GEOLOGICAL SURVEY CIRCULAR 836–A

Earthquakes in the United States, January–March 1979

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By C. W. Stover, J. H. Minsch, B. G. Reagor, and P. K. Smith

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1980

United States Department of the Interior

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Geological Survey

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INTRODUCTION

The earthquake information in this publication supplements that published in the NEIS (National Earthquake Information Service) publications, PDE ("Preliminary Determination of Epicenters") and "Preliminary Determination of Epicenters, Monthly Listing," to the extent of providing detailed felt and intensity data, as well as isoseismal maps for U.S. earthquakes. The purpose is to provide a complete listing of macroseismic effects of earthquakes, which can be used in risk studies, nuclear power plant site evaluations, seismicity studies, and answering inquiries by the public.

This publication contains two major sections. The first (table 1) is a tabular listing of earthquakes in chronological order by State, consisting of the following basic information: date, origin time, hypocenter, magnitude, maximum intensity, and computational source of the hypocenter. The second section consists of six maps and table 2, which lists detailed intensity information. The list of earthquakes in table 1 was compiled from those located in Alaska or off the coasts that were published in the PDE; from hypocenters located in the conterminous United States using the U.S. Geological Survey program SEDAS; from hypocenters in California above magnitude 3.0, supplied by California Institute of Technology, Pasadena, the University of California, Berkeley, and other offices of the U.S. Geological Survey; from hypocenters in Hawaii supplied by the Hawaiian Volcano Observatory; and from any others that were felt or that caused damage, regardless of magnitude or availability of a hypocenter. Known or suspected explosions are also listed.

The intensities and macroseismic data were compiled from information obtained through questionnaires, from newspaper articles, and with the cooperation of other Government agencies, State institutions, local organizations, and individuals. (See "Acknowledgments" for a list of collaborators.) Figure 1 is the questionnaire in current use by the NEIS. Other versions of this questionnaire are used by State agencies, engineering firms, and other Government agencies to collect intensity data. Anyone wishing to submit felt or damage information on earthquakes for inclusion in future reports should send it to the National Earthquake Information Service, Stop 967, Box 25046, Denver Federal Center, Denver, CO 80225. Copies of the current "Earthquake Report" questionnaire can be obtained at this address.

The primary method used by the NEIS to collect macroseismic information is a questionnaire canvass using the "Earthquake Report" forms, which are mailed to postmasters in the area affected by the earthquake. The postmasters complete the forms and return them to the NEIS, where they are evaluated and an intensity value is assigned. The intensity observations are mapped and contoured by isoseismals. Isoseismal contours present a generalization of intensity data and an extrapolation of these data to regions from which there are no observations; they do not necessarily account for every individual observation.

The data in table 2 will be included in the "Earthquake Description" section of "United States Earthquakes," an annual publication, to which later data from other sources may be added for the purpose of updating and completeness. "United States Earthquakes" is published jointly by the U.S. Geological Survey, Department of the Interior, and the Environmental Data Service, National Oceanic and Atmospheric Administration, Department of Commerce.

DISCUSSION OF TABLES

The parameters for the earthquakes in table 1 and table 2 include the date, origin time, hypocenter (epicenter and focal depth), magnitude, intensity, and hypocenter source. The origin time and date are listed in Universal

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EARTHQUAKE REPORT

Form Approved
OMB No. 42-R1700

Please answer this questionnaire and return as soon as possible

1. Was an earthquake felt by anyone in your town near the date and time indicated on the opposite page?
   ☐ No: Please refold and tape for return mail.
   ☐ Yes: Date_____ Time_____ ☐ AM ☐ PM ☐ Standard time ☐ Daylight time

Name of person filling out form _____

Address_____

City_____ County_____

State_____ Zip code_____

If you felt the earthquake, complete the following section. If others felt the earthquake but you did not, skip the personal report and complete the community report.

PERSONAL REPORT

2a. Did you personally feel the earthquake? 1☐ Yes ☐ No
b. Were you awakened by the earthquake? 2☐ Yes ☐ No
c. Were you frightened by the earthquake? 3☐ Yes ☐ No
d. Were you at 4☐ Home 5☐ Work 6☐ Other? _____
e. Town and zip code of your location at time of earthquake _____
f. Check your activity when the earthquake occurred:
   7☐ Walking 8☐ Sleeping 9☐ Lying down 10☐ Standing
   11☐ Driving (car in motion) 12☐ Sitting 13☐ Other_____
g. Were you 14☐ Inside or 15☐ Outside?
h. If inside, on what floor were you? 16 _____
i. Vibration could be described as 17☐ Light 18☐ Heavy
j. Was there earth noise? ☐ No 19☐ Faint 20☐ Moderate 21☐ Loud
k. Direction of noise ☐ North ☐ South ☐ East ☐ West
l. Estimated duration of shaking 22☐ Sudden, sharp (less than 10 secs) 23☐ Long (30-60 secs) 24☐ Short (10-30 secs)

Continue on to next section which should include personal as well as reported observations.

COMMUNITY REPORT

Town and zip code_____
DO NOT INCLUDE EFFECTS FROM OTHER COMMUNITIES/TOWNS
Check one box for each question that is applicable.

3a. The earthquake was felt by ☐ No one 25☐ Few 26☐ Several 27☐ Many 28☐ All?
b. This earthquake awakened ☐ No one 29☐ Few 30☐ Several 31☐ Many 32☐ All?
c. This earthquake frightened ☐ No one 33☐ Few 34☐ Several 35☐ Many 36☐ All?

4. What indoor physical effects were noted in your community?
   Windows, doors, dishes rattled 37☐ Yes ☐ No
   Buildings creaked 38☐ Yes ☐ No
   Building trembled (shook) 39☐ Slightly 40☐ Strongly
   Hanging pictures (more than one) 41☐ Swung 42☐ Out of place 43☐ Fallen
   Liquid in small containers 44☐ Spilled 45☐ Slightly disturbed
   Windows 46☐ Few cracked 47☐ Some broken 48☐ Many broken
   Were small objects (dishes, knick-knacks, lamps) ☐ Unmoved 49☐ Moved 50☐ Overturned 51☐ Broken?
   Were light furniture or small appliances ☐ Unmoved 52☐ Moved 53☐ Overturned 54☐ Damaged seriously
   Were heavy furniture or appliances ☐ Unmoved 55☐ Overturned 56☐ Moved 57☐ Damaged seriously
   Did hanging objects or doors swing? 58☐ Slightly 59☐ Moderately 60☐ Violently
   Can you estimate direction? ☐ North/South ☐ East/West ☐ Other_____
   Pendulum clocks 61☐ Stopped 62☐ Started 63☐ Faster or slower

Continued on the reverse side

FIGURE 1.—Example of the "Earthquake Report" form used for evaluating the intensities of earthquakes. A, front side.

5. Indicate effects of the following types to interior walls if any:

Plaster/stucco	64 ☐ Large cracks	65 ☐ Fell in large amounts
Dry wall	66 ☐ Large cracks	67 ☐ Fell in large amounts
Ceiling tiles	68 ☐ Large cracks	69 ☐ Fell in large amounts

6. What outdoor physical effects were noted in your community?

Trees and bushes shaken	70 ☐ Slightly	71 ☐ Moderately	72 ☐ Strongly
Standing vehicles rocked	73 ☐ Slightly	74 ☐ Moderately	
Moving vehicles rocked	75 ☐ Slightly	76 ☐ Moderately	
Water splashed onto sides of lakes, ponds, swimming pools	77 ☐ Yes	☐ No	
Elevated water tanks	78 ☐ Cracked	79 ☐ Twisted	80 ☐ Fallen (thrown down)
Industrial cooling units	81 ☐ Displaced	82 ☐ Rotated	83 ☐ Fallen
Tombstones	84 ☐ Displaced	85 ☐ Cracked	86 ☐ Rotated
	87 ☐ Fallen		
Chimneys	88 ☐ Bricks loosened	89 ☐ Twisted	90 ☐ Fallen
	91 ☐ Broken at roof line	92 ☐ Bricks fallen	
Railroad tracks bent	93 ☐ Slightly	94 ☐ Greatly	
Stone or brick fences /walls	95 ☐ Open cracks	96 ☐ Fallen	97 ☐ Destroyed
Underground pipes	98 ☐ Broken	99 ☐ Out of service	
Highways or streets	100 ☐ Large cracks	101 ☐ Large displacements	
Sidewalks	102 ☐ Large cracks	103 ☐ Large displacements	

7a. Check below any structural damage to buildings.

Foundation	104 ☐ Cracked	105 ☐ Destroyed	
Interior walls	106 ☐ Split	107 ☐ Fallen	108 ☐ Separated from ceiling or floor
Exterior walls	109 ☐ Large Cracks	110 ☐ Bulged outward	
	111 ☐ Partial collapse	112 ☐ Total collapse	
Building	113 ☐ Moved on foundation	114 ☐ Shifted off foundation	

b. What type of construction was the building that showed this damage?

115 ☐ Wood	116 ☐ Stone	117 ☐ Brick veneer	118 ☐ Other _____
119 ☐ Brick	120 ☐ Cinderblock	121 ☐ Reinforced concrete	122 ☐ Mobile home

c. What was the type of ground under the building?

☐ Don't know	123 ☐ Sandy soil	124 ☐ Marshy	125 ☐ Fill
126 ☐ Hard rock	127 ☐ Clay soil	128 ☐ Sandstone, limestone, shale	

d. Was the ground: 129 ☐ Level 130 ☐ Sloping 131 ☐ Steep?

e. Check the approximate age of the building:

132 ☐ Built before 1935 133 ☐ Built 1935–65 134 ☐ Built after 1965

8. Check below any structural damage to

Bridges/Overpasses	135 ☐ Concrete	136 ☐ Wood	137 ☐ Steel	138 ☐ Other_____
Damage was	139 ☐ Slight	140 ☐ Moderate		141 ☐ Severe
Dams	142 ☐ Concrete	143 ☐ Large earthen		
Damage was	144 ☐ Slight	145 ☐ Moderate		146 ☐ Severe

9. What geologic effects were noted in your community?

Ground cracks	147 ☐ Wet ground	148 ☐ Steep slopes	149 ☐ Dry and level ground
Landslides	150 ☐ Small	151 ☐ Large	
Slumping	152 ☐ River bank	153 ☐ Road fill	154 ☐ Land fill
Were springs or well water disturbed?		155 ☐ Level changed	156 ☐ Flow disturbed
		157 ☐ Muddied	☐ Don't know
Were rivers or lakes changed?		158 ☐ Yes ☐ No	☐ Don't know

10a. What percentage of buildings were damaged?

Within 2 city blocks of your location	☐ None		159 ☐ Few (about 5%)
	160 ☐ Many(about 50%)		161 ☐ Most (about 75%)
b. In area covered by your zip code	☐ None		162 ☐ Few (about 5%)
	163 ☐ Many (about 50%)		164 ☐ Most (about 75%)

Thank you for your time and information. Refold this card and tape for return mail.

FIGURE 1.—Example of the "Earthquake Report" form used for evaluating the intensities of earthquakes. B, reverse side.

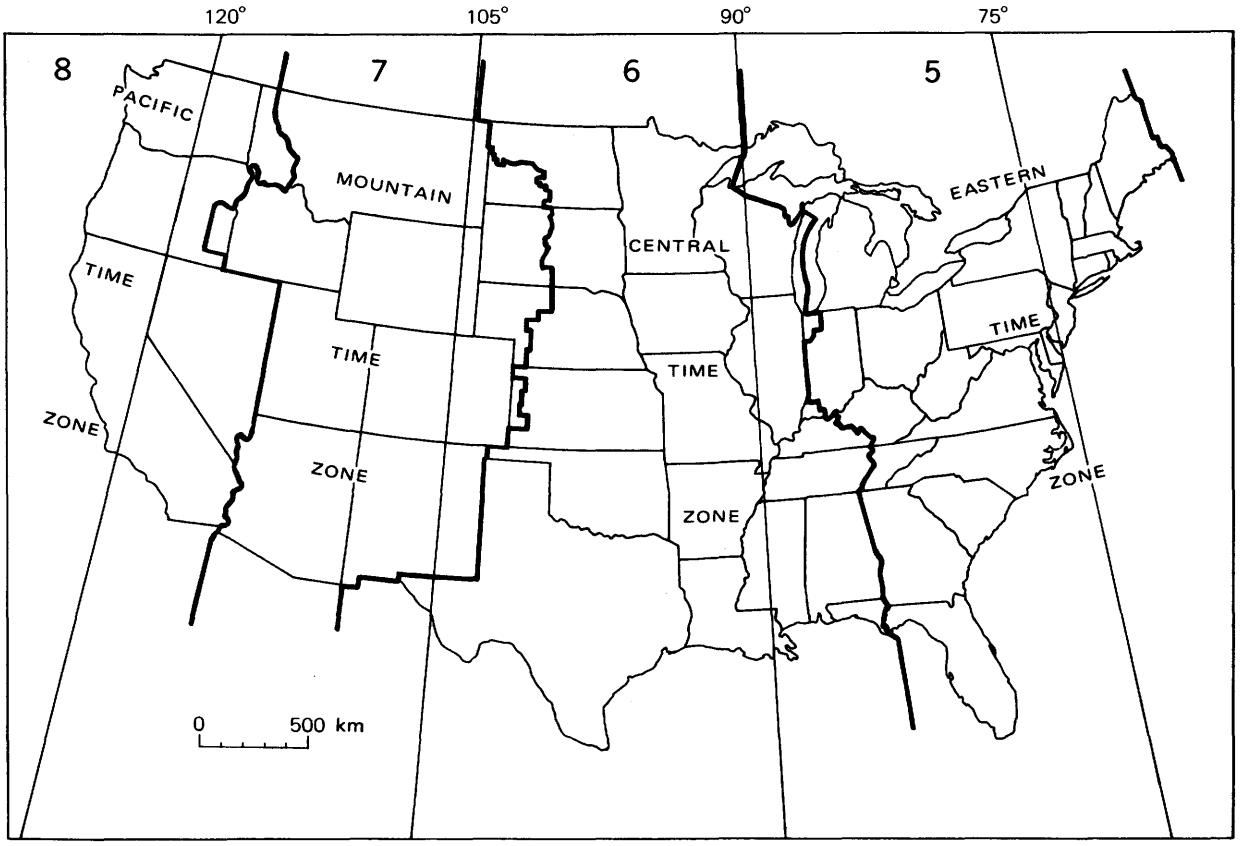

FIGURE 2.—Standard time zones of the conterminous United States. The number in each zone shows the number of hours to be subtracted from Universal Coordinated Time to convert to local standard time. (Subtract 1 hour less for local daylight-saving time.)

Coordinated Time (UTC) and local standard time based on the time-zone maps in figures 2 and 3. The epicenters, which were taken from those published in the PDE, or from other sources as noted, are listed here to two decimals. The accuracy of the epicenters is that claimed by the institution supplying the hypocenter and is not necessarily the accuracy indicated by the number of decimals listed. The epicenters located by the NEIS have a varying degree of accuracy, usually two-tenths of a degree or less, depending on their continental or oceanic location. The oceanic hypocenters are less accurate than those on the continent, even though both are listed to two decimals. Depths are listed to the nearest whole kilometer.

Figures 4-6 are maps summarizing the earthquake activity for the conterminous United States, Alaska, and Hawaii for the period January-March 1979. The magnitudes plotted in these figures are based on ML or mbLg; if neither was computed, then on MS; and finally on mb, when it was the only magnitude computed.

The magnitude values listed in tables 1 and 2 were furnished by cooperating institutions or determined by the NEIS. The computational sources are labeled according to the assigned letter codes shown in headnotes to tables 1 and 2; the letter follows the value listed under the column heading "Magnitude." In table 1 the absence of a letter code indicates that the NEIS is the source. In table 2 the magnitude source is the same as the location source unless indicated otherwise, by an alphabetic character to the right of the magnitude value. The magnitude values calculated by the NEIS are based on the following formulas:

$$MS=\log(A/T)+1.66\log D+3.3, \qquad (1)$$

as adopted by the International Association of Seismology and Physics of the Earth's Interior (IASPEI; Bath, 1966, p. 153), where A is the maximum vertical surface-wave ground amplitude, in micrometers; T is the period, in seconds, and $18 \le T \le 22$; and D is the distance, in geocentric degrees (station to epicenter), and $20° \le D \le 160°$. No depth correction is made for depths less than 50 km.

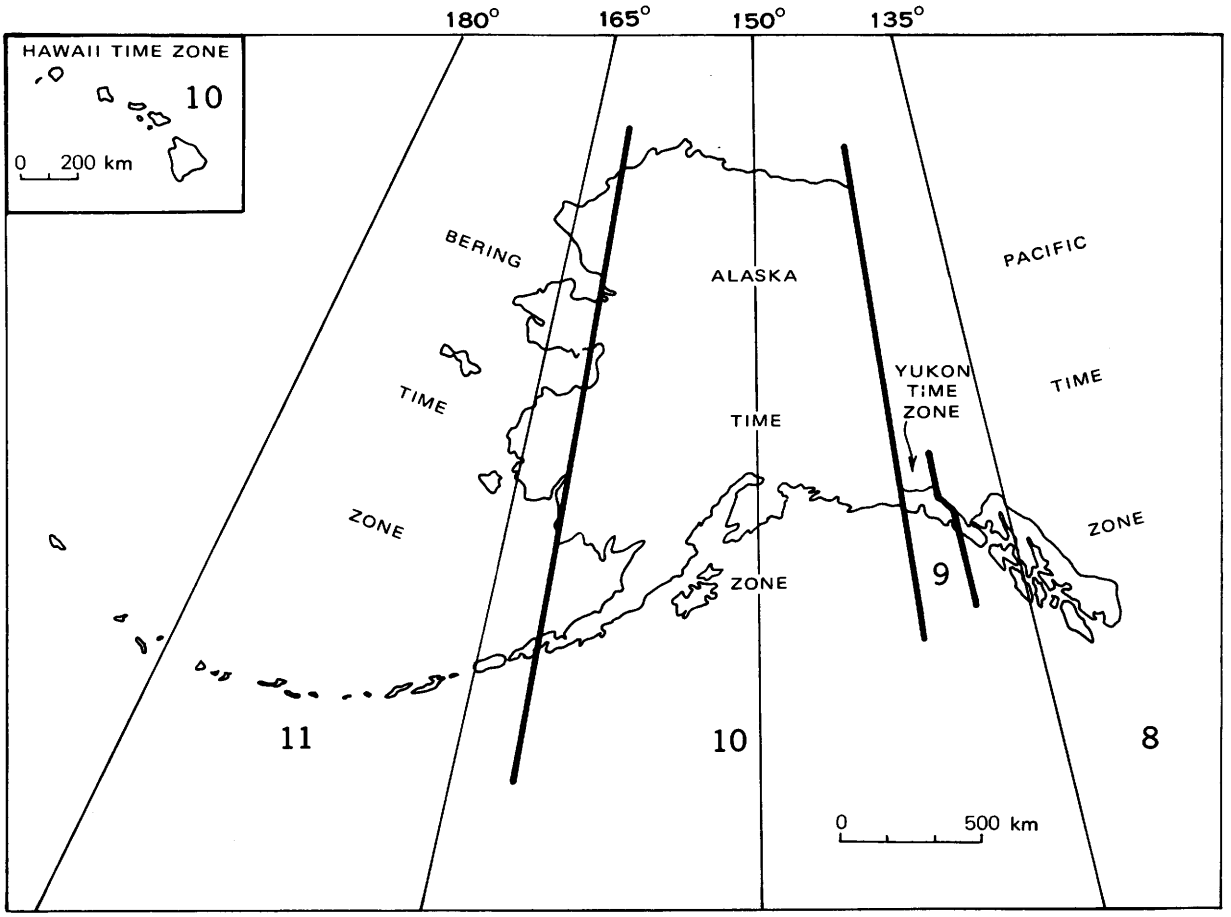

FIGURE 3.—Standard time zones of Alaska and Hawaii. The number in each zone shows the number of hours to be subtracted from Universal Coordinated Time to convert to local standard time. (Subtract 1 hour less for local daylight-saving time.)

$$mb=\log(A/T)+Q(D,h), \qquad (2)$$

as defined by Gutenberg and Richter (1956), except that T, the period in seconds, is restricted to $0.1 \leq T \leq 3.0$, and A, the ground amplitude in micrometers, is not necessarily the maximum of the P-wave group. Q is a function of distance D and depth h, where $D \geq 5°$.

$$ML=\log A-\log A_o, \qquad (3)$$

as defined by Richter (1958, p. 340), where A is the maximum trace amplitude in millimeters, written by a Wood-Anderson torsion seismometer, and log A_o is a standard value as a function of distance, where the distance is ≤ 600 km. ML values are also calculated from other seismometers by conversion of recorded ground motion to the expected response of the torsion seismometer.

$$mbLg=3.75+0.90(\log D)+\log(A/T) \qquad (4)$$
$$0.5° \leq D \leq 4°,$$

$$mbLg=3.30+1.66(\log D)+\log(A/T)$$
$$4° \leq D \leq 30°,$$

as proposed by Nuttli (1973), where A/T is expressed in micrometers per second, calculated from the vertical-component 1-second Lg waves, and D is the distance in geocentric degrees.

All of the intensity values (indicated by Roman numerals) listed in this summary were derived, using the Modified Mercalli Intensity Scale of 1931 (Wood and Neumann, 1931) shown below, from the evaluation of "Earthquake Report" forms; from field reports by U.S. Geological Survey personnel, engineering firms, or universities; and from detailed macroseismic data communicated to the NEIS by people in the area affected by the earthquake. All earthquake reports received which contain minimal or sketchy information

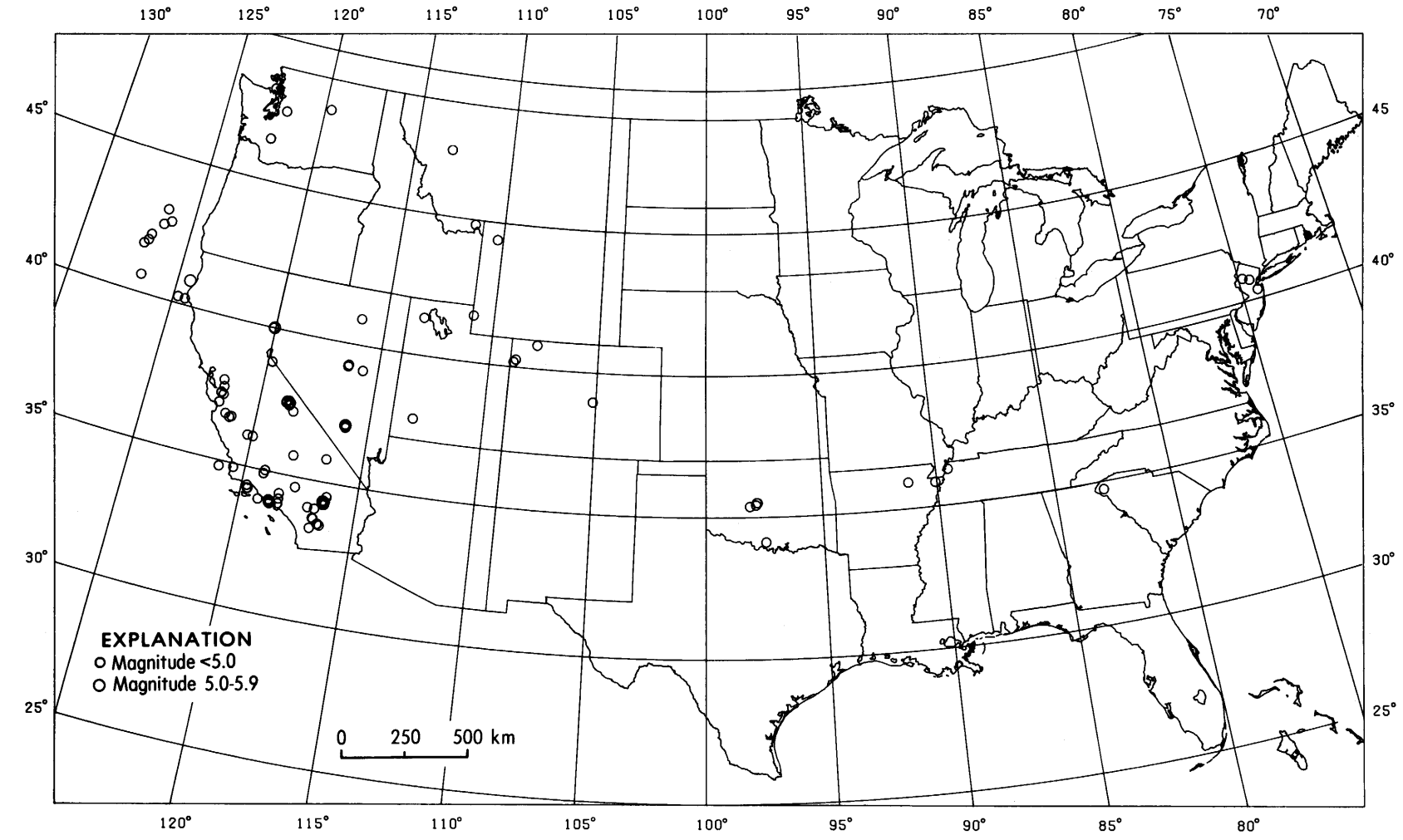

FIGURE 4.—Earthquake epicenters in the conterminous United States for January-March 1979, plotted from table 1.

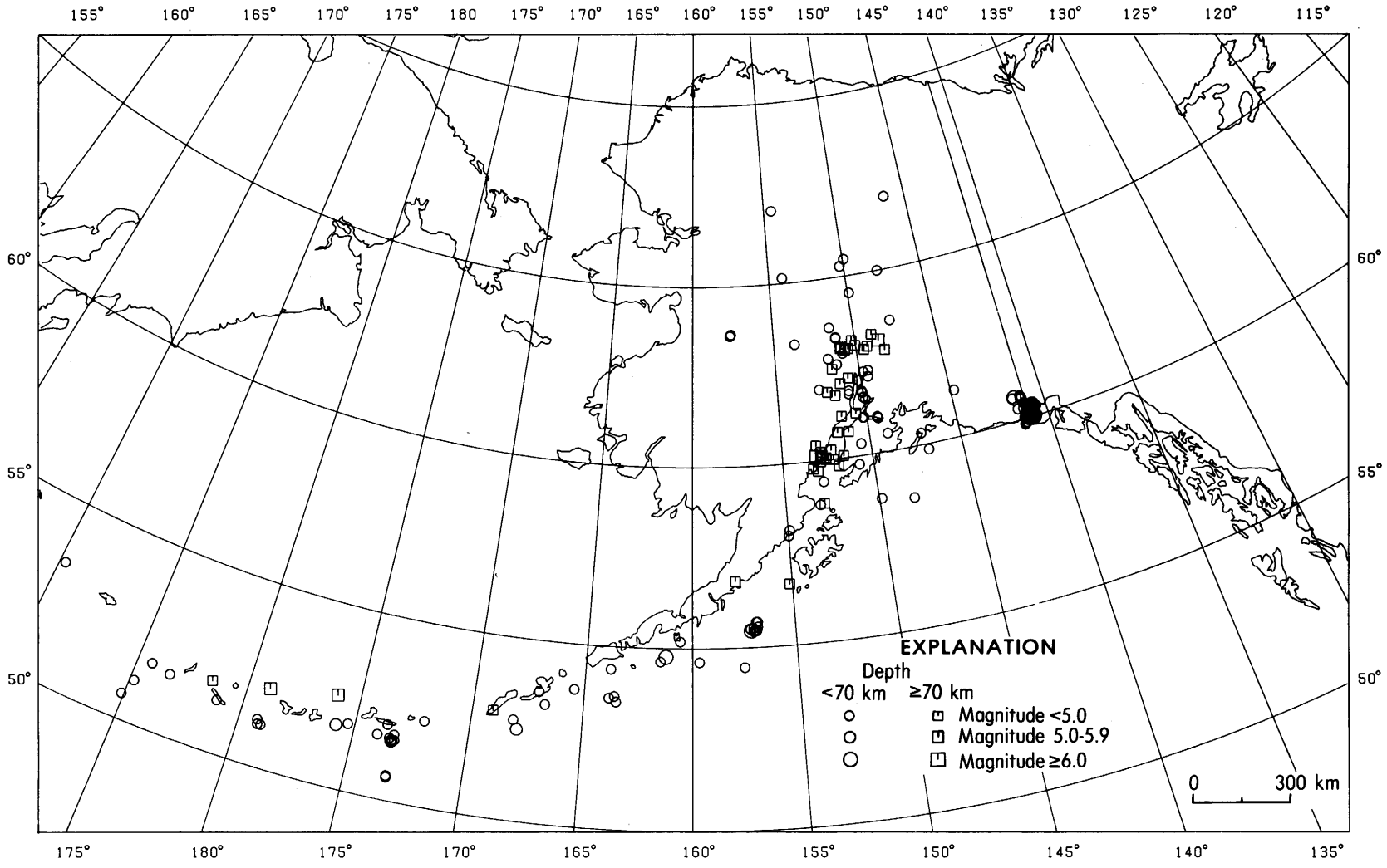

FIGURE 5.—Earthquake epicenters in Alaska for January-March 1979, plotted from table 1.

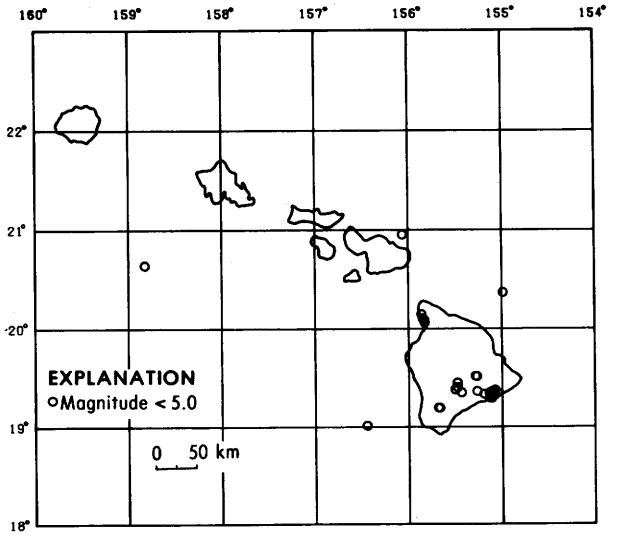

FIGURE 6.—Earthquake epicenters in Hawaii for January-March 1979, plotted from table 1.

are listed only as "FELT." This does not imply a minimal intensity but indicates that the available data is not sufficient for assigning a valid intensity value. These reports are filed in the offices of the NEIS or in government archives and are available for detailed study.

MODIFIED MERCALLI INTENSITY SCALE OF 1931

Adapted from Sieberg's Mercalli-Cancani scale, modified and condensed.

I. Not felt - or, except rarely under especially favorable circumstances. Under certain conditions, at and outside the boundary of the area in which a great shock is felt: sometimes birds, animals, reported uneasy or disturbed; sometimes dizziness or nausea experienced; sometimes trees, structures, liquids, bodies of water, may sway—doors may swing, very slowly.

II. Felt indoors by few, especially on upper floors, or by sensitive, or nervous persons. Also, as in grade I, but often more noticeably: sometimes hanging objects may swing, especially when delicately suspended; sometimes trees, structures, liquids, bodies of water, may sway, doors may swing, very slowly; sometimes birds, animals, reported uneasy or disturbed; sometimes dizziness or nausea experienced.

III. Felt indoors by several, motion usually rapid vibration. Sometimes not recognized to be an earthquake at first. Duration estimated in some cases. Vibration like that due to passing of light, or lightly loaded trucks, or heavy trucks some distance away. Hanging objects may swing slightly. Movements may be appreciable on upper levels of tall structures. Rocked standing motor cars slightly.

IV. Felt indoors by many, outdoors by few. Awakened few, especially light sleepers. Frightened no one, unless apprehensive from previous experience. Vibration like that due to passing of heavy or heavily loaded trucks. Sensation like heavy body striking building or falling of heavy objects inside. Rattling of dishes, windows, doors; glassware and crockery clink and clash. Creaking of walls, frame, especially in the upper range of this grade. Hanging objects swung, in numerous instances. Disturbed liquids in open vessels slightly. Rocked standing motor cars noticeably.

V. Felt indoors by practically all, outdoors by many or most: outdoors direction estimated. Awakened many, or most. Frightened few—slight excitement, a few ran outdoors. Buildings trembled throughout. Broke dishes, glassware, to some extent. Cracked windows—in some cases, but not generally. Overturned vases, small or unstable objects, in many instances, with occasional fall. Hanging objects, doors, swing generally or considerably. Knocked pictures against walls, or swung them out of place. Opened, or closed, doors, shutters, abruptly. Pendulum clocks stopped, started or ran fast, or slow. Moved small objects, furnishings, the latter to slight extent. Spilled liquids in small amounts from well-filled open containers. Trees, bushes, shaken slightly.

VI. Felt by all, indoors and outdoors. Frightened many, excitement general, some alarm, many ran outdoors. Awakened all. Persons made to move unsteadily. Trees, bushes, shaken slightly to moderately. Liquid set in strong motion. Small bells rang—church, chapel, school, etc. Damage slight in poorly built buildings. Fall of plaster in small amount. Cracked plaster somewhat, especially fine cracks chimneys in some instances. Broke dishes, glassware, in considerable quantity, also some windows. Fall

of knick-knacks, books, pictures. Overturned furniture in many instances. Moved furnishings of moderately heavy kind.

VII. Frightened all--general alarm, all ran outdoors. Some, or many, found it difficult to stand. Noticed by persons driving motor cars. Trees and bushes shaken moderately to strongly. Waves on ponds, lakes, and running water. Water turbid from mud stirred up. Incaving to some extent of sand or gravel stream banks. Rang large church bells, etc. Suspended objects made to quiver. Damage negligible in buildings of good design and construction, slight to moderate in well-built ordinary buildings, considerable in poorly built or badly designed buildings, adobe houses, old walls (especially where laid up without mortar), spires, etc. Cracked chimneys to considerable extent, walls to some extent. Fall of plaster in considerable to large amount, also some stucco. Broke numerous windows, furniture to some extent. Shook down loosened brickwork and tiles. Broke weak chimneys at the roof-line (sometimes damaging roofs). Fall of cornices from towers and high buildings. Dislodged bricks and stones. Overturned heavy furniture, with damage from breaking. Damage considerable to concrete irrigation ditches.

VIII. Fright general--alarm approaches panic. Disturbed persons driving motor cars. Trees shaken strongly--branches, trunks, broken off, especially palm trees. Ejected sand and mud in small amounts. Changes: temporary, permanent; in flow of springs and wells; dry wells renewed flow; in temperature of spring and well waters. Damage slight in structures (brick) built especially to withstand earthquakes. Considerable in ordinary substantial buildings, partial collapse: racked, tumbled down, wooden houses in some cases; threw out panel walls in frame structures, broke off decayed piling. Fall of walls. Cracked, broke, solid stone walls seriously. Wet ground to some extent, also ground on steep slopes. Twisting, fall, of chimneys, columns, monuments, also factory stacks, towers. Moved conspicuously, overturned, very heavy furniture.

IX. Panic general. Cracked ground conspicuously. Damage considerable in (masonry) structures built especially to withstand earthquakes: Threw out of plumb some wood-frame houses built especially to withstand earthquakes; great in substantial (masonry) buildings, some collapse in large part; or wholly shifted frame buildings off foundations, racked frames; serious to reservoirs; underground pipes sometimes broken.

X. Cracked ground, especially when loose and wet, up to widths of several inches; fissures up to a yard in width ran parallel to canal and stream banks. Landslides considerable from river banks and steep coasts. Shifted sand and mud horizontally on beaches and flat land. Changed level of water in wells. Threw water on banks of canals, lakes, rivers, etc. Damage serious to dams, dikes, embankments. Severe to well-built wooden structures and bridges, some destroyed. Developed dangerous cracks in excellent brick walls. Destroyed most masonry and frame structures, also their foundations. Bent railroad rails slightly. Tore apart, or crushed endwise, pipe lines buried in earth. Open cracks and broad wavy folds in cement pavements and asphalt road surfaces.

XI. Disturbances in ground many and widespread, varying with ground material. Broad fissures, earth slumps, and land slips in soft, wet ground. Ejected water in large amounts charged with sand and mud. Caused sea-waves ("tidal" waves) of significant magnitude. Damage severe to wood-frame structures, especially near shock centers. Great to dams, dikes, embankments often for long distances. Few, if any (masonry) structures remained standing. Destroyed large well-built bridges by the wrecking of supporting piers, or pillars. Affected yielding wooden bridges less. Bent railroad rails greatly, and thrust them endwise. Put pipe lines buried in earth completely out of service.

XII. Damage total--practically all works of construction damaged greatly or destroyed. Disturbances in ground great and varied, numerous shearing cracks. Landslides, falls of rock of significant character, slumping of river banks, etc., numerous and extensive. Wrenched loose, tore off, large rock masses. Fault slips in firm rock, with notable horizontal and vertical offset displacements. Water channels, surface and underground, disturbed and modified greatly. Dammed lakes, produced waterfalls, deflected

rivers, etc. Waves seen on ground surfaces (actually seen, probably, in some cases). Distorted lines of sight and level. Threw objects upward into the air.

Table 1.--*Summary of U.S. earthquakes for January-March 1979*

[Sources of the hypocenters and magnitudes: (B) University of California, Berkeley; (D) University of Montana, Missoula; (E) U.S. Department of Energy, Las Vegas, Nevada; (G) U.S. Geological Survey, National Earthquake Information Service; (H) U.S. Geological Survey, Hawaiian Volcano Observatory; (L) Lamont-Doherty Geological Observatory, Palisades, N.Y.; (M) National Oceanic and Atmospheric Administration, Alaska Tsunami Warning Center, Palmer; (P) California Institute of Technology, Pasadena; (S) St. Louis University, St. Louis, Missouri; (T) University of Oklahoma, Leonard; (U) University of Utah, Salt Lake City; (W) University of Washington, Seattle; (Z) Stephens and others (1980). N, Normal depth; UTC, Universal Coordinated Time. For names of local time zones, see figures 2 and 3. Leaders (...) indicate no information available]

Date (1979)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
ALASKA													
JAN. 2	10	58	05.0	51.59 N.	173.30 W.	35	4.8	4.3	...	...	G	JAN. 1	11 P.M. BST
JAN. 2	13	53	50.8	51.68 N.	173.38 W.	31	5.1	4.8	...	...	G	JAN. 2	02 A.M. BST
JAN. 2	13	55	51.5	51.60 N.	173.31 W.	33N	5.2	...	...	...	G	JAN. 2	02 A.M. BST
JAN. 2	15	26	26.8	51.79 N.	173.23 W.	35	4.6	...	...	...	G	JAN. 2	04 A.M. BST
JAN. 3	12	26	46.2	51.64 N.	173.29 W.	33N	4.8	...	...	...	G	JAN. 3	01 A.M. BST
JAN. 4	02	17	42.9	54.63 N.	161.52 W.	33N	...	...	4.1M	...	G	JAN. 3	03 P.M. BST
JAN. 4	15	35	04.0	61.73 N.	150.04 W.	34	...	...	3.4M	FELT	G	JAN. 4	05 A.M. AST
JAN. 5	13	57	01.4	60.26 N.	152.27 W.	116	...	...	...	...	G	JAN. 5	03 A.M. AST
JAN. 6	08	56	29.3	58.55 N.	140.76 W.	33N	...	...	4.1M	...	G	JAN. 5	11 P.M. YST
JAN. 8	10	11	00.8	61.77 N.	150.08 W.	45	...	...	2.5M	II	G	JAN. 8	00 A.M. AST
JAN. 8	11	04	08.5	56.83 N.	157.86 W.	105	4.1	...	...	...	G	JAN. 8	01 A.M. AST
JAN. 8	14	21	41.9	60.70 N.	151.16 W.	85	3.8	...	...	...	G	JAN. 8	04 A.M. AST
JAN. 8	16	01	49.5	51.64 N.	173.17 W.	43	4.8	4.6	...	...	G	JAN. 8	05 A.M. BST
JAN. 10	00	34	48.1	61.58 N.	150.06 W.	42	...	...	3.0M	II	G	JAN. 9	02 P.M. AST
JAN. 10	06	25	50.7	60.33 N.	150.53 W.	63	3.8	...	...	...	G	JAN. 9	08 P.M. AST
JAN. 10	09	16	25.6	62.58 N.	151.28 W.	49	...	...	...	...	G	JAN. 9	11 P.M. AST
JAN. 10	19	13	19.8	63.28 N.	153.69 W.	33N	...	...	3.1M	...	G	JAN. 10	09 A.M. AST
JAN. 12	04	18	32.3	59.95 N.	141.19 W.	59	3.9	...	...	...	G	JAN. 11	06 P.M. AST
JAN. 12	12	06	31.9	61.83 N.	150.80 W.	48	3.5	...	...	...	G	JAN. 12	02 A.M. AST
JAN. 12	19	01	55.0	63.61 N.	157.69 W.	62	...	...	...	...	G	JAN. 12	09 A.M. AST
JAN. 12	23	14	16.5	61.00 N.	149.42 W.	34	3.5	...	3.3M	...	G	JAN. 12	01 P.M. AST
JAN. 13	14	19	46.0	63.33 N.	151.18 W.	33N	...	...	3.1M	...	G	JAN. 13	04 A.M. AST
JAN. 13	19	21	38.0	63.28 N.	148.93 W.	96	...	...	...	...	G	JAN. 13	09 A.M. AST
JAN. 14	01	38	06.2	54.61 N.	159.67 W.	34	4.4	...	...	...	G	JAN. 13	03 P.M. AST
JAN. 14	15	13	08.7	53.30 N.	170.26 E.	35	4.9	4.6	...	...	G	JAN. 14	04 A.M. BST
JAN. 15	10	51	45.5	62.89 N.	149.55 W.	89	...	...	...	...	G	JAN. 15	00 A.M. AST
JAN. 15	20	09	29.5	66.97 N.	146.41 W.	60	...	...	...	...	G	JAN. 15	10 A.M. AST
JAN. 16	07	13	31.0	52.50 N.	167.92 W.	44	5.5	5.2	...	...	G	JAN. 15	08 P.M. BST
JAN. 18	20	39	28.2	52.74 N.	168.12 W.	33N	4.6	...	...	...	G	JAN. 18	09 A.M. BST
JAN. 22	17	51	36.1	51.13 N.	175.18 E.	33N	5.4	4.5	...	...	G	JAN. 22	06 A.M. BST
JAN. 24	19	12	42.5	63.35 N.	151.18 W.	33N	...	...	3.1M	...	G	JAN. 24	09 A.M. AST
JAN. 25	02	49	03.5	63.32 N.	151.16 W.	33N	...	...	3.5M	III	G	JAN. 24	04 P.M. AST
JAN. 25	17	05	44.7	52.51 N.	176.04 W.	156	5.1	...	...	...	G	JAN. 25	06 A.M. BST
JAN. 25	19	30	06.1	60.13 N.	153.12 W.	105	5.5	...	...	IV	G	JAN. 25	09 A.M. AST
JAN. 25	20	54	04.2	58.60 N.	148.16 W.	33N	...	...	3.4M	...	G	JAN. 25	10 A.M. AST
JAN. 25	22	12	05.0	62.48 N.	151.61 W.	113	...	...	...	...	G	JAN. 25	12 P.M. AST
JAN. 26	02	17	40.0	63.57 N.	147.67 W.	15	...	...	3.2M	...	G	JAN. 25	04 P.M. AST
JAN. 26	08	25	40.6	59.77 N.	150.80 W.	58	...	...	...	...	G	JAN. 25	10 P.M. AST
JAN. 27	00	35	59.3	61.96 N.	152.53 W.	33N	...	...	3.4M	...	G	JAN. 26	02 P.M. AST
JAN. 27	03	56	57.2	53.75 N.	165.49 W.	33N	4.4	...	...	...	G	JAN. 26	04 P.M. BST
JAN. 27	16	48	11.5	60.96 N.	149.38 W.	49	3.6	...	3.2M	IV	G	JAN. 27	06 A.M. AST
JAN. 27	18	57	55.0	54.77 N.	161.25 W.	17	6.0	6.0	...	V	G	JAN. 27	07 A.M. BST
JAN. 30	21	44	10.2	63.05 N.	150.92 W.	147	...	...	...	...	G	JAN. 30	11 A.M. AST
JAN. 31	01	21	33.9	53.59 N.	163.87 W.	36	4.7	...	...	...	G	JAN. 30	02 P.M. BST
JAN. 31	03	07	32.0	51.72 N.	175.81 W.	64	5.0	...	...	III	G	JAN. 30	04 P.M. BST
JAN. 31	16	37	57.9	51.76 N.	175.67 E.	42	4.8	3.9	...	...	G	JAN. 31	05 A.M. BST
JAN. 31	17	01	40.5	61.15 N.	151.43 W.	97	...	...	...	...	G	JAN. 31	07 A.M. AST
FEB. 1	04	29	57.1	51.88 N.	178.42 E.	110	...	...	...	...	G	JAN. 31	05 P.M. BST
FEB. 1	12	29	05.4	60.24 N.	152.84 W.	109	4.8	...	...	IV	G	FEB. 1	02 A.M. AST
FEB. 1	12	49	55.0	59.99 N.	152.19 W.	93	...	...	...	...	G	FEB. 1	02 A.M. AST
FEB. 4	06	34	39.7	51.27 N.	179.19 W.	33N	4.4	...	...	...	G	FEB. 3	07 P.M. BST
FEB. 4	07	56	24.2	51.15 N.	179.12 W.	33N	5.0	4.7	...	...	G	FEB. 3	08 P.M. BST
FEB. 4	20	26	56.6	53.59 N.	167.08 W.	33N	4.1	...	...	...	G	FEB. 4	09 A.M. BST
FEB. 4	22	05	46.0	62.07 N.	150.16 W.	33N	3.7	...	3.8M	...	G	FEB. 4	12 P.M. AST
FEB. 6	21	02	11.0	64.52 N.	149.90 W.	33N	...	...	3.6M	...	G	FEB. 6	11 A.M. AST

Table 1.--*Summary of U.S. earthquakes for January-March 1979*--Continued

Date (1979)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
ALASKA—Continued													
FEB. 6	22	21	54.7	56.69 N.	155.12 W.	100	...	...	...	...	G	FEB. 6	12 P.M. AST
FEB. 6	22	52	00.6	60.72 N.	151.77 W.	87	...	...	...	FELT	G	FEB. 6	12 P.M. AST
FEB. 7	13	33	29.1	61.03 N.	150.15 W.	32	...	...	3.0M	FELT	G	FEB. 7	03 A.M. AST
FEB. 8	19	24	10.3	52.18 N.	179.03 W.	156	5.0	...	...	...	G	FEB. 8	08 A.M. BST
FEB. 9	00	15	51.5	63.03 N.	150.01 W.	104	...	...	...	...	G	FEB. 8	02 P.M. AST
FEB. 9	14	13	56.2	62.06 N.	151.26 W.	107	3.5	...	...	...	G	FEB. 9	04 A.M. AST
FEB. 9	18	49	25.1	60.06 N.	152.59 W.	88	4.8	...	...	FELT	G	FEB. 9	08 A.M. AST
FEB. 10	05	36	01.2	59.79 N.	153.36 W.	133	...	...	...	...	G	FEB. 9	07 P.M. AST
FEB. 12	00	53	48.1	51.72 N.	173.94 W.	33N	4.4	...	...	...	G	FEB. 11	01 P.M. BST
FEB. 12	05	11	08.2	51.15 N.	179.00 W.	59	4.7	...	...	...	G	FEB. 11	06 P.M. BST
FEB. 12	15	44	30.0	55.50 N.	157.20 W.	33N	5.1	4.9	...	...	G	FEB. 12	05 A.M. AST
FEB. 12	23	30	34.3	51.43 N.	178.86 E.	66	4.8	...	...	...	G	FEB. 12	12 P.M. BST
FEB. 13	05	02	22.6	63.66 N.	157.61 W.	33N	...	...	...	...	G	FEB. 12	07 P.M. AST
FEB. 13	05	34	25.9	55.45 N.	157.16 W.	33N	5.9	6.7	...	IV	G	FEB. 12	07 P.M. AST
FEB. 13	06	24	00.8	55.56 N.	156.84 W.	33N	4.4	...	3.9M	...	G	FEB. 12	08 P.M. AST
FEB. 13	10	39	39.7	55.69 N.	156.84 W.	33N	4.8	...	4.7M	...	G	FEB. 13	00 A.M. AST
FEB. 13	11	32	12.0	55.69 N.	156.92 W.	33N	4.5	...	3.7M	...	G	FEB. 13	01 A.M. AST
FEB. 13	11	35	58.7	55.42 N.	157.05 W.	33N	5.0	...	4.6M	...	G	FEB. 13	01 A.M. AST
FEB. 13	20	13	54.6	55.47 N.	156.98 W.	33N	4.3	...	3.5M	...	G	FEB. 13	10 A.M. AST
FEB. 13	22	02	50.2	55.46 N.	156.87 W.	33N	4.4	...	4.8M	...	G	FEB. 13	12 P.M. AST
FEB. 14	04	50	37.9	55.44 N.	156.89 W.	33N	4.4	...	...	...	G	FEB. 13	06 P.M. AST
FEB. 17	02	17	04.1	55.52 N.	157.02 W.	33N	4.5	...	4.4M	...	G	FEB. 16	04 P.M. AST
FEB. 17	08	01	24.6	62.80 N.	148.28 W.	95	...	...	...	II	G	FEB. 16	10 P.M. AST
FEB. 17	10	48	08.7	62.31 N.	149.50 W.	54	4.9	...	...	IV	G	FEB. 17	00 A.M. AST
FEB. 18	00	3	20.9	62.96 N.	149.33 W.	82	...	...	...	...	G	FEB. 17	02 P.M. AST
FEB. 18	11	14	16.2	55.18 N.	160.57 W.	57	4.6	...	...	...	G	FEB. 18	01 A.M. AST
FEB. 20	11	39	38.1	61.73 N.	150.82 W.	33N	3.3	...	3.0M	...	G	FEB. 20	01 A.M. AST
FEB. 21	09	11	11.6	60.13 N.	152.76 W.	118	...	...	...	...	G	FEB. 20	11 P.M. AST
FEB. 22	10	37	15.7	63.20 N.	150.24 W.	129	...	...	...	...	G	FEB. 22	00 A.M. AST
FEB. 23	09	42	03.6	64.98 N.	147.85 W.	24	4.3	...	4.2M	V	G	FEB. 22	11 P.M. AST
FEB. 25	06	29	14.9	58.73 N.	149.86 W.	33N	...	...	3.8M	...	G	FEB. 24	08 P.M. AST
FEB. 27	14	42	45.2	62.29 N.	149.81 W.	34	...	...	2.7M	FELT	G	FEB. 27	04 A.M. AST
FEB. 27	17	12	42.4	62.98 N.	150.48 W.	120	...	...	...	...	G	FEB. 27	07 A.M. AST
FEB. 27	23	58	44.4	53.64 N.	163.61 W.	33N	4.8	4.0	...	...	G	FEB. 27	12 P.M. BST
FEB. 28	02	47	10.4	52.94 N.	169.06 W.	79	4.5	...	...	FELT	G	FEB. 27	03 P.M. BST
FEB. 28	21	27	06.1	60.64 N.	141.59 W.	15	6.4	7.1	6.9M	VII	G	FEB. 28	11 A.M. AST
FEB. 28	21	30	17.4	60.40 N.	141.16 W.	18	...	...	4.8Z	...	Z	FEB. 28	11 A.M. AST
FEB. 28	21	31	39.7	60.21 N.	140.75 W.	12	...	...	4.8Z	...	Z	FEB. 28	12 P.M. YST
FEB. 28	21	31	54.2	60.47 N.	141.55 W.	13	...	...	5.0Z	...	Z	FEB. 28	11 A.M. AST
FEB. 28	21	36	34.0	60.28 N.	140.42 W.	13	...	...	4.0Z	...	Z	FEB. 28	12 P.M. YST
FEB. 28	21	36	55.6	60.32 N.	140.72 W.	10	...	...	4.2Z	...	Z	FEB. 28	12 P.M. YST
FEB. 28	21	37	31.1	60.65 N.	141.19 W.	19	...	...	3.8Z	...	Z	FEB. 28	11 A.M. AST
FEB. 28	21	38	58.1	60.30 N.	140.71 W.	5	...	...	4.7Z	...	Z	FEB. 28	12 P.M. YST
FEB. 28	21	39	55.0	60.32 N.	140.14 W.	9	...	...	4.6Z	...	Z	FEB. 28	12 P.M. YST
FEB. 28	21	51	55.7	60.32 N.	140.57 W.	13	...	...	4.3Z	...	Z	FEB. 28	12 P.M. YST
FEB. 28	22	04	08.1	60.32 N.	140.76 W.	17	...	...	4.2Z	...	Z	FEB. 28	01 P.M. YST
FEB. 28	22	10	26.9	60.21 N.	140.71 W.	16	...	...	3.5Z	...	Z	FEB. 28	01 P.M. YST
FEB. 28	22	14	16.5	60.33 N.	140.81 W.	9	...	...	4.1Z	...	Z	FEB. 28	01 P.M. YST
FEB. 28	22	17	51.7	60.26 N.	140.40 W.	16	...	...	4.4Z	...	Z	FEB. 28	01 P.M. YST
FEB. 28	22	30	36.1	60.02 N.	140.07 W.	12	...	...	3.7Z	...	Z	FEB. 28	01 P.M. YST
FEB. 28	22	50	47.8	60.05 N.	140.17 W.	8	...	...	3.4Z	...	Z	FEB. 28	01 P.M. YST
FEB. 28	23	05	12.1	60.23 N.	140.80 W.	12	3.9	...	3.6Z	...	Z	FEB. 28	02 P.M. YST
FEB. 28	23	12	31.4	60.37 N.	140.71 W.	14	3.9	...	3.6Z	...	Z	FEB. 28	02 P.M. YST
FEB. 28	23	14	42.3	60.23 N.	140.81 W.	12	...	...	3.6Z	...	Z	FEB. 28	02 P.M. YST
FEB. 28	23	26	51.3	60.33 N.	140.76 W.	14	...	...	3.9Z	...	Z	FEB. 28	02 P.M. YST
FEB. 28	23	32	41.6	60.35 N.	140.72 W.	13	...	...	3.8Z	...	Z	FEB. 28	02 P.M. YST
FEB. 28	23	54	43.3	60.07 N.	140.66 W.	19	3.9	...	3.8Z	...	Z	FEB. 28	02 P.M. YST
MAR. 1	00	1	51.1	60.00 N.	140.63 W.	8	...	...	3.5Z	...	Z	FEB. 28	03 P.M. YST
MAR. 1	00	9	43.0	60.27 N.	140.67 W.	2	4.1	...	3.9Z	...	Z	FEB. 28	03 P.M. YST
MAR. 1	00	27	27.1	60.25 N.	141.30 W.	15	...	...	3.9Z	...	Z	FEB. 28	02 P.M. AST
MAR. 1	00	45	33.2	60.31 N.	140.77 W.	10	...	...	3.6Z	...	Z	FEB. 28	03 P.M. YST
MAR. 1	00	47	55.2	60.22 N.	140.90 W.	16	...	...	3.8Z	...	Z	FEB. 28	03 P.M. YST
MAR. 1	00	55	25.0	60.30 N.	140.73 W.	10	...	...	3.5Z	...	Z	FEB. 28	03 P.M. YST

Table 1.--*Summary of U.S. earthquakes for January-March 1979*--Continued

Date (1979)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
ALASKA—Continued													
MAR. 1	01	01	05.8	60.23 N.	140.85 W.	17	4.3	...	4.0Z	...	Z	FEB. 28	04 P.M. YST
MAR. 1	01	13	11.8	60.13 N.	140.95 W.	5	...	...	3.4Z	...	Z	FEB. 28	03 P.M. AST
MAR. 1	01	30	24.4	60.03 N.	140.15 W.	9	...	...	3.4Z	...	Z	FEB. 28	04 P.M. YST
MAR. 1	01	37	47.9	60.28 N.	140.75 W.	12	4.4	...	4.4Z	...	Z	FEB. 28	04 P.M. YST
MAR. 1	02	27	23.1	60.25 N.	140.60 W.	2	...	...	3.2Z	...	Z	FEB. 28	05 P.M. YST
MAR. 1	02	48	44.6	60.27 N.	140.79 W.	13	4.6	...	4.2Z	...	Z	FEB. 28	05 P.M. YST
MAR. 1	03	13	53.9	60.44 N.	141.16 W.	7	3.5	...	3.7Z	...	Z	FEB. 28	05 P.M. AST
MAR. 1	03	25	37.7	60.36 N.	140.73 W.	5	...	...	3.6Z	...	Z	FEB. 28	06 P.M. YST
MAR. 1	03	55	08.1	60.31 N.	140.71 W.	10	3.4	...	3.4Z	...	Z	FEB. 28	06 P.M. YST
MAR. 1	04	06	37.9	60.02 N.	140.08 W.	12	...	...	3.7Z	...	Z	FEB. 28	07 P.M. YST
MAR. 1	04	33	58.3	60.25 N.	140.80 W.	15	4.1	...	3.8Z	...	Z	FEB. 28	07 P.M. YST
MAR. 1	04	38	51.9	60.28 N.	141.02 W.	11	...	...	3.2Z	...	Z	FEB. 28	06 P.M. AST
MAR. 1	05	12	55.0	60.08 N.	140.65 W.	10	...	...	3.5Z	...	Z	FEB. 28	08 P.M. YST
MAR. 1	05	53	03.7	60.07 N.	140.98 W.	2	...	...	3.3Z	...	Z	FEB. 28	07 P.M. AST
MAR. 1	06	50	09.9	60.06 N.	140.66 W.	8	4.0	...	3.7Z	...	Z	FEB. 28	09 P.M. YST
MAR. 1	07	08	53.7	60.63 N.	141.24 W.	11	5.4	4.7	4.9Z	FELT	Z	FEB. 28	09 P.M. AST
MAR. 1	07	59	59.9	60.22 N.	140.77 W.	14	...	...	3.6Z	...	Z	FEB. 28	10 P.M. YST
MAR. 1	08	05	05.9	60.26 N.	141.05 W.	12	...	...	3.4Z	...	Z	FEB. 28	10 P.M. AST
MAR. 1	08	11	47.2	60.15 N.	141.09 W.	4	...	...	3.9Z	...	Z	FEB. 28	10 P.M. AST
MAR. 1	08	21	35.6	60.60 N.	141.23 W.	12	...	...	3.3Z	...	Z	FEB. 28	10 P.M. AST
MAR. 1	08	29	23.3	60.20 N.	140.83 W.	14	3.4	...	3.5Z	...	Z	FEB. 28	11 P.M. YST
MAR. 1	08	46	02.3	60.28 N.	140.90 W.	8	3.2	...	3.3Z	...	Z	FEB. 28	11 P.M. YST
MAR. 1	11	04	14.9	60.10 N.	141.18 W.	4	3.4	...	3.4Z	...	Z	MAR. 1	01 A.M. AST
MAR. 1	12	12	22.7	60.29 N.	140.95 W.	8	3.3	...	3.2Z	...	Z	MAR. 1	03 A.M. YST
MAR. 1	12	18	05.0	60.09 N.	141.18 W.	4	3.0	...	3.1Z	...	Z	MAR. 1	02 A.M. AST
MAR. 1	13	49	29.0	60.23 N.	140.81 W.	12	3.2	...	3.4Z	...	Z	MAR. 1	04 A.M. YST
MAR. 1	15	56	26.0	60.26 N.	140.52 W.	12	4.0	...	4.1Z	...	Z	MAR. 1	06 A.M. YST
MAR. 1	16	43	00.4	60.25 N.	140.88 W.	13	3.1	...	3.2Z	...	Z	MAR. 1	07 A.M. YST
MAR. 1	17	48	24.5	60.03 N.	140.58 W.	6	4.1	...	4.0Z	...	Z	MAR. 1	08 A.M. YST
MAR. 2	07	26	49.6	60.23 N.	140.59 W.	13	...	...	3.0Z	...	Z	MAR. 1	10 P.M. YST
MAR. 2	08	42	29.0	63.64 N.	151.48 W.	33N	...	...	3.0M	...	G	MAR. 1	10 P.M. AST
MAR. 2	08	59	37.3	59.97 N.	140.13 W.	11	3.4	...	3.7Z	...	Z	MAR. 1	11 P.M. YST
MAR. 2	09	12	57.3	60.25 N.	140.76 W.	1	...	...	3.1Z	...	Z	MAR. 2	00 A.M. YST
MAR. 2	09	34	45.4	60.38 N.	140.69 W.	1	5.4	...	5.0Z	FELT	Z	MAR. 2	00 A.M. YST
MAR. 2	10	00	10.4	60.24 N.	140.80 W.	10	3.1	...	3.6Z	...	Z	MAR. 2	01 A.M. YST
MAR. 2	12	55	32.0	59.97 N.	140.14 W.	11	4.3	...	4.3Z	...	Z	MAR. 2	03 A.M. YST
MAR. 2	15	07	07.0	59.93 N.	140.93 W.	7	...	...	3.1Z	...	Z	MAR. 2	06 A.M. YST
MAR. 2	16	26	20.4	60.65 N.	141.26 W.	6	...	...	3.4Z	...	Z	MAR. 2	06 A.M. AST
MAR. 2	18	48	16.0	60.12 N.	140.94 W.	12	...	...	3.8Z	...	Z	MAR. 2	02 A.M. YST
MAR. 2	21	57	54.8	60.26 N.	140.41 W.	15	3.1	...	3.5Z	...	Z	MAR. 2	12 P.M. YST
MAR. 3	15	49	22.7	60.27 N.	140.67 W.	1	...	...	3.5Z	...	Z	MAR. 3	06 A.M. YST
MAR. 3	17	18	39.5	60.24 N.	140.81 W.	13	3.3	...	3.4Z	...	Z	MAR. 3	08 A.M. YST
MAR. 3	17	23	11.0	60.38 N.	140.72 W.	2	3.7	...	3.6Z	...	Z	MAR. 3	08 A.M. YST
MAR. 4	02	44	10.8	60.26 N.	141.00 W.	16	...	...	3.4Z	...	Z	MAR. 3	04 P.M. AST
MAR. 4	05	50	08.4	60.07 N.	140.71 W.	8	...	...	3.0Z	...	Z	MAR. 3	08 P.M. YST
MAR. 4	11	00	30.7	60.23 N.	140.76 W.	8	...	...	3.2Z	...	Z	MAR. 4	02 A.M. YST
MAR. 4	13	52	21.7	60.24 N.	140.69 W.	14	3.8	...	3.7Z	...	Z	MAR. 4	04 A.M. YST
MAR. 4	16	43	40.0	60.24 N.	140.73 W.	4	...	...	3.1Z	...	Z	MAR. 4	07 A.M. YST
MAR. 4	21	31	13.8	60.35 N.	140.77 W.	18	3.7	...	3.5Z	...	Z	MAR. 4	12 P.M. YST
MAR. 5	03	23	37.6	60.33 N.	140.71 W.	11	4.2	...	4.0Z	...	Z	MAR. 4	06 P.M. YST
MAR. 5	17	14	00.0	60.29 N.	140.66 W.	1	...	...	3.0Z	...	Z	MAR. 5	08 A.M. YST
MAR. 5	17	40	02.7	60.30 N.	140.92 W.	8	...	...	3.3Z	...	Z	MAR. 5	08 A.M. YST
MAR. 5	22	20	39.7	60.41 N.	153.06 W.	169	...	...	...	...	G	MAR. 5	12 P.M. AST
MAR. 6	09	34	05.4	60.28 N.	140.79 W.	9	4.1	...	4.0Z	...	Z	MAR. 6	00 A.M. YST
MAR. 6	09	56	03.2	60.27 N.	140.77 W.	10	4.1	...	3.9Z	...	Z	MAR. 6	00 A.M. YST
MAR. 6	10	39	34.8	60.28 N.	140.79 W.	7	...	...	3.0Z	...	Z	MAR. 6	01 A.M. YST
MAR. 6	16	01	00.3	60.27 N.	140.89 W.	10	3.1	...	3.3Z	...	Z	MAR. 6	07 A.M. YST
MAR. 6	16	05	00.5	60.26 N.	140.89 W.	12	...	...	3.0Z	...	Z	MAR. 6	07 A.M. YST
MAR. 7	05	01	55.2	60.27 N.	140.88 W.	10	...	...	3.1Z	...	Z	MAR. 6	08 P.M. YST
MAR. 7	08	23	59.6	60.26 N.	140.97 W.	12	...	...	3.5Z	...	Z	MAR. 6	11 P.M. YST
MAR. 7	12	10	35.2	59.72 N.	153.11 W.	121	4.3	...	...	...	G	MAR. 7	02 A.M. AST
MAR. 7	15	12	44.1	60.07 N.	140.71 W.	10	...	...	2.9Z	...	Z	MAR. 7	06 A.M. YST

Table 1.--*Summary of U.S. earthquakes for January-March 1979*--Continued

Date (1979)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
ALASKA—Continued													
MAR. 8	00	28	01.9	50.68 N.	174.89 E.	33N	4.3	...	...	...	G	MAR. 7	01 P.M. BST
MAR. 8	00	58	29.8	62.14 N.	149.56 W.	33N	...	...	...	...	G	MAR. 7	02 P.M. AST
MAR. 8	09	04	14.8	60.65 N.	141.23 W.	12	...	...	3.1Z	...	Z	MAR. 7	11 P.M. AST
MAR. 8	09	39	04.0	60.30 N.	140.96 W.	9	...	...	3.5Z	...	Z	MAR. 8	00 A.M. YST
MAR. 8	16	07	06.8	60.30 N.	140.84 W.	8	...	...	3.1Z	...	Z	MAR. 8	07 A.M. YST
MAR. 8	21	53	05.0	58.01 N.	055.00 W.	33N	...	...	3.3M	...	G	MAR. 8	11 A.M. AST
MAR. 9	01	29	49.5	59.84 N.	141.41 W.	0	...	...	3.1Z	...	Z	MAR. 8	03 P.M. AST
MAR. 9	04	55	39.6	60.31 N.	140.94 W.	7	3.8	...	3.2Z	...	Z	MAR. 8	07 P.M. YST
MAR. 9	20	21	08.9	60.31 N.	140.83 W.	6	...	...	2.9Z	...	Z	MAR. 9	11 A.M. YST
MAR. 9	22	40	49.9	62.95 N.	150.70 W.	112	...	...	...	...	G	MAR. 9	12 P.M. AST
MAR. 6	14	42	50.8	60.38 N.	140.99 W.	0	3.8	...	3.4Z	...	Z	MAR. 16	05 A.M. YST
MAR. 10	03	26	03.8	60.20 N.	141.01 W.	13	...	...	3.3Z	...	Z	MAR. 9	05 P.M. AST
MAR. 10	05	45	15.5	60.26 N.	140.91 W.	16	...	...	3.3Z	...	Z	MAR. 9	08 P.M. YST
MAR. 10	09	16	52.0	59.90 N.	141.28 W.	5	3.9	...	3.8Z	...	Z	MAR. 9	11 P.M. AST
MAR. 10	10	17	17.2	51.64 N.	173.32 W.	33N	4.8	4.5	...	...	G	MAR. 9	11 P.M. BST
MAR. 10	11	07	16.8	51.59 N.	173.27 W.	33N	5.0	4.9	...	...	G	MAR. 10	00 A.M. BST
MAR. 10	17	22	39.6	60.28 N.	141.26 W.	13	...	...	3.3Z	...	Z	MAR. 10	07 A.M. AST
MAR. 10	20	47	29.9	60.27 N.	140.99 W.	12	...	...	3.4Z	...	Z	MAR. 10	11 A.M. YST
MAR. 11	00	12	29.3	59.98 N.	140.87 W.	8	...	...	3.1Z	...	Z	MAR. 10	03 P.M. YST
MAR. 11	03	51	09.7	60.25 N.	140.93 W.	13	...	...	3.0Z	...	Z	MAR. 10	06 P.M. YST
MAR. 11	07	30	06.1	60.34 N.	140.83 W.	0	3.8	...	3.7Z	...	Z	MAR. 10	10 P.M. YST
MAR. 11	11	50	03.6	60.24 N.	140.83 W.	14	4.2	...	4.2Z	...	Z	MAR. 11	02 A.M. YST
MAR. 11	12	13	13.9	60.08 N.	140.67 W.	11	...	...	2.9Z	...	Z	MAR. 11	03 A.M. YST
MAR. 11	14	47	31.3	60.27 N.	141.06 W.	11	...	...	3.1Z	...	Z	MAR. 11	04 A.M. AST
MAR. 11	16	02	38.7	59.93 N.	140.99 W.	11	...	...	3.3Z	...	Z	MAR. 11	07 A.M. YST
MAR. 11	18	18	35.8	58.15 N.	154.90 W.	33N	...	...	3.1M	...	G	MAR. 11	08 A.M. AST
MAR. 12	03	52	46.6	60.39 N.	141.02 W.	2	...	...	3.0Z	...	Z	MAR. 11	05 P.M. AST
MAR. 12	10	15	36.3	60.10 N.	141.20 W.	5	3.8	...	3.9Z	...	Z	MAR. 12	00 A.M. AST
MAR. 12	15	04	15.8	52.32 N.	172.02 W.	33N	4.4	...	...	...	G	MAR. 12	04 A.M. BST
MAR. 13	07	35	09.3	59.98 N.	140.91 W.	7	3.4	...	3.7Z	...	Z	MAR. 12	10 P.M. YST
MAR. 13	10	09	15.0	60.26 N.	140.67 W.	4	...	...	3.9Z	...	Z	MAR. 13	01 A.M. YST
MAR. 13	11	21	14.2	62.87 N.	150.88 W.	33N	...	...	3.1M	...	G	MAR. 13	01 A.M. AST
MAR. 13	13	31	42.5	60.00 N.	140.75 W.	8	...	...	3.5Z	...	Z	MAR. 13	04 A.M. YST
MAR. 14	07	56	31.4	59.79 N.	151.92 W.	87	3.4	...	...	FELT	G	MAR. 13	09 P.M. AST
MAR. 14	11	05	39.4	65.14 N.	154.14 W.	33N	...	...	...	...	G	MAR. 14	01 A.M. AST
MAR. 14	13	31	34.5	60.98 N.	149.39 W.	41	4.0	...	3.8M	IV	G	MAR. 14	03 A.M. AST
MAR. 15	05	31	09.6	60.23 N.	140.84 W.	17	...	...	3.5Z	...	Z	MAR. 14	08 P.M. YST
MAR. 15	07	50	21.8	60.03 N.	141.34 W.	5	4.0	...	4.4Z	...	Z	MAR. 14	09 P.M. AST
MAR. 15	09	46	52.6	60.56 N.	141.28 W.	11	3.1	...	2.8Z	...	Z	MAR. 14	11 P.M. AST
MAR. 15	23	15	41.3	59.96 N.	140.73 W.	10	...	...	3.2Z	...	Z	MAR. 15	02 P.M. YST
MAR. 16	00	22	03.6	60.28 N.	140.97 W.	14	...	...	3.4Z	...	Z	MAR. 15	03 P.M. YST
MAR. 16	02	47	08.2	61.28 N.	144.77 W.	15	...	...	3.2M	...	G	MAR. 15	04 P.M. AST
MAR. 16	10	41	49.0	60.27 N.	141.01 W.	10	3.8	...	4.0Z	...	Z	MAR. 16	00 A.M. AST
MAR. 16	12	42	22.0	60.27 N.	140.73 W.	6	...	...	3.2Z	...	Z	MAR. 16	03 A.M. YST
MAR. 17	14	10	05.9	60.29 N.	140.95 W.	8	...	...	2.7Z	...	Z	MAR. 17	05 A.M. YST
MAR. 17	21	10	37.7	63.09 N.	148.56 W.	104	5.4	...	...	...	G	MAR. 17	11 A.M. AST
MAR. 17	22	48	02.9	51.64 N.	176.57 E.	20	4.3	3.6	...	...	G	MAR. 17	11 A.M. BST
MAR. 18	05	11	53.9	51.82 N.	175.33 W.	57	4.8	...	...	...	G	MAR. 17	06 P.M. BST
MAR. 18	05	55	37.7	60.22 N.	141.03 W.	13	...	...	3.2Z	...	Z	MAR. 17	07 P.M. AST
MAR. 18	09	49	14.4	59.41 N.	152.86 W.	33N	...	...	3.3M	...	G	MAR. 17	11 P.M. AST
MAR. 18	11	41	57.2	60.07 N.	151.59 W.	83	3.7	...	...	...	G	MAR. 18	01 A.M. AST
MAR. 18	13	26	18.2	60.32 N.	147.12 W.	33N	3.6	...	3.5M	...	G	MAR. 18	03 A.M. AST
MAR. 18	14	00	53.5	59.84 N.	146.88 W.	33N	...	...	3.2M	...	G	MAR. 18	04 A.M. AST
MAR. 18	22	43	08.8	59.96 N.	152.89 W.	120	...	...	...	...	G	MAR. 18	12 P.M. AST
MAR. 19	07	56	49.4	60.03 N.	141.31 W.	4	...	...	2.7Z	...	Z	MAR. 18	09 P.M. AST
MAR. 20	02	04	09.9	50.67 N.	173.22 W.	33N	4.3	...	3.5M	...	G	MAR. 19	03 P.M. BST
MAR. 20	08	02	16.7	52.04 N.	173.58 W.	33N	4.6	...	3.4M	...	G	MAR. 19	09 P.M. BST
MAR. 20	21	20	22.8	61.17 N.	150.61 W.	92	3.7	...	...	...	G	MAR. 20	11 A.M. AST
MAR. 20	22	04	25.3	60.00 N.	141.11 W.	3	3.4	...	3.4Z	...	Z	MAR. 20	12 P.M. AST
MAR. 21	03	29	55.2	60.02 N.	140.65 W.	3	...	...	3.2Z	...	Z	MAR. 20	06 P.M. YST
MAR. 21	05	51	50.7	50.62 N.	173.21 W.	33N	4.4	...	3.8M	...	G	MAR. 20	06 P.M. BST
MAR. 21	16	06	51.8	60.00 N.	141.11 W.	5	...	...	2.9Z	...	Z	MAR. 21	06 A.M. AST
MAR. 21	20	11	33.4	54.37 N.	163.85 W.	33N	4.4	...	...	...	G	MAR. 21	09 A.M. BST

Table 1.--*Summary of U.S. earthquakes for January-March 1979*--Continued

Date (1979)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
ALASKA—Continued													
MAR. 21	22	38	48.7	60.02 N.	152.58 W.	96	...	...	...	...	G	MAR. 21	12 P.M. AST
MAR. 22	12	02	24.7	53.48 N.	163.53 W.	33N	4.5	...	3.8M	...	G	MAR. 22	01 A.M. BST
MAR. 22	12	16	09.2	60.30 N.	140.96 W.	8	3.9	...	4.0Z	...	Z	MAR. 22	03 A.M. YST
MAR. 22	15	05	31.7	60.10 N.	140.74 W.	7	...	...	3.3Z	...	Z	MAR. 22	06 A.M. YST
MAR. 22	18	08	12.6	54.45 N.	157.52 W.	33N	4.5	...	3.8M	...	G	MAR. 22	08 A.M. AST
MAR. 22	18	36	07.8	61.86 N.	152.10 W.	136	3.7	...	...	...	G	MAR. 22	08 A.M. AST
MAR. 22	19	49	11.0	62.18 N.	150.75 W.	87	...	...	...	...	G	MAR. 22	09 A.M. AST
MAR. 23	02	31	11.5	65.46 N.	149.92 W.	33N	...	...	3.0M	...	G	MAR. 22	04 P.M. AST
MAR. 23	21	50	11.8	67.01 N.	154.45 W.	21	...	...	3.8M	...	G	MAR. 23	11 A.M. AST
MAR. 24	17	11	23.9	61.73 N.	151.65 W.	117	...	...	...	...	G	MAR. 24	07 A.M. AST
MAR. 24	18	37	41.8	61.53 N.	149.93 W.	52	...	...	...	FELT	G	MAR. 24	08 A.M. AST
MAR. 25	03	55	49.1	60.63 N.	141.71 W.	12	...	...	2.9Z	...	Z	MAR. 24	05 P.M. AST
MAR. 25	09	03	07.2	60.02 N.	141.31 W.	6	...	...	2.8Z	...	Z	MAR. 24	11 P.M. AST
MAR. 25	13	15	51.1	60.11 N.	141.18 W.	0	...	...	2.7Z	...	Z	MAR. 25	03 A.M. AST
MAR. 26	02	45	24.0	60.25 N.	140.77 W.	10	3.8	...	3.8Z	...	Z	MAR. 25	05 P.M. YST
MAR. 26	03	07	49.3	65.28 N.	150.24 W.	33N	...	...	3.0M	...	G	MAR. 25	05 P.M. AST
MAR. 27	11	39	09.0	51.82 N.	175.33 W.	43	5.0	4.4	...	IV	G	MAR. 27	00 A.M. BST
MAR. 27	18	16	10.7	60.31 N.	140.94 W.	5	...	...	3.0Z	...	Z	MAR. 27	09 A.M. YST
MAR. 27	18	38	42.2	60.49 N.	148.98 W.	26	...	...	2.9M	FELT	G	MAR. 27	08 A.M. AST
MAR. 28	01	32	17.3	60.23 N.	140.80 W.	12	...	...	3.6Z	...	Z	MAR. 27	04 P.M. YST
MAR. 28	18	50	39.1	59.99 N.	141.16 W.	6	3.0	...	3.5Z	...	Z	MAR. 28	08 A.M. AST
MAR. 29	01	05	38.7	58.78 N.	153.14 W.	33N	...	...	2.9M	...	G	MAR. 28	03 P.M. AST
MAR. 29	03	20	14.7	60.59 N.	141.29 W.	10	3.7	...	3.5Z	...	Z	MAR. 28	05 P.M. AST
MAR. 29	20	52	03.2	60.25 N.	140.90 W.	10	...	...	2.9Z	...	Z	MAR. 29	11 A.M. YST
MAR. 30	00	58	27.4	62.78 N.	151.77 W.	33N	...	...	...	...	G	MAR. 29	02 P.M. AST
MAR. 30	04	07	00.2	63.02 N.	150.97 W.	143	...	...	...	...	G	MAR. 29	06 P.M. AST
MAR. 30	08	28	18.4	60.29 N.	140.98 W.	8	3.4	...	3.6Z	...	Z	MAR. 29	11 P.M. YST
MAR. 30	12	56	08.8	59.95 N.	140.67 W.	13	...	...	2.9Z	...	Z	MAR. 30	03 A.M. YST
MAR. 30	18	55	55.8	53.26 N.	166.75 W.	37	4.8	4.0	...	...	G	MAR. 30	07 A.M. BST
MAR. 31	14	25	06.5	58.82 N.	152.94 W.	93	4.4	...	...	...	G	MAR. 31	04 A.M. AST
ARKANSAS													
FEB. 5	05	31	09.3	35.84 N.	90.08 W.	14	...	...	3.2T	IV	S	FEB. 4	11 P.M. CST
FEB. 27	22	54	54.0	35.92 N.	91.24 W.	9	...	...	3.1S	V	S	FEB. 27	04 P.M. CST
FEB. 27	22	55	12.0	35.93 N.	91.24 W.	10	...	...	...	IV	S	FEB. 27	04 P.M. CST
CALIFORNIA													
JAN. 1	17	12	04.7	33.50 N.	116.52 W.	16	...	...	3.3P	...	P	JAN. 1	09 A.M. PST
JAN. 1	20	38	18.0	34.90 N.	119.17 W.	1	...	...	3.2P	...	P	JAN. 1	12 P.M. PST
JAN. 1	23	14	38.9	33.95 N.	118.68 W.	11	5.1	4.7	5.0P	VI	P	JAN. 1	03 P.M. PST
JAN. 1	23	19	05.2	33.97 N.	118.72 W.	8	...	...	3.2P	...	P	JAN. 1	03 P.M. PST
JAN. 1	23	21	36.0	33.95 N.	118.70 W.	8	...	...	3.1P	...	P	JAN. 1	03 P.M. PST
JAN. 1	23	22	14.3	33.93 N.	118.70 W.	12	...	...	3.4P	FELT	P	JAN. 1	03 P.M. PST
JAN. 1	23	24	58.1	33.98 N.	118.67 W.	4	...	...	3.0P	...	P	JAN. 1	03 P.M. PST
JAN. 1	23	26	25.2	33.93 N.	118.68 W.	6	...	...	3.0P	...	P	JAN. 1	03 P.M. PST
JAN. 1	23	29	25.0	33.95 N.	118.67 W.	2	4.1	...	3.9P	FELT	P	JAN. 1	03 P.M. PST
JAN. 1	23	32	12.3	33.95 N.	118.72 W.	9	...	...	3.0P	...	P	JAN. 1	03 P.M. PST
JAN. 1	23	36	28.2	34.02 N.	118.75 W.	3	...	...	3.0P	...	P	JAN. 1	03 P.M. PST
JAN. 1	23	49	58.8	33.93 N.	118.67 W.	6	...	...	3.7P	FELT	P	JAN. 1	03 P.M. PST
JAN. 2	00	3	52.3	33.93 N.	118.68 W.	6	...	...	3.0P	...	P	JAN. 1	04 P.M. PST
JAN. 2	07	15	51.6	33.97 N.	118.70 W.	6	...	...	3.0P	...	P	JAN. 1	11 P.M. PST
JAN. 2	07	41	14.1	33.95 N.	118.70 W.	6	...	...	3.7P	FELT	P	JAN. 1	11 P.M. PST
JAN. 2	18	16	31.4	33.95 N.	118.70 W.	15	...	...	3.4P	FELT	P	JAN. 2	10 A.M. PST
JAN. 2	22	29	57.9	33.93 N.	118.68 W.	6	...	...	2.5P	FELT	P	JAN. 2	02 P.M. PST
JAN. 2	22	43	27.1	33.95 N.	118.68 W.	11	...	...	2.6P	FELT	P	JAN. 2	02 P.M. PST
JAN. 3	00	20	52.4	33.90 N.	118.68 W.	6	...	...	2.8P	FELT	P	JAN. 2	04 P.M. PST
JAN. 3	13	36	50.4	34.90 N.	119.17 W.	1	...	...	3.5P	...	P	JAN. 3	05 A.M. PST
JAN. 3	16	54	16.5	33.95 N.	118.70 W.	11	...	...	3.0P	FELT	P	JAN. 3	08 A.M. PST
JAN. 3	20	00	43.0	35.02 N.	119.13 W.	5	...	...	3.4P	IV	P	JAN. 3	12 P.M. PST
JAN. 4	01	02	05.6	33.92 N.	118.68 W.	6	...	...	3.0P	...	P	JAN. 3	05 P.M. PST
JAN. 7	11	37	32.3	36.10 N.	120.21 W.	4	3.9	...	3.8B	IV	B	JAN. 7	03 A.M. PST
JAN. 11	19	57	26.6	37.00 N.	121.72 W.	9	...	...	3.1B	FELT	B	JAN. 11	11 A.M. PST

Table 1.--*Summary of U.S. earthquakes for January-March 1979*--Continued

Date (1979)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
CALIFORNIA—Continued													
JAN. 11	20	39	23.8	37.39 N.	121.75 W.	1	...	...	3.6B	IV	B	JAN. 11	12 P.M. PST
JAN. 12	11	47	15.0	33.52 N.	116.50 W.	5	...	...	3.2P	...	P	JAN. 12	03 A.M. PST
JAN. 13	09	29	26.5	35.73 N.	118.05 W.	3	...	...	3.2P	...	P	JAN. 13	01 A.M. PST
JAN. 13	11	07	29.4	33.95 N.	118.68 W.	13	...	...	2.8P	FELT	P	JAN. 13	03 A.M. PST
JAN. 15	12	41	18.7	33.97 N.	118.72 W.	10	...	...	3.7P	IV	P	JAN. 15	04 A.M. PST
JAN. 19	13	59	55.4	37.34 N.	121.72 W.	8	...	...	3.1B	FELT	B	JAN. 19	05 A.M. PST
JAN. 19	18	10	42.0	37.55 N.	118.63 W.	9	...	...	4.1B	IV	B	JAN. 19	10 A.M. PST
JAN. 21	16	11	36.0	34.65 N.	117.73 W.	8	...	...	3.1P	...	P	JAN. 21	08 A.M. PST
JAN. 23	07	25	08.0	34.50 N.	116.33 W.	6	...	...	3.5P	...	P	JAN. 22	11 P.M. PST
JAN. 24	21	14	27.2	37.52 N.	118.60 W.	10	...	...	4.6B	IV	B	JAN. 24	01 P.M. PST
JAN. 29	04	59	22.7	33.95 N.	118.67 W.	6	...	...	3.1P	FELT	P	JAN. 28	08 P.M. PST
FEB. 2	18	29	26.2	38.81 N.	119.82 W.	19	...	...	3.4B	...	B	FEB. 2	10 A.M. PST
FEB. 4	15	55	54.7	33.98 N.	119.18 W.	5	...	...	3.6P	...	P	FEB. 4	07 A.M. PST
FEB. 5	02	08	19.6	37.77 N.	122.17 W.	8	...	...	2.7B	V	B	FEB. 4	06 P.M. PST
FEB. 5	02	14	09.9	37.55 N.	118.79 W.	10	...	...	3.7B	...	B	FEB. 4	06 P.M. PST
FEB. 5	07	22	41.2	37.32 N.	121.67 W.	8	...	...	3.4B	FELT	B	FEB. 4	11 P.M. PST
FEB. 5	08	42	23.9	37.55 N.	118.77 W.	10	...	...	3.3B	...	B	FEB. 5	00 A.M. PST
FEB. 7	04	20	15.6	37.56 N.	118.79 W.	10	...	...	3.8B	...	B	FEB. 6	08 P.M. PST
FEB. 12	04	48	42.3	33.45 N.	116.43 W.	4	...	...	4.2P	V	P	FEB. 11	08 P.M. PST
FEB. 12	04	55	16.1	33.45 N.	116.43 W.	4	...	...	3.2P	...	P	FEB. 11	08 P.M. PST
FEB. 12	05	15	23.8	33.45 N.	116.43 W.	4	...	...	3.0P	...	P	FEB. 11	09 P.M. PST
FEB. 12	20	26	22.1	36.66 N.	121.34 W.	7	...	...	3.6B	IV	B	FEB. 12	12 P.M. PST
FEB. 13	01	05	45.8	34.30 N.	116.33 W.	1	...	...	3.1P	...	P	FEB. 12	05 P.M. PST
FEB. 13	16	26	45.3	37.45 N.	118.65 W.	5	...	...	3.0P	...	P	FEB. 13	08 A.M. PST
FEB. 13	19	21	48.4	36.55 N.	121.16 W.	10	...	...	3.5B	...	B	FEB. 13	11 A.M. PST
FEB. 15	03	05	16.6	34.27 N.	119.72 W.	5	...	...	3.5P	III	P	FEB. 14	07 P.M. PST
FEB. 15	03	19	32.9	34.27 N.	119.70 W.	5	...	...	3.4P	III	P	FEB. 14	07 P.M. PST
FEB. 21	12	56	47.9	37.83 N.	121.77 W.	12	...	...	3.5B	IV	B	FEB. 21	04 A.M. PST
FEB. 22	07	16	56.6	40.00 N.	120.09 W.	5	...	...	3.5B	...	B	FEB. 21	11 P.M. PST
FEB. 22	15	57	28.8	40.00 N.	120.09 W.	5	5.0	4.6	5.3B	VI	B	FEB. 22	07 A.M. PST
FEB. 23	03	40	52.9	40.00 N.	120.10 W.	5	...	...	3.7B	...	B	FEB. 22	07 P.M. PST
FEB. 27	07	07	38.6	33.95 N.	118.32 W.	5	...	...	3.0P	IV	P	FEB. 26	11 P.M. PST
FEB. 27	15	36	32.4	36.08 N.	119.95 W.	5	...	...	3.3P	IV	P	FEB. 27	07 A.M. PST
MAR. 1	12	26	03.4	34.32 N.	118.35 W.	5	...	...	2.3P	FELT	P	MAR. 1	04 A.M. PST
MAR. 5	10	49	31.0	33.95 N.	118.70 W.	13	...	...	3.7P	IV	P	MAR. 5	02 A.M. PST
MAR. 5	12	11	53.0	34.37 N.	119.75 W.	5	...	...	2.8P	FELT	P	MAR. 5	04 A.M. PST
MAR. 8	10	40	51.6	33.33 N.	116.83 W.	7	...	...	3.3P	...	P	MAR. 8	02 A.M. PST
MAR. 8	18	21	37.8	34.12 N.	118.33 W.	4	...	...	2.0P	FELT	P	MAR. 8	10 A.M. PST
MAR. 8	18	25	27.1	37.24 N.	118.44 W.	5	...	...	3.1B	...	G	MAR. 8	10 A.M. PST
MAR. 8	23	37	49.4	34.02 N.	117.03 W.	5	...	...	3.0P	...	P	MAR. 8	03 P.M. PST
MAR. 10	00	56	37.7	35.80 N.	116.62 W.	5	...	...	3.3P	...	P	MAR. 9	04 P.M. PST
MAR. 11	07	14	05.1	34.02 N.	116.73 W.	5	...	...	3.4P	...	P	MAR. 10	11 P.M. PST
MAR. 11	10	54	31.9	33.70 N.	116.77 W.	5	...	...	3.0P	FELT	P	MAR. 11	02 A.M. PST
MAR. 12	12	06	09.6	37.57 N.	121.69 W.	7	...	...	3.2B	FELT	B	MAR. 12	04 A.M. PST
MAR. 12	14	08	15.8	37.45 N.	118.67 W.	4	...	...	3.3P	...	P	MAR. 12	06 A.M. PST
MAR. 15	20	06	45.5	36.60 N.	121.08 W.	12	...	...	3.2B	...	B	MAR. 15	12 P.M. PST
MAR. 15	20	17	49.8	34.30 N.	116.43 W.	1	5.0	4.9	4.9P	FELT	P	MAR. 15	12 P.M. PST
MAR. 15	20	34	54.3	34.33 N.	116.45 W.	1	...	...	3.1P	...	P	MAR. 15	12 P.M. PST
MAR. 15	21	07	16.5	34.32 N.	116.45 W.	1	5.5	5.6	5.2P	VII	P	MAR. 15	01 P.M. PST
MAR. 15	21	15	49.1	34.32 N.	116.43 W.	3	...	...	3.2P	...	P	MAR. 15	01 P.M. PST
MAR. 15	21	25	17.3	34.33 N.	116.45 W.	2	...	...	3.2P	...	P	MAR. 15	01 P.M. PST
MAR. 15	21	33	14.9	34.30 N.	116.43 W.	2	...	...	3.1P	...	P	MAR. 15	01 P.M. PST
MAR. 15	21	34	25.5	34.35 N.	116.45 W.	1	...	...	4.5P	FELT	P	MAR. 15	01 P.M. PST
MAR. 15	21	44	50.0	34.32 N.	116.43 W.	1	...	...	3.3P	...	P	MAR. 15	01 P.M. PST
MAR. 15	22	26	19.3	34.30 N.	116.43 W.	1	...	...	3.0P	...	P	MAR. 15	02 P.M. PST
MAR. 15	23	07	58.4	34.33 N.	116.43 W.	5	4.5	4.4	4.8P	FELT	P	MAR. 15	03 P.M. PST
MAR. 15	23	16	38.1	34.30 N.	116.43 W.	1	...	...	3.9P	FELT	P	MAR. 15	03 P.M. PST
MAR. 15	23	47	27.4	34.32 N.	116.43 W.	2	...	...	3.0P	...	P	MAR. 15	03 P.M. PST
MAR. 15	23	59	51.4	34.33 N.	116.40 W.	1	...	...	3.0P	...	P	MAR. 15	03 P.M. PST
MAR. 16	00	57	29.4	34.32 N.	116.43 W.	2	...	...	3.4P	...	P	MAR. 15	04 P.M. PST
MAR. 16	01	21	25.2	34.33 N.	116.40 W.	1	3.7	...	3.8P	...	P	MAR. 15	05 P.M. PST
MAR. 16	01	35	01.9	34.33 N.	116.40 W.	1	3.7	...	3.4P	...	P	MAR. 15	05 P.M. PST
MAR. 16	02	35	40.2	34.30 N.	116.43 W.	2	...	...	3.0P	...	P	MAR. 15	06 P.M. PST

Table 1.--*Summary of U.S. earthquakes for January-March 1979*--Continued

Date (1979)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
CALIFORNIA—Continued													
MAR. 16	02	46	51.8	34.32 N.	116.43 W.	3	...	...	3.2P	...	P	MAR. 15	06 P.M. PST
MAR. 16	05	54	00.5	34.30 N.	116.43 W.	2	...	...	3.7P	FELT	P	MAR. 15	09 P.M. PST
MAR. 16	06	22	03.1	34.32 N.	116.42 W.	1	...	...	2.4P	FELT	P	MAR. 15	10 P.M. PST
MAR. 16	06	40	18.8	34.32 N.	116.42 W.	3	...	...	2.7P	FELT	P	MAR. 15	10 P.M. PST
MAR. 16	06	42	46.2	34.30 N.	116.43 W.	2	...	...	3.0P	FELT	P	MAR. 15	10 P.M. PST
MAR. 16	07	06	33.0	34.30 N.	116.43 W.	1	...	...	2.5P	FELT	P	MAR. 15	11 P.M. PST
MAR. 16	07	52	09.1	34.32 N.	116.43 W.	2	...	...	3.5P	FELT	P	MAR. 15	11 P.M. PST
MAR. 16	09	33	49.6	34.32 N.	116.43 W.	1	...	...	2.6P	FELT	P	MAR. 16	01 A.M. PST
MAR. 16	12	56	32.1	34.20 N.	116.43 W.	3	...	...	3.1P	...	P	MAR. 16	04 A.M. PST
MAR. 16	13	41	20.5	34.32 N.	116.42 W.	1	...	...	2.8P	FELT	P	MAR. 16	05 A.M. PST
MAR. 16	14	10	57.5	34.33 N.	116.40 W.	1	...	...	3.2P	FELT	P	MAR. 16	06 A.M. PST
MAR. 16	17	36	59.1	34.33 N.	116.40 W.	5	...	...	4.0P	FELT	P	MAR. 16	09 A.M. PST
MAR. 17	08	12	42.9	34.28 N.	116.42 W.	1	...	...	3.2P	...	P	MAR. 17	00 A.M. PST
MAR. 17	17	51	06.0	34.32 N.	116.40 W.	2	...	...	3.1P	...	P	MAR. 17	09 A.M. PST
MAR. 17	18	48	39.0	34.32 N.	116.38 W.	2	...	...	3.3P	...	P	MAR. 17	10 A.M. PST
MAR. 18	12	11	04.2	34.33 N.	116.43 W.	2	...	...	3.1P	...	P	MAR. 18	04 A.M. PST
MAR. 18	22	53	02.6	34.22 N.	116.35 W.	5	...	...	4.2P	FELT	P	MAR. 18	02 P.M. PST
MAR. 19	00	45	34.9	34.32 N.	116.47 W.	4	...	...	3.0P	...	P	MAR. 18	04 P.M. PST
MAR. 19	09	35	51.0	34.23 N.	116.37 W.	4	...	...	3.0P	...	P	MAR. 19	01 A.M. PST
MAR. 20	04	41	21.8	34.33 N.	116.40 W.	1	...	...	3.1P	...	P	MAR. 19	08 P.M. PST
MAR. 20	06	34	56.6	34.32 N.	116.38 W.	2	...	...	3.2P	...	P	MAR. 19	10 P.M. PST
MAR. 20	10	39	47.1	34.32 N.	116.45 W.	1	...	...	3.2P	...	P	MAR. 20	02 A.M. PST
MAR. 20	14	46	11.4	34.33 N.	116.42 W.	1	...	...	3.1P	...	P	MAR. 20	06 A.M. PST
MAR. 21	04	48	35.8	34.28 N.	116.40 W.	2	...	...	3.2P	...	P	MAR. 20	08 P.M. PST
MAR. 22	19	11	22.4	34.33 N.	116.42 W.	8	...	...	3.0P	...	P	MAR. 22	11 A.M. PST
MAR. 23	03	09	53.8	37.42 N.	118.67 W.	5	...	...	3.0P	...	P	MAR. 22	07 P.M. PST
MAR. 25	17	00	02.1	34.30 N.	116.43 W.	7	...	...	3.0P	...	P	MAR. 25	09 A.M. PST
MAR. 26	00	10	10.8	34.32 N.	116.42 W.	1	...	...	3.0P	...	P	MAR. 25	04 P.M. PST
MAR. 26	06	29	02.5	37.53 N.	118.68 W.	10	...	...	3.3B	...	B	MAR. 25	10 P.M. PST
MAR. 26	15	04	29.0	34.87 N.	120.50 W.	5	...	...	2.8P	FELT	P	MAR. 26	07 A.M. PST
MAR. 26	15	22	23.5	34.87 N.	120.50 W.	10	...	...	3.6P	IV	P	MAR. 26	07 A.M. PST
MAR. 26	17	01	03.1	37.55 N.	118.80 W.	5	...	...	3.4B	...	B	MAR. 26	09 A.M. PST
MAR. 26	21	36	38.5	37.57 N.	118.87 W.	10	...	...	3.7B	...	B	MAR. 26	01 P.M. PST
MAR. 29	02	17	11.3	33.67 N.	116.72 W.	8	...	...	3.0P	...	P	MAR. 28	06 P.M. PST
MAR. 29	14	43	20.3	34.33 N.	116.45 W.	7	...	...	3.2P	...	P	MAR. 29	06 A.M. PST
MAR. 31	00	16	09.0	34.30 N.	116.48 W.	8	...	...	4.2P	...	P	MAR. 30	04 P.M. PST
CALIFORNIA—OFF THE COAST													
JAN. 1	02	19	44.5	40.47 N.	126.35 W.	5	4.2	...	4.2B	...	B	DEC. 31	06 P.M. PST
FEB. 3	09	58	16.0	40.92 N.	124.42 W.	22	5.2	4.6	5.2B	VII	B	FEB. 3	01 A.M. PST
MAR. 4	06	24	43.7	34.80 N.	121.13 W.	5	...	...	3.3B	...	B	MAR. 3	10 P.M. PST
MAR. 18	04	41	50.9	40.37 N.	124.36 W.	10	...	...	3.3B	...	B	MAR. 17	08 P.M. PST
MAR. 18	04	42	17.3	40.34 N.	124.46 W.	10	...	...	3.3B	...	B	MAR. 17	08 P.M. PST
MAR. 18	16	18	31.2	40.34 N.	124.71 W.	10	4.0	...	4.1B	IV	B	MAR. 18	08 A.M. PST
MAR. 22	15	14	00.8	41.87 N.	126.83 W.	15	5.2	4.8	4.2B	...	B	MAR. 22	07 A.M. PST
MAR. 22	15	41	56.3	41.74 N.	127.01 W.	15	4.4	...	3.3B	...	G	MAR. 22	07 A.M. PST
COLORADO													
JAN. 6	01	58	55.3	38.96 N.	105.16 W.	5	...	...	2.9G	VI	G	JAN. 5	06 P.M. MST
JAN. 20	06	59	08.4	40.82 N.	107.86 W.	5	...	...	3.3G	...	G	JAN. 19	11 P.M. MST
MAR. 19	14	59	29.7	40.18 N.	108.90 W.	2	...	...	3.1G	IV	G	MAR. 19	07 A.M. MST
MAR. 29	22	07	13.3	40.27 N.	108.81 W.	2	...	...	2.6G	IV	G	MAR. 29	03 P.M. MST
HAWAII													
JAN. 2	06	31	25.2	20.95 N.	156.06 W.	12	...	...	3.5H	III	H	JAN. 1	08 P.M. HST
JAN. 11	12	24	45.6	19.37 N.	155.09 W.	3	...	...	3.0H	...	H	JAN. 11	02 A.M. HST
JAN. 11	15	24	52.6	19.38 N.	155.08 W.	1	...	...	3.8H	...	H	JAN. 11	05 A.M. HST
JAN. 15	07	12	36.5	19.37 N.	155.08 W.	9	...	...	3.1H	III	H	JAN. 14	09 P.M. HST
JAN. 17	05	47	13.8	20.37 N.	154.99 W.	0	...	...	3.4H	...	H	JAN. 16	07 P.M. HST
JAN. 20	00	19	15.4	19.33 N.	155.20 W.	10	...	...	3.0H	III	H	JAN. 19	02 P.M. HST
JAN. 29	05	22	53.5	19.38 N.	155.50 W.	9	...	...	3.0H	...	H	JAN. 28	07 P.M. HST

Table 1.--*Summary of U.S. earthquakes for January-March 1979*--Continued

Date (1979)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
HAWAII—Continued													
FEB. 3	12	49	04.3	19.34 N.	155.20 W.	9	...	...	3.5H	III	H	FEB. 3	02 A.M. HST
FEB. 4	18	37	08.6	19.33 N.	155.13 W.	9	...	...	3.5H	...	H	FEB. 4	08 A.M. HST
FEB. 4	19	11	03.0	19.01 N.	156.45 W.	36	...	...	3.6H	...	H	FEB. 4	09 A.M. HST
FEB. 6	08	04	00.0	19.34 N.	155.12 W.	9	...	...	3.2H	...	H	FEB. 5	10 P.M. HST
FEB. 14	02	52	51.0	19.34 N.	155.07 W.	9	...	...	3.9H	IV	H	FEB. 13	04 P.M. HST
FEB. 18	14	45	44.1	19.45 N.	155.48 W.	11	...	...	3.2H	III	H	FEB. 18	04 A.M. HST
FEB. 21	05	14	20.3	19.37 N.	155.27 W.	27	...	...	3.1H	...	H	FEB. 20	07 P.M. HST
FEB. 23	03	15	06.3	19.37 N.	155.09 W.	9	...	...	3.2H	...	H	FEB. 22	05 P.M. HST
FEB. 27	10	52	53.0	19.20 N.	155.67 W.	6	...	...	3.2H	...	H	FEB. 27	00 A.M. HST
MAR. 2	12	27	18.2	19.33 N.	155.11 W.	10	...	...	3.6H	III	H	MAR. 2	02 A.M. HST
MAR. 3	07	48	11.8	19.41 N.	155.47 W.	11	...	...	3.0H	...	H	MAR. 2	09 P.M. HST
MAR. 6	06	41	58.6	19.35 N.	155.10 W.	9	...	...	3.3H	III	H	MAR. 5	08 P.M. HST
MAR. 6	12	59	50.1	19.33 N.	155.12 W.	10	...	...	3.7H	III	H	MAR. 6	02 A.M. HST
MAR. 6	15	07	58.5	19.52 N.	155.27 W.	27	5.0	4.3	4.7H	VI	H	MAR. 6	05 A.M. HST
MAR. 10	13	55	14.6	19.33 N.	155.11 W.	10	4.8	...	4.5H	IV	H	MAR. 10	03 A.M. HST
MAR. 10	14	54	49.3	19.20 N.	155.68 W.	7	...	...	3.3H	III	H	MAR. 10	04 A.M. HST
MAR. 10	19	49	33.3	19.30 N.	155.12 W.	10	...	...	3.1H	...	H	MAR. 10	09 A.M. HST
MAR. 11	10	14	56.5	19.29 N.	155.10 W.	11	...	...	3.4H	III	H	MAR. 11	00 A.M. HST
MAR. 12	03	28	05.2	19.52 N.	155.28 W.	24	...	...	3.4H	III	H	MAR. 11	05 P.M. HST
MAR. 13	19	57	08.8	19.35 N.	155.43 W.	11	...	...	3.5H	III	H	MAR. 13	09 A.M. HST
MAR. 15	18	55	01.1	19.37 N.	155.10 W.	1	...	...	3.4H	III	H	MAR. 15	08 A.M. HST
MAR. 15	20	10	14.7	19.38 N.	155.10 W.	0	...	...	3.4H	III	H	MAR. 15	10 A.M. HST
MAR. 20	23	03	09.9	19.35 N.	155.13 W.	9	...	...	3.3H	III	H	MAR. 20	01 P.M. HST
MAR. 22	06	46	59.8	20.10 N.	155.84 W.	16	4.6	...	4.5H	V	H	MAR. 21	08 P.M. HST
MAR. 25	16	50	17.9	19.35 N.	155.13 W.	10	...	...	3.1H	...	H	MAR. 25	06 A.M. HST
MAR. 26	23	41	25.5	19.35 N.	155.14 W.	7	...	...	3.2H	III	H	MAR. 26	01 P.M. HST
MAR. 28	07	30	09.8	20.09 N.	155.83 W.	12	4.4	...	4.9H	V	H	MAR. 27	09 P.M. HST
MAR. 28	07	34	44.9	20.07 N.	155.82 W.	10	...	...	3.1H	III	H	MAR. 27	09 P.M. HST
MAR. 28	15	54	50.6	19.36 N.	155.08 W.	9	...	...	3.0H	III	H	MAR. 28	05 A.M. HST
MAR. 29	10	56	02.3	20.14 N.	155.86 W.	13	...	...	3.1H	...	H	MAR. 29	00 A.M. HST
MAR. 30	09	06	40.7	20.65 N.	158.82 W.	19	4.7	3.9	5.5H	V	G	MAR. 29	11 P.M. HST
MAR. 30	22	56	21.1	20.06 N.	155.83 W.	22	...	...	3.1H	III	H	MAR. 30	12 P.M. HST
MONTANA													
JAN. 4	14	51	24.8	47.31 N.	113.14 W.	5	...	...	3.0D	...	G	JAN. 4	07 A.M. MST
JAN. 6	01	25	48.7	44.84 N.	111.45 W.	5	...	...	4.1G	...	G	JAN. 5	06 P.M. MST
NEVADA													
JAN. 6	01	20	35.1	39.24 N.	116.38 W.	5	...	...	4.2B	IV	G	JAN. 5	05 P.M. PST
JAN. 24	17	27	20.6	39.13 N.	115.71 W.	5	...	...	3.4G	...	G	JAN. 24	09 A.M. PST
JAN. 24	18	00	00.1	37.10 N.	116.01 W.	0	4.5	...	4.5B	...	E	JAN. 24	10 A.M. PST
FEB. 8	20	00	00.1	37.10 N.	116.06 W.	0	5.5	4.1	5.2B	...	E	FEB. 8	12 P.M. PST
FEB. 13	15	52	48.5	40.93 N.	116.16 W.	5	4.1	...	3.6G	IV	G	FEB. 13	07 A.M. PST
FEB. 15	18	05	00.2	37.15 N.	116.07 W.	0	4.8	...	4.7B	...	E	FEB. 15	10 A.M. PST
MAR. 14	18	30	00.1	37.03 N.	116.04 W.	0	4.3	...	4.2B	...	E	MAR. 14	10 A.M. PST
MAR. 18	21	06	11.0	39.25 N.	116.36 W.	5	...	...	3.5G	IV	G	MAR. 18	01 P.M. PST
MAR. 19	00		51.1	39.20 N.	116.40 W.	5	...	...	3.6G	...	G	MAR. 18	04 P.M. PST
NEW JERSEY													
JAN. 30	16	30	52.1	40.32 N.	74.26 W.	5	...	...	3.5L	V	L	JAN. 30	11 A.M. EST
FEB. 2	02	26	13.3	40.77 N.	74.66 W.	0	...	...	1.9L	III	L	FEB. 1	09 P.M. EST
FEB. 23	10	23	57.2	40.80 N.	74.81 W.	13	...	...	2.9L	IV	L	FEB. 23	05 A.M. EST
MAR. 10	04	49	39.7	40.72 N.	74.50 W.	3	...	...	3.1L	V	L	MAR. 9	11 P.M. EST
OKLAHOMA													
MAR. 13	23	29	22.6	35.42 N.	97.85 W.	5	...	...	1.7T	II	T	MAR. 13	05 P.M. CST
MAR. 14	03	10	56.8	35.50 N.	97.83 W.	5	...	...	1.9T	IV	T	MAR. 13	09 P.M. CST
MAR. 14	04	37	15.3	35.52 N.	97.78 W.	5	...	...	2.2T	V	T	MAR. 13	10 P.M. CST
MAR. 18	20	44	19.5	35.38 N.	98.12 W.	5	...	...	2.9T	III	T	MAR. 18	02 P.M. CST
MAR. 18	23	19	01.3	34.10 N.	97.45 W.	5	...	...	2.3T	III	T	MAR. 18	05 P.M. CST

Table 1.--*Summary of U.S. earthquakes for January-March 1979*--Continued

Date (1979)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
OREGON—OFF THE COAST													
FEB. 1	11	26	46.4	42.57 N.	126.35 W.	15	4.8	4.2	...	...	G	FEB. 1	03 A.M. PST
FEB. 1	16	23	51.4	42.55 N.	126.36 W.	15	4.3	3.9	...	...	G	FEB. 1	08 A.M. PST
MAR. 3	09	46	55.3	42.71 N.	126.02 W.	15	3.9	...	...	...	G	MAR. 3	01 A.M. PST
MAR. 15	09	50	24.2	43.11 N.	126.35 W.	15	3.9	...	...	...	G	MAR. 15	01 A.M. PST
MAR. 21	14	49	24.3	42.09 N.	126.79 W.	15	4.5	...	...	...	G	MAR. 21	06 A.M. PST
SOUTH CAROLINA													
JAN. 19	08	55	34.5	34.71 N.	82.95 W.	1	...	...	2.8G	IV	G	JAN. 19	03 A.M. EST
TENNESSEE													
FEB. 2	11	17	04.9	36.27 N.	89.47 W.	2	...	...	2.0S	III	S	FEB. 2	05 A.M. CST
FEB. 2	18	49	33.0	36.26 N.	89.45 W.	3	...	...	1.9S	II	S	FEB. 2	12 P.M. CST
FEB. 2	18	50	18.9	36.27 N.	89.46 W.	4	...	...	2.0S	III	S	FEB. 2	12 P.M. CST
FEB. 3	06	56	42.3	36.26 N.	89.47 W.	4	...	...	2.0S	FELT	S	FEB. 2	00 A.M. CST
UTAH													
JAN. 12	09	29	00.1	37.73 N.	113.13 W.	0	...	...	3.5G	IV	U	JAN. 12	02 A.M. MST
MAR. 25	21	41	55.7	41.34 N.	113.29 W.	7	...	...	3.2U	FELT	U	MAR. 25	02 P.M. MST
VERMONT													
JAN. 29	06	35	46.2	44.82 N.	73.19 W.	9	...	...	2.5L	II	L	JAN. 29	01 A.M. EST
WASHINGTON													
JAN. 19	14	55	15.4	47.92 N.	119.69 W.	10	...	...	3.6G	V	W	JAN. 19	06 A.M. PST
FEB. 1	20	18	28.2	47.52 N.	121.92 W.	8	...	...	3.6G	IV	W	FEB. 1	12 P.M. PST
MAR. 11	14	39	33.0	46.46 N.	122.40 W.	9	3.8	...	3.8G	VI	W	MAR. 11	06 A.M. PST
MAR. 12	12	41	36.1	48.20 N.	122.76 W.	26	3.8	...	3.4G	V	W	MAR. 12	04 A.M. PST
WYOMING													
JAN. 5	14	08	38.8	44.40 N.	110.27 W.	5	...	...	3.5G	...	G	JAN. 5	07 A.M. MST
FEB. 24	12	43	38.2	41.65 N.	111.00 W.	5	...	...	3.5G	...	G	FEB. 24	05 A.M. MST

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*

[Sources of the hypocenters, magnitudes, and macroseismic data: (B) University of California, Berkeley; (D) University of Montana, Missoula; (E) U.S. Department of Energy, Las Vegas, Nevada; (G) U.S. Geological Survey, National Earthquake Information Service; (H) U.S. Geological Survey, Hawaiian Volcano Observatory; (J) Weston Observatory, Massachusetts; (L) Lamont-Doherty Geological Observatory, Palisades, N.Y.; (M) National Oceanic and Atmospheric Administration, Alaska Tsunami Warning Center, Palmer; (P) California Institute of Technology, Pasadena; (S) St. Louis University, St. Louis, Missouri; (T) University of Oklahoma, Leonard; (U) University of Utah, Salt Lake City; (V) Virginia Polytechnic Institute and State University, Blacksburg; (W) University of Washington, Seattle; (Z) Stephens and others (1980). Dates and origin times are listed in Universal Coordinated Time (UTC) giving the hour, minute, and second. Epicenters are shown in decimal degrees. Only earthquakes with intensity data and explosions are listed]

Alaska

4 January (G) Southern Alaska
Origin time: 15 35 04.0
Epicenter: 61.73 N., 150.04 W.
Depth: 34 km
Magnitude: 3.4 ML(M)

Felt at Eagle River and Willow.

8 January (G) Southern Alaska
Origin time: 10 11 00.8
Epicenter: 61.77 N., 150.08 W.
Depth: 45 km
Magnitude: 2.5 ML(M)
Intensity II: Palmer.

10 January (G) Southern Alaska
Origin time: 00 34 48.1
Epicenter: 61.58 N., 150.06 W.
Depth: 42 km
Magnitude: 3.0 ML(M)
Intensity II: Palmer.

25 January (G) Central Alaska
Origin time: 02 49 03.5
Epicenter: 63.32 N., 151.16 W.
Depth: Normal.
Magnitude: 3.5 ML(M)
Intensity III: Fairbanks (M).

25 January (G) Southern Alaska
Origin time: 19 30 06.1
Epicenter: 60.13 N., 153.12 W.
Depth: 105 km
Magnitude: 5.5 mb(G)

Felt from Kodiak Island to Fairbanks (M). Felt in Kodiak, Palmer, Talkeetna (press report).

Intensity IV: Anchorage, Clam Gulch, Cooper Landing, Homer, Kenai, Larsen Bay, Seldovia, Seward, Soldotna, Sterling. Tyonek.
Intensity III: Karluk, Nikishka, Olga Bay, Pedro Bay.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Alaska--Continued

27 January (G) Southern Alaska
Origin time: 16 48 11.5
Epicenter: 60.96 N., 149.38 W.
Depth: 49 km
Magnitude: 3.6 mb(G), 3.2 ML(M)
Intensity IV: Anchorage, Chugiak, Clam Gulch, Sutton, Talkeetna.
Intensity III: Skwentna.
Intensity II: Kenai.

27 January (G) Alaska Peninsula
Origin time: 18 57 55.0
Epicenter: 54.77 N., 161.25 W.
Depth: 17 km
Magnitude: 6.0 mb(G), 6.0 MS(G), 5.8 MS(B), 5.8 MS(L)
Intensity V:
Cold Bay (hairline cracks in exterior walls; unconfirmed report of a building moved on its foundation; light furniture shifted, small objects fell and overturned; windows, doors, and dishes rattled; felt by many).
Sand Point (small objects fell; buildings creaked and shook; windows, doors, and dishes rattled; felt by many).
Intensity IV: King Cove, Perryville.
Intensity III: False Pass.

31 January (G) Andreanof Islands, Aleutian Islands
Origin time: 03 07 32.0
Epicenter: 51.72 N., 175.81 W.
Depth: 64 km
Magnitude: 5.0 mb(G)
Intensity III: Adak (M).

1 February (G) Southern Alaska
Origin time: 12 29 05.4
Epicenter: 60.24 N., 152.84 W.
Depth: 109 km
Magnitude: 4.8 mb(G)
Intensity IV: Kenai (M), Seward (M), Soldotna (M).
Intensity III: Homer (M), Anchorage (M).

6 February (G) Kenai Peninsula
Origin time: 22 52 00.6
Epicenter: 60.72 N., 151.77 W.
Depth: 87 km
Magnitude: None computed.

Felt at Kenai and Soldotna (M).

7 February (G) Southern Alaska
Origin time: 13 33 29.1

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Alaska--Continued

Epicenter: 61.03 N., 150.15 W.
Depth: 32 km
Magnitude: 3.0 ML(M)

Felt at Anchorage (M).

9 February (G) Southern Alaska
Origin time: 18 49 25.1
Epicenter: 60.06 N., 152.59 W.
Depth: 88 km
Magnitude: 4.8 mb(G)

Felt at Anchorage and on Kenai Peninsula (M).

13 February (G) Alaska Peninsula region
Origin time: 05 34 25.9
Epicenter: 55.45 N., 157.16 W.
Depth: Normal.
Magnitude: 5.9 mb(G), 6.7 MS(G), 6.6 MS(B), 6.8 mb(P), 6.5 MS(P)
Intensity IV: Chignik, Perryville, Pilot Point, Port Heiden.
Intensity III: Egegik, King Salmon, Sand Point.
Intensity II: Naknek.

17 February (G) Southern Alaska
Origin time: 08 01 24.6
Epicenter: 62.80 N., 148.28 W.
Depth: 95 km
Magnitude: None computed.
Intensity II: Palmer (M).

17 February (G) Southern Alaska
Origin time: 10 48 08.7
Epicenter: 62.31 N., 149.50 W.
Depth: 54 km
Magnitude: 4.9 mb(G)

Felt from Talkeetna to Anchorage and at Valdez (M).

Intensity IV: Palmer (M).
Intensity III: Talkeetna.

23 February (G) Central Alaska
Origin time: 09 42 03.6
Epicenter: 64.98 N., 147.85 W.
Depth: 24 km
Magnitude: 4.3 mb(G), 4.2 ML(M)
Intensity V: Fairbanks (small objects fell).

23 February (G) Central Alaska
Origin time: 18 14
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity III: Fairbanks.

27 February (G) Southern Alaska
Origin time: 14 42 45.2
Epicenter: 62.29 N., 149.81 W.
Depth: 34 km
Magnitude: 2.7 ML(M)

Felt at Talkeetna.

28 February (G) Fox Islands, Aleutian Islands
Origin time: 02 47 10.4
Epicenter: 52.94 N., 169.06 W.
Depth: 79 km
Magnitude: 4.5 mb(G)

Felt at Nikolski.

28 February (G) Southeastern Alaska
Origin time: 21 27 06.1
Epicenter: 60.64 N., 141.59 W.
Depth: 15 km
Magnitude: 6.4 mb(G), 7.1 MS(G), 7.4 MS(P), 7.3 MS(B), 6.9 ML(M)

The information on the effects of this earthquake was collected by the U.S. Geological Survey and Lamont-Doherty Geological Observatory in Alaska, and by the Earth Physics Branch in Canada. The descriptions listed below were taken from Stover and others (1980). This earthquake was felt over an area of about 500,000 sq km of Alaska and western Canada (fig. 7). The lack of major damage was due to the epicenter being in an unpopulated area of ice fields near the eastern end of the Chugach Mountains and in the vincinity of Mt. St. Elias. It is the first major earthquake since 1899 to occur between Yakutat Bay and Prince William Sound. Lahr and others (1980) determined 102 aftershocks with magnitudes greater than 2.5 within 6 days following this event, and Stephens and others (1980) located 308 aftershocks that occurred between 28 February and 31 March 1979.

Porcella (1979) reported ground accelerations recorded on strong motion accelerographs at Icy Bay (73 km distant), Munday Creek (92 km distant), and Yakutat (161 km distant), were 0.16 g, 0.06 g, and 0.09 g respectively.

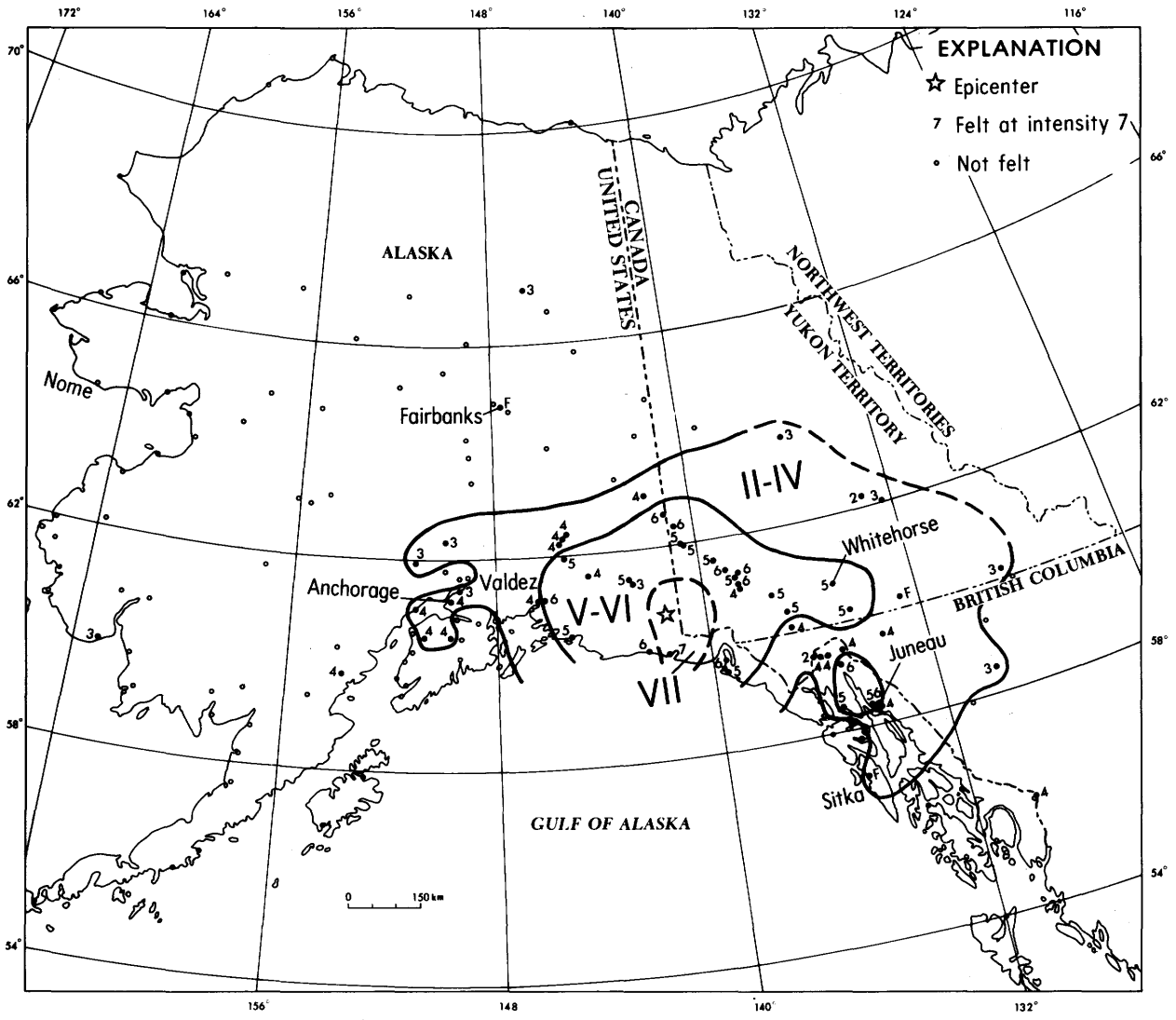

FIGURE 7.—Isoseismal map for the St. Elias earthquake of 28 February 1979, 21 27 06.1 UTC. Roman numerals represent Modified Mercalli intensities between isoseismals; Arabic numerals are used to represent these intensities at specific sites.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Alaska--Continued

Intensity VII:
United States--
Alaska--
Icy Bay Lumber Camp (A heavy logging truck on the road just west of the camp had just stopped when the earthquake was first felt. The motion bounced the truck sideways across the road so strongly that the driver was unable to descend from the truck. The reports from the camp described books shaken from shelves to the floor, minor cracking in a concrete slab floor, people had difficulty in standing, trees and bushes shaken strongly, overhead electric lines whipped back and forth.)

Intensity VI:
United States--
Alaska--
Border City (building foundation

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Alaska—Continued

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Alaska--Continued

cracked, plaster cracked, a wooden building on permafrost moved on its foundation).

Cape Yakataga (drywall cracked, a few windows cracked, small objects broken, hanging objects swung violently, some hanging pictures fell, trees and bushes shaken strongly, felt by all).

Haines (plaster cracked, heavy furniture and appliances shifted, cracks in the exterior concrete wall near the roof of the office of the Thunderbird Motel, small exterior cracks in the exterior wall of the bank).

Juneau Airport (deplaning passengers had difficulty standing and needed support to remain upright; in the terminal building a heavy desk was bounced away from a wall and back again; heavy fire extinguishers hanging on a wall swung about 15 cm).

Mendenhall subdivision--north of Juneau (many instances of cracked plaster, furniture shifted, and a double-width mobile home separated at the joint).

Valdez Airport--5 km east of Valdez (The terminal, which is an earthquake-resistant building, suffered no damage to exterior walls. There were many instances of cracked wallboard on the inside walls at corners, doorways, and windows. People in the terminal had difficulty standing and described the motion as long, slow, and rolling.).

Yakutat (The city hall on Monti Bay was shaken strongly enough to cause people to be nauseous and leave the building. Outside they had difficulty standing alone and had to hang onto each other to remain upright. Trucks near the building were rocked back and forth and open truck doors swung. There were many reports of parked cars being moved back and forth. Electric power lines were whipped back and forth. The concrete slab floor of a restaurant was cracked in two separate areas across its length.).

Canada--

Yukon Territory--

Beaver Creek (cracked plaster in the upper floor of a two-story house, hanging lamps swung violently, school teachers evacuated the school, cracks widened in the wall of the school along the base with numerous vertical cracks appearing, one well went dry for a day and a half).

Burwash Landing (people had difficulty in standing, dishes broken, liquid spilled, fresh cracks in the exterior walls of the Aeradio station building).

Destruction Bay (residents at the Talbot Arm Lodge reported that water splashed out of the kitchen sink, the canopy over the grill moved, cracks appeared in the plaster walls, and pictures swung).

Kluane Lake Fishing Camp (The owners noticed vertical motion of trees and vehicles and the log cabin walls whipped violently up and down. They left their cabin in a panic and were afraid that their truck would be overturned by the tremor. In the cabin, taxidermic displays fell and water splashed out of a large kettle on the stove.).

Intensity V:

United States--

Alaska--Auke Bay, Cordova, Gustavas, McCarthy, Yakatat Airport.

Canada--

Yukon Territory--Bayshore Esso, Carcross, Dezadeash, Haines Junction, Kluane Wilderness Village, Koidern, Whitehorse, White River.

Intensity IV:

United States--

Alaska--Anchorage, Chitina, Cooper Landing, Copper Center, Gakona, Glennallen, Gulkana (FAA Airport), Juneau, Klukwan, Northway, Pedro Bay, Skagway, Sterling, Tyonek, Valdez, 33 Mile Cafe.

Canada--

British Columbia--Atlin, Stewart.

Yukon Territory--Arctic Institute, DPW.

Intensity III:

United States--

Alaska--Chugiak, Kontiginak, May Creek, Skwentna, Talkeetna, Venetie.

Canada--

British Columbia--Dease Lake.

Yukon Territory--Mayo, Ross River, Watson Lake.

Intensity II:

Canada--

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Alaska—Continued

Yukon Territory—Customs, Faro.
Felt, but not enough data to evaluate the intensity:
United States--
Alaska--Fairbanks, Sitka.
Canada--
Yukon Territory—Teslin.

1 March (Z) Southeastern Alaska
Origin time: 07 08 53.7
Epicenter: 60.63 N., 141.24 W.
Depth: 11 km
Magnitude: 5.4 mb(G), 4.7 MS(G) 4.9 ML(Z), 5.3 ML(M)

Felt at Cape Yakataga (M).

2 March (Z) Southeastern Alaska
Origin time: 09 34 45.4
Epicenter: 60.38 N., 140.69 W.
Depth: 1 km
Magnitude: 5.4 mb(G), 5.2 ML(M), 5.0 ML(Z)

Felt at Cape Yakataga and Icy Bay Lumber Camp (M).

14 March (G) Cook Inlet
Origin time: 07 56 31.4
Epicenter: 59.79 N., 151.92 W.
Depth: 87 km
Magnitude: 3.4 mb(G)

Felt at Anchor Point and Homer (M).

14 March (G) Kenai Peninsula
Origin time: 13 31 34.5
Epicenter: 60.98 N., 149.39 W.
Depth: 41 km
Magnitude: 4.0 mb(G), 3.8 ML(M)
Intensity IV: Anchorage (M), Hope (M), Palmer (M).

24 March (G) Southern Alaska
Origin time: 18 37 41.8
Epicenter: 61.53 N., 149.93 W.
Depth: 52 km
Magnitude: None computed.

Felt in Anchorage area (M).

26 March Southern Alaska
Origin time: 23 11
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity III: Fish Lake (M), Talkeetna (M).

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Alaska—Continued

27 March (G) Andreanof Islands, Aleutian Islands
Origin time: 11 39 09.0
Epicenter: 51.82 N., 175.33 W.
Depth: 43 km
Magnitude: 5.0 mb(G), 4.4 MS(G)
Intensity IV: Adak (M).

27 March (G) Southern Alaska
Origin time: 18 38 42.2
Epicenter: 60.49 N., 148.98 W.
Depth: 26 km
Magnitude: 2.9 ML(M)

Felt at Girdwood and Portage. A snowslide was reported at Alyeska resort (M).

Arizona

15 March (P) Southern California
Origin time: 21 07 16.5

See California listing.

Arkansas

5 February (S) Northeastern Arkansas
Origin time: 05 31 09.3
Epicenter: 35.84 N., 90.08 W.
Depth: 14 km
Magnitude: 3.2 mbLg(T)
Intensity IV:
Arkansas--Blytheville, Manila.
Missouri--Whiteoak.
Intensity III:
Arkansas--Dell.
Intensity II:
Arkansas--Burdette.
Missouri--Arbyrd.
Tennessee--Tipton.

27 February Southeastern Arkansas
Origin time: 08 25
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity IV: Pine Bluff (two windows cracked), Moscow.

27 February (S) Northeastern Arkansas
Origin time: 22 54 54.0
Epicenter: 35.92 N., 91.24 W.
Depth: 9 km
Magnitude: 3.1 mbLg(S), 3.4 mbLg(T)

Arkansas—Continued

Intensity V:
Ravenden Springs (unconfirmed reports of slightly cracked streets, sidewalks, and brick fences; light furniture and small objects shifted).
Tuckerman (light furniture and small objects shifted).
Intensity IV: Alicia, Calamine, Cash, Cave City, Newark, O'Kean, Portia (telephone report), Poughkeepsie, Powhatan, Ravenden, Saffell, Smithville, Strawberry, Swifton.
Intensity III: Imboden.
Intensity II: Sulphur Rock, Walnut Ridge (telephone report), Weiner.

27 February (S) Northeastern Arkansas
Origin time: 22 55 12.0
Epicenter: 35.93 N., 91.24 W.
Depth: 10 km
Magnitude: None computed.
Intensity IV: Powhatan (S).

California

1 January (P) Southern California
Origin time: 23 14 38.9
Epicenter: 33.95 N., 118.68 W.
Depth: 11 km
Magnitude: 5.1 mb(G), 4.7 MS(GS), 5.0 ML(P), 4.9 ML(B)

The press reported a few broken store windows in the Malibu area, shattered store windows in Culver City at Exposition and Sepulveda Boulevard, one broken store window in Santa Monica, and cracked store windows in Buena Park and Seal Beach. The press also reported slight damage of unconfirmed type in North Hollywood and Toluca Lake areas. The California Highway Patrol reported a number of boulders fell onto Pacific Coast Highway in the Malibu area, closing one lane of the highway. Mud and boulders also fell across other roads in Malibu. The Los Angeles sheriff's office reported no injuries or damage except for objects falling from shelves and broken windows. California Institute of Technology recorded about 50 aftershocks by 5:30 p.m. local time. The earthquake was felt over an area of 21,500 sq km (fig. 8).

Porcella (1979) reported that 23 accelerograms were recovered for this earthquake in the Los Angeles and San Fernando Valley areas; 8 of these recorded peak accelerations greater than 5% g. Topanga Fire Station recorded the peak horizontal acceleration at 0.09 g at a distance of 20 km from the epicenter. Eleven additional accelerograms were recovered by the State of California.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California—Continued

Intensity VI:
Culver City (shattered store windows--press report).
La Mirada (plaster cracked; small objects and light furniture shifted; windows, doors, and dishes rattled; hanging pictures and lamps swung; felt by many).
La Verne (plaster cracked; windows, doors, and dishes rattled; hanging pictures swung; felt by many).
Malibu (few broken windows; boulders fell onto highway; mud and rock slides--press report).
Northridge (plaster cracked in interior walls; hairline cracks in exterior walls; light furniture and small objects shifted; hanging pictures swung; windows, doors, and dishes rattled; small landslides; felt by all).
Pacific Palisades (floor of home cracked; resident held a television on the stand to keep it from falling).
Santa Monica (one broken store window—press report).
Sherman Oaks (plaster cracked and broken; small objects shifted; hanging objects swung moderately; windows, doors, and dishes rattled; felt by many).
Studio City (interior walls cracked and split; hairline cracks in exterior walls; light furniture and small objects shifted; hanging objects swung moderately; windows, doors, and dishes rattled; felt by all).
Tustin (some windows broken; small objects shifted; hanging pictures swung; windows, doors, and dishes rattled; small landslides; cracks in wet ground; felt by many).
Venice (some windows broken; small objects broken; hanging pictures swung out of place; windows, doors, and dishes rattled; felt by many).
Woodland Hills (three-year-old post office showed cracks and chips of concrete broken off, felt by many).
Intensity V:
Agoura (light furniture shifted, small objects fell).
Beverly Hills (Near Beverly Boulevard and Santa Monica Boulevard, a man sitting

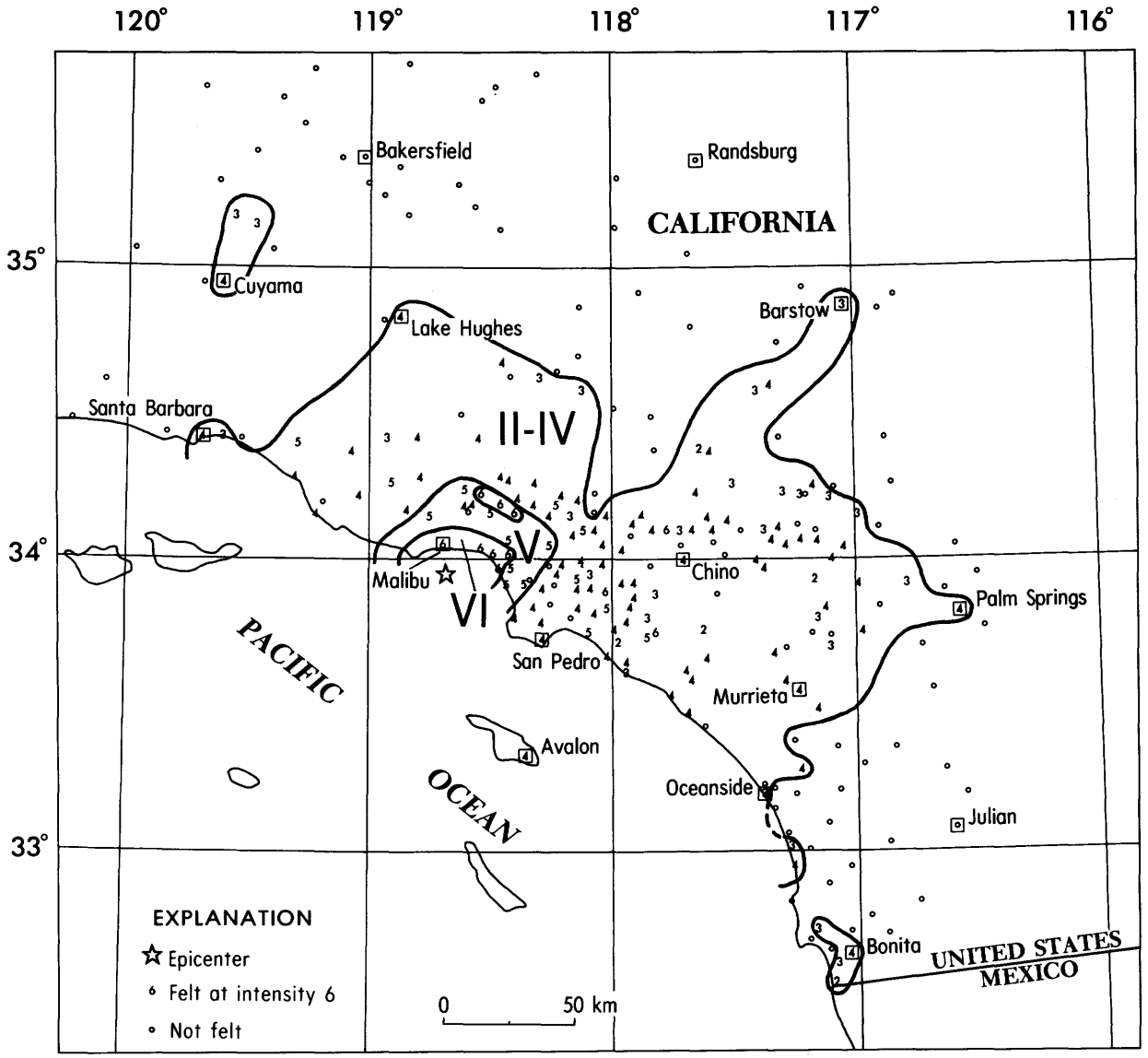

FIGURE 8.—Isoseismal map for the southern California earthquake of 1 January 1979, 23 14 38.9 UTC. Roman numerals represent Modified Mercalli intensities between isoseismals; Arabic numerals are used to represent these intensities at specific sites.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued
in a chair experienced movement of the chair in an east-west direction; at the same residence the metal shelf holders for the lower three shelves of the refrigerator were broken off.).
Buena Park (store windows cracked--press report).
Chatsworth (few windows cracked, felt by all).

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California—Continued
Cypress (report of a resident holding his television so that it would not be shaken from its stand, small objects fell).
Downey (small objects fell and broke, felt by all).
El Segundo (hairline cracks in exterior walls, felt by all).
Encino (light furniture and small objects

shifted, felt by all).
Hawthorne (small objects fell, small mudslides, felt by all).
Los Angeles (small objects fell, small landslides, felt by many).
Marina Del Rey (small objects fell, felt by many).
Montrose (light furniture shifted, felt by many).
Moorpark (light furniture shifted).
Oak View (light and heavy furniture shifted, felt by many).
San Gabriel (less than ten items fell from shelves in a grocery store, light furniture shifted, felt by many).
Santa Ana (few cracked windows, felt by all).
Seal Beach (store windows cracked, felt by many).

Intensity IV: Alhambra, Alta Loma, Altadena, Anaheim, Arcadia, Avalon, Azusa, Beaumont, Bellflower, Bonita, Bonsall, Brea, Bryn Mawr, Burbank, Calimesa, Camarillo, Canoga Park, Capistrano Beach, Carson, Chino, Colton, Costa Mesa, Cucamonga, Cuyama, Del Mar, Duarte, El Toro, Etiwanda, Fullerton, Garden Grove, Gardena, Glendale, Glendora, Granada Hills, Harbor City, Hemet, Huntington Beach, La Canada, La Habra, La Puente, Laguna Beach, Lake Arrowhead, Lake Elsinore, Lake Hughes, Lakeview, Lakewood, Lebec, Loma Linda, Lomita, Long Beach, Long Beach Veterans Hospital, Los Alamitos, Manhattan Beach, Mar Vista, Maywood, Mentone, Midway City, Mission Viejo, Monrovia, Montebello, Montecito, Mt. Baldy, Murrieta, Norwalk, Oro Grande, Pacoima, Palm Springs, Palos Verdes Estates, Panorama City, Phelan, Piru, Placentia, Port Hueneme, Redlands, Reseda, Riverside, Rosemead, Rossmoor, Rubidoux, San Bernardino, San Dimas, San Jacinto, San Pedro, Santa Barbara, Santa Paula, Saugus, Simi Valley, Skyforest, Solana Beach, South El Monte, South Gate, South Whittier, Sun Valley, Sunland, Sunset Beach, Surfside, Sylmar, Temecula, Temple City, Thousand Oaks, Torrance, Trabuco Canyon, Upland, Ventura, Whittier, Wildomar, Wilmington, Yucaipa.

Intensity III: Adelanto, Angelus Oaks, Barstow, Cabazon, Cardiff by the Sea, Chula Vista, Claremont, Crestline, Etiwanda (Rancho Cucamonga), Fellows, Fillmore, Laguna Hills, Leona Valley, Los Nietos, Los Serranos, Lytle Creek, Newport Beach, Nuevo, Oceanside, Orange, Palmdale, Pasadena, Rialto, Running Springs, San Diego, San Diego Navy Amphibious Base, Santa Fe Springs, Summerland, Taft, Twin Peaks, West Hollywood, Winchester, Yorba Linda.

Intensity II: Fountain Valley, Moreno, Nestor, Silverado, Wrightwood.

1 January (P) Southern California
Origin time: 23 22 14.3
Epicenter: 33.93 N., 118.70 W.
Depth: 12 km
Magnitude: 3.4 ML(P)

Felt at Malibu (P).

1 January (P) Southern California
Origin time: 23 29 25.0
Epicenter: 33.95 N., 118.67 W.
Depth: 2 km
Magnitude: 4.1 mb(G), 3.9 ML(P)

Felt at Downey, Malibu, Monrovia, and Pasadena (P).

1 January (P) Southern California
Origin time: 23 49 58.8
Epicenter: 33.93 N., 118.67 W.
Depth: 6 km
Magnitude: 3.7 ML(P)

Felt at Malibu (P).

2 January (P) Southern California
Origin time: 07 41 14.1
Epicenter: 33.95 N., 118.70 W.
Depth: 6 km
Magnitude: 3.7 ML(P)

Felt at Downey, Malibu, and the San Fernando Valley (P).

2 January (P) Southern California
Origin time: 18 16 31.4
Epicenter: 33.95 N., 118.70 W.
Depth: 15 km
Magnitude: 3.4 ML(P)

Felt at Malibu (P).

2 January (P) Southern California
Origin time: 22 29 57.9
Epicenter: 33.93 N., 118.68 W.
Depth: 6 km
Magnitude: 2.5 ML(P)

Felt at Malibu (P).

2 January (P) Southern California
Origin time: 22 43 27.1

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

Epicenter: 33.95 N., 118.68 W.
Depth: 11 km
Magnitude: 2.6 ML(P)

Felt at Malibu (P).

3 Janaury (P) Southern California
Origin time: 00 20 52.4
Epicenter: 33.90 N., 118.68 W.
Depth: 6 km
Magnitude: 2.8 ML(P)

Felt at Mailibu (P).

3 January (P) Southern California
Origin time: 16 54 16.5
Epicenter: 33.95 N., 118.70 W.
Depth: 11 km
Magnitude: 3.0 ML(P)

Felt at Malibu (P).

3 January (P) Southern California
Origin time: 20 00 43.0
Epicenter: 35.02 N., 119.13 W.
Depth: 5 km
Magnitude: 3.4 ML(P)
Intensity IV: Santa Barbara.
Intensity III: Bakersfield.

7 January (B) Central California
Origin time: 11 37 32.3
Epicenter: 36.10 N., 120.21 W.
Depth: 4 km
Magnitude: 3.9 mb(G), 3.8 ML(B), 3.9 ML(P)
Intensity IV: Avenal, Coalinga.
Intensity II: San Joaquin.

11 January (B) Central California
Origin time: 19 57 26.6
Epicenter: 37.00 N., 121.72 W.
Depth: 9 km
Magnitude: 3.1 ML(B)

Felt at Morgan Hill and Watsonville (B).

11 January (B) Central California
Origin time: 20 39 23.8
Epicenter: 37.39 N., 121.75 W.
Depth: 1 km
Magnitude: 3.6 ML(B)

Felt at San Jose and in the Santa Clara Valley (B).

Intensity IV: Blossom Hill, Cupertino.
Intensity III: Mount Hamilton.
Intensity II: Mission.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

13 January (P) Southern California
Origin time: 11 07 29.4
Epicenter: 33.95 N., 118.68 W.
Depth: 13 km
Magnitude: 2.8 ML(P)

Felt at Malibu (P).

15 January (P) Southern California
Origin time: 12 41 18.7
Epicenter: 33.97 N., 118.72 W.
Depth: 10 km
Magnitude: 3.7 ML(P)

Felt at Canoga Park, Malibu, North Hollywood, Pasadena, Santa Monica, Temple City, Woodland Hills (P).
Intensity IV: Rancho Park.

19 January (B) Central California
Origin time: 13 59 55.4
Epicenter: 37.34 N., 121.72 W.
Depth: 8 km
Magnitude: 3.1 ML(B)

Felt in east San Jose (B).

19 January (B) Owens Valley area
Origin time: 18 10 42.0
Epicenter: 37.55 N., 118.63 W.
Depth: 9 km
Magnitude: 4.1 ML(B), 4.2 ML(P)
Intensity IV: Benton, Big Creek, Bishop, Crowley Lake, Crowley Lake Dam, Tom's Place.
Intensity III: Grant Grove.

24 January (B) Owens Valley area
Origin time: 21 14 27.2
Epicenter: 37.52 N., 118.60 W.
Depth: 10 km
Magnitude: 4.6 ML(B), 4.4 ML(P)
Intensity IV:
California--Big Pine, Bishop Airport, Crowley Lake, Crowley Lake Dam, El Portal, Fresno (Ashlan Park), Groveland, Lakeshore, Lemoncove, Long Barn, Mammoth Lakes, Murphys, Yosemite Lodge.
Intensity III:
California--Bass Lake, June Lake, Sultana.
Intensity II:
California--Fresno.
Nevada--Tonopah.

29 January (P) Southern California
Origin time: 04 59 22.7
Epicenter: 33.95 N., 118.67 W.
Depth: 6 km

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

Magnitude: 3.1 ML(P)

Felt at Malibu (P).

5 February (B) Northern California
Origin time: 02 08 19.6
Epicenter: 37.77 N., 122.17 W.
Depth: 8 km
Magnitude: 2.7 ML(B)

Felt widely in the East Bay.

Intensity V: East Oakland (few windows broken--press report).
Intensity III: Oakland, San Leandro (press report).

5 February (B) Northern California
Origin time: 07 22 41.3
Epicenter: 37.32 N., 121.67 W.
Depth: 8 km
Magnitude: 3.4 ML(B)

Felt at San Jose (B).

12 February (P) Southern California
Origin time: 04 48 42.3
Epicenter: 33.45 N., 116.43 W.
Depth: 4 km
Magnitude: 4.2 ML(P)

This earthquake was felt over an area of approximately 12,300 sq km of Imperial, Orange, Riverside, San Diego, and San Bernardino Counties (fig. 9).

Intensity V:
Agua Caliente Springs (small objects fell; hanging objects swung moderately; windows, doors, and dishes rattled).
Palm Desert (report of cracked drywall; hanging pictures swung; windows, doors, and dishes rattled).
Intensity IV: Aguanga, Anza, Boulevard, Desert Hot Springs, El Cajon, Fallbrook, Idyllwild, Indio, Jamul, Julian, Lucerne Valley, Mecca, Mount Laguna, Mountain Center, Nestor, Palm Springs, Potrero, Ranchita, Salton City, Santa Ysabel, Santee, Thermal, Valley Center, Warner Springs, Winchester.
Intensity III: Cathedral City, Chula Vista, Coachella, Cuyamaca, Laguna Beach, Lincoln Acres, Lytle Creek, Nuevo, Rancho Del Rey, Riverside.
Intensity II: Escondido, San Diego (P), Santa Ana.

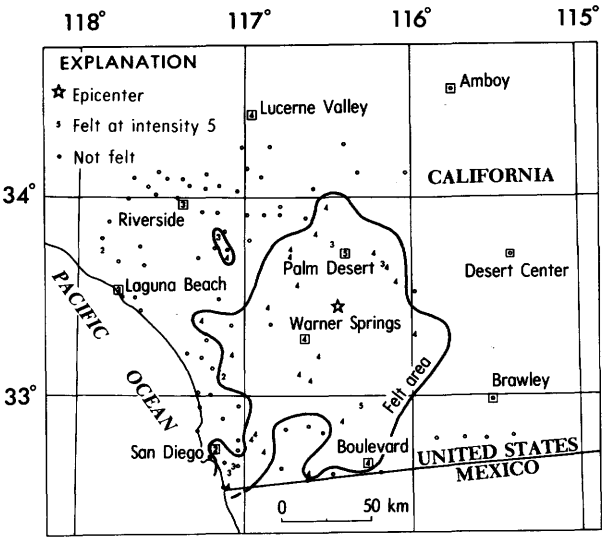

FIGURE 9.—Isoseismal map for the southern California earthquake of 12 February 1979, 04 48 42.3 UTC. Roman numerals represent Modified Mercalli intensities between isoseismals; Arabic numerals are used to represent these intensities at specific sites.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California—Continued

12 February (B) Central California
Origin time: 20 26 22.1
Epicenter: 36.66 N., 121.34 W.
Depth: 7 km
Magnitude: 3.6 ML(B)
Intensity IV: Hollister, Paicines.

15 February (P) Santa Barbara Channel
Origin time: 03 05 16.6
Epicenter: 34.27 N., 119.72 W.
Depth: 5 km
Magnitude: 3.5 ML(P)
Intensity III: Goleta-Santa Barbara area (press report).

15 February (P) Santa Barbara Channel
Origin time: 03 19 32.9
Epicenter: 34.27 N., 119.70 W.
Depth: 5 km
Magnitude: 3.4 ML(P)
Intensity III: Goleta-Santa Barbara area (press report).

21 February (B) Central California
Origin time: 12 56 47.9

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

Epicenter: 37.83 N., 121.77 W.
Depth: 12 km
Magnitude: 3.5 ML(B)
Intensity IV: Brentwood (Marsh Creek Trailer Park), Clayton, Livermore.

22 February (B) Northern California
Origin time: 15 57 28.8
Epicenter: 40.00 N., 120.09 W.
Depth: 5 km
Magnitude: 5.0 mb(G), 4.6 MS(G), 5.3 ML(B)

The epicenter was located in the southeast portion of Honey Lake Valley of Lassen County. It was preceded by a foreshock at 07 16 56.1 UTC and followed by aftershocks that lasted until February 23. The largest aftershock occurred on the 23rd at 03 40 52.2 UTC. Bryant (1979) indicates that this region has a history of earthquakes of this magnitude extending back to 1875. This earthquake caused only minor damage in the epicentral area and disrupted telephone service. It was felt over an area of approximately 46,000 sq km of California and Nevada (fig. 10).

Intensity VI: Doyle (drywall cracked; desks moved; small objects shifted; hanging pictures swung out of place; windows, doors, and dishes rattled; felt by all).
Intensity V:
Each place listed below reported one or more effects such as small objects or pictures fell, light or heavy furniture moved, hairline cracks in exterior walls:
California--Chilcoot, Clio, Cromberg, Portola, Sattley, Sierraville, Vinton.
Intensity IV:
California--Alleghany, Alta, Arnold, Baxter, Beale AFB, Beckworth, Berry Creek, Blairsden, Calpine, Camino, Camptonville, Chicago Park, Crescent Mills, Dobbins, Downieville, Dutch Flat, Emigrant Gap, Fiddletown, Forbestown, Foresthill, Glencoe, Gold Run, Goodyears Bar, Graeagle, Greenville, Grimes, Grizzly Flats, Herlong, Iowa Hill, Janesville, Keddie, Kyburz, La Porte, Loyalton, Milford, Nevada City, Norden, Oroville, Pollock Pines, 10 km east of Sheridan, Sierra City, Smithflat, Soda Springs, Spring Garden, Standish, Strawberry Valley, Washington, Weimar, Wendel, Westwood.
Nevada--Carson City, Fernley, Genoa, Gerlach, Incline Village, Nixon, Reno, Silver City, Silver Springs, Sparks, Verdi.
Intensity III:
California--Clipper Mills, Quincy, Robbins, Sacramento, Sheep Ranch, Storrie, Taylorsville, Twin Bridges.
Nevada--French Gulch.
Intensity II:
California--Murphys, Pacific House.
Nevada--Empire, Minden, Wadsworth.

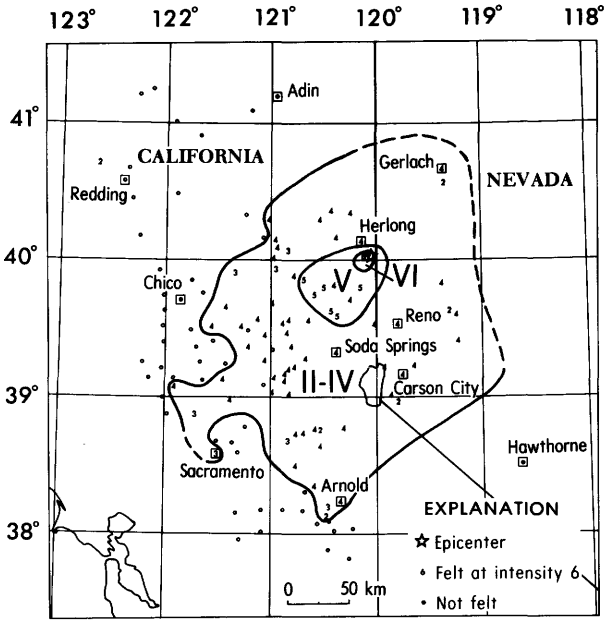

FIGURE 10.—Isoseismal map for the northern California earthquake of 22 February 1979, 15 57 28.8 UTC. Roman numerals represent Modified Mercalli intensities between isoseismals; Arabic numerals are used to represent these intensities at specific sites.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

27 February (P) Southern California
Origin time: 07 07 38.6
Epicenter: 33.95 N., 118.32 W.
Depth: 5 km
Magnitude: 3.0 ML(P)

Felt at Inglewood, Hawthorne, Lawndale, and downtown Los Angeles (P).

Intensity IV: El Segundo, Los Angeles.
Intensity III: Southgate.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

27 February (P) Central California
Origin time: 15 36 32.4
Epicenter: 36.08 N., 119.95 W.
Depth: 5 km
Magnitude: 3.3 ML(P)
Intensity IV: Avenal.

1 March (P) Southern California
Origin time: 12 26 03.4
Epicenter: 34.32 N., 118.35 W.
Depth: 5 km
Magnitude: 2.3 ML(P)

Felt at Woodland Hills (P).

5 March (P) Southern California
Origin time: 10 49 31.0
Epicenter: 33.95 N., 118.70 W.
Depth: 13 km
Magnitude: 3.7 ML(P)

Felt in the Los Angeles Basin and at Pasadena (P). Also felt at Malibu and part of the San Fernando Valley (press report).

Intensity IV: Los Angeles.

5 March (P) Southern California
Origin time: 12 11 53.0
Epicenter: 34.37 N., 119.75 W.
Depth: 5 km
Magnitude: 2.8 ML(P)

Felt at Santa Barbara (P).

8 March (P) Southern California
Origin time: 18 21 37.8
Epicenter: 34.12 N., 118.33 W.
Depth: 4 km
Magnitude: 2.0 ML(P)

Felt in the downtown area of Los Angeles (P).

11 March (P) Southern California
Origin time: 10 54 31.9
Epicenter: 33.70 N., 116.77 W.
Depth: 5 km
Magnitude: 3.0 ML(P)

Felt at Idyllwild (P).

12 March (B) Central California
Origin time: 12 06 09.6
Epicenter: 37.57 N., 121.69 W.
Depth: 7 km
Magnitude: 3.2 ML(B)

Felt near Pleasanton (B).

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

15 March (P) Southern California
Origin time: 20 17 49.8
Epicenter: 34.30 N., 116.43 W.
Depth: 1 km
Magnitude: 5.0 mb(G), 4.9 MS(G), 5.3 ML(B), 4.9 ML(P)

This is the first earthquake of a series in this area. It was followed 50 minutes later by a larger event at 21 07 16.5. The damage and felt data could not be differentiated between the two earthquakes so the data are all listed below with the largest magnitude event. The third largest event at 23 07 58.4 was felt nearly as strongly as the two earlier earthquakes. Many of the aftershocks were felt in the epicentral area.

Felt in Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties (P).

15 March (P) Southern California
Origin time: 21 07 16.5
Epicenter: 34.32 N., 116.45 W.
Depth: 1 km
Magnitude: 5.5 mb(G), 5.6 MS(G), 5.7 ML(B), 5.2 ML(P)

This is the largest of a series of earthquakes in this area, the two largest occurring on this date. A surface rupture occurred in the Homestead Valley area (Hawkins and McNey, 1979) along the east bank of Pipes Wash and in three locations west of Pipes Wash fault. The maximum intensity of VII was observed at Landers where electric and telephone services were disrupted for several hours and moderate damage to buildings and their contents was reported (press report). This earthquake was felt over an area of approximately 76,800 sq km of California, Arizona, and Nevada (fig. 11).

Intensity VII:
California--
Landers (a chimney was knocked down, walls cracked, many windows broken, dishes and merchandise broken and strewn about throughout the area. The Halliday Liquor Store reported $1000 damage to merchandise (press report). Hawkins and McNey (1979) reported that a Franklin stove moved about 15 cm southwest and telephone poles moved about 7 cm northwest. In homes, items were thrown from shelves and cabinets to the floor and were broken.).

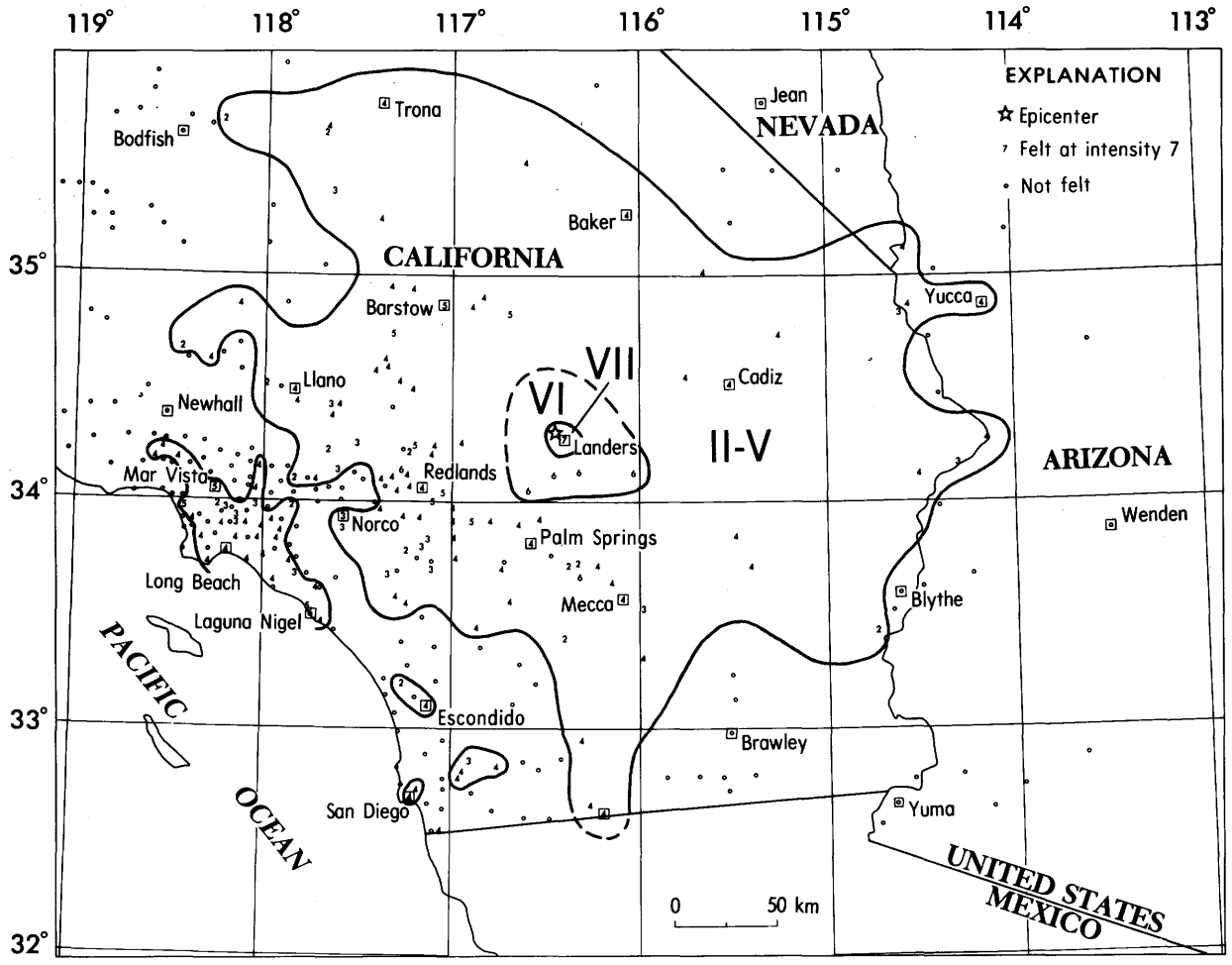

FIGURE 11.—Isoseismal map for the southern California earthquake of 15 March 1979, 21 07 16.5 UTC. Roman numerals represent Modified Mercalli intensities between isoseismals; Arabic numerals are used to represent these intensities at specific sites.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

Intensity VI:
California--
Del Rosa (plaster cracked in interior walls and hairline cracks in exterior walls, light furniture and small objects shifted, a few windows cracked, water splashed onto sides of pools, felt by many).
Joshua Tree (plaster cracked in interior walls and hairline cracks in exterior walls, small objects shifted, water splashed out of the Joshua Tree Inn's swimming pool, felt by all).
La Quinta (plaster cracked in interior walls, foundation cracked, hairline

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California—Continued

cracks in exterior walls, felt by many).
Laguna Niguel (plaster cracked and fell on the first and fourth floors of the Laguna Federal Building and a cinder block wall cracked on the first floor, felt by all).
Morongo Valley (plaster cracked in interior walls, hairline cracks in exterior brick walls, small objects shifted, felt by many).
Twenty-nine Palms (There were several reports of fallen plaster and overturned furniture. At the Marine Corps Station a beam cracked in a building and it was evacuated—press

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

report.).
Yucca Valley (The press reported the Flamingo Grocery Store lost a considerable amount of wine, soft drinks, and various glass items, and Von's Market had $500 damage due to broken bottles and jars.).

Intensity V:
California--Banning, Barstow, Calimesa, Helendale, Laguna Beach, Lake Arrowhead (one report of plaster walls cracked), Mar Vista, Marina Del Rey, Newberry Springs, Yucaipa.

Intensity IV:
Arizona--Bullhead City, Dolan Springs, Mohave Valley, Riviera.
California--Adelanto, Agua Caliente Springs, Aguanga, Alpine, Amboy, Anaheim, Angelus Oaks, Anza, Apple Valley, Arcadia, Argus, Baker, Beaumont, Boulevard, Bryn Mawr, Buena Park, Cabazon, Cadiz, Capistrano Beach, Cherry Valley, China Lake, Claremont, Compton, Costa Mesa, Cypress, Daggett, Del Rosa (San Bernardino), Desert Center, Eagle Mountain, El Cajon, El Monte, Escondido (press report), Essex, Fawnskin, Fort Irwin, George AFB, Gilman Hot Springs, Green Valley Lake, Hemet, Highland, Hinkley, Hollywood, Indio, Jacumba, Kelso, La Habra, Laguna Hills, Lakewood, Leona Valley, Lindbergh Field (San Diego), Llano, Loma Linda, Long Beach, Lost Lake, March AFB, Mecca, Mentone, Midway City, Moreno, Morongo Valley, Mountain Center, Murrieta, North Inglewood, North Palm Springs, Northridge, Norton AFB, Norwalk, Oro Grande, Palm Springs, Parker Dam, Phelan, Placentia, Redlands, Reseda, Rialto, Rimforest, Riverside, Rosamond, Running Springs, Salton City, San Bernardino (Downtown, Base Line, Westside), San Diego, San Diego (Naval Hospital), San Jacinto, San Pedro, San Ysidro, Santa Ana, Santee, Sherman Oaks, Sunnymead, Sunset Beach, Surfside, Thermal, Torrance, Trona, University City, Valyermo, Victorville (press report), Vidal, White Water, Wildomar, Wrightwood, Yermo.

Intensity III:
Arizona--Parker.
California--Alta Loma, Bailey, Bell, Bellflower, Corona, Earp, Encanto, Irvine, Johannesburg, Lake Elsinore, Lakeside, Lakeview, Lytle Creek, Maywood, Needles, Norco, North Shore, Nuevo, Oak View, Pinon Hills, Seal Beach, South Downey, Winchester.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

Nevada--Las Vegas.

Intensity II:
California--Arlington, Diamond Bar, Indian Wells, Lake Hughes, Littlerock, Los Angeles, Mt. Baldy, Onyx, Palm City, Palm Desert, Palo Verde, Perris, Randsburg, Ridgecrest, San Dimas, Twin Peaks, Vista, Whittier.

15 March (P) Southern California
Origin time: 21 34 25.5
Epicenter: 34.35 N., 116.45 W.
Depth: 1 km
Magnitude: 4.5 ML(P), 4.3 ML(B)

Felt in Los Angeles and San Bernardino Counties.

15 March (P) Southern California
Origin time: 23 07 58.4
Epicenter: 34.33 N., 116.43 W.
Depth: 5 km
Magnitude: 4.5 mb(G), 4.4 MS(G), 4.8 ML(P), 5.0 ML(B)

Felt in Los Angeles, Orange, Riverside, and San Bernardino Counties.

15 March (P) Southern California
Origin time: 23 16 38.1
Epicenter: 34.30 N., 116.43 W.
Depth: 1 km
Magnitude: 3.9 ML(P)

Felt in Los Angeles and San Bernardino Counties.

16 March (P) Southern California
Origin time: 05 54 00.5
Epicenter: 34.30 N., 116.43 W.
Depth: 2 km
Magnitude: 3.7 ML(P)

Felt at Landers (P).

16 March (P) Southern California
Origin time: 06 22 03.1
Epicenter: 34.32 N., 116.42 W.
Depth: 1 km
Magnitude: 2.4 ML(P)

Felt at Landers (P).

16 March (P) Southern California
Origin time: 06 40 18.8
Epicenter: 34.32 N., 116.42 W.
Depth: 3 km
Magnitude: 2.7 ML(P)

Felt at Landers (P).

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

16 March (P) Southern California
Origin time: 06 42 46.2
Epicenter: 34.30 N., 116.43 W.
Depth: 2 km
Magnitude: 3.0 ML(P)

Felt at Landers (P).

16 March (P) Southern California
Origin time: 07 06 33.0
Epicenter: 34.30 N., 116.43 W.
Depth: 1 km
Magnitude: 2.5 ML(P)

Felt at Landers (P).

16 March (P) Southern California
Origin time: 07 52 09.1
Epicenter: 34.32 N., 116.43 W.
Depth: 2 km
Magnitude: 3.5 ML(P)

Felt at Landers and Pasadena (P).

16 March (P) Southern California
Origin time: 09 33 49.6
Epicenter: 34.32 N., 116.43 W.
Depth: 1 km
Magnitude: 2.6 ML(P)

Felt at Landers (P).

16 March (P) Southern California
Origin time: 13 41 20.5
Epicenter: 34.32 N., 116.42 W.
Depth: 1 km
Magnitude: 2.8 ML(P)

Felt at Landers (P).

16 March (P) Southern California
Origin time: 14 10 57.5
Epicenter: 34.33 N., 116.40 W.
Depth: 1 km
Magnitude: 3.2 ML(P)

Felt at Landers (P).

16 March (P) Southern California
Origin time: 17 36 59.1
Epicenter: 34.33 N., 116.40 W.
Depth: 5 km
Magnitude: 4.0 ML(P), 4.1 ML(B)

Felt at Landers (P).

18 March (P) Southern California
Origin time: 22 53 02.6
Epicenter: 34.22 N., 116.35 W.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Continued

Depth: 5 km
Magnitude: 4.2 ML(P), 4.1 ML(B)

Felt at Landers and Joshua Tree (P).

Intensity III: Morongo Valley.

26 March (P) Southern California
Origin time: 15 04 29.0
Epicenter: 34.87 N., 120.50 W.
Depth: 5 km
Magnitude: 2.8 ML(P)

Felt at Santa Maria (press report).

26 March (P) Southern California
Origin time: 15 22 23.5
Epicenter: 34.87 N., 120.50 W.
Depth: 10 km
Magnitude: 3.6 ML(P)
Intensity IV: Halycon, Orcutt, Santa Maria.

31 March (P) Off the Coast of Baja California
Origin time: 21 36 57.0
Epicenter: 31.80 N., 117.42 W.
Depth: 5 km
Magnitude: 4.3 mb(G), 4.7 ML(P)
Intensity IV: Ocean Beach.
Intensity III: San Diego (Lindbergh Field).
Intensity II: Escondido, San Diego Naval Air Station, University City.

California--Off the Coast

3 February (B) Northern California
Origin time: 09 58 16.0
Epicenter: 40.92 N., 124.42 W.
Depth: 22 km
Magnitude: 5.2 mb(G), 4.6 MS(G), 5.2 ML(B)

The press reported numerous store windows broken and merchandise spilled from shelves in the downtown areas of both Arcata and Eureka. Police responded to a number of burglar alarms set off by the quake. There was no damage to bridges reported. The earthquake was felt over an area of 11,200 sq km of Del Norte, Humboldt, Mendocino, Siskiyou, and Trinity Counties, California, and in southwestern Oregon near the California border (fig. 12).

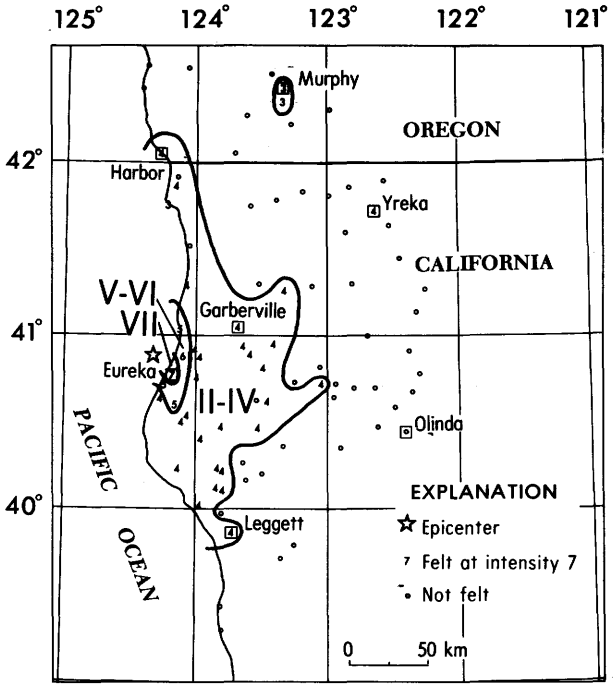

FIGURE 12.—Isoseismal map for the northern California earthquake of 3 February 1979, 09 58 16.0 UTC. Roman numerals represent Modified Mercalli intensities between isoseismals; Arabic numerals are used to represent these intensities at specific sites.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California—Off the coast--Continued

Intensity VII:
California—
Eureka (windows broken in office supply, furniture, insurance, and variety stores along Fifth Street in the downtown area. Many stores had merchandise spilled from shelves. The Safeway store at 930 W. Harris St. had an estimated $2000 damage due to broken glassware. Other stores in the area suffered the same type of damage plus ceiling tiles and light fixtures came down as well. The county courthouse had some broken windows on the second floor and cracks appeared on freshly painted walls. Three broken water mains were reported and a leak in a 6-inch low-pressure gas line. A city building inspector noted some additional damage to previously damaged masonry buildings on Fourth Street. A chimney on Myrtle Avenue fell with part of it crashing through the roof and part falling on a vehicle parked alongside--press report. There were reports of hairline cracks in exterior walls, plaster cracked and drywall, cracked and broken chimneys, felt by and awakened all, trees and bushes shaken moderately, and standing and moving vehicles rocked slightly.).

Intensity VI:
California—
Arcata (The press reported store windows broke in the downtown plaza and that some stores had shelves nearly emptied by the shaking. Liquor stores had considerable damage due to glassware falling and breaking. Other reports consisted of plaster cracked and drywall, small objects overturned and fell, hanging pictures fell, felt by all and many awakened.).

Intensity V:
California--
Fields Landing (furniture shifted, small objects overturned, hanging pictures swung, felt by and awakened many).
Fortuna (small objects fell; windows, doors, and dishes rattled; felt by and awakened many).
Trinidad (small objects fell; windows, doors, and dishes rattled; felt by and awakened many).
Westhaven (light furniture and small objects shifted, hanging pictures swung, felt by and awakened all).

Intensity IV:
California--Blue Lake, Bridgeville, Burnt Ranch, Carlotta, Denny, Forks of Salmon, Fort Dick, Fortuna, Garberville, Honeydew, Hoopa, Hyampon, Junction City, Kneeland, Korbel, Leggett, Loleta, Mad River, Miranda, Orick, Phillipsville, Redcrest, Redway, Rio Dell, Salyer, Scotia, Whitehorn, Willow Creek, Yreka.
Oregon--Brookings, Harbor.

Intensity III:
California--Crescent City.
Oregon—Grants Pass, Murphy.

18 March (B) Northern California
Origin time: 16 18 31.2

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

California--Off the coast--Continued

Epicenter: 40.34 N., 124.71 W.
Depth: 10 km
Magnitude: 4.0 mb(G), 4.1 ML(B)
Intensity IV: Ferndale (press report), Rio Dell, Scotia (press report)
Intensity III: Miranda.

Colorado

6 January (G) Central Colorado
Origin time: 01 58 55.3
Epicenter: 38.96 N., 105.16 W.
Depth: 5 km
Magnitude: 2.9 ML(G), 3.3 mbLg(T)
Intensity VI: Cripple Creek (plaster cracked; light furniture shifted; small objects fell; hanging pictures swung; windows, doors and dishes rattled; felt by many).
Intensity V: Florissant (Thirteen reports were received from Florissant and its adjoining rural areas which used the post office as a mailing address. Four were evaluated at intensity V and nine at intensity IV. Some of the effects listed were small and heavy furniture shifted, small objects and dishes fell, hanging pictures swung, windows and dishes rattled.
Intensity IV: Cascade, Divide (13 reports), Divide (Broken Wheel Village), Divide (Crescent Ranch), Divide (Highland Lakes), Guffy, Green Mountain Falls (ice cracked on two reservoirs on Pikes Peak Toll Road), Lake George, Royal Gorge, Victor, Woodland Park (six reports).
Intensity III: Pine.
Intensity II: Colorado Springs, Hartsel.

19 March (G) Northwestern Colorado
Origin time: 14 59 29.7
Epicenter: 40.18 N., 108.90 W.
Depth: 2 km
Magnitude: 3.1 ML(G), 3.3 ML(U)
Intensity IV: Rangely.

29 March (G) Northwestern Colorado
Origin time: 22 07 13.3
Epicenter: 40.27 N., 108.81 W.
Depth: 2 km
Magnitude: 2.6 ML(G)
Intensity IV: Rangely (light furniture and small objects shifted; windows, doors, and dishes rattled; felt by many).

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Hawaii

2 January (H) North of Maui Island
Origin time: 06 31 25.2
Epicenter: 20.95 N., 156.06 W.
Depth: 12 km
Magnitude: 3.5 ML(H)

Felt on Maui and Oahu Islands.

Intensity III: Haleakala National Park Headquarters, Hana, Kihei Heights, Kula, Maalaea, Makawao, Makena, Maui Meadows, Olinda, Pukalani, Ulupalakua, (all from press reports).
Intensity II: Windward of Oahu Island (H).

15 January (H) Island of Hawaii
Origin time: 07 12 36.5
Epicenter: 19.37 N., 155.08 W.
Depth: 9 km
Magnitude: 3.1 ML(H)
Intensity III: Hilo (H).

20 January (H) Island of Hawaii
Origin time: 00 19 15.4
Epicenter: 19.33 N., 155.20 W.
Depth: 10 km
Magnitude: 3.0 ML(H)
Intensity III: Pahala (H), Volcano (H).

3 February (H) Island of Hawaii
Origin time: 12 49 04.3
Epicenter: 19.34 N., 155.20 W.
Depth: 9 km
Magnitude: 3.5 ML(H)
Intensity III: Mountain View, Volcano.

14 February (H) Island of Hawaii
Origin time: 02 52 51.0
Epicenter: 19.34 N., 155.07 W.
Depth: 9 km
Magnitude: 3.9 ML(H)
Intensity IV: Hilo (H).
Intensity III: Hamakua (H), Puna (H), Volcano.
Intensity II: Ninole.

18 February (H) Island of Hawaii
Origin time: 14 45 44.1
Epicenter: 19.45 N., 155.48 W.
Depth: 11 km
Magnitude: 3.2 ML(H)
Intensity III: Pahala (H).

2 March (H) Island of Hawaii
Origin time: 12 27 18.2
Epicenter: 19.33 N., 155.11 W.
Depth: 10 km
Magnitude: 3.6 ML(H)

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Hawaii--Continued

Intensity III: Hilo (H), Papaikou (H), Mountain View (H).
Intensity II: Volcano (H).

6 March (H) Island of Hawaii
Origin time: 06 41 58.6
Epicenter: 19.35 N., 155.10 W.
Depth: 9 km
Magnitude: 3.3 ML(H)
Intensity III: Hilo (H), Volcano (H).

6 March (H) Island of Hawaii
Origin time: 12 59 50.1
Epicenter: 19.33 N., 155.12 W.
Depth: 10 km
Magnitude: 3.7 ML(H)
Intensity III: Greenwood (H), Hilo (H).
Intensity II: Volcano.

6 March (H) Island of Hawaii
Origin time: 15 07 58.5
Epicenter: 19.52 N., 155.27 W.
Depth: 27 km
Magnitude: 5.0 mb(G), 4.3 MS(G), 4.7 ML(H)

Felt on the islands of Hawaii, Maui, and Oahu (press report).

Intensity VI: Hilo (H).
Intensity V: Hamakua (H), Kona (H), Puna (H), Volcano (H).
Intensity IV: Captain Cook, Honokaa, Honomu, Kalaupapa, Kamuela (H), Kapaau, Kealakekua, Keeau, Kohala, Kualapuu, Kurtistown, Laupahoehoe, Mountain View, Naalehu, Ninole, Ookala, Paauhau, Pahala, Pahoa, Papaaloa, Pepeeko.

10 March (H) Island of Hawaii
Origin time: 13 55 14.6
Epicenter: 19.33 N., 155.11 W.
Depth: 10 km
Magnitude: 4.8 mb(G), 4.5 ML(H)
Intensity IV: Hilo (H), Puna (H), Volcano (H).
Intensity III: Hawaiian Ocean View Estates (H), Kona (H).

10 March (H) Island of Hawaii
Origin time: 14 54 49.3
Epicenter: 19.20 N., 155.68 W.
Depth: 7 km
Magnitude: 3.3 ML(H)
Intensity III: Hawaiian Ocean View Estates (H), Kali (H).

11 March (H) Island of Hawaii
Origin time: 10 14 56.5

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Hawaii--Continued

Epicenter: 19.29 N., 159.10 W.
Depth: 11 km
Magnitude: 3.4 ML(H)
Intensity III: Hilo (H), Keaau (H).

12 March (H) Island of Hawaii
Origin time: 03 28 05.2
Epicenter: 19.52 N., 155.28 W.
Depth: 24 Km
Magnitude: 3.4 ML(H)
Intensity III: Volcano (H).

13 March (H) Island of Hawaii
Origin time: 19 57 08.8
Epicenter: 19.35 N., 155.43 W.
Depth: 11 km
Magnitude: 3.5 ML(H)
Intensity III: Hawaiian Ocean View Estates (H), Pahala (H).
Intensity II: Hilo (H), Volcano (H).

15 March (H) Island of Hawaii
Origin time: 18 55 01.1
Epicenter: 19.37 N., 155.10 W.
Depth: 1 km
Magnitude: 3.4 ML(H)
Intensity III: Hilo (H).

15 March (H) Island of Hawaii
Origin time: 20 10 14.7
Epicenter: 19.38 N., 155.10 W.
Depth: 0 km
Magnitude: 3.4 ML(H)
Intensity III: Hilo (H).

20 March (H) Island of Hawaii
Origin time: 23 03 09.9
Epicenter: 19.35 N., 155.13 W.
Depth: 9 km
Magnitude: 3.3 ML(H)
Intensity III: Volcano (H).

22 March (H) Island of Hawaii
Origin time: 06 46 59.8
Epicenter: 20.10 N., 155.84 W.
Depth: 16 km
Magnitude: 4.5 ML(H), 4.6 mb(G)
Intensity V: Hawi, Kapaau.
Intensity IV: Honokaa, Honomu, Kamuela (H), Kohala (H), Laupahoehoe, Papaaloa, Ookala.
Intensity III: Hilo (H), Kona (H), Peepeekeo, Volcano (H).
Intensity II: Hakalau, Ninole.

26 March (H) Island of Hawaii
Origin time: 23 41 25.5
Epicenter: 19.35 N., 155.14 W.
Depth: 7 km

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Hawaii--Continued

Magnitude: 3.2 ML(H)
Intensity III: Hilo (H), Hawaii Volcanoes National Park (press report), Volcano (H).

28 March (H) Island of Hawaii
Origin time: 07 30 09.8
Epicenter: 20.09 N., 155.83 W.
Depth: 12 km
Magnitude: 4.9 ML(H)
Intensity V: Kamuela (H).
Intensity IV: Holualoa (H), Honokaa (H), Kawaihae (H), Kohala (H), Kona (H), Laupahoehoe (H).
Intensity III: Hilo (H), Volcano (H).

28 March (H) Island of Hawaii
Origin time: 07 34 44.9
Epicenter: 20.07 N., 155.82 W.
Depth: 10 km
Magnitude: 3.1 ML(H)

28 March (H) Island of Hawaii
Origin time: 15 54 50.6
Epicenter: 19.36 N., 155.08 W.
Depth: 9 km
Magnitude: 3.0 ML(H)
Intensity III: Hilo (H).

30 March (G) Southwest of Oahu
Origin time: 09 06 40.7
Epicenter: 20.65 N., 158.82 W.
Depth: 19 km
Magnitude: 4.7 mb(G), 3.9 MS(G), 5.5 ML(H)
Intensity V:
Oahu--
Kaimuki (light furniture and small objects moved; hanging pictures swung; windows, doors, and dishes rattled; felt by many).
Pearl City (light furniture and small objects moved; few windows cracked; pendulum clocks stopped; liquid spilled from small containers; felt by many).
Intensity IV:
Hawaii--Hawi, Honomu, Papaikou.
Kauai--Kealia, Koloa, Lawai, Lihue.
Maui--Hoolehua, Kualapuu.
Oahu--Aiea, Hickman AFB, Honolulu, Honolulu International Airport, Kaaawa, Kailua, Waimanalo, Waimea, Wainae.
Intensity III:
Kauai--Kekaha.
Oahu--University of Hawaii, Waikiki.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Hawaii--Continued

30 March (H) Island of Hawaii
Origin time: 22 56 21.1
Epicenter: 20.06 N., 155.83 W.
Depth: 22 km
Magnitude: 3.1 ML(H)
Intensity III: Spencer Beach Park.

Missouri

5 February (S) Northeastern Arkansas
Origin time: 05 31 09.3

See Arkansas listing.

Nevada

6 January (G) Central Nevada
Origin time: 01 20 35.1
Epicenter: 39.24 N., 116.38 W.
Depth: 5 km
Magnitude: 4.2 ML(B)
Intensity IV: Austin.
Intensity II: Yerington.

24 January (E) Southern Nevada
Origin time: 18 00 00.099
Epicenter: 37.10 N., 116.01 W.
Depth: 0 km
Magnitude: 4.5 mb(G), 4.5 ML(B)

Nevada Test Site explosion "Baccarat" at 37°06'19.48" N., 116°00'42.01" W., surface elevation 1338 m, depth of burial 326 m.

24 January (B) Owens Valley Area
Origin time: 21 14 25.9

See California Listing.

8 February (E) Southern Nevada
Origin time: 20 00 00.089
Epicenter: 37.10 N., 116.06 W.
Depth: 0 km
Magnitude: 5.5 mb(G), 4.1 MS(G), 5.2 ML(B)

Nevada Test Site explosion "Quinella" at 37°06'08.93" N., 116°03'17.43" W., surface elevation 1268 m, depth of burial 579 m.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Nevada--Continued

13 February (G) Northern Nevada
Origin time: 15 52 48.5
Epicenter: 40.93 N., 116.16 W.
Depth: 5 km
Magnitude: 4.1 mb(G), 3.6 ML(G)
Intensity IV: Carlin, Carlin Gold Mine.
Intensity III: Tuscarora.

15 February (E) Southern Nevada
Origin time: 18 05 00.164
Epicenter: 37.15 N., 116.07 W.
Depth: 0 km
Magnitude: 4.8 mb(G), 4.7 ML(B)

Nevada Test Site explosion "Kloster" at 37°09'07.24" N., 116°04'18.61" W., surface evelvation 1324 m, depth of burial 536 m.

22 February (B) Northern California
Origin time: 15 57 28.1

See California Listing.

14 March (E) Southern Nevada
Origin time: 18 30 00.095
Epicenter: 37.03 N., 116.04 W.
Depth: 0 km
Magnitude: 4.3 mb(G), 4.2 ML(B)

Nevada Test Site explosion "Memory" at 37°01'40.18" N., 116°02 23.10" W., surface elevation 1217 m, depth of burial 366 m.

15 March (P) Southern California
Origin time: 21 07 16.5

See California Listing.

18 March (G) Central Nevada
Origin time: 21 06 11.0
Epicenter: 39.25 N., 116.36 W.
Depth: 5 km
Magnitude: 3.5 ML(G)
Intensity IV: Austin.

New Jersey

30 January (L) Central New Jersey
Origin time: 16 30 52.1
Epicenter: 40.32 N., 74.26 W.
Depth: 5 km
Magnitude: 3.5 mbLg(L), 3.3 mbLg(V)

The press reported the earthquake was felt from southwest of Trenton, New Jersey, to the middle of Fairfield County, Connecticut, a distance of 160 km; and extended over an area of approximately 2,800 sq km (fig. 13). In New Jersey, people made thousands of frightened calls to local police in Marlboro, Matawan, and Middlesex Counties complaining of shaking walls and rattling dishes. In New York City, the police were flooded with calls from Brooklyn, Manhattan, and Staten Island residents.

Intensity V:
New Jersey--
Cheesequake (a foot-long crack in the exterior wall of an elementary school building, objects fell from shelves, shaking described as being so strong that the building seemed as if it would fall, everyone ran into the streets--press report).
Cranbury (light furniture and small objects shifted, buildings trembled).
Middletown (a few windows cracked; hanging pictures swung out of place; buildings creaked and shook; windows, doors, and dishes rattled; standing and moving vehicles rocked slightly; felt by many).
Milltown (light furniture and small objects shifted; hanging pictures swung; windows, doors, and dishes rattled; standing and moving vehicles rocked slightly).
New York--
Rockville Centre (light furniture and small objects shifted; buildings creaked and shook; windows, doors, and dishes rattled; felt by many).
Intensity IV:
New Jersey--Allentown, Avenel, Browntown, Carteret, Cliffwood, Colts Neck, Dayton, East Keansburg, Edison, Elizabeth, Englishtown, Ewan, Freehold, Helmetta, Hightstown, Holmdel, Iselin, Keasbey, Keyport, Lake Hiawatha (press report), Laurence Harbor, Lincroft, Linden, Marlboro, Matawan, Mays Landing, Morganville, New Brunswick, North Bergen (press report), Parlin, Perth Amboy, Sayreville, Sewaren, South Amboy, South Plainfield, South River, Spotswood, Tennent, Thorofare, Wickatunk, Woodbridge.
New York--Brooklyn (Bay Ridge--press report), Brooklyn (Bensonhurst--press

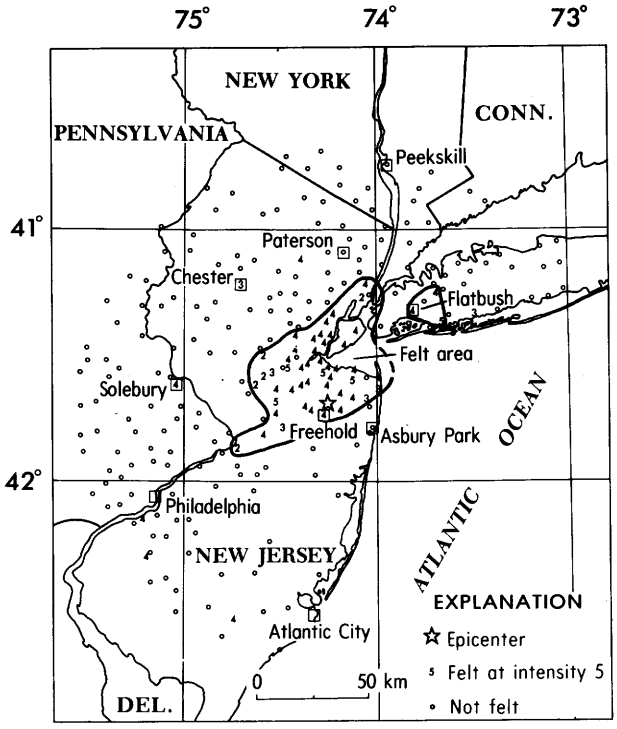

FIGURE 13.—Isoseismal map for the central New Jersey earthquake of 30 January 1979, 16 30 52.1 UTC. Roman numerals represent Modified Mercalli intensities between isoseismals; Arabic numerals are used to represent these intensities at specific sites.

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

New Jersey—Continued

report), Flatbush (press report), New Dorp (press report), New Hyde Park, Staten Island, Tottenville.
Pennsylvania--Solebury.

Intensity III:
New Jersey—Belford, Chester, Franklin Park, Hazlet, Little Silver, Rahway, Roosevelt, Sea Bright, Shrewsbury,
New York—Massapequa.

Intensity II:
New Jersey—Bordentown, East Millstone, Jamesburg, Jersey City, Kendall Park, Kingston.

2 February (L) Northern New Jersey
Origin time: 02 26 13.3
Epicenter: 40.77 N., 74.66 W.
Depth: 0 km
Magnitude: 1.9 mbLg(L)
Intensity III: Chester (press report).

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

New Jersey—Continued

23 February (L) Central New Jersey
Origin time: 10 23 57.2
Epicenter: 40.80 N., 74.81 W.
Depth: 13 km
Magnitude: 2.9 mbLg(L)
Intensity IV: Chester, Ironia.

10 March (L) Northern New Jersey
Origin time: 04 49 39.7
Epicenter: 40.72 N., 74.50 W.
Depth: 3 km
Magnitude: 3.1 ML(L)

Felt in Hunterdon, Middlesex, Morris, Somerset, and Union Counties. At Bernardsville a 1.3 cm wide crack was observed in a driveway (press report).

Intensity V: Basking Ridge (small objects and hanging pictures fell; windows, doors, and dishes rattled; felt by many).
Intensity IV: Bedminister, Bernardsville (press report), Chester, Far Hills, Gillette, Ironia, Liberty Corner, Middlesex, New Vernon, Peapack.
Intensity III: Bridgewater (press report), East Millstone, Gladstone, Tabor, Warren.
Intensity II: Avenal, Green Village, Rockaway.
Felt: Mendham (L), Morristown (L), New Brunswick (press report).

New York

30 January (L) Central New Jersey
Origin time: 16 30 52.1

See New Jersey Listing.

Oklahoma

13 March (T) Central Oklahoma
Origin time: 23 29 22.6
Epicenter: 35.42 N., 97.85 W.
Depth: 5 km
Magnitude: 1.7 mbLg(T)
Intensity II: Southwestern Yukon (T).

14 March (T) Central Oklahoma
Origin time: 03 10 56.8
Epicenter: 35.50 N., 97.83 W.
Depth: 5 km
Magnitude: 1.9 mbLg(T)

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Oklahoma—Continued

Intensity IV: Mustang (T), North and West Yukon (T).
Intensity III: Union City.

14 March (T) Central Oklahoma
Origin time: 04 37 15.3
Epicenter: 35.52 N., 97.78 W.
Depth: 5 km
Magnitude: 2.2 mbLg(T)
Intensity V: North and West Yukon (T).
Intensity IV: Mustang (T).
Intensity III: Union City (T).

18 March (T) Central Oklahoma
Origin time: 20 44 19.5
Epicenter: 35.38 N., 98.12 W.
Depth: 5 km
Magnitude: 2.9 mbLg (T)
Intensity III: 17 km West of Union City (T).

18 March (T) Southern Oklahoma
Origin time: 23 19 01.3
Epicenter: 34.10 N., 97.45 W.
Depth: 5 km
Magnitude: 2.3 mbLg(T)
Intensity III: 5 km South of Wilson.

Oregon

3 February (B) Northern California
Origin time: 09 58 16.1

See California listing.

11 March (W) Southwestern Washington
Origin time: 14 39 33.0

See Washington listing.

Pennsylvania

30 January (L) Central New Jersey
Origin time: 16 30 52.1

See New Jersey Listing.

South Carolina

19 January (G) Northwestern South Carolina
Origin time: 08 55 34.5
Epicenter: 34.71 N., 82.95 W.
Depth: 1 km
Magnitude: 2.8 mbLg(G)

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

South Carolina—Continued

The press reported that the earthquake rattled windows and shook walls in the Lake Keowee area prompting numerous telephone calls to local radio stations and police departments. It was reported felt at Clemson, Salem, Walhalla, and at the Oconee Nuclear Power Station.

Intensity IV: Newry, Seneca, Six Mile.

Tennessee

2 February (S) Western Tennessee
Origin time: 11 17 04.9
Epicenter: 36.27 N., 89.47 W.
Depth: 2 km
Magnitude: 2.0 mbLg(S)
Intensity III: Ridgely (S).

2 February (S) Western Tennessee
Origin time: 18 49 33.0
Epicenter: 36.26 N., 89.45 W.
Depth: 3 km
Magnitude: 1.9 mbLg(S)
Intensity II: Ridgely (S).

2 February (S) Western Tennessee
Origin time: 18 50 18.9
Epicenter: 36.27 N., 89.46 W.
Depth: 4 km
Magnitude: 2.0 mbLg(S)
Intensity III: Ridgely (S).

3 February (S) Western Tennessee
Origin time: 06 56 42.3
Epicenter: 36.26 N., 89.47 W.
Depth: 4 km
Magnitude: 2.0 mbLg(S)

Felt near Ridgely (S).

5 February (S) Northeastern Arkansas
Origin time: 05 31 09.3

See Arkansas listing.

Utah

12 January (U) Southwestern Utah
Origin time: 09 29 00.1
Epicenter: 37.73 N., 113.13 W.
Depth: 0 km
Magnitude: 3.5 ML(G)

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Utah—Continued

Southern Utah State College at Cedar City recorded about 50 aftershocks (press report).

Intensity IV: Cedar City, Parowan.

25 March (U) Northwestern Utah
Origin time: 21 41 55.7
Epicenter: 41.34 N., 113.29 W.
Depth: 7 km
Magnitude: 3.2 ML(U)

Felt in parts of Davis and Weber Counties.

Intensity III: Ogden (press report).
Intensity II: Salt Lake City (press report).

Vermont

29 January (L) Northwestern Vermont
Origin time: 06 35 46.2
Epicenter: 44.82 N., 73.19 W.
Depth: 9 km
Magnitude: 2.5 mbLg(L)
Intensity II: North Hero (J).

Washington

19 January (W) Central Washington
Origin time: 14 55 15.4
Epicenter: 47.92 N., 119.69 W.
Depth: 10 km
Magnitude: 3.6 ML(G), 3.9 ML(D)
Intensity V: Bridgeport (small objects fell; hanging pictures swung; windows, doors, and dishes rattled).
Intensity IV: Ardenvoir, Brewster, Chelan, Coulee Dam, Electric City, Grand Coulee, Marlin, Methow, Okanogan, Omak, Pateros, Twisp.
Intensity III: Entiat (press report), Manson.
Intensity II: Mansfield, Orondo.

21 January Central Washington
Origin time: 20 35
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity III: Brewster (press report), Bridgeport, Pateros (press report).

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Washington--Continued

1 February (W) Central Washington
Origin time: 20 18 28.2
Epicenter: 47.52 N., 121.92 W.
Depth: 8 km
Magnitude: 3.6 ML(G)
Intensity IV: Fall City, Mercer Island, Ravensdale, Renton, Snoqualmie.
Intensity III: Issaquah, Retsil.

11 March (W) Southwestern Washington
Origin time: 14 39 33.0
Epicenter: 46.46 N., 122.40 W.
Depth: 9 km
Magnitude: 3.8 mb(G), 3.8 ML(G).
Intensity VI:
Washington--Ariel (hairline cracks in exterior cinderblock wall, slightly cracked sidewalks and brick walls, chimneys cracked).
Intensity V:
Washington--Castle Rock (few cracked windows--press report).
Intensity IV:
Oregon--Portland.
Washington--Ashford, Chehalis, Cinebar, Cougar, Eatonville, Kelso, La Grande, Lexington (press report), Longview, Morton, Mossyrock, Olympia, Onalaska, Randle, Rochester, Ryderwood, Salkum, Silver Creek, Silverlake, Toledo, Winlock.
Intensity III:
Oregon--Clatskanie (press report).
Washington--Woodland (press report).

12 March (W) Northwest Washington
Origin time: 12 41 36.1
Epicenter: 48.20 N., 122.76 W.
Depth: 26 km
Magnitude: 3.8 mb(G), 3.4 ML(G)
Intensity V:
Washington--Oak Harbor (few broken dishes and cracked windows--press report, light furniture and small objects shifted, felt by many).
Intensity IV:
Washington--Chimacum, Clearlake, Clinton, Conway, Coupeville, Edmonds, Freeland, Friday Harbour (press report), Hadlock, Hansville, La Conner, Langley, Lyman, Marysville, Mount Vernon, Port Ludlow, Port Townsend, Poulsbo, Silvana, Stanwood.
Intensity III:
Washington--Gold Bar, Nordland, Sultan.
Canada--Victoria, British Columbia.
Felt at Everett (W), Snohomish (W), Mt. Vernon (W), and Kenmore(W).

Table 2.--*Summary of macroseismic data for U.S. earthquakes, January-March 1979*--Continued

Wyoming	
13 March	Yellowstone National Park
Origin time:	02 44
Epicenter:	Not located.
Depth:	None computed.
Magnitude:	None computed.
Intensity IV:	Old Faithful Ranger Station.
17 March	Yellowstone National Park
Origin time:	11 47
Epicenter:	Not located.
Depth:	None computed.
Magnitude:	None computed.
Intensity III:	Lake.
17 March	Yellowstone National Park
Origin time:	20 59
Epicenter:	Not located.
Depth:	None computed.
Magnitude:	None computed.
Intensity IV:	Lake.

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