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Earthquake Database for Oregon, 1833 through October 25, 1993

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The Oregon Department of Geology and Mineral Industries is releasing this information because the subject matter is consistent with the mission of the Department. It has not been edited to our usual standards.

Introduction

This database of earthquake information is an outgrowth of an earthquake hazard assessment program (Johnson and Scofield, 1990) funded by DOGAMI after the 1989 Loma Prieta earthquake in California. Johnson and Scofield collected earthquake information from a variety of databases covering the Pacific Northwest and combined them, taking care to remove redundant entries. The resultant database was considered complete up through the end of 1990. This database includes the Johnson and Scofield (1990) data updated through the 25 of October, 1993, by the addition of the University of Washington Geophysics Department (UW) catalog for that period. The UW catalog data was edited to remove blasts, suspected blasts, low frequency, teleseismic, and other special events. Many categories of data present in the UW catalog (number of stations reporting, distance to nearest station, RMS residuals etc) were removed in order to conform to the format of the Johnson and Scofield (1990) data. Times in the catalog are expressed in Coordinated Universal Time which is converted to Pacific Standard time by subtracting eight hours.

More complete record of the UW catalog and details of the UW catalog quality classes can be found in the Quarterly Network Reports published by the University of Washington Geophysics Program.

This database is provided in dBase III format (.DBF). DOGAMI does not provide any services beyond the sale of this database on disc. DOGAMI staff will not provide any assistance in reading or converting this data other than to verify the integrity of the data files.

EXPLANATION OF EARTHQUAKE DATABASE

NUMBER	Consecutive numbering of earthquakes
Field Width 5, Field Type, Numeric	
YEAR	Year
Field Width 4, Field Type, Numeric	
MONTH	Month
Field Width 2, Field Type, Numeric	
DAY	Day
Field Width 2, Field Type, Numeric	
HOUR	Hour
Field Width 2, Field Type, Numeric	

MINUTE	Minute
Field Width 2, Field Type, Numeric	
SEC	Second, * indicates that seconds were adjusted (>60 or -)
Field Width 6, Field Type, Character	
LATITUDE	Latitude of epicenter in decimal degrees
Field Width 6, Field Type, Numeric	
LONGITUDE	Longitude of epicenter in decimal degrees
Field Width 7, Field Type, Numeric	
DEPTH	Depth of epicenter in kilometers
Field Width 4, Field Type, Numeric	
MAGNITUDE	Reported magnitude of earthquake
Field Width 3, Field Type, Numeric	
INTENSITY	Intensity reported (if reported)
Field Width 1, Field Type, Numeric	
QUALITY	Reported quality factors on location and magnitude
Field Width 5, Field Type, Character	
REFERENCE	Reference for the earthquake
Field Width 4, Field Type, Character	

SEISMIC DATA REFERENCES

CODE	REFERENCE
AULD	Auld, Bruce G., Latham, A., Nowroozi, and L. Seeber, 1969, Seismicity off the coast of Northern California determined from ocean-bottom seismic measurements: Bull. Seis. Soc. America, vol. 59, no. 5, p. 2001-2002.
AUSE	U.S. Department of Commerce, Abstracts of Earthquake Reports for the United States: Environmental Science Service Administration, Coast and Geodetic Survey, Jan 1968 to Sept 1972.
BCI BCIS	Bureau Central International de Siesmologie.
BERG	Berg, J.W., and C.D. Baker, 1963, Oregon earthquakes, 1841 through 1958: Bull. Seis. Soc. of America, vol. 53, no. 1, p. 95-108.
BERK BRK	Seismographic Station. Department of Geology and Geophysics, University of California, Berkeley. Archival Data.
BRBU	Bulletin of the Seismographic Stations. University of California, Berkeley. Vol. 42, Jan 1, 1972 - June 30, 1972.

BSSA Bulletin of Seismological Society of American, Seismological Notes. 1924, vol 14, no. 3, p. 274; 1934, vol. 24, no. 2, p. 127, 135, 136; 1935, vol. 25, no. 1, p. 105; 1936, vol. 26, p. 394; 1938, vol. 28, p. 341; 1949, vol. 39, no. 4, p. 314; 1950, vol. 50, no. 4, p. 306; 1955, vol 45, no. 3, p. 251; 1957, vol. 47, no. 2, p. 167; 1962, vol. 52, no. 4, p. 971; 1972, vol. 62, no. 3, p. 876.

CAM Cameron, J.B., 1961, Earthquakes in the Northern California coastal region, Part II. Bull. Seis. Soc. of America, vol 51, p. 337-354.

CALI Real, Charles, F., Tousson, R. Topozada, and David L. Parke, 1978, Earthquake Catalog of California 1900-1974, Magnetic Tape: California Division of Mines and Geology, Special Publication 52.

CALWRD California Water Resources compiled earthquake file, 1975-1988.

CANA Canadian sources used in Battelle Seismic Data Base.

CDMG Real, Charles, F., Tousson, R., Topozada, and David L. Parke, 1978, earthquake Catalog of California 1900-1974, Magnetic Tape: California Division of Mines and Geology, Special Publication 52.

CGS U.S. Department of the Interior, U.S. Geological Survey, National Earthquake Information Service, Boulder, CO. Magnetic Tape: 1900 - May 1973. Replaced by NOS.

CGSB Coast and Geodetic Survey.

CGS-XX NOAA Earthquake hypocenter data tape for period 1961 to 1975. (Number following CGS indicates the PDE number) CGS-xx replaced by NOS-x.

CIT California Institute of Technology's Seismological Lab at Pasadena.

COUC Couch, R.W. and R. P. Lowell, 1971, Earthquakes and seismic energy release in Oregon: The Ore Bin, vol. 33, no. 4, p. 61-84.

CROS Crosson, Robert S., 1972, Small earthquakes, structure, and tectonics of the Puget Sound region: Seismological Society of America Bulletin, vol. 62, no. 5, p. 1133-1172.

DOM McMechan, G.A., Division of Seismology, Department of Energy, Mines and Resources, Victoria Geophysical Observatory, Victoria B.C., 1973. (Archival Data)

EPB Earth Physics Branch, Division of Seismology and Geothermal Studies, Department of Energy, Mines and Resources, Ottawa, Canada.

EQH Coffman, Jerry L, and C.A. von Hake, ed. Earthquake History of the United States: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, p. 89-100, 139-189, 1973.

ERL Environmental Research Laboratory 1971 to 1973.

EWAS University of Washington's earthquake file, 1975-1978. (Magnetic Tape)

G-R Gutenberg, B. and C.F. Richter, 1954, Seismicity of the Earth and Associated Phenomena, Second Ed., Princeton University Press, NJ, 310 pp.

GEOT Teledyne Geotech, source used in Battelle Northwest Seismic Data Base, 1978.

GS U.S. Geodetic Survey Earthquake Data file 1978-1981.

GS-XXX From Victoria Geophysical Observatory tape, used in Oregon State University
GSB seismic data base.
GSE
GSED

GUTE Gutenberg, B. and C.F. Richter, 1954, Seismicity of the Earth and Associated Phenomena, Second Ed., Princeton University Press, NJ, 310 pp.

HAKE Coffman, Jerry, L., and C.A. von Hake, ed., Earthquake History of the United States: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, pp. 89-100, 139-189, 1973.

ISC International Seismological Center (from EPB magnetic tape of earthquake epicenters).

ISS International Seismological Summary, Keiv, England. 50-59.

NOAA National Oceanic and Atmospheric Administration Earthquake Data File 1900 - June 1973, U.S. Department of Commerce.

NORT Northrap, J., 1970, Accuracy of earthquake epicenters on the Gorda Ridge: Bull. Seis. Soc. of America, vol. 60, p. 265-267.

NOS National Ocean Survey, 1970-1971.

PANW Battelle Northwest's Seismic Data Base - 1978. U.S. Army Corps of Engineers, North Pacific Division. Unpublished.

PAS California Institute of Technology Seismological Laboratory at Pasadena.

PDE Preliminary Determined Epicenter from NOAA.

PITT Pitt, Mitch, Earthquake epicenters located by U.S.G.S. using Hanford Seismic Network from 1969 to 1974.

RAS1 Rasmussen, N.H., Seismology report on Washington, Idaho, Northern California and the Hanford Area, Washington to Douglas United Nuclear, Inc., Richland, Washington, May 3, 1966.

RAS2 Rasmussen, N.H., 1967, Washington State earthquakes, 1840 through 1965: Bull. Seis. Soc. of America, vol. 57, no. 3, p. 463-476.

RAS3 Rasmussen, N.H., Unpublished additions to Washington State earthquake list, June 1966 to February 1971.

SDL Klouda, D.R.P., A. O'Donnell, B. Lofgren, J. Burnetti, I. Megyesi, H. Sproules and R. Naylor, 1979, A seismicity study of the Pacific Northwest Region of the United States, Nov 1961-Aug 1965: Teledyne Geotech Report to U.S. Army Corps of Engineers North Pacific Division and U.S. Nuclear Regulatory Commission, 43, p.

SKYE Tobin, D.G. and L. Sykes, 1968, Seismicity and tectonics of northeast Pacific: Jour. Geophysical Research, vol. 73, no. 12, p. 3821-3845.

TOCH Tocher, D., 1956, Earthquakes off the North Pacific coast of the U.S.A.: Bull. Seis. Soc. of America, vol. 46.

TOWN Townley, S.D. and M.W. Allen, 1939, Descriptive catalog of earthquakes of the Pacific Coast of the United States 1769-1929: Bull. Seis. Soc. of America, vol. 29, p. 1-297.

USB From Victoria Geophysical Observatory tape, used in Oregon State University seismic data base.

UNR University of Nevada Reno's earthquake file, 1975-1988.

UOFW University of Washington's earthquake file, 1978-1981 (Magnetic Tape).

UOWE University of Washington's earthquake file, 1975-1978 (Magnetic Tape).

UOWW University of Washington's earthquake file, 1970-1978 (Magnetic Tape).

UW90 University of Washington's earthquake file update, 1975-1990.

UW University of Washington on-line Catalog.

USEQ U.S. Department of Commerce, United States Earthquakes: U.S. Coast and Geodetic Survey, 4 vols., 1928-1969.

WASH Seismographic Station Bulletin, University of Washington, Publications in Seismology, 1950-1963.

WC- Woodward-Clyde Consultants, 1976, Preliminary Draft of Seismicity Listing
WC-C for the Pacific Northwest, for Washington Public Power Supply System
WC-E
WC-RK
WC-U
WC-V

WC-M Milne, W.G., 1956, Seismic activity in Canada west of the 113th meridian, 1841-1951; Canadian Department of Mines and Technical Surveys, Publication of the Dominion Observatory, Ottawa, Canada, vol. 18, no. 7, p. 119-146.

WC-N National Oceanic and Atmospheric Administration Earthquake Data File 1900-present: U.S. Department of Commerce.

WC-R Rasmussen, N.H., 1967, Washington State earthquakes, 1840 through 1965: Bull. Seis. Soc. of America, vol. 57, no. 3, p. 463-476.

WC-WG Weston Geophysical, 1973, Preliminary Safety Analysis Report of Hanford, Washington: for U.S. Atomic Energy Commission.

WWAS University of Washington's earthquake file 1970-1978 (Magnetic Tape).

WOOL Woollard, G.P., 1968, Catalog of earthquakes in United States prior to 1925: Hawaii Institute of Geophysics Data Report No. 10.
Other References

Johnson, A. G., and Scofield, D.H., 1991, Reassessment of the seismic hazard for the State of Oregon: Preliminary report to the Oregon Department of Geology and Mineral Industries (DOGAMI)

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