0	0.43	2.9	1.8	0.14	D
	12	5	41	58.1	19-10.4	155- 3.0	1.8	1.7	8	271	24.3	1.48	3.5	4.6	0.08	D
	12	7	32	17.6	19-19.8	155-28.7	8.0	1.8	8	127	17.3	0.10	1.2	1.1	0.13	B
	12	8	40	31.8	19-25.6	155-23.2	13.2	1.7	8	178	5.7	0.36	1.2	3.2	0.08	C
	12	10	14	5.1	19-19.5	155-11.4	26.9	2.5	11	288	8.1	0.36	2.1	2.0	0.05	C
	12	13	39	43.1	19-11.2	154-59.3	7.6	2.3	12	258	27.1	0.80	3.3	2.2	0.11	D
	12	14	51	55.8	19-18.8	155-16.5	34.3	2.6	21	166	2.8	0.16	1.0	1.5	0.14	C
	12	14	55	36.1	19-29.9	155-14.4	9.3	1.7	16	129	10.0	0.08	0.6	0.6	0.09	B
	12	18	18	31.0	19-17.5	155-13.1	12.5	1.8	14	204	8.8	0.25	1.7	2.2	0.14	C
	12	18	56	32.5	18-43.6	155-43.3	3.2*	3.0	9	336	119.7	0.51	4.9		0.17	D
	12	18	58	23.6	19-16.2	155-22.3	5.4	1.7	16	162	7.6	0.10	0.7	0.9	0.16	C
	13	12	48	36.4	19-17.2	155-24.4	4.0	1.7	13	154	5.9	0.10	0.9	1.4	0.17	C
	13	16	6	2.9	19-17.9	155-43.3	11.2	2.7	12	262	12.1	0.47	3.1	1.6	0.09	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUL	13	17	9	31.3	19-50.0	155-20.8	25.6	2.5	14	219	12.9	0.15	1.4	1.9	0.07	C
	13	18	46	18.3	19-21.9	155- 1.5?	0.0	2.7	16	207	18.5	0.34	0.7	1.8	0.08	C
	13	21	39	48.2	19-20.1	155-15.9	10.0	1.7	17	157	2.5	0.06	0.5	0.3	0.10	C
	14	1	40	38.0	19-24.0	155-16.1	2.8	1.1	8	204	1.6	0.07	0.4	0.3	0.04	B
	14	1	59	5.2	19-22.3	155-11.4	7.9	2.0	16	139	1.9	0.12	1.4	0.9	0.22	C
	14	3	29	48.0	19-30.6	155-40.6	24.6	2.3	9	125	25.8	0.55	1.5	10.3	0.15	C
	14	5	33	24.3	19-17.9	155- 5.2?	29.6	2.5	13	199	20.5	0.17	1.1	2.0	0.08	C
	14	10	58	1.3	19-19.5	155-28.8	9.1	1.7	14	153	9.8	0.11	0.9	0.8	0.15	C
	14	13	48	41.9	19-21.4	155-13.6	14.1	1.5	12	166	2.7	0.07	1.1	0.6	0.10	C
	14	17	23	51.8	19-21.5	155-26.4	9.0	2.0	15	94	5.9	0.08	0.8	0.8	0.16	B
	14	17	34	25.5	19-22.0	155-13.8	13.8	1.5	9	149	3.9	0.07	0.9	0.6	0.05	B
	14	21	44	36.9	19-21.6	155-13.7	13.4	1.3	13	159	2.7	0.06	0.9	0.5	0.09	C
	15	4	13	55.0	19-21.8	155-13.7	13.5	1.7	14	154	2.4	0.05	0.7	0.5	0.08	C
	15	6	15	24.8	19-12.4	155-22.0?	54.7*	2.1	13	221	14.6	0.42	16.7		0.62	D
	15	6	22	5.5	19- 8.6	155-26.1?	36.3*	2.0	13	187	20.6	0.11	1.5		0.10	C
	15	6	38	21.5	19-12.4	155-26.2	5.3	2.2	8	194	15.3	0.11	0.8	0.8	0.07	B
	15	10	54	9.6	19-20.2	155-15.8	9.7	2.5	16	156	2.8	0.06	0.5	0.3	0.09	C
	15	11	5	23.8	19-19.0	155-11.3	6.9	1.3	12	237	5.6	0.27	1.6	0.9	0.18	C
	15	14	52	13.8	19-19.6	155-14.4	7.2	1.4	12	212	4.3	0.24	1.4	1.0	0.19	C
	15	16	12	19.6	19-19.2	155- 6.6	6.4	3.4	17	187	100.2	0.17	1.1	0.8	0.18	C
	15	16	28	18.4	19-21.2	155- 6.0	6.8	2.1	15	198	7.0	0.19	1.6	0.8	0.17	C
	15	18	1	41.3	19-20.5	155-19.4	7.1	1.4	14	123	3.6	0.09	0.8	0.6	0.15	B
	15	18	4	37.5	19-22.8	155-50.8	8.0		10	188	17.4	0.12	1.1	0.6	0.07	C
	15	18	22	6.8	19-20.2	155- 9.9	9.3	1.4	12	197	3.0	0.17	1.7	0.8	0.13	C
	15	21	5	1.7	19-25.0	155-24.6	13.7	1.5	9	208	8.4	0.35	1.0	2.9	0.05	C
	15	22	3	21.2	19-21.4	155- 4.0	23.4*	1.7	7	347	10.5	0.32	5.2		0.08	D
	15	22	21	23.4	19-18.8	155-12.3	6.7	1.5	9	225	6.8	0.24	1.5	1.0	0.13	C
	15	23	41	30.9	19-20.7	155-13.0	9.3	1.4	13	187	3.4	0.14	1.0	0.7	0.12	C
	15	23	54	53.4	19-20.4	155- 7.4	5.6	2.3	17	179	14.0	0.14	1.1	0.8	0.16	C
	15	23	55	57.7	19-19.4	154-59.3	7.7	1.7	12	239	19.3	0.64	4.3	1.2	0.12	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUL	16	2	2 23.5	19-11.1	155- 3.7?	0.0	1.7	9	268	22.5	1.96	4.5	6.9	0.17	D
	16	5	10 39.4	19-21.2	155-15.3	29.8	1.9	16	146	1.2	0.13	0.8	1.2	0.10	B
	16	11	2 0.5	19-27.5	155-37.4	9.4	2.1	11	261	23.2	0.44	2.6	0.6	0.08	D
	16	19	40 26.1	19-46.2	155-24.1	34.7	2.4	16	146	5.5	0.12	0.6	1.6	0.08	B
	16	20	23 13.9	19-46.9	155-24.2	33.1	2.5	17	150	5.4	0.17	0.9	2.2	0.11	B
	17	3	19 32.9	19-54.1	155-34.6	14.7*	2.5	13	153	18.8	0.10	1.1		0.14	C
	17	11	8 31.1	19-19.4	155-22.8	27.2		14	138	1.7	0.19	1.0	2.1	0.08	B
	17	16	27 41.2	19-21.9	155- 8.1	6.2	2.4	18	171	12.6	0.10	0.9	0.7	0.17	C
	17	22	19 10.0	19-19.3	155-14.0	31.2	2.1	18	169	5.1	0.09	0.7	1.0	0.08	B
	18	5	59 31.2	19-37.1	156- 7.7	1.3	2.5	13	265	24.2	0.53	2.4	2.5	0.21	D
	18	13	54 38.6	19-12.6	155-31.6	7.0	2.4	14	142	10.6	0.10	0.9	0.7	0.17	B
	18	14	45 58.5	19-22.1	155-15.5	31.5	2.3	14	103	0.6	0.14	1.0	1.4	0.10	B
	18	15	20 4.3	19-21.6	155-15.2	29.4	2.1	17	142	0.5	0.11	0.8	1.1	0.11	B
	18	15	38 15.9	19-15.8	154-59.9	17.2*	2.3	15	224	26.1	0.20	1.6		0.13	C
	19	1	41 15.7	19-14.9	156-13.5	0.7	2.7	13	299	141.9	0.24	2.3	1.7	0.10	C
	19	4	49 23.1	19-37.9	156-16.4?	0.0	2.8	17	282	146.0	0.48	2.1	2.5	0.19	C
	19	8	58 59.4	19-24.9	155- 3.0	5.5	1.8	11	178	13.5	0.08	1.1	1.0	0.11	C
	19	9	43 2.9	19-22.0	155-12.0	29.6	1.5	12	180	5.8	0.14	1.1	1.5	0.08	C
	19	19	58 45.2	19-25.6	154-52.4	8.5	2.2	15	271	5.3	0.53	3.8	0.9	0.12	D
	19	23	7 31.9	19-17.1	155- 3.5?	10.0	1.9	11	241	14.4	0.45	4.0	1.7	0.12	D
	19	23	16 21.4	19-21.4	155-25.5	8.9	1.4	12	119	4.5	0.13	1.0	1.2	0.17	B
	20	6	0 10.4	19-22.8	155-11.6	2.1	1.4	5	193	1.6				0.09	D
	20	12	57 46.2	19-11.6	155-28.7	7.9	2.4	14	163	16.0	0.12	1.1	0.7	0.15	C
	20	18	12 58.1	19-22.5	155-11.8	9.5	1.6	14	135	1.2	0.06	0.6	0.4	0.09	B
	20	18	44 57.8	19-24.5	155-28.9	7.7	2.4	17	70	12.6	0.09	0.7	0.8	0.16	B
	21	2	59 52.7	19-10.1	155-36.9	7.2	2.3	14	181	8.8	0.12	1.1	0.6	0.14	C
	21	5	52 0.1	19-14.9	155- 8.0	0.6	2.0	10	226	13.3	1.39	2.4	6.0	0.21	D
	21	10	15 33.4	19-20.7	155-17.4	27.8		13	95	1.1	0.36	1.7	3.5	0.11	B
	21	12	9 14.1	19-19.1	155-10.9	7.2	2.0	13	242	5.3	0.26	1.6	0.9	0.18	C
	21	22	46 34.1	19-28.9	155-53.4	8.5	2.8	15	173	5.4	0.11	1.6	1.2	0.12	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUL	22	12	47 4.1	19-24.0	155-25.2	11.4	2.3	14	124	7.8	0.08	0.7	1.3	0.13	B
	22	15	54 10.6	19-20.6	155-30.0	11.3	2.5	13	136	11.8	0.07	0.7	1.0	0.09	B
	22	16	15 58.1	19-59.3	155-24.1	10.5	3.7	21	266	105.0	1.09	1.6	6.2	0.09	D
	22	16	38 19.3	19-20.1	155-25.8	8.1	2.0	13	122	4.3	0.09	0.9	0.8	0.16	B
	23	2	26 33.9	19-20.0	155-13.2	10.7	1.9	13	192	4.9	0.09	0.9	0.3	0.10	B
	23	9	43 46.2	19-22.3	155-23.7	7.8	1.5	11	112	4.0	0.14	1.0	1.3	0.19	B
	23	12	56 52.2	19-18.3	155-14.4	8.0	1.5	13	211	6.3	0.20	1.3	0.8	0.18	C
	23	14	47 35.5	19-17.8	155- 6.6	3.5	2.1	14	214	13.5	0.33	1.9	1.7	0.19	C
	24	6	54 28.7	19-21.5	155-26.0	8.5	2.3	16	92	5.3	0.08	0.8	0.6	0.16	B
	24	7	46 30.9	19-21.9	155-16.8	28.2	1.9	15	107	1.8	0.15	0.9	1.4	0.07	A
	24	16	30 52.7	19- 7.6	155-23.6?	15.4*	1.8	10	210	23.2	0.25	2.5		0.17	C
	24	19	15 46.6	19- 2.5	155-19.4	12.3	1.8	14	264	30.2	0.48	6.2	13.9	0.20	D
	24	19	34 30.2	19-21.4	155-12.6	9.6	1.6	13	173	2.0	0.07	0.7	0.3	0.10	B
	24	21	31 11.7	19-17.5	155-24.6	2.0	1.5	10	150	13.5	0.53	0.8	3.2	0.11	B
	24	22	32 48.3	19-15.6	155- 8.6	3.2	1.8	13	221	11.7	0.32	1.6	1.7	0.18	C
	24	22	38 33.0	19-13.9	155- 9.0	6.0	1.7	11	250	14.7	0.52	2.4	1.7	0.14	C
	24	23	26 15.0	19-19.7	155-12.3	12.2	1.4	11	227	5.3	0.34	1.8	2.1	0.11	C
	25	1	48 0.2	19-25.3	155-29.4	6.8	1.8	13	127	13.5	0.14	1.0	1.4	0.18	B
	25	2	43 36.0	19-23.9	155-17.6	10.9	1.6	11	93	1.4	0.17	0.4	0.9	0.03	A
	25	6	0 45.0	19-42.3	155- 2.6?	3.3*	1.9	18	227	29.5	0.26	1.3		0.31	D
	25	14	1 6.2	19-19.7	155-13.7	7.9	1.0	10	214	4.8	0.30	1.9	1.1	0.19	C
	25	20	16 58.8	19-32.3	155-36.4?	0.8	2.0	15	124	23.4	0.57	0.8	3.2	0.17	B
	25	21	30 34.4	19-13.0	155- 8.0	2.6	1.6	8	255	16.6	1.12	2.4	4.5	0.11	C
	25	23	16 46.6	19-23.9	155-17.2	11.9	1.3	9	129	1.2	0.18	0.7	1.4	0.04	B
	26	0	55 44.9	19-18.2	155-15.9	10.2	1.4	12	204	4.4	0.12	0.9	0.5	0.10	B
	26	5	42 45.9	19-23.9	155-17.8	9.0	1.3	10	104	1.6	0.24	0.6	1.4	0.07	A
	26	13	4 37.3	19-24.1	155-24.6	11.9	1.5	12	122	7.5	0.08	0.7	1.3	0.12	B
	26	17	27 36.6	19-30.3	155-36.6	8.5	2.2	14	179	23.2	0.10	0.6	0.5	0.09	B
	26	17	43 2.7	19-12.1	155-27.5?	0.0	1.8	8	176	16.7	0.34	1.3	1.7	0.14	C
	26	18	8 14.6	19-21.0	155-24.3	8.7	1.6	12	115	2.2	0.14	1.1	1.1	0.19	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
JUL 26	21	10	14.7	19-24.5	155-17.6	9.5	1.1	8	103	0.4	0.33	0.8	1.8	0.05	A
26	21	27	7.6	19-20.9	155-11.7	9.5	1.2	9	200	3.2	0.53	1.9	2.4	0.11	C
26	23	4	39.4	19-30.0	155-51.5	7.6	1.9	12	137	7.0	0.15	2.8	3.3	0.10	C
27	3	27	37.0	19-29.3	155-41.0	6.8	1.9	12	226	27.4	0.21	1.0	0.7	0.09	C
27	3	29	17.0	19-26.2	155-16.6	15.6	2.1	15	109	2.3	0.09	0.9	1.1	0.12	B
27	4	12	3.1	19-21.8	155-29.1	8.2	1.7	11	136	10.7	0.13	1.2	1.2	0.18	B
27	5	40	34.9	19-21.2	155-16.6	26.4	2.2	12	142	2.6	0.15	0.9	1.4	0.07	B
28	3	9	38.0	19-20.8	155-16.7	29.9		15	141	1.8	0.11	0.8	1.2	0.10	B
28	7	51	0.2	19-14.1	155-24.3	32.5	2.5	18	165	11.3	0.15	0.9	1.6	0.09	C
28	8	12	24.1	18-54.6	155-14.5	15.8*	2.8	20	284	42.3	0.23	1.6		0.17	D
28	9	12	30.0	19-50.8	155-21.4	37.8	2.6	12	190	12.7	0.25	1.3	2.8	0.11	C
28	11	11	38.6	19-25.4	155-23.1	11.5	1.9	12	168	5.9	0.07	0.6	0.7	0.08	B
28	11	58	58.4	19-20.7	155-14.5	8.1	1.7	15	180	2.5	0.12	0.8	0.6	0.15	C
28	23	44	14.6	19-22.2	155-11.4	8.5	1.8	12	164	2.0	0.15	1.1	0.6	0.13	C
29	8	7	20.1	19-48.3	155-18.9?	5.5	2.2	6	287	14.8	0.61	2.6	1.8	0.07	D
29	12	42	40.3	19-20.7	155-11.4	7.4		13	207	3.2	0.21	1.5	0.8	0.20	C
29	18	23	21.9	19-23.4	155- 3.3	7.9	2.1	15	192	12.2	0.14	1.7	0.7	0.17	C
30	1	28	36.7	19-45.8	155-23.6	32.1	2.5	17	146	6.6	0.13	0.7	1.7	0.09	B
30	1	48	18.0	19-27.5	155-17.2	10.6	1.7	13	155	3.9	0.11	1.0	0.9	0.12	C
30	1	51	50.7	19-20.6	155- 4.2	5.0	2.9	17	188	100.9	0.16	1.1	0.8	0.16	C
31	0	58	31.0	19-20.5	155-12.0	9.4	2.2	15	169	4.2	0.10	0.9	0.5	0.14	C
31	5	39	34.7	19-19.6	155-13.4	7.3	2.2	15	178	5.3	0.15	1.1	0.7	0.16	C
31	5	52	59.0	19-19.1	155-13.5	6.8	1.8	11	226	5.9	0.35	2.0	1.2	0.20	C
31	17	20	59.4	19- 9.1	155-22.6	39.5		13	194	20.6	0.23	1.2	2.4	0.08	C
31	22	13	29.7	19-22.9	155-12.2	0.1	1.8	9	184	1.0	0.10	0.6	4.4	0.09	C
31	22	51	31.0	19-57.5	154-54.0?	8.0*	3.1	25	262	124.2	0.70	4.7		0.72	D
AUG 1	2	22	29.8	19-10.4	155-37.8	10.6	2.5	15	151	8.3	0.08	0.9	0.5	0.10	C
1	2	55	56.8	19-20.7	155-11.0	7.3		12	194	2.6	0.14	1.1	0.6	0.14	C
1	5	10	46.5	19-20.6	155-16.1	31.2	2.3	18	151	2.6	0.11	0.8	1.1	0.11	C
1	9	44	28.1	19-20.0	155- 3.0	4.6	2.8	16	195	17.4	0.19	1.4	0.9	0.16	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
AUG 1	9	49	42.7	19-21.0	155- 5.9	4.5	2.1	14	183	11.9	0.19	1.2	1.0	0.15	C
2	1	45	40.6	18-58.6	155- 5.9	7.7	2.5	16	259	43.5	0.25	2.3	2.8	0.12	C
2	5	53	49.7	19-23.1	155-28.6	7.5	2.6	16	81	10.8	0.10	0.8	0.8	0.17	B
2	11	45	16.5	19-20.6	155- 6.8	7.7	2.3	16	200	6.1	0.19	1.5	0.8	0.18	C
2	14	12	31.0	19-17.5	155- 4.7	35.4	2.5	14	236	12.2	0.62	2.8	4.9	0.10	D
2	21	35	16.1	19-23.8	155-23.5	8.0	2.2	15	78	6.6	0.07	0.6	0.4	0.11	B
3	2	8	46.6	19-22.8	155- 8.4	8.9	2.2	18	165	3.3	0.08	0.9	0.5	0.15	C
3	7	50	37.4	19-24.3	155-17.1	8.4		9	132	1.0	0.43	1.0	2.4	0.08	B
3	12	2	54.5	20- 3.6	156- 1.9	8.0*	3.1	19	175	35.4	0.11	1.4		0.15	C
3	22	54	1.9	19-22.4	155- 8.0	6.6	2.0	16	168	12.8	0.10	1.1	0.8	0.18	C
4	20	59	4.2	19-23.8	155-18.4	8.6	1.9	11	67	2.3	0.16	0.4	1.0	0.05	A
4	20	59	54.8	19-23.4	155- 4.5	2.2	2.1	13	172	19.1	0.44	0.9	2.3	0.14	C
4	21	45	46.8	19-15.4	155-27.2	6.2	2.7	18	148	11.2	0.08	0.7	0.6	0.16	B
5	2	42	8.2	19-16.3	155- 2.5	35.3	2.5	15	212	108.7	0.29	1.6	2.7	0.13	C
5	9	33	7.6	19-21.7	155-10.4	10.3	2.4	16	160	0.8	0.13	1.0	0.4	0.14	C
5	12	36	36.8	19-59.1	155-34.8	8.1	2.8	17	216	102.4	0.16	1.6	0.7	0.12	C
5	16	25	58.0	19-19.3	155-14.1	9.9		14	202	5.0	0.11	0.8	0.4	0.11	C
5	22	55	33.8	19-20.0	155-16.1	9.9		16	157	2.4	0.05	0.5	0.3	0.09	C
6	0	33	33.8	19-11.1	155-13.0	40.5		14	206	18.4	0.38	2.1	3.6	0.14	C
6	3	17	34.7	19-10.5	155-36.3?	7.0		11	168	8.2	0.41	3.9	1.7	0.27	C
6	4	15	44.0	19-14.2	155-22.2	4.1	1.8	13	170	11.2	0.12	0.9	1.0	0.11	C
6	6	51	0.9	19-21.6	155- 6.8	5.3	2.6	16	176	14.8	0.13	1.1	0.8	0.17	C
6	21	51	55.6	19-21.5	155- 1.6?	0.0	2.5	13	213	19.1	0.81	1.3	4.2	0.13	C
6	22	46	42.2	19-19.7	155-16.7	11.4	1.3	8	242	1.4	0.78	1.6	3.9	0.06	C
6	23	13	10.6	19-21.3	155-13.5	9.8	1.6	14	171	3.3	0.08	0.8	0.4	0.11	C
7	0	33	28.2	19-16.6	155- 0.3	34.3	2.6	20	219	110.9	0.28	1.5	2.6	0.13	C
7	0	59	53.5	19-24.3	155-15.6	3.5	0.8	6	239	2.6	0.03	0.1	0.1	0.00	C
7	2	1	15.8	19-17.6	155-13.2	13.6	1.5	9	249	8.6	0.25	1.2	1.6	0.05	C
7	4	13	57.8	19-20.6	155-13.3	13.3	1.4	9	193	4.1	0.11	0.5	0.8	0.03	B
7	5	11	36.9	19-16.9	155- 0.4	32.3	2.8	21	218	110.4	0.19	1.1	1.7	0.09	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
AUG 7	6	48	32.4	19-17.5	155- 6.7	3.7	1.8	15	217	13.6	0.32	1.9	1.6	0.21	C
7	6	59	46.5	19-20.0	155-17.5	7.1	1.2	10	216	0.2	0.09	0.5	0.4	0.06	B
7	10	22	28.2	19-20.2	155-13.9	8.0	1.5	15	189	3.8	0.15	1.1	0.7	0.17	C
7	10	23	8.0	19-54.0	155-22.8?	0.0	3.7	23	190	36.4	1.15	4.0	4.5	0.60	D
7	11	8	2.7	19-19.8	155-13.3	7.7	1.7	13	201	5.2	0.20	1.4	0.8	0.19	C
7	17	46	36.0	20- 3.6	155-20.4	9.4	3.0	22	195	123.1	1.15	1.1	6.9	0.14	C
7	18	51	48.3	19-40.9	155-16.2	45.3	2.3	18	140	19.4	0.27	0.8	2.6	0.07	B
8	1	4	25.9	19-17.4	155- 7.1	2.9	1.7	12	217	16.5	0.87	1.7	3.8	0.15	C
8	1	5	17.6	19-24.2	155-25.2	13.3	1.3	9	222	8.1	0.45	1.5	3.9	0.07	C
8	8	4	58.9	20- 4.4	155-22.5	8.1	2.5	19	302	114.8	0.32	1.9	1.2	0.16	C
8	11	17	42.5	19-20.3	155-13.9	8.1	1.5	14	188	3.7	0.16	1.1	0.7	0.18	C
8	11	53	54.0	19-21.3	155-14.4	8.2	1.4	14	164	1.8	0.12	0.9	0.6	0.15	C
8	12	58	2.7	19-21.9	155-13.6	9.9	1.4	15	152	2.2	0.07	0.7	0.4	0.11	C
8	15	13	37.1	19-17.6	155- 0.7	37.6	2.0	13	217	23.7	0.31	1.6	2.9	0.11	C
8	17	20	27.4	19-22.5	155- 7.0	7.6	2.0	14	191	5.4	0.14	1.2	0.9	0.17	C
8	23	21	41.1	19-22.5	155-18.1	22.3	1.7	13	79	2.8	0.11	0.7	1.1	0.07	A
8	23	58	36.6	19-19.6	155-15.9	9.3	1.5	13	163	2.9	0.06	0.6	0.4	0.10	B
9	0	8	12.6	19-21.1	155-10.5	8.6	1.7	15	192	4.4	0.18	1.4	0.8	0.17	C
9	5	32	2.6	19-25.0	155-23.6	8.9	2.6	17	72	6.9	0.07	0.7	0.5	0.12	B
9	5	47	2.2	20- 9.6	155-34.9	33.7	2.6	16	272	121.9		1.2	2.3	0.14	C
9	7	3	21.5	19-19.7	155-25.6	6.7	1.3	11	126	12.7	0.08	0.8	1.0	0.13	B
9	7	46	6.7	19-15.5	155-30.4	8.2	2.1	11	134	11.7	0.11	1.1	1.0	0.18	B
9	8	19	51.8	19-11.4	155- 7.3	35.5	2.3	17	217	22.4	0.19	1.2	1.9	0.12	C
9	8	36	34.0	19-12.9	155- 5.2	4.3	2.2	16	257	18.6	0.69	3.2	1.7	0.24	D
9	13	10	10.3	19-54.4	155-18.7	8.3	1.9	14	255	20.7	0.46	2.5	1.2	0.12	D
10	0	29	13.5	19-22.1	155-23.7	8.7	1.3	14	138	3.5	0.07	0.6	0.4	0.10	B
10	6	22	34.9	19-25.6	155-24.1	7.6	2.3	14	162	6.9	0.07	0.5	0.4	0.08	B
10	10	33	35.4	19- 9.4	155-31.1	7.0	2.1	6	174	14.4	0.33	2.9	2.6	0.20	C
11	11	37	18.9	19-58.2	156- 6.0	0.4	2.5	14	309	113.1	0.22	7.9	5.9	0.12	D
11	21	18	44.7	19-20.7	155-12.9	9.3	1.7	14	188	3.4	0.16	1.1	0.8	0.16	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
AUG 11	21	49	57.2	19-21.6	155- 8.2	5.4	1.9	17	171	12.4	0.11	0.9	0.7	0.16	C
12	0	51	46.0	19-13.6	155-24.3	30.9		10	167	12.2	0.29	1.7	3.6	0.11	C
12	0	58	23.2	19-45.0	155-20.1?	8.8	2.5	9	221	12.8	0.71	3.9	2.2	0.17	C
12	3	32	30.7	19-18.8	155-14.4	8.9	2.4	19	169	5.8	0.12	1.0	0.6	0.17	C
12	9	24	11.0	19-29.3	155-14.2?	23.6		15	127	11.8	0.19	1.1	2.7	0.19	B
12	20	56	35.5	19-20.5	155-12.6	9.7	2.1	19	166	3.7	0.08	0.8	0.4	0.15	C
12	21	51	0.9	19-10.4	155-32.9	28.8	2.4	17	142	11.0	0.23	1.2	2.4	0.09	B
13	1	6	31.2	19-20.4	155- 7.1	5.0	2.0	16	180	14.5	0.13	0.9	0.7	0.13	C
13	7	22	0.0	19-18.6	154-59.6	7.9	2.3	12	242	19.2	0.40	2.7	0.7	0.08	D
13	9	25	46.4	19-15.2	155-26.9	7.7		15	151	11.2	0.11	0.9	0.7	0.18	C
13	20	15	3.9	19-20.5	155-11.6	9.7	2.1	15	191	3.7	0.13	1.3	0.5	0.17	C
13	22	15	55.8	19-20.9	155-12.9	8.9	1.8	15	183	3.0	0.12	0.9	0.5	0.15	C
13	23	46	53.6	19-16.5	155- 5.3	30.4	2.4	18	225	21.6	0.27	1.5	3.0	0.15	C
14	11	42	58.1	19- 4.2	155-20.9	15.6*		13	238	27.6	0.22	1.7		0.16	D
14	21	37	43.3	19-11.4	155-30.7	4.2		13	154	13.0	0.12	1.0	1.1	0.18	C
14	23	3	28.3	19-19.9	155-14.3	9.1	1.7	16	192	4.0	0.11	0.8	0.5	0.16	C
16	7	41	53.1	19-25.5	154-47.7	50.5*	4.4	24	288	118.8	0.20	2.2		0.21	D
16	13	0	20.2	19-12.8	155-28.8	30.0	2.1	14	163	15.0	0.18	1.4	1.9	0.12	C
16	14	43	38.5	19-20.0	155-52.0	6.9	2.7	17	263	27.8	0.28	1.8	1.2	0.17	C
16	17	7	36.7	19-22.8	155- 8.5	7.9	2.0	15	166	3.2	0.11	1.1	0.8	0.16	C
16	17	9	57.2	19-22.2	155-50.1	7.3	2.4	14	187	19.0	0.13	1.2	0.9	0.14	C
16	19	6	24.9	19-56.0	155-40.3?	33.1	2.6	15	311	28.6	0.23	2.1	4.8	0.14	C
16	21	17	46.6	19-20.9	155-12.6	9.8	1.9	14	187	3.0	0.13	1.0	0.5	0.13	C
17	12	38	28.5	19-21.2	155-15.9	15.1	1.8	12	147	1.5	0.12	0.7	1.2	0.07	B
17	13	16	27.8	19-13.1	155-30.5	6.3	2.8	15	146	12.1	0.08	0.7	0.7	0.13	B
17	15	33	1.1	19-24.1	155-28.6	7.8	2.5	17	93	11.8	0.09	0.8	0.8	0.17	B
17	20	25	53.5	19-22.0	155- 8.9	9.2	1.8	13	190	1.9	0.11	1.1	0.5	0.13	C
17	20	33	36.9	19-21.2	155- 9.2	8.6	1.9	15	194	1.9	0.14	1.1	0.6	0.14	C
17	23	28	0.5	19-19.4	155-16.0	31.8	3.4	23	163	190.0	0.11	0.8	1.0	0.12	C
17	23	34	2.8	19-18.2	155-16.4	28.6	2.1	14	169	7.9	0.12	0.8	1.3	0.09	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
AUG 18	1	50	34.1	19-20.3	155-17.1	31.6	2.4	19	150	4.2	0.10	0.8	1.0	0.10	B
18	4	6	50.9	19-22.4	155-27.3	7.5	1.9	13	129	8.1	0.09	0.7	0.8	0.14	B
18	8	52	42.8	19-17.1	155-22.2	6.8	1.8	8	169	6.1	0.10	0.8	1.2	0.07	B
18	9	27	32.3	19-21.7	155-25.7	13.2	1.6	10	138	5.1	0.11	0.8	1.8	0.09	B
18	16	29	23.2	19-12.3	155-23.0	30.8	1.7	9	201	14.5	0.68	2.7	7.2	0.11	C
18	18	6	55.7	19-21.6	155- 3.4	1.9	1.9	13	206	16.0	0.49	1.2	2.4	0.11	C
18	20	38	7.8	19-11.6	155-33.5	7.3	2.3	11	139	8.8	0.08	0.8	0.6	0.11	B
18	23	33	6.0	19-24.6	155-30.0	6.7	1.8	12	152	14.3	0.16	1.1	1.3	0.14	C
19	6	53	10.5	19-10.8	155-35.0	8.2	2.3	6	142	8.4	0.11	1.2	0.9	0.06	B
19	13	4	13.3	19-18.3	155-12.8	13.5		9	244	7.7	0.33	1.6	2.1	0.08	C
19	13	5	39.9	19-29.4	155-27.0	10.9	1.5	9	200	6.6	0.11	0.8	0.3	0.05	B
19	14	31	8.9	19-13.8	155- 7.8	3.8	1.8	10	251	15.2	0.53	2.5	2.0	0.12	C
19	15	12	50.0	19-18.6	155-13.3	14.0	1.2	6	235	6.8	0.22	1.2	1.7	0.03	C
19	15	13	28.4	19-17.1	155-13.3	10.6	1.6	9	254	9.0	0.36	2.2	0.8	0.12	C
19	16	3	55.1	19-19.6	155- 6.8	5.1	1.9	13	207	11.4	0.24	1.5	1.0	0.16	C
20	2	25	46.9	19-22.8	155-23.8	11.3	1.3	12	126	4.9	0.11	0.7	1.5	0.10	B
20	2	36	2.8	19-22.3	155-10.7	9.6	1.8	15	126	1.5	0.05	0.6	0.3	0.10	B
20	9	44	43.0	19-22.3	155-26.2	7.4	1.1	10	129	11.7	0.08	0.7	0.9	0.11	B
20	10	43	13.7	19-24.8	155-26.3	7.4	1.4	12	132	9.9	0.12	0.9	1.1	0.18	B
20	12	19	47.2	19-24.6	155-23.7	11.6	1.5	6	189	7.1	0.15	0.7	1.5	0.03	B
20	20	39	15.4	19-19.9	155- 1.7	8.1	1.9	7	230	14.9	1.00	7.6	2.0	0.17	D
21	8	16	2.5	19-17.0	155-24.7?	9.7	2.0	14	171	6.4	0.23	2.1	1.6	0.39	D
21	9	59	54.8	19-29.4	155-53.5?	8.4	2.2	13	184	4.6	0.13	5.3	5.0	0.19	D
21	11	2	28.0	19-15.8	155-22.9	9.3	1.6	13	171	8.2	0.09	0.9	0.8	0.12	C
21	14	7	7.5	19-15.8	155-23.3	9.0	1.0	9	213	8.1	0.18	1.1	0.8	0.09	C
21	15	23	55.4	19-38.1	155- 5.7?	12.5	2.4	20	227	28.5	0.69	5.0	4.7	1.02	D
21	18	16	58.7	19-18.6	155-14.5	14.9	1.5	8	255	5.8	0.12	0.8	0.8	0.03	C
21	23	22	36.4	19-18.6	155-16.9	9.5	2.1	17	166	2.9	0.11	0.9	0.5	0.13	C
21	23	37	30.0	19-19.8	155-14.7	10.3	1.3	16	166	3.9	0.06	0.5	0.3	0.09	B
22	1	48	54.9	19-24.7	155-17.6	7.4	1.2	6	112	0.2	0.42	1.1	2.4	0.04	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
AUG 22	3	15	11.3	19-23.4	155-46.1	9.2	1.9	6	242	22.2	0.54	2.8	1.7	0.06	D
22	4	52	20.0	19-24.1	155-19.3	7.3	1.4	8	104	1.0	0.38	1.1	2.6	0.13	B
22	6	34	49.3	19-22.4	155-26.1	8.5	1.4	9	122	6.2	0.16	1.3	1.6	0.19	B
22	9	42	56.5	19-15.8	155- 8.5	1.9	2.1	14	199	14.3	0.91	1.5	3.9	0.20	C
22	15	43	0.9	19-18.0	155-16.4	7.8	1.0	10	203	4.3	0.20	1.4	0.8	0.14	C
22	18	3	8.2	19-21.1	155-15.9	8.9	0.9	8	152	1.7	0.20	0.7	1.2	0.06	B
22	18	25	42.2	19-19.3	155-16.1	13.0	1.3	8	212	2.8	0.10	0.5	0.8	0.03	B
23	1	33	19.4	19-17.3	155-24.0	6.4	1.7	10	153	14.0	0.11	1.0	0.9	0.14	C
23	6	17	49.6	19-31.3	155-41.9	6.2	1.9	14	132	23.4	0.06	0.4	0.4	0.06	B
24	4	32	58.6	19-23.9	154-59.3	5.7	2.4	16	203	102.4	0.16	1.3	0.8	0.17	C
24	5	27	40.7	19- 8.9	155-31.3?	25.7	2.4	15	173	13.6	0.26	2.1	2.7	0.18	C
24	11	30	32.2	19-23.4	155-22.4	10.3	1.5	14	111	4.8	0.09	1.0	0.9	0.16	B
25	2	51	38.8	19- 3.3	155- 2.1	12.5	2.6	11	272	41.2	0.44	5.4	11.5	0.19	D
25	5	50	36.9	19- 9.9	155-41.2	9.8	2.6	11	183	11.7	0.10	0.8	0.4	0.07	B
28	3	37	9.5	19-47.0	155-45.3?	5.6		9	161	28.1	0.22	1.4	1.7	0.21	C
28	5	18	33.1	19-26.5	155-24.3	8.7		9	145	9.5	0.20	1.6	1.7	0.12	B
28	7	40	24.5	19- 8.3	155-38.6	8.6	2.4	4	214	9.4				0.00	D
30	10	48	6.8	19-15.0	155- 6.1?	37.6	2.4	13	281	20.4	0.29	2.4	2.5	0.17	C
30	16	2	46.2	19-18.0	155- 5.1?	29.9	2.3	13	280	19.2	0.22	2.0	2.8	0.12	C
30	17	6	22.3	19-59.1	155-20.8	8.4	3.1	12	219	106.1	0.40	1.8	1.5	0.12	C
30	19	19	37.5	19-21.9	155-23.2	9.6	1.9	12	93	3.1	0.06	0.7	0.5	0.10	A
31	4	54	32.7	19-19.8	155-14.3	7.9	2.1	11	202	4.2	0.17	1.3	1.1	0.14	C
31	6	18	12.2	19-21.0	155-17.5	28.8	2.2	12	153	3.8	0.22	1.3	1.9	0.08	C
31	6	55	15.8	19-46.1	155-48.6	5.3	3.3	14	178	29.8	0.11	0.9	0.8	0.11	C
31	11	2	47.7	19-20.4	155- 9.1?	10.5		11	266	3.0	0.21	1.6	0.6	0.13	C
SEP 1	0	16	45.1	19-25.7	155-13.7	30.7	2.2	18	63	5.9	0.11	0.7	1.2	0.10	A
1	2	8	10.9	19-18.6	155-14.1	10.4	1.6	14	216	6.3	0.12	0.9	0.3	0.10	B
1	13	45	23.4	19-22.8	155-27.3	8.1	2.5	16	81	8.5	0.09	0.8	0.8	0.17	B
1	16	39	11.0	19-20.3	155-13.2	7.1	1.5	13	169	4.2	0.16	1.2	0.8	0.17	C
1	17	33	56.8	19-25.6	155-13.9	30.7	2.1	12	112	6.5	0.18	1.1	1.8	0.11	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
SEP 2	2	26	37.2	19-17.7	155- 7.2	4.8	2.3	15	192	12.8	0.22	1.3	1.1	0.19	C
2	5	44	40.4	19-21.2	155- 5.6	1.1	2.0	12	183	17.1	0.50	1.1	2.5	0.10	C
2	5	56	14.4	19-25.7	155-23.6	8.7	1.6	13	142	6.2	0.09	0.8	0.6	0.13	B
2	7	12	29.6	19-15.9	155- 1.1	16.6*	2.0	11	221	26.8	0.20	1.6		0.14	C
2	8	50	27.9	19-22.1	155- 8.7	4.4		12	168	11.6	0.12	1.1	1.0	0.13	C
2	21	40	48.7	19-22.4	155- 8.8	7.7	2.1	14	169	6.5	0.14	1.3	1.3	0.17	C
3	5	15	54.3	19-12.1	155-25.8	32.4	2.4	13	169	15.5	0.24	1.3	2.6	0.09	C
3	12	0	53.3	19-27.4	155-25.4	7.9	1.9	13	195	5.8	0.12	0.8	0.6	0.10	B
3	14	47	47.4	19-24.3	155-43.3	21.7	2.5	11	231	20.5	0.39	2.1	6.9	0.14	D
4	0	48	14.7	19-18.7	155- 6.4	5.4	2.4	16	191	12.7	0.19	1.2	1.0	0.17	C
4	9	24	38.7	19-22.6	155-22.9	9.3	1.3	11	162	4.5	0.12	0.8	0.7	0.10	C
4	14	19	8.0	19-21.6	155-11.5	10.0	1.7	16	151	2.4	0.06	0.6	0.3	0.10	B
4	18	22	24.9	19-18.7	155-15.0	11.8	1.5	10	194	5.0	0.10	0.9	0.9	0.08	B
4	19	11	35.8	19-21.5	155-10.4?	11.2	1.4	11	181	0.9	0.14	1.6	1.3	0.13	C
4	20	41	16.5	19-23.4	155-29.2	8.4	1.8	16	80	11.8	0.09	0.7	0.9	0.14	B
5	1	40	36.1	19-20.1	155-15.8	29.8	1.5	13	162	2.9	0.20	1.4	2.0	0.11	C
5	8	5	54.6	19-21.7	155-26.5	7.6	1.7	7	242	12.5	0.69	4.1	3.2	0.14	D
5	11	33	3.7	19-21.5	155-11.8	8.8	1.0	13	151	2.1	0.10	0.9	0.6	0.15	C
5	13	12	35.4	19-21.8	155-24.4	8.5	1.3	9	207	3.5	0.16	1.1	0.9	0.11	C
5	15	38	30.2	19-22.4	155- 4.7	13.8	1.9	9	192	9.3	0.15	2.4	0.8	0.08	C
5	16	25	1.4	19-21.6	155-26.1	7.1	1.3	12	121	5.6	0.09	0.8	0.9	0.15	B
5	20	10	47.3	19-21.1	155-25.8	7.9	2.4	18	99	4.7	0.09	0.8	0.7	0.19	B
5	23	17	45.8	19-25.3	155-27.1?	6.2	1.3	10	255	10.7	1.50	8.3	12.9	0.14	D
6	2	44	36.0	19-20.4	155- 7.0	7.7	1.6	13	200	10.3	0.19	1.4	0.9	0.12	C
6	7	20	15.5	19-17.3	155-22.1	8.0	1.0	7	260	5.7	1.33	3.3	6.2	0.04	D
6	9	57	49.7	19-20.8	155- 4.1?	10.6	2.3	17	189	10.4	0.15	1.2	0.5	0.15	C
6	15	54	26.0	19-22.2	155-25.2	8.5	2.1	17	77	5.0	0.10	0.8	0.7	0.16	B
6	22	3	18.4	19-58.8	155-35.0	14.2	2.9	20	184	102.0	0.08	1.8	3.0	0.10	C
7	0	37	5.1	19-20.4	155-15.8	10.8	1.4	9	160	2.8	0.04	0.4	0.3	0.04	B
7	6	31	49.6	19-22.3	155-24.1	8.5	1.4	14	141	4.0	0.08	0.6	0.5	0.11	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
SEP 7	8	16	54.0	19-21.3	155-14.6	9.6	1.0	8	145	1.6	0.25	0.5	1.5	0.04	B
7	12	19	33.5	19-21.5	155-12.5	11.5	1.2	9	157	1.9	0.16	0.8	1.3	0.06	B
7	13	59	13.1	19-24.5	155-24.3	8.5	1.5	12	185	8.1	0.08	0.6	0.6	0.09	B
7	17	24	50.4	19-25.8	155-11.7	19.8	1.8	12	252	6.3	0.38	1.7	2.7	0.05	C
7	17	45	3.1	18-34.8	155-24.4	8.0	2.8	12	322	57.3		2.2		0.14	D
7	18	50	3.0	19-25.6	155-26.1	10.8	1.4	11	188	9.2	0.11	0.8	0.4	0.10	B
7	18	58	22.3	19-20.6	155-13.8	11.3	1.5	10	168	3.4	0.07	0.7	0.7	0.08	B
7	19	21	29.5	19-26.5	155-13.9	30.8	2.3	20	58	6.1	0.13	0.8	1.4	0.13	B
7	21	20	49.0	19-21.0	155-15.1	11.9	1.1	9	146	1.5	0.08	0.4	0.7	0.04	B
8	0	51	57.1	19-21.7	155-16.6	34.8	1.8	10	118	2.3	0.55	2.1	4.8	0.11	B
8	2	13	5.4	19-21.5	155- 4.0?	16.4	1.5	9	202	10.6	0.40	3.4	6.4	0.15	C
8	5	40	33.4	19-20.3	155- 4.0	8.0	2.2	11	193	20.0	0.18	1.7	1.0	0.13	C
8	10	41	8.3	19-24.1	155-27.1	11.2	1.6	12	156	9.7	0.09	0.7	0.4	0.09	B
8	12	9	35.3	19-13.4	155-20.5	32.1	2.1	17	178	9.1	0.21	1.2	2.1	0.12	C
8	14	4	47.1	19-20.7	155- 8.6	3.8	1.6	12	193	11.8	0.21	1.4	1.8	0.15	C
8	19	14	4.4	19-18.9	155-13.9	12.4	1.5	8	195	5.9	0.14	1.5	1.2	0.11	C
8	19	55	4.2	19-22.2	155- 4.8	13.2		8	194	9.1	0.08	1.7	0.6	0.05	C
8	22	45	27.6	19-19.6	155- 7.3	6.1	1.5	10	206	6.2	0.33	2.2	1.6	0.20	C
8	23	31	51.1	19-17.4	155-14.1	15.5	1.5	8	236	7.6	0.29	1.6	2.4	0.07	C
8	23	34	54.0	19-20.6	155-10.8	10.6	1.4	9	188	2.7	0.09	0.9	0.6	0.06	B
9	0	4	21.8	19-21.6	155-16.2	33.1	2.8	22	125	1.5	0.14	0.9	1.4	0.13	B
9	0	40	23.1	19- 3.2	155-20.4?	0.0*	2.3	11	226	27.4	2.66	17.3		0.56	D
9	0	42	16.1	19- 1.6	155-19.5	16.9*	2.1	10	235	30.2	0.34	2.6		0.25	D
9	0	47	4.4	18-58.3	155-14.8	17.1*	2.3	10	285	36.9	0.65	4.8		0.27	D
9	0	48	19.1	19- 4.2	155-20.4?	11.7	2.0	13	253	25.6	0.56	2.7	2.0	0.27	D
9	13	27	4.4	19-19.2	155-15.8	7.6	1.1	11	182	3.3	0.19	1.1	0.9	0.15	C
9	13	36	5.1	19-20.4	155- 7.1	5.7	1.5	15	182	5.8	0.15	1.2	1.0	0.16	C
9	14	46	15.4	19-20.9	155-10.3	6.7	1.4	11	230	1.8	0.26	1.5	1.0	0.13	C
9	18	16	36.4	19- 2.6	155-18.1	3.4	2.2	5	231	32.5				0.03	D
9	21	30	30.1	19-21.4	155-13.8	9.7	1.3	10	149	2.8	0.14	1.0	0.7	0.13	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
SEP 9	23	3	44.6	18-59.8	155-26.2	29.4*	2.2	13	244	19.6	0.18	1.6		0.10	D
10	0	23	7.3	19-22.7	155-22.8	9.0	1.3	15	159	4.7	0.12	0.8	0.6	0.14	C
10	3	9	3.1	19-13.4	155- 3.3	4.5	1.9	11	267	19.5	0.79	3.7	1.7	0.13	D
10	3	10	20.3	19-10.4	155- 3.0?	0.2	2.2	12	271	24.4	1.83	4.2	5.7	0.18	D
10	5	53	4.6	19-21.3	155- 9.3	9.3	1.2	12	186	1.5	0.12	1.0	0.7	0.11	C
10	6	20	3.1	19-24.0	155-21.1	8.4	1.5	12	131	2.5	0.23	0.6	1.6	0.11	B
10	6	20	45.4	19-24.0	155-21.2	9.5	1.4	13	133	2.7	0.08	0.6	0.5	0.11	B
10	7	32	56.9	19-21.9	155-10.9	9.8	1.5	16	138	1.6	0.07	0.7	0.4	0.13	B
10	14	44	54.0	19-19.6	155-16.8	11.4	1.2	8	192	1.3	0.11	0.5	0.8	0.02	B
10	20	6	56.8	19-21.1	155-48.4	4.8	2.1	8	289	38.3	0.33	8.2	7.6	0.10	D
10	20	32	33.7	19-17.5	155-25.5	7.6	2.0	8	140	6.3	0.21	1.9	2.0	0.17	B
10	20	55	47.5	19-24.7	155-17.2	0.0*	0.2	6	96	0.5	0.13	0.7		0.15	C
10	23	55	29.3	19-24.1	155-16.2	0.0*	0.5	5	217	1.7	0.30	1.2		0.10	D
11	4	37	48.9	19-20.5	155-13.9	7.9	1.4	10	169	3.4	0.19	1.2	0.9	0.17	C
11	7	34	16.1	19-21.1	155- 9.8	12.5	1.5	9	263	1.3	0.45	2.2	2.9	0.07	C
11	10	7	57.9	19-21.5	155-25.1	8.2	2.2	16	83	4.0	0.07	0.7	0.8	0.17	B
11	11	18	12.3	19-21.4	155-13.3	7.3	1.8	14	153	2.4	0.16	0.9	0.9	0.17	C
11	20	17	9.6	19-24.4	155-24.1	8.8	2.3	14	157	7.7	0.06	0.5	0.4	0.08	B
12	0	42	0.9	19-22.9	155- 7.2?	7.8	1.9	14	179	5.3	0.15	1.4	1.0	0.15	C
12	5	53	48.1	19-20.9	155-14.3	30.6	2.1	15	153	2.4	0.15	1.1	1.4	0.09	C
13	1	52	30.3	19-36.3	156-22.5	8.0*	3.3	21	239	156.4	0.26	2.0		0.12	D
13	7	59	1.5	19-21.4	155-23.6	8.2	1.6	13	137	2.4	0.09	0.8	0.7	0.12	B
13	10	52	22.2	19-24.3	155-22.5	10.5		14	136	5.0	0.06	0.6	0.4	0.10	B
13	12	19	11.5	19-23.4	155-25.0	11.1	1.5	11	221	6.6	0.18	1.1	0.5	0.11	C
13	18	16	25.2	19-23.1	155-44.6	15.1*	2.6	19	149	20.1	0.11	1.0		0.15	C
13	19	38	56.1	19-22.2	155-23.8	9.1	2.2	17	74	3.7	0.06	0.6	0.4	0.12	B
13	20	18	12.3	19-22.6	155-24.1	9.8	1.0	12	191	4.7	0.11	0.7	0.7	0.09	C
13	23	16	2.9	19-21.2	155- 7.3	4.3	1.7	14	178	15.2	0.11	0.7	0.7	0.11	C
13	23	33	53.4	19-21.8	155-25.2	8.2	1.3	15	116	4.4	0.09	0.8	0.7	0.19	B
14	2	23	26.0	19-24.9	155-23.5	9.2	1.6	14	173	6.9	0.08	0.6	0.4	0.09	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
SEP 14	4	52	9.4	19-20.1	155-11.0	10.9	1.5	10	191	3.5	0.12	1.6	1.1	0.11	C
14	5	39	13.4	19-28.6	155-51.7	8.0	2.3	11	158	7.9	0.17	3.2	3.7	0.10	C
14	6	6	58.3	19-22.5	155- 5.8	14.2	1.4	8	335	7.4	0.19	1.5	0.4	0.04	C
14	11	48	55.0	19-35.7	156-31.0	8.0*	3.1	12	318	144.0	2.28	13.7		0.12	D
14	23	48	51.7	19-21.5	155-25.3	8.5	1.5	14	116	4.2	0.09	0.8	0.8	0.17	B
15	8	12	16.0	19-28.1	155-28.9	6.9	2.4	13	154	10.2	0.19	1.2	1.7	0.21	C
15	18	28	54.6	19-25.6	155-27.8	9.2	1.8	16	143	11.1	0.11	0.8	1.0	0.18	B
15	19	6	9.2	19-22.6	155-23.6	9.1	1.9	16	73	4.4	0.05	0.5	0.4	0.10	B
15	22	52	42.3	19-19.6	155-13.6	10.2	1.9	18	170	5.0	0.08	0.8	0.4	0.13	C
15	23	6	17.1	19-22.2	155-24.7	8.2	1.6	15	116	4.5	0.09	0.8	0.8	0.18	B
16	3	21	56.3	19- 8.2	155-15.0	59.8	2.7	17	212	19.0	0.47	1.9	4.0	0.11	C
16	3	43	1.3	19-21.5	155-13.9	10.5	2.0	17	144	2.4	0.07	0.6	0.3	0.10	B
16	5	8	6.6	19-21.7	155-14.1	10.4	1.8	16	141	2.1	0.06	0.6	0.3	0.10	B
16	18	17	55.6	19-25.2	155-28.8	5.0	1.8	14	192	12.8	0.18	1.1	1.8	0.16	C
16	23	39	13.6	19-23.6	155-25.3	10.5	1.8	13	204	7.1	0.10	0.6	0.4	0.08	B
17	4	25	24.5	19-21.0	155-12.4	8.2	1.9	17	164	2.9	0.12	0.9	0.5	0.16	C
17	8	20	18.5	19-22.8	155-23.8	9.3	1.6	14	140	4.8	0.08	0.7	0.7	0.11	B
17	20	2	7.1	19-23.4	155-26.5	11.3	2.6	19	80	8.2	0.06	0.5	0.3	0.09	B
18	3	25	12.6	19-18.3	155-25.6	6.2	1.8	15	122	5.4	0.10	0.8	1.3	0.18	B
18	12	10	31.3	19-21.2	155-13.7	13.3	1.2	10	156	3.1	0.13	0.6	1.1	0.05	B
18	15	40	8.4	19-24.4	155-15.5?	1.3	0.6	9	240	2.9	0.46	2.1	2.9	0.10	C
18	17	42	26.6	19-40.4	155-54.5?	10.1	2.3	9	281	49.0	1.24	9.8	7.3	0.53	D
18	19	15	41.4	19-21.6	155-25.1?	10.6	1.2	14	115	4.0	0.11	1.0	1.7	0.18	B
18	19	33	23.6	19-21.0	155-20.0	1.3	0.9	10	98	4.8	0.10	0.5	1.2	0.12	B
18	19	46	10.9	19-11.1	155-38.2	7.0	2.0	9	237	14.0	0.16	1.0	0.5	0.09	C
19	0	28	33.9	19-21.3	155-15.3	11.1	0.8	9	140	1.0	0.19	0.5	1.1	0.05	B
19	0	59	28.4	19-24.2	155-25.9	8.1	1.7	15	128	8.7	0.09	0.7	0.9	0.15	B
19	7	8	17.3	19-18.2	155- 6.5	9.7	1.8	11	220	9.1	0.28	2.0	0.7	0.12	C
19	7	18	59.1	19- 1.0	155-23.6	8.3	2.3	15	271	34.8		3.5	3.6	0.18	D
19	7	21	53.6	19- 8.6	155-27.1	37.9	1.8	8	262	21.0	3.34	12.5	26.6	0.17	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
SEP 19	7	23	34.7	19- 7.5	155-26.2?	36.7	2.1	12	214	19.5	0.20	1.7	2.2	0.11	C
19	7	27	16.9	19- 9.6	155-28.9?	38.3	1.7	8	180	17.3	0.34	1.8	7.2	0.10	C
19	7	38	49.9	19- 5.4	155-19.9?	16.8*	1.8	7	262	27.9	0.72	4.9		0.24	D
19	7	40	28.6	19-19.5	155-33.5	0.5	2.0	7	182	26.2	1.89	2.3	9.6	0.11	C
19	9	52	43.6	19-18.0	155- 9.2	7.2	1.6	9	216	7.2	0.31	2.0	1.3	0.15	C
19	11	13	28.8	19-23.9	155- 1.1?	0.1	1.9	13	194	15.6	0.62	1.2	3.5	0.20	C
19	12	10	22.6	19-25.3	155-24.4	10.8	1.8	17	124	7.7	0.05	0.4	0.3	0.08	B
19	17	13	28.8	19-22.3	155- 9.4	9.0	1.7	12	166	1.4	0.12	1.4	0.7	0.15	C
19	17	45	40.8	19-21.3	155-12.3	9.1	2.2	18	156	2.3	0.06	0.6	0.4	0.13	C
19	17	48	41.2	19-20.1	155-11.1	14.9	1.5	8	237	3.6	0.10	0.6	0.7	0.02	C
19	23	3	45.1	19-20.2	155-16.1	31.8	2.8	22	151	2.2	0.11	0.7	1.0	0.11	C
19	23	12	18.7	19-19.6	155-14.3	10.2	1.0	16	183	4.4	0.06	0.5	0.3	0.09	B
19	23	24	6.0	19-18.6	155-13.7	13.2	1.4	9	216	6.6	0.27	1.2	2.1	0.07	C
20	0	19	2.8	19-21.3	155-13.6	13.6	1.2	9	154	3.2	0.18	0.7	1.4	0.05	B
20	3	46	37.1	19-21.2	155-12.5	14.9	1.4	9	165	4.6	0.08	0.7	0.5	0.04	B
20	4	46	56.6	19-21.2	155-25.5	8.9	1.4	12	123	4.3	0.13	1.0	1.2	0.19	B
20	7	4	46.6	19-27.7	155-17.3	31.4	2.0	8	208	6.0	0.29	1.7	2.4	0.07	C
20	10	20	17.1	19-58.9	156- 0.3	40.4	3.4	23	172	29.3	0.16	1.1	3.1	0.13	C
20	13	16	10.1	19-22.6	155-37.3?	10.1	2.3	15	118	14.3	0.13	0.9	1.4	0.15	B
20	14	39	24.1	19-27.5	155-25.5	8.3	1.7	13	238	5.7	0.15	0.8	0.5	0.08	C
20	23	3	53.5	19-18.8	155-14.1	7.8	1.3	10	207	5.9	0.27	1.5	1.1	0.19	C
21	0	44	21.0	19-20.7	155-11.6	8.1	1.6	11	195	3.5	0.16	1.2	0.6	0.14	C
21	1	26	36.1	19-20.0	155-12.3	10.0	4.4	22	171	4.6	0.11	1.0	0.5	0.21	C
21	1	33	0.6	19-20.5	155-12.9	9.0	2.1	20	167	3.8	0.08	0.7	0.4	0.16	C
21	1	40	31.5	19-21.3	155-12.7	9.6	2.0	17	153	2.2	0.06	0.6	0.3	0.12	C
21	2	17	46.6	19-21.2	155-12.7	9.7	1.6	16	164	2.5	0.08	0.7	0.4	0.12	C
21	2	19	55.1	19-21.4	155-12.6	8.9	1.9	16	151	2.0	0.09	0.7	0.4	0.14	C
21	3	7	46.7	19-21.5	155-13.0	9.5	1.7	16	146	2.0	0.08	0.7	0.4	0.14	B
21	4	9	31.1	19-21.4	155-13.5	7.4	1.5	11	151	3.2	0.12	0.8	0.7	0.12	C
21	4	14	52.9	19-21.0	155-13.0	9.7	1.7	16	166	2.9	0.08	0.7	0.4	0.11	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
SEP 21	5	59	0.9	19-22.4	155- 8.9	6.5	2.1	16	168	2.3	0.13	1.0	0.8	0.20	C
21	8	6	37.4	19-24.9	155-18.1	15.0	2.2	8	88	1.0	0.10	0.8	1.2	0.06	A
21	8	6	40.3	19-27.9	155-14.2	5.6	2.4	6	161	7.6	0.13	0.5	2.9	0.03	C
21	11	22	40.3	19-10.8	155-39.1	9.5		15	216	8.3	0.24	2.1	0.8	0.16	C
21	13	45	55.7	19-20.7	155-11.7	14.2	1.8	10	193	3.6	0.21	1.4	1.7	0.07	C
21	14	43	52.3	19-15.9	155-15.7	9.7	1.8	10	225	6.5	0.25	1.5	0.8	0.16	C
21	14	55	24.0	19-16.2	155-15.9	9.5		12	221	5.8	0.21	1.3	0.8	0.16	C
21	15	14	58.3	19-21.9	155-12.4	9.4	1.7	17	139	1.1	0.07	0.7	0.4	0.14	B
21	15	21	31.9	19-21.2	155-13.2	9.9	1.6	15	158	2.6	0.11	0.8	0.5	0.12	C
21	15	28	52.4	19-19.9	155-11.6	15.3	1.8	9	215	4.5	0.16	1.4	1.5	0.05	C
21	16	28	46.7	19-37.2	155-11.7	13.8*	2.1	8	252	23.7	0.10	0.9		0.03	D
21	17	13	15.0	19-12.7	155-32.8	8.1	2.4	9	133	8.5	0.13	1.3	1.1	0.16	B
21	19	54	49.8	19-21.2	155-12.9	9.4	1.8	15	154	4.4	0.08	0.7	0.5	0.12	C
21	21	7	37.4	19-20.8	155-12.8	9.3	2.1	18	163	3.2	0.07	0.7	0.4	0.12	C
21	22	35	26.3	19-15.8	155-15.1?	8.1	3.0	23	182	7.4	0.23	1.3	0.9	0.31	D
22	1	49	13.4	19-52.8	155-14.4	18.0*		18	212	45.2	0.13	1.1		0.13	C
22	2	5	31.3	19-20.9	155-13.1	8.9	1.8	18	159	3.2	0.09	0.7	0.5	0.16	C
22	3	12	28.8	19-28.9	155-55.2	9.4	2.2	12	213	4.1	0.25	3.4	2.0	0.11	C
22	4	50	42.3	19-21.2	155-13.3	9.0	1.5	16	153	2.8	0.12	0.9	0.6	0.14	C
22	7	20	38.2	19-32.0	155- 5.9	9.9	2.0	17	159	20.1	0.69	0.7	4.8	0.10	C
22	7	26	22.7	19-16.4	155-15.9	8.7	1.7	13	220	5.5	0.23	1.4	0.7	0.17	C
22	7	29	24.0	19-19.5	155-15.9	8.3	1.5	14	171	2.8	0.12	0.9	0.6	0.16	C
22	8	32	5.5	19-22.6	155-17.6	17.8		11	81	2.0	0.17	0.8	1.6	0.08	A
22	9	30	13.5	19-20.6	155-12.7	6.7	1.4	9	180	5.0	0.18	1.1	0.9	0.13	C
22	17	15	22.8	20-15.0	155-43.4	8.0*	3.4	20	175	32.3	0.08	1.0		0.11	C
22	18	48	51.2	19-29.3	155-25.9	10.0	1.9	10	191	4.6	0.10	0.8	0.5	0.07	B
23	0	50	19.8	19-21.1	155-14.6	7.8	1.5	13	149	1.7	0.17	1.1	0.9	0.18	B
23	2	21	35.6	18-55.8	155-24.8	35.2	2.5	12	286	25.2	2.07	8.9	16.4	0.13	D
23	7	50	32.6	19-22.9	155-17.8	35.9	2.0	7	126	2.1	0.15	2.6	1.4	0.04	C
23	11	46	16.4	19-20.4	155- 9.4	8.6	1.5	13	194	2.8	0.12	1.0	0.6	0.13	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
SEP	23	12	33	21.1	19-20.8	155-12.2	13.0	1.5	12	167	7.1	0.09	0.9	0.6	0.09	C
	23	17	38	27.8	20-17.0	155-52.4	31.9	2.8	19	163	138.2	0.14	1.3	3.4	0.13	C
	23	17	39	9.6	20-15.6	155-54.6	35.8	2.8	19	157	137.3	0.13	1.1	2.8	0.10	C
	23	18	33	5.8	19-24.0	155-17.2	14.1	1.8	16	98	1.3	0.06	0.6	0.5	0.10	A
	23	18	33	54.1	19-24.6	155-16.9	14.7	2.5	16	99	0.6	0.06	0.5	0.6	0.08	A
	23	21	45	1.1	19-21.1	155-12.9	9.1	1.7	15	155	2.6	0.11	0.8	0.5	0.12	C
	24	3	17	46.9	19-23.0	155-15.3	2.9	0.7	8	153	1.5	0.09	0.7	0.4	0.09	B
	24	4	23	44.9	19-17.3	155-20.7	9.3	1.7	13	157	3.9	0.08	0.7	0.6	0.12	C
	24	4	50	13.6	19-20.1	155-13.9	9.9	1.3	10	178	3.9	0.13	1.0	0.7	0.11	C
	24	6	14	27.1	19-22.0	155-23.7	8.1	1.3	11	111	3.3	0.12	0.9	1.1	0.17	B
	24	7	37	37.8	19-19.3	155-14.8	10.0	1.2	11	187	4.7	0.15	1.2	0.8	0.14	C
	24	13	8	59.1	19-21.3	155-13.0	7.3	1.5	12	159	2.5	0.16	1.0	0.8	0.16	C
	24	16	15	13.6	19-24.4	155-25.4?	11.7		12	151	8.6	0.08	0.5	1.2	0.06	C
	25	0	59	43.1	19-23.8	155-27.1	11.0	1.8	12	156	9.4	0.12	0.8	1.5	0.07	B
	25	1	18	46.6	19-10.7	155-24.8	14.6*		7	199	17.2	0.29	3.2		0.22	C
	25	2	19	16.3	19-24.1	155-24.2	10.0	2.3	17	74	7.3	0.04	0.4	0.3	0.08	A
	25	3	58	18.5	19-23.5	155-28.2	8.5	1.3	11	137	10.4	0.14	1.1	1.2	0.16	B
	25	4	55	58.1	19-21.7	155-29.5	9.1		12	138	11.2	0.12	1.0	0.9	0.17	B
	25	6	27	55.0	19-25.3	155-29.3	11.0	1.5	8	150	13.3	0.09	0.6	0.5	0.07	B
	25	8	28	13.9	19-24.5	156- 1.0	9.7	2.3	12	286	15.9	1.88	10.7	2.1	0.16	D
	25	8	29	43.1	19-21.3	155-12.7	9.7		15	160	2.3	0.06	0.7	0.3	0.11	C
	25	13	0	15.0	19-20.2	155-26.0	7.5	1.9	13	114	4.8	0.09	0.8	1.0	0.17	B
	25	17	15	7.1	19-20.9	155-16.2	33.1	2.7	18	137	2.6	0.13	0.9	1.3	0.12	B
	26	3	15	42.3	19-28.9	155-50.2?	7.9	2.4	10	153	10.0	0.29	7.0	10.1	0.10	D
	26	6	3	6.2	19-22.8	155-22.6	9.8	2.2	17	70	4.9	0.05	0.5	0.3	0.10	B
	26	13	51	55.6	19-24.9	155-25.2?	10.9	1.4	14	126	9.3	0.06	0.6	0.4	0.10	B
	26	14	32	29.4	19-18.4	155-12.9	5.8	1.0	14	198	7.5	0.19	1.2	1.0	0.18	C
	26	14	37	17.6	19-25.0	155-27.0	10.4	3.4	19	59	10.9	0.09	0.7	0.5	0.17	B
	26	15	43	50.7	19-21.2	155-13.3	9.1	1.1	15	151	3.7	0.13	0.9	0.6	0.15	C
	26	15	44	14.1	19-28.7	155-28.2	13.2	2.0	11	285	8.9	0.41	2.5	0.6	0.08	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
SEP 26	22	0	57.9	19-11.5	155-29.4	35.0	1.9	16	160	14.9	0.37	1.4	3.6	0.10	C
27	2	35	13.6	19-20.9	155-12.3	9.7	2.8	19	165	3.0	0.07	0.7	0.3	0.12	C
27	2	44	32.9	19-20.9	155-11.3	13.9	1.6	9	192	2.9	0.29	1.0	2.0	0.05	C
27	7	27	16.1	19-20.6	155-10.3	15.1	2.1	10	237	2.3	0.32	1.3	2.1	0.06	C
27	8	37	23.1	19-20.5	155-13.6	10.1		16	163	3.9	0.07	0.6	0.3	0.10	C
27	9	41	6.7	19-20.6	155-14.9	31.1	2.0	14	163	2.4	0.17	1.2	1.7	0.10	C
27	19	39	6.9	19-21.1	155-25.5	8.1	2.0	16	95	4.2	0.08	0.8	0.9	0.18	B
27	22	0	16.1	19-13.9	155-22.3	3.7	1.3	12	193	11.8	0.15	1.1	1.5	0.15	C
27	22	1	29.0	19-20.8	155-19.6	2.5	0.9	9	99	4.2	0.08	0.4	0.7	0.09	A
27	22	45	37.3	19-23.8	155-17.7?	3.1	0.5	7	134	1.6	0.88	2.5	4.4	0.29	C
28	1	46	50.5	19-28.2	155-16.0?	3.4	1.2	8	316	5.9	0.70	3.1	3.0	0.20	D
28	1	58	23.9	19-27.1	155-14.5?	8.0*	0.7	7	309	6.0	0.37	5.8		0.38	D
28	2	26	45.1	19-21.4	155-13.2	14.7	1.2	10	156	2.4	0.10	0.9	0.7	0.06	B
28	2	51	29.9	19-24.6	155-16.9	0.0*	0.5	5	205	0.5	0.13	0.6		0.05	D
28	3	18	9.6	19-24.9	155-14.9	3.3	0.8	7	276	3.7		0.5	1.4	0.06	C
28	4	39	56.4	19-18.8	155- 5.7	4.9	2.4	19	194	9.3	0.27	1.5	1.3	0.23	C
28	6	46	41.7	19-21.2	155- 9.4	8.7	1.8	15	173	1.4	0.13	1.1	0.6	0.15	C
28	8	18	44.6	19-24.7	155-16.9	0.0*	0.6	7	163	0.4	0.10	0.5		0.06	C
28	8	27	54.3	19-20.4	155-13.3	9.2	1.7	15	178	4.1	0.13	0.8	0.7	0.13	C
28	8	51	51.3	19-11.2	155-33.2	8.2	2.5	16	139	9.7	0.11	1.1	0.8	0.18	B
28	8	56	28.7	19-21.7	155- 9.5	7.4		13	280	0.9	0.18	1.1	0.6	0.12	C
28	14	14	54.6	19-21.6	155-16.9	27.4	2.0	14	110	2.2	0.33	1.6	3.0	0.11	B
28	14	15	11.8	19-22.5	155-16.1	30.5	2.1	12	117	0.3	0.41	1.7	3.5	0.09	B
28	15	56	15.0	19-19.4	155-24.3	7.8		11	137	2.2	0.12	1.1	0.9	0.15	B
28	18	29	45.5	19-18.5	155-13.0	7.5	2.3	18	175	7.2	0.20	1.3	0.9	0.27	C
28	18	30	44.4	19-18.7	155-13.1	14.6		8	219	6.9	0.09	0.8	0.5	0.04	B
28	18	31	39.7	19-18.6	155-13.1	14.8	1.8	8	220	7.0	0.13	0.9	1.1	0.04	B
28	19	6	8.0	19-10.0	155-23.0	48.0	2.4	13	244	16.5	0.77	2.9	6.0	0.10	D
28	21	48	37.9	19-20.5	155-19.9	2.1		10	110	4.5	0.05	0.3	0.5	0.07	A
29	2	34	15.6	19-22.7	155-15.3	6.1	1.2	12	138	1.2	0.13	0.8	0.8	0.15	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
SEP 29	4	1	37.6	19-22.5	155-17.8	30.9	2.6	21	65	2.5	0.14	0.9	1.4	0.15	B
29	6	36	46.6	19-23.0	155-26.6	6.4	2.3	16	98	7.7	0.10	0.8	0.8	0.20	B
29	7	54	22.0	19-26.0	155-14.6	3.1	0.9	5	320	4.7		2.2		0.15	D
29	12	30	49.6	19-25.1	155-27.1	11.2	1.9	14	216	11.0	0.08	0.6	0.6	0.06	B
29	14	44	26.1	19-21.1	155-10.0	7.4	1.7	13	251	1.4	0.16	1.0	0.5	0.12	C
29	15	59	22.1	19- 8.9	155-36.8	6.6		7	179	9.8	0.18	1.7	1.1	0.10	C
29	16	29	4.9	19-23.5	155-23.3	12.2	1.2	7	219	6.3	0.34	2.0	3.8	0.09	C
29	16	36	40.1	19-21.4	155-25.3	7.8	1.6	14	118	4.1	0.14	1.0	1.4	0.22	B
29	18	43	49.0	19-29.3	155-16.5	0.4*	1.1	7	322	7.4	0.70	2.8		0.18	D
29	19	55	38.8	19-26.4	155-48.8	1.1	2.2	13	155	14.3	0.63	2.2	4.2	0.09	C
29	22	27	7.3	19-20.1	155-19.5	25.1	1.6	10	95	3.7	0.35	1.4	3.2	0.06	B
30	8	8	21.4	19-23.2	155-24.6	5.2	2.3	8	214	6.0	0.12	0.6	0.7	0.07	B
30	10	8	12.9	19-20.3	155-14.2	9.9		17	163	3.4	0.07	0.6	0.4	0.12	C
30	14	22	52.4	19-19.2	155-15.5	11.8		11	183	3.6	0.09	0.5	0.7	0.05	B
30	21	57	18.8	19-45.0	155-17.1?	43.3	2.2	9	261	18.1		6.3		0.28	D
30	21	59	52.1	19-20.9	155-12.3	9.8	1.5	12	174	2.9	0.07	0.6	0.3	0.08	B
30	22	6	28.5	19-21.7	155-12.4	0.3	0.7	7	149	1.4	0.13	0.5	2.8	0.06	B

Table 3.--Felt Earthquakes

Date	Hawaii Standard Time H	M	S	Magnitude	Location of Felt Report
Jul 10	21	40	12.48	3.2	Kalapana
10	21	52	32.36	3.1	Kalapana
15	16	12	19.59	3.5	Hilo
21	22	46	34.14	2.9	Kealakekua
22	16	15	58.12	3.8	Paauilo, Papaikou, Honokaa
Aug 4	21	45	46.84	2.8	Kapapala Ranch
7	10	23	08.00	3.7	Paauilo, Paauhau, Honokaa, Hilo, Pohakuloa, Waimea
16	07	41	53.13	4.4	Hilo
17	23	28	00.52	3.5	Kapapala Ranch
Sep 21	01	26	36.11	4.5	Island-wide
26	14	37	17.65	3.4	Kapapala Ranch

Acknowledgements: Several people felt earthquakes during the third quarter of 1970 and reported their observations to HVO; that information is gratefully acknowledged.

JUL '70 – SEPT '70

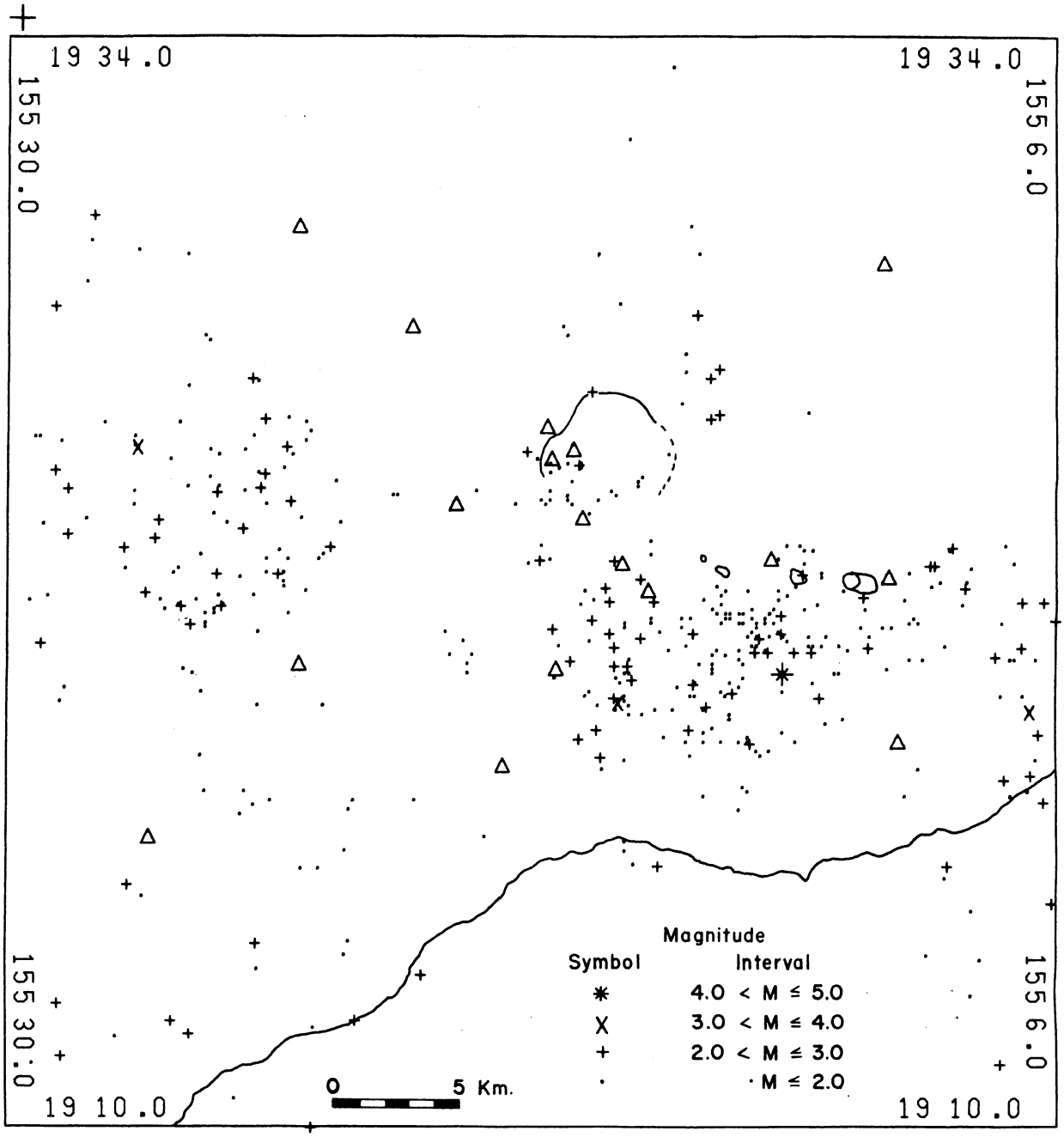

Figure 1.--Plot of epicenters in the Kilauea region. Triangles are seismometer locations. Kilauea Caldera and the major pit craters on the east rift are shown in outline. The Pacific Ocean lies in the lower right portion of the illustration.

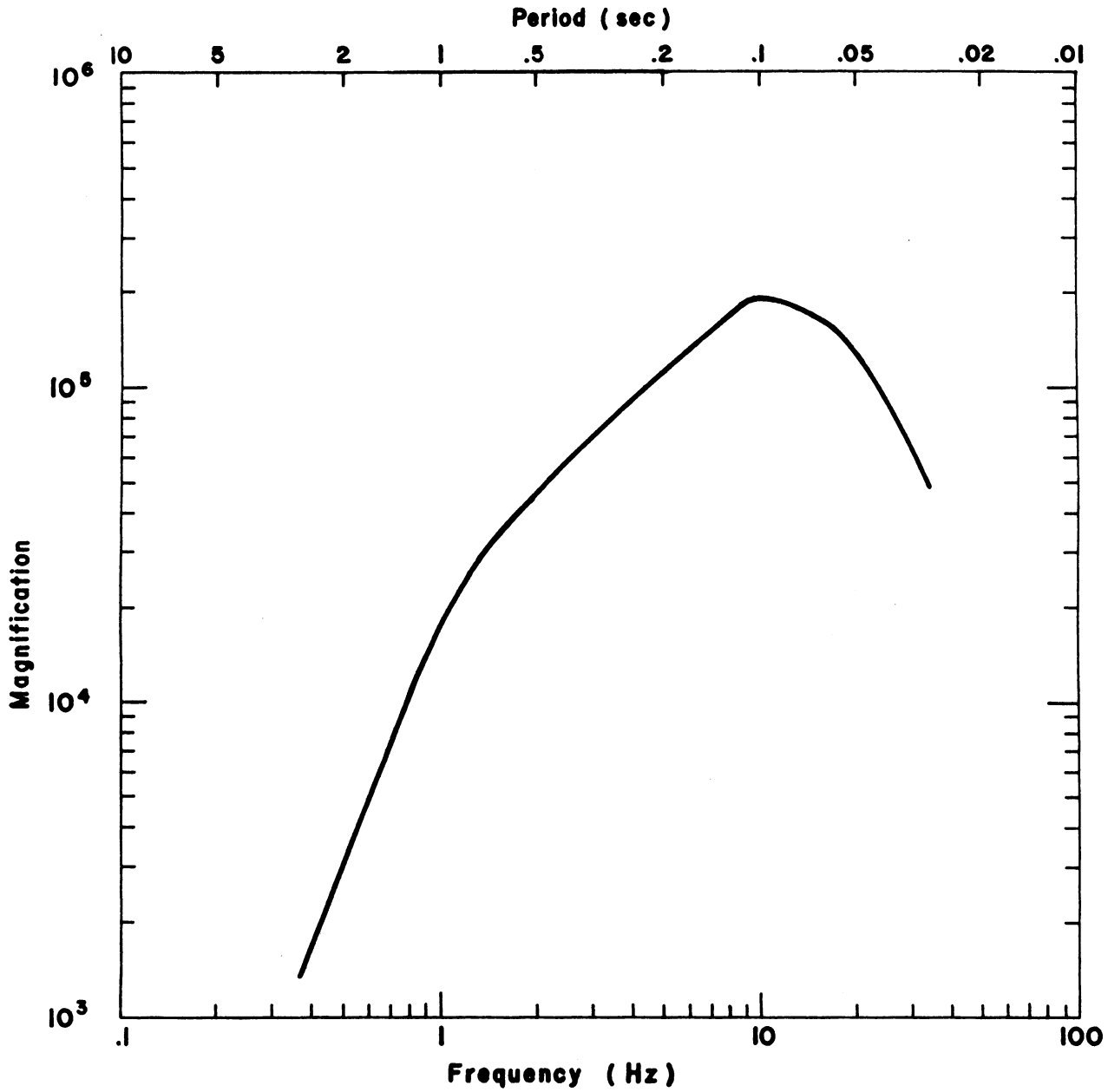

Figure 2.--Response curve for System II, EV-17, Teledyne seismic preamplifier.

Table 4. Seismometer stations in Hawaii operated by the U. S. Geological Survey.

STATION NAME	CODE	LAT-N	LONG-W	ELEV	TYPE	CAL	VCO	RADIO	REMARKS
AHUA	AHU	19 22.40	155 15.90	1070	3	6.0	2380		
CONE PEAK	CPK	19 23.70	155 19.70	1038	3	1.34			
DESERT	DES	19 20.20	155 23.30	815	3	1.34			
EAST KOAE	EKO	19 22.17	155 14.99	1000	3				
HALE POHAKU	HPU	19 46.85	155 27.50	3396	1	5.6	1360	RF6	
HILINA PALI	HLP	19 17.96	155 18.63	707	3	6.0	2040		
KAHUKU	KHU	19 14.90	155 37.10	1939	1	5.7	1700	RF3	
KIPUKA NENE	KPN	19 20.10	155 17.40	924	3	1.34			
LAVA FLOW	LAF	19 28.70	154 53.80	210	1				Temporary
LOWER STATION	LOS	19 28.40	154 53.10	180	1				Temporary
MAUNA LOA	MLO	19 29.80	155 23.30	2010	1	6.5	1360		
MAUNA LOA X	MLX	19 27.60	155 20.70	1475	3	1.34			
MAKAOPUHI	MPR	19 22.07	155 9.85	881	1	5.7	2720	RF5	
NORTH PIT	NPT	19 24.90	155 17.00	1115	3	1.34			
OUTLET	OTL	19 23.38	155 16.94	1038	3	5.0			
PUU HONUAULA	PHO	19 28.90	154 53.40	215	1	6.5	2720	RF1	
PUU HULUHULU	PHH	19 22.45	155 12.66	988	3				
WAIOHINU	WAO	19 3.60	155 36.60	425					Discontinued 9/1/70
WEST PIT	WPT	19 24.70	155 17.50	1115	3	1.34			
OPTICAL SEISMOGRAPHS									
HALEAKALA Z	HAL	20 46.00	156 15.00	2090	3	0.71			
HALEAKALA EW	HAE	20 46.00	156 15.00	2090	3	1.0			Wood-Anderson
HALEAKALA NS	HAN	20 46.00	156 15.00	2090	3	1.0			Wood-Anderson
HILO Z	HIL	19 43.20	155 5.30	20	3	1.0			
HILO EW	HIE	19 43.20	155 5.30	20	0	1.0			Wood-Anderson
HILO NS	HIN	19 43.20	155 5.30	20	0	1.0			Wood-Anderson
KAHUELA	KAH	20 1.90	155 42.00	740	2	0.7			
KEALAKEKUA Z	KLK	19 31.20	155 55.30	505	2	1.0			
KEALAKEKUA EW	KLE	19 31.20	155 55.30	505	2	0.34			
KEALAKEKUA NS	KLN	19 31.20	155 55.30	505	2	0.34			
KIPAPA	KIP	21 25.40	158 .90	76	3	0.56			
UWEKAHUNA Z	UWE	19 25.40	155 17.60	1240	3	0.7			
UWEKAHUNA Z	USZ	19 25.40	155 17.60	1240	4	1.0			
UWEKAHUNA EW	USE	19 25.40	155 17.60	1240	4	1.0			
UWEKAHUNA PEZ		19 25.40	155 17.60	1240					15-90 Press Fwing
UWEKAHUNA PEE		19 25.40	155 17.60	1240					
UWEKAHUNA PEN		19 25.40	155 17.60	1240					

Table 5.--Seismic Instrumentation

1. SEISMOMETERS

EV-17	Electrotech EV-17 1.0 sec period moving magnet vertical component seismometer.
EV-17H	Same as above, but horizontal component.
HS-10	Hall-Sears 0.5 sec period moving coil seismometer.
HVO-2	0.8 sec period moving coil seismometer.

2. SEISMOGRAPHS

HVO-1	Vertical-component electromagnetic seismograph with a peak magnification of about 20,000 at 0.25 sec.
15-90	Press-Ewing System: 3-component long-period Press-Ewing seismograph system with pendulum and galvanometer periods of 15 and 90 seconds, respectively.
EV-17/3.5 cps	galv, EV-17 H/3.5 cps galv, etc. Short-period electromagnetic seismographs composed of the seismometers and galvanometers indicated. Response similar to HVO-1. Poorly calibrated.

3. AMPLIFIER AND SIGNAL TRANSMISSION SYSTEMS

System I	HVO-built solid-state seismic preamplifier (voltage gain, 200x), direct signal transmission over hard wire to HVO, HVO-built solid-state amplifier and galvanometer driver.
System II	Develco or Teledyne seismic preamplifier--voltage controlled oscillator, signal transmission on audio FM carrier over hard wire or FM radio link to HVO, discriminator
Geotech PTA	Short-period Geotech photo-tube amplifier.

4. TIMING SYSTEMS

RM-USGS	Crystal-controlled chronometer employing solid-state binary dividers to produce minute and hour marks. Typical drift rates are a few milliseconds per day.
TS-100	Sprengnether crystal-controlled chronometer. Output and performance characteristics are similar to those of RM-USGS.

5. TELEMETERED SYSTEM RESPONSE

The peak magnification of the standard telemetered systems (Systems II, with the film strip magnified 20 times for viewing) is about 2×10^5 at a period of 0.1 sec. For periods between 0.1 and about 1.0 sec, the response falls off 6 db/octave (fig. 3).

TILTING OF THE GROUND AROUND KILAUEA CALDERA

Tilting of the ground around the summit of Kilauea is monitored daily by a short-base water-tube tiltmeter in the Uwekahuna Vault; weekly results are summarized in Table 6. At irregular intervals tilt is measured on a regional scale by means of a network of field tilt-bases and a portable water-tube tiltmeter, and these results are summarized in Table 7. The attitude of the ground surface at each tilt-base is reported in terms of north-south and east-west tilt coordinates. Both coordinates at each station were arbitrarily set equal to 500 when measurements at that station were begun. Increasing tilt coordinates correspond to northward and eastward tilting of the earth's surface; that is, to a relative subsidence toward the north and east. A one-unit change in coordinate corresponds to a tilting of 1 microradian (1 mm per km) in the direction indicated.

Location of tiltmeter stations and essential data on each station are listed in Table 8, Summary 57.

Table 6.--Tilt Coordinates at Uwekahuna Vault, July, August, and September 1970

Date	N-S	E-W	Date	N-S	E-W
July 5	559	380	Sept. 6	562	366
12	559	380	13	562	366
19	559	380	20	561	367
26	560	382	27	561	366
Aug. 2	560	380			
9	560	379			
16	561	380			
23	562	379			
30	562	370			

Table 7.--Tilt coordinates and changes at long-base tilt station around Kilauea Caldera (See fig 4).

Tilt Base	Date (1970)	Tilt Coordinates		Rate (10^{-6} rad/mo) and Direction of Tilting Since Last Reading		Date of Last Reading (1970)
		N-S	E-W			
Uwekahuna (U on fig 4)	9 sep	624.4	338.1	2.16	N52.3°W	22 May
Tree Molds (TM)	9 Sep	494.0	492.0	1.27	N47.8°W	18 May
Sand Spit (SS)	10 Sep	1039.0	601.1	0.37	S48.3°W	20 May
Keamoku (Kea)	10 Sep	542.6	362.7	1.35	N78.2°W	20 May
Ahua Kamokukolau (Kam)	11 Sep	333.2	508.9	0.87	N15.3°W	21 May
Kipuka Nene (KN)	11 Sep	293.5	503.9	0.69	N41.9°W	21 May
Hilina Pali (HP)		N O T R E A D T H I S E P O C H				
Kapapala Ranch (Kap)	10 Sep	486.9	518.1	0.24	N49.1°W	20 May
Mehana (M)	9 Sep	591.8	597.7	1.27	N50.5°E	18 May

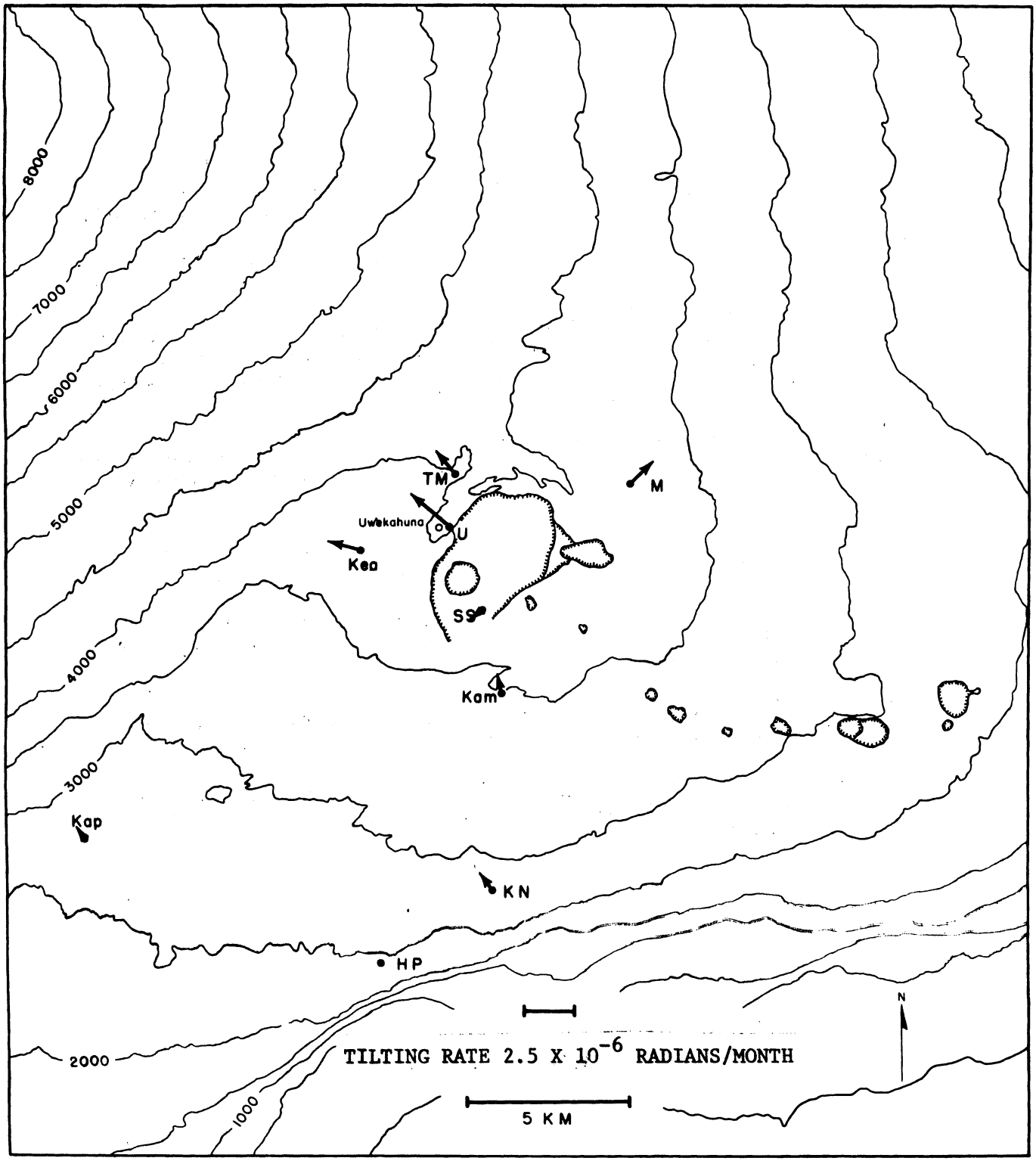

Figure 3.--Tilting of the ground around Kilauea Caldera between May 18, 1970, and September 9, 1970. The vector depicting tilting at a given tilt base points in the direction of maximum relative subsidence and has a length proportional to the rate of tilting during the measurement interval. Closed circles represent field tilt bases; open circle, short-base water-tube tiltmeter (See Table 7 for explanation of abbreviations).

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Hawaiian Volcano Observatory

Summary 60

October, November, and December 1970
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Trilateration Network on Kilauea, Fall 1970
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Tables (Continued)

CONTENTS

Illustrations

Tables

CHRONOLOGICAL SUMMARY

The Mauna Ulu eruption continued throughout this quarter following basically the pattern developed in August 1970. A pool of lava, slowly circulating from west to east, persisted in the summit fissure of Mauna Ulu but did not overflow. The surface of this pool was generally 15 to 25 m below the rim but occasionally dropped to 30 m and once, on December 5, rose to within 6 m of the rim. Weak spattering was nearly continuous at the east end of the pool, and brief episodes of low fountaining related to transient degassing took place in other parts of the pool. The fissure walls collapsed markedly, and the fissure widened by more than 20 m in places as a result of such collapse, especially in December.

A chain of several vents, some briefly active and others more persistent, extended down the east flank of Mauna Ulu to a point just north of the north rim of Alae. These vents, probably large skylights in an underground lava stream connected to the summit fissure, overflowed at times feeding small short-lived flows. Some of these flows entered the subsidence bowl in Alae, piling up and creating a lava fan that partly filled the bowl (Swanson and Peterson, 1972). More commonly, the vents did not overflow, but lava or a distinct glow could be seen within them at depths of several meters. When the lava could be seen clearly, a distinct eastward current was discernible. Five collapse pits, or large skylights, formed along the chain of vents on October 26, November 5 and 13, and December 8 and 20; these pits were as much as 40 m in diameter (Figure 1).

For most of the quarter, lava continued to flow through a tube from the eastern end of the chain of vents into the Alae holding reservoir. From Alae, the lava flowed through a tube system as far as the flat below Holei Pali. This tube system and the relation of the Alae reservoir to it are described by Swanson (1973) and Swanson and Peterson (1972). No lava entered the ocean during this period.

A brief but significant change in this overall scheme of activity took place between October 26 and November 2. Flow in the tube system stopped on October 26, and the only visible lava was in the collapse pit that formed on that day and in Mauna Ulu's fissure. This pause was accompanied by swelling of the Kilauea summit area and a swarm of shallow caldera earthquakes. Apparently, a blockage had developed somewhere in the Volcano's plumbing. However, the swelling caused by this blockage was relieved on October 28 when copious overflows began from most of the vents on Mauna Ulu's east flank, summit tilt dropped slightly, and the caldera quakes stopped. Flows fed by these and related overflows during the next several days ultimately reached as far as the area due north of Kane Nui o Hamo. During this time, lava in the new collapse pit participated in a cyclic rise-fall (gas-piston) cycle like that which has characterized the Mauna Ulu summit vent throughout the eruption. Finally, lava reentered the tube system connected with Alae on November 2 and the prevailing pattern was once more reestablished.

For much of November and December, lava in the collapse pits of October 26 and November 13 (only 100 m apart) (Figure 1) took part in a rise-fall cycle that demonstrated a connection between them. The two pits were on a nearly synchronous schedule, except that the eastern pit, 10 m lower in elevation, would begin to overflow sooner than the upper pit.

On November 29, a new collapse area formed near the site of the November 13 pit. By late December it reached 230 m in length, 35 m in width, and more than 15 m in depth. Lava in this collapse trench was observed to feed the inlet tube to Alae. Between December 6 and 8, overflows from the October 26 pit spilled into the trench nearly filling it with thin flows that quickly solidified. However, another collapse event on December 8 reestablished the November 13 pit at the west end of the filled trench, and a pool of molten lava occupied this new pit. On December 13 the vigorous subsurface flow of lava between these pits and Alae stopped, although some flow probably continued into Alae through a deeper tube. A sulfur-encrusted cone 100 m from the summit fissure collapsed, leaving a pit 20 by 35 m in diameter. From December 21 to 24, a very active stream of lava flowed eastward beneath the pits of December 20, October 26, and December 8 at a depth of 20 to 30 m below the surface. The pits progressively enlarged as their unsupported walls caved into the lava, especially at their west and east ends. Consequently, the pits became elongated and began to grow toward each other. On December 31, only two unstable bridges kept the separate pits from merging into a single elongate collapse trench (Figure 1b).

TRILATERATION NETWORK ON KILAUEA

The trilateration network in Kilauea was expanded during the fall of 1970 to cover most of the volcano. This network should provide a base for monitoring future horizontal deformation of Kilauea. The network is shown in Figure 2; in addition, there are many stations in the summit area of Kilauea as shown in Kinoshita and others (in press). The locations of all previously established stations are shown on Figure 3; most of these stations are in the 1970 network, but others were included in our survey only in order to enable comparison with past surveys. The locations of previous stations are obtainable from the Topographic Division of the U. S. Geological Survey, and those of the new stations from the Volcano Observatory.

We attempted to make the survey figures as strong as possible geometrically but geologic considerations along with unfavorable topography and dense vegetation resulted in many figures being rather weak. Nonetheless, only six stations are located by the minimal two distances and these are not critical to the rest of the network.

Most of the network was measured between late August and mid-September 1970; a few distances, chiefly those necessary to tie in previous surveys, were measured over the following two months. We could not recognize any significant deformation of Kilauea during this time, so the network can probably be considered to have been measured virtually instantaneously. Helicopter support was necessary for work on the south flank and southwest rift for transport to Kalalua Cone.

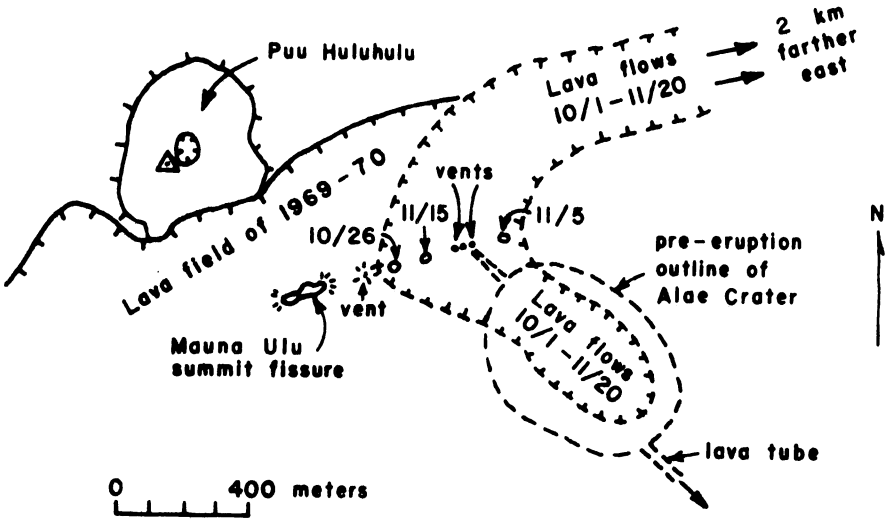

Figure 1a

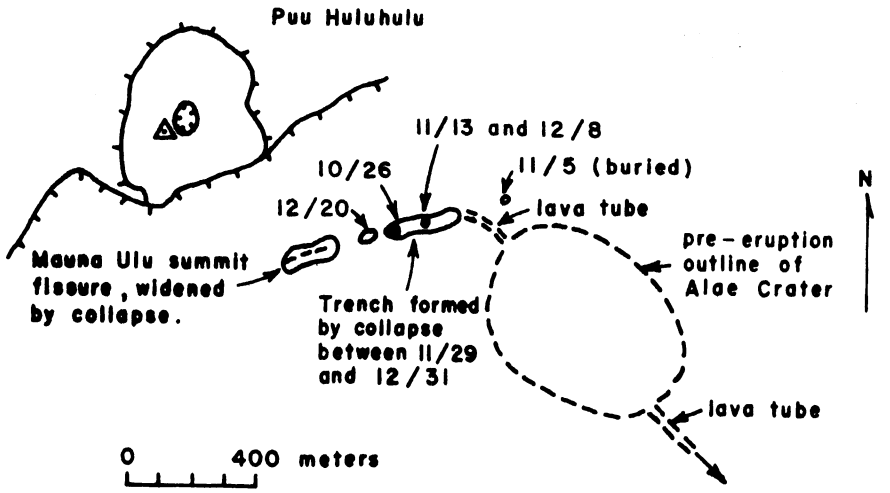

Figure 1b

Figure 1.--Sketch map showing approximate location of major events in the Mauna Ulu area during the fourth quarter of 1970. Figure 1a shows configuration on November 20, including location of vents and collapse craters on Mauna Ulu's east flank and the approximate outline of surface lava flows which extended about 2 km farther east than shown by the map. Figure 1b shows the configuration on December 31 after additional pits had developed, and some had merged to form an elongated trench.

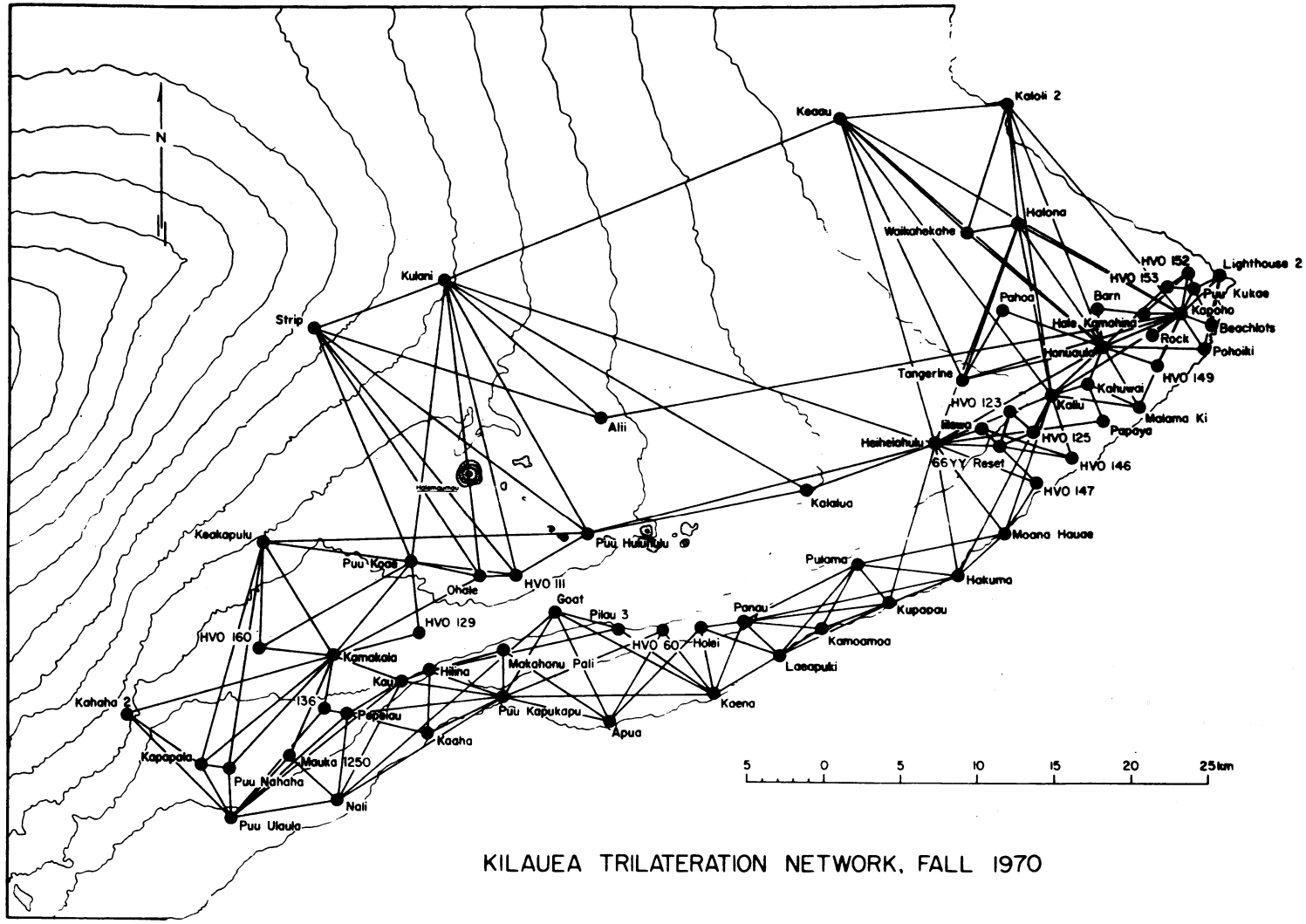

Figure 2.--Distances measured in the Kilauea trilateration network. Many other distances in the summit region (Kinoshita and others, in press) are measured periodically.

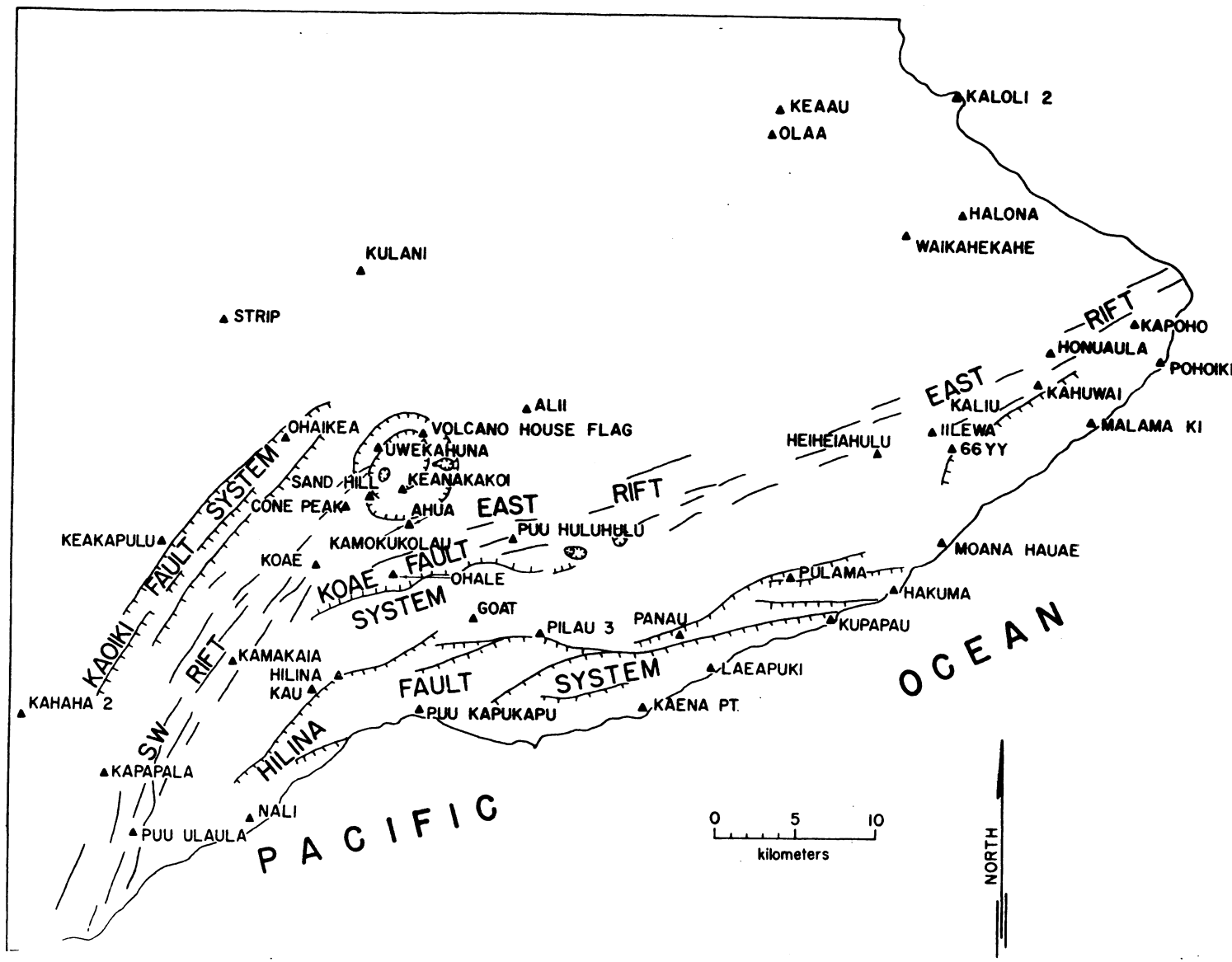

Figure 3.--Locations of all but one previously existing triangulation stations occupied in the 1970 trilateration survey. The missing station, Kaiwiki New, is about 18 km north-northwest of Keaau, on the lower slope of Mauna Kea. Major structures of Kilauea are schematically shown.

The distances were measured once each (rarely, twice) with a Model 8 Geodimeter. No difference between the three frequency readings, D_1, D_2, and D_3, greater than 25 mm was tolerated, and most differences were 5 to 15 mm. All measurements were made between 0900 and 1700 (mostly before 1600) in order to minimize diurnal temperature and pressure changes. Temperatures at both ends of each measured line were obtained from good quality mercury thermometers shielded from direct sunlight but open to air circulation. The thermometers were suspended about 6 m above ground. Barometric pressures were determined with high quality Wallace and Tiernan barometers at each end of the line. Endline temperatures and pressures were read before and after each shot and were averaged in the final calculations. A constant humidity correction of 0.5 ppm was applied. Distances were corrected for beam and earth curvature using the formula, $C = (1-K)^2 D^3/24\ R^2$, where D is slope distance in meters, R is earth's radius in meters, and K is assumed to be 0.20 (Höpcke, 1966; Meade, 1969). Each distance measured was reduced first to the horizontal at the elevation of the lower station; the necessary vertical angles were computed from station elevations known or estimated from 20-ft contour maps. The distances were then reduced to sea level, following the procedure outlined by Gossett (1959, pp 234-235). Programs were written for a Wang calculator to handle all the reductions and a summary of the reductions is on file at the Volcano Observatory. The final reduced distances are given in table 1, which includes all shots in the network as well as those necessary to tie in previous surveys. No least-squares adjustment of the network internal consistency was made for we considered it best when comparing triangulation and trilateration data to use unadjusted measurements.

Table 1.--Final 1970 geodimeter measurements, in meters, reduced to sea level.

1.	HV0129-Koae	4,372.361
2.	HV0129-Kamakaia	6,305.522
3.	Kau-Hilina	2,020.616
4.	Kau-Kamakaia	5,192.126
5.	Kau-Pepeiau	4,073.183
6.	136-Kamakaia	3,792.796
7.	136-Pepeiau	1,832.556
8.	Kamakaia-Mauka 1250	6,960.194
9.	Kamakaia-Puu Ulaula	12,441.715
10.	Mauka 1250-Puu Ulaula	5,731.351
11.	Kau-Puu Ulaula	14,423.194
12.	135-Puu Ulaula	9,278.157
13.	Puu Ulaula-Puu Nahaha	3,293.141
14.	Puu Ulaula-Pepeiau	10,353.488
15.	Puu Ulaula-Kapapala	4,146.403
16.	Puu Ulaula-Nali	6,830.812
17.	Nali-Pepeiau	5,977.434
18.	Nali-Mauka 1250	4,485.762
19.	Nali-Puu Kapukapu	13,304.687
20.	Nali-Kau	9,416.448
21.	Nali-Goat	19,347.512
22.	Kaaha-Puu Kapukapu	6,797.933
23.	Kaaha-Hilina	5,339.504
24.	Kaaha-Pepeiau	4,446.224
25.	Pilau 3-Hilina	12,859.372
26.	Pilau 3-Goat	4,366.121
27.	Pilau 3-Kaena Pt.	8,048.895
28.	Makahanu Pali-Puu Kapukapu	2,736.931
29.	Makahanu Pali-Hilina	5,556.769
30.	Puu Kapukapu-Pepeiau	10,141.569
31.	Puu Kapukapu-Hilina	5,431.211
32.	Puu Kapukapu-Goat	6,521.382
33.	Puu Kapukapu-Kau	6,910.325
34.	Puu Kapukapu-HV060	11,470.174
35.	Apua-Goat	8,238.758
36.	Apua-Makahanu Pali	7,836.096
37.	Apua-HV060	7,230.411
38.	Apua-Puu Kapukapu	7,171.000
39.	Kaena Pt.-Goat	12,273.493
40.	Kaena Pt.-HV060	5,548.909
41.	Kaena Pt.-Puu Kapukapu	14,528.096
42.	Panau-Laeapuki	2,978.626
43.	Panau-Kaena Pt.	4,552.013
44.	Panau-Kamoamoa (HV0158)	4,522.543
45.	Panau-Pulama	7,813.588
46.	Panau-Hakuma	13,638.022
47.	Panau-Kupapau	9,408.834
48.	Kamakaia-Koae	7,916.170
49.	Kamakaia-Keakapulu	8,821.719
50.	Kamakaia-HV0160	4,564.017

Table 1.--Final 1970 geodimeter measurements, in meters, reduced to sea level (Cont'd)

51.	Kamakaia-Puu Nahaha	9,754.445
52.	Kamakaia-Kapapala	10,611.925
53.	Keakapulu-Kapapala	14,380.639
54.	Keakapulu-Puu Nahaha	14,623.370
55.	Keakapulu-HV0160	6,655.751
56.	Kapapala-Puu Nahaha	1,769.620
57.	Koae-Keakapulu	10,404.766
58.	Koae-Strip	16,552.115
59.	Koae-Kulani	18,436.152
60.	Koae-HV0160	11,140.506
61.	Laeapuki-Kaena Pt.	4,177.263
62.	Laeapuki-Pulama	7,639.911
63.	Kamoamoa (HV0158) - Pulama	4,512.883
64.	Kamoamoa (HV0158) - Laeapuki	3,232.288
65.	Kupapau-Laeapuki	8,029.370
66.	Kupapau-Pulama	3,587.826
67.	Kupapau-Heiheiahulu	10,913.022
68.	Kupapau-Hakuma	4,394.006
69.	Hakuma-Heiheiahulu	8,741.897
70.	Hakuma-Pulama	6,461.037
71.	Hakuma-Moana Hauae	4,177.272
72.	Moana Hauae-Pulama	9,646.205
73.	Moana Hauae-Heiheiahulu	7,071.189
74.	HV0147-Heiheiahulu	7,624.278
75.	HV0147-Moana Hauae	4,160.641
76.	66YY Reset-Heiheiahulu	4,790.289
77.	66YY Reset-HV0125	1,762.606
78.	66YY Reset-HV0147	3,596.809
79.	Kaliu-Halona	11,617.347
80.	Kaliu-Hakuma	13,387.104
81.	Kaliu-Moana Hauae	9,479.827
82.	Kaliu-Keaau	22,235.425
83.	Kaliu-Kapoho	9,734.721
84.	Kaliu-66YY Reset	4,161.570
85.	Kaliu-Honuaula	4,425.810
86.	Kaliu-HV0125	3,028.773
87.	Kaliu-Kahuwai	2,657.955
88.	Kaliu-Heiheiahulu	8,112.779
89.	Papaya (HV0157) - Kahuwai	3,033.904
90.	Papaya (HV0157) - Heiheiahulu	10,566.079
91.	Iilewa-Heiheiahulu	3,708.644
92.	Iilewa-66YY Reset	1,778.787
93.	Iilewa-HV0146	6,007.179
94.	Halona-Keaau	12,927.696
95.	Halona-Kapoho	12,478.057
96.	Halona-Heiheiahulu	15,399.656
97.	Halona-Honuaula	9,978.639
98.	Halona-Waikahekahe	3,692.674
99.	Halona-Tangerine (HV0148)	10,924.808
100.	Halona-Kaloli 2	7,381.488

Table 1.--Final 1970 geodimeter measurements, in meters, reduced to sea level. (Cont'd)

101.	Keaau-Kaloli 2	10,929.932
102.	Keaau-Heiheiahulu	21,550.349
103.	Keaau-Tangerine(HV0148)	18,523.877
104.	Keaau-Waikahekahe	10,749.154
105.	Honuaula-Kahuwai	2,164.178
106.	Honuaula-Heiheiahulu	12,343.353
107.	Honuaula-HV0149	3,329.064
108.	Honuaula-Waikahekahe	11,496.620
109.	Honuaula-HV0152	7,581.277
110.	Honuaula-Pohoiki	6,855.529
111.	Honuaula-HV0153	5,887.652
112.	Honuaula-Barn(HV0159)	2,287.226
113.	Halekamahina(HV0155)- Rock(HV0154)	1,188.731
114.	Halekamahina(HV0155)- Pohoiki	4,675.552
115.	Halekamahina(HV0155)- Kapoho	2,322.956
116.	Halekamahina(HV0155)- Honuaula	3,474.681
117.	Halekamahina(HV0155)- Barn(HV0159)	3,008.427
118.	Rock(HV0154)-Pohoiki	3,979.273
119.	Rock(HV0154)-Kapoho	2,377.966
120.	Lighthouse 2 (HV0151) - Beachlots(HV0150)	2,745.356
121.	Lighthouse 2 (HV0151) - Puu Kukae(HV0156)	2,396.645
122.	Lighthouse 2 (HV0151) - Pohoiki	4,816.418
123.	Lighthouse 2 (HV0151) - Kapoho	3,726.131
124.	Beachlots(HV0150) - Kapoho	2,296.709
125.	Beachlots(HV0150) - Puu Kukae(HV0156)	2,450.312
126.	Beachlots(HV0150) - Pohoiki	2,071.758
127.	Puu Kukae(HV0156) - HV0153	1,491.519
128.	Puu Kukae(HV0156) - HV0152	1,763.890
129.	HV0153-HV0152	1,706.587
130.	Kapoho-Puu Kukae(HV0156)	1,641.377
131.	Kapoho-HV0152	3,249.134
132.	Kapoho-Honuaula	5,519.644
133.	Kapoho-Pohoiki	2,904.057
134.	Kapoho-HV0149	3,901.878
135.	Kaloli 2-Waikahekahe	9,045.629
136.	Kaloli 2-Kapoho	17,776.150
137.	Kaloli 2-Honuaula	16,802.303
138.	Tangerine (HV0148)-Kapoho	14,417.664
139.	Tangerine (HV0148)-Honuaula	8,917.633
140.	Tangerine (HV0148)-Pahoa (HV0161)	5,233.361
141.	Pahoa (HV0161)-Honuaula	7,255.425
142.	HV0146-66YY Reset	4,469.637
143.	HV0146-Kaliu	4,203.344
144.	Malama Ki-Kaliu	5,930.867
145.	Malama Ki-Honuaula	5,057.450
146.	Malama Ki-Kahuwai	4,061.340
147.	Malama Ki-Kapoho	6,745.691
148.	Heiheiahulu-Puu Huluhulu	23,349.339
149.	Heiheiahulu-Kulani	34,125.052
150.	Kulani-Keaau	27,984.684

Table 1.--Final 1970 geodimeter measurements, in meters, reduced to sea level. (Cont'd)

151.	Kulani-Puu Huluhulu	19,193.192
152.	HVO111-Puu Huluhulu	5,627.569
153.	HVO111-Strip	20,885.590
154.	HVO111-Kulani	19,386.007
155.	HVO111-Keakapulu	17,586.263
156.	PUU Huluhulu-Keakapulu	22,647.315
157.	Puu Huluhulu-Strip	23,148.590
158.	Keaau-Honuaula	22,229.102
159.	Keaau-Kapoho	25,398.737
160.	HVO123-66YY Reset	1,344.179
161.	HVO123-HVO125	2,085.413
162.	Alii-Kulani	13,541.769
163.	Alii-Strip	20,358.845
164.	Alii-Kapoho	38,144.855
165.	Kalalua-Kulani	27,761.023
166.	Kalalua-Heiheiahulu	8,271.285
167.	Kalalua-Puu Huluhulu	15,088.731
168.	Olaa-Honuaula	21,948.322
169.	Olaa-Heiheiahulu	20,593.275
170.	Olaa-Kapoho	25,368.791
171.	Kaloli 2-Kaliu	18,960.631
172.	Kaloli 2-Olaa	11,725.933
173.	Olaa-Keaau	1,350.354
174.	Olaa-Kulani	27,003.954
175.	Kulani-Strip	9,559.139
176.	Olaa-Kaliu	21,696.355
177.	Holei (HVO162)-Panau	3,040.039
178.	Holei (HVO162)-Apua	8,660.297
179.	Holei (HVO162)-Laeapuki	5,233.460
180.	Holei (HVO162)-Kaena Pt.	3,880.220
181.	Keakapulu-Uwekahuna	15,383.470
182.	Keakapulu-Ohale	15,262.753
183.	Uwekahuna-Sand Hill	3,155.613
184.	Uwekahuna-Keanakakoi	3,077.184
185.	Uwekahuna-Ahua Kamokukolau	5,124.748
186.	Uwekahuna-Cone Peak	3,893.306
187.	Sand Hill-Ahua	3,069.590
188.	Sand Hill-Cone Peak	1,625.521
189.	Sand Hill-Keanakakoi	2,090.594
190.	Sand Hill-Koae	5,275.225
191.	Ahua Kamokukolau-Keanakakoi	2,078.123
192.	Ahua Kamokukolau-Cone Peak	4,496.031
193.	Ahua Kamokukolau-Koae	6,473.669
194.	Ohale-Cone Peak	5,526.545
195.	Ohale-Ahua Kamokukolau	3,319.567
196.	Ohale-Koae	4,857.979
197.	Ohale-Uwekahuna	7,854.841
198.	Ohale-HVO111	2,332.273
199.	Uwekahuna-Koae	8,178.144
200.	Uwekahuna-Volcano House Flag	3,075.886

Table 1.--Final 1970 geodimeter measurements, in meters, reduced to sea level. (Cont'd)

201.	Ohaikea-Volcano House Flag	8,869.570
202.	Ohaikea-Ohale	10,813.479
203.	Ohaikea-Uwekahuna	5,950.180
204.	Ohaikea-Sand Hill	6,503.523
205.	Ohaikea-Keanakakoi	8,099.865
206.	Volcano House Flag-Keanakakoi	3,875.229
207.	Kahaha 2-Puu Ulaula	9,859.145
208.	Kahaha 2-Kamakaia	13,871.647
209.	Kahaha 2-Kapapala	6,172.983
210.	Kamakaia-Strip	21,257.909
211.	Kamakaia-Uwekahuna	15,987.265
212.	Kamakaia-Ohale	11,392.540
213.	Kaiwiki New-Kulani	31.423.553
214.	Kaiwiki New-Keaau	18,254.385
215.	Hakuma 1891-Heiheiahulu	8,614.906
216.	Hakuma 1891-Kaliu	13,305.151
217.	Hakuma 1891-Moana Hauae	4,131.061
218.	Uwekahuna-Strip	13,011.875
219.	Uwekahuna-Puu Huluhulu	10,156.450
220.	Uwekahuna-Kulani	11,073.963
221.	Ohale-Strip	19,406.832
222.	Ohale-Puu Huluhulu	7,803.000
223.	Ohale-Kulani	18,927.582
224.	Heiheiahulu-Kapoho	17,804.534
225.	West Heiheiahulu-Kulani	34,026.251
226.	West Heiheiahulu-Olaa	20,510.533
227.	West Heiheiahulu-Kaloli 2	22,319.040
228.	Ohaikea-Koae	8,020.553

SEISMIC SUMMARY

Events recorded by the U.S. Geological Survey seismograph network in Hawaii fall into two categories:

1. Local earthquakes and tremor originating in the region of the Hawaiian Islands (usually within 100 km of at least one seismograph).

2. Distant earthquakes originating more than 3,000 km from Hawaii.

As an index of seismic activity at Hawaiian volcanoes, daily counts of earthquakes and minutes of tremor recorded by seismographs in Hawaii are listed in table 2. The earthquakes are separated in groups on the basis of region of origin as determined by the analysis of records obtained daily at the observatory (UWE, MLO, MLX, AHU, DES, NPT, WPT, MPH, KMO, OTL).

Computer locations of well recorded events are listed in table 3. The location of each seismograph station is listed in table 5, along with a description of the equipment at each station.

Acknowledgements

Several people or agencies reported "felt" earthquakes during this quarter of 1970. Their assistance is gratefully acknowledged.

Table 2.--Number of earthquakes and minutes of tremor recorded on seismographs around Kilauea Caldera

Tremor is separated into three categories: deep, intermediate, and shallow on the basis of relative amplitude on seismographs in the summit region. Unless otherwise stated, tremor is presumed to be associated with movement of magma within the central complex of Kilauea Volcano.

Earthquake categories are: Kilauea summit: 30 km, earthquakes from a source about 30 km beneath the summit region; long-period, earthquakes characterized by low-frequency waves that originate about 5 km or deeper beneath Kilauea summit; and shallow earthquakes in the Kilauea Caldera region, a few km deep. SW Rift and Kaoiki: earthquakes along the southwest rift zone of Kilauea and the adjacent portions of the Kaoiki fault system. Upper East Rift: earthquakes from the upper east rift zone and the adjacent fault systems of Kilauea's south flank. Koae: earthquakes along the northeast-trending Koae fault system south of the caldera. Lower East Rift: earthquakes from the lower east rift zone of Kilauea.

Date (1970)	Tremor (m = minutes)			Number of Earthquakes								
				Kilauea Summit			SW Rift and Kaoiki	Upper[1/] East Rift	Lower[2/] East Rift	Others	Remarks
	Deep	Intermediate	Shallow	30 KM	Long Period	Shallow					
Oct 1			Fluctuating at low levels near eruptive site on upper east rift	5	7	222	28	39	2		
2				3		194	21	34	4		
3				12	5	104	22	20	5		
4				6	3	450	25	?	5		NPT instrument adjusted
5				6		645	12	22	1		
6				14		742	31	24	3		
7				2	3	789	20	12	2		
8				6	1	381	8	8?	2		
9				7		365	21	11	5		
10				6		443	29	16	3		
11		11m		4		?	27	?	4		
12		14m		7	4	548	19	31	9		
13	8m	10m		4	4	555	28	23	11		
14				6	2	566	12	26	6		

15	76m			5	5	523	22	19	14	
16				2	3	633	16	12?	6	
17				2	7	468	20	15?	5	
18	8m			6		293	32	31	4	
19				8	4	325	15	18	6	
20	30m			1	7	1035	18	41	4	
21				1	1	795	21	44	2	
22				2	5	545	18	39	6	
23				2		1685	37	68	6	
24				1	3	2710	42	45	7	
25				25	3	4035	25	84?	8	
26		5m		12	11	3175	25	45	5	
27				6	3	1730	20	49	10	
28				1		509	13	16	6	
29	45m			1		473	18	33	7	
30				6	1	331	16	25	?	
31				3	6	373	32	20	?	
Nov 1				3	1	380	16	17	?	
2				4	2	305	20	12?	?	
3				5	6	320	15	18?	?	
4				2?	7?	207?	7?	?	2	Electrical storm
5				?	?	?	?	?	8?	
6				?	?	?	?	?	?	
7				1?	1?	458?	10?	8?	24?	
8				3		464	15	22	19	
9				4		401	17	8?	?	
10				1	3	280	13	30	13	
11	29m			5	2	360	18	19	1	
12				4	5	293	13	18	?	
13				3		1005	11	17	17	
14				2		406	14	15	?	
15	3m			7		547	21	17	3	
16				4		570	15	14	12	
17	25m			3	5	325	12	15?	?	
18				3	5	416	18	14?	?	
19				?	?	?	?	?	?	Instruments off
20				?	?	?	?	?	?	Electrical storm

Fluctuating at low levels near eruptive site on the upper east rift

Table 2.--Number of earthquakes and minutes of tremor recorded on seismographs around Kilauea Caldera (cont'd)

	Tremor (m = minutes)			Number of Earthquakes							
				Kilauea Summit			SW Rift and Kaoiki	Upper[1] East Rift	Lower[2] East Rift	Others	Remarks
	Deep	Inter mediate	Shallow	30 KM	Long Period	Shallow					
Nov 21			Fluctuating at low levels near eruptive site on the upper east rift	3?		167?	10?	25?	?		
22				1		159	7	13	?		
23				1		244	1	9	?		
24						300	6	11	?		
25					4	328	6	13	3		
26				1		255	7	9			
27				1		251	9	18	7		
28	8m					181	6	22	7		
29				2	2	105	11	14	9		
30				2	1	149	17	22	31		
Dec 1				6		495	12	26	2		
2				2		330	15	32	4		
3	20m			7		300	7	23	4		
4				4		225	36	12	11		
5		4m		8		232	31	15	6		
6				5		209	15	18	3		
7	6m			2		230	13	12	4		
8				4	3	217	17	18	3		
9				4	7	185	16	14	6		
10				2	3	204	30	19	9		
11				5	3	675	14	20?	8		
12				4	3	1875	26	20?	7		
13				2		1350	20	15	7		
14				3		750	15	9	5		
16				7	1	171	15	22	5		
17	7m			4		219	9	19	1		
18				1		347	6	46	3		

19						222	2	14	1	
20				1		540	3	7	6	
21				1		520	6	38	2	
22				3	28	2000+	7	?	2	
23				1	4	1410	8	28	3	
24				1?	3	480	2?	29	9	
25				1		450	8	32	7	
26					3	390	6	33	9	
27				2	4	375	9	60?	2	
28				2	60	1500	10	105?	2	
29				2	50	1050	4	30	4	
30				2	33	455	17	19	4	
31	78m		Fluctuating at low levels near eruptive site on the upper east rift	1	26	526	16	43	2	

1/ Upper east rift count poor due to continuous tremor and traffic.

2/ Count taken from station Puu Honuaula (PHO).

Table 3 is a chronological listing of successfully located earthquakes. For each event the following data are presented:

Origin time in Hawaii Standard Time: date, hour (HR), minute (MN), and second (SED).

Epicenter in degrees and minutes of north latitude (LAT N) and west longitude (LONG W). Poor convergence of the epicenter solution is indicated by "?".

Depth - depth of fucus in km. Assumed depth is indicated by "x".

Mag - magnitude, if determined.

NO - number of stations used in locating earthquakes.

GAP - largest azimuthal separation in degrees between stations.

DMIN - epicentral distance in km to the nearest station.

ERT - standard error of the origin time in seconds.

ERH - standard error of the epicenter in km.

HRZ - standard error of the depth in km.

MD - mean deviation of the time residuals. $\left[= \sum_i R_i/NO \right]$ where R_i is the observed seismic wave arrival time less the computed time at the i^{th} station.

Q - solution quality of the hypocenter. This measure is intended to indicate the general reliability of each solution:

Q	Epicenter	Focal Depth
A	Excellent	Good
B	Good	Fair
C	Fair	Poor
D	Poor	Poor

Q is based both on the nature of the station distribution with respect to the earthquake and the statistical measures of the solution. These two factors are each rated independently according to the following scheme:

Station Distribution

	NO	GAP	DMIN
A	≥ 8	≤ 120°	≤ Depth or 5 km
B	≥ 6	≤ 150°	≤ 2 x depth or 10 km
	≥ 6	≤ 225°	
C	≥ 4	≤ 180°	≤ 50 km
D	Others		

Statistical Measures

	ERH (km)	ERZ (km)	MD (sec)	RMAX (sec)*
A	≤ 1.0	≤ 2.0	≤ 0.10	≤ 0.25
B	≤ 2.5	≤ 5.0	≤ 0.20	≤ 0.50
C	≤ 5.0		≤ 0.30	≤ 0.75
D	Others			

Q is taken as the average of the ratings from the two schemes; that is, an A and a C yield a B, and two B's yield a B. When the two ratings are only one level apart the lower one is used; that is, an A and a B yield a B (Hamilton and others, 1969).

The criteria for Q are the same as used by the Office of Earthquake Research and Crustal Studies, U.S. Geological Survey.

*RMAX is the maximum residual

SUMMARY OF SEISMIC EVENTS

1970		HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT	1	0	12	8.5	19-21.9	155-15.0	28.0	2.2	19	133	0.6	0.12	0.7	1.1	0.09	B
	1	1	40	55.8	19-29.5	155-16.1	24.7	1.8	17	69	8.0	0.11	0.7	1.4	0.10	A
	1	2	49	53.5	19-20.7	155-17.4	7.1	0.8	10	102	1.1	0.10	0.3	0.7	0.04	A
	1	5	43	22.3	19-24.5	155-17.9	0.1*	0.4	9	93	0.9	0.12	0.7		0.25	B
	1	5	56	29.1	19-19.4	155- 7.1	6.8	1.3	11	209	6.9	0.27	1.8	1.0	0.17	C
	1	8	57	21.3	19-25.8	155-16.4?	0.2*		7	289	2.0	0.50	1.5		0.19	D
	1	11	4	14.0	19-20.9	155-28.7	9.4	2.1	13	130	9.6	0.12	0.9	0.9	0.18	B
	1	11	25	55.9	19-27.2	155-27.9	11.0	1.3	11	147	9.4	0.06	0.4	0.2	0.06	B
	1	11	45	16.7	19-21.3	155-25.3	8.3	1.5	12	120	4.0	0.14	1.0	1.3	0.19	B
	1	12	4	57.4	19-26.6	155-56.7	10.7	2.9	17	254	8.9	0.30	2.9	1.5	0.16	D
	1	17	25	58.6	19-20.6	155-12.8	7.5	1.5	12	183	3.6	0.13	0.9	0.6	0.14	C
	1	18	50	36.9	19-21.0	155-17.4	22.0	2.1	11	112	1.7	0.26	1.4	2.3	0.08	B
	1	21	53	9.8	19-19.6	155-11.8	12.2	1.4	11	219	5.5	0.30	1.6	2.1	0.10	C
	2	0	28	14.2	19-21.2	155-13.1	7.2	1.1	11	164	2.7	0.15	0.9	0.8	0.13	C
	2	1	24	33.1	19-21.0	155-13.1	9.7		14	169	2.9	0.11	0.8	0.5	0.11	C
	2	5	13	11.5	19-17.9	155-16.9	25.5	1.9	13	203	3.0	0.39	2.1	3.1	0.14	C
	2	6	44	47.7	19-20.9	155-12.8	9.5	1.4	13	174	2.9	0.09	0.8	0.4	0.11	C
	2	14	4	6.0	19-21.6	155-28.9?	11.4		14	135	10.2	0.10	0.9	0.5	0.15	B
	2	18	1	52.2	19-22.7	155-23.7	11.3		13	124	4.6	0.08	0.7	1.3	0.12	B
	2	18	6	43.6	19-22.2	155-23.8	10.2		12	112	3.9	0.09	0.9	0.9	0.15	B
	2	18	7	16.0	19-22.9	155-22.9	9.1		10	170	4.9	0.39	0.8	2.6	0.10	C
	2	18	57	18.1	19-19.9	155-14.7	10.0	1.7	16	176	3.6	0.07	0.6	0.3	0.11	C
	2	19	17	24.2	19-24.4	155-24.1	11.7	0.7	14	182	7.8	0.10	0.8	1.0	0.10	C
	3	2	27	45.3	19-30.8	155-15.9	3.2*	2.0	7	330	11.1	0.68	3.6		0.19	D
	3	6	31	44.0	19-19.6	155-15.4	10.2	1.1	13	177	3.5	0.08	0.6	0.4	0.08	B
	3	9	42	37.6	19-22.1	155-16.7	20.8	1.6	12	96	1.5	0.19	1.0	1.8	0.08	A
	3	9	54	52.7	19-20.3	155-27.7	6.7	1.4	11	134	15.4	0.12	1.0	1.5	0.16	B
	3	11	1	3.3	19- 4.4	155-22.9?	8.7	2.2	9	273	29.2	0.64	3.3	2.0	0.20	D
	3	14	36	49.0	19-18.7	155-16.4	29.1	2.1	14	190	3.1	0.34	1.7	2.7	0.11	C
	3	14	55	19.7	19-25.8	155-22.9	10.7	1.4	11	170	5.0	0.09	0.5	0.4	0.06	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

197C	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT 3	15	23	10.3	19-20.9	155-13.2	7.2	1.1	10	171	3.2	0.14	0.9	C.7	0.11	C
3	18	37	33.2	19-20.7	155-13.1	8.9	1.8	17	176	3.5	0.08	0.7	C.4	0.13	C
3	21	56	48.0	19-11.0	155-31.7?	8.9		11	246	11.8	0.46	3.1	1.2	0.16	D
3	23	41	12.7	19-12.7	155-30.3	6.3		12	225	12.5	0.40	2.6	2.3	0.22	C
4	0	18	46.0	19-20.9	155-13.3	7.3	1.1	11	170	3.3	0.14	0.9	0.7	0.12	C
4	1	54	22.8	19-11.2	155-27.7	34.6	2.2	8	232	17.8	0.62	3.4	5.5	0.11	D
4	3	0	29.9	19-21.5	155-12.2	7.0	1.6	13	165	2.0	0.20	1.2	1.0	0.18	C
4	3	52	7.7	19-20.1	155-11.0	13.2	1.0	10	222	4.2	0.36	1.5	2.5	0.08	C
4	13	2	14.4	19-19.0	155-14.5	10.3	1.9	15	191	5.3	0.09	0.7	C.4	0.11	C
4	13	3	20.2	19-18.6	155-13.9	14.8	1.7	9	214	6.4	0.05	0.4	0.5	0.02	B
4	15	27	7.4	19-25.0	155-23.6	11.2	1.6	13	174	7.0	0.07	0.6	C.7	0.08	B
4	19	39	34.9	19-19.8	155-50.9	5.7	2.3	12	290	25.9	0.56	3.4	1.2	0.20	D
4	20	50	26.0	19-18.5	155-16.3	9.0	1.4	12	196	3.5	0.14	1.0	C.6	0.15	C
4	21	16	59.5	19-20.9	155-27.0	8.2	1.6	11	143	13.9	0.10	0.9	1.1	0.12	B
4	23	24	41.5	19-20.7	155- 9.9	7.9	1.5	11	249	2.5	0.23	1.3	C.9	0.12	C
5	0	8	8.9	19-12.7	155-22.9	38.2	2.7	19	219	12.3	0.32	1.8	2.3	0.13	C
5	4	18	58.6	19-19.6	155-13.0	10.8		13	203	5.5	0.14	0.9	0.4	0.11	C
5	12	25	12.2	19-20.6	155-18.0	30.3	1.5	14	65	1.3	0.31	1.4	2.6	0.10	B
5	12	44	21.3	19-21.5	155-11.8	9.6	1.7	11	168	2.2	0.07	0.6	C.4	C.06	B
5	13	0	22.1	19-23.9	155-24.2	0.0*	1.0	8	200	7.1	0.45	1.7		0.28	D
5	18	7	42.5	19-19.6	155-26.9	9.8	1.3	9	157	6.5	0.18	1.9	1.7	0.17	C
5	20	1	18.5	19-19.9	155-17.2	7.4	1.4	10	172	0.5	0.06	0.3	C.3	0.04	B
5	20	40	20.8	19-19.3	155-13.9	10.0	1.6	13	198	5.1	0.13	0.9	C.5	0.12	C
6	1	28	27.9	19- 0.8	155-20.0	12.8	2.4	16	287	36.0		C.9		0.14	D
6	3	54	18.4	19-20.0	155-14.0	8.5	1.3	13	182	4.0	0.18	1.0	C.8	0.17	C
6	5	9	0.3	19-26.0	155-29.7	11.0	1.5	13	155	13.2	0.07	0.5	0.3	0.08	B
6	7	34	22.3	19-24.0	155-23.4	11.1	1.3	14	116	6.5	0.05	0.5	C.5	C.10	A
6	13	6	37.4	19- 0.9	155-28.6?	18.6*		11	301	29.8	0.34	2.4		0.10	D
6	15	27	25.7	19-22.1	155-18.9	23.7		14	85	3.2	0.24	1.2	2.2	0.09	B
6	16	27	54.2	19-21.9	155-18.5	24.4	1.9	15	79	3.8	0.21	1.1	2.0	0.11	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT 6	17	58	54.8	19-21.8	155-11.1	14.2		10	175	7.4	0.04	0.5	0.4	0.04	B
6	20	17	58.9	19-21.8	155-17.3	31.6	2.9	22	94	2.7	0.15	1.0	1.4	0.13	B
6	21	35	15.3	19-22.3	155-15.8	40.0	2.0	14	121	0.3	0.24	1.7	2.0	0.11	B
6	22	51	33.9	19-21.9	155-18.7	24.6		12	83	3.7	0.51	1.8	4.5	0.10	B
7	0	38	44.3	19-21.7	155-19.0	24.6		11	84	3.9	0.47	1.7	4.2	0.09	B
7	8	46	6.9	18-57.4	155-12.7	16.7*		15	301	39.4	0.37	2.8		0.14	D
7	9	29	11.7	19-22.3	155-18.6	24.6	1.9	15	77	3.2	0.22	1.1	2.0	0.11	B
7	10	7	35.0	19-49.7	155-33.8	8.7	2.5	12	316	12.8	0.62	8.2	3.4	0.20	D
7	18	43	36.6	19-21.7	155-29.1	9.1	2.3	16	118	10.5	0.09	0.8	0.8	0.18	B
7	20	9	56.5	19-23.6	155-18.2	19.0	1.5	10	68	2.5	0.45	1.3	4.1	0.07	B
7	20	17	46.4	19-29.5	155-50.9	14.9	2.4	12	154	8.3	0.47	3.0	10.3	0.09	C
7	21	28	12.2	19-22.7	155-25.6?	11.4	1.7	15	122	6.1	0.07	0.6	0.3	0.10	B
8	6	13	4.5	19-21.3	155- 7.2	3.5	3.2	16	191	9.5	0.11	0.8	1.0	0.11	C
8	10	48	32.7	19-21.9	155-18.2	26.0		14	72	3.5	0.20	1.0	1.8	0.10	B
8	13	58	9.9	19-21.7	155-19.4	21.3		13	87	3.8	0.26	1.4	2.5	0.11	B
8	21	10	22.6	19-25.3	155-16.1	0.1*	0.7	10	223	1.7	0.12	0.5		0.09	C
8	23	55	4.1	19-16.7	155- 6.1	7.8	1.7	8	321	11.8		2.8	1.8	0.21	D
9	1	23	43.7	19-16.0	155- 9.6	37.6	2.0	16	270	11.3	0.20	1.3	1.5	0.09	C
9	2	57	59.3	19-26.2	155-15.6	0.0*	0.6	7	289	3.4	0.39	1.3		0.06	D
9	5	11	55.0	19-18.6	155-13.5	7.4	1.5	11	217	6.7	0.30	1.6	1.1	0.20	C
9	11	46	36.4	19-21.9	155-18.1	26.5	1.9	13	70	3.6	0.54	2.0	4.7	0.09	B
9	21	25	19.9	19-13.7	155-28.1	25.9	1.9	9	213	14.6	0.52	2.3	4.9	0.07	C
9	21	33	49.4	19-21.0	155-12.6	9.7	1.1	15	175	2.8	0.12	0.8	0.5	0.12	C
9	21	43	3.4	19-19.7	155-25.5	6.8	1.8	15	141	3.9	0.11	1.0	0.9	0.18	B
9	22	12	55.7	19-21.5	155-28.8	11.5	1.5	12	133	10.0	0.15	1.0	0.9	0.15	B
9	22	53	13.4	19-21.8	155-26.3	7.1	1.3	11	122	5.9	0.12	1.0	1.4	0.17	B
10	4	26	14.2	19-13.9	155-28.1	23.4	1.8	7	212	14.4	1.04	4.1	10.7	0.10	C
10	5	13	16.3	19-29.3	155-54.5	10.9	2.1	11	206	3.7	0.36	5.2	3.1	0.13	D
10	6	41	31.9	19-21.6	155-29.1	9.0	2.1	16	119	10.5	0.09	0.8	0.8	0.16	B
10	7	49	33.0	19-20.1	155- 7.1	7.1	1.9	13	203	6.0	0.17	1.2	0.7	0.13	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT 10	11	10	51.4	19-20.6	155-15.7	22.9	2.1	12	152	2.4	0.22	1.1	1.9	0.09	C
10	12	48	58.6	19-11.7	155-22.5	40.0	2.5	15	225	13.4	0.24	1.6	2.1	0.13	C
10	13	20	10.6	19-23.7	155-17.4	13.5	1.8	16	73	1.2	0.05	0.5	0.4	0.09	A
10	18	26	2.2	19-59.2	155-31.5?	45.5	2.5	22	198	19.0	0.30	1.5	2.6	0.14	C
10	20	57	34.3	19-12.8	155-26.8	7.5	2.0	12	222	14.9	0.31	1.9	1.0	0.18	C
10	21	29	25.5	19-14.3	155-27.5	5.5	2.0	9	215	13.1	0.11	0.7	0.7	0.06	B
10	21	45	56.4	19-25.4	155-30.0	10.9	1.9	12	154	14.3	0.09	0.6	0.4	0.08	B
10	23	30	51.9	19-22.8	155-26.4	7.4	2.2	19	101	7.3	0.13	1.1	1.0	0.27	B
11	1	52	36.3	19-23.3	155-27.7	11.2	1.8	15	134	9.6	0.11	0.7	0.7	0.11	B
11	9	0	38.8	19-21.1	155-25.4	8.3		12	125	4.0	0.13	1.0	1.3	0.18	B
11	12	42	26.0	19-18.3	155-14.0	15.0	1.6	8	218	6.8	0.09	0.6	0.8	0.03	B
11	16	40	2.0	19-25.7	155-29.4	10.9	2.2	14	152	13.2	0.13	0.8	C.6	0.11	C
11	20	5	53.5	19-22.9	155-24.9	11.0		13	120	5.8	0.07	0.6	C.4	0.11	B
11	23	12	19.9	19-23.2	155-17.1?	4.7	1.1	13	96	0.6	0.40	1.6	2.6	0.26	B
12	0	53	58.4	19-21.0	155-25.2	9.2	1.6	13	126	3.7	0.11	0.8	0.9	0.14	B
12	1	55	27.8	19-18.3	155-16.4	9.3	1.6	12	196	3.8	0.07	0.7	C.4	0.08	B
12	4	45	25.4	19-25.4	155-28.2	8.9	2.4	18	81	11.8	0.09	0.7	0.6	0.14	B
12	6	44	8.6	19-20.7	155-12.9	6.7	1.4	10	178	4.6	0.17	1.1	C.9	0.15	C
12	7	18	45.9	19-21.6	155- 3.4	2.8	1.9	14	204	20.8	0.54	1.1	2.7	0.15	C
12	12	28	7.7	19-19.3	155-13.3	10.8		14	207	5.9	0.14	1.0	0.4	0.12	C
12	13	8	59.2	19- 7.7	155-27.5	28.6	2.5	13	269	21.5	1.32	5.7	10.4	0.13	D
12	13	42	24.1	19-21.4	155-11.6	9.7	1.8	14	175	3.5	0.06	0.6	0.3	0.08	B
12	17	57	11.0	19-56.5	155-29.3	8.6	2.6	14	329	18.7	0.49	3.8	1.2	0.15	D
12	19	47	36.6	19-16.7	155-10.9?	30.4	2.2	16	255	10.2	0.22	1.7	1.6	0.09	C
12	23	26	25.8	19-33.3	155-45.4?	0.0	2.6	17	154	17.7	0.61	1.9	2.8	0.34	D
13	0	20	7.7	19-21.6	155-13.4	5.2		10	153	2.4	0.28	1.1	2.3	0.17	C
13	2	1	21.4	19-24.3	155-17.1	7.9	1.8	17	55	1.1	0.04	0.4	0.3	0.09	B
13	2	6	4.8	19-24.9	155-17.6	11.5	1.4	10	123	0.4	0.11	0.5	C.7	0.02	B
13	2	9	26.5	19-24.7	155-15.6	10.8		9	142	2.4	0.11	1.2	C.9	0.10	B
13	2	9	42.2	19-23.8	155-18.1	6.7	1.2	12	66	2.0	0.11	0.4	C.8	0.05	A

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT 13	2	9	43.5	19-23.7	155-18.1	6.7	1.4	11	74	2.1	0.16	0.5	1.1	0.08	A
13	2	11	39.8	19-23.3	155-17.8	7.4	1.1	8	94	1.8	0.45	0.7	2.6	0.05	B
13	4	37	19.3	19-11.5	155-19.2	43.7	2.2	14	226	12.0	0.49	2.6	3.8	0.13	D
13	8	40	1.0	19-28.9	155-14.7	26.9	3.2	20	66	8.2	0.11	0.7	1.3	0.11	B
13	10	1	30.6	19-23.6	155-18.4	19.7	1.7	11	58	2.2	0.27	0.8	2.5	0.05	B
13	12	30	37.2	19- 9.2	155-30.5	28.3	2.6	6	277	15.6	0.05	0.4	0.3	0.01	C
13	12	52	34.0	19-10.0	155-19.8	37.2		13	249	14.9	0.32	2.3	2.4	0.14	C
13	12	53	13.9	19-11.9	155-19.7	45.0		12	237	11.4	0.78	2.6	6.6	0.09	D
13	12	54	17.8	19- 4.2	155-17.6	49.3		8	277	25.5	1.97	8.7	12.9	0.11	D
13	15	7	55.8	19- 9.4	155-34.0	15.4*	2.6	15	256	27.4	0.28	2.3		0.16	D
13	21	35	55.6	19-19.7	155-15.6	7.7		14	173	3.2	0.15	0.9	0.7	0.14	C
13	22	5	27.6	19-21.0	155-13.9	8.4		14	161	2.8	0.14	1.0	0.6	0.17	C
14	1	32	41.3	19-26.9	155-33.5	4.2	3.5	17	95	18.6	0.12	0.8	1.0	0.18	B
14	6	28	20.1	19-18.4	155-15.4	9.9		11	205	4.8	0.13	0.9	0.5	0.11	C
14	11	29	25.5	19-19.5	155- 4.6	7.4	2.3	11	215	10.2	0.30	2.0	1.0	0.14	C
14	16	36	20.4	19-23.0	155-18.0	22.8	1.8	9	72	2.2	0.73	1.8	6.4	0.06	B
14	19	6	8.3	19-12.7	155-31.9?	9.3		9	227	10.0	0.25	2.1	0.8	0.12	C
14	19	18	38.1	19-21.4	155-13.4	7.3		10	157	3.3	0.14	0.9	0.8	0.14	C
14	20	56	14.9	19-24.7	155-32.7	12.0		11	170	18.5	0.12	0.9	1.5	0.11	C
14	21	5	47.2	19-14.7	155-25.9	26.2		11	206	11.0	0.57	2.5	5.3	0.11	C
14	22	17	11.4	19-21.7	155-17.3	28.2	2.3	17	97	2.8	0.24	1.3	2.1	0.11	B
15	5	35	43.0	19-15.0	155-28.5	5.6		11	198	13.3	0.19	1.3	1.5	0.13	C
15	8	24	11.1	19-14.6	155-33.0	10.3		12	199	7.3	0.31	3.8	1.5	0.18	C
15	8	32	42.2	19-19.7	155-25.5	8.1		10	141	4.0	0.13	1.0	1.2	0.16	B
15	10	56	48.3	19-23.9	155-25.5?	10.4	1.9	15	125	7.8	0.08	0.7	1.4	0.12	B
15	11	11	5.9	19-20.1	155-15.3	13.6	1.4	8	239	3.2	0.38	1.3	2.4	0.03	C
15	17	23	15.4	19-19.6	155- 7.2	5.7	2.0	17	206	10.7	0.19	1.3	1.0	0.18	C
15	17	27	27.7	19-26.0	155-24.9	12.2	1.1	10	189	7.6	0.09	0.8	0.9	0.07	B
16	0	39	39.5	18-58.3	155-33.0	0.0*	2.5	14	276	43.9	0.37	2.7		0.19	D
16	1	23	1.1	19- 7.2	155-25.1	32.2		14	260	22.9	0.94	4.4	6.9	0.15	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT 16	1	25	4.9	19-29.8	155-32.2?	0.0		9	273	20.5	2.13	5.4	11.0	0.72	D
16	1	25	17.7	19- 8.1	155-25.2	29.0		9	255	22.6	1.04	5.0	11.0	0.13	D
16	1	26	37.4	19- 8.3	155-25.6	31.9	2.2	9	265	21.6	1.98	7.9	15.9	0.16	D
16	1	27	14.0	18-52.7	155-26.3?	1.3*	2.2	13	307	45.2	2.32	10.1		1.11	D
16	1	28	51.1	19-14.2	155-28.6	34.5		9	214	14.4	0.54	3.3	4.5	0.20	C
16	1	37	9.8	19-14.3	155-30.5	42.0		10	203	11.6	0.66	4.1	5.4	0.25	C
16	1	43	11.9	19-29.7	155-32.6?	0.0	1.8	7	273	21.2	3.07	4.8	15.8	0.54	D
16	2	19	25.1	19-25.4	155-22.8	9.6	1.4	12	117	5.5	0.04	0.4	0.4	0.07	A
16	2	24	5.4	19-23.1	155-24.9	10.6	1.2	14	120	6.0	0.07	0.7	0.7	0.12	B
16	4	0	20.9	19-21.8	155-25.0	8.6	2.7	18	106	4.2	0.08	0.8	0.6	0.17	B
16	5	28	33.6	19- 9.4	155-26.1	24.5		9	259	20.6	0.39	2.0	3.9	0.08	C
16	5	32	54.9	19-13.7	155-29.9	38.4		15	212	12.8	0.49	3.2	4.1	0.20	C
16	5	44	6.5	19-15.4	155-29.6?	37.7		10	190	13.2	0.80	5.8	6.9	0.33	D
16	5	51	25.3	19- 2.0	155-26.7	58.6	1.6	13	267	29.9	1.00	5.1	6.8	0.17	D
16	7	18	30.0	19-20.3	155-19.6	7.8	1.5	10	111	3.9	0.09	0.6	0.5	0.09	A
16	7	30	46.9	19-45.6	156- 2.9	6.3	2.5	18	258	29.8	0.20	1.6	0.8	0.08	C
16	11	54	19.9	19-14.3	155-30.6?	43.9	2.2	16	204	11.5	0.37	2.5	3.0	0.20	C
16	12	2	22.3	19-10.2	155-29.1	41.9	2.5	14	245	16.4	0.35	2.1	2.5	0.16	C
16	14	21	43.4	19-21.4	155-14.8	10.1	1.2	8	145	1.2	0.18	0.4	1.1	0.04	B
16	16	36	32.4	19-20.5	155-14.2	8.6	1.4	16	168	3.0	0.13	0.9	0.6	0.17	C
16	19	21	12.1	19-20.4	155-14.3	8.4	1.9	17	171	3.1	0.11	0.8	0.5	0.16	C
16	23	11	39.4	19-21.3	155-12.9	14.7	1.7	9	163	4.3	0.07	0.4	0.7	0.02	B
17	2	46	51.7	19-20.6	155- 8.7	6.7	1.2	12	195	3.5	0.22	1.6	1.2	0.17	C
17	4	1	12.3	19-25.0	155-27.7	10.6	1.3	13	140	11.8	0.11	0.8	0.5	0.14	B
17	5	42	29.7	19- 7.6	155-25.2	38.0	1.9	8	272	22.4	0.31	3.0	3.0	0.09	D
17	5	49	0.4	19-17.2	155-28.7?	34.9	2.4	10	168	10.9	0.24	1.4	1.9	0.09	C
17	5	55	9.2	19- 0.6	155-23.3	13.6	2.4	9	272	35.8	0.47	4.4	11.0	0.12	D
17	5	55	46.3	19- 2.4	155-22.5?	6.2	1.6	9	280	32.9	0.56	3.0	5.0	0.16	D
17	6	1	27.7	19- 4.3	155-24.3	19.1*	2.1	8	273	29.5	0.52	3.7		0.08	D
17	6	4	14.4	19- 0.3	155-22.3	16.2*	2.1	10	299	36.8	0.47	3.4		0.20	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT 17	6	13	25.7	19-20.4	155-12.0	11.7	1.6	7	262	4.0	0.21	0.9	1.2	0.03	C
17	6	30	19.6	19-10.7	155-26.0	30.3	1.7	13	239	18.1	0.74	3.0	6.7	0.12	D
17	8	36	24.7	19- 9.6	155-25.4	15.2*	1.9	10	246	19.9	0.35	2.7		0.13	D
17	8	48	43.3	19-10.7	155-24.6	34.5	2.2	11	250	16.9	0.38	3.0	3.6	0.17	D
17	9	37	42.5	19-19.5	155-11.6	11.6	1.5	10	224	5.7	0.36	1.9	2.7	0.10	C
17	15	25	46.7	19-21.6	155-15.4	9.6	3.1	20	135	0.4	0.05	0.5	0.3	0.11	B
17	22	6	14.4	19-19.6	155-15.7	7.9	0.9	12	174	3.1	0.21	1.2	1.0	0.18	C
18	1	34	33.0	19-23.5	155-16.5	2.5	0.4	7	166	0.6	0.62	1.6	3.4	0.16	C
18	3	46	15.7	19-42.0	155-17.6	33.3	2.5	20	133	18.9	0.15	0.6	2.0	0.10	B
18	4	5	43.7	19-16.7	156-19.6	9.5	2.7	11	305	50.2	0.28	8.9	9.4	0.14	D
18	4	23	30.9	19-21.0	155-11.6	9.4	2.2	18	181	3.2	0.10	0.9	0.5	0.17	C
18	4	32	37.4	19-22.1	155-12.2	7.1	1.6	13	145	0.9	0.12	0.9	0.7	0.15	B
18	6	3	54.9	19-25.6	155-28.2	10.9	1.5	11	223	11.6	0.18	1.1	0.5	0.08	C
18	7	21	33.1	19-24.8	155-23.7	12.1	1.2	10	188	7.3	0.30	1.2	2.5	0.09	C
18	8	3	15.4	19-18.5	155- 4.6	3.8	2.0	12	218	11.4	0.30	1.7	1.5	0.15	C
18	10	53	45.0	19-21.0	155-14.5	8.4		15	156	2.1	0.13	0.9	0.6	0.16	C
18	12	18	59.3	19-23.6	155-22.6	10.6		14	159	5.2	0.09	0.6	0.4	0.11	C
18	12	24	42.1	19-23.2	155-16.7	28.1	2.2	18	56	0.5	0.20	1.3	1.9	0.15	B
18	14	1	20.7	19-19.3	155-13.7	10.1	2.8	20	190	5.5	0.07	0.6	0.3	0.12	C
18	15	26	18.9	19-17.0	155-14.2	6.9		14	224	7.9	0.22	1.2	0.9	0.16	C
18	15	44	11.4	19-18.9	155-13.7	9.8	2.4	21	194	6.0	0.10	0.8	0.4	0.16	C
18	16	0	28.8	19-19.8	155-13.7	10.6	1.8	15	192	4.7	0.09	0.6	0.3	0.09	C
18	17	25	38.3	19-19.8	155-13.9	10.2		13	182	4.4	0.07	0.6	0.3	0.08	C
18	17	57	29.9	19-24.3	155-17.1	18.6	1.8	12	128	1.0	0.18	0.8	1.7	0.08	B
18	20	12	32.4	19-41.2	156- 3.8	8.0*	2.4	10	305	64.6	1.23	7.5		0.11	D
18	21	0	16.7	19-17.6	155- 6.2	7.3		12	225	10.5	0.44	2.6	1.4	0.24	C
18	22	13	17.3	19-20.2	155-16.9	32.7	2.3	16	143	0.9	0.35	1.8	2.8	0.12	B
19	0	38	4.4	19- 9.8	155-43.3	8.0*		11	338	14.3	0.70	5.8		0.15	D
19	16	44	2.8	19-18.8	155-15.6	34.7	2.6	14	195	4.0	0.33	1.5	2.7	0.09	C
19	20	15	10.9	19-18.1	155-15.6	32.3	2.0	15	198	4.9	0.24	1.4	2.0	0.11	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT 19	21	56	45.2	19-19.6	155-13.8	10.2	1.4	16	186	4.8	0.08	0.6	C.4	0.11	C
19	23	39	4.0	19-22.2	155-25.0	7.6	2.1	16	97	4.7	0.09	0.8	C.9	0.19	B
20	0	42	7.6	19-22.2	155-23.3	10.0	2.0	11	110	3.6	0.10	1.0	0.9	0.15	B
20	1	36	29.4	19-20.9	155- 9.4	8.6	2.1	14	241	1.9	0.17	1.2	C.5	0.13	C
20	4	41	29.4	19-26.0	155-25.9	13.0	2.1	14	199	8.4	0.09	0.7	C.6	0.07	B
20	4	58	51.0	19-22.1	155-16.1	26.2	1.5	14	99	0.7	0.30	1.4	2.5	0.10	B
20	9	21	4.0	18-57.2	155-16.8?	5.2	2.6	16	298	42.3	0.23	1.5	C.9	0.13	C
20	10	5	28.9	19-21.0	155-13.1	9.9	1.9	15	169	3.0	0.12	0.8	C.5	0.12	C
20	10	52	30.8	19-23.4	155-24.8	11.2	2.0	15	120	6.5	0.07	0.6	C.4	0.11	B
20	11	48	57.3	19-24.5	155-23.8?	10.8	2.0	14	119	7.4	0.06	0.5	C.9	0.11	B
20	14	47	45.7	19-18.9	155-13.6	9.8		10	211	6.1	0.26	1.4	C.9	C.14	C
20	23	39	33.0	19-24.6	155-16.9	8.6	1.2	12	167	0.5	0.21	0.8	0.9	0.07	B
20	23	41	29.1	19-26.0	155-17.0	12.5	1.5	7	291	1.5	0.69	2.2	4.1	0.03	C
21	14	8	20.8	19-19.6	155-13.4	10.2	2.1	13	199	5.3	0.16	1.1	0.6	0.14	C
21	15	9	56.6	19-19.5	155-13.6	11.0	2.5	17	188	5.2	0.06	0.6	C.2	0.09	C
21	17	32	45.9	19-20.8	155-12.9?	11.7		12	177	4.7	0.24	1.2	1.8	0.11	C
21	18	32	49.8	19-18.9	155-13.8	10.5	2.2	16	195	6.0	0.10	0.8	C.4	0.13	C
21	21	3	19.8	19-19.7	155-15.7	7.9	2.3	15	170	3.0	0.14	0.9	0.6	0.16	C
21	21	7	50.5	19-53.7	155-48.1	4.2	2.5	20	230	18.5	0.24	2.2	2.7	0.17	C
21	22	36	15.4	19-18.6	155-14.9	14.9		11	205	5.2	0.06	0.4	0.5	0.02	B
21	23	5	1.4	19-10.9	155-38.8	9.1	2.7	15	252	8.0	0.44	2.7	0.9	0.12	D
21	23	22	52.0	19- 9.7	155-37.4?	6.5		13	298	9.7	0.42	2.1	1.0	0.21	D
22	1	22	14.8	19-17.3	154-59.3	32.5		17	240	20.4	0.30	1.6	2.6	C.08	C
22	3	44	31.1	18-56.4	155-26.3?	5.6		15	310	39.0	0.32	1.2	1.5	0.17	C
22	7	42	33.8	19-20.2	155-10.4	11.8		11	237	3.7	0.32	1.6	2.0	0.10	C
22	9	30	20.7	19-20.9	155-26.4	43.8	2.5	16	127	5.6	0.33	1.7	3.1	0.15	B
22	17	46	13.2	19-33.2	155-40.9	4.8	2.7	15	96	25.5	0.07	0.5	C.5	0.10	A
22	18	22	36.8	19-20.3	155-12.5	9.3	1.8	11	193	4.1	0.20	1.1	0.8	0.13	C
23	0	6	48.4	19-21.0	155-12.6	9.0	1.7	15	174	2.7	0.10	0.7	C.5	0.12	C
23	0	28	12.5	19-21.0	155-12.9	9.9	1.7	15	171	2.9	0.12	0.8	C.5	0.12	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT 23	16	33	15.8	19-19.2	155-24.9	8.1	2.9	15	167	3.3	0.11	0.9	0.7	0.16	C
23	21	57	3.1	19-23.6	155-23.5	10.3	1.6	14	174	6.4	0.11	0.7	0.5	0.13	C
23	23	15	2.9	19-27.0	155-14.1?	3.2*	2.0	8	276	6.3	0.90	3.7		0.38	D
23	23	40	24.1	19-25.5	155-16.2?	4.9	1.9	8	232	2.5	0.78	4.3	3.3	0.31	D
23	23	53	12.7	19-19.1	155-13.6	10.2		12	193	5.8	0.12	0.9	0.5	0.12	C
24	0	49	24.2	19-23.1	155-15.7	37.6	2.3	13	187	1.3	0.58	2.5	4.6	0.11	C
24	8	36	8.5	19-23.7	155-16.4	3.3	1.1	10	175	0.9	0.26	0.9	1.5	0.08	B
24	11	45	30.9	19-23.5	155-25.1	13.3		12	142	6.8	0.07	0.7	0.7	0.08	B
24	12	17	43.4	19-21.2	155-12.5	7.9	1.6	15	171	2.5	0.13	0.9	0.6	0.16	C
24	16	27	0.9	19-20.9	155-29.2	10.7	2.0	11	133	10.5	0.12	1.2	0.7	0.15	B
24	19	33	11.2	19-18.6	155-27.1	6.9	2.2	16	155	14.9	0.11	0.9	0.9	0.18	C
25	0	56	0.5	19-25.7	155-26.1	7.8	2.3	18	113	9.0	0.09	0.7	0.7	0.16	B
25	6	42	45.6	19-30.5	155-15.8	3.4*	1.9	7	329	10.0	0.59	3.0		0.17	D
25	8	32	52.8	19-18.1	155-14.5	35.5	4.1	23	198	193.4	0.17	1.1	1.4	0.12	C
25	9	12	13.3	19-19.0	155-14.4	34.5		16	191	5.4	0.17	1.0	1.5	0.09	C
25	9	31	51.8	19-36.1	155-14.4	11.9	1.7	16	100	19.2	0.05	0.4	0.8	0.07	A
25	9	55	28.0	21- 0.6	156-49.1	7.5	4.8	7	184	64.9	0.88	4.7	5.3	0.22	C
25	10	16	31.5	19-20.7	155- 7.6	5.9	1.2	16	194	13.6	0.09	0.7	0.6	0.11	C
25	10	53	26.7	19-29.3	155-10.3	8.0*	1.0	9	331	14.3	2.82	11.4		0.15	D
25	13	21	53.5	19-21.2	155-46.0	11.3	2.3	10	267	19.5	0.29	5.9	8.6	0.16	D
25	13	47	8.1	19-20.5	155-12.9	28.9	2.3	19	178	3.7	0.13	0.9	1.2	0.09	B
25	14	22	0.1	19-21.6	155-13.0	29.8	1.5	15	156	4.1	0.18	1.3	1.7	0.10	C
25	15	42	9.1	19-18.5	155-14.7	33.2	2.4	19	197	5.6	0.19	1.1	1.4	0.10	C
25	16	24	18.8	19-25.0	155-16.5	0.9	1.0	9	167	0.9	0.04	0.3	0.3	0.04	B
25	17	17	47.9	19-27.8	155-12.2?	3.2*	1.6	7	298	10.5	0.95	3.9		0.32	D
25	17	43	2.5	19-24.6	155-15.4	4.2	0.3	7	246	2.8	0.13	0.5	0.6	0.02	C
25	18	4	35.2	19-22.9	155-14.5	5.8	0.8	13	149	2.4	0.14	0.5	1.0	0.09	B
25	18	35	38.4	19-17.9	155-16.3	33.3	1.6	15	198	4.1	0.20	1.3	1.9	0.10	C
25	19	14	55.4	19-27.1	155-13.4?	8.0*	2.1	11	273	7.4	0.54	3.9		0.54	D
25	19	19	42.9	19-24.6	155-17.4	0.0	0.7	10	94	0.3	0.08	0.4	3.9	0.11	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT 25	19	34	37.8	19-24.4	155-17.5	0.0	0.4	8	96	0.5	0.14	0.6	1C.2	0.13	B
26	0	39	51.6	19-29.4	155-15.3	0.3*	1.9	8	324	8.4	0.43	1.6		0.12	D
26	1	5	52.1	19-25.0	155-17.4	2.3	0.8	8	129	0.6	0.03	0.2	0.2	0.02	B
26	3	2	18.2	19-47.0	155-15.6	4.3	1.6	18	170	19.4	0.16	0.9	C.8	0.18	C
26	7	6	5.2	19-20.5	154-45.7	40.0*	1.7	18	304	19.5	0.19	1.9		0.09	D
26	7	26	47.4	19-24.5	155-17.0	1.1	0.5	10	107	0.7	0.08	0.6	0.5	0.12	B
26	7	37	4.6	19-27.1	155-14.1	8.0*		6	315	6.6	1.04	5.1		0.07	D
26	11	29	56.9	19-31.5	155-14.5	2.6*	1.3	7	332	12.5	0.57	3.1		0.15	D
26	14	19	54.8	19-31.3	155-14.2?	8.0*	1.2	6	343	12.3	1.93	13.3		0.41	D
26	15	38	21.6	19-27.1	155-16.3	3.9	0.5	6	312	3.9		2.5	4.4	0.19	D
26	18	42	12.1	19-22.0	155-13.1	2.8	0.6	6	157	1.4	0.03	0.4	C.3	0.01	B
26	20	44	43.3	19-25.C	155-16.3?	1.5	0.4	10	218	1.3	0.25	1.1	1.2	0.18	C
26	21	24	54.8	19-24.4	155-17.4	0.5	1.2	10	110	0.6	0.19	0.7	1.6	0.14	B
26	21	27	8.1	19-26.1	155-16.8	4.0	1.2	9	293	2.0	0.71	3.0	1.4	0.15	D
26	21	27	34.2	19-31.2	155-13.6	3.2*	1.1	6	332	13.1	0.68	3.8		0.14	D
26	21	32	8.8	19-26.5	155-14.5	2.5	0.9	7	325	5.2	0.40	1.6	1.1	0.11	C
26	21	36	26.1	19-26.2	155-14.7?	0.4*	0.5	8	305	4.6	0.35	1.1		0.15	D
26	21	40	14.3	19-25.7	155-13.7?	8.0*	1.1	7	327	6.0	0.47	5.9		0.36	D
26	21	41	47.9	19-24.3	155-15.6	3.7	0.3	6	236	2.6	0.20	0.8	1.0	0.03	C
26	23	36	28.3	19-27.8	155-14.0?	0.2	0.6	8	317	7.5	0.81	4.0	5C.7	0.17	D
27	0	8	29.6	19-24.9	155-16.1	3.9	0.2	7	256	1.6	0.26	1.1	1.3	0.06	C
27	1	29	40.4	19-24.2	155-17.2	2.7	1.6	13	92	1.1	0.08	0.5	C.8	0.10	B
27	2	55	45.9	19-27.5	155-14.5?	1.6	0.8	8	313	6.5	0.59	2.3	1.7	0.19	C
27	3	21	14.7	19-19.1	155-17.1	32.3	1.5	14	168	2.0	0.21	1.3	2.0	0.10	C
27	5	3	23.8	19-17.1	155-17.3	32.6	1.7	13	200	2.7	0.24	1.4	2.1	0.11	C
27	5	54	45.8	19-19.1	155-13.8	12.9	1.1	10	204	5.6	0.18	1.5	1.3	0.13	C
27	6	26	58.0	19-23.2	155-23.8	10.2	2.6	15	67	5.6	0.06	0.7	C.7	0.11	B
27	6	29	35.6	19-23.3	155-24.1	10.8	1.4	12	131	6.0	0.07	0.6	1.2	0.09	B
27	6	30	20.1	19-24.6	155-17.2	0.0	0.4	9	123	0.6	0.10	0.5	6.2	0.10	C
27	6	32	42.8	19-23.0	155-24.9	7.9	2.4	17	84	5.9	0.08	0.8	0.7	0.18	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT 27	6	36	42.3	19-23.2	155-23.7	10.1	2.2	15	66	5.6	0.07	0.8	0.8	0.13	B
27	7	29	54.6	19-23.1	155-24.1	10.9	2.0	15	115	5.4	0.06	0.5	0.4	0.10	A
27	7	34	10.3	19-23.1	155-24.2	10.8	1.3	14	131	5.6	0.09	0.6	1.3	0.10	B
27	8	27	31.1	19-25.9	155-24.6	10.6		12	211	7.5	0.08	0.4	0.3	0.05	B
27	9	21	25.9	19-23.9	155-16.0	2.4	0.6	8	205	1.6	0.28	0.7	1.3	0.07	B
27	10	11	44.2	19-29.4	155-14.6	0.5*	1.9	7	330	8.9	0.59	2.4		0.15	D
27	10	12	33.5	19-25.3	155-21.9	10.0	1.5	11	150	4.7	0.32	0.6	2.1	0.08	B
27	10	16	8.2	19-22.7	155-25.1	8.0	1.8	15	138	5.6	0.13	0.9	1.2	0.19	B
27	12	37	49.2	19-29.8	155-14.6?	8.0*	2.2	7	331	9.7	0.36	7.0		0.42	D
27	13	23	31.6	19-23.4	155-17.4	1.1	0.8	11	73	1.0	0.11	0.5	1.2	0.16	B
27	13	47	53.2	19-25.8	155-24.4	10.4	1.8	13	183	7.3	0.06	0.4	0.3	0.06	B
27	14	57	43.3	19-26.8	155-13.1	3.0*	1.9	6	334	7.6	0.72	4.0		0.15	D
27	17	18	58.8	19-17.0	155-50.4	7.1	2.8	15	296	23.6	0.40	2.9	1.3	0.13	D
27	18	8	9.4	19- 1.1	155-14.3	8.0*		12	291	35.5	0.83	5.2		0.11	D
28	6	43	58.2	19-32.1	155-45.7?	2.2	2.3	15	192	16.8	0.27	1.0	1.1	0.12	C
28	7	19	50.3	19-21.5	155-11.6	9.8		12	172	2.5	0.08	0.8	0.4	0.10	B
28	19	48	20.6	19-21.0	155- 6.5?	4.2	2.1	16	198	15.5	0.12	0.8	0.9	0.15	C
29	0	1	17.5	19-16.5	155-51.7	8.2	2.7	11	327	25.7	0.40	4.7	1.8	0.12	D
29	2	56	19.1	19-18.9	155-16.0	9.0	1.6	15	185	3.3	0.10	0.8	0.5	0.14	C
29	7	12	45.5	19-21.2	155-13.9	8.5	1.5	16	156	2.7	0.11	0.8	0.6	0.15	C
29	7	47	30.6	19-31.1	156-26.2	10.1	3.9	24	259	54.1	0.27	3.3	3.6	0.14	D
29	12	24	31.8	19-22.4	155-24.8	11.4	2.1	14	117	4.9	0.08	0.7	1.3	0.13	B
29	20	14	54.4	19-19.5	155-15.4	9.4		10	180	3.7	0.11	0.8	0.6	0.09	B
29	23	53	34.0	19-21.1	155-13.5	9.4	2.0	18	163	3.1	0.08	0.7	0.4	0.14	C
30	0	4	23.5	19-19.2	155-15.8	9.4	1.6	16	178	3.2	0.09	0.7	0.5	0.13	C
30	1	44	5.0	19- 3.2	155-19.4	35.2	2.7	23	260	31.4	0.36	2.1	4.5	0.24	D
30	2	4	50.2	19-26.9	154-56.2?	53.3		10	184	5.3	0.80	2.4	7.0	0.04	C
30	12	47	57.4	19-23.3	155-25.6	10.7	1.4	11	211	6.9	0.09	0.6	0.4	0.07	B
30	14	25	24.2	19-24.5	155- 4.3?	7.6	1.8	9	174	10.5	0.20	2.8	1.1	0.17	C
30	18	50	57.4	19-16.7	155- 5.0	0.0*	3.2	16	225	17.0	0.30	1.8		0.29	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
OCT 30	19	53	49.8	19-18.3	155-14.3	31.5	1.6	15	199	6.3	0.22	1.3	1.8	0.11	C
31	1	0	15.6	19-21.3	155-10.7	10.5	1.4	10	181	2.1	0.09	0.9	0.6	0.09	B
31	3	4	21.2	19-19.8	155-14.2	9.9	2.2	16	185	4.1	0.10	0.8	0.4	0.13	C
31	4	20	38.0	19-19.5	155-13.7	10.0	1.6	15	197	5.1	0.10	0.7	0.4	0.10	C
31	6	21	2.3	19-19.4	155-15.7	13.2	1.4	9	179	3.2	0.05	0.2	0.4	0.02	B
31	22	18	6.2	19-22.6	155-26.1	8.8	2.2	16	123	6.6	0.10	0.8	0.7	0.17	B
NOV 1	0	59	33.3	19-22.5	155-23.9	8.9	2.1	15	120	4.4	0.04	0.3	0.2	0.06	A
1	3	15	39.9	19-22.7	155-28.3	9.4	1.5	11	135	9.9	0.13	1.3	1.6	0.17	B
1	5	26	32.3	19-24.1	155-25.2?	11.0	1.5	15	124	8.0	0.07	0.5	0.3	0.11	B
1	10	16	52.6	19-20.6	155-10.8?	11.1	1.3	11	217	3.3	0.16	1.1	0.5	0.11	C
1	11	16	28.3	19-22.6	155-13.1	6.1	0.8	9	171	1.1	0.16	1.5	0.9	0.13	C
1	17	41	7.5	19-27.1	155-26.1	13.4	1.7	12	262	7.0	0.13	1.3	0.5	0.07	C
1	18	11	53.8	19-21.3	155-16.0	8.9	0.9	10	135	1.6	0.26	0.7	1.6	0.09	B
2	3	55	41.4	19-45.9	155-36.0?	27.9	2.7	15	110	15.0	0.32	1.5	5.0	0.22	B
2	6	18	40.8	19-18.3	155-14.7?	11.0	1.4	9	210	6.5	0.25	2.2	2.3	0.19	C
2	7	40	26.1	19-25.4	155-25.2	10.3	1.5	11	127	8.8	0.06	0.6	0.6	0.08	B
2	12	44	23.3	19-20.8	155-24.8	7.3		11	127	2.8	0.12	0.9	1.1	0.17	B
2	14	2	24.6	19-25.5	155-25.4	10.0	2.0	12	128	8.8	0.06	0.5	0.5	0.07	B
2	16	26	58.3	19-20.9	155-27.0	9.4		11	128	6.7	0.12	0.9	1.1	0.15	B
3	0	51	10.6	19-12.9	155-26.6	7.2	1.9	13	221	14.7	0.24	1.5	1.0	0.15	C
3	2	51	0.8	19-21.3	155-48.6	7.5	2.6	16	207	21.7	0.42	4.2	1.5	0.19	C
3	4	50	4.8	19-23.6	155-16.2	37.0	1.7	13	129	1.2	0.37	1.5	3.1	0.09	B
3	7	57	45.1	19-23.9	155-26.6	6.7	2.8	15	100	12.1	0.07	0.6	0.6	0.13	B
3	10	6	54.8	19-31.7	156-10.7	8.0*	2.2	12	284	26.9	0.82	5.3		0.14	D
3	12	10	3.4	19-21.9	155-24.9	8.8	1.7	15	102	4.2	0.09	0.8	0.7	0.18	B
3	20	50	59.2	19-20.8	155-14.7	32.7	2.3	15	159	2.1	0.20	1.2	1.8	0.11	C
3	21	53	44.1	19-20.9	155-13.8	8.2	0.9	13	164	3.1	0.13	0.9	0.6	0.16	C
4	1	58	52.0	19-20.9	155-12.8	7.0	1.3	11	174	2.9	0.16	1.0	0.8	0.15	C
4	12	19	5.0	19-23.6	155-17.1	14.9	2.1	16	71	0.7	0.05	0.5	0.6	0.09	A
4	15	22	45.1	19-20.6	155-27.7	9.2		11	131	7.7	0.15	1.5	1.7	0.20	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
NOV 5	2	40	9.0	19-12.8	155-16.4	44.2	2.4	12	242	10.3	0.37	3.1	2.4	0.16	D
5	2	43	31.4	19- 0.1	155-14.2?	8.0*	2.4	12	293	33.9	1.10	8.1		0.55	D
5	2	44	17.9	19-12.1	155-16.5	39.4	2.5	13	245	11.5	0.47	3.7	3.3	0.23	D
5	6	36	46.4	19-32.5	155-59.6	9.4	2.9	8	296	7.9	1.25	7.1	1.0	0.11	D
5	23	55	11.9	19-22.6	155-25.4	8.9	2.3	15	95	5.9	0.07	0.7	0.6	0.14	B
6	1	49	32.6	20-23.1	155-47.8	8.0*	2.8	16	183	40.4	0.13	2.1		0.15	C
6	7	59	18.1	19-24.8	155-32.0	10.0	2.1	12	165	17.4	0.16	1.1	0.7	0.17	C
6	8	4	32.5	19-21.5	155-17.2	22.7	2.2	14	102	2.7	0.19	1.0	1.8	0.10	A
7	21	30	36.5	19-20.1	155-19.6	30.2	2.2	12	98	3.9	0.19	1.2	1.7	0.09	B
7	22	11	57.5	19-26.1	155-26.8?	1.9	2.3	13	137	12.5	0.09	0.6	1.3	0.12	B
7	22	41	0.9	19- 0.1	156-14.4	18.8*	3.0	18	315	66.5	0.31	2.2		0.15	D
8	5	3	15.8	19-17.6	155-22.2	6.5	1.7	12	176	5.3	0.16	1.1	1.1	0.17	C
8	8	52	58.1	19-22.5	155-17.8	24.6		13	64	2.5	0.15	0.9	1.4	0.06	A
8	10	51	28.5	19-19.7	155-16.6	28.4		10	158	1.5	0.31	1.7	2.6	0.09	C
8	12	6	30.8	19-19.3	155-18.5	7.8		11	132	2.4	0.10	0.8	0.5	0.10	B
9	3	32	50.2	19-19.7	155-12.7	8.5	1.6	14	190	5.2	0.16	1.2	0.7	0.18	C
9	10	52	49.2	19-23.1	155-23.6	10.5	1.4	11	176	5.4	0.11	0.9	0.5	0.11	C
9	20	11	20.1	19-18.6	155-21.3	6.4	1.1	10	204	4.6	0.10	0.6	0.5	0.07	B
9	23	53	18.5	19-21.8	155-26.9?	11.6	1.7	13	124	6.9	0.17	1.1	1.0	0.17	B
10	0	31	46.3	19-43.4	155-47.9	15.4*	2.4	14	167	25.9	0.06	0.5		0.06	C
10	0	46	47.0	19-12.5	155-20.9?	31.3	1.8	14	221	14.8	0.18	1.2	1.7	0.09	C
10	2	53	14.0	19-19.4	155-15.3	8.1	1.4	10	184	4.0	0.22	1.3	1.0	0.18	C
10	7	24	0.8	19-19.7	155-21.2	30.7	2.5	16	126	3.8	0.20	1.2	1.8	0.11	B
10	12	14	1.9	19-18.9	155-15.1	8.2	1.2	10	197	4.6	0.24	1.4	1.0	0.19	C
10	12	54	43.6	19-24.8	155-27.8	10.4	1.7	14	139	11.6	0.11	0.8	0.5	0.14	B
10	14	10	21.1	19-18.0	155-16.1?	11.3	1.4	10	213	4.4	0.33	1.8	2.2	0.12	C
10	15	28	2.0	19-22.1	155- 7.6	13.7	1.9	10	286	3.8	0.24	1.8	0.6	0.08	C
10	16	0	1.6	19-20.5	155-10.9	10.3	1.5	10	218	3.4	0.11	0.7	0.3	0.06	B
10	17	16	12.0	19-18.4	155-14.5	10.1	1.5	15	199	6.0	0.09	0.7	0.4	0.10	B
10	17	19	52.0	19-18.4	155-14.3	14.9	1.3	6	215	6.3	0.10	0.7	0.9	0.02	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
NOV 10	21	37	17.6	19-18.4	155-14.6	10.1	1.2	11	210	5.8	0.15	1.0	0.5	0.13	C
10	22	3	24.4	19-18.1	155-14.7	10.2	2.1	15	222	5.9	0.12	0.9	C.4	0.11	C
10	22	38	15.1	19-53.2	155-21.2	6.6	2.1	15	190	16.1	0.26	1.4	1.1	0.18	C
10	23	33	54.8	19-19.5	155- 7.5	10.3	1.6	13	207	6.3	0.25	1.9	0.7	0.18	C
11	1	40	0.1	19-18.6	155-15.5	10.0	1.7	13	193	4.2	0.09	0.8	0.4	0.11	C
11	9	37	4.7	19-20.8	155-12.9	8.0		14	175	3.2	0.16	1.1	0.7	0.18	C
11	12	53	57.0	19-19.0	155-15.4	9.8		11	191	4.0	0.10	0.7	0.4	0.09	B
11	15	53	45.4	19-11.4	155-19.9	45.2		15	240	12.2	0.30	2.6	2.1	0.11	D
11	17	12	41.4	19-12.2	155-20.5	37.3	3.7	18	223	197.5	0.21	1.3	1.5	0.09	C
11	18	15	12.1	19-35.8	155-16.7?	11.9	2.4	16	99	16.0	0.14	0.9	0.8	0.12	B
11	19	18	54.3	19-13.5	155-23.1	27.8	2.2	15	234	12.3	0.14	0.9	1.2	0.09	C
11	22	4	51.4	19-20.7	155-10.9	7.0		10	214	3.2	0.24	1.5	0.9	0.14	C
11	23	27	20.3	19-24.4	155-16.3	8.7	1.2	9	162	1.5	0.14	0.5	C.9	0.05	B
11	23	27	34.5	19-24.4	155-16.8	9.3	2.0	17	50	1.1	0.03	0.3	0.2	0.07	A
12	0	56	51.3	19-14.7	155-25.3	26.9	2.2	17	208	10.7	0.38	1.9	3.4	0.21	C
12	8	19	32.3	19-16.8	155-19.8	23.6	2.2	6	275	8.7	0.37	2.6	3.6	0.06	D
12	19	46	13.8	20- 5.4	155-50.4	20.3	4.3	23	144	16.0	0.08	1.0	3.2	0.16	B
12	19	57	19.1	20- 6.5	155-51.4	20.1	3.1	24	146	18.4	0.10	1.0	4.2	0.18	B
12	20	17	6.8	20- 4.7	155-51.4	17.5	2.5	15	303	17.2	0.23	1.6	4.9	0.13	C
12	21	36	0.3	20- 6.8	155-50.1	15.2*	3.2	20	150	16.7	0.08	1.0		0.13	C
12	21	46	19.5	19-22.8	155-22.0	10.6	1.6	15	107	4.4	0.06	0.6	C.4	0.13	B
13	1	4	11.9	19-18.4	155-14.3?	11.7	1.3	10	213	6.2	0.31	1.6	2.2	0.11	C
13	1	35	31.9	19-18.1	155-12.9	15.9	1.4	8	231	8.0	0.20	1.2	1.8	0.05	C
13	2	34	42.0	19-19.4	155-15.7	8.1	1.2	12	179	3.3	0.17	1.0	0.8	0.15	C
13	3	45	50.3	19-21.4	155-10.0	7.1	1.5	8	243	1.5	0.28	1.9	0.9	0.10	C
13	4	57	56.9	19-20.6	155- 8.9	13.9	1.4	8	282	3.2	0.25	2.1	1.1	0.07	C
13	7	44	9.9	19-19.1	155-14.5	13.8	1.4	7	198	5.1	0.14	0.7	1.1	0.03	B
13	18	18	14.3	19-23.1	155-29.9	7.2	2.5	17	104	12.8	0.11	0.9	C.9	0.17	B
14	0	34	9.0	19-22.2	155-12.7	26.5	2.1	19	140	0.6	0.14	0.9	1.3	0.10	B
14	1	5	19.C	19- 3.3	155-24.7	14.5*	1.7	9	289	30.5	0.65	4.4		0.08	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

197C	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
NOV 14	11	8	22.4	19-24.1	155-25.0	12.6	1.6	14	145	7.7	0.10	0.6	1.4	0.08	B
14	11	37	33.6	19-21.5	155-15.6	8.4	1.0	8	135	0.7	0.15	0.4	1.0	0.04	B
14	13	16	8.7	19-20.0	155-12.1	10.9	1.5	9	206	5.6	0.23	1.6	0.7	0.13	C
14	15	36	10.2	19-23.5	155-23.9	9.2		9	182	6.1	0.11	0.8	0.7	0.08	B
14	19	48	33.9	19-18.4	155-14.3	7.4	1.3	16	212	6.6	0.17	1.0	0.7	0.16	C
14	20	32	8.6	19-21.8	155-12.8	14.3	1.3	9	151	4.4	0.17	0.7	1.3	0.04	B
14	20	45	48.4	19-27.7	155-36.9?	9.6	1.4	7	204	23.6	0.17	1.0	0.8	0.06	C
14	21	21	43.7	19-22.1	155- 4.5	26.2*	1.8	9	331	9.3	0.34	3.8		0.11	D
15	5	43	13.8	19-21.2	155- 4.8	16.8*	1.7	8	335	8.9	0.31	2.4		0.05	D
15	7	9	3.8	19-20.9	155-13.7	13.3	1.2	9	166	3.2	0.22	0.7	1.7	0.06	B
15	9	52	10.8	19-19.6	155-15.7	32.4	2.0	15	171	4.1	0.24	1.5	2.2	0.13	C
15	10	38	11.1	19-21.2	155-14.2	8.5	1.5	15	156	2.2	0.12	0.8	C.6	0.16	C
15	10	54	35.0	19-33.5	155-25.0?	29.6	2.1	9	177	7.5	0.25	2.4	2.7	0.11	C
15	10	56	47.2	19-23.1	155-22.0	5.7		11	145	4.2	0.17	0.5	1.7	0.09	B
15	12	59	22.5	19-20.8	155-14.2	8.1		15	163	2.6	0.15	0.8	C.8	0.15	C
15	14	21	50.4	19-33.6	156-16.1	2.9	3.0	14	303	36.7	0.23	1.5	C.9	0.10	C
15	22	22	39.5	19-20.3	155-16.5	29.5	2.0	21	147	1.7	0.18	1.2	1.5	0.17	B
16	0	33	43.2	18-49.2	155-23.2	26.9*	2.8	17	303	53.7	0.55	3.5		0.16	D
16	4	2	51.6	19-20.1	155- 6.4	5.1	3.3	17	202	7.0	0.17	1.2	C.8	0.16	C
16	4	23	48.7	19-46.8	156-37.5	8.0*	3.3	14	315	79.2	2.53	15.3		0.14	D
16	4	43	27.6	19-21.0	155- 7.8	8.2	1.2	13	192	4.1	0.16	1.3	C.8	0.12	C
16	9	17	26.6	19-20.2	155-11.9	11.8	1.5	10	206	5.1	0.26	1.4	2.0	0.10	C
16	12	17	34.5	19-20.6	155-12.4	8.0	1.7	17	179	3.5	0.12	1.0	C.6	0.18	C
16	16	4	10.4	19-10.9	155-36.2	10.3	2.3	13	251	7.4	0.33	2.3	0.7	0.10	C
16	20	2	46.5	19-19.9	155-25.4	6.6	2.1	16	139	3.7	0.10	0.9	C.9	0.18	B
16	20	24	6.0	19-19.9	155- 6.2	5.3	2.5	16	207	12.1	0.21	1.4	1.0	0.19	C
16	20	57	55.9	19-19.9	155- 7.6	6.6	1.5	17	204	5.6	0.21	1.4	0.9	0.19	C
16	21	9	3.3	19-10.1	155-34.0?	8.5	1.9	9	266	10.4	1.42	9.9	4.1	0.19	D
17	9	51	7.1	19-24.9	155-23.8	10.6	1.4	13	177	7.5	0.09	0.7	0.4	0.10	B
17	12	21	25.1	19-25.7	155-26.1?	18.1	1.8	12	168	9.0	0.38	1.2	4.2	0.21	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
NOV 17	14	2	30.1	19-12.1	155-26.2	23.3	1.7	10	234	15.7	0.63	3.0	6.2	0.11	D
17	14	4	8.5	19- 6.1	155-26.8	30.0	2.1	8	279	24.2	2.07	8.8	15.5	0.09	D
17	14	6	59.0	19-11.4	155-22.6?	3.4	1.5	11	235	16.4	3.24	0.0	43.2	0.84	D
17	14	9	30.3	19- 7.3	155-28.0?	45.9	2.3	10	262	21.2	1.63	5.5	13.4	0.13	D
17	14	11	1.6	19- 3.5	155-25.1	50.4	2.4	13	277	29.0	0.38	3.8	4.1	0.13	D
17	14	11	36.4	19- 1.8	155-23.3	15.8*	2.4	10	283	33.9	0.48	3.3		0.20	D
17	16	11	25.1	19-21.4	155- 9.5	11.7	1.3	7	269	1.3	0.38	1.9	2.2	0.05	C
17	17	12	44.1	19-20.2	155-11.8	10.9	1.7	11	206	4.4	0.19	1.3	0.6	0.12	C
17	19	58	42.7	19-16.8	155-28.5	6.1	1.9	9	184	11.0	0.18	1.5	1.5	0.15	C
17	21	55	18.6	19-26.0	155- 5.7?	28.5*	1.9	11	176	10.2	0.55	5.9		0.26	D
18	0	43	58.8	19-21.8	155-11.6	6.6	1.5	10	174	2.0	0.18	1.3	0.8	0.11	C
18	6	7	57.8	19-52.3	155-46.8?	0.0	3.3	17	133	19.6	0.43	0.8	2.0	0.13	B
18	15	28	32.2	19-23.7	155-17.2	3.1	2.1	13	96	0.9	0.06	0.4	0.6	0.08	A
18	16	31	6.6	19-24.7	155-23.4	11.0	1.7	13	117	6.7	0.06	0.6	0.4	0.11	B
18	17	22	41.2	19-25.6	155-24.0	7.3	1.5	12	196	6.8	0.11	0.6	0.6	0.08	C
18	21	40	44.5	19-19.4	155-15.9	8.1	1.8	12	175	2.9	0.15	0.9	0.7	0.14	C
18	22	25	33.3	19-23.1	155-25.0	10.1	1.2	11	203	6.2	0.16	1.1	0.9	0.12	C
19	0	48	13.0	19-16.4	155- 0.6?	30.3	1.8	9	244	25.7	0.49	3.9	6.1	0.12	D
19	1	29	26.4	19-21.1	155-13.4	9.2	2.1	16	165	3.0	0.14	1.0	0.6	0.17	C
19	2	48	27.2	19-34.8	155-19.4	27.9	1.6	12	284	11.5	0.35	1.9	2.1	0.06	C
19	14	27	26.2	19-23.4	155- 3.4?	0.9	2.3	15	190	16.0	0.56	1.1	3.0	0.16	C
21	15	20	37.9	19-18.1	155-12.6	11.8		13	228	8.3	0.18	1.2	1.2	0.11	C
22	1	54	51.5	19-21.4	155-42.1	6.7	2.5	12	281	14.9	0.84	3.9	2.2	0.10	D
22	2	36	21.8	19-23.7	155-17.0	18.5	1.7	12	73	0.7	0.07	0.5	0.7	0.05	A
22	3	21	34.5	19-21.5	155-17.1	29.9	2.2	14	106	2.6	0.44	1.7	3.9	0.10	B
22	7	30	52.3	19-24.6	155-29.5	12.2	2.0	13	193	13.6	0.09	0.7	1.1	0.07	B
22	8	9	28.1	19-18.6	155-13.7	10.1	1.8	12	213	6.5	0.16	1.0	0.6	0.14	C
22	8	48	14.8	19-23.3	155-23.4	12.5		9	124	5.8	0.09	0.9	1.3	0.09	B
22	12	27	38.0	19-38.0	155-41.0?	0.3	1.9	8	232	28.0	1.24	32.4	36.5	0.27	D
22	13	46	57.4	19-53.7	156-16.3?	84.6*	2.8	7	300	61.6	7.84	88.9		2.07	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
NOV 22	20	7	47.7	19-22.4	155-14.4	6.6	1.4	11	139	1.9	0.10	0.7	0.6	0.09	B
22	22	15	48.4	19-22.1	155-25.5	12.4		10	138	5.2	0.13	0.9	2.1	0.10	B
23	3	31	44.6	19-19.3	155-15.9	8.8	1.2	14	178	3.0	0.11	0.8	C.5	0.13	C
23	7	28	28.3	19-23.6	155-27.3?	11.2	2.3	15	96	9.4	0.07	0.7	1.2	0.12	B
23	12	2	37.1	19-19.8	155-13.8	9.9	1.4	12	189	4.5	0.12	0.9	C.5	0.12	C
23	15	32	15.8	19-19.2	155-13.6	10.1	1.3	11	203	5.5	0.14	1.0	0.5	0.12	C
23	16	20	56.1	19-22.2	155- 9.2	8.1	1.8	8	305	1.1	1.25	3.9	5.4	0.13	D
23	16	55	19.7	19-21.5	155-12.5	8.5	1.3	7	162	4.8		1.0	C.8	0.12	C
23	19	23	54.4	19-27.5	155-27.1	11.3	1.4	8	265	8.0	0.11	0.7	0.3	0.03	C
24	1	34	32.7	19-19.4	155-11.6?	3.0	1.4	6	225	5.9	0.14	0.7	0.5	0.04	C
24	14	5	43.1	19-12.2	155-34.4?	4.3*	2.2	9	247	6.9	0.61	2.6		0.22	D
24	16	26	55.4	19-18.6	155-26.1	11.1	2.1	13	156	5.7	0.12	1.0	0.7	0.12	C
24	19	57	36.1	19-21.8	155- 6.2	9.2	1.4	10	316	6.3	0.57	2.8	C.9	0.17	D
24	21	3	40.7	19-18.4	155-13.8	16.1	1.0	8	219	6.8	0.14	0.9	1.3	0.04	B
24	21	19	19.6	19-18.4	155-28.4?	9.8	1.6	7	155	9.6	0.28	3.2	7.7	0.19	C
25	2	25	52.9	19-22.6	155-25.8	10.9	1.3	11	243	6.2	0.27	1.5	2.1	0.08	C
25	3	42	6.6	19-26.7	155-29.6	11.8	2.1	12	212	12.5	0.16	1.2	1.1	0.09	C
25	7	26	26.8	19-20.3	155-13.2	8.0	1.7	13	184	4.6	0.16	1.1	0.7	0.18	C
25	7	43	14.8	19-19.4	155-12.7	26.8	1.9	10	299	6.4	0.78	3.8	5.2	0.07	D
25	11	22	52.0	19-22.4	155-24.0	9.5	1.8	9	202	4.2	0.54	1.2	3.4	0.11	C
25	17	4	13.9	19-19.8	155-13.4	11.8	1.2	13	194	5.0	0.22	1.2	1.6	0.11	C
25	19	37	3.4	19-23.6	155-23.1	11.5	1.6	9	177	6.0	0.18	1.0	1.9	0.11	C
25	20	47	47.7	19-21.6	155-24.1	11.3	1.9	12	138	2.9	0.09	0.8	0.4	0.12	B
25	21	16	57.2	19-23.5	155-17.3	17.7	1.8	10	139	1.0	0.13	0.8	1.4	0.08	B
26	0	30	57.5	19-21.0	155-10.1	10.8	0.8	9	185	2.1	0.10	1.2	0.4	0.09	C
26	7	11	56.7	19-25.0	155-17.4	17.2	1.4	9	233	0.6	0.12	0.6	C.9	0.03	C
26	15	2	29.4	19-22.5	155-23.2	9.9	1.5	13	110	4.2	0.08	0.8	C.7	0.14	B
26	19	2	57.1	19-43.7	155-45.4	10.1	2.8	10	153	28.8	0.87	0.9	5.8	0.10	C
26	20	53	20.3	19-20.9	155-13.7	8.2	1.0	11	166	3.2	0.18	1.2	C.9	0.17	C
26	21	21	21.8	19- 6.2	155-26.2?	16.3*	2.2	14	266	24.9	0.41	3.0		0.22	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
NOV 27	6	4	11.0	19-20.8	155-13.8	7.8	1.2	12	167	3.2	0.17	1.0	C.9	0.17	C
27	5	2	32.5	19-21.2	155-11.2	8.3	1.6	14	180	3.0	0.13	1.1	C.6	0.15	C
27	5	30	56.2	19-20.9	155- 8.0	7.1	1.5	15	194	3.9	0.16	1.1	0.7	0.15	C
27	6	4	11.0	19-20.8	155-13.8	7.8	1.2	12	167	3.2	0.17	1.0	C.9	0.17	C
27	7	37	20.1	19-20.8	155-13.2	9.0	2.4	16	173	3.4	0.11	0.8	C.5	0.15	C
27	15	34	49.5	19-15.4	155-26.5	9.1	2.0	12	200	10.5	0.18	1.4	C.9	0.16	C
27	17	31	5.2	19-31.4	155-24.7	13.8	1.7	13	135	3.8	0.11	1.1	0.8	0.14	B
27	19	46	22.7	19-18.7	155-12.6	14.8	1.6	7	226	7.5	0.12	1.0	C.4	0.04	C
27	20	22	10.2	19-20.9	155-11.5	9.9	1.5	7	182	3.8	0.15	1.7	1.1	0.10	C
27	20	22	31.1	19-19.5	155-10.5	8.5	1.3	9	198	4.9	0.10	0.9	0.4	0.08	B
27	21	57	32.4	19-20.5	155-11.0	9.4	1.6	12	188	3.6	0.13	1.1	C.6	0.13	C
28	1	4	1.2	19-21.7	155-21.6	10.7	2.3	15	144	5.0	0.07	0.7	0.4	0.10	B
28	1	43	54.0	20- 0.7	155-29.5	14.9*		14	217	21.9	0.11	1.1		0.07	C
28	2	3	17.1	19-22.6	155-22.6	9.5	1.8	15	94	4.6	0.07	0.7	0.6	0.13	B
28	5	13	42.0	19-20.8	155-11.6	15.2	0.9	10	195	3.6	0.10	0.7	0.8	0.04	B
28	16	2	15.8	19-24.1	155-25.8?	10.4	1.8	12	127	8.4	0.07	0.7	1.6	0.11	B
28	16	18	27.3	19-19.9	155-13.1	14.5	1.2	9	193	5.1	0.15	0.6	1.2	0.03	B
28	20	52	9.3	18-55.3	155-17.0	8.0*	2.7	16	281	45.7	0.54	3.5		0.13	D
29	2	1	4.8	19-25.2	155-17.2	3.0	0.6	7	198	0.7	0.16	0.6	0.7	0.06	B
29	5	13	55.9	19-24.1	155-12.3	8.8	1.5	11	250	3.0	0.19	1.0	C.6	0.10	C
29	14	27	13.4	19-20.8	155-11.5	14.0	1.2	8	196	3.8	0.29	1.0	2.2	0.05	C
29	16	21	13.6	19-21.1	155-13.6	7.8	1.0	10	163	3.2	0.12	0.8	C.6	0.11	C
29	16	23	26.5	19-23.0	155-23.9	12.4	1.1	12	156	5.3	0.13	0.9	1.6	0.11	C
29	17	47	3.6	19-21.4	155-18.3	28.0	1.7	13	73	2.8	0.32	1.5	2.7	0.08	B
29	21	3	10.9	19-23.1	155-25.8	8.1	1.6	12	216	6.9	0.16	1.0	1.0	0.11	C
29	22	4	28.7	19-19.8	155-36.7?	65.4*	1.9	8	194	9.1	0.22	3.9		0.15	C
29	22	22	25.1	19-21.0	155-12.6	9.1	1.0	9	174	2.8	0.14	1.2	0.8	0.11	C
29	22	25	27.9	19-21.1	155-12.9	9.7	1.3	11	168	2.7	0.11	1.3	0.6	0.14	C
29	23	36	53.2	19-20.7	155-11.0	13.1	1.2	7	210	3.3	0.23	0.9	1.7	0.03	B
30	2	45	54.2	19-22.9	155-22.1	10.8	0.9	12	108	5.5	0.07	0.6	0.4	0.13	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
NOV 30	3	30	21.3	19-20.2	155-13.0	8.7	2.2	19	182	4.4	0.12	1.0	C.5	0.20	C
30	5	11	26.6	19-19.8	155- 9.9	7.3	1.2	10	254	4.2	0.26	1.6	0.8	0.13	C
30	5	41	19.3	19-19.5	155-11.3	8.8	1.2	6	229	5.5	0.44	0.9	2.9	0.03	C
30	8	45	5.2	19-19.7	155- 5.5	15.6*	1.5	8	322	8.7	0.38	2.8		0.06	D
30	9	16	7.3	19-22.0	155-18.9	12.4	0.9	9	89	3.5	0.04	0.3	0.4	0.03	A
30	14	27	27.0	19-21.1	155-10.6?	15.0	1.2	10	208	2.3	0.33	1.3	2.2	0.07	C
30	16	42	2.9	19-21.3	155-14.3	22.9	1.5	8	152	2.0	0.46	2.3	4.0	0.08	C
30	19	34	10.6	19-31.4	155-40.2	5.0	2.6	15	187	26.4	0.11	0.9	C.6	0.12	C
30	20	6	38.6	19-22.8	155-29.3	13.1		7	141	11.6	0.10	1.5	3.2	0.07	B
30	21	11	19.2	19-21.3	155-10.7	14.6	1.4	10	199	2.3	0.15	1.2	0.8	0.07	C
1	0	42	11.1	19-20.7	155- 9.7	11.0	1.1	6	254	2.5	0.14	1.2	C.4	0.03	C
1	1	36	53.0	19-21.0	155-13.8	8.3	1.0	13	163	3.0	0.16	1.0	C.8	0.16	C
1	1	55	8.2	18-58.9	155-24.6	8.0*	1.8	16	292	36.7	0.21	1.3		0.10	D
1	4	38	19.0	19-20.9	155- 7.1	26.4*	1.5	7	320	5.2	0.21	3.3		0.09	D
1	6	29	27.1	19-21.8	155-18.3	26.7	1.2	11	72	3.4	0.28	1.3	2.6	0.07	B
1	7	58	7.4	19-24.4	155-23.4	11.3	1.4	15	116	6.6	0.05	0.4	C.7	0.08	A
1	7	58	55.6	19-20.5	155-11.3	0.1*		6	224	4.0	0.66	3.1		0.23	C
1	9	56	21.6	19-18.3	155-11.2	14.1	1.2	7	248	7.4	0.29	2.3	1.2	0.08	C
1	12	10	44.0	19-24.9	155-24.3	9.7	1.4	13	121	7.9	0.04	0.4	C.4	0.06	B
1	13	12	18.1	19-25.2	155-23.3	11.4	2.0	15	117	6.3	0.05	0.5	C.8	0.10	A
1	13	13	2.0	19-19.3	155-12.4	12.0	1.3	10	217	6.0	0.32	1.7	2.3	0.11	C
1	14	1	56.0	19-33.6	155-29.4	8.0*	1.6	4	212	12.8		0.0		0.19	D
1	14	2	53.1	19-58.2	155-59.5?	8.0		5	333	59.6		0.0		0.73	D
1	16	27	22.2	19-19.1	155-12.7	15.9	1.2	9	217	6.4	0.25	1.5	2.3	0.07	C
1	18	17	29.1	19- 4.1	156-11.5	16.9*	2.3	14	317	57.5	0.30	2.0		0.16	D
1	18	20	2.9	19-23.3	155-24.3	11.1	2.0	12	83	5.9	0.10	1.0	0.6	0.16	B
1	19	14	43.7	19-20.8	155-10.7	14.5	1.3	10	215	2.8	0.08	0.7	0.5	0.04	B
1	21	16	59.6	19-20.7	155-14.2	9.0	2.1	18	166	2.8	0.09	0.7	0.4	0.16	C
1	23	27	46.3	19-17.7	155-15.4	10.4	1.5	12	211	5.5	0.15	1.0	0.6	0.13	C
2	0	0	36.7	19-21.7	155-15.4	9.3	1.3	14	133	0.3	0.10	0.7	C.6	0.11	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 2	1	9	57.5	19-18.6	155-17.6	9.6	0.9	11	198	2.1	0.07	0.5	0.4	0.05	B
2	2	28	26.7	19-23.4	155-16.5	2.1	0.0	7	165	0.6	0.48	1.4	2.8	0.13	C
2	5	27	28.1	19-19.8	155- 8.2?	12.5	1.4	11	293	5.2	0.32	2.2	0.8	0.10	C
2	5	42	37.0	19-21.8	155-17.1	27.4	1.7	13	102	2.3	0.41	1.5	3.6	0.10	B
2	7	38	32.6	19-20.8	155-12.1	0.2*	0.6	6	202	3.2	0.09	0.5		0.05	C
2	8	49	43.8	19- 5.0	155-37.5	7.4		14	270	18.2	1.09	4.7	2.9	0.16	D
2	10	21	20.8	19-21.4	155-11.9	0.2*	0.6	7	173	2.4	0.17	0.9		0.16	C
2	10	47	27.4	19-23.7	155-12.9	3.0	0.8	6	212	2.3	0.15	0.8	0.4	0.04	B
2	13	26	9.6	19-20.6	155-13.1	9.1	1.2	11	180	3.7	0.16	1.2	0.9	0.14	C
2	15	57	1.6	19-32.4	155-41.0	5.9	2.0	10	291	31.3	2.35	10.5	4.1	0.11	D
2	16	10	0.3	19-22.4	155-16.1	27.0	2.1	15	95	0.3	0.36	1.5	3.1	0.11	B
2	18	39	59.0	19-20.5	155-12.6	7.2	1.3	10	187	3.7	0.16	1.0	0.7	0.11	C
2	19	0	31.0	19-41.3	155-46.7	8.0*	1.6	8	316	46.0	0.14	1.0		0.04	D
2	19	3	0.4	19-16.6	155-28.0	33.9	1.7	12	177	10.6	0.22	1.6	1.8	0.09	C
2	19	36	0.3	19-22.1	155-26.7	9.2	1.9	15	114	6.9	0.07	0.7	0.6	0.14	B
2	19	38	55.3	19-13.1	155-50.8	8.1	3.0	15	265	24.3	0.75	4.0	1.4	0.12	D
2	19	46	41.4	19-20.4	155-13.2	8.5	0.9	16	178	4.0	0.11	0.9	0.5	0.17	C
2	19	54	42.3	19-22.1	155-13.1	4.0	0.7	9	143	1.4	0.23	1.3	2.1	0.13	B
2	20	0	53.5	19-20.6	155-12.6	0.2*	0.8	9	185	3.5	0.17	0.8		0.15	C
2	20	3	58.5	19-21.6	155-12.7	3.8	0.6	6	158	1.7	0.08	0.5	0.9	0.03	B
2	23	49	58.5	19-21.2	155-11.8	5.6	0.9	11	180	2.7	0.41	1.4	2.8	0.16	C
3	5	58	39.7	19-22.1	155-12.9	3.1	1.0	8	143	1.1	0.13	0.9	1.5	0.10	B
3	12	51	34.1	19-19.0	155-15.7	13.8	1.0	10	188	3.6	0.19	0.7	1.4	0.05	B
3	17	23	36.3	19-23.3	155-22.1	8.5	1.0	12	149	4.2	0.35	0.8	2.4	0.14	B
3	21	25	15.5	19-13.6	155-20.0	29.5	1.7	14	226	8.4	0.22	1.5	1.7	0.10	C
3	21	55	7.4	19-13.8	155-29.5	39.9	1.5	13	211	13.5	0.34	2.4	2.3	0.11	C
3	21	55	48.9	18-28.2	155-19.8?	112.2*		10	319	91.4	7.52	90.8		1.89	D
3	22	9	31.9	19-21.0	155-12.6	14.8	1.4	9	174	4.9	0.07	0.6	0.4	0.04	B
4	5	51	8.3	19-22.5	155-24.5	8.9	0.9	12	115	4.7	0.11	0.8	1.0	0.16	B
4	6	35	23.9	19-19.9	155-12.8	5.1	0.6	7	199	5.7	0.35	1.2	4.5	0.08	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 4	9	34	54.7	19-21.6	155-13.1	2.6	0.5	6	154	4.0	0.06	0.5	C.4	0.04	B
4	13	9	4.2	19-20.4	155-25.3	8.0	1.1	9	133	3.5	0.12	1.0	1.1	0.13	B
4	16	31	10.8	19-16.0	155-22.6	4.9	1.2	11	204	7.8	0.25	1.5	1.7	0.20	C
4	16	35	58.8	19-13.3	155-21.8	3.1	2.0	12	224	13.1	0.82	1.6	3.8	0.18	C
4	16	45	31.1	19-12.9	155-21.8	2.4	3.2	17	227	10.8	0.68	1.4	2.9	0.20	D
4	16	50	43.9	19-12.5	155-21.1	4.2	2.5	15	221	14.8	0.32	1.6	1.4	0.20	C
4	17	26	43.3	19-16.1	155-22.2	11.3	1.1	7	203	7.0	0.11	1.1	0.4	0.05	C
4	17	43	55.3	19-18.9	155-13.7	15.2	1.3	7	209	6.9	0.18	1.2	1.7	0.05	C
4	20	30	14.1	19-19.3	155-14.0	15.7	1.3	8	200	5.2	0.17	1.0	1.6	0.05	B
4	20	30	44.4	19-19.9	155-14.5	9.9	1.3	13	178	3.8	0.09	0.8	C.4	0.11	C
4	21	50	40.1	19-12.8	155-21.4	5.4	3.2	19	219	10.7	0.30	1.5	1.2	0.26	C
5	1	32	26.1	19-12.9	155-21.6	3.5	2.8	17	219	13.7	0.25	1.2	1.0	0.17	C
5	1	35	37.5	19-21.3	155- 9.6	9.5	1.6	12	185	1.6	0.09	0.9	C.4	0.09	C
5	1	46	32.5	19-14.6	155-21.6	11.7	1.5	13	232	8.1	0.23	1.6	1.7	0.12	C
5	1	53	13.1	19-13.3	155-21.9	5.3	1.9	14	216	12.9	0.24	1.3	1.2	0.16	C
5	3	51	52.7	19-27.5	155-14.2	28.6	2.2	17	65	6.8	0.15	0.9	1.6	0.11	B
5	4	23	26.6	19-15.3	155-22.3	7.1	1.7	14	208	8.0	0.20	1.1	1.1	0.17	C
5	4	27	0.9	19-12.4	155-21.2	2.5	2.4	17	221	14.9	0.95	1.7	3.9	0.23	C
5	6	2	33.2	19-24.0	155-29.1	12.4	1.5	15	144	12.3	0.22	1.7	3.4	0.22	C
5	6	49	18.2	19-19.5	155-16.7	11.1	0.7	8	216	1.7	0.58	1.2	2.9	0.03	C
5	7	17	25.2	19-20.7	155-10.7	14.9	1.4	10	219	3.1	0.09	0.8	C.4	0.05	B
5	7	56	9.2	19-26.0	155-12.7	24.1	2.3	16	64	6.5	0.11	0.7	1.3	0.09	A
5	9	36	56.0	19-15.4	155-22.0	10.8	1.4	10	217	7.5	0.16	1.2	C.4	0.09	C
5	11	32	56.0	19-24.3	155-29.7	8.1	1.9	11	148	13.5	0.23	2.1	2.9	0.22	C
5	12	2	42.9	19-13.7	155-22.1	31.2		11	214	9.9	0.36	2.0	3.0	0.13	C
5	12	51	25.0	19-15.9	155-22.3	11.2	1.4	6	207	7.4	0.06	0.5	C.7	0.02	B
5	12	53	11.4	19-26.1	155-25.0	11.1	1.1	9	220	7.5	0.10	0.7	C.3	0.05	B
5	14	31	50.7	19-15.3	155-22.8	5.4	1.3	12	211	8.8	0.24	1.5	1.5	0.18	C
5	15	55	6.3	19- 7.1	155-39.7	8.8	2.3	7	324	15.2	0.87	17.0	5.8	0.19	D
5	16	18	23.1	19-19.8	155-17.0	10.1	1.1	8	179	0.8	0.13	0.3	0.7	0.01	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 5	16	34	30.3	19- 5.7	155-42.3	6.0	3.1	15	272	19.3	0.99	4.0	2.8	0.11	D
5	17	59	45.1	19-23.2	155-37.1	11.7	3.9	18	115	16.5	0.09	0.6	1.1	0.12	B
5	18	6	35.9	19-18.1	155-39.6?	35.1*	2.1	7	279	7.3	1.06	9.9		0.39	D
5	19	5	37.1	19-19.5	155-13.1	10.2	1.1	14	190	5.6	0.09	0.8	0.5	0.10	C
5	20	3	57.0	19-23.9	155-37.0?	9.1	2.3	13	133	16.6	0.11	0.8	0.7	0.12	B
6	4	33	58.9	19-25.1	155-23.4	14.1	1.2	12	130	6.7	0.13	1.2	1.7	0.11	B
6	6	4	21.6	19-55.6	155-35.8	26.9	2.5	18	181	15.9	0.18	1.1	2.2	0.08	C
6	8	11	20.9	19-23.7	155-17.7?	10.0	1.1	12	83	1.6	0.24	1.7	1.6	0.12	B
6	9	1	41.1	19-23.9	155-25.8?	11.4		11	126	8.1	0.08	0.6	0.4	0.11	B
6	9	41	30.7	19-24.2	155-30.9	0.9*		7	161	15.1	0.09	0.7		0.08	C
6	9	48	8.7	19-23.4	155-17.3	14.3	1.4	13	82	0.8	0.13	1.0	1.0	0.12	B
6	13	26	46.1	19-17.8	155-14.5	13.1	1.0	7	226	6.6	0.18	0.8	1.4	0.03	C
6	14	5	19.8	19-21.3	155-14.9	11.4	0.9	9	146	1.2	0.07	0.6	0.4	0.05	B
6	17	27	36.9	19-23.1	155-35.9	9.7	1.7	9	190	15.3	0.12	0.9	0.9	0.06	B
6	23	3	58.0	19-30.9	155-14.8?	8.0*	1.5	6	341	11.2	1.68	11.8		0.36	D
7	2	9	57.9	19- 9.6	155-33.0?	8.0*	1.8	13	290	25.8	0.73	4.9		0.32	D
7	3	10	43.6	19-20.9	155-12.9	14.1	1.0	10	174	4.6	0.22	0.8	1.7	0.06	B
7	13	43	55.8	19-13.1	155-21.5	40.0	2.0	10	248	10.2	0.24	1.7	1.6	0.09	C
7	15	11	44.0	19-20.1	155-12.3	7.6	1.3	12	199	4.4	0.18	1.3	0.7	0.18	C
7	16	13	55.2	19-19.5	155-15.7	10.1	1.2	10	177	3.2	0.09	0.7	0.5	0.09	B
7	18	19	35.5	19-20.8	155-25.0	8.8	1.7	14	128	3.1	0.09	0.8	0.7	0.17	B
7	19	32	52.6	19-30.4	155-10.0?	8.0*	1.3	5	348	15.9	0.18	40.4		0.18	D
7	20	35	31.7	19-20.6	155-11.3	9.1	1.0	9	208	3.9	0.09	0.7	0.4	0.05	B
7	22	40	1.1	19-23.8	154-59.7	10.0	1.8	12	203	14.4	0.27	3.0	1.1	0.20	C
8	0	20	8.3	19-20.1	155-15.6	9.7	1.1	12	163	3.1	0.06	0.6	0.4	0.09	B
8	1	24	53.4	19-13.0	155- 2.1	4.8	1.6	10	262	21.5	0.64	3.0	1.8	0.12	D
8	4	9	5.6	19-23.3	155-17.2	14.7	1.4	12	110	2.7	0.13	1.0	1.1	0.13	B
8	6	32	22.8	19-20.6	155- 8.6?	11.3	0.9	9	194	3.5	0.17	1.6	0.8	0.12	C
8	7	18	14.6	19-20.7	155- 4.4	4.6	2.5	16	206	9.7	0.23	1.5	0.9	0.19	C
8	7	48	59.6	19-23.1	155-24.1	10.9	1.3	10	129	5.4	0.07	0.7	0.8	0.08	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

197C	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 8	10	59	14.7	20- 0.6	155-51.8	0.3	2.7	18	148	49.5	1.16	1.3	5.1	0.12	C
8	13	44	59.5	19-19.4	155-16.1	8.8	1.6	14	174	2.7	0.10	0.8	0.5	0.14	C
8	16	22	23.5	19-21.7	155-38.7	17.4	2.5	14	134	12.8	0.27	2.2	8.8	0.17	C
8	20	43	43.6	19-19.3	155- 2.0	7.0	2.2	13	224	14.5	0.45	2.9	1.0	0.20	C
8	20	53	18.2	19-26.1	155-29.3	11.0	2.3	16	83	12.5	0.07	0.5	0.3	0.10	A
9	5	0	47.3	19-23.7	155-30.3	8.4	2.4	18	98	13.9	0.15	1.2	1.2	0.22	B
9	5	2	52.2	19-41.5	155-15.3	39.5	2.5	15	186	23.4	0.31	1.1	3.2	0.08	C
9	6	35	57.8	19-17.1	155-24.1	6.9		10	179	5.8	0.12	0.9	0.9	0.12	C
9	6	39	40.9	19-38.3	155-56.4	4.2*	1.7	9	323	54.8	1.45	8.7		0.06	D
9	7	53	56.1	19-21.1	155- 9.7	7.4		11	254	1.8	0.19	1.3	0.6	0.13	C
9	9	6	16.2	19-20.2	155-16.4	30.3	1.9	9	182	1.7	0.21	1.1	1.8	0.05	C
9	11	36	55.4	19-22.9	155-34.7	1.8	1.8	8	235	15.4	0.82	4.5	5.9	0.22	D
9	18	29	29.5	19-24.5	155-23.5?	10.7	0.9	10	129	6.8	0.06	0.6	0.4	0.08	B
9	18	42	0.7	19-10.3	155-37.4	7.7	1.9	7	297	8.6	1.41	8.8	2.7	0.15	D
9	21	32	40.4	19-21.0	155-11.5	7.4	1.3	11	190	3.2	0.18	1.1	0.8	0.11	C
9	22	33	9.1	19-23.2	155-23.3	9.4	1.4	15	113	5.6	0.10	0.9	0.7	0.17	B
9	22	33	50.8	19-23.2	155-23.4	9.5	2.0	14	114	5.6	0.07	0.6	0.5	0.13	B
10	2	0	17.8	19-21.3	155-11.5	14.7	1.1	10	180	2.8	0.08	0.7	0.5	0.05	B
10	4	32	28.3	19-23.0	155-22.3	9.3	1.1	11	149	4.8	0.10	0.7	0.7	0.12	B
10	5	53	31.7	19- 5.5	155-24.2	25.6*	1.7	16	269	25.0	0.37	2.7		0.21	D
10	10	9	40.0	19-24.1	155-29.0	11.1	2.4	14	94	12.3	0.06	0.5	0.3	0.09	A
10	17	9	34.2	19-20.1	155-29.3	9.5	1.5	7	133	10.5	0.20	2.3	2.4	0.16	B
10	18	43	34.2	19-24.6	155-17.3	9.0	1.0	12	105	0.4	0.06	0.4	0.3	0.05	A
10	18	44	17.5	19-24.7	155-17.7	9.1	1.3	11	72	1.2	0.09	0.6	0.5	0.07	A
10	20	26	35.8	19-20.9	155-19.8	2.6	0.3	9	99	4.5	0.07	0.3	0.6	0.07	A
10	20	28	5.9	19-23.4	155-22.1	9.1	3.6	15	85	6.3	0.09	0.7	0.6	0.14	B
10	20	33	34.1	19-23.6	155-22.6	7.2	0.7	9	162	5.0	0.20	0.5	1.6	0.06	B
10	23	20	14.4	19-21.0	155-11.6	9.8	1.3	14	181	3.2	0.13	1.2	0.6	0.15	C
11	1	15	24.0	19-14.4	155-38.0	11.3	2.1	7	298	1.9	0.05	0.6	0.3	0.02	C
11	1	30	57.1	19-23.6	155-16.3	3.1	0.4	7	131	1.0	0.04	0.4	0.2	0.05	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 11	8	30	24.1	19-19.1	155-15.5	9.7	1.3	9	188	3.8	0.14	1.0	0.6	0.11	C
11	14	5	26.7	19-16.9	155-11.5	17.3	1.8	8	261	10.0	0.38	1.9	3.0	0.05	C
11	19	15	50.2	19-20.8	155-25.0	8.6	1.1	10	128	3.2	0.13	1.0	1.2	0.16	B
12	0	50	50.2	19-16.3	155-24.1?	36.0	2.0	15	192	7.4	0.76	4.5	6.1	0.34	D
12	0	57	2.2	19-26.9	155-15.3	2.3	0.9	8	305	4.8	0.88	3.6	1.3	0.27	D
12	1	38	35.4	19-35.3	156- 7.3?	8.0*	2.8	13	277	22.3	1.24	8.4		0.40	D
12	5	25	51.3	19-23.2	155-28.9	11.2*	1.0	11	176	11.3	0.12	1.0		0.13	C
12	10	8	16.4	19-22.0	155-14.2	24.6	1.7	14	137	1.9	0.28	1.3	2.3	0.09	B
12	10	55	6.6	19-24.5	155-17.5	0.7	0.7	9	94	0.4	0.14	0.6	18.0	0.15	B
12	12	40	9.3	19-24.4	155-17.4?	0.0	0.1	8	107	0.6	0.11	0.5	9.0	0.10	B
12	15	37	55.4	19-21.2	155-28.6?	10.4	1.6	10	177	9.4	0.17	1.8	2.5	0.17	C
12	16	28	41.0	19-27.1	155-19.5?	8.0*	1.2	7	348	4.6	1.15	6.9		0.35	D
12	18	56	40.6	19-29.7	155-15.4?	8.0*	1.4	8	325	8.8	0.52	7.0		0.52	D
12	19	40	2.4	19-27.3	155-15.6?	10.9	1.4	7	310	5.0	2.00	10.1	45.5	0.38	D
12	19	40	50.4	19-21.1	155-10.8	6.7	1.1	9	204	2.6	0.39	1.7	2.4	0.13	C
12	20	14	37.6	19-56.1	155-21.1	24.2	2.5	17	205	20.4	0.16	0.9	2.4	0.11	C
12	20	59	25.6	19-23.5	155-22.3?	8.0*	0.9	7	327	8.7	1.45	41.3		0.49	D
12	21	6	31.1	19-27.5	155-21.6?	3.5	0.9	6	345	8.0	1.73	11.0	4.5	0.25	D
12	21	11	48.4	19-26.9	155-15.0	5.2	0.9	6	327	5.1	1.42	8.5	7.9	0.18	D
12	21	19	20.2	19-23.6	155-16.3	2.9	0.2	7	176	0.9	0.41	1.0	2.2	0.08	C
12	21	30	11.2	19-27.7	155-14.8?	8.0*	1.3	6	335	6.4	0.49	6.0		0.28	D
12	21	40	58.2	19-28.1	155-14.9?	8.0*	1.1	6	335	6.8	0.56	6.1		0.26	D
12	23	3	27.9	19-18.4	155-13.7	16.8	1.2	9	219	6.8	0.18	0.9	1.6	0.04	B
12	23	7	58.0	19-24.3	155-17.7	0.1*	0.5	11	93	0.8	0.08	0.5		0.18	B
12	23	51	36.5	19-23.8	155-16.8	1.9	-0.1	7	156	0.7	0.22	0.6	1.3	0.06	B
13	0	57	52.7	19-24.0	155-19.4	7.9	0.8	7	291	3.5	1.03	13.2	11.1	0.19	D
13	2	20	6.1	19-18.7	155- 8.8	21.3	2.0	15	254	6.5	0.47	3.4	4.1	0.25	D
13	4	28	51.0	19-22.1	155-25.0?	11.0	1.7	12	134	4.6	0.09	0.8	1.6	0.11	B
13	4	54	21.3	19-19.9	155-13.5	15.1	1.3	8	190	4.7	0.05	0.4	0.5	0.02	B
13	6	5	28.7	19-28.5	155-16.4?	8.0*	1.2	7	318	6.1	0.46	6.0		0.40	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 13	6	12	13.0	19-26.2	155-12.9?	9.7	1.5	6	333	7.5	2.42	20.0	16.5	0.33	D
13	6	16	40.1	19-28.8	155-16.7?	3.2*	0.8	8	321	6.5	1.16	5.4		0.36	D
13	6	41	53.8	19-23.6	155-16.3	1.9	0.5	8	181	1.0	0.40	1.2	2.5	0.17	C
13	7	3	26.0	19-18.1	155-12.5	15.3	1.5	8	236	8.4	0.09	0.6	0.8	0.02	C
13	7	23	9.2	19-28.2	155-14.5?.	8.0*	1.3	8	319	7.4	0.52	5.2		0.33	D
13	7	44	27.6	19-24.9	155-16.1?	3.2	1.3	10	184	1.6	0.16	0.8	1.0	0.16	C
13	8	2	6.4	19-41.4	156- 5.1?	16.5*	3.6	21	269	25.5	0.49	3.3		0.38	D
13	8	32	11.8	19-24.1	155-16.5	2.6	0.1	7	185	1.4	0.21	0.5	1.1	0.05	B
13	8	55	19.6	19-20.6	155- 9.7	20.7	1.4	9	255	2.8	1.49	6.1	11.5	0.12	D
13	9	1	12.8	19-25.7	155-15.2	3.2	0.5	6	311	3.4	1.07	4.2	1.5	0.14	D
13	10	26	47.9	19-24.3	155-17.7	0.1*	0.0	6	116	0.8	0.13	0.8		0.15	C
13	10	41	43.9	19-26.8	155-16.0	4.1	0.9	8	304	3.8	0.67	3.6	4.6	0.23	D
13	11	26	35.4	19-21.6	155-13.0	14.5	1.3	10	154	1.9	0.20	0.8	1.5	0.05	B
13	11	56	27.7	19-25.3	155-15.2	5.6	1.0	7	305	3.2	0.58	3.2	2.9	0.13	D
13	12	44	24.5	19-29.7	155-14.2?	0.4	1.6	7	326	9.9	1.09	4.7	2.8	0.21	D
13	12	49	18.1	19-24.4	155-15.9	3.0	0.3	9	237	2.2	0.41	1.6	0.9	0.18	C
13	12	50	50.1	19-29.9	155-14.7?	8.0*	1.5	7	331	9.7	1.13	7.7		0.33	D
13	14	40	13.6	19-23.9	155-15.9	2.4	0.4	8	208	1.7	0.32	0.8	1.6	0.08	B
13	14	43	36.4	19-27.6	155-16.1	5.6	1.0	8	311	4.8	1.10	5.9	4.9	0.24	D
13	16	59	48.1	19-24.7	155-16.8?	2.5	0.6	8	204	0.6	0.76	2.6	3.1	0.28	C
13	19	20	24.2	19-17.8	155-27.4	7.5	1.3	9	177	8.5	0.25	2.6	2.1	0.21	C
13	20	0	27.4	19-22.9	155-23.6?	11.4	1.4	14	113	4.9	0.07	0.6	0.4	0.11	B
13	20	2	8.2	19-25.6	155-26.8	9.7	1.9	15	189	9.8	0.22	1.6	1.0	0.19	C
13	20	3	24.0	19-23.9	155-16.7	2.8	0.2	7	162	0.9	0.28	0.7	1.5	0.06	B
13	22	3	49.5	19-23.9	155-16.2	2.2	0.3	8	193	1.3	0.30	0.8	1.5	0.08	B
13	23	22	22.4	19-23.0	155-23.6	12.4	1.0	8	124	5.3	0.08	0.9	1.2	0.08	B
13	23	57	49.2	19-27.0	155-14.9?	8.0*	1.2	9	306	5.3	0.25	3.5		0.28	D
14	2	3	3.4	19-23.7	155-16.3	2.6	0.1	7	179	0.9	0.33	0.8	1.7	0.07	B
14	3	6	23.8	19-20.0	155-13.2	13.2	1.2	10	192	5.0	0.27	1.1	2.1	0.08	C
14	3	17	1.6	19-24.0	155-16.7	1.6	0.1	8	168	1.1	0.20	0.6	1.3	0.09	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 14	3	48	39.2	19-19.1	155-24.9	8.0	1.4	13	149	3.5	0.14	1.0	1.2	0.19	B
14	3	49	10.8	19-25.5	155-14.2	0.3*	0.6	6	321	5.1	1.03	3.7		0.21	D
14	3	57	34.0	19-23.1	155-16.7	2.0	0.1	7	145	0.5	0.65	2.0	4.2	0.21	C
14	4	14	50.9	19-19.1	155-25.2	7.3	1.2	11	150	4.0	0.16	1.3	1.4	0.20	B
14	4	46	24.1	19-23.8	155-16.7	3.0	0.0	7	157	0.7	0.26	0.6	1.3	0.06	B
14	5	21	16.2	19-23.9	155-16.6	1.9	-0.0	7	171	1.0	0.19	0.5	1.1	0.05	B
14	5	26	46.4	19-23.8	155-16.7	1.6	-0.1	7	160	0.8	0.28	0.8	1.7	0.09	B
14	5	56	44.6	19-23.0	155-27.7	11.6	1.2	9	187	9.2	0.12	1.1	3.0	0.08	C
14	6	4	35.0	19-20.7	155-12.8	8.4	1.6	16	179	3.3	0.13	0.9	0.5	0.16	C
14	6	29	10.7	19-23.3	155-16.6	2.4	0.4	7	155	0.4	0.52	1.4	3.0	0.13	C
14	8	0	26.0	19-19.4	155-13.9	13.1	1.3	10	197	5.1	0.18	1.3	0.9	0.08	C
14	10	37	55.9	19-23.5	155-16.9	11.9	0.7	13	108	0.3	0.07	0.5	0.6	0.07	A
14	11	36	35.7	19-23.8	155-16.5	3.4	2.0	13	129	0.9	0.10	0.6	1.0	0.14	B
14	13	19	50.6	19-30.2	155-13.9?	8.0*	1.7	10	282	11.0	1.31	8.1		0.75	D
14	17	12	5.8	19-13.8	155-28.1	7.4	1.7	12	212	14.5	0.29	1.9	1.4	0.21	C
14	18	28	57.6	19- 9.5	155-25.4?	0.8	1.5	11	246	19.5	1.74	8.0	18.0	0.51	D
15	0	0	52.2	19-20.6	155-10.6	14.8	1.4	9	222	3.1	0.20	1.1	1.6	0.05	C
15	1	26	10.2	19-21.1	155-12.6	14.0	1.4	9	173	4.9	0.18	0.7	1.4	0.05	B
15	2	18	22.1	19-22.5	155- 7.1?	11.2	1.1	9	324	4.7	0.40	3.3	0.8	0.14	D
15	3	13	9.4	19-14.7	155-15.4?	18.4	1.8	12	270	8.3	0.82	4.8	7.6	0.33	D
15	4	44	38.1	19-18.9	155-15.5	14.5	1.3	9	192	3.9	0.11	0.4	0.9	0.02	B
15	15	19	38.4	19-19.8	155-13.2	7.7	1.4	12	195	5.1	0.15	1.1	0.6	0.16	C
15	15	52	33.3	19-20.8	155-13.9	8.5	1.3	13	166	3.1	0.14	1.0	0.6	0.17	C
15	16	40	13.3	19-16.4	155- 1.7	33.2	1.8	15	244	17.7	0.28	2.0	2.3	0.10	C
15	19	56	2.3	19-23.2	155-25.1?	11.4	1.8	15	121	6.4	0.06	0.6	0.4	0.10	B
15	20	13	6.2	19-19.2	155-11.4	15.3	1.5	9	233	6.0	0.22	1.2	1.8	0.05	C
15	20	18	14.3	19-23.3	155-26.0	7.7	2.2	17	91	7.4	0.10	0.9	0.8	0.20	B
15	21	39	11.1	19-21.3	155-13.7	9.5	1.3	11	158	3.0	0.14	1.0	0.7	0.12	C
15	22	3	33.2	19-20.8	155-12.8	9.1	1.2	10	178	4.8	0.21	1.6	1.1	0.17	C
16	2	30	32.3	19-30.6	155-50.8	24.7	3.1	18	136	8.0	0.54	2.8	6.8	0.14	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 16	3	37	43.9	19-21.3	155-16.3	30.6	1.8	13	131	1.9	0.55	2.1	4.8	0.13	B
16	6	16	55.5	19-20.5	155-17.5	24.7	2.3	15	86	0.8	0.35	2.6	3.2	0.21	C
16	6	38	30.1	19-21.9	155-18.2	24.9	2.0	13	72	3.7	0.27	1.1	2.5	0.10	B
16	8	49	39.1	19-22.3	155-23.4	9.5	1.2	12	174	3.9	0.09	0.6	0.6	0.08	B
16	10	46	38.4	19-22.3	155-18.3	24.5	2.1	15	68	3.3	0.16	1.0	1.5	0.10	A
16	13	48	51.4	19-21.3	155-19.6	20.2	1.4	10	164	4.4	0.11	0.6	1.2	0.05	B
16	14	53	30.3	19-20.1	155-12.2	8.6	1.3	9	200	5.6	0.17	1.2	0.9	0.12	C
16	15	24	0.3	19-20.4	155- 7.4	25.4*	1.7	8	310	5.3	0.18	2.5		0.07	D
16	16	3	19.0	19-21.7	155-23.8?	10.9	1.6	12	121	3.0	0.08	0.7	0.5	0.11	B
16	19	15	18.2	19-19.4	155-16.6	10.6	0.7	8	206	1.9	0.23	0.5	1.2	0.02	B
16	19	45	22.1	19-19.6	155-17.1	10.3	0.7	8	186	1.1	0.41	0.8	2.2	0.04	C
16	20	2	31.5	19-24.4	155-17.6?	0.0	0.7	10	90	0.6	0.13	0.6	12.9	0.15	B
16	23	13	1.6	19-20.7	155-12.6	11.0	1.1	12	181	3.3	0.14	1.0	0.5	0.11	C
17	2	27	8.0	19-22.5	155-17.5	11.6	1.0	13	70	2.1	0.12	1.1	1.1	0.17	B
17	4	28	42.9	19-21.3	155-10.2	8.7	1.3	11	224	1.7	0.25	1.4	0.9	0.13	C
17	5	39	26.2	19-20.1	155-11.9	10.9	1.1	12	205	4.5	0.16	1.1	0.5	0.11	C
17	6	31	47.8	19-19.6	155-13.4	11.7	1.3	12	198	5.3	0.24	1.3	1.8	0.10	C
17	11	22	42.5	19-51.6	155-28.6	20.9	3.4	17	162	8.9	0.09	0.8	1.6	0.09	B
17	14	41	32.4	19-19.8	155-10.0?	15.0	1.2	7	252	4.2	0.36	1.5	2.5	0.06	C
17	15	12	0.5	19-19.5	155-10.7	8.3	1.9	12	241	5.1	0.33	1.7	1.4	0.21	D
18	6	3	32.0	19-23.2	155-37.6	11.4	2.7	13	118	15.4	0.16	1.1	1.3	0.12	B
18	7	34	58.9	19-18.9	155-23.1	7.4	1.2	10	249	2.4	0.74	2.3	3.6	0.14	C
18	8	42	32.1	19-30.4	155-16.9?	8.0*	1.9	7	328	9.4	0.82	7.6		0.45	D
18	16	58	31.3	19-19.4	155-15.9	8.7	1.7	14	175	2.9	0.12	0.8	0.6	0.14	C
19	14	14	59.4	19-20.5	155-12.8	7.4	1.6	12	186	3.8	0.19	1.1	0.9	0.17	C
20	11	0	8.9	19-22.9	155-22.1	10.6	1.5	10	107	8.9	0.08	0.9	0.9	0.12	B
20	11	1	56.1	19-23.9	155-17.1	1.9	1.0	8	124	1.2	0.10	0.8	0.7	0.12	B
20	15	52	55.2	19-29.4	155-15.4?	8.0*	1.6	6	337	8.3	0.94	9.0		0.35	D
20	16	25	35.5	19-20.6	155-13.1	15.4	1.2	8	178	4.4	0.11	0.7	1.0	0.03	B
20	17	58	27.0	19-13.4	155-31.1	33.9	3.2	18	216	10.9	0.18	1.0	1.8	0.11	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 20	20	44	16.8	20-12.1	155-14.6	10.8	2.9	18	267	51.4	0.98	7.3	6.9	0.24	D
21	2	13	32.2	19-32.2	155-37.8	8.2	3.7	18	89	25.8	0.26	1.1	1.5	0.17	C
21	2	33	21.7	19-31.8	155-37.1	7.9	2.5	16	123	24.3	0.16	0.8	C.8	0.14	B
21	2	35	24.4	19-32.3	155-38.8	7.5	2.2	12	221	27.5	0.31	1.3	1.1	0.10	C
21	2	36	12.4	19-32.1	155-36.6	9.0	2.3	13	123	23.6	0.19	0.9	1.1	0.14	B
21	10	33	51.2	19-19.9	155-13.9	8.7	1.7	14	185	4.2	0.14	0.9	C.6	0.15	C
21	11	11	56.2	19-23.7	155-19.2?	0.6	1.0	6	284	3.4	0.26	1.6	3.1	0.04	C
21	12	45	45.9	19-21.2	155- 9.1	7.6	1.7	12	284	2.1	0.22	1.2	C.8	0.09	C
21	13	1	55.3	19-26.4	155-21.8?	8.8	2.4	14	106	3.0	0.15	1.4	1.2	0.24	B
21	13	51	15.7	19-18.8	155-15.4	12.9		10	197	4.2	0.11	0.5	0.8	0.04	B
21	18	27	36.4	19-27.6	155-12.6?	0.0	1.9	11	282	9.2	0.72	2.4	4.8	C.35	D
21	19	15	30.7	19-18.8	155- 9.5	28.7	2.0	10	269	6.1	0.50	2.6	3.5	0.09	D
21	19	20	25.4	19-21.4	155-49.9	4.5	3.0	18	214	20.5	0.28	2.9	1.4	0.14	C
21	20	20	39.6	19-24.2	155-16.9	13.2	1.6	15	111	1.2	0.06	0.6	0.5	0.08	A
21	22	52	7.1	19-19.1	155-13.8	7.9		11	204	5.7	0.23	1.3	C.9	0.16	C
22	0	23	38.1	19-18.8	154-58.9	30.2	2.0	8	241	20.0	0.44	2.2	3.6	0.05	C
22	0	24	1.4	19-49.8	155-58.8	6.5	2.9	18	243	34.9	0.35	2.6	3.3	0.16	D
22	0	52	20.7	19-18.8	155-12.6	15.2		8	224	7.3	0.10	0.6	C.8	0.03	B
22	2	42	18.0	19-24.5	155- 3.4	2.9	2.1	11	181	12.1	0.53	1.2	2.9	0.14	C
22	5	27	20.3	19-18.3	155-13.2	9.5	2.3	16	201	7.5	0.18	1.2	C.6	0.18	C
22	5	29	4.1	19-18.0	155-12.9	8.9		11	211	8.2	0.27	1.8	1.1	0.21	C
22	5	48	42.3	19-18.6	155-13.4	9.6	2.4	17	200	6.8	0.15	1.1	0.5	0.18	C
22	5	53	56.4	19-17.8	155-12.7	8.5		12	212	8.6	0.26	1.7	C.9	C.21	C
22	6	2	11.5	19-18.1	155-13.1	9.0	2.1	12	208	7.8	0.19	1.3	C.8	0.16	C
22	6	19	51.3	19-17.7	155-13.0	8.4		10	214	8.5	0.28	1.9	1.1	0.19	C
22	6	59	54.4	19-20.9	155-19.9	1.9	1.3	11	99	4.7	0.05	0.3	C.5	0.07	A
22	8	21	50.5	19-25.9	155-17.3	11.7	0.8	8	289	1.0	0.48	2.0	2.6	0.05	C
22	9	16	41.2	19-17.9	155-12.5	14.8	1.4	10	240	8.8	0.18	1.3	0.9	0.08	C
22	16	6	2.9	19-22.1	155-18.8	3.4	0.2	10	86	3.4	0.07	0.3	1.4	0.07	A
22	16	15	56.4	19-24.0	155-16.7	2.4	0.0	7	166	1.2	0.26	0.7	1.4	0.06	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 22	18	42	45.4	19-25.3	155-17.0	8.0	1.1	8	168	0.7	0.11	0.8	0.8	0.04	B
22	20	29	22.4	19-30.9	155- 7.7?	8.0*	2.3	8	323	19.7	1.17	20.6		0.73	D
22	21	0	31.3	19-13.6	155-23.2	34.0	2.8	14	220	11.4	0.52	2.2	4.3	0.11	C
22	21	13	57.4	19-14.0	155-23.4	32.5	1.6	14	216	11.1	0.42	1.8	3.6	0.10	C
22	21	42	22.4	19-24.7	155-16.1	0.1*	1.2	8	171	1.7	0.08	0.5		0.09	C
22	23	1	23.8	19-21.7	155-12.0	6.9	1.8	10	160	4.0	0.05	0.5	0.4	0.06	B
22	23	9	46.1	19-24.4	155-16.0	0.3*	-0.0	6	221	2.0	0.13	0.6		0.05	C
22	23	23	13.2	19-25.4	155-22.3?	0.9*	1.3	6	332	8.3	1.09	4.4		0.22	D
22	23	29	12.5	19-18.7	155-13.1	8.7	2.1	15	201	6.8	0.20	1.4	0.8	0.21	C
22	23	31	51.0	19-17.7	155-12.2	13.8	1.2	7	244	9.1	0.21	1.0	1.7	0.03	C
23	0	3	21.6	19-24.6	155-16.2	2.1	1.2	9	167	1.5	0.10	0.7	0.6	0.11	C
23	0	4	21.6	19-24.5	155-16.0?	1.2	1.6	10	165	1.9	0.13	0.6	4.6	0.14	C
23	0	37	15.2	19-23.1	155-18.7?	8.0*	1.8	7	271	3.3	1.83	27.6		0.37	D
23	2	2	37.9	19-31.9	155- 8.1?	8.0*	2.4	9	312	20.2	1.12	18.4		0.88	D
23	2	10	57.9	19-28.6	155-14.9?	8.0*	1.8	8	320	7.4	0.54	5.2		0.34	D
23	2	11	39.3	19-18.8	155-19.2?	1.2	1.6	7	303	8.8	4.00	0.0	55.2	0.95	D
23	2	13	30.4	19-27.9	155-16.4?	7.9*	1.4	6	327	5.1	1.58	25.1		0.34	D
23	3	8	33.2	19-28.5	155-20.3?	8.6*	1.5	6	352	7.4	1.31	7.8		0.28	D
23	3	25	39.4	19-24.9	155-17.6	1.3	1.7	11	86	0.3	0.10	0.6	0.7	0.15	B
23	3	43	31.9	19-27.6	155-18.2?	6.5	1.5	6	347	4.1	1.54	21.5	7.1	0.22	D
23	3	46	10.4	19-27.6	155-18.6?	8.0*	1.8	6	350	4.3	1.30	7.3		0.28	D
23	4	0	26.3	19-25.8	155-19.6	6.2	1.2	7	327	3.5	0.80	12.9	9.3	0.22	D
23	4	9	0.2	19-24.5	155-17.3	0.4	1.5	12	74	0.5	0.10	0.5	1.6	0.14	B
23	4	25	39.7	19-28.0	155-13.3?	8.0*	1.9	10	276	8.7	0.81	5.7		0.54	D
23	4	27	5.4	19-32.1	155-15.4?	8.0*	2.0	7	333	12.9	1.59	12.2		0.54	D
23	4	32	0.2	19-27.4	155-16.3	4.8	1.1	7	309	4.3	1.29	6.7	5.6	0.25	D
23	4	53	17.3	19-21.1	155- 6.5	5.4	2.3	14	197	15.5	0.08	0.6	0.4	0.08	B
23	4	59	13.5	19-19.9	155- 6.1	5.7	2.3	13	207	7.6	0.23	1.5	1.0	0.14	C
23	5	4	11.2	19-26.7	155-21.4?	5.3	1.1	6	340	7.0	1.88	30.5	18.6	0.27	D
23	5	14	30.2	19-26.5	155-16.4	3.6	0.8	6	301	2.9	0.14	0.9	1.1	0.02	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 23	5	22	0.8	19-24.2	155-15.4	0.5	0.9	6	237	2.8	0.37	1.5	10.1	0.05	D
23	5	34	28.2	19-27.9	155-17.3	5.7	1.7	7	336	4.6	0.78	14.4	5.5	0.20	D
23	6	8	54.8	19-27.2	155-18.3?	8.0*	1.3	6	349	3.5	1.35	19.4		0.30	D
23	6	36	14.2	19-26.5	155-19.9	5.9	1.2	6	339	4.6	1.63	21.6	14.1	0.23	D
23	7	5	40.5	19-20.6	155-10.3	7.7	1.9	11	235	3.0	0.17	1.0	0.6	0.12	C
23	7	14	18.0	19-23.0	155-19.2	8.0	1.2	7	285	4.3	0.80	10.3	9.7	0.14	D
23	8	0	34.3	19-24.6	155-15.8?	1.9	-0.2	6	244	2.1	0.42	2.7	3.9	0.06	D
23	8	14	32.9	19-47.7	155-14.6	7.5	1.5	13	211	18.3	0.82	7.7	3.1	0.18	D
23	8	23	38.9	19-25.5	155-16.9	8.0*	0.2	5	303	1.2	0.26	3.8		0.05	D
23	10	14	14.5	19-16.7	155-26.9	7.8	1.9	12	179	9.1	0.13	1.0	0.8	0.16	C
23	20	22	21.0	19-19.5	155-15.3	7.5	0.9	12	180	3.8	0.17	1.0	0.8	0.15	C
23	20	40	49.5	19-22.0	155-24.7	8.5	1.4	13	115	4.2	0.12	0.9	1.2	0.19	B
23	22	44	18.9	19-21.9	155-13.1	2.5	1.0	7	146	3.8	0.10	0.7	2.5	0.07	B
24	1	3	36.3	19-23.3	155-27.0	12.2	1.2	10	227	8.7	0.12	1.0	1.3	0.07	C
24	3	54	29.2	19-17.4	155-12.7	9.2	1.7	11	217	9.3	0.27	1.8	0.8	0.17	C
24	4	32	39.7	19-21.2	155-28.3	9.8	1.9	13	124	8.9	0.09	1.0	0.9	0.16	B
24	6	16	47.7	19-24.4	155-22.1	9.7	1.2	12	152	6.3	0.11	0.8	0.8	0.12	C
24	8	19	3.3	19-24.4	155-16.8	2.3	0.9	9	148	1.4	0.08	1.0	0.5	0.10	B
24	9	24	5.2	19-21.5	155-11.7	9.1	2.4	15	170	3.5	0.11	1.0	0.6	0.16	C
24	11	19	35.8	19-26.1	155-15.7	5.4	0.8	7	285	3.1	1.01	9.5	9.9	0.18	D
24	12	41	47.1	19-25.4	155-15.9?	0.1*	1.3	9	177	2.1	0.12	0.6		0.13	C
24	23	17	19.6	19-19.9	155- 7.4	5.6	2.0	13	204	5.9	0.25	1.7	1.4	0.18	C
25	0	35	36.7	19-25.2	155-34.1?	8.0*	2.1	7	348	28.8	5.15	92.1		1.03	D
25	1	0	18.4	19-26.1	155-23.7	10.8	2.5	15	70	5.9	0.08	0.9	0.6	0.13	B
25	2	59	33.7	19-23.5	155- 2.8?	2.4	1.8	10	191	12.6	0.19	1.7	1.9	0.16	C
25	4	54	0.8	19-23.0	155-18.9?	8.0*	0.7	8	278	3.8	1.23	6.5		0.42	D
25	5	41	25.9	19-22.8	155-19.8?	0.2*	0.7	7	295	5.3	0.61	1.9		0.14	D
25	6	8	5.4	19-31.0	155- 8.1?	8.0*	1.8	6	339	19.3	4.70	96.2		0.81	D
25	6	29	48.4	19-11.8	155-39.1	10.5	2.5	12	250	6.7	0.28	2.1	0.5	0.07	C
25	7	2	15.8	19-16.7	155-22.3?	8.0*	1.2	7	335	15.3	3.56	82.4		0.72	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 25	9	46	14.6	19-23.7	155-17.4	2.4	0.5	7	174	1.2	0.15	0.4	0.9	0.04	B
25	10	35	30.4	19-22.4	155-20.1?	2.1	0.9	7	301	6.1	0.42	2.0	1.2	0.07	C
25	10	59	23.0	19-19.1	155-13.8	12.2	1.1	10	205	5.7	0.15	0.8	1.1	0.06	B
25	14	16	35.4	19-20.8	155-13.2	11.8	1.0	5	192	4.0		0.0		0.01	D
25	14	55	19.6	19-22.9	155-20.4?	0.2*	0.8	7	305	6.1	0.48	1.5		0.10	D
25	15	1	44.5	19-30.1	155-15.1	3.2*	0.8	7	335	9.7	0.33	1.8		0.06	D
25	15	43	11.1	19-26.1	155-15.7	5.3	3.0	15	145	3.2	0.11	0.9	0.7	0.17	B
25	16	48	20.0	19-18.4	155-25.8?	8.0*	1.3	7	337	18.2	2.34	53.6		0.65	D
25	16	54	11.3	19-22.9	155-17.5?	8.0*	0.8	8	180	1.6	1.13	5.8		0.29	D
25	18	3	57.4	19-23.9	155-17.5	3.5	0.5	7	221	1.5	0.13	0.9	0.7	0.03	B
25	18	45	52.8	19-23.4	155-20.5?	0.5*	0.9	7	305	5.7	0.73	2.3		0.16	D
25	19	1	49.3	19-24.3	155-18.7	1.3	0.8	9	98	2.3	0.31	1.0	5.5	0.18	B
25	19	7	46.2	19-25.9	155-15.9	5.6	2.7	14	143	2.7	0.10	0.8	0.6	0.14	B
25	19	12	3.6	19-25.7	155-15.9	3.1	2.4	12	182	2.5	0.13	0.6	0.4	0.11	C
25	19	28	45.5	19-23.4	155-17.6?	0.1*	0.4	7	235	1.4	0.18	0.7		0.05	D
25	20	46	16.0	19-22.0	155-20.7	3.2*	0.6	7	309	7.3	0.62	2.5		0.14	D
25	23	22	19.4	19-22.8	155-20.6	3.4*	0.9	7	306	6.4	0.29	1.1		0.07	D
26	1	37	51.9	19-23.6	155-17.3	1.8	0.6	7	166	0.9	0.18	0.6	1.3	0.06	B
26	1	39	12.1	19-28.2	155-11.3?	8.0*	1.5	7	326	11.7	2.32	20.4		0.53	D
26	2	21	49.1	19-18.6	155-18.5	9.4	1.0	10	152	1.1	0.13	0.9	0.7	0.07	C
26	3	7	47.5	19-23.3	155-18.2	0.3*	0.6	7	258	2.5	0.29	1.0		0.06	D
26	4	21	10.7	19-23.7	155-17.3	3.0	0.4	7	216	1.0	0.52	2.8	2.3	0.09	C
26	5	42	47.0	19-23.8	155-17.4?	2.4	0.3	7	215	1.2	0.12	0.6	0.5	0.02	C
26	6	43	32.9	19-23.5	155-20.2	3.2*	0.8	8	302	5.3	0.83	3.1		0.24	D
26	7	19	55.9	19-22.9	155-20.0?	4.2	0.6	7	299	5.6	0.49	4.8	28.5	0.10	D
26	7	59	55.0	19-21.0	155-53.8?	3.5	2.9	13	241	19.0	0.65	9.8	6.7	0.30	D
26	8	3	29.7	19-23.1	155-19.1	3.4	0.8	8	281	4.0	0.28	1.7	4.0	0.08	C
26	11	19	10.3	19-19.2	155- 7.0	9.8	1.1	9	221	7.2	0.40	3.1	1.1	0.15	C
26	11	29	19.9	19-24.0	155-17.3?	4.4	0.7	8	123	1.3	0.13	1.3	2.0	0.14	B
26	12	20	10.1	19-22.5	155-19.7?	0.4*	0.9	7	295	5.4	0.48	1.5		0.11	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 26	12	43	34.5	19-20.1	155-12.5	11.8	1.1	10	198	5.8	0.29	1.5	2.2	0.11	C
26	13	12	12.6	19-22.5	155-23.1	11.1	2.4	14	72	4.3	0.09	1.0	0.8	0.18	B
26	13	15	57.3	19-21.9	155-14.8?	8.0*	1.5	9	289	0.8	1.81	8.4		0.61	D
26	13	18	30.8	19-23.2	155-19.0	3.0	0.8	7	279	3.8	0.16	0.7	0.2	0.03	C
26	14	20	16.6	19-23.1	155-18.9?	0.2*	0.4	7	278	3.8	0.34	1.1		0.07	D
26	16	12	54.0	19-24.0	155-16.9	2.8	0.4	7	151	1.1	0.10	0.6	0.4	0.03	B
26	17	23	6.6	19-22.8	155-19.8?	0.2	0.8	7	296	5.3	0.71	5.2	65.8	0.14	D
26	18	18	14.6	19-23.3	155-18.8?	6.7	1.0	7	273	3.4	0.72	5.1	23.4	0.13	D
26	21	33	21.8	19-23.3	155-17.5?	2.8*	0.3	7	231	1.2	0.46	1.9		0.09	D
27	3	6	25.1	19-18.1	155- 6.5?	8.0*	2.0	15	215	9.4	0.77	6.3		1.05	D
27	3	24	48.7	19-23.2	155-19.7	2.8	0.6	7	295	4.8	0.12	0.4	0.2	0.02	C
27	4	11	1.5	19-21.3	155- 2.4	18.1*	1.5	7	342	13.1	0.36	2.9		0.04	D
27	5	39	45.3	19-21.5	155-12.6?	4.0	1.0	8	176	4.8	0.60	2.2	2.9	0.16	C
27	5	50	56.8	19-16.8	155-10.9	7.9	0.9	8	267	10.0	0.67	2.6	4.9	0.12	D
27	7	43	34.5	19-23.8	155-17.2	3.0	2.0	12	92	1.0	0.07	0.5	0.7	0.09	A
27	12	1	27.8	19-23.2	155-19.0?	0.8	0.6	7	280	3.8	1.24	7.8	6.1	0.20	D
27	12	56	54.8	19-20.0	155-22.5?	8.0*	0.8	7	326	11.8	1.60	14.8		0.51	D
27	13	1	30.4	20- 0.1	155-24.0	11.7	3.3	16	218	25.2	0.32	1.5	2.5	0.11	C
27	13	42	56.0	19-21.8	155-17.4	23.9	1.2	12	90	2.9	0.34	1.2	3.0	0.08	B
27	15	48	42.7	19-18.6	155-15.2	14.9	0.9	7	203	4.8	0.11	0.9	1.0	0.04	B
27	16	0	49.2	19-22.0	155-24.7?	8.0*	1.6	6	332	13.6	3.21	31.6		0.56	D
27	17	15	43.6	19-22.3	155-23.8?	3.0	1.3	7	329	11.9	2.63	39.0	13.1	0.38	D
27	19	24	48.2	19-24.6	155-16.3?	8.3*	1.0	7	218	1.3	1.01	5.1		0.22	D
27	22	19	37.3	19-37.6	155-37.4	8.0*	2.3	11	301	28.6	0.85	5.5		0.09	D
28	3	11	28.5	19-19.8	155-17.8	8.7	1.1	12	131	0.9	0.10	0.7	0.6	0.12	B
28	8	18	55.7	19-23.3	155-19.0?	4.1	1.1	7	279	3.7	0.67	4.4	3.4	0.13	D
28	10	12	36.2	19-26.5	155-17.4?	8.0*	1.2	7	328	2.1	0.65	10.7		0.18	D
28	12	0	59.6	19-36.6	155- 4.3?	8.6	2.5	8	335	31.0	5.07	0.0	54.2	0.89	D
28	14	13	32.1	19-18.9	155-12.6	11.7	1.8	11	222	7.2	0.28	1.4	1.9	0.08	C
28	14	58	15.2	19-25.4	155-23.1	13.0	1.9	11	125	5.8	0.08	0.7	1.0	0.08	B

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 28	15	11	2.2	19-21.6	155-11.9	10.8	2.2	14	166	3.9	0.09	0.9	0.4	0.11	C
28	15	12	26.1	19-27.4	155-14.4	3.2*	1.6	8	311	6.4	0.82	3.3		0.18	D
28	15	33	14.2	19-20.5	155-11.2	12.2	1.1	10	210	3.8	0.26	1.2	1.8	0.08	C
28	15	58	15.6	19-23.9	155-17.1	1.6	0.4	7	154	1.1	0.09	0.3	0.7	0.03	B
28	16	32	57.6	19-30.6	155-10.3?	8.0*	1.8	9	302	15.8	0.96	14.7		0.71	D
28	17	44	53.9	19-23.7	155-17.6	3.4	0.6	7	121	1.4	0.11	0.5	1.1	0.05	B
28	18	11	25.9	19-30.4	155-10.5?	8.0*	2.4	9	301	15.2	0.98	14.0		0.76	D
28	18	29	39.2	19-23.8	155-17.7?	2.7	0.4	7	233	1.7	0.14	0.7	0.6	0.03	C
28	18	59	37.5	19-23.3	155-19.7?	1.6	0.7	7	294	4.7	0.38	2.8	11.5	0.07	D
28	19	31	35.9	19-23.3	155-19.2	3.4	0.6	7	283	3.8	0.50	2.0	1.0	0.09	C
28	19	41	21.9	19-22.3	155-22.3?	4.4	1.4	7	321	9.5	1.06	18.4	11.9	0.18	D
28	19	48	39.2	19-23.1	155-20.4?	1.5	1.0	7	305	5.9	0.56	4.5	13.0	0.09	D
28	19	55	14.2	19-23.5	155-18.6	3.0	1.0	7	268	2.9	0.18	0.8	0.3	0.03	C
28	20	21	51.5	19-21.9	155-21.7	0.3*	1.1	7	317	9.0	0.48	1.6		0.10	D
28	21	30	50.9	19-23.4	155-18.2?	0.3*	1.1	7	256	2.5	0.18	0.7		0.04	D
28	21	59	18.6	19-23.4	155-18.2	1.5	0.7	8	86	2.4	0.07	0.4	0.8	0.08	A
28	22	20	47.2	19-23.8	155-17.7	2.8	1.4	7	127	1.7	0.11	1.2	1.3	0.05	B
28	23	1	13.1	19-23.6	155-18.4	0.2	1.3	7	149	2.5	0.21	0.5	6.4	0.05	C
28	23	31	49.4	19-25.1	155-17.5	2.0	2.5	13	127	0.6	0.10	0.7	0.5	0.18	B
29	0	1	13.8	19-24.0	155-17.1?	3.3	1.2	7	170	1.2	0.43	1.8	5.0	0.13	C
29	2	8	12.7	19-24.6	155-19.4?	0.5	1.1	9	105	3.4	1.26	4.5	23.7	0.72	C
29	4	58	32.9	19-26.8	155-14.8?	1.3	1.2	7	304	5.2	1.06	6.0	71.4	0.19	D
29	5	21	28.5	19-26.9	155-15.6?	5.4	1.6	7	306	4.4	0.64	8.4	9.1	0.11	D
29	5	59	31.5	19-20.3	155-27.5	8.0*	2.1	7	339	19.3	0.69	4.1		0.17	D
29	6	45	54.0	19-29.5	155-11.9?	8.0*	2.0	8	306	12.3	1.47	23.3		0.59	D
29	6	57	49.0	19-30.9	155- 8.6?	8.0*	2.5	7	321	18.4	0.69	23.1		0.70	D
29	11	59	29.4	19-26.9	155-16.0	5.4	1.2	7	255	4.0	0.16	1.1	0.7	0.02	C
29	15	20	3.8	19-23.5	155-19.1?	2.7	0.6	7	282	3.6	0.44	3.1	12.0	0.07	D
29	18	1	25.9	19-19.5	155- 9.1	8.9	1.3	9	202	4.8	0.32	3.0	1.6	0.16	C
29	19	8	52.2	19-23.4	155-19.0	2.9	0.7	7	279	3.5	0.33	1.3	3.3	0.06	C

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 29	20	51	54.6	19-28.0	155-15.3?	7.7	1.3	10	275	6.3	2.66	9.3	9.9	0.40	D
29	20	59	31.9	19-24.8	155-17.7	2.6	0.8	8	85	0.3	0.12	0.8	1.0	0.10	A
30	0	27	31.9	19-23.2	155-19.5?	0.4*	0.8	7	290	4.5	0.55	1.7		0.11	D
30	2	7	37.8	19-21.3	155-23.6	11.1	1.4	12	118	2.0	0.08	0.6	1.3	0.10	A
30	2	8	14.8	19-25.2	155-23.6	3.2*	1.4	7	335	10.5	1.07	5.3		0.26	D
30	3	7	31.4	19-23.9	155-24.6	10.9	1.5	12	192	7.2	0.09	0.6	C.3	0.07	B
30	4	2	26.9	19-24.0	155-17.9?	3.6	1.0	7	241	1.5	0.42	2.4	2.9	0.08	C
30	6	20	16.8	19-27.0	155-12.8?	10.7*	1.8	7	314	8.3	2.28	15.4		0.43	D
30	8	3	34.6	19-21.2	155-12.2	12.9	1.4	6	190	4.5	0.46	1.4	3.6	0.04	C
30	8	40	22.7	19-24.0	155-17.1?	0.5	0.7	8	140	1.2	0.23	0.8	2.5	0.12	B
30	9	18	23.7	19-24.1	155-17.0	1.4	0.6	7	147	1.3	0.10	0.3	C.7	0.04	B
30	13	22	52.3	19-24.0	155-17.2?	0.9	0.5	8	134	1.3	0.27	0.7	2.4	0.11	B
30	13	43	28.6	19-18.0	155-13.4	10.0	1.1	10	222	7.7	0.20	1.3	C.6	0.14	C
30	13	52	48.3	19-14.7	155-27.3	6.4	1.4	10	203	12.3	0.25	1.6	1.6	0.18	C
30	14	16	46.5	19-13.4	155-26.8?	9.0	1.8	10	217	13.9	0.30	2.1	1.3	0.19	C
30	14	49	28.3	19-28.4	155-16.6?	8.0*	1.6	8	318	5.9	0.25	3.1		0.18	D
30	16	26	43.9	19-23.9	155-17.3	0.1*	0.6	8	127	1.3	0.07	0.4		0.10	C
30	17	57	20.2	19-23.9	155-17.2	0.4	0.5	8	129	1.1	0.15	0.5	1.3	0.06	B
30	19	28	39.6	19-20.4	155-13.3	12.6	0.8	11	181	4.4	0.17	0.8	1.3	0.07	B
30	19	35	54.1	19-21.5	155-25.9	9.7	2.0	14	121	5.1	0.13	1.0	C.9	0.19	B
30	19	39	26.3	19-27.4	155-15.4?	8.0*	1.5	8	311	5.3	0.19	3.4		0.25	D
30	20	16	18.0	19-25.4	155-15.9	4.7	1.1	8	262	2.2	0.50	2.1	1.9	0.10	C
30	21	16	44.0	19-24.1	155-16.9	1.3	0.5	8	156	1.4	0.31	0.9	2.1	0.11	C
30	21	38	15.3	19-24.4	155-28.3?	9.9	1.6	15	141	11.8	0.12	0.9	1.4	0.15	B
30	22	10	46.5	19-28.4	155-15.0	8.9	1.5	8	319	7.1	0.81	5.4	4.7	0.17	D
30	22	31	45.8	19-23.4	155-16.4	2.1	0.0	7	168	0.7	0.43	1.3	2.6	0.12	C
30	22	35	34.8	19-23.8	155-17.4	1.7	0.1	7	134	1.3	0.08	0.2	C.6	0.03	B
30	22	46	21.2	19-21.2	155-29.1	9.3	1.7	10	133	10.3	0.15	1.6	1.9	0.17	B
31	0	42	34.9	19-27.2	155-15.7	5.9	0.9	8	309	4.8	0.97	5.1	4.3	0.19	D
31	1	59	15.2	19-30.1	155-14.0?	8.0*	1.9	9	280	10.7	1.28	8.2		0.68	D

SUMMARY OF SEISMIC EVENTS (CONTINUED)

1970	HR	MN	SEC	LAT N	LONG W	DEPTH	MAG	NO	GAP	DMIN	ERT	ERH	ERZ	MD	Q
DEC 31	2	5	1.8	19-24.1	155-17.4	1.9	0.7	7	121	1.2	0.20	0.5	1.3	0.05	B
31	2	6	48.7	19-19.6	155-11.8	11.8	0.8	11	219	5.9	0.33	1.7	2.4	0.10	C
31	2	8	52.3	19-20.3	155-13.4	8.4	2.2	16	181	4.2	0.15	1.1	0.6	0.19	C
31	3	30	34.2	19-24.1	155-17.0	0.3	0.2	8	148	1.3	0.19	0.6	2.2	0.09	B
31	3	35	14.3	19-23.8	155-16.1	4.9	1.0	9	197	1.4	0.56	1.7	3.0	0.11	C
31	5	13	29.6	19-26.6	155-16.1	6.8	1.1	8	300	3.4	0.69	3.5	2.4	0.15	D
31	6	22	33.4	19-23.9	155-16.8?	0.0	0.4	8	160	1.0	0.18	0.7	11.2	0.11	C
31	6	36	33.4	19-20.7	155-13.1	8.8	1.4	16	177	4.4	0.12	1.0	0.6	0.18	C
31	7	35	30.4	19-24.4	155-17.0	2.2	0.5	8	145	1.0	0.33	0.8	1.9	0.10	B
31	9	21	29.0	19-20.2	155-11.0	7.0		11	222	4.0	0.31	1.7	1.2	0.19	C
31	10	11	56.8	19-20.4	155-10.9	7.2		10	220	3.7	0.33	1.9	1.3	0.19	C
31	12	8	58.2	19-13.1	155-22.8	33.7		14	224	11.6	0.57	2.1	5.1	0.11	C
31	12	33	15.1	19-20.6	155-13.1	8.9		11	179	3.7	0.23	1.7	1.3	0.20	C
31	13	25	35.5	19-25.1	155-17.3	9.6		6	176	0.7	1.54	2.4	7.7	0.04	C
31	13	26	3.5	19-28.5	155-17.6?	8.0*		6	320	5.7	0.45	44.6		0.52	D
31	18	50	24.9	19-23.9	155-17.1?	3.2	1.7	12	101	1.0	0.05	0.4	0.3	0.11	B
31	19	8	38.7	19-23.6	155-17.4?	3.6	0.9	9	97	1.1	0.10	0.5	0.8	0.11	B
31	19	50	13.5	19-25.2	155-15.8	4.4	1.0	9	201	2.1	0.21	0.8	1.4	0.09	B
31	22	0	25.2	19-18.7	155-15.9	9.0	2.1	17	190	4.9	0.12	0.9	0.5	0.16	C
31	22	51	0.7	19-21.0	155-24.5	8.6	1.8	15	117	2.5	0.13	1.0	0.9	0.20	B
31	23	53	10.5	19-24.4	155-17.0	2.2	1.2	9	107	1.0	0.06	0.3	0.3	0.06	A

Table 4.--Felt Earthquakes

Date	Greenwich Civil Time H	M	S	Magnitude	Location of Felt Report
Oct 6	20	17	58.89	2.98	Kapapala Ranch
8	06	13	04.52	3.28	Hilo
13	08	40	01.00	3.25	Kapapala Ranch
25	08	32	52.84	4.17	Hilo, Kealakekua
25	09	55	27.98	4.85	Islands of Maui, Molokai, Hawaii
29	07	47	30.56	3.96	Kamuela, Kula (Island of Maui)
30	18	50	57.44	3.21	Hilo
Nov 3	07	57	45.13	2.84	Kapapala Ranch
11	17	12	41.43	3.70	Kapapala Ranch
12	19	46	13.77	4.34	Northern half of Island
12	19	57	19.13	3.18	Kamuela
12	21	36	00.27	3.23	Kamuela
16	04	02	51.58	3.34	Keaau, Hilo
18	06	07	57.79	3.37	Kamuela
Dec 4	16	35	58.82	2.08	Kapapala Ranch
4	16	45	31.09	3.26	Kapapala Ranch
4	16	50	43.87	2.50	Kapapala Ranch
4	21	50	40.13	3.25	Kapapala Ranch
5	01	32	26.05	2.81	Kapapala Ranch
5	17	59	45.12	3.96	Hilo, Volcano, Kealakekua
10	20	28	05.91	3.63	Hilo, Kapapala Ranch
13	08	02	06.36	3.61	Kealakekua, Kailua
20	20	44	16.83	2.97	Paauilo
25	15	43	11.10	3.03	Hawaii National Park
25	19	07	46.20	2.71	Hawaii National Park
25	19	12	03.64	2.48	Hawaii National Park
26	13	12	12.57	2.43	Hawaii National Park
28	23	31	49.43	2.53	Hawaii National Park

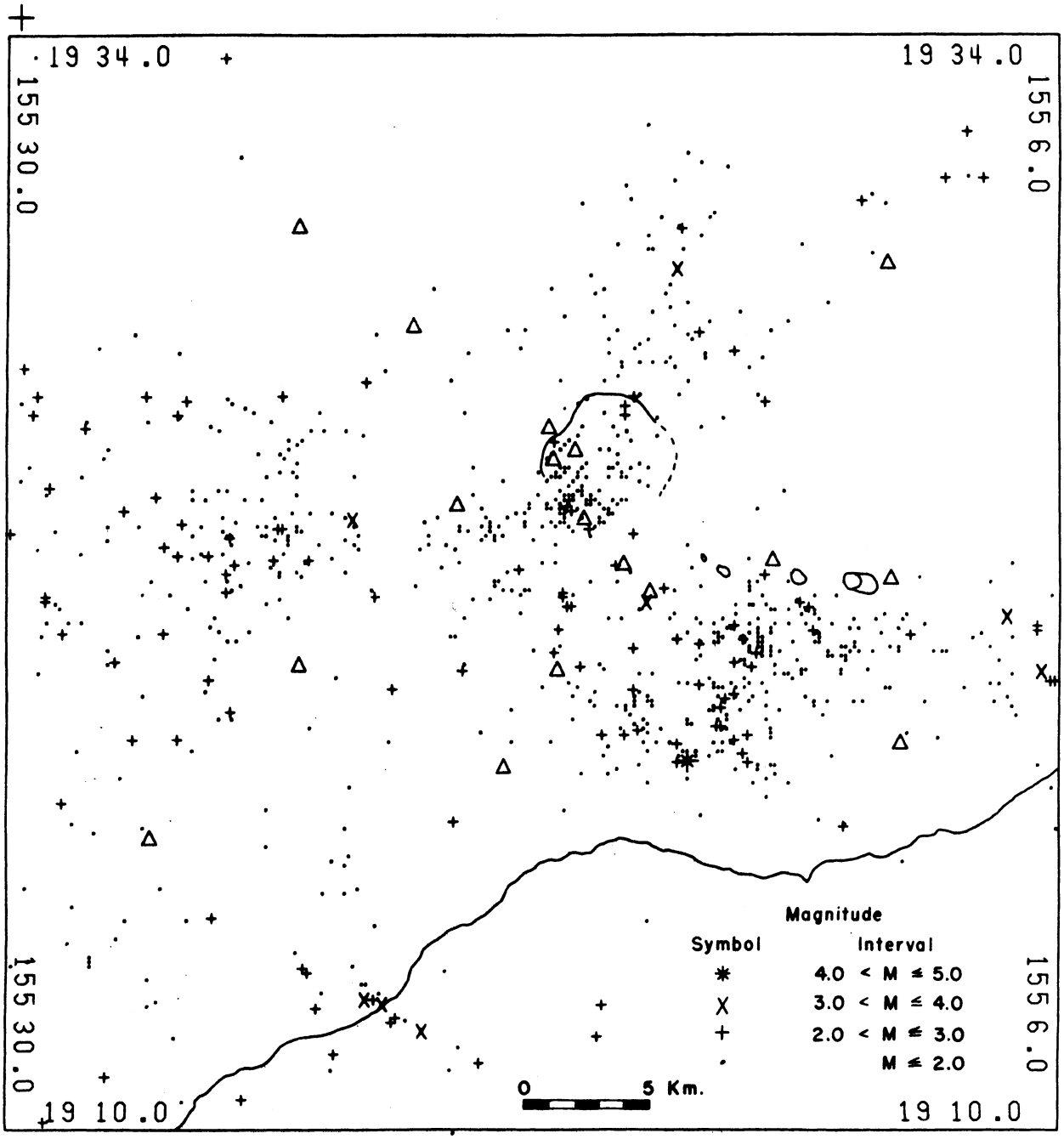

Figure 4.--Plot of epicenters in the Kilauea region. Triangles are seismometer locations. Kilauea Caldera and the major pit craters on the east rift are shown in outline. The Pacific Ocean lies in the lower right portion of the illustration.

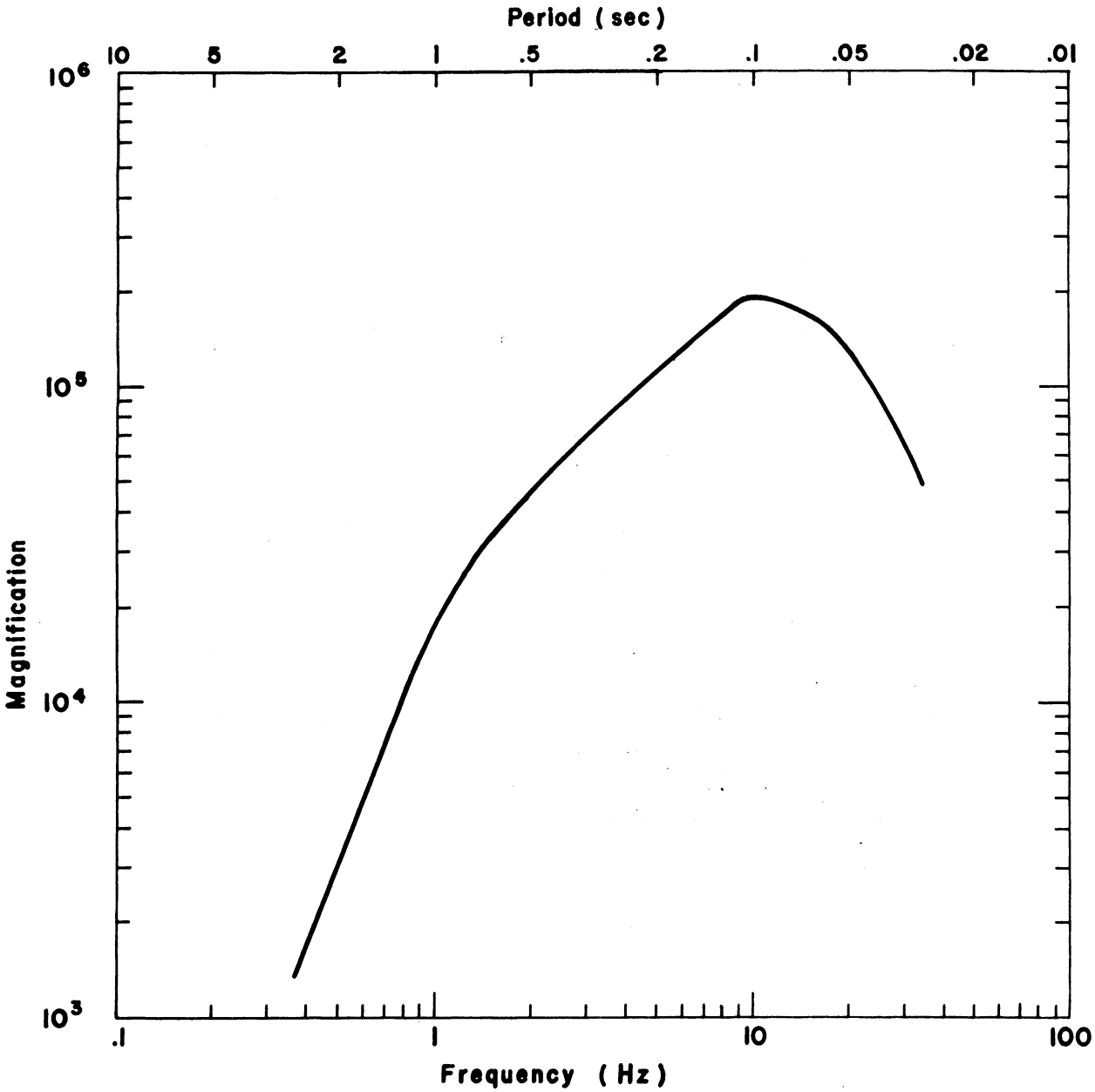

Figure 5.--Response curve for System II, EV-17, Teledyne seismic preamplifier.

Table 5. Seismometer stations in Hawaii operated by the U. S. Geological Survey.

STATION NAME	CODE	LAT-N	LONG-W	ELEV	TYPE	CAL	VCO	RADIO	REMARKS
AHUA	AHU	19 22.40	155 15.90	1070	3	6.0	2380		
CONE PEAK	CPK	19 23.70	155 19.70	1038	3	1.34			
DESERT	DES	19 20.20	155 23.30	815	3	1.34			
EAST KOAE	EKO	19 22.17	155 14.99	1009	3				
HALE POHAKU	HPU	19 46.85	155 27.50	3396	1	5.6	1360	RF6	
HILINA PALI	HLP	19 17.96	155 13.63	707	3	6.0	2040		
KAHUKU	KHU	19 14.90	155 37.10	1939	1	5.7	1700	RF3	
KIPUKA NENE	KPN	19 20.10	155 17.40	924	3	1.34			
LAVA FLOW	LAF	19 28.70	154 53.80	210	1				Temporary
LOWER STATION	LOS	19 23.40	154 53.10	180	1				Temporary
MAUNA LOA	MLO	19 29.80	155 23.30	2010	1	6.5	1360		
MAUNA LOA X	MLX	19 27.60	155 20.70	1475	3	1.34			
MAKAOPUHI	MPR	19 22.07	155 9.85	881	1	5.7	2720	RF5	
NORTH PIT	NPT	19 24.90	155 17.00	1115	3	1.34			
OUTLET	OTL	19 23.38	155 16.94	1038	3	5.0			
PUU HONUAULA	PHO	19 28.00	154 53.40	215	1	6.5	2720	RF1	
PUU HULUHULU	PHH	19 22.45	155 12.66	088	3				
WEST PIT	WPT	19 24.70	155 17.50	1115	3	1.34			
OPTICAL SEISMOGRAPHS									
HALEAKALA Z	HAL	20 46.00	156 15.00	2030	3	0.71			
HALEAKALA EW	HAE	20 46.00	156 15.00	2090	3	1.0			Wood-Anderson
HALEAKALA NS	HAN	20 46.00	156 15.00	2090	3	1.0			Wood-Anderson
HILO Z	HIL	19 43.20	155 5.30	20	3	1.0			
HILO EW	HIE	19 43.20	155 5.30	20	0	1.0			Wood-Anderson
HILO NS	HIN	19 43.20	155 5.30	20	0	1.0			Wood-Anderson
KAHUELA	KAH	20 1.90	155 42.00	740	2	0.7			
KEALAKEKUA Z	KLK	19 31.20	155 55.30	505	2	1.0			
KEALAKEKUA EW	KLE	19 31.20	155 55.30	505	2	0.34			
KEALAKEKUA NS	KLN	19 31.20	155 55.30	505	2	0.34			
KIPAPA	KIP	21 25.40	158 .90	70	3	0.56			
UWEKAHUNA Z	UWE	19 25.40	155 17.60	1240	3	0.7			
UWEKAHUNA Z	USZ	19 25.40	155 17.60	1240	4	1.0			
UWEKAHUNA EW	USE	19 25.40	155 17.60	1240	4	1.0			
UWEKAHUNA PEZ		19 25.40	155 17.60	1240					15-00 Press Ewing
UWEKAHUNA PEE		19 25.40	155 17.60	1240					
UWEKAHUNA PEN		19 25.40	155 17.60	1240					

Table 6.--Seismic instrumentation

1. SEISMOMETERS

EV-17	Electrotech EV-17 1.0 sec period moving magnet vertical component seismometer.
EV-17H	Same as above, but horizontal component.
HS-10	Hall-Sears 0.5 sec period moving coil seismometer.
HVO-2	0.8 sec period moving coil seismometer.

2. SEISMOGRAPHS

HVO-1	Vertical-component electromagnetic seismograph with a peak magnification of about 20,000 at 0.25 sec period.
15-90 Press Ewing System:	3-component long-period seismograph system with peneulum and galvanometer periods of 15 and 90 sec, respectively.
EV-17/3.5 cps galv, EV-17H/3.5 cps galv, etc:	Short-period electromagnetic seismographs composed of the seismometers and galvanometers indicated. Response similar to HVO-1. Poorly calibrated.

3. AMPLIFIER AND SIGNAL TRANSMISSION SYSTEMS

System I	HVO-built solid-state seismic preamplifier (voltage gain, 200x), direct-signal transmission over "hard" wire to HVO, HVO-built solid-state amplifier and galvanometer driver.
System II	Develco or Teledyne seismic preamplifier--voltage-controlled oscillator, signal transmission on audio FM carrier over "hard" wire or fm radio link to HVO, discriminator.
Geotech PTA	Short-period Geotech photo-tube amplifier.

4. TIMING SYSTEMS

RM-USGS	Crystal-controlled chronometer employing solid-state binary dividers to produce minute and hour marks. Typical drift rates are a few milliseconds per day.
TS-100	Sprengnether crystal-controlled chronometer. Output and performance characteristics similar to RM-USGS.

5. TELEMETERED SYSTEM RESPONSE

The peak magnification of the standard telemetered systems (System II, with the film strip magnified 20 times for viewing) is about 2×10^5 at a period of 0.1 sec. For periods between 0.1 and about 1.0 sec, the response falls off 6 db/octave (Fig. 5).

TILTING OF THE GROUND AROUND KILAUEA CALDERA

Tilting of the ground around the summit of Kilauea is monitored daily by a short-base water-tube tiltmeter in the Uwekahuna Vault, and at irregular intervals it is measured on a regional scale by means of a network of field tilt bases and a portable water-tube tiltmeter. The attitude of the ground surface at each tilt base is reported in terms of north-south and east-west tilt coordinates. Both coordinates at each station were arbitrarily set equal to 500 when measurements at that station were begun. Increasing tilt coordinates correspond to northward and eastward tilting of the earth's surface; that is, to a relative subsidence toward the north and east. A one-unit change in coordinate corresponds to a tilting of 1 microradian (1 mm per km) in the direction indicated.

Due to errors in our earlier summaries, a complete and corrected list of tilt coordinates for all tilt stations is listed in Table 9. This list excludes the three pot readings which were taken at Ahua Kamokukolau, Tree Molds, Sandspit, and Keamoku, but it includes the two pot readings which were not previously published for all stations.

Essential data on each tiltmeter station are listed in the first quarter issue of each year.

Table 7.--Tilt Coordinates at Uwekahuna Vault,

October, November, and December 1970

Date	N-S	E-W	Date	N-S	E-W
Oct. 4	560	366	Dec. 6	554	365
11	560	366	13	552	365
18	560	368	20	551	362
25	560	363	27	549	356
Nov. 1	561	361			
8	559	363			
15	560	363			
22	560	361			
29	558	363			

Table 8.--Tilt coordinates and changes at bases around Kilauea Caldera (See fig. 7).

Tilt Base	Date (1971)	Tilt Coordinates 1/		Rate (10^{-6} rad/mo) and Direction of Tilting Since Last Reading		Date of Last Reading (1970)
		N-S	E-W			
Uwekahuna (U on fig. 7)	25 Jan	616.5	393.5	3.88	N67.6°W	9 Sep
Tree Molds (TM)	25 Jan	535.5	478.6	1.99	N19.8°W	9 Sep
Sand Spit (SS)	26 Jan	1031.6	606.8	3.99	S16.5°W	10 Sep
Mehana (M)	25 Jan	594.8	591.4	1.25	N27.9°E	9 Sep
Keamoku (Kea)	2 Feb	568.8	441.7	3.60	S 2.6°W	10 Sep
Ahua Kamokukolau (Kam)	26 Jan	494.5	502.5	1.79	S59.0°W	11 Sep
Kipuka Nene (KN)	3 Feb	288.6	502.1	0.53	N20.6°E	11 Sep
Hilina Pali (HP)	3 Feb	456.8	497.1	0.43	N 9.5°W	25 May
Kapapala Ranch (Kap)	2 Feb	486.3	521.8	0.67	N72.1°E	10 Sep

1/ Due to several errors in the tilt coordinates columns in the earlier summaries, a complete and corrected list of tilt coordinates for all tilt bases is provided in table 9.

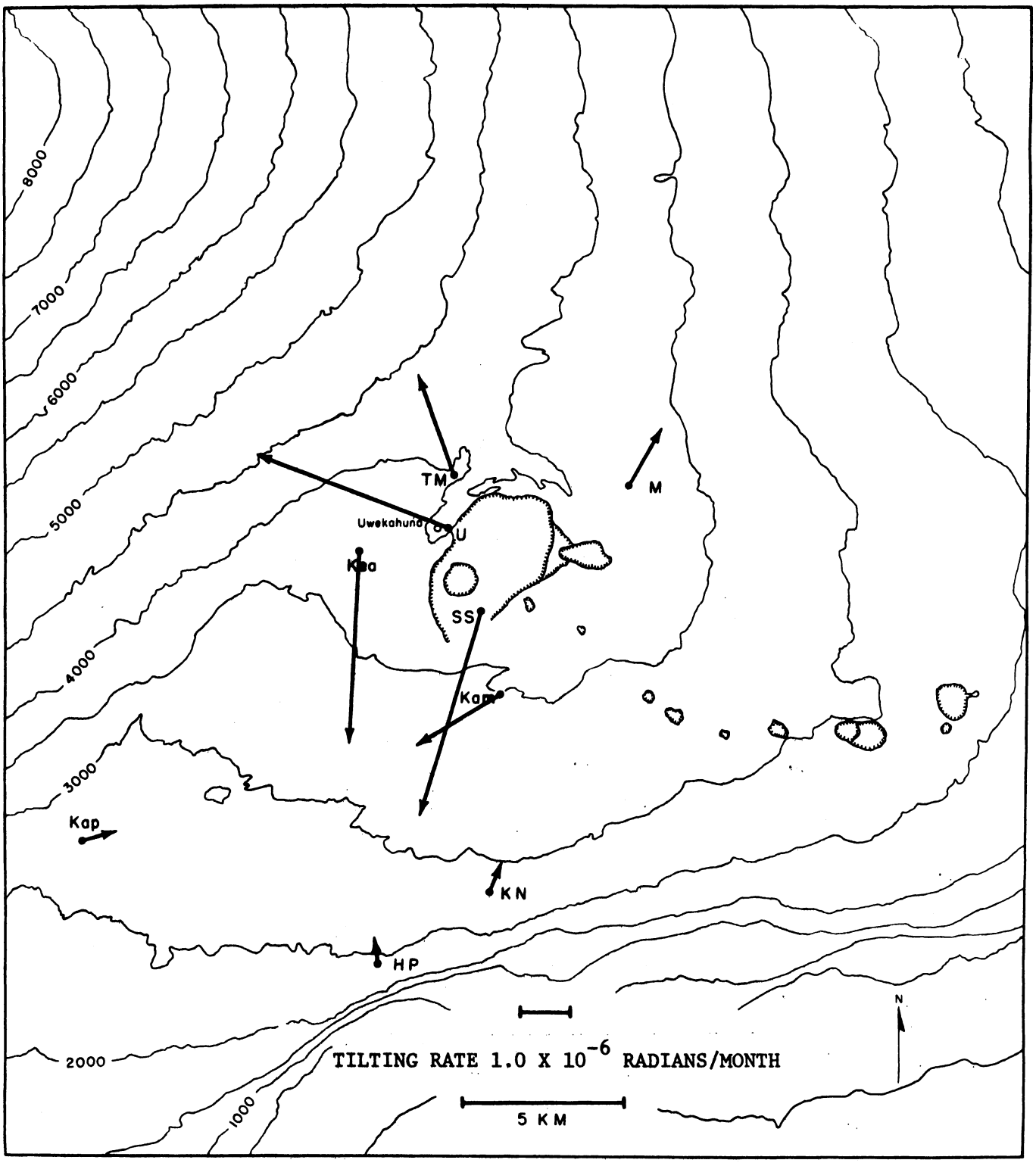

Figure 6.--Tilting of the ground around Kilauea Caldera. The vector depicting tilting at a given tilt base points in the direction of maximum relative subsidence, and its length is proportional to the rate of tilting during the measurement interval. Closed circles represent field tilt bases; open circles, short-base watertube tiltmeters. See Table 8 for explanation of abbreviations.

Table 9.--Complete and corrected tilt coordinates at all tilt bases around Kilauea Caldera

Tilt Base and Location	Date	Tilt Coordinates N-S	E-W	Tilt Base and Location	Date	Tilt Coordinates N-S	E-W
Uwekahuna	22 Nov 57	500.0	500.0	Uwekahuna	13 Sep 66	499.2	520.4
19°25.5'N	6 Feb 58	508.3	492.8	(cont'd)	8 Dec 66	506.5	507.8
155°17.4'W	22 May 58	518.1	487.6		17 Jan 67	512.5	499.1
	4 Aug 58	526.8	483.4		14 Feb 67	521.7	499.4
	2 Oct 58	533.6	479.9		2 Mar 67	521.5	502.6
	2 Feb 59	543.9	467.8		8 May 67	544.6	497.3
	27 Apr 59	544.2	469.1		5 Jun 67	552.2	494.8
	13 Aug 59	543.3	472.4		6 Sep 67	568.6	487.7
	12 Oct 59	546.8	468.8		8 Nov 67	583.0	478.0
	10 Nov 59	552.8	461.2		13 Feb 68	583.3	469.1
	1 Dec 59	535.6	464.2		11 Jun 68	598.7	437.5
	28 Dec 59	570.5	443.8		28 Aug 68	557.5	474.1
	20 Jan 60	557.8	458.4		3 Dec 68	543.4	472.9
	28 Mar 60	272.0	716.2		6 Feb 69	566.1	455.1
	5 Jul 60	218.9	759.8		19 Aug 69	572.8	452.5
	16 Sep 60	216.2	758.8		29 Sep 69	572.1	451.6
	29 Nov 60	283.6	690.0		3 Dec 69	576.4	444.9
	23 Feb 61	374.6	628.2		27 Feb 70	591.3	429.1
	8 May 61	444.1	594.6		22 May 70	604.9	416.3
	26 Jun 61	468.0	583.4		9 Sep 70	609.7	410.0
	22 Jul 61	476.8	572.4		25 Jan 71	616.5	393.5
	22 Sep 61	404.4	626.8				
	6 Oct 61	358.9	645.6				
	2 Jan 62	394.1	611.5	Kalihipaa	26 May 58	500.0	500.0
	27 Mar 62	409.2	601.7	19°21.4'N	6 Oct 58	498.9	500.7
	29 Jun 62	422.2	590.5	155°15.3'W	9 Feb 59	496.0	503.3
	30 Oct 62	446.9	576.8		28 Apr 59	487.3	502.4
	10 Dec 62	437.3	580.1		14 Aug 59	488.6	501.0
	20 Mar 63	471.2	561.7		13 Oct 59	488.6	500.7
	10 May 63	471.6	575.1		29 Oct 59	489.3	500.8
	6 Jul 63	478.6	568.7		12 Nov 59	487.1	501.7
	6 Aug 63	486.8	561.0		2 Dec 59	486.8	501.8
	10 Oct 63	420.8	608.0		29 Dec 59	471.4	509.0
	22 Jan 64	440.6	583.6		19 Jan 60	477.2	511.0
	29 Apr 64	452.5	572.4		4 Feb 60	508.2	504.3
	27 Aug 64	469.6	557.7		29 Mar 60	563.4	447.7
	10 Dec 64	488.4	455.6		7 Jul 60	599.2	416.5
	4 Jan 65	500.3	534.8		26 Sep 60	611.8	408.7
	17 Jan 65	507.6	533.8		3 Nov 60	605.2	407.2
	6 Mar 65	441.0	584.5		24 Feb 61	579.9	414.2
	15 Jun 65	454.4	568.5		11 May 61	549.1	427.5
	7 Sep 65	467.3	556.4		26 Jun 61	541.5	433.9
	27 Dec 65	442.5	575.8		22 Jul 61	540.5	435.9
	10 Feb 66	463.9	555.2		22 Sep 61	562.5	431.4
	14 Mar 66	470.6	549.7		8 Oct 61	580.5	421.3
	7 Jun 66	486.2	535.5		5 Jan 62	577.5	422.3

Table 9.--Complete and corrected tilt coordinates at all tilt bases around Kilauea Caldera (cont'd)

Tilt Base and Location	Date	Tilt Coordinates N-S	Tilt Coordinates E-W
Kalihipaa (cont'd)	28 Mar 62	577.3	422.0
	5 Jul 62	577.3	422.2
	26 Oct 62	568.6	427.0
	11 Dec 62	569.6	423.7
	18 Mar 63	562.7	428.2
	11 May 63	553.7	451.0
	3 Jul 63	343.4	387.5
	5 Aug 63	330.4	377.7
	22 Aug 63	338.8	377.1
	7 Oct 63	358.1	375.1
	20 Jan 64	362.8	373.6
	6 Feb 64	361.9	373.2
	27 Apr 64	360.6	371.4
	27 Aug 64	352.6	372.6
	8 Dec 64	342.4	376.1
	21 Jan 65	340.2	380.2
	6 Mar 65	365.6	380.1
	8 Jun 65	366.9	375.3
	31 Aug 65	360.9	373.8
	This station was lost during the eruption and earthquake of Dec 24-31 1965		
Summer Camp 19°24.6'N 155°15.6'W	9 Jun 58	500.0	500.0
	7 Oct 58	505.6	515.0
	8 Feb 59	508.4	527.1
	4 May 59	517.6	527.9
	15 Aug 59	517.6	525.1
	16 Oct 59	519.7	529.5
	13 Nov 59	530.9	538.6
	This station was lost during the eruption of Kilauea Iki Nov 14,1959		
Tree Molds 19°26.3'N 155°17.3'W	9 Oct 58	500.0	500.0
	5 Feb 59	508.6	498.9
	28 Apr 59	502.1	498.7
	14 Aug 59	499.7	498.5
	13 Oct 59	501.5	498.1
	12 Nov 59	509.5	496.4
	2 Dec 59	504.6	490.0
	28 Dec 59	516.1	488.1
Tree Molds (cont'd)	20 Jan 60	506.2	493.0
	5 Feb 60	408.8	528.9
	29 Mar 60	334.0	550.2
	7 Jul 60	305.8	555.9
	23 Sep 60	308.0	552.8
	31 Oct 60	342.5	538.4
	26 Feb 61	408.5	517.4
	9 May 61	438.3	512.1
	27 Jun 61	450.2	510.6
	25 Jul 61	455.3	509.1
	7 Oct 61	389.5	528.5
	4 Jan 62	412.9	519.3
	27 Mar 62	420.5	517.4
	29 Jun 62	427.1	514.6
	31 Oct 62	438.5	512.7
	12 Dec 62	435.8	512.4
	19 Mar 63	448.7	510.9
	14 May 63	453.5	512.2
	7 Jul 63	452.5	512.7
	6 Aug 63	457.0	509.8
	23 Aug 63	457.9	509.8
	9 Oct 63	422.6	521.3
	21 Jan 64	436.2	514.0
	1 May 64	443.1	511.6
	28 Aug 64	450.9	508.8
	7 Dec 64	461.6	504.1
	17 Jan 65	469.3	504.3
	6 Mar 65	435.1	517.3
	9 Jun 65	443.2	511.4
	2 Sep 65	447.1	508.6
	29 Dec 65	437.9	515.4
	16 Mar 66	453.8	506.9
	8 Jun 66	462.9	504.8
	12 Sep 66	469.8	500.2
	8 Dec 66	477.9	495.6
	18 Jan 67	480.8	495.2
	13 Feb 67	483.7	495.8
	1 May 67	491.9	495.4
	7 Jun 67	496.4	495.7
	19 Jul 67	501.0	494.1
	7 Sep 67	504.4	494.5
	30 Oct 67	513.6	492.4
	7 Nov 67	507.5	495.7
	5 Dec 67	510.0	493.2
	21 Feb 68	513.8	491.8

Table 9.--Complete and corrected tilt coordinates at all tilt bases around Kilauea Caldera (cont'd)

Tilt Base and Location	Date	Tilt Coordinates N-S	Tilt Coordinates E-W
Tree Molds (cont'd)	10 Jun 68	522.0	491.3
	10 Oct 68	477.0	502.9
	3 Dec 68	493.4	495.1
	6 Feb 69	504.9	494.2
	24 Feb 69	484.3	499.9
	1 May 69	508.3	491.5
	27 May 69	501.3	493.3
	30 Oct 69	506.4	490.3
	9 Feb 70	518.4	485.5
	18 May 70	523.6	485.3
	9 Sep 70	526.9	481.7
	25 Jan 71	535.5	478.6
Sand Spit 19°24.1'N 155°16.8'W	31 Oct 58	500.0	500.0
	8 Feb 59	505.1	493.7
	4 May 59	531.2	482.8
	15 Aug 59	527.4	485.8
	16 Oct 59	525.3	483.6
	13 Nov 59	527.5	472.9
	4 Dec 59	545.0	468.9
	31 Dec 59	605.9	466.7
	22 Jan 60	605.0	481.1
	5 Feb 60	599.2	580.1
	4 Apr 60	757.8	703.9
	14 Jul 60	794.0	735.6
	23 Sep 60	786.3	743.1
	31 Oct 60	774.8	724.3
	26 Feb 61	854.5	700.9
	10 May 61	962.0	687.0
	28 Jun 61	993.1	672.7
	25 Jul 61	974.8	658.8
	11 Oct 61	839.2	695.2
	9 Jan 62	844.6	692.5
	29 Mar 62	849.4	700.9
	29 Jun 62	852.5	705.9
	1 Nov 62	895.4	706.7
	12 Dec 62	891.7	701.5
	21 Mar 63	938.8	706.4
	14 May 63	930.2	708.8
	6 Jul 63	924.6	724.4
	12 Aug 63	921.7	726.2
	11 Oct 63	882.8	748.1
	24 Jan 64	863.1	751.8
	1 May 64	861.2	748.6
	1 Sep 64	885.3	723.0
Sand Spit (cont'd)	11 Dec 64	905.9	697.5
	19 Jan 65	934.7	732.7
	8 Mar 65	893.9	749.9
	16 Jun 65	884.9	747.7
	7 Sep 65	881.6	737.5
	30 Dec 65	869.0	751.8
	17 Mar 66	845.0	747.9
	8 Jun 66	839.9	734.9
	12 Sep 66	835.1	716.8
	5 Dec 66	831.0	710.6
	17 Jan 67	848.8	687.3
	7 Feb 67	863.2	684.3
	12 Feb 68	875.8	703.1
	1 Mar 67	877.6	709.5
	20 Mar 67	881.2	712.7
	12 Apr 67	892.0	717.2
	8 May 67	907.0	718.7
	13 Sep 67	942.4	706.6
	12 Jun 68	955.1	650.7
	31 Oct 69	951.0	684.8
	20 May 70	1050.1	613.0
	10 Sep 70	1049.2	612.0
	26 Jan 71	1031.6	606.8
Keamoku 19°25.1'N 155°19.0'W	2 Mar 59	500.0	500.0
	12 May 69	512.8	498.6
	16 Aug 59	516.1	497.6
	20 Oct 59	515.5	493.4
	4 Dec 59	504.9	496.7
	31 Dec 59	534.8	469.8
	21 Jan 60	530.6	484.2
	4 Feb 60	483.3	608.1
	30 Mar 60	425.0	739.1
	12 Jul 60	396.1	792.1
	22 Sep 60	385.1	799.3
	1 Nov 60	384.1	768.7
	24 Feb 61	429.1	664.5
	9 May 61	492.4	597.0
	24 Jun 61	511.3	572.1
	21 Jul 61	513.3	567.5
	8 Oct 61	443.3	677.9
	5 Jan 62	447.1	651.1
	29 Mar 62	453.9	637.7
	30 Jun 62	466.2	623.4
	31 Oct 62	481.4	598.5

Table 9.--Complete and corrected tilt coordinates at all tilt bases around Kilauea Caldera (cont'd)

Tilt Base and Location	Date	Tilt Coordinates N-S	Tilt Coordinates E-W
Keamoku (cont'd)	11 Dec 62	474.5	605.6
	18 Mar 63	494.7	577.8
	10 Mar 63	519.2	564.3
	4 Jul 63	531.4	552.6
	12 Aug 63	537.0	544.9
	7 Oct 63	501.7	598.4
	24 Jan 64	492.4	591.9
	28 Apr 64	495.9	584.4
	26 Aug 64	505.7	569.8
	11 Dec 64	506.2	556.1
	18 Jan 65	527.1	531.7
	7 Mar 65	498.1	589.8
	7 Jun 65	499.8	583.0
	30 Aug 65	502.5	571.6
	28 Dec 65	505.7	574.2
	15 Mar 66	512.7	555.6
	6 Jun 66	516.8	544.5
	6 Sep 66	518.9	532.4
	6 Dec 66	510.8	528.5
	13 Feb 67	525.1	509.5
	2 Mar 67	531.4	509.2
	21 Mar 67	535.5	503.6
	2 May 67	555.0	488.7
	6 Jun 67	562.9	479.5
	19 Jul 67	572.3	469.2
	5 Sep 67	578.3	463.7
	30 Oct 67	590.1	440.6
	8 Nov 67	586.6	446.8
	21 Nov 67	585.1	448.4
	30 Nov 67	574.3	452.6
	13 Jun 68	582.1	442.4
	19 Jun 68	583.1	441.1
	2 Sep 68	571.5	471.0
	10 Oct 68	551.4	503.2
	2 Dec 68	548.4	492.2
	6 Feb 69	558.8	473.6
	25 Feb 69	546.9	498.5
	27 Oct 69	571.3	468.3
	11 Feb 70	573.7	454.9
	20 May 70	585.2	447.4
	10 Sep 70	586.3	442.5
	2 Feb 71	568.8	441.7
Ahua Kamokukolau 19°ww.7'N 155°16.6'W	4 Mar 59	500.0	500.0
	5 May 59	489.1	506.3
	16 Aug 59	493.9	506.0
	19 Oct 59	488.6	505.7
Ahua Kamokukolau (cont'd)	3 Dec 59	479.1	500.7
	30 Dec 59	413.9	535.4
	22 Jan 60	444.7	543.5
	5 Feb 60	634.0	494.3
	5 Apr 60	817.2	456.7
	29 Apr 60	839.5	452.1
	8 Jul 60	899.5	441.4
	24 Sep 60	927.8	433.7
	28 Nov 60	883.2	441.2
	25 Feb 61	722.6	478.7
	10 May 61	588.7	530.2
	24 Jun 61	546.4	543.5
	21 Jul 61	547.4	542.8
	7 Oct 61	769.6	469.2
	3 Jan 62	733.9	488.8
	28 Mar 62	717.8	499.4
	1 Jul 62	704.9	509.2
	26 Oct 62	652.9	521.8
	10 Dec 62	658.3	521.5
	19 Mar 63	599.6	539.1
	10 May 63	608.1	583.1
	3 Jul 63	694.9	548.1
	5 Aug 63	701.9	555.6
	10 Oct 63	802.0	529.6
	22 Jan 64	798.9	536.4
	1 May 64	788.1	532.2
	26 Aug 64	752.1	528.4
	10 Dec 64	708.4	522.7
	18 Jan 65	677.0	554.4
	6 Mar 65	777.6	542.9
	15 Jun 65	789.4	532.7
	30 Aug 65	774.3	525.7
	28 Dec 65	830.0	531.6
	16 Mar 66	800.8	529.0
	8 Jun 66	778.8	519.4
	8 Sep 66	753.1	514.4
	5 Dec 66	738.8	501.7
	18 Jan 67	706.6	497.8
	7 Feb 67	688.6	501.3
	12 Feb 67	681.9	518.4
	1 Mar 67	684.0	526.5
	20 Mar 67	675.5	533.6
	1 May 67	646.2	550.2
	5 Jun 67	622.7	554.0
	18 Jul 67	603.0	557.5
	13 Sep 67	587.7	558.0
	7 Feb 69	630.6	539.7

Table 9.--Complete and corrected tilt coordinates at all tilt bases around Kilauea Caldera (cont'd)

Tilt Base and Location	Date	Tilt Coordinates N-S	Tilt Coordinates E-W
Ahua Kamokukolau (cont'd)	18 Feb 69	625.8	542.5
	22 Feb 69	643.3	542.2
	23 Feb 69	656.1	536.5
	27 Feb 69	665.3	535.6
	31 Oct 69	614.6	540.5
	21 May 70	495.5	510.3
	11 Sep 70	498.7	509.5
	26 Jan 71	494.5	502.5
Hilina Pali 19°18.2'N 155°18.6'W	19 Jan 60	500.0	500.0
	6 Feb 60	504.6	497.1
	4 Apr 60	516.0	490.5
	11 Jul 60	522.7	484.9
	20 Sep 60	525.7	483.3
	21 Nov 60	522.9	486.3
	27 Feb 61	518.1	491.4
	12 May 61	511.4	496.1
	28 Jun 61	505.3	499.6
	23 Jul 61	504.8	499.9
	9 Oct 61	511.1	494.9
	8 Jan 62	512.9	496.3
	4 Apr 62	514.4	495.3
	24 Oct 62	512.2	494.2
	13 Mar 63	509.7	495.5
	13 May 63	500.9	500.0
	6 Aug 63	497.9	498.8
	14 Oct 63	497.7	499.6
	30 Apr 64	498.7	498.4
	7 Dec 64	498.6	495.0
	9 Jun 65	502.7	493.8
	10 Jan 66	464.1	508.3
	9 Jun 66	464.7	506.3
	7 Dec 66	465.3	505.7
	28 Jun 67	457.3	509.3
	14 Feb 68	456.4	508.1
	16 Oct 68	457.3	504.6
	29 Oct 69	453.5	500.5
	25 May 70	453.2	497.7
	3 Feb 71	456.8	497.1
Kipuka Nene 19°19.4'N 155°16.7'W	26 Jan 60	500.0	500.0
	6 Feb 60	504.8	497.2
	31 Mar 60	517.7	491.8
	13 Jul 60	526.9	487.2
	26 Sep 60	529.1	485.5
Kipuka Nene (cont'd)	22 Nov 60	526.9	485.4
	27 Feb 61	521.3	488.0
	11 May 61	513.6	493.2
	27 Jun 61	510.6	498.3
	24 Jul 61	509.6	499.1
	9 Oct 61	516.7	494.4
	4 Jan 62	517.1	493.4
	5 Apr 62	516.8	493.5
	2 Oct 62	515.1	494.1
	13 Dec 62	511.8	495.2
	15 Mar 63	509.5	495.5
	13 May 63	500.4	502.5
	5 Jul 63	489.3	505.7
	9 Aug 63	487.3	505.9
	14 Oct 63	488.7	506.5
	20 Jan 64	488.3	505.3
	27 Apr 64	488.2	505.4
	1 Sep 64	485.5	505.5
	14 Dec 64	483.3	504.0
	20 Jan 65	482.1	503.5
	9 Mar 65	486.9	503.4
	8 Jun 65	486.8	502.6
	31 Aug 65	486.4	502.6
	11 Jan 66	296.5	498.1
	14 Mar 66	300.2	498.5
	9 Jun 66	302.0	498.2
	11 Jul 66	302.6	498.9
	8 Sep 66	303.0	498.1
	7 Dec 66	304.9	497.5
	15 Feb 67	303.0	498.2
	17 Mar 67	303.0	501.7
	8 Jun 67	299.2	505.2
	7 Sep 67	297.5	507.0
	7 Nov 67	294.9	505.6
	14 Feb 68	294.9	506.1
	10 Jun 68	292.1	506.0
	2 Sep 68	295.6	505.4
	11 Oct 68	298.5	505.9
	5 Dec 68	297.8	505.9
	12 Feb 69	295.4	506.1
	22 May 69	293.7	505.5
	3 Jun 69	293.9	505.3
	28 Oct 69	291.5	505.9
	13 Feb 70	288.2	504.9
	21 May 70	284.3	502.9
	11 Sep 70	286.2	501.2
	3 Feb 71	288.6	502.1

Table 9. Complete and corrected tilt coordinates at all tilt bases around Kilauea Caldera (cont'd)

Tilt Base and Location	Date	Tilt Coordinates N-S	Tilt Coordinates E-W
Mehana	19 Sep 60	500.0	500.0
19°26.2'N	2 Nov 60	508.0	514.6
155°14.3'W	2 Mar 61	530.0	533.7
	12 May 61	540.1	541.9
	26 Jun 61	541.8	546.6
	25 Jul 61	543.5	547.8
	10 Oct 61	526.8	527.6
	2 Jan 62	532.2	536.6
	26 Mar 62	533.8	535.9
	2 Sep 64	541.4	545.0
	30 Sep 64	543.9	546.5
	10 Dec 64	547.7	548.3
	16 Jan 65	550.0	549.8
	9 Mar 65	541.3	540.7
	16 Jun 65	539.6	543.0
	9 Sep 65	536.9	546.0
	29 Dec 65	541.9	543.3
	17 Mar 66	542.1	546.8
	16 Jun 66	544.6	551.1
	12 Sep 66	549.1	555.0
	9 Dec 66	553.4	558.3
	14 Feb 67	559.2	560.1
	7 Jun 67	560.8	564.2
	6 Sep 67	563.6	568.7
	8 Nov 67	569.0	569.8
	21 Feb 68	572.7	569.8
	12 Jun 68	577.8	577.0
	17 Jul 68	579.4	776.9
	2 Sep 68	570.4	570.4
	11 Oct 68	563.3	564.2
	2 Dec 68	567.5	567.8
	5 Feb 69	573.2	568.7
	24 Feb 69	569.2	564.0
	21 Apr 69	571.3	566.8
	27 May 69	570.0	567.4
	30 Oct 69	571.4	572.2
	9 Feb 70	577.1	578.0
	18 May 70	586.6	584.9
	9 Sep 70	589.7	588.7
	25 Jan 71	594.8	591.4
Kapapala Ranch	10 Oct 61	500.0	500.0
19°20.5'N	9 Jan 62	501.0	501.4
155°23.8'W	30 Mar 62	500.3	501.4
	30 Jun 62	497.0	503.6
	23 Oct 62	497.8	504.5
Kapapala Ranch (cont'd)	19 Dec 62	497.8	505.0
	14 Mar 63	497.6	505.0
	11 May 63	498.0	503.1
	8 Aug 63	497.0	503.5
	11 Oct 63	496.0	505.6
	21 Jan 64	496.2	507.5
	28 Apr 64	496.4	508.5
	24 Aug 64	494.5	508.2
	9 Dec 64	494.7	510.1
	19 Jan 65	494.7	510.6
	8 Mar 65	494.8	512.0
	7 Jun 65	494.2	511.4
	1 Sep 65	493.6	512.3
	27 Dec 65	493.8	513.7
	15 Mar 66	492.5	514.8
	6 Jun 66	492.1	514.8
	6 Sep 66	491.3	516.1
	6 Dec 66	491.6	517.2
	15 Feb 67	491.6	518.2
	22 Mar 67	493.4	515.9
	6 Jun 67	493.0	513.7
	5 Sep 67	491.2	512.2
	8 Nov 67	491.7	513.1
	13 Feb 68	492.4	515.0
	11 Jun 68	489.1	514.3
	28 Aug 68	488.9	514.4
	14 Oct 68	490.1	515.6
	11 Feb 69	490.1	516.9
	27 Oct 69	486.8	518.4
	11 Feb 70	586.2	519.9
	20 May 70	484.7	519.4
	10 Sep 70	485.3	518.7
	2 Feb 71	486.3	521.8

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