GEOLOGICAL SURVEY CIRCULAR 749–B

Earthquakes in the United States, April–June 1975

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By W. J. Person, R. B. Simon, and C. W. Stover

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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 five maps, one photograph, and table 2, which lists detailed intensity information. The list of earthquakes in table 1 was compiled from those located in the United States or off the coasts that were published in the PDE; from hypocenters in California above magnitude 3.0, supplied by California Institute of Technology, Pasadena, and the University of California, Berkeley; 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.) The questionnaire (fig. 1A, B) is the latest revision of this form; it was not in use for earthquake-intensity evaluations for the years 1975-1976. An interim version of the form and an earlier version that had been in use since the 1930's were the basis for intensity evaluations throughout 1975. 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, Colo. 80225. Copies of the "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, NOAA, 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 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

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

EARTHQUAKE REPORT

Form Approved
OMB No. 42-R1700

Please answer this questionnaire carefully and return as soon as possible.

1. Was an earthquake felt by anyone in your town or zip code area recently?
   - ☐ Not felt: Please refold and tape for return mail.
   - ☐ Felt: 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☐☐
Continue on to next section which should include personal as well as reported observations.

COMMUNITY REPORT

Check one box for each question that is applicable.

3a. The earthquake was felt by	☐ No one	17☐ Few	18☐ Several	19☐ Many	20☐ All?
b. This earthquake awakened	☐ No one	21☐ Few	22☐ Several	23☐ Many	24☐ All?
c. This earthquake frightened	☐ No one	25☐ Few	26☐ Several	27☐ Many	28☐ All?

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

Parapets or cornices fallen	29☐ Yes	☐ No	
Trees and bushes shaken	30☐ Slightly	31☐ Moderately	32☐ Strongly
Standing vehicles rocked	33☐ Slightly	34☐ Moderately	35☐ Strongly
Moving vehicles rocked	36☐ Slightly	37☐ Moderately	38☐ Strongly
Ground cracks	39☐ Wet ground	40☐ Steep slopes	41☐ Dry and level ground
Landslides	42☐ Small	43☐ Large	
Underground pipes	44☐ Broken	45☐ Out of service	
Water splashed onto sides of lakes, ponds, swimming pools	46☐ Yes	☐ No	
Elevated water tanks	47☐ Cracked	48☐ Twisted	49☐ Fallen (thrown down)
Air coolers	50☐ Displaced	51☐ Rotated	52☐ Fallen
Railroad tracks bent	53☐ Slightly	54☐ Greatly	
Stone or brick fences	55☐ Cracked	56☐ Fallen	57☐ Destroyed
Tombstones	58☐ Displaced 61☐ Fallen	59☐ Cracked	60☐ Rotated
Chimneys	62☐ Cracked	63☐ Twisted	64☐ Fallen
	65☐ Broken at roof line		66☐ Bricks fallen
Highways or streets	67☐ Cracked slightly	68☐ Large cracks	69☐ Displaced
Sidewalks	70☐ Cracked slightly	71☐ Large cracks	72☐ Displaced

Continued on the reverse side

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

5. What indoor physical effects were noted in your community?

Windows, doors, dishes rattled	73 ☐ Yes	☐ No		
Buildings creaked	74 ☐ Yes	☐ No		
Building trembled (shook)	75 ☐ Yes	☐ No		
Hanging pictures	76 ☐ Swung	77 ☐ Out of place	78 ☐ Fallen	
Water in small containers	79 ☐ Spilled	80 ☐ Slightly disturbed		
Windows	81 ☐ Few cracked	82 ☐ Some broken	83 ☐ Many broken	

6a. Did hanging objects, doors swing? ☐ No 84 ☐ Slightly 85 ☐ Moderately 86 ☐ Violently

b. Can you estimate direction? ☐ No 87 ☐ North/South 88 ☐ East/West 89 ☐ Other

7a. Were small objects (dishes, knick-knacks, pictures) ☐ Unmoved 90 ☐ Shifted 91 ☐ Overturned 92 ☐ Fallen, not broken 93 ☐ Broken?

b. Was light furniture ☐ Unmoved 94 ☐ Shifted 95 ☐ Overturned 96 ☐ Fallen, not broken 97 ☐ Broken?

c. Were heavy furniture or appliances ☐ Unmoved 98 ☐ Overturned 99 ☐ Shifted 100 ☐ Broken?

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

Plaster	101 ☐ Cracked	102 ☐ Fell
Dry wall	103 ☐ Cracked	104 ☐ Fell
Ceiling tiles	105 ☐ Cracked	106 ☐ Fell

9a. Check below any damage to buildings or structures.

Foundation	107 ☐ Cracked		108 ☐ Destroyed	
Interior walls	109 ☐ Split	110 ☐ Fallen	111 ☐ Separated from ceiling or floor	
Exterior walls	112 ☐ Hairline cracks		113 ☐ Large cracks	114 ☐ Bulged outward
	115 ☐ Partial collapse		116 ☐ Total collapse	
Building	117 ☐ Moved on foundation		118 ☐ Shifted off foundation	

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

119 ☐ Wood 120 ☐ Stone 121 ☐ Brick veneer 122 ☐ Other
123 ☐ Brick 124 ☐ Cinderblock 125 ☐ Reinforced concrete

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

126 ☐ Don't know 127 ☐ Sandy soil 128 ☐ Marshy 129 ☐ Fill
130 ☐ Hard rock 131 ☐ Clay soil 132 ☐ Sandstone, limestone, shale

d. Was the ground: 133 ☐ Level 134 ☐ Sloping 135 ☐ Steep?

e. Check the approximate age of the building:

136 ☐ Built before 1935 137 ☐ Built 1935–65 138 ☐ Built after 1965

10a. What percentage of buildings were damaged?

Within 2 city blocks of your location ☐ None 139 ☐ Few (about 5%) 140 ☐ Many(about 50%) 141 ☐ Most (about 75%)

b. In area covered by your zip code ☐ None 142 ☐ Few (about 5%) 143 ☐ Many (about 50%) 144 ☐ Most (about 75%)

11a. Were springs or well water disturbed? 145 ☐ Level changed 146 ☐ Flow disturbed 147 ☐ Muddied ☐ Don't know

b. Were rivers or lakes changed? 148 ☐ Yes ☐ No ☐ Don't know

12a. Was there earth noise? ☐ No 149 ☐ Faint 150 ☐ Moderate 151 ☐ Loud

b. Direction of noise 152 ☐ North 153 ☐ South 154 ☐ East 155 ☐ West

c. Estimated duration of shaking 156 ☐ Sudden, sharp (less then 10 secs) 157 ☐ Long (30–60 secs) 158 ☐ Short (10–30 secs) 159 ☐ Other

13. What is the approximate population of your city/town? Or are you in a

160 ☐ Less than 1,000 161 ☐ 10,000 to 100,000 164 ☐ Rural area?
162 ☐ 1,000 to 10,000 163 ☐ Over 100,000

This community report is associated with what town or zip code? _____

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.

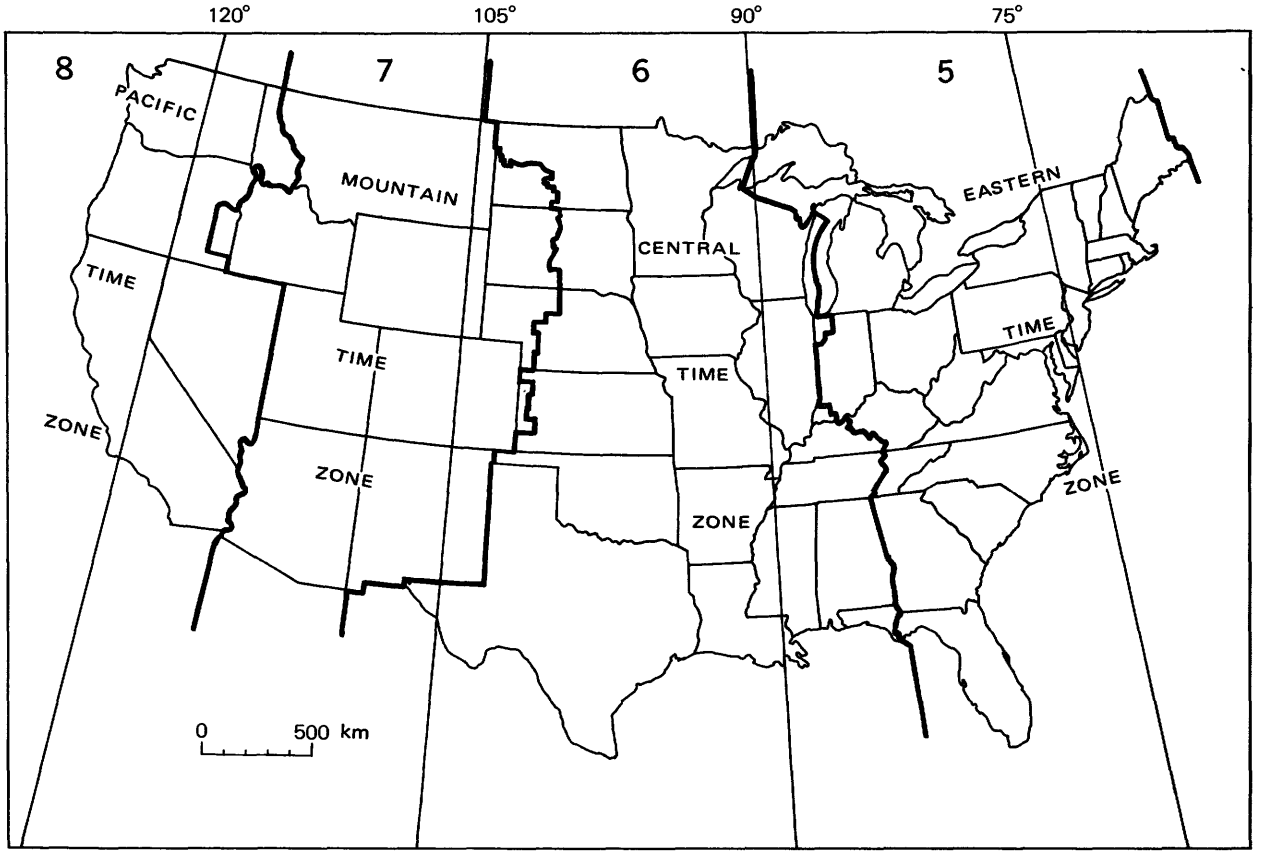

FIGURE 2.--Standard time zones of the conterminous United States. The number in each zone shows the number of hours to be subtracted from Universal Coordinated Time to convert to local standard time. (Subtract 1 hour less for local daylight-saving time.)

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 periods April-June 1975. 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:

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

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 horizontal surface-wave ground amplitude, in micrometers; T is the period, in seconds, and $18 \leq T \leq 22$; and D is the distance, in geocentric degrees (station to epicenter), and $20^\circ \leq D \leq 160^\circ$. No depth correction is made for depths less than 50 km.

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

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

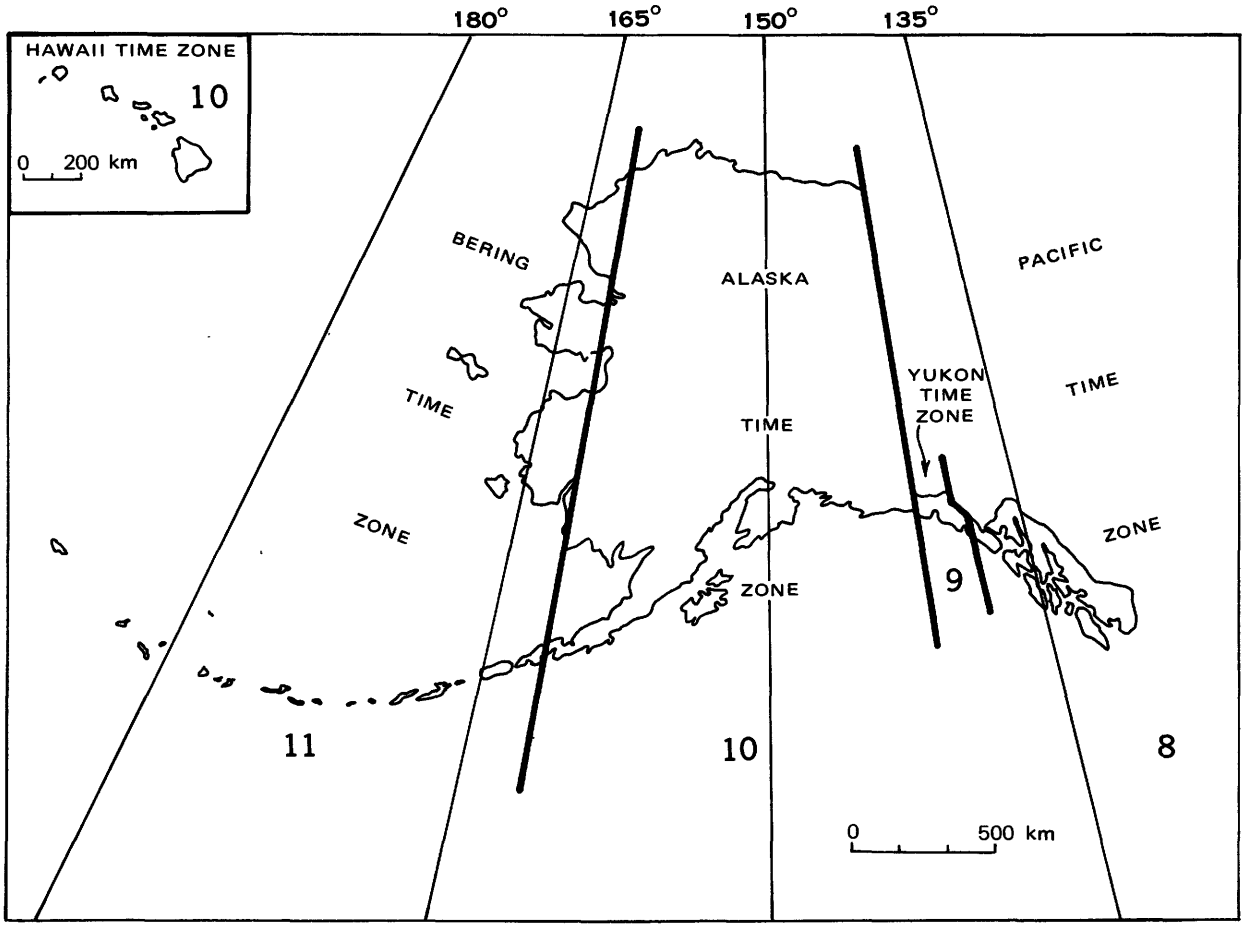

FIGURE 3.--Standard time zones of Alaska and Hawaii. The number in each zone shows the number of hours to be subtracted from Universal Coordinated Time to convert to local standard time. (Subtract 1 hour less for local daylight-saving time.)

P-wave group. Q is a function of distance D and depth h, where $D \geq 5°$.

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

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.

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

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

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 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 information are assigned an Intensity II. 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

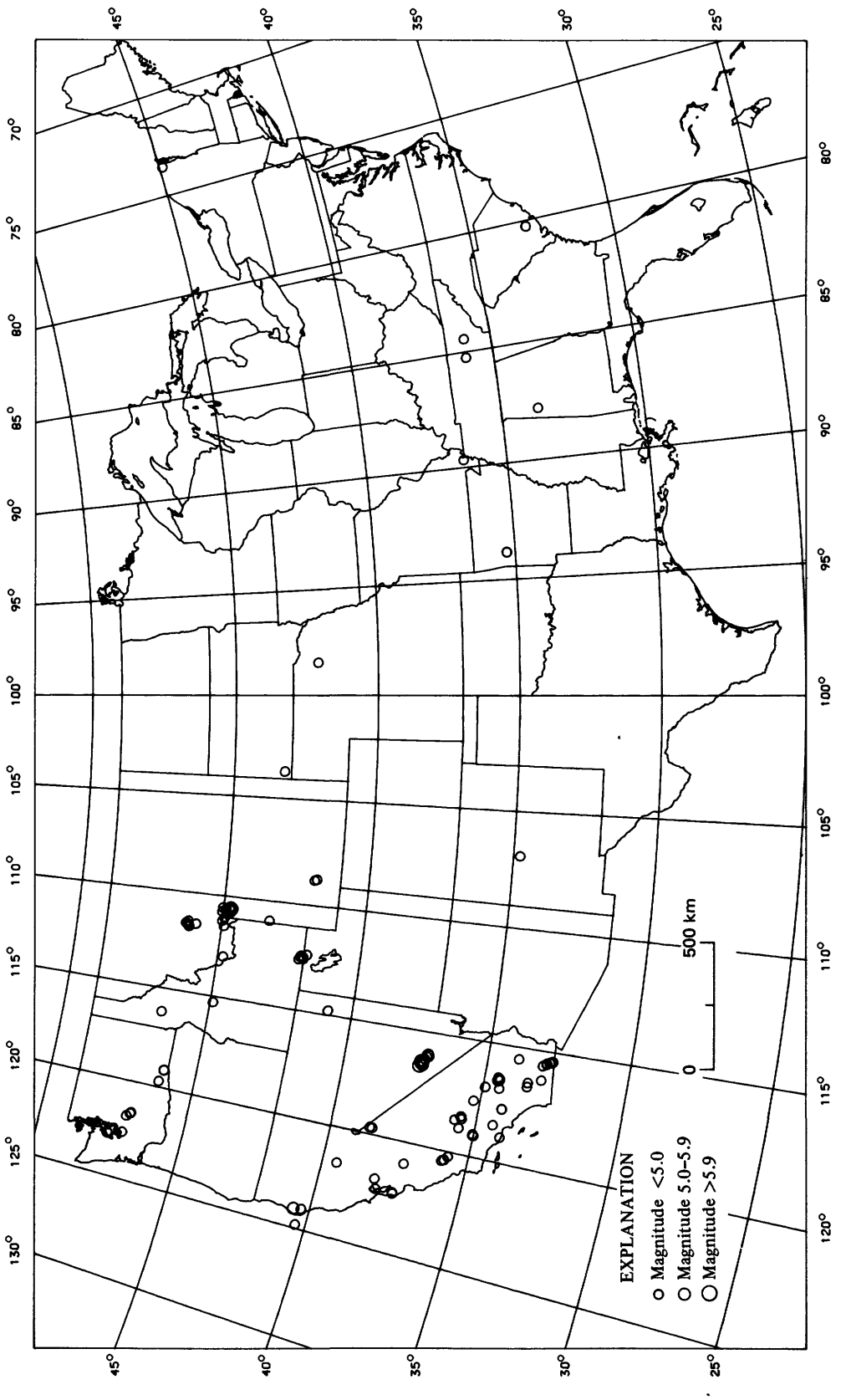

FIGURE 4.--Earthquake epicenters in the conterminous United States for April-June 1975, plotted from table 1.

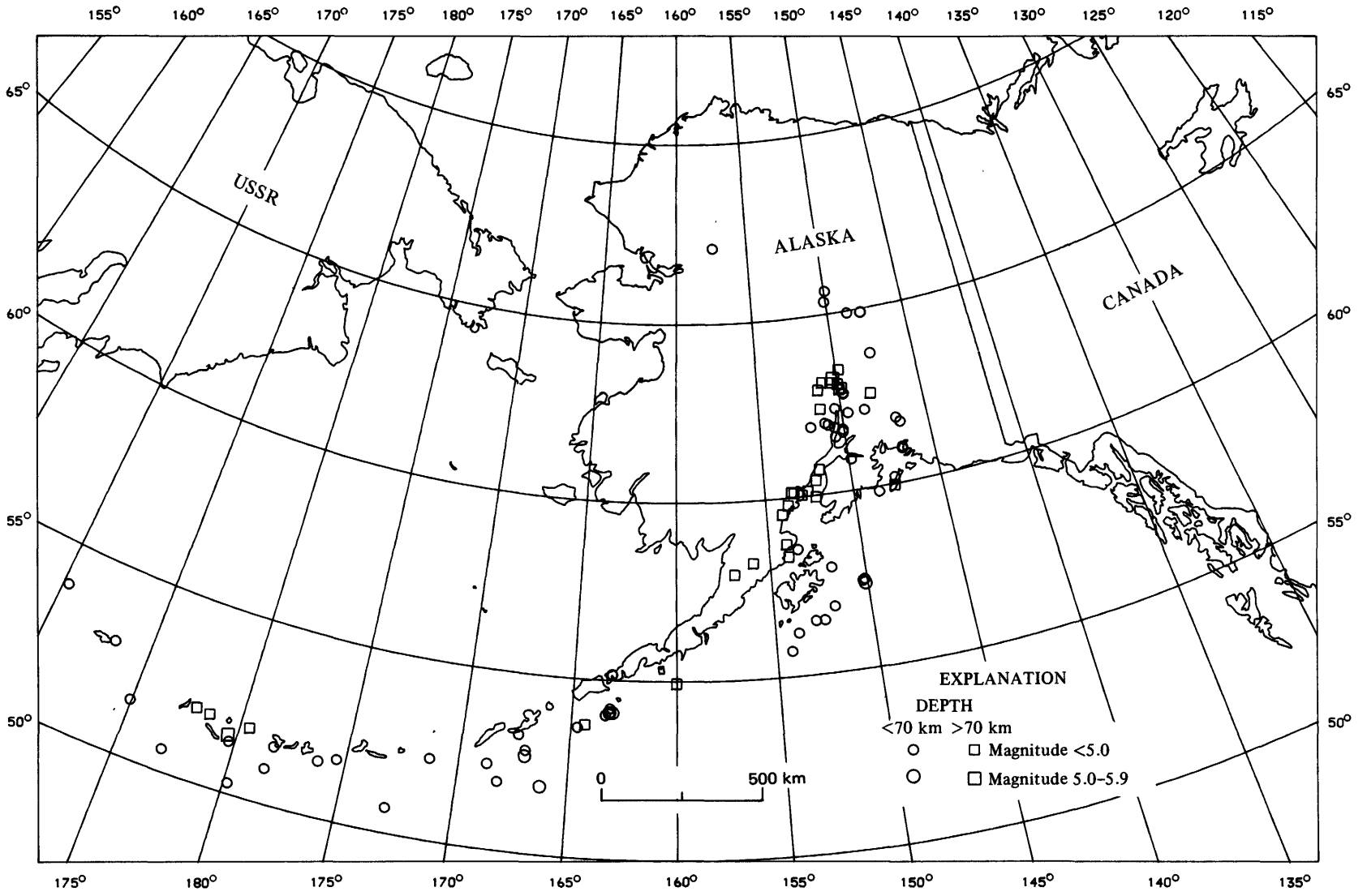

FIGURE 5.--Earthquake epicenters in Alaska for April-June 1975, plotted from table 1.

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.

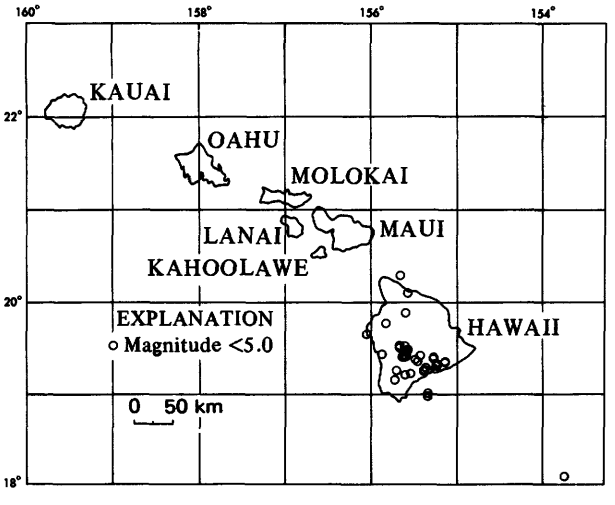

FIGURE 6.--Earthquake epicenters in Hawaii for April-June 1975, plotted from table 1.

Table 1.–*Summary of U.S. earthquakes for April-June 1975*

[Sources of the hypocenter and magnitudes: (A) U.S. Energy Research and Development Administration; (B) University of California at Berkeley; (G) U.S. Geological Survey, National Earthquake Information Service; (H) U.S. Geological Survey, Hawaiian Volcano Observatory; (L) Lamont-Doherty Geological Observatory, Palisades, New York; (M) NOAA, Palmer Observatory, Alaska; (P) California Institute of Technology, Pasadena; (S) St. Louis University, St. Louis, Missouri; (U) University of Utah, Salt Lake City; (W) University of Washington, Seattle. N, normal depth; UTC, Universal Coordinated Time. For local time zones, see figures 2 and 3. Leaders (...) indicate no information available]

Date (1975)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
ALABAMA													
JUNE 24	11	11	36.0	33.72 N.	87.84 W.	10	4.5	...	3.8O	IV	G	JUNE 24	05A.M. CST
ALASKA													
APR. 1	04	16	24.6	62.62 N.	148.11 W.	77	3.3	...	...	...	G	MAR. 31	06P.M. AST
APR. 2	14	43	21.9	51.62 N.	178.29 W.	62	4.9	...	...	III	G	APR. 2	03A.M. BST
APR. 5	03	34	40.2	56.22 N.	153.83 W.	59	4.3	...	...	...	G	APR. 4	05P.M. AST
APR. 6	14	05	26.3	61.93 N.	150.92 W.	33	...	...	3.0M	...	G	APR. 6	04A.M. AST
APR. 6	15	18	35.6	51.95 N.	178.54 E.	113	4.7	...	...	...	G	APR. 6	04A.M. BST
APR. 6	19	33	23.1	62.76 N.	149.72 W.	31	...	...	3.2M	...	G	APR. 6	09A.M. AST
APR. 7	22	13	46.1	61.56 N.	150.57 W.	11	3.6	...	3.0M	...	G	APR. 7	12P.M. AST
APR. 8	20	32	24.9	51.90 N.	166.21 W.	33N	5.4	...	...	...	G	APR. 8	09A.M. BST
APR. 11	10	47	15.3	54.10 N.	163.25 W.	20	5.5	5.2	...	IV	G	APR. 10	11P.M. BST
APR. 13	14	16	43.4	65.34 N.	150.09 W.	37	...	...	3.7M	IV	G	APR. 13	04A.M. AST
APR. 13	19	32	48.8	63.40 N.	149.79 W.	114	4.0	...	...	...	G	APR. 13	09A.M. AST
APR. 14	16	42	32.8	57.95 N.	156.94 W.	155	4.3	...	...	IV	G	APR. 14	06A.M. AST
APR. 14	20	53	41.2	62.20 N.	148.63 W.	65	...	...	...	...	G	APR. 14	10A.M. AST
APR. 15	20	40	22.5	52.01 N.	177.85 E.	140	4.4	...	...	...	G	APR. 15	09A.M. BST
APR. 16	09	01	39.7	64.93 N.	148.71 W.	29	...	...	3.8M	IV	G	APR. 15	11P.M. AST
APR. 16	16	21	10.9	54.95 N.	160.02 W.	122	3.8	...	...	...	G	APR. 16	06A.M. AST
APR. 17	08	05	08.5	61.91 N.	151.94 W.	33N	...	...	3.2M	...	G	APR. 16	10P.M. AST
APR. 17	12	20	24.0	52.26 N.	171.30 W.	35	4.3	...	...	...	G	APR. 17	01A.M. BST
APR. 18	02	50	...	NEAR ATTU ISLAND		..	..	...	...	...	.	APR. 17	03P.M. BST
APR. 18	08	52	32.6	61.81 N.	150.56 W.	41	3.5	...	3.0M	III	G	APR. 17	10P.M. AST
APR. 18	15	58	41.4	60.04 N.	152.91 W.	119	...	...	...	...	G	APR. 18	05A.M. AST
APR. 18	22	47	08.9	52.93 N.	173.34 E.	33N	4.6	...	...	...	G	APR. 18	11A.M. BST
APR. 19	00	25	58.9	58.71 N.	154.05 W.	124	...	...	...	...	G	APR. 18	02P.M. AST
APR. 19	15	45	16.0	61.68 N.	146.67 W.	53	...	...	...	...	G	APR. 19	05A.M. AST
APR. 19	19	17	52.5	54.20 N.	163.19 W.	49	4.7	...	...	...	G	APR. 19	08A.M. BST
APR. 21	07	25	18.3	62.92 N.	151.28 W.	119	3.7	...	...	...	G	APR. 20	09P.M. AST
APR. 22	16	14	...	NEAR COLD BAY		..	...	...	...	IV	.	APR. 22	06A.M. AST
APR. 29	23	25	...	NEAR FAIRBANKS		..	...	...	...	IV	.	APR. 29	01P.M. AST
APR. 29	23	26	...	NEAR FAIRBANKS		..	...	...	...	IV	.	APR. 29	01P.M. AST
APR. 30	07	08	00.1	51.40 N.	179.70 E.	48	5.2	4.9	...	...	G	APR. 29	08P.M. BST
MAY 1	18	47	56.0	52.71 N.	167.03 W.	17	5.1	...	...	...	G	MAY 1	07A.M. BST
MAY 1	19	01	40.7	53.29 N.	167.42 W.	33N	4.8	...	...	...	G	MAY 1	08A.M. BST
MAY 1	19	21	02.8	52.88 N.	167.01 W.	8	4.5	...	...	...	G	MAY 1	08A.M. BST
MAY 2	14	09	03.2	51.90 N.	168.15 W.	33N	4.9	...	...	...	G	MAY 2	03A.M. BST
MAY 2	21	25	57.2	51.58 N.	174.93 E.	33N	4.7	...	...	...	G	MAY 2	10A.M. BST
MAY 3	10	26	11.7	54.06 N.	163.25 W.	34	4.4	...	...	...	G	MAY 2	11P.M. BST
MAY 4	07	56	10.6	60.13 N.	153.35 W.	143	4.0	...	...	...	G	MAY 3	09P.M. AST
MAY 6	21	34	29.9	54.02 N.	163.43 W.	49	4.6	...	...	...	G	MAY 6	10A.M. BST
MAY 7	18	16	15.0	50.97 N.	178.45 W.	33N	4.2	...	...	...	G	MAY 7	07A.M. BST
MAY 8	00	59	56.0	56.51 N.	152.87 W.	33N	4.7	...	...	...	G	MAY 7	02P.M. AST
MAY 8	10	26	55.0	50.30 N.	179.81 W.	33N	4.8	...	...	...	G	MAY 7	11P.M. BST
MAY 10	04	27	15.6	50.60 N.	177.02 E.	33N	4.5	...	...	...	G	MAY 9	05P.M. BST
MAY 11	15	44	22.0	58.55 N.	153.44 W.	47	3.8	...	...	...	G	MAY 11	05A.M. AST
MAY 12	23	51	25.0	51.57 N.	176.22 W.	55	4.3	...	...	IV	G	MAY 12	12P.M. BST
MAY 14	16	11	01.9	53.64 N.	164.72 W.	9	4.0	...	...	...	G	MAY 14	05A.M. BST
MAY 15	10	55	58.3	50.70 N.	172.89 W.	33N	4.4	...	...	...	G	MAY 14	11P.M. BST
MAY 15	12	05	38.5	51.72 N.	175.42 W.	65	4.0	...	...	II	G	MAY 15	01A.M. BST
MAY 15	20	16	26.1	63.08 N.	150.44 W.	137	...	...	...	...	G	MAY 15	10A.M. AST
MAY 16	04	46	30.1	62.87 N.	149.96 W.	107	3.4	...	...	...	G	MAY 15	06P.M. AST
MAY 16	07	57	47.5	54.09 N.	163.09 W.	9	5.4	5.1	...	V	G	MAY 15	08P.M. BST
MAY 18	15	42	59.1	63.17 N.	150.26 W.	106	5.4	...	...	V	G	MAY 18	05A.M. AST
MAY 18	17	39	07.9	60.87 N.	149.83 W.	50	3.7	...	...	...	G	MAY 18	07A.M. AST
MAY 18	18	53	25.1	60.14 N.	152.55 W.	129	3.7	...	...	...	G	MAY 18	08A.M. AST
MAY 20	16	29	50.0	63.03 N.	150.00 W.	125	4.2	...	...	...	G	MAY 20	06A.M. AST
MAY 21	00	15	09.0	61.81 N.	146.86 W.	14	...	...	3.0M	...	G	MAY 20	02P.M. AST
MAY 21	06	34	54.9	60.18 N.	147.58 W.	35	4.8	4.7	4.7M	...	G	MAY 20	08P.M. AST
MAY 21	10	35	26.0	60.43 N.	152.03 W.	92	3.4	...	...	...	G	MAY 21	12A.M. AST
MAY 21	11	14	50.6	59.96 N.	147.65 W.	105	...	...	...	...	G	MAY 21	01A.M. AST
MAY 21	22	57	03.8	59.56 N.	154.11 W.	100	4.6	...	...	...	G	MAY 21	12P.M. AST
MAY 23	02	35	26.7	61.66 N.	150.07 W.	52	...	...	...	...	G	MAY 22	04P.M. AST

Table 1.—*Summary of U.S. earthquakes for April-June 1975*—Continued

Date (1975)	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													
MAY 23	08	13	23.1	67.10 N.	157.43 W.	33N	3.6	...	...	...	G	MAY 22	10P.M. AST
MAY 24	06	51	04.9	57.96 N.	151.75 W.	44	...	...	...	...	G	MAY 23	08P.M. AST
MAY 24	19	43	24.4	53.74 N.	164.37 W.	75	3.9	...	...	...	G	MAY 24	08A.M. BST
MAY 25	15	47	30.4	57.50 N.	150.12 W.	33N	4.6	4.8	4.4M	...	G	MAY 25	05A.M. AST
MAY 25	19	04	34.4	57.38 N.	150.12 W.	33N	5.6	5.4	5.7M	...	G	MAY 25	09A.M. AST
MAY 26	00	02	22.6	57.47 N.	150.23 W.	1	4.5	...	...	...	G	MAY 25	02P.M. AST
MAY 29	06	46	54.6	60.95 N.	146.82 W.	53	...	...	3.5M	...	G	MAY 28	08P.M. AST
MAY 29	08	56	21.5	62.73 N.	149.72 W.	61	3.5	...	...	...	G	MAY 28	10P.M. AST
MAY 31	00	40	07.5	62.34 N.	150.37 W.	33N	...	...	3.1M	...	G	MAY 30	02P.M. AST
MAY 31	23	35	21.8	58.24 N.	155.88 W.	129	4.6	...	...	...	G	MAY 31	01P.M. AST
JUNE 1	13	10	56.1	59.79 N.	153.75 W.	141	4.2	...	...	...	G	JUNE 1	03A.M. AST
JUNE 4	20	35	56.8	51.94 N.	179.58 W.	75	4.5	...	...	II	G	JUNE 4	09A.M. BST
JUNE 10	13	14	59.9	58.36 N.	153.95 W.	92	4.0	...	...	...	G	JUNE 10	03A.M. AST
JUNE 10	18	14	05.7	61.00 N.	146.81 W.	23	...	...	3.3M	...	G	JUNE 10	08A.M. AST
JUNE 11	05	14	08.2	62.16 N.	149.64 W.	59	4.3	...	...	II	G	JUNE 10	07P.M. AST
JUNE 14	21	24	39.6	53.84 N.	170.25 E.	60	4.8	...	...	...	G	JUNE 14	10A.M. BST
JUNE 15	07	53	57.0	51.58 N.	179.58 E.	80	5.1	...	...	...	G	JUNE 14	08P.M. BST
JUNE 17	08	53	56.7	60.72 N.	151.78 W.	115	3.5	...	...	...	G	JUNE 16	10P.M. AST
JUNE 17	14	48	10.6	59.97 N.	152.13 W.	96	3.8	...	...	...	G	JUNE 17	04A.M. AST
JUNE 18	08	30	37.8	56.49 N.	152.43 W.	13	4.8	4.0	...	...	G	JUNE 17	10P.M. AST
JUNE 18	19	15	41.4	56.87 N.	151.85 W.	30	4.5	...	...	...	G	JUNE 18	09A.M. AST
JUNE 22	18	07	11.3	62.88 N.	149.81 W.	118	...	...	...	...	G	JUNE 22	08A.M. AST
JUNE 22	21	39	58.0	63.73 N.	147.69 W.	33N	...	...	...	...	G	JUNE 22	11A.M. AST
JUNE 23	00	51	46.0	65.63 N.	149.93 W.	39	...	...	4.0M	...	G	JUNE 22	02P.M. AST
JUNE 24	07	15	03.2	60.16 N.	153.52 W.	139	...	...	...	...	G	JUNE 23	09P.M. AST
JUNE 24	12	15	31.3	63.10 N.	150.95 W.	133	4.0	...	...	...	G	JUNE 24	02A.M. AST
JUNE 26	07	59	27.2	52.37 N.	168.73 W.	37	5.1	4.5	...	...	G	JUNE 25	08P.M. BST
JUNE 26	11	54	37.9	55.72 N.	154.25 W.	1	4.5	...	4.2M	...	G	JUNE 26	01A.M. AST
JUNE 29	17	52	52.0	61.98 N.	151.06 W.	55	...	...	...	...	G	JUNE 29	07A.M. AST
JUNE 29	18	04	24.1	62.38 N.	151.25 W.	96	...	...	...	...	G	JUNE 29	08A.M. AST
JUNE 30	13	25	51.6	59.85 N.	148.57 W.	33N	...	...	3.3M	...	G	JUNE 30	03A.M. AST
JUNE 30	15	55	40.8	61.75 N.	150.04 W.	53	...	...	...	...	G	JUNE 30	05A.M. AST
ARKANSAS													
APR. 20	22	17	40.0	35.30 N.	93.80 W.	5	...	...	2.4S	...	G	APR. 20	04P.M. CST
CALIFORNIA													
APR. 4	04	30	...	NEAR ETIWANDA		..				III	.	APR. 3	08P.M. PST
APR. 4	04	45	...	NEAR ETIWANDA		..				III	.	APR. 3	08P.M. PST
APR. 4	18	53	31.3	32.98 N.	116.39 W.	8	...	...	2.6P	III	P	APR. 4	10P.M. PST
APR. 9	23	03	29.3	33.47 N.	116.47 W.	8	...	...	3.2P	...	P	APR. 9	03P.M. PST
APR. 10	15	27	16.6	35.56 N.	118.40 W.	7	...	...	2.9P	IV	P	APR. 10	07A.M. PST
APR. 11	21	06	06.2	34.08 N.	118.94 W.	15	...	...	3.3P	IV	P	APR. 11	01P.M. PST
APR. 17	09	18	33.8	35.77 N.	118.54 W.	10	3.6	...	4.0P	V	P	APR. 17	01A.M. PST
APR. 18	01	41	32.4	37.94 N.	122.32 W.	9	...	...	3.3B	V	B	APR. 17	05P.M. PST
APR. 19	18	46	13.0	33.00 N.	116.26 W.	16	3.8	...	3.7P	...	P	APR. 19	10A.M. PST
APR. 20	04	11	18.3	35.57 N.	118.38 W.	2	...	...	3.0P	II	P	APR. 19	08P.M. PST
APR. 26	16	20	51.3	34.93 N.	116.91 W.	8	...	...	3.3P	...	P	APR. 26	08A.M. PST
APR. 26	17	16	22.1	35.60 N.	118.92 W.	14	...	...	3.2P	...	P	APR. 26	09A.M. PST
APR. 26	18	32	32.4	33.45 N.	116.58 W.	11	...	...	3.3P	...	P	APR. 26	10A.M. PST
APR. 28	13	47	36.1	35.57 N.	118.37 W.	0	...	...	3.3P	...	P	APR. 28	05A.M. PST
APR. 29	17	35	33.6	35.52 N.	116.30 W.	5	...	...	3.0P	...	P	APR. 29	09A.M. PST
MAY 1	12	03	33.3	36.22 N.	120.92 W.	5	3.4	...	3.5P	...	P	MAY 1	04A.M. PST
MAY 2	10	49	34.0	34.93 N.	116.93 W.	8	...	...	3.3P	...	P	MAY 2	02A.M. PST
MAY 2	18	03	23.1	35.22 N.	117.63 W.	10	...	...	4.2P	III	P	MAY 2	10A.M. PST
MAY 5	01	30	14.5	38.55 N.	119.71 W.	2	...	...	3.2B	...	B	MAY 4	05P.M. PST
MAY 5	01	55	40.7	38.55 N.	119.72 W.	2	...	...	3.2B	...	B	MAY 4	05P.M. PST
MAY 5	06	29	55.1	38.64 N.	119.69 W.	5	...	...	3.7B	II	B	MAY 4	10P.M. PST
MAY 7	09	35	44.5	38.64 N.	119.69 W.	5	...	...	3.6B	...	B	MAY 7	01A.M. PST
MAY 13	00	21	35.6	35.00 N.	119.10 W.	19	4.6	...	4.5P	V	P	MAY 12	04P.M. PST
MAY 14	00	17	59.8	32.97 N.	115.58 W.	16	...	...	3.0P	...	P	MAY 13	04P.M. PST
MAY 21	21	54	44.8	32.87 N.	115.50 W.	15	...	...	3.2P	...	P	MAY 21	01P.M. PST
JUNE 1	01	21	22.3	34.52 N.	116.49 W.	5	...	...	3.3P	...	P	MAY 31	05P.M. PST
JUNE 1	01	35	54.9	34.52 N.	116.49 W.	5	...	...	3.4P	...	P	MAY 31	05P.M. PST
JUNE 1	01	38	49.2	34.52 N.	116.50 W.	4	5.1	...	5.2P	IV	P	MAY 31	05P.M. PST
JUNE 1	01	48	31.3	34.53 N.	116.49 W.	2	...	...	3.3P	...	P	MAY 31	05P.M. PST
JUNE 1	02	01	14.5	34.51 N.	116.48 W.	1	...	...	3.1P	...	P	MAY 31	06P.M. PST

Table 1.–*Summary of U.S. earthquakes for April–June 1975*–Continued

Date (1975)	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													
JUNE 1	02	51	52.5	34.50 N.	116.48 W.	4	...	...	3.0P	...	P	MAY 31	06P.M. PST
JUNE 1	03	58	22.1	34.50 N.	116.48 W.	3	...	...	3.0P	...	P	MAY 31	07P.M. PST
JUNE 1	04	26	48.5	34.50 N.	116.48 W.	8	...	...	3.0P	...	P	MAY 31	08P.M. PST
JUNE 1	04	57	45.2	34.50 N.	116.48 W.	4	...	...	3.2P	...	P	MAY 31	08P.M. PST
JUNE 1	05	00	59.9	34.52 N.	116.49 W.	6	...	...	3.2P	...	P	MAY 31	09P.M. PST
JUNE 1	05	13	23.8	32.85 N.	115.75 W.	8	...	...	3.2P	...	P	MAY 31	09P.M. PST
JUNE 3	21	53	47.8	34.50 N.	116.47 W.	0	...	...	3.3P	...	P	JUNE 3	01P.M. PST
JUNE 5	14	46	45.3	35.05 N.	119.00 W.	5	4.5	...	4.1P	V	G	JUNE 5	06A.M. PST
JUNE 6	01	00	25.5	34.52 N.	116.48 W.	5	...	...	3.5P	...	P	JUNE 5	05P.M. PST
JUNE 6	12	05	47.2	34.51 N.	116.49 W.	0	...	...	3.0P	...	P	JUNE 6	04A.M. PST
JUNE 7	08	46	22.4	40.57 N.	124.14 W.	21	5.4	5.7	5.2B	VII	G	JUNE 7	12A.M. PST
JUNE 7	11	01	33.2	40.31 N.	124.07 W.	33N	4.3	...	3.6B	...	G	JUNE 7	03A.M. PST
JUNE 7	16	13	51.7	33.88 N.	115.53 W.	1	...	...	3.1P	...	P	JUNE 7	08A.M. PST
JUNE 8	10	15	04.1	35.79 N.	120.30 W.	9	3.7	...	3.2P	...	P	JUNE 8	02A.M. PST
JUNE 14	12	56	17.9	36.60 N.	121.50 W.	8	...	...	3.5P	...	P	JUNE 14	04A.M. PST
JUNE 14	22	55	51.6	34.53 N.	116.49 W.	6	...	...	3.2P	...	P	JUNE 14	02P.M. PST
JUNE 16	21	22	28.3	32.78 N.	115.44 W.	15	...	...	3.0P	...	P	JUNE 16	01P.M. PST
JUNE 17	05	27	08.0	38.07 N.	121.88 W.	22	...	...	3.5B	II	B	JUNE 16	09P.M. PST
JUNE 17	11	49	56.1	32.78 N.	115.45 W.	17	3.4	...	3.4P	II	P	JUNE 17	03A.M. PST
JUNE 17	12	00	17.2	32.77 N.	115.43 W.	10	...	...	3.0P	...	P	JUNE 17	04A.M. PST
JUNE 18	17	50	19.7	37.19 N.	120.95 W.	2	...	...	4.1B	IV	B	JUNE 18	09A.M. PST
JUNE 19	15	23	52.2	34.43 N.	118.47 W.	15	...	...	2.8P	...	P	JUNE 19	07A.M. PST
JUNE 19	16	17	53.7	37.35 N.	122.31 W.	11	...	...	3.5B	IV	B	JUNE 19	08A.M. PST
JUNE 19	17	35	...	NEAR PALO ALTO		..	...	...	...	II	.	JUNE 19	09A.M. PST
JUNE 19	19	01	54.8	32.77 N.	115.42 W.	8	...	...	3.5P	...	G	JUNE 19	11A.M. PST
JUNE 19	20	19	13.3	32.76 N.	115.44 W.	12	...	...	3.0P	...	P	JUNE 19	12P.M. PST
JUNE 19	20	20	23.2	32.78 N.	115.45 W.	15	...	...	3.1P	...	P	JUNE 19	12P.M. PST
JUNE 20	00	19	48.7	32.76 N.	115.43 W.	11	...	...	3.0P	...	P	JUNE 19	04P.M. PST
JUNE 20	04	06	23.1	32.77 N.	115.44 W.	15	...	...	3.4P	...	P	JUNE 19	08P.M. PST
JUNE 20	04	13	18.2	32.76 N.	115.44 W.	8	4.3	...	3.9P	...	G	JUNE 19	08P.M. PST
JUNE 20	05	34	00.6	37.34 N.	122.32 W.	11	...	...	3.3B	II	B	JUNE 19	09P.M. PST
JUNE 20	05	48	21.8	32.76 N.	115.40 W.	10	4.3	...	4.2P	VI	G	JUNE 19	09P.M. PST
JUNE 20	08	16	17.7	37.33 N.	122.35 W.	14	...	...	3.3B	II	B	JUNE 20	12A.M. PST
JUNE 20	18	16	42.5	32.76 N.	115.44 W.	8	...	...	3.0P	...	P	JUNE 20	10A.M. PST
JUNE 20	22	15	38.8	32.76 N.	115.40 W.	10	4.3	...	4.1P	...	G	JUNE 20	02P.M. PST
JUNE 20	22	50	31.2	32.72 N.	115.40 W.	10	4.0	...	3.2P	...	G	JUNE 20	02P.M. PST
JUNE 21	02	55	28.6	32.77 N.	115.43 W.	8	3.9	...	3.6P	...	P	JUNE 20	06P.M. PST
JUNE 21	14	04	24.2	32.77 N.	115.44 W.	15	...	...	3.0P	...	P	JUNE 21	06A.M. PST
JUNE 21	21	22	04.1	34.45 N.	116.88 W.	6	...	...	3.1P	...	P	JUNE 21	01P.M. PST
JUNE 22	00	12	35.4	37.34 N.	122.33 W.	12	...	...	3.7B	...	B	JUNE 21	04P.M. PST
JUNE 22	02	36	12.6	32.89 N.	115.51 W.	10	...	...	3.2P	...	P	JUNE 21	06P.M. PST
JUNE 23	05	41	35.1	35.04 N.	119.05 W.	12	3.7	...	3.5P	...	P	JUNE 22	09P.M. DST
JUNE 28	04	19	53.1	39.49 N.	121.61 W.	6	4.1	...	3.6B	II	B	JUNE 27	08P.M. PST
JUNE 28	10	04	30.1	35.84 N.	120.39 W.	11	3.1	...	3.5B	...	B	JUNE 28	02A.M. PST
CALIFORNIA–OFF THE COAST													
MAY 7	02	35	28.6	40.38 N.	124.81 W.	24	4.5	...	4.2B	II	G	MAY 6	06P.M. PST
HAWAII													
APR. 2	01	30	45.2	19.43 N.	155.86 W.	9	...	...	3.0H	...	H	APR. 1	03P.M. HST
APR. 3	03	43	39.9	19.48 N.	155.56 W.	7	...	...	3.2H	...	H	APR. 2	05P.M. HST
APR. 3	04	07	53.4	19.49 N.	155.66 W.	7	...	...	3.3H	...	H	APR. 2	06P.M. HST
APR. 4	23	09	55.8	19.33 N.	155.23 W.	9	...	...	3.9H	III	H	APR. 4	01P.M. HST
APR. 4	23	35	17.3	19.32 N.	155.23 W.	9	...	...	3.5H	III	H	APR. 4	01P.M. HST
APR. 5	18	03	02.9	19.28 N.	155.38 W.	8	...	...	3.0H	...	H	APR. 5	08A.M. HST
APR. 5	20	24	09.6	19.28 N.	155.38 W.	7	...	...	3.5H	III	H	APR. 5	10A.M. HST
APR. 5	21	56	57.9	19.29 N.	155.37 W.	6	...	...	3.8H	III	H	APR. 5	11A.M. HST
APR. 6	22	15	55.3	19.32 N.	155.22 W.	8	...	...	3.8H	III	H	APR. 6	12P.M. HST
APR. 7	14	24	56.0	19.41 N.	155.59 W.	6	...	...	4.0H	...	H	APR. 7	04A.M. HST
APR. 8	00	39	29.2	19.28 N.	155.26 W.	8	...	...	3.0H	...	H	APR. 7	02P.M. HST
APR. 8	08	32	15.7	18.98 N.	155.34 W.	49	...	...	3.4H	...	H	APR. 7	10P.M. HST
APR. 8	08	32	17.0	19.01 N.	155.33 W.	36	...	...	3.3H	...	H	APR. 7	10P.M. HST
APR. 8	11	46	24.4	19.17 N.	155.71 W.	6	...	...	3.0H	...	H	APR. 8	01A.M. HST
APR. 10	16	54	10.6	19.42 N.	155.59 W.	4	...	...	3.1H	...	H	APR. 10	06A.M. HST
APR. 11	00	18	40.1	19.35 N.	155.14 W.	8	...	...	3.4H	II	H	APR. 10	02P.M. HST
APR. 11	16	22	24.7	19.35 N.	155.15 W.	8	...	...	3.3H	II	H	APR. 11	06A.M. HST
APR. 13	09	24	01.2	19.42 N.	155.60 W.	4	...	...	3.0H	...	H	APR. 12	11P.M. HST
APR. 17	04	00	38.3	19.46 N.	155.58 W.	3	...	...	3.0H	...	H	APR. 16	06P.M. HST
APR. 18	02	53	22.3	19.52 N.	155.66 W.	8	...	...	3.3H	...	H	APR. 17	04P.M. HST

Table 1.–*Summary of U.S. earthquakes for April–June 1975*–Continued

Date (1975)	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													
APR. 18	09	30	14.6	19.31 N.	155.22 W.	8	...	...	3.6H	III	H	APR. 17	11P.M. HST
APR. 18	13	22	28.9	19.31 N.	155.22 W.	8	...	...	3.7H	III	H	APR. 18	03A.M. HST
APR. 18	21	11	30.2	19.76 N.	155.81 W.	17	...	...	3.3H	...	H	APR. 18	11A.M. HST
APR. 19	00	15	04.1	19.51 N.	155.67 W.	8	...	...	3.1H	...	H	APR. 18	02P.M. HST
APR. 19	06	59	35.7	19.42 N.	155.59 W.	4	...	...	3.1H	...	H	APR. 18	08P.M. HST
APR. 21	01	37	23.6	19.22 N.	155.53 W.	5	...	...	3.1H	...	H	APR. 20	03P.M. HST
APR. 22	02	50	55.0	19.21 N.	155.60 W.	9	...	...	3.1H	...	H	APR. 21	04P.M. HST
APR. 25	00	46	56.7	19.27 N.	155.39 W.	7	...	...	3.1H	II	H	APR. 24	02P.M. HST
APR. 25	17	11	21.3	19.51 N.	155.66 W.	8	...	...	3.2H	...	H	APR. 25	07A.M. HST
APR. 26	14	05	34.7	19.45 N.	155.61 W.	5	...	...	3.4H	...	H	APR. 26	04A.M. HST
APR. 28	06	41	32.0	20.12 N.	155.58 W.	33N	...	...	3.4H	...	H	APR. 27	08P.M. HST
APR. 28	08	04	54.5	19.43 N.	155.59 W.	4	...	...	3.0H	...	H	APR. 27	10P.M. HST
APR. 29	11	14	20.7	19.43 N.	155.59 W.	4	...	...	3.3H	II	H	APR. 29	01A.M. HST
APR. 29	11	48	07.5	19.40 N.	155.28 W.	14	...	...	3.3H	II	H	APR. 29	01A.M. HST
APR. 29	12	02	35.6	19.39 N.	155.29 W.	13	...	...	3.2H	...	H	APR. 29	02A.M. HST
APR. 30	05	23	09.9	19.39 N.	155.48 W.	8	...	...	3.4H	III	H	APR. 29	07P.M. HST
APR. 30	16	42	28.7	19.46 N.	155.58 W.	4	...	...	3.6H	...	H	APR. 30	06A.M. HST
APR. 30	21	21	02.3	19.52 N.	155.60 W.	10	...	...	3.0H	...	H	APR. 30	11A.M. HST
MAY. 1	03	53	38.8	19.40 N.	155.62 W.	4	...	...	3.0H	...	H	APR. 30	05P.M. HST
MAY 6	07	39	30.2	19.42 N.	155.60 W.	5	...	...	3.3H	...	H	MAY 5	09P.M. HST
MAY 6	08	55	17.8	19.42 N.	155.59 W.	4	...	...	3.2H	...	H	MAY 5	10P.M. HST
MAY 7	10	10	04.1	19.46 N.	155.58 W.	3	...	...	3.0H	...	H	MAY 7	12A.M. HST
MAY 8	07	30	06.7	19.46 N.	155.58 W.	4	...	...	3.1H	...	H	MAY 7	09P.M. HST
MAY 11	05	32	51.7	19.35 N.	155.13 W.	8	...	...	3.9H	IV	H	MAY 10	07P.M. HST
MAY 11	14	02	02.7	19.52 N.	155.66 W.	8	...	...	3.1H	...	H	MAY 11	04A.M. HST
MAY 12	05	44	38.3	19.47 N.	155.60 W.	4	...	...	3.4H	...	H	MAY 11	07P.M. HST
MAY 14	13	16	51.4	19.89 N.	155.60 W.	31	...	...	3.2H	...	H	MAY 14	03A.M. HST
MAY 15	02	53	50.4	19.41 N.	155.60 W.	5	...	...	3.1H	...	H	MAY 14	04P.M. HST
MAY 15	21	31	37.3	19.42 N.	155.59 W.	4	...	...	3.2H	...	H	MAY 15	11A.M. HST
MAY 19	04	25	04.6	19.41 N.	155.60 W.	5	...	...	3.4H	...	H	MAY 18	06P.M. HST
MAY 19	18	42	27.0	19.45 N.	155.60 W.	2	...	...	3.2H	...	H	MAY 19	08A.M. HST
MAY 22	08	32	58.6	20.30 N.	155.65 W.	22	4.4	...	4.7H	V	H	MAY 21	10P.M. HST
MAY 22	14	46	05.3	19.37 N.	155.46 W.	8	...	...	3.2H	II	H	MAY 22	04A.M. HST
MAY 25	08	04	45.7	19.41 N.	155.41 W.	10	...	...	3.5H	...	H	MAY 24	10P.M. HST
MAY 25	15	18	36.7	19.65 N.	156.05 W.	35	...	...	3.2H	...	H	MAY 25	05A.M. HST
MAY 27	21	02	54.9	19.45 N.	155.58 W.	3	...	...	3.2H	...	H	MAY 27	11A.M. HST
MAY 28	02	15	34.9	19.47 N.	155.58 W.	3	...	...	3.0H	II	H	MAY 27	04P.M. HST
MAY 28	12	01	54.6	18.07 N.	153.74 W.	33N	4.6	...	4.7H	...	G	MAY 28	02A.M. HST
MAY 29	16	46	48.6	19.41 N.	155.61 W.	5	...	...	3.5H	...	H	MAY 29	06A.M. HST
MAY 31	08	45	36.4	19.43 N.	155.60 W.	2	...	...	3.3H	...	H	MAY 30	10P.M. HST
JUNE 2	08	57	56.9	19.45 N.	155.60 W.	4	...	...	3.3H	...	H	JUNE 1	10P.M. HST
JUNE 2	19	58	36.7	19.44 N.	155.60 W.	2	...	...	3.2H	...	H	JUNE 2	09A.M. HST
JUNE 3	07	47	33.5	19.50 N.	155.66 W.	7	...	...	3.0H	...	H	JUNE 2	09P.M. HST
JUNE 11	18	51	12.7	19.41 N.	155.60 W.	1	...	...	3.3H	...	H	JUNE 11	08A.M. HST
JUNE 12	01	16	44.5	19.42 N.	155.60 W.	4	...	...	3.3H	...	H	JUNE 11	03P.M. HST
JUNE 15	06	02	00.5	19.42 N.	155.60 W.	1	...	...	2.9H	...	H	JUNE 14	08P.M. HST
JUNE 20	02	34	05.3	19.45 N.	155.58 W.	2	...	...	3.1H	...	H	JUNE 19	04P.M. HST
JUNE 20	02	44	14.9	19.27 N.	155.70 W.	1	...	...	3.2H	...	H	JUNE 19	04P.M. HST
JUNE 21	02	09	51.4	19.49 N.	155.66 W.	8	...	...	3.3H	...	H	JUNE 20	04P.M. HST
JUNE 21	02	52	54.4	19.46 N.	155.60 W.	3	...	...	3.0H	...	H	JUNE 20	04P.M. HST
JUNE 21	19	22	20.6	19.40 N.	155.62 W.	1	...	...	3.6H	...	H	JUNE 21	09A.M. HST
JUNE 24	13	54	23.5	19.44 N.	155.60 W.	4	...	...	3.3H	...	H	JUNE 24	03A.M. HST
JUNE 25	12	39	41.3	19.41 N.	155.60 W.	4	...	...	3.7H	...	H	JUNE 25	02A.M. HST
IDAHO													
APR. 2	21	06	45.9	42.09 N.	112.44 W.	7	4.7	...	3.2U	...	U	APR. 2	02P.M. MST
APR. 4	13	46	03.4	42.01 N.	112.48 W.	5	...	...	2.8U	...	U	APR. 4	06A.M. MST
APR. 6	21	05	34.0	42.02 N.	112.49 W.	4	...	...	3.2U	...	U	APR. 6	02P.M. MST
APR. 7	13	42	34.5	42.04 N.	112.49 W.	4	4.6	...	3.1U	...	U	APR. 7	06A.M. MST
APR. 7	14	01	42.2	42.15 N.	112.59 W.	2	...	...	3.1U	...	U	APR. 7	07A.M. MST
APR. 7	14	43	54.3	42.04 N.	112.50 W.	3	4.4	...	3.0U	...	U	APR. 7	07A.M. MST
APR. 10	10	21	00.5	42.01 N.	112.55 W.	5	...	...	3.2U	...	U	APR. 10	03A.M. MST
JUNE 3	09	43	54.5	44.89 N.	115.30 W.	5	3.3	...	...	...	G	JUNE 3	02A.M. MST
JUNE 27	00	43	14.9	46.60 N.	116.19 W.	5	...	...	...	...	G	JUNE 26	04P.M. PST
JUNE 30	03	26	47.2	42.11 N.	112.47 W.	5	...	...	3.0U	II	U	JUNE 29	08P.M. MST
MISSOURI													
JUNE 13	22	40	27.2	36.54 N.	89.68 W.	2	4.3	...	4.3S	VI	S	JUNE 13	04P.M. CST

Table 1.–*Summary of U.S. earthquakes for April-June 1975*–Continued

Date (1975)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
MONTANA													
APR. 4	04	50	46.3	44.80 N.	112.99 W.	5	3.8	...	4.0G	...	G	APR. 3	09P.M. MST
MAY 2	07	17	40.6	46.15 N.	111.66 W.	5	...	...	...	...	G	MAY 2	12A.M. MST
MAY 2	08	56	58.8	46.18 N.	111.44 W.	5	3.9	...	4.0G	V	G	MAY 2	01A.M. MST
MAY 2	09	22	56.5	46.16 N.	111.64 W.	5	...	...	...	II	G	MAY 2	02A.M. MST
MAY 2	11	27	55.8	46.13 N.	111.70 W.	5	...	...	...	II	G	MAY 2	04A.M. MST
MAY 3	03	23	08.6	46.21 N.	111.59 W.	5	...	...	...	...	G	MAY 2	08P.M. MST
MAY 3	03	28	52.6	46.26 N.	111.53 W.	5	...	...	3.7G	...	G	MAY 2	08P.M. MST
JUNE 6	00	15	36.6	45.91 N.	111.55 W.	5	...	...	...	...	G	JUNE 5	05P.M. MST
JUNE 20	10	54	44.0	45.00 N.	111.22 W.	5	...	...	...	IV	G	JUNE 20	03A.M. MST
JUNE 23	19	23	13.7	44.93 N.	111.08 W.	33N	...	...	...	...	G	JUNE 23	12P.M. MST
JUNE 27	13	40	08.9	44.92 N.	111.46 W.	5	...	...	...	...	G	JUNE 27	06A.M. MST
JUNE 30	20	46	43.5	45.03 N.	110.75 W.	5	...	...	3.4G	...	G	JUNE 30	01P.M. MST
JUNE 30	21	15	26.8	45.04 N.	110.57 W.	5	...	...	3.1G	...	G	JUNE 30	02P.M. MST
NEBRASKA													
MAY 13	07	53	38.5	42.12 N.	98.45 W.	10	4.3	...	3.5S	VI	G	MAY 13	01A.M. CST
NEVADA													
APR. 5	19	45	00.0	37.19 N.	116.21 W.	0	4.8	...	4.4B	...	A	APR. 5	11A.M. PST
APR. 24	14	10	00.0	37.12 N.	116.09 W.	0	4.6	...	4.4B	...	A	APR. 24	06A.M. PST
APR. 30	15	00	00.0	37.11 N.	116.03 W.	0	5.2	...	...	...	A	APR. 30	07A.M. PST
MAY 14	14	00	00.4	37.22 N.	116.47 W.	0	6.0	...	5.8B	...	A	MAY 14	06A.M. PST
JUNE 3	14	20	00.2	37.34 N.	116.52 W.	0	5.9	...	6.0B	...	A	JUNE 3	06A.M. PST
JUNE 3	14	40	00.1	37.09 N.	116.04 W.	0	5.7	3.9	5.6B	...	A	JUNE 3	06A.M. PST
JUNE 16	23	30	54.9	40.87 N.	114.80 W.	5	4.3	...	...	...	G	JUNE 16	03P.M. PST
JUNE 19	13	00	00.1	37.35 N.	116.32 W.	0	6.1	...	5.9B	...	A	JUNE 19	05A.M. PST
JUNE 26	12	30	00.2	37.28 N.	116.37 W.	0	6.2	5.0	6.1B	...	A	JUNE 26	04A.M. PST
JUNE 27	07	26	43.8	37.22 N.	116.40 W.	5	4.6	...	4.1B	...	G	JUNE 26	11P.M. PST
JUNE 28	09	47	33.8	37.29 N.	116.45 W.	5	4.4	...	4.2B	...	G	JUNE 28	01A.M. PST
NEW MEXICO													
JUNE 28	07	20	30.4	34.76 N.	106.90 W.	5	...	...	...	...	G	JUNE 28	12A.M. MST
NEW YORK													
JUNE 9	18	39	23.3	44.90 N.	73.57 W.	10	...	...	4.2L	VI	L	JUNE 9	01P.M. EST
SOUTH CAROLINA													
APR. 28	05	46	51.9	32.97 N.	80.23 W.	5	...	...	3.0S	IV	G	APR. 28	12A.M. EST
SOUTH DAKOTA													
MAY 16	05	57	01.5	43.24 N.	103.68 W.	5	...	...	2.9G	IV	G	MAY 15	10P.M. MST
TENNESSEE													
MAY 2	16	22	58.7	35.92 N.	84.45 W.	15	...	...	2.6S	III	G	MAY 2	11A.M. EST
MAY 14	23	03	05.9	35.95 N.	85.25 W.	5	...	...	2.7S	II	G	MAY 14	05P.M. CST
UTAH													
APR. 8	03	48	03.7	41.88 N.	112.37 W.	5	4.0	...	2.9U	...	U	APR. 7	08P.M. MST
WASHINGTON													
APR. 10	10	57	16.7	46.93 N.	121.59 W.	2	3.7	...	3.5G	...	W	APR. 10	02A.M. PST
APR. 10	11	09	22.0	47.06 N.	121.81 W.	4	...	...	2.8G	...	W	APR. 10	03A.M. PST
APR. 16	19	09	29.0	47.57 N.	122.91 W.	47	...	...	3.3G	V	W	APR. 16	11A.M. PST
APR. 18	04	57	56.6	46.94 N.	121.64 W.	5	3.9	...	3.5G	III	W	APR. 17	08P.M. PST
APR. 23	01	03	42.4	47.08 N.	122.65 W.	46	4.0	...	3.8G	VI	W	APR. 22	05P.M. PST
JUNE 15	17	51	...	NEAR KENNEWICK		..	...	...	2.4G	II	.	JUNE 15	09A.M. PST
JUNE 28	22	17	52.1	46.24 N.	119.71 W.	1	3.7	...	...	...	W	JUNE 28	02P.M. PST

Table 1.–*Summary of U.S. earthquakes for April-June 1975*–Continued

Date (1975)	Origin time (UTC) hr	min	s	Lat	Long	Depth (km)	Magnitude mb	MS	ML or mbLg	Maximum intensity	Hypocenter source	Local time Date	Hour
WYOMING													
MAY 30	03	25	49.2	41.83 N.	108.77 W.	10	3.2	...	...	...	G	MAY 29	08P.M. MST
JUNE 7	04	36	21.7	41.91 N.	108.80 W.	5	3.7	...	...	...	G	JUNE 6	09P.M. MST
JUNE 18	05	42	28.2	43.37 N.	110.96 W.	5	3.3	...	...	...	G	JUNE 17	10P.M. MST
JUNE 20	11	10	...	NEAR MADISON JUNCTION		..	...	...	...	...	.	JUNE 20	04A.M. MST
JUNE 30	18	24	11.9	44.79 N.	110.53 W.	5	...	...	3.5G	...	G	JUNE 30	11A.M. MST
JUNE 30	18	47	57.7	44.80 N.	110.54 W.	5	4.6	...	4.8G	...	G	JUNE 30	11A.M. MST
JUNE 30	18	54	13.4	44.74 N.	110.60 W.	7	5.6	5.9	6.4B	VII	G	JUNE 30	11A.M. MST
JUNE 30	19	00	27.4	44.77 N.	110.72 W.	5	5.1	...	5.3G	...	G	JUNE 30	12P.M. MST
JUNE 30	19	17	04.8	44.92 N.	110.65 W.	5	...	...	4.2G	II	G	JUNE 30	12P.M. MST
JUNE 30	19	56	33.7	44.71 N.	110.52 W.	5	4.7	...	4.5G	...	G	JUNE 30	12P.M. MST
JUNE 30	20	20	56.6	44.69 N.	110.59 W.	5	4.9	...	4.6G	III	G	JUNE 30	01P.M. MST

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*

[Sources of the hypocenter and magnitudes: (A) U.S. Energy Research and Development Administration; (B) University of California at Berkeley; (G) U.S. Geological Survey, National Earthquake Information Service; (H) U.S. Geological Survey, Hawaiian Volcano Observatory; (L) Lamont-Doherty Geological Observatory, Palisades, New York; (M) NOAA, Palmer Observatory, Alaska; (P) California Institute of Technology, Pasadena; (S) St. Louis University, St. Louis, Missouri; (U) University of Utah, Salt Lake City; (W) University of Washington, Seattle. 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]

ALABAMA

24 June (G) Northwestern Alabama
Origin time: 11 11 36.0
Epicenter: 33.72 N., 87.84 W.
Depth: 10 km
Magnitude: 4.5 mb, 3.8 mbLg
Intensity IV: Bankston, Belk, Fayette (rattled dishes and toppled a refrigerator, press report).

ALASKA

2 April (G) Andreanof Islands, Aleutian Islands
Origin time: 14 43 21.9
Epicenter: 51.62 N., 178.29 W.
Depth: 62 km
Magnitude: 4.9 mb
Intensity III: Adak.

11 April (G) Unimak Islands, Aleutian Islands
Origin time: 10 47 15.3
Epicenter: 54.10 N., 163.25 W.
Depth: 20 km
Magnitude: 5.5 mb, 5.2 MS
Intensity IV: Cold Bay

13 April (G) Central Alaska
Origin time: 14 16 43.4
Epicenter: 65.34 N., 150.09 W.
Depth: 37 km
Magnitude: 3.7 ML(M)
Intensity IV: Fairbanks.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

Alaska--Continued

14 April (G) Alaska Peninsula
Origin time: 16 42 32.8
Epicenter: 57.95 N., 156.94 W.
Depth: 155 km
Magnitude: 4.3 mb
Intensity IV: Fairbanks.

16 April (G) Central Alaska
Origin time: 09 01 39.7
Epicenter: 64.93 N., 148.71 W.
Depth: 29 km
Magnitude: 3.8 ML(M)
Intensity IV: Fairbanks, Nenana.

18 April Near Islands, Aleutian Islands
Origin time: 02 50
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity III: Attu Island.

18 April (G) Southern Alaska
Origin time: 08 52 32.6
Epicenter: 61.81 N., 150.56 W.
Depth: 41 km
Magnitude: 3.5 mb, 3.0 ML(M)
Intensity III: Palmer.

22 April Unimak Islands, Aleutian Islands
Origin time: 16 14
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity IV: Cold Bay.

29 April Central Alaska
Origin time: 23 25
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity IV: Fairbanks area.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

Alaska--Continued

29 April Central Alaska
Origin time: 23 26
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity IV: Fairbanks area.

12 May (G) Andreanof Islands, Aleutian Islands
Origin time: 23 51 25.0
Epicenter: 51.57 N., 176.22 W.
Depth: 55 km
Magnitude: 4.3 mb
Intensity IV: Adak.

15 May (G) Andreanof Islands, Aleutian Islands
Origin time: 12 05 38.5
Epicenter: 51.72 N., 175.42 W.
Depth: 65 km
Magnitude: 4.0 mb
Intensity II: Adak.

16 May (G) Unimak Islands, Aleutian Islands
Origin time: 07 57 47.5
Epicenter: 54.09 N., 163.09 W.
Depth: 9 km
Magnitude: 5.4 mb, 5.1 MS
Intensity V: False Pass.
Intensity IV: Cape Sarichef, Cold Bay, King Cove.
Intensity II: Driftwood Bay, Dutch Harbor.

18 May (G) Central Alaska
Origin time: 15 42 59.1
Epicenter: 63.17 N., 150.26 W.
Depth: 106 km
Magnitude: 5.4 mb
Intensity V: Mt. McKinley National Park, Tyonek.
Intensity IV: Cantwell, Calm Gulch, Ester, Healy, Medfra, Menana, Summit, Skwentna, Talkeetna.
Intensity III: Anchorage, Glenallen, Manley, Hot Springs, Palmer, Wasilla.
Intensity II: Anchor Point, Eagle River, Fairbanks, Lake Minchumina, Willow, Whittier, Valdez.

4 June (G) Andreanof Islands, Aleutian Islands
Origin time: 20 35 56.8
Epicenter: 51.94 N., 179.58 W.
Depth: 75 km
Magnitude: 4.5 mb
Intensity II: Adak.

11 June (G) Central Alaska
Origin time: 05 14 08.2
Epicenter: 62.16 N., 149.64 W.
Depth: 59 km
Magnitude: 4.3 mb
Intensity II: Anchorage, Palmer.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

CALIFORNIA

4 April Southern California
Origin time: 04 30
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity III: Etiwanda.

4 April Southern California
Origin time: 04 45
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity III: Etiwanda.

4 April (P) Southern California
Origin time: 18 53 31.3
Epicenter: 32.98 N., 116.39 W.
Depth: 8 km
Magnitude: 2.6 ML
Intensity III: Etiwanda, San Bernardino.

10 April (P) Southern California
Origin time: 15 27 16.6
Epicenter: 35.56 N., 118.40 W.
Depth: 7 km
Magnitude: 2.9 ML
Intensity IV: Old Claraville area, south of Lake Isabella.

11 April (P) Southern California
Origin time: 21 06 06.2
Epicenter: 34.08 N., 118.94 W.
Depth: 15 km
Magnitude: 3.3 ML
Intensity IV: Camarillo (press report).

17 April (P) Central California
Origin time: 09 18 33.8
Epicenter: 35.77 N., 118.54 W.
Depth: 10 km
Magnitude: 3.6 mb(G), 4.1 ML(B), 4.0 ML
Intensity V: Glennville.
Intensity IV: Bodfish, Camp Nelson, Johnsondale, Onyx, Springville, Weldon, Wofford Heights.
Intensity III: Miracle Hot Springs.
Intensity II: California Hot Springs, Porterville (B).

18 April (B) Central California
Origin time: 01 41 32.4
Epicenter: 37.94 N., 122.32 W.
Depth: 9 km
Magnitude: 3.3 ML
Intensity V: El Cerrito, Richmond. (Press reports stated that residents of Richmond and El Cerrito thought the Standard Oil plant in Richmond had exploded. One woman said cups flew off her kitchen shelf. Telephones, according to the press, went dead. The Independent Gazette Switchboard was knocked out for five minutes. Police officials reported some telephone wires were down.)

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

California--Continued

Intensity IV: Port Costa
Intensity III: Crockett, El Sobrante, Hercules, Pinole, Rodeo, San Pablo, San Rafael.
Intensity II: Berkeley (press report), East Bay Area (B), Federal Terrace, Ross, San Francisco (B), Vallejo.

20 April (P) Central California
Origin time: 04 11 18.3
Epicenter: 35.57 N., 118.38 W.
Depth: 2 km
Magnitude: 3.0 ML
Intensity II: Lake Isabella.

2 May (P) Central California
Origin time: 18 03 23.1
Epicenter: 35.22 N., 117.63 W.
Depth: 10 km
Magnitude: 4.2 ML, 4.3 ML(B)
Intensity III: Johannesburg (press report), Los Angeles.
Intensity II: Ridgecrest.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

California--Continued

5 May (B) California-Nevada border region
Origin time: 06 29 55.1
Epicenter: 38.64 N., 119.69 W.
Depth: 5 km
Magnitude: 3.7 ML
Intensity II: Markleville.

7 May (G) Northern California
Origin time: 02 35 28.6
Epicenter: 40.38 N., 124.81 W.
Depth: — 24 km
Magnitude: 4.5 mb, 4.2 ML(B)
Intensity II: Petrolia (B).

13 May (P) Southern California
Origin time: 00 21 35.6
Epicenter: 35.00 N., 119.10 W.
Depth: 19 km
Magnitude: 4.6 mb(G), 4.5 ML(B), 4.5 ML

Felt over an area of approximately 20,000 sq km (fig. 7).

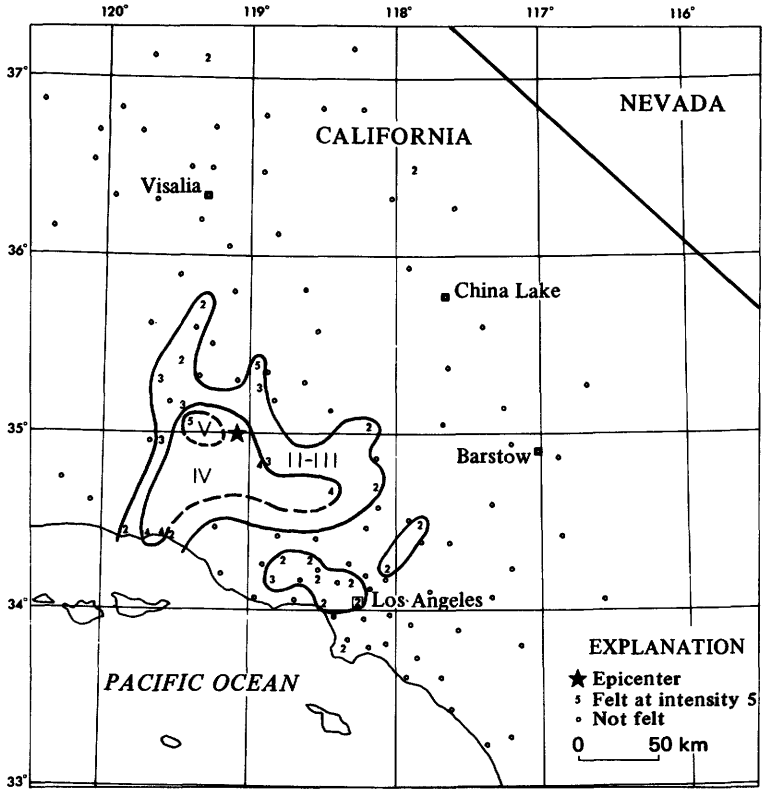

FIGURE 7.--Isoseismal map for the southern California earthquake of 13 May 1975, 00 21 35.6 UTC. Roman numerals represent Modified Mercali intensities between isoseismals; Arabic numbers are used to represent the intensities at specific sites.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

California--Continued

Intensity V: Bakersfield (Hillcrest Center P.O.), Maricopa.
Intensity IV: Frazier Park, Lake Hughes, Santa Barbara, Summerland.
Intensity III: Cuyama, Lamont, Lebec, McKittrick, Taft, Thousand Oaks.
Intensity II: Buttonwillow, Carpinteria, Glendale, Goletra (press report), Keller, Lancaster, Llano, Los Angeles (press report), Mojave, Mount Wilson, Pond, Rolling Hill Estate, Santa Monica (press report), Shaver Lake, Simi, Tarzana, Woodland Hills.

1 June (P) Southern California
Origin time: 01 38 49.2
Epicenter: 34.52 N., 116.50 W.
Depth: 4 km
Magnitude: 5.1 mb (G), 5.2 ML, 5.4 ML (B)

Felt in Riverside, San Bernardino, and Orange Counties over a contiguous felt area of 14,000 sq km (fig. 8). This earthquake caused ground rupture which lead to the discovery of the Galway Lake fault (Beeby and Hill, 1975). Low intensities were due to the distance of the epicenter from any populated areas.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

California--Continued

Intensity IV: Aguanga, Amboy, Barstow, Cathedral City, Cedarpines Park, Lucerne Valley, Muscoy, San Bernardino, Waterman, Yermo.
Intensity III: Bryn Mawr, Fawnskin, Joshua Tree, Morongo Valley, Upland.
Intensity II: Big Bear Lake, Daggett, Helendale, Indio, Rimforest, Thermal.

5 June (G) Southern California
Origin time: 14 46 45.3
Epicenter: 35.05 N., 119.00 W.
Depth: 5 km
Magnitude: 4.5 mb, 4.1 ML(B)

Intensity V: California Hot Springs, Frazier Park, Pumpkin Center.
Intensity IV: Lebec, Lone Pine, Red Mountain, Tupman.
Intensity III: La Canada, Taft.
Intensity II: Bakersfield, Bradley, Camp Kaweah, Cholame, Lytle Creek, Oro Grande, Wheeler Ridge (press report).

7 June (G) Northern California
Origin time: 08 46 22.4
Epicenter: 40.57 N., 124.14 W.
Depth: 21 km

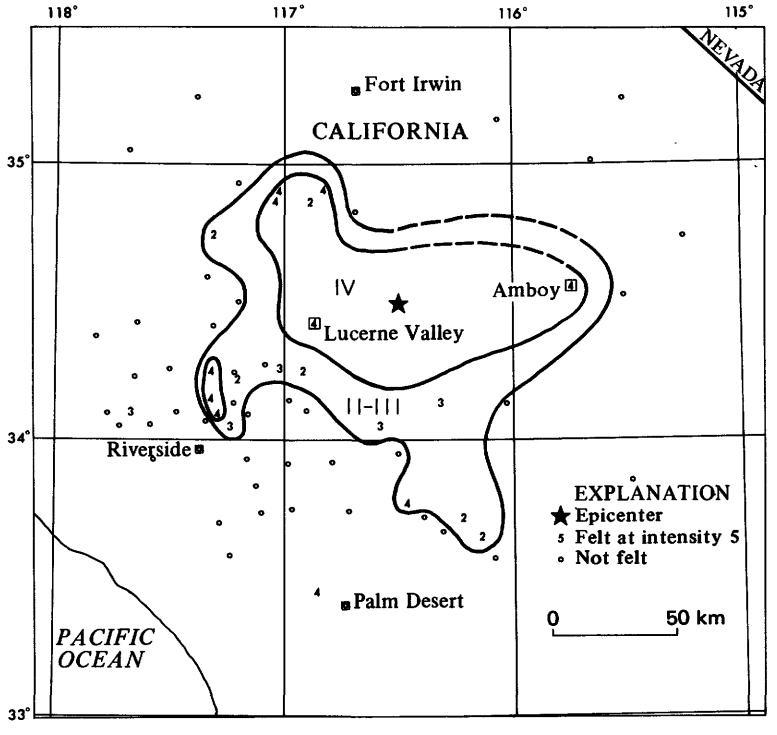

FIGURE 8.--Isoseismal map for the southern California earthquake of 1 June 1975, 01 38 49.2 UTC. Roman numerals represent Modified Mercali intensities between isoseismals; Arabic numbers are used to represent the intensities at specific sites.

Table 2.—*Summary of macroseismic data for U.S. earthquakes, April-June 1975*—Continued

California--Continued

Magnitude: 5.4 mb, 5.7 MS, 5.2 ML(B)

Most of the chimney damage reported below was taken from a report by Nason and others (1975). This earthquake was felt over a contiguous area of 25,000 sq km (fig. 9).

Intensity VII: Fortuna, Rio Dell.

Nason and others (1975) reported "An aerial reconnaissance of seismic-induced landslides in the Fortuna and Rio Dell areas ... [showed] two types of apparent syntectonic landslide activity: 1) Various small portions of the Eel and Van Duzen River banks sloughed near Fortuna and Rio Dell. 2) Rock and soil falls from hardwall scarps of previously existing landslides were noticed in the upper reaches of Elk River and Salmon Creek." (Note: Landslides are usually associated with much higher intensities than are given here. However, this area has a history of landslides which are not seismically induced.)

From an observer in Rio Dell: "A portion of the bluff on Eel River east bank fell across the NWP railroad track and trestle, tearing out track for about 125 yards. Large rocks and redwood trees were brought down." The beach on the Rio Dell side was washed by a wave that penetrated the land 85 feet from the river edge (press report). Some telephone service was disrupted and a water main was broken. In Fortuna many twisted and cracked chimneys, about to fall, were torn down by firemen. The police chief reported plate glass windows from buildings along the highway shot across four lanes of U.S. Highway 101 at least four times during the quake. All stores in Rio Dell lost windows. Liquor stores reported $4000 damage from breakage (press report). In Fortuna 10 chimneys were toppled by the earthquake, and 20 others suffered damage and were torn down by the fire department. Press reports described the pipe organ at the mortuary as being inoperable and stated that a large number of caskets were damaged when knocked from their stands. There was extensive damage to the interior of the United Methodist Church, as well as to the church pipe organ (press report).

Bear River--More than 20 percent of chimneys 3 km east of Bear River and 6 km east of Ferndale-Petrolia Road were damaged.

Carlotta--Chimneys twisted and cracked.

Table 2.—*Summary of macroseismic data for U.S. earthquakes, April-June 1975*—Continued

California--Continued

Fernbridge--Water disturbed; chimneys cracked.

Ferndale--Four chimneys twisted.

Fielding--Pipe broken in front of College of the Redwoods southeast of Field's Landing (USGS); also cracked walls.

Hydesville--One chimney damaged.

King Salmon--Ground cracks in trailer park. Cracks and bridge movement reported near PG & E nuclear power plant. No structural damage to bridge found (G. Carver, California State University, Humbolt, oral commun., 1975).

Loleta--Five chimneys damaged.

Petrolia--One chimney damaged, 3 km south.

Rohnerville--Ten percent of chimneys damaged.

Scotia--New chimneys undamaged; two old chimneys damaged.

Waddington--Ten percent of chimneys damaged; one toppled.

Intensity VI: Cape Mendocino, Denny, Eureka, Garberville, Miranda, Redcrest.

Intensity V: Alderpoint, Alton, Arcata, Bayside, Blocksburg, Blue Lake, Bridgeville, Comptche, Crannell, Cummings, Fort Bragg, Honeydew, Hyampom, Junction City, Kneeland, Leggett, Littleriver, Mendocino, Myers Flat, Orick, Orleans, Phillipsville, Redway, Salyer, Samoa, Stafford, Weott, Westhaven, Willow Creek, Whitlow.

Intensity IV: Albion, Big Bar, Burnt Ranch, Cedar Ridge, Forks of Salmon, Gasquet, Harbor (Oregon), Hayfork, Korbel, Lewiston, McKinleyville, Piercy, Salmon Creek, Sawyers Bar, Trinidad, Van Duzen, Whitehorn.

Intensity II: Crescent City.

17 June (B) Northern California
Origin time: 05 27 08.0
Epicenter: 38.07 N., 121.88 W.
Depth: 22 km
Magnitude: 3.5 ML
Intensity II: Antioch, Concord, Pittsburg.

17 June (P) California-Mexico border region
Origin time: 11 49 56.2
Epicenter: 32.78 N., 115.45 W.
Depth: 17 km
Magnitude: 3.4 mb(G), 3.4 ML
Intensity II: Brawley area.

18 June (B) Central California
Origin time: 17 50 19.7
Epicenter: 37.19 N., 120.95 W.
Depth: 2 km
Magnitude: 4.1 ML, 4.0 ML(P)
Intensity IV: Los Banos.

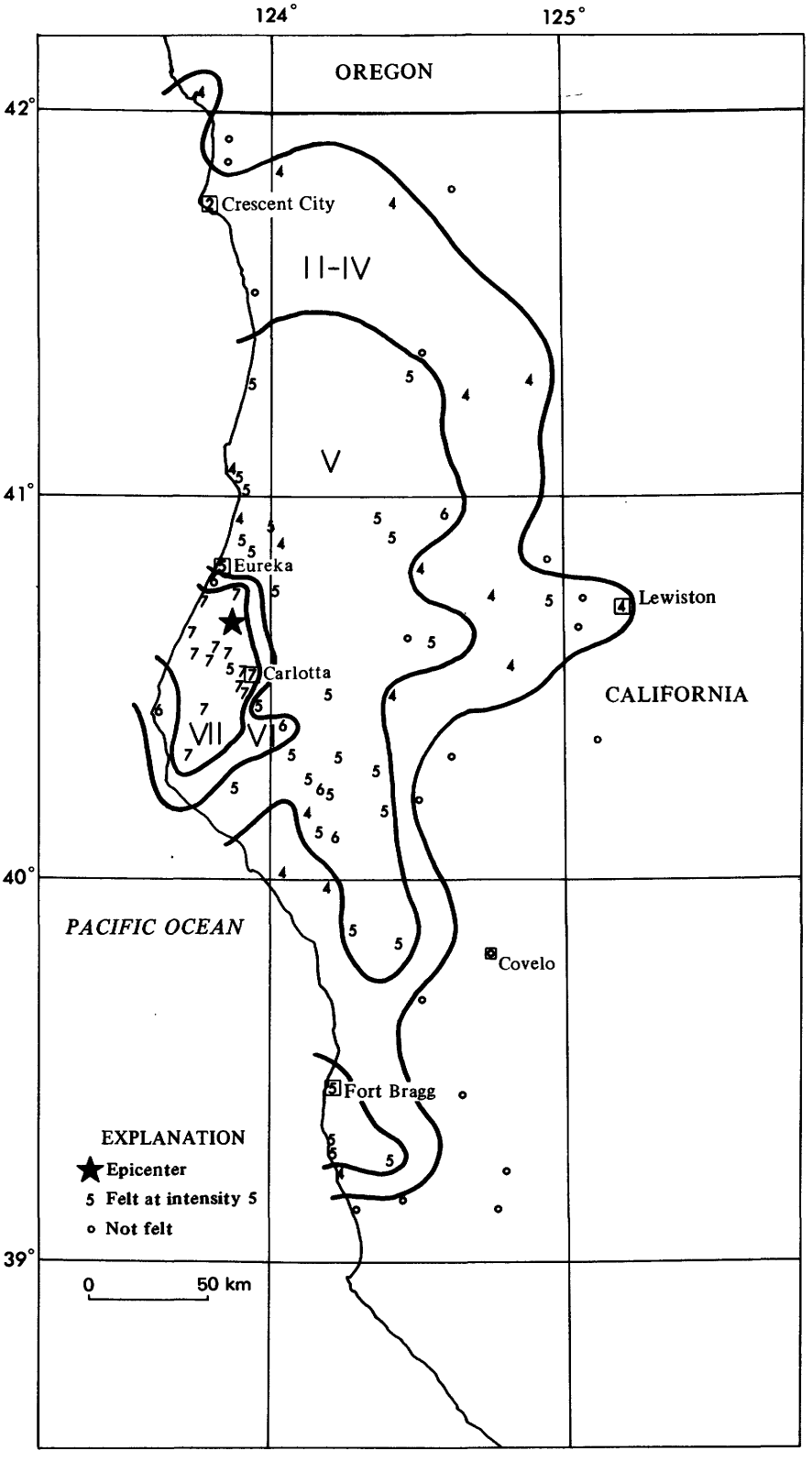

FIGURE 9.--Isoseismal map for the northern California earthquake of 7 June 1975, 08 46 22.4 UTC. Roman numerals represent Modified Mercali intensities between isoseismals; Arabic numbers are used to represent the intensities at specific sites.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

California--Continued

19 June (B) Northern California
Origin time: 16 17 53.7
Epicenter: 37.35 N., 122.31 W.
Depth: 11 km
Magnitude: 3.5 ML.
Intensity IV: Menlo Park, Palo Alto (press report), Redwood City (Fire Dept.).
Intensity II: San Francisco Peninsula area.

19 June Northern California
Origin time: 17 35
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity II: Palo Alto, Portola Valley area.

20 June (B) Central California
Origin time: 05 34 00.6
Epicenter: 37.34 N., 122.32 W.
Depth: 11 km
Magnitude: 3.3 ML
Intensity II: Portola Valley area.

20 June (G) California-Mexico border region
Origin time: 05 48 21.8
Epicenter: 32.76 N., 115.40 W.
Depth: 10 km
Magnitude: 4.3 mb, 4.2 ML(P)
Intensity VI: Calexico.
Intensity V: Imperial.
Intensity IV: Brawley, Campo, Seeley, Winterhaven.
Intensity III: Heber, Niland.
Intensity II: Westmorland.
Arizona--San Luis, Yuma.

20 June (B) Central California
Origin time: 08 16 17.7
Epicenter: 37.33 N., 122.35 W.
Depth: 14 km
Magnitude: 3.3 ML
Intensity II: Portola Valley area.

28 June (B) Northern California
Origin time: 04 19 53.1
Epicenter: 39.49 N., 121.61 W.
Depth: 6 km
Magnitude: 4.1 mb(G), 3.6 ML
Intensity II: Vicinity of the Oroville dam. Also felt from Palermo to Kelly Ridge (press report).

HAWAII

4 April (H) Hawaii Island
Origin time: 23 09 55.8
Epicenter: 19.33 N., 155.23 W.
Depth: 9 km
Magnitude: 3.9 ML
Intensity III: Hilo, Pahoa.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

Hawaii--Continued

4 April (H) Hawaii Island
Origin time: 23 35 17.3
Epicenter: 19.32 N., 155.23 W.
Depth: 9 km
Magnitude: 3.5 ML
Intensity III: Hilo, Pahoa.
Intensity II: Kahuku Ranch.

5 April (H) Hawaii Island
Origin time: 20 24 09.6
Epicenter: 19.28 N., 155.38 W.
Depth: 7 km
Magnitude: 3.5 ML
Intensity III: Kahuku Ranch.

5 April (H) Hawaii Island
Origin time: 21 56 57.9
Epicenter: 19.29 N., 155.37 W.
Depth: 6 km
Magnitude: 3.8 ML
Intensity III: Kahuku Ranch.

6 April (H) Hawaii Island
Origin time: 22 15 55.3
Epicenter: 19.32 N., 155.22 W.
Depth: 8 km
Magnitude: 3.8 ML
Intensity III: Hilo.
Intensity II: Pohakuloa, Volcano.

11 April (H) Hawaii Island
Origin time: 00 18 40.1
Epicenter: 19.35 N., 155.14 W.
Depth: 8 km
Magnitude: 3.4 ML
Intensity II: Volcano.

11 April (H) Hawaii Island
Origin time: 16 22 24.7
Epicenter: 19.35 N., 155.15 W.
Depth: 8 km
Magnitude: 3.3 ML
Intensity II: Volcano.

18 April (H) Hawaii Island
Origin time: 09 30 14.6
Epicenter: 19.31 N., 155.22 W.
Depth: 8 km
Magnitude: 3.6 ML
Intensity III: Hilo, Mountain View, Volcano.

18 April (H) Hawaii Island
Origin time: 13 22 28.9
Epicenter: 19.31 N., 155.22 W.
Depth: 8 km
Magnitude: 3.7 ML
Intensity III: Hilo, Glenwood, Volcano.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

Hawaii--Continued

25 April (H) Hawaii Island
Origin time: 00 46 55.7
Epicenter: 19.27 N., 155.39 W.
Depth: 7 km
Magnitude: 3.1 ML
Intensity II: Kapapala Ranch.

29 April (H) Hawaii Island
Origin time: 11 14 20.7
Epicenter: 19.43 N., 155.59 W.
Depth: 4 km
Magnitude: 3.3 ML
Intensity II: Kona.

29 April (H) Hawaii Island
Origin time: 11 48 07.5
Epicenter: 19.40 N., 155.28 W.
Depth: 14 km
Magnitude: 3.3 ML
Intensity II: Glenwood, Keaau, Volcano.

30 April (H) Hawaii Island
Origin time: 05 23 09.9
Epicenter: 19.39 N., 155.48 W.
Depth: 8 km
Magnitude: 3.4 ML
Intensity III: Kapapala Ranch.

11 May (H) Hawaii Island
Origin time: 05 32 51.7
Epicenter: 19.35 N., 155.13 W.
Depth: 8 km
Magnitude: 3.9 ML
Intensity IV: Hilo.
Intensity III: Kurtistown.

22 May (H) North of Hawaii Island
Origin time: 08 32 58.6
Epicenter: 20.30 N., 155.65 W.
Depth: 22 km
Magnitude: 4.4 mb(G), 4.7 ML
Intensity V: Kamuela.
Intensity IV: Maui Island.
Intensity III: Hilo, Volcano, Kona.
Intensity II: Oahu Island.

22 May (H) Hawaii Island
Origin time: 14 46 05.3
Epicenter: 19.37 N., 155.46 W.
Depth: 8 km
Magnitude: 3.2 ML
Intensity II: Kapapala Ranch.

28 May (H) Hawaii Island
Origin time: 02 15 34.9
Epicenter: 19.47 N., 155.58 W.
Depth: 3 km
Magnitude: 3.0 ML
Intensity II: Kapapala Ranch.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

IDAHO

30 June (U) Southern Idaho
Origin time: 03 26 47.2
Epicenter: 42.11 N., 112.47 W.
Depth: 5 km
Magnitude: 3.0 ML
Intensity II: Malad City, Idaho.
Snowville, Utah.

MISSOURI

13 June (S) New Madrid region
Origin time: 22 40 27.2
Epicenter: 36.54 N., 89.68 W.
Depth: 2 km
Magnitude: 4.3 mb(G), 4.3 mbLg

Felt over 940 sq km (press report).
Intensity VI: Missouri--Lilbourn.
Intensity V: Missouri--Kewanee, Marston.
Intensity IV:
Missouri--Grayridge, Hayti, Qulin, Risco, Sikeston.
Tennessee--Hornbeak, Troy.
Intensity III:
Arkansas--Saint Francis, Wilson.
Missouri--Gideon, Ironton, Matthews, New Madrid.
Tennessee--Miston.
Intensity II:
Arkansas--Success.
Kentucky--Hickman.
Missouri--Arcadia, Campbell, Clarkton, Cooter, Fisk, Lutesville, McGee.
Tennessee--Bells, Samburg, Springcreek.

MONTANA

2 May (G) Western Montana
Origin time: 08 56 58.8
Epicenter: 46.18 N., 111.44 W.
Depth: 5 km
Magnitude: 3.9 mb, 4.0 ML
Intensity V: Radersburg, Trident.
Intensity IV: Logan, Manhattan.
Intensity III: Toston.

2 May (G) Western Montana
Origin time: 09 22 56.5
Epicenter: 46.16 N., 111.64 W.
Depth: 5 km
Magnitude: None computed.
Intensity II: Trident.

2 May (G) Western Montana
Origin time: 11 27 55.8
Epicenter: 46.13 N., 111.70 W.
Depth: 5 km
Magnitude: None computed.
Intensity II: Trident.

Table 2.—*Summary of macroseismic data for U.S. earthquakes, April-June 1975*—Continued

Montana--Continued

20 June (G) Southwestern Montana
Origin time: 10 54 44.0
Epicenter: 45.00 N., 111.22 W.
Depth: 5 km
Magnitude: None computed.
The naturalist living in Norris Geyser Basin Museum, Yellowstone National Park, reported that he was awakened several times by tremors between 4 and 6 a.m. local time.
Intensity IV: Madison Junction and Norris Geyser Basin, Yellowstone National Park.

NEBRASKA

13 May (G) Northeastern Nebraska
Origin time: 07 53 38.5
Epicenter: 42.12 N., 98.45 W.
Depth: 10 km
Magnitude: 4.3 mb, 3.5 mbLg
Intensity VI: Bartlett.
Intensity V: Chambers.
Intensity II: Hudson, South Dakota.

NEVADA

5 April (A) Southern Nevada
Origin time: 19 45 00.0
Epicenter: 37.19 N., 116.21 W.
Depth: 0 km
Magnitude: 4.8 mb(G), 4.4 ML(B), 4.4 ML(P)
Nevada Test Site explosion at 37°11'16.50" N., 116°12'49.97" W.

24 April (A) Southern Nevada
Origin time: 14 10 00.0
Epicenter: 37.12 N., 116.09 W.
Depth: 0 km
Magnitude: 4.6 mb(G), 4.4 ML(B)
Nevada Test Site explosion at 37°06'56.5" N., 116°05'14.6" W.

30 April (A) Southern Nevada
Origin time: 15 00 00.0
Epicenter: 37.11 N., 116.03 W.
Depth: 0 km
Magnitude: 5.2 mb(G)
Nevada Test Site explosion at 37°06'31.87" N., 116°01'43.67" W.

14 May (A) Southern Nevada
Origin time: 14 00 00.4
Epicenter: 37.22 N., 116.47 W.
Depth: 0 km
Magnitude: 6.0 mb(G), 5.8 ML(B)
Nevada Test Site explosion at 37°13'14.79" N., 116°28'26.98" W.

Table 2.—*Summary of macroseismic data for U.S. earthquakes, April-June 1975*—Continued

Nevada--Continued

3 June (A) Southern Nevada
Origin time: 14 20 00.2
Epicenter: 37.34 N., 116.52 W.
Depth: 0 km
Magnitude: 5.9 mb(G), 6.0 ML(B)
Nevada Test Site explosion at 37°05'41.39" N., 116°02'09.98" W.

3 June (A) Southern Nevada
Origin time: 14 40 00.1
Epicenter: 37.09 N., 116.04 W.
Depth: 0 km
Magnitude: 5.7 mb(G), 3.9 MS(G), 5.6 ML(B)
Nevada Test Site explosion at 37°05'41.39" N., 116°02'09.98" W.

19 June (A) Southern Nevada
Origin time: 13 00 00.1
Epicenter: 37.35 N., 116.32 W.
Depth: 0 km
Magnitude: 6.1 mb(G), 5.9 ML(B)
Nevada Test Site explosion at 37°21'01.25" N., 116°19'12.79" W.

26 June (A) Southern Nevada
Origin time: 12 30 00.2
Epicenter: 37.28 N., 116.37 W.
Depth: 0 km
Magnitude: 6.2 mb(G), 5.0 MS(G), 6.1 ML(B)
Nevada Test Site explosion at 37°16'44.14" N., 116°22'06.90" W.

NEW YORK

9 June (L) Northern New York
Origin time: 18 39 23.3
Epicenter: 44.90 N., 73.57 W.
Depth: 10 km
Magnitude: 4.2 mbLg

Felt over a contiguous area of 13,000 sq km of the United States and Canada (fig. 10). Canadian intensity data from R. Wetmiller, Seismological Service of Canada, Ottawa.

Intensity VI:
New York--Beekmantown (chimney and fireplace cracked).
Vermont--Fairfax (slight damage).
Intensity V:
New Hampshire--Bartlett.
New York--Wilmington.
Intensity IV:
New York--Chazy, Dannemora, Elizabethtown, Ellenburg, Ellenburg Depot, Mooers Forks, Morrisonville, Plattsburgh, Port Kent, Rouses Point, Schuyler Falls, Westport.

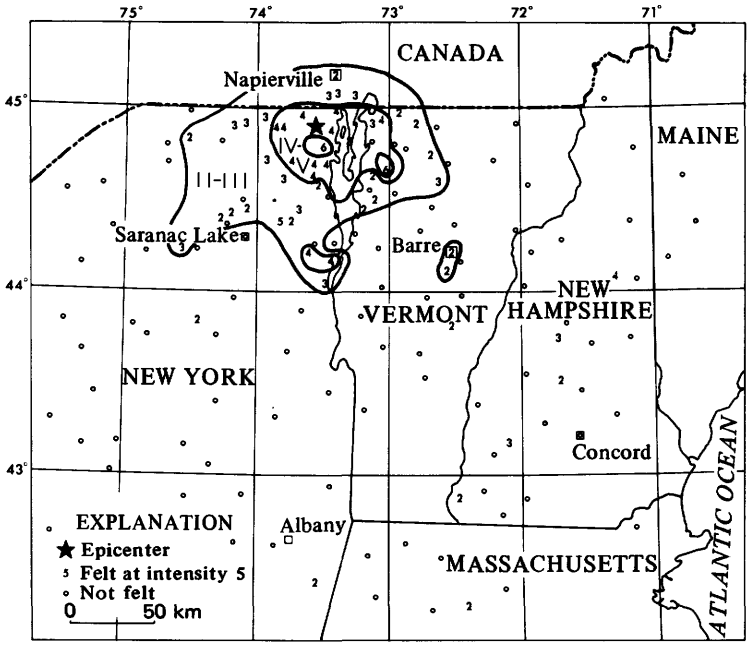

FIGURE 10.--Isoseismal map for the northern New York earthquake of 9 June 1975, 18 39 23.3 UTC. Roman numerals represent Modified Mercali intensities between isoseismals; Arabic numbers are used to represent the intensities at specific sites.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

New York--Continued

Intensity III:
New Hampshire--Plymouth, Washington.
New York--Ausable Forks, Burke, Chateaugay, Churubusco, Lyon Mountain, Piercefield, Port Henry, Redford.
Vermont--Hyde Park, North Hero, Swanton.
Canada--Clareneville, Guay Motel on Highway #15, Quebec, Lacolle.
Intensity II:
Massachusetts--Belchertown.
New Hampshire--Chesterfield, Hill.
New York--Blue Mountain Lake, Brushton, Central Square, East Chatham, Gabriels, Jay, Peru, Upper Saint Regis, Vermontville.
Vermont--Barre, Beebe Plain, Belvidere Center, Burlington (press report), Chittenden, Enosburg Falls, Essex Junction (press report), Franklin, Milton (press report), South Royalton, Williamstown.
Canada--Napierville.

SOUTH CAROLINA

28 April (G) Southern South Carolina
Origin time: 05 46 51.9
Epicenter: 32.97 N., 80.23 W.
Depth: 5 km
Magnitude: 3.0 mbLg(S)
Intensity IV: Bethera, Charleston, Mount Holly, Mount Pleasant.
Intensity II: Goose Creek (press report), Saint George, Summerville (press report).

SOUTH DAKOTA

16 May (G) Southwestern South Dakota
Origin time: 05 47 01.5
Epicenter: 43.24 N., 103.68 W.
Depth: 5 km
Magnitude: 2.9 mbLg
Intensity IV: Provo.
Intensity II: Edgemont (telephone report).

TENNESSEE

2 May (G) Eastern Tennessee
Origin time: 16 22 58.7
Epicenter: 35.92 N., 84.45 W.
Depth: 15 km
Magnitude: 2.6 mbLg(S)
Intensity III: Oakdale.
Intensity II: Kingston, Knoxville, Oak Ridge (telephone reports), Rockwood.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

Tennessee--Continued

14 May (G) Eastern Tennessee
Origin time: 23 03 05.9
Epicenter: 35.95 N., 85.25 W.
Depth: 5 km
Magnitude: 2.7 mbLg(S)
Intensity II: Oak Ridge area.

WASHINGTON

16 April (G) Puget Sound region
Origin time: 19 09 29.0
Epicenter: 47.57 N., 122.91 W.
Depth: 47 km
Magnitude: 3.3 ML

Intensity V: Des Moines.
Intensity III: Docton, Lakeview, Vashon.
Intensity II: Bellevue (press report), Bremerton (press report), Brinnon, Fox Island, Hansville, Kingston, Laurelhurst (press report), Manchester, Potlatch, Seattle (press report), Shelton, Silverdale, Tacoma (press report).

18 April (W) Western Washington
Origin time: 04 57 56.6
Epicenter: 46.94 N., 121.64 W.
Depth: 5 km
Magnitude: 3.9 mb(G), 3.5 ML(G)
Intensity III: Silver Creek area, Mt. Rainier National Park.
Intensity II: Enumclaw (telephone report).

23 April (W) Puget Sound region
Origin time: 01 03 42.4
Epicenter: 47.08 N., 122.65 W.
Depth: 46 km
Magnitude: 4.0 mb(G), 3.8 ML(G)

Intensity VI: Sumner (tar on roof cracked).
Intensity V: Alder, East Olympia, Elbe, La Grande, Puyallup, Spanaway (press report), Tacoma.
Intensity IV: Anderson Island, Lakewood Center, Longbranch, North Bend, Olympia, Southgate, Tenino, Wilkeson.
Intensity III: Carbonado, Dockton, Eatonville, Fort Lewis, McMillin, Parkland, Preston.
Intensity II: Auburn (press report), Buckley, Snoqualmie, Tumwater, West Seattle (press report).

15 June Southern Washington
Origin time: 17 51
Epicenter: Not located.
Depth: None computed.
Magnitude: 2.4 ML(G).
Intensity II: Kennewick area.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

WYOMING

20 June Yellowstone National Park
Origin time: 11 10
Epicenter: Not located.
Depth: None computed.
Magnitude: None computed.
Intensity II: Madison Junction.

30 June (G) Yellowstone National Park
Origin time: 18 54 13.4
Epicenter: 44.74 N., 110.60 W.
Depth: 7 km
Magnitude: 5.6 mb, 5.9 MS, 6.4 ML, 6.1 MS(B)

Rock and timberslides closed or hindered traffic on many park roads; telephone service was out in Madison, Old Faithful, and West Yellowstone for several hours (press report). Old Faithful gift shop reported many small objects broken (telephone report). Vehicles rocked (press report). Two hundred tons of rocks were cleared from the road between Madison and Norris (press report). Rocks also fell from Obsidian Cliffs along the Virginia-Cascades road (fig. 12). Billings, Montana, reported that tall buildings rocked (press report). A resident of Livingston, Montana, who was driving north of Gardiner, Montana, on Route 89, going 50 miles per hour, felt as though the road were corrugated for twenty to thirty seconds (oral commun., 1975).
This earthquake was felt over 50,000 sq km (fig. 11). Some isolated felt reports at large distances from the epicenter are not shown on the isoseismal map.

Intensity VII:
Wyoming--Norris Junction (Chimney on ranger's home fell down. Cracks were noted in a hard-packed dirt parking lot, about 500 km long, which had swampy land at both ends-USGS).
Intensity VI:
Wyoming--Old Faithful, Yellowstone National Park (R. Hutchinson, oral commun., 1975).
Intensity V:
Montana--Absarokee, Cooke City, Molt, Pray, Reedpoint, West Yellowstone.

Intensity IV:
Idaho--Island Park.
Montana--Bearcreek, Billings (press report), Clyde Park, Columbus, Harrison, Silvergate, Springdale, Virginia City.
Washington--Albion.

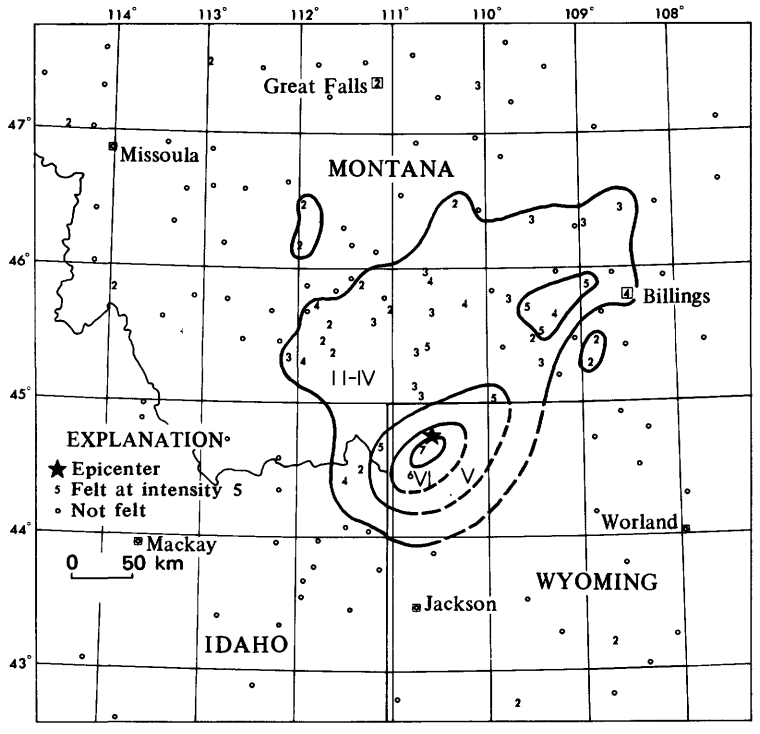

FIGURE 11.--Isoseismal map for the Yellowstone National Park earthquake of 30 June 1975, 18 54 13.4 UTC. Roman numerals represent Modified Mercali intensities between isoseismals; Arabic numbers are used to represent the intensities at specific sites.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

Wyoming--Continued

Intensity III:
Idaho--Huston.
Montana--Alder, Coffee Creek, Corwin Springs, Emigrant, Gallatin Gateway, Gardiner, Greycliff, Lavina, Livingston, Luther, Roundup, Shawmut, Wilsail.
Intensity II:
Idaho--Donnelly, Elk River, Macks Inn, Moyie Springs, Silverton.
Montana--Alberton, Boulder, Bozeman (press report), Bridger, Clancy, Edgar, Fishtail, Fort Harrison, Great Falls (press report), Homestead, Jeffers, Manhattan, Martinsdale, McAllister, Norris, Stockett, Sula.
South Dakota--Provo.
Nevada--Wells.
Utah--Snowville.
Washington--Clarkston.
Wyoming--Boulder, Morton.

30 June (G) Yellowstone National Park
Origin time: 19 17 04.8
Epicenter: 44.92 N., 110.65 W.
Depth: 5 km
Magnitude: 4.2 ML
Intensity II: Wolf Lake.

Table 2.–*Summary of macroseismic data for U.S. earthquakes, April-June 1975*–Continued

Wyoming--Continued

30 June (G) Yellowstone National Park
Origin time: 20 20 56.6
Epicenter: 44.69 N., 110.59 W.
Magnitude: 4.9 mb, 4.6 ML
Intensity III: Tower Junction.

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FIGURE 12.--Rock fall on the Virginia-Cascades road looking south in Yellowstone National Park (photo courtesy of W. Spence).

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REFERENCES CITED

Bath, Markus, 1966, Earthquake energy and magnitude, in Physics and chemistry of the Earth, Volume 7: Oxford and New York, Pergamon Press, p. 115-165.

Beeby, D. J., and Hill, R. L., 1975, Galway Lake fault: California Geology, v. 28, no. 10, p. 219-221.

Gutenberg, B. and Richter, C. F., 1956, Magnitude and energy of earthquakes: Annali di Geofisica, v. 9, no. 1, p. 1-15.

Nason, R., Harp, E. L., LaGesse, H., and Maley, R. P., 1975, Investigations of the 7 June 1975 earthquake in Humbolt County, California: U.S. Geol. Survey Open-File Report 75-404, 28 p.

Nuttli, O. W., 1973, Seismic wave attenuation and magnitude relations for eastern North America: Jour. Geophys. Research, v. 78, no. 5, p. 876-885.

Richter, C. F., 1958, Elementary seismology: San Francisco, Calif., W. H. Freeman and Co., Inc., 768 p.

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