

DEPARTMENT OF MINES AND RESOURCES  
CANADA  
SURVEYS AND ENGINEERING BRANCH

---

# PUBLICATIONS

OF THE

# Dominion Observatory

OTTAWA

VOL. XIII

## Bibliography of Seismology

No. 11

Items 5280-5356

JANUARY to JUNE, 1942

BY

ERNEST A. HODGSON

---

OTTAWA  
EDMOND CLOUTIER  
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY  
1942

*Price 25 cents*

This document was produced  
by scanning the original publication.

Ce document est le produit d'une  
numérisation par balayage  
de la publication originale.

# Bibliography of Seismology

January to June, 1942

- ANDERSON, John F., "Apparatus for Solving Seismographic Problems" (Patent). U.S. No. 2,217,720, Oct. 15, 1940. See No. 5280 (2) of this list.
- ATHY, Lawrence F., and McCOLLUM, Elton V., "Method and Apparatus for Seismic Surveying" (Patent). U.S. No. 2,219,508, Oct. 29, 1940. See No. 5280 (2) of this list.
5280. AYVAZOGLU, W.,
- (1) "Geophysical Abstracts 103, October-December, 1940", *U.S. Geological Survey Bulletins*, No. 925-D, 137-200, includes index to all issues for 1940, Washington, 1942.
  - (2) "Geophysical Abstracts 104, January-March, 1940", *Ibid.*, No. 932-A, 1-40, 1942.
5281. BALENSIEFER, E., BÜTTNER, Kurt, PLFEIDERER, H., and WETZEL, W. W., "Untersuchungen über die Bodenunruhe auf Sylt", *Zeitschrift für Geophysik*, Vol. 15, No. 7-8, 337-364, Braunschweig, 1939.
- A review by Schmerwitz, translated by W. Ayvazoglou, appears as No. 5777, p. 146, of *Geophysical Abstracts 103*, reported as No. 5280 (1) of this list.
- BARSDALE, J. D., and COOMBS, Howard A., "The Olympic Earthquake of November 13, 1939". See No. 5290 of this list.
- BEERS, R. F., "Means for Analyzing and Determining Geologic Strata" (Patent). See No. 5326 of this list.
- BERMEJO, Jaime, and MOZO, Sadi H., "Exploración y búsqueda del petróleo." See No. 5322 of this list.
5282. BETZ, Frederick, Jr., and HESS, H. H., "The Floor of the North Pacific Ocean", *Geographical Review*, Vol. 32, No. 1, 99-116, 4 fig., 1 map, bib., New York, Jan., 1942.
5283. BODLE, Ralph R., "United States Earthquakes 1939", *U.S. Coast and Geodetic Survey Publications*, Serial No. 637, 69 pp., 13 fig., Washington, 1941.
- The above publication, one of a series of similar annual reports, may be obtained from the Supt. of Documents, Washington, at the nominal price of twenty cents.
- R.R.B.
5284. BRADFORD, Donald C., and SULKOWSKI, Eugene L., "Seismological Observatory Bulletin, University of Pittsburgh", 20 pp., illus., Pittsburgh, March, 1942.
- The above is a beautifully illustrated and nicely printed bulletin, the first of a series to appear yearly in March. It is issued as Vol. 1, No. 1, May-Dec., 1941.
5285. BRANT, A. A., "The Present Status of Geophysics in Canada", *Canadian Mining and Metallurgical Bulletin*; No. 357, 45-65, 8 fig., bib.; No. 358, 66-87; Montreal; Jan.-Feb., 1942.
- The second instalment contains a section on seismic methods.

5286. BRIDGMAN, P. W.,  
(1) "Freezing Parameters and Compressions of Twenty-One Substances to 50,000 kg/cm<sup>2</sup>", *Proceedings, American Academy of Arts and Sciences*, Vol. 74, No. 12, 399-424, 9 fig., 30 tab., bib., Boston, April, 1942.  
(2) "Pressure-Volume Relations for Seventeen Elements to 100,000 kg/cm<sup>2</sup>", *Ibid.*, No. 13, 425-440, 2 fig., 2 tab., bib., April, 1942.
5287. BROCKAMP, B., "Die Anwendung der Geophysik im Salzgitterer Gebiet", *Metall und Erz*, Vol. 37, No. 1, 1-6, Halle (Salle), 1940.  
A review by W. Ayvazoglou appears as No. 5743, p. 137, of *Geophysical Abstracts* 103, reported as No. 5280 (1) of this list.
- BRYAN, Andrew B., "Time-lines Recording Apparatus" (Patent). U.S. No. 2,184,953, Dec. 26, 1939. See No. 5280 (1) of this list.
5288. BULLARD, E. C. Review of "Atlantic Submarine Valleys of the United States and the Congo Submarine Valley", by A. C. Veatch and P. A. Smith, and of "The Origin of Submarine Canyons: A Critical Review of Hypotheses", by Douglas Johnson. *Nature*, No. 3762, 672-673, London, Dec. 6, 1941.
5289. BULLEN, K. E., "The Density Variation of the Earth's Central Core", *Bulletin, Seismological Society of America*, Vol. 32, No. 1, 19-29, 5 tab., bib., Berkeley, Jan., 1942.
- BÜTTNER, Kurt, PFLEIDERER, H., WETZEL, W. W., and BALENSIEFER, E., "Untersuchungen über die Bodenunruhe auf Sylt". See No. 5281 of this list.
- BUWALDA, John P., and RICHTER, Charles F., "Imperial Valley Earthquake of May 18, 1940" (abstract). See p. 1944 of the publication reported as No. 5303 of this list.
- CARDER, D. S., and MEAD, T. C., "Seismic Investigations in the Boulder Dam Area in 1940". See No. 5318 of this list.
- CLOUD, Raymond T., "Attenuator" (Patent). U.S. No. 2,193,620, March 12, 1940. See No. 5280 (1) of this list.
5290. COOMBS, Howard A., and BARKSDALE, J. D., "The Olympic Earthquake of November 13, 1939", *Bulletin, Seismological Society of America*, Vol. 32, No. 1, 1-6, 1 fig., 1 tab., 1 map, bib., Berkeley, Jan., 1942.
5291. DALY, Reginald A., "Glaciation and Submarine Valleys", *Nature*, No. 3771, 156-160, London, Feb. 7, 1942.
5292. DeLISLE, J. F., "On Dispersion of Rayleigh Waves from the North Pacific Earthquake of November 10, 1938", *Bulletin, Seismological Society of America*, Vol. 31, No. 4, 303-307, 3 tab., bib., Berkeley, Oct., 1941.
5293. DeLURY, J. S., "Compression Creep of Rubber and Rock", *Journal of Geology*, Vol. 50, No. 2, 189-199, bib., Chicago, Feb.-March, 1942.
5294. DIX, Charles Hewitt, "Notes on Reflection Prospecting", *Geophysics*, Vol. 6, No. 4, 378-396, 8 fig., Menasha, Oct., 1941.

5295. DONNELL, Lloyd Hamilton, "Some Refinements in Methods of Graphical Integration", *Journal, Franklin Institute*, Vol. 233, No. 4, 331-348, 9 fig., Philadelphia, April, 1942.

5296. ECKHARDT, E. A., "Geophysics", *American Association of Petroleum Geologists, Bulletins*, Vol. 24, No. 8, 1377-1385, Tulsa, Aug., 1940.

An abstract appears as No. 936, p. 286, of *Annotated Bibliography of Economic Geology for 1940*, Vol. 13, No. 2, Urbana, Oct., 1941.

— ECKHARDT, E. A., and MUFFLY, G., "Method of and Apparatus for Seismograph Prospecting" (Patent). U.S. No. 2,260,217, issued Oct. 21, 1941. See No. 5327 of this list.

5297. EISLER, Joseph D., "A Direct Reading Phase Shift Meter", *Geophysics*, Vol. 6, No. 4, 311-317, 6 fig., bib., Menasha, Oct., 1941.

5298. ELKINS, Thomas A., "Test of a Quantitative Mountain Building Theory by Appalachian Structural Dimensions", *Geophysics*, Vol. 7, No. 1, 45-60, 4 fig., bib., Houston, Jan., 1942.

— EMERY, K. O., and SHEPARD, Francis P., "Submarine Topography off the California Coast". See No. 5341 of this list.

5299. ENGINEERING NEWS-RECORD. Brief items of interest to seismologists have appeared in recent issues of Vol. 127 of the above periodical (New York, 1941) as follows:

(1) "Torrence, California Quake does \$600,000 Damage", No. 21, 51-52, Nov. 20 (written by Ralph T. Taylor).

(2) "What It Takes to be Earthquake-resistant", *Ibid.*, p. 90, 3 illus.

5300. ENGINEERING NEWS-RECORD. A brief item of interest to seismologists has appeared in a recent issue of Vol. 128 of the above periodical (New York, 1942) as follows:

(1) "Heck Made Assistant to Geodetic Survey Director", No. 19, p. 55, May 7.

5301. FÖRTSCH, O., "Ableitung des von der Frequenz unabhängigen Absorptionskoeffizienten aus Maschinenschwingungen", *Zeitschrift für Geophysik*, Vol. 16, No. 1-2, 57-84, Braunschweig, 1940.

The author's abstract, translated by W. Ayvazoglou, appears as No. 5916, p. 13, of *Geophysical Abstracts 104*, reported as No. 5280 (2) of this list.

5302. GAMOW, George, "Biography of the Earth". Viking Press. 242 pp., 58 fig., 35 plates. Price, \$3. New York, 1941.

A review by Kirtley F. Mather appears in *Science*, No. 2455, Vol. 95, 71-72, New York, Jan. 16, 1942.

5303. GEOLOGICAL SOCIETY OF AMERICA. In the *Bulletin of the Geological Society of America* (Vol. 52, No. 12, Part 2, New York, Dec. 1, 1941) appears a collection of abstracts of papers delivered before various meetings of the Geological Society and allied associations. The papers of particular interest to seismologists are listed in this issue of the *Bibliography* under the names of the respective authors as follows: Shepard, Buwalda and Richter, Gutenberg.

— GRIFFITH, B. A., and SYNGE, J. L., "Principles of Mechanics". See No. 5349 of this list.

5304. GUTENBERG, Beno, "Mechanism of Faulting in Southern California Indicated by Seismograms", *Bulletin, Seismological Society of America*, Vol. 31, No. 4, 263-302, 6 fig., bib., Berkeley, Oct., 1941.

— GUTENBERG, Beno, "Mechanism of Faulting in Southern California Indicated by Seismograms" (abstract). See p. 1950 of the publication reported as No. 5303 of this list.

5305. HASKELL, N. A., "The Relation between Depth, Lithology, and Seismic Wave Velocity in Tertiary Sandstones and Shales", *Geophysics*, Vol. 6, No. 4, 318-326, 5 fig., bib., Menasha, Oct., 1941.

5306. HECK, N. H., "Advances in Engineering Seismology", *Civil Engineering*, Vol. 12, No. 1, 30-34, 4 fig., New York, Jan., 1942. N.H.H.

The article describes the work done by the United States Coast and Geodetic Survey in determining the nature of earthquake vibrations and others artificially generated in various types of structures. Other measures being taken to determine the effects of earthquakes on buildings and on terrain are also outlined.

5307. HECK, N. H., and NEUMANN, Frank, "Earth Motions in the Vicinity of a Fault Slip", *Bulletin, Geological Society of America*, Vol. 53, No. 2, 179-194, 10 fig., 1 pl., bib., Washington, Feb. 1, 1942.

— HECK, N. H., and WOOD, H. O., "Earthquake History of the United States: Part II—Stronger Earthquakes of California and Western Nevada". See No. 5355 of this list.

5308. HEILAND, C. A., "Geophysics in War", *Colorado School of Mines Quarterly*, Vol. 37, No. 1, Golden, 1941.

The discussion is divided into two major parts: (1) Military Operations and (2) Mineral Resources. Included are 47 photographs, diagrams, and charts. The *Quarterly* may be obtained from the Department of Publications, Colorado School of Mines, Golden, Colo., at a cost of \$1 per copy. C.A.H.

A short paper with the same title appears in the *Mines Magazine*, Vol. 32, No. 2, 65-70, 86, 9 fig., Golden Feb., 1942. On page 90 of the same magazine appears the author's abstract.

5309. HEILAND, C. A., "A Decimal Classification System for Geophysical Exploration", *Geophysics*, Vol. 7, No. 1, 1-28, bib., Houston, Jan., 1942.

— HESS, H. H., and BETZ, Frederick, Jr., "The Floor of the North Pacific Ocean". See No. 5282 of this list.

5310. HONNELL, P. M., "Production Testing of Seismometers", *Oil and Gas Journal*, Vol. 39, No. 14, 57-58, Tulsa, 1940.

A brief abstract by W. Ayvazoglou appears as No. 5783, p. 148, of *Geophysical Abstracts 103*, reported as No. 5280 (1) of this list.

An abstract also appears in the *Annotated Bibliography of Economic Geology for 1940* (Vol. 13, No. 2, Urbana, Oct., 1941) as No. 980, p. 296.

5311. HOYLE, Alfredo E., "La prediccion de los grandes sismos y la teoria cicloidal del Senor Scipion Llona", *Boletin de la Sociedad Geografica de Lima*, Tomo 58, Trimestre 4, 279-282, Lima, 1942.



— HUGHES, Arthur Joseph, "Apparatus for Depth Measurement by Echo-reception Methods" (Patent). U.S. No. 2,212,604, Aug. 27, 1940. See No. 5280 (1) of this list.

5312. JEFFREYS, Harold. Review of the "Strength and Structure of the Earth", by R. A. Daly (reported as No. 5035 of these lists), *Geographical Journal*, Vol. 97, No. 4, 246-249, London, April, 1941.

5313. JONES, O. T., "Continental Slopes and Shelves", *Geographical Journal*, Vol. 97, No. 2, 80-99, London, Feb., 1941.

Six drawings, illustrating the above paper, were not received in time to be included in the above issue. They appear at the back of the issue No. 3, for March.

— KANNENSTINE, F. M., and ROSAIRE, E. E., "Method and Apparatus for Recording Waves" (Patent). See No. 5327 of this list.

5314. LECORNU, Léon, "Sur la propagation des ondes sphériques", *Comptes Rendus*, Vol. 208, No. 16, 1185-1188; No. 18, p. 1444; and No. 19, p. 1540, Paris, 1939.

A brief abstract by W. Ayvazoglou appears as No. 5788, p. 149, of *Geophysical Abstracts 103*, reported as No. 5280 (1) of this list.

5315. LEET, L. DON, "Trial Travel Times for Northeastern America", *Bulletin, Seismological Society of America*, Vol. 31, No. 4, 325-334, 5 fig., bib., Berkeley, Oct., 1941.

— LEET, L. DON, and LINEHAN, Daniel, S.J., "Earthquakes of Northeastern United States and Eastern Canada". See No. 5316 of this list.

— LINDSEY, R. W., and SWARTZ, C. A., "Reflected Refractions". See No. 5348 of this list.

5316. LINEHAN, Daniel, S.J., and LEET, L. DON, "Earthquakes of the Northeastern United States and Eastern Canada, 1938, 1939, 1940", *Bulletin, Seismological Society of America*, Vol. 32, No. 1, 11-17, 2 fig., 1 tab., bib., Berkeley, Jan., 1942.

5317. LUDY, A. K., "Earthquake Notes", Vol. 13, No. 3, 8 pp., Washington, Dec., 1941.

The above periodical is the official organ of the Eastern Section of the Seismological Society of America. Items likely to be of interest to seismologists should be reported to the editor, A. K. Ludy, U.S. Coast and Geodetic Survey, Washington, D.C.

The successive titles in the above issue are as follows: New committees of the Eastern Section; Geophysical Institute at Bogota; Geophysical broadcasts at Saint Louis; City rebuilt after 1935 shock resists earthquake; Earthquake in Japan; Earthquakes registered in Switzerland during 1939; Notes of interest; Seismic surveying in New England; Santa Barbara earthquake of June 30, 1941; Torrence-Gardena earthquake of November 14, 1941; Earthquake of November 25, 1941; Earthquakes in Central United States—October-November, 1941; Epicentres.

— MALMQVIST, J. D., "Determining the Velocity of Elastic Waves in the Ground" (Patent). U.S. No. 2,257,423, issued Sept. 30, 1941. See No. 5327 of this list.

— MATHER, Kirtley F. Review of the book "Biography of the Earth", by George Gamow. See No. 5302 of this list.

— McCOLLUM, Elton V., and ATHY, Lawrence F., "Method and Apparatus for Seismic Surveying" (Patent). U.S. No. 2,219,508, Oct. 29, 1940. See No. 5280 (2) of this list.

5318. MEAD, T. C., and CARDER, D. S., "Seismic Investigations in the Boulder Dam Area in 1940", *Bulletin, Seismological Society of America*, Vol. 31, No. 4, 321-324, 2 fig., Berkeley, Oct., 1941.

— MINTON, John P., "Electric Seismograph" (Patent). U.S. No. 2,209,100, July 23, 1940. See No. 5280 (1) of this list.

5319. MORRISON, R. G. K., "Report on the Rockburst Situation in Ontario Mines", *Canadian Mining and Metallurgical Bulletin*, No. 361, 225-272, 18 fig., Montreal, May, 1942.

The above is a very complete analysis of the rockburst situation in Ontario mines, the result of a study extending over three months by the author who has had extensive experience in these matters both in South Africa and in Mysore state, India.

5320. MORSE, William Clifford, "New Madrid Earthquake Craters", *Bulletin, Seismological Society of America*, Vol. 31, No. 4, 309-319, 7 fig., Berkeley, Oct., 1941.

5321. MOTT-SMITH, Dr. Morton, "Geophysics Goes to War: Physical Forces Become Scientific Sleuths, Burrow into the Ground, Plumb the Sea and Explore the Air", *Science News-Letter*, Vol. 41, No. 14, 218-220, 2 fig., Washington, April 4, 1942.

5322. MOZO, Sadi H., and BERMEJO, Jaime, "Exploración y búsqueda del petróleo", *Boletín de Informaciones Petroleras*, Año 18, No. 208, 59-81, 29 fig., Buenos Aires, Dec., 1941.

— MUDDLEY, Gary, "Seismograph Prospecting" (Patent). U.S. No. 2,217,806, issued Oct. 15, 1940. See No. 5280 (2) of this list.

— MUFFLY, G., and ECKHARDT, E. A., "Method of and Apparatus for Seismograph Prospecting" (Patent). See No. 5327 of this list.

5323. MUKHERJEE, S. M., and PILLAI, A. R., "The Hindu Kush Earthquake of November 21, 1939", *Science Notes, Meteorological Department, India*, Vol. 8, No. 91, 85-90, Bombay, 1941.

The abstract by the authors appears as No. 2582, p. 379, of *Physics Abstracts* (*Science Abstracts*, Section A), London, Dec., 1941. See also a brief review on p. 25 of *Nature*, No. 3766, Vol. 149, London, Jan. 3, 1942.

5324. NATURE. Brief items of interest to seismologists have appeared in recent issues of Vol. 148 of the above periodical (London, 1941) as follows:

- (1) "Recent Earthquakes", No. 3757, 529-530, Nov. 1.
- (2) "Ground Tilt at Wellington, N.Z.", *Ibid.*, 536-537.
- (3) "Earthquake in Alaska", No. 3758, p. 561, Nov. 8.
- (4) "Earthquake in the Argentine", No. 3759, p. 592, Nov. 15.
- (5) "Earthquakes in India", and "Earthquake Intensities", No. 3760, p. 631, Nov. 22.
- (6) "Recent Earthquakes", No. 3761, p. 659, Nov. 29.

- (7) "Earthquakes Registered in Australia", *Ibid.*, p. 664.
- (8) "Recent Earthquakes", No. 3762, p. 690, Dec. 6.
- (9) "British Association Seismological Committee", and "Recent Earthquakes", No. 3763, 721-722, Dec. 13.
- (10) "Seismic Activity since 1904", No. 3765, p. 785, Dec. 27.

5325. NATURE. Brief items of interest to seismologists have appeared in recent issues of Vol. 149 of the above periodical (London, 1942), as follows:

- (1) "Recent Earthquakes", No. 3766, p. 20, Jan. 3.
- (2) "The Hindu Kush Earthquake of November 21, 1939", *Ibid.*, p. 25.
- (3) "Earthquake Origins in the New Zealand Region", No. 3770, p. 146, Jan. 31.
- (4) "Prof. R. A. Daly: Woolaston Medallist", No. 3771, p. 164, Feb. 7.
- (5) "Recent Earthquakes", *Ibid.*, 165-166.
- (6) "Earthquake at Santa Barbara, California", No. 3776, p. 299, March 14.
- (7) "Seismic Periodicity", *Ibid.*, p. 308.
- (8) "Geophysical Institute of the Andes", No. 3778, p. 354, March 28.
- (9) "Submarine Contours of the North Pacific", *Ibid.*, p. 359.
- (10) "Earthquakes Registered in New South Wales", No. 3779, p. 380, April 4.
- (11) "International Seismological Summary", *Ibid.*
- (12) "Seismic Surveying in New England", *Ibid.*
- (13) "Earthquakes Registered at Kew", No. 3780, p. 409, April 11.
- (14) "Earthquake in New Guinea on January 27", No. 3781, p. 434, April 18.
- (15) "Earthquake in the Philippines", *Ibid.*, p. 435.
- (16) "New Zealand Earthquakes During 1940", *Ibid.*, p. 443.
- (17) "Recent Earthquakes Registered at Kew", No. 3782, p. 469, April 25.
- (18) "Earthquake of April 8 in the Philippines", *Ibid.*

— NEUFELD, Jacob, and SCHERBATSKOY, Serge A., "Seismic-prospecting Apparatus" (Patent). Canadian No. 389,668, June 25, 1940. See No. 5280 (1) of this list.

— NEUMANN, Frank, and HECK, N. H., "Earth Motions in the Vicinity of a Fault Slip". See No. 5307 of this list.

— OWEN, John E.,

- (1) "Seismic Surveying" (Patent). U.S. No. 2,215,397, Sept. 17, 1940.
- (2) "Seismic Surveying" (Patent). U.S. No. 2,216,452, Oct. 1, 1940.  
See No. 5280 (2) of this list.

— PASLEY, LeRoy C., "Deflection Limiter for Galvanometers" (Patent). U.S. No. 2,264,098, issued Nov. 25, 1941. See No. 5327 of this list.

5326. PATENTS. The following patents of interest to seismologists are reported in *Geophysics* (Vol. 6, No. 4, Menasha, Oct., 1941):

- (1) WILLIAMS, P. S., "Seismic Exploration Method". U.S. Patent 2,253,358, Aug. 19, 1941.
- (2) BEERS, R. F., "Means for Analyzing and Determining Geologic Strata". U.S. Patent 2,249,108, July 15, 1941.



5327. PATENTS. In *Geophysics*, Vol. 7, No. 1 (Houston, Jan., 1942), appears a list of patents (pp. 95-99). Those dealing with seismic prospecting are listed in this issue of the *Bibliography* under the names of patentees, as follows: Malmqvist, Rosaire and Kannenstine, Eckhardt and Muffly, Pasley.
5328. PATENTS. Patents of interest to seismologists are listed in *Geophysical Abstracts 103* and *Geophysical Abstracts 104*, reported as No. 5280 of this list. Those of particular interest are entered in this list under the names of the respective inventors as follows: Bryan, Cloud, Minton, Hughes, Scherbatskoy and Neufeld, Salvatori, Owen, Muffly, Wyckoff, Athy and McCollum.
- PFLEIDERER, H., WETZEL, W. W., BALENSIEFER, E., and BÜTTNER, Kurt, "Untersuchungen über die Bodenunruhe auf Sylt". See No. 5281 of this list.
- PILLAI, A. R., and MUKHERJEE, S. M., "The Hindu Kush Earthquake of November 21, 1939". See No. 5323 of this list.
5329. POSPELOV, P. A., "Results of Seismic Work in the Maineft Region" (in Russian), *Rasvedka Nedr*, Vol. 10. No. 9, 28-37, Moscow, 1940.  
An abstract by W. Ayvazoglou appears as No. 5926, p. 15, of *Geophysical Abstracts 104*, reported as No. 5280 (2) of this list.
5330. REGULA, Walter, "Untersuchungen elastischer Eigenschaften von Gesteinsstaben", *Zeitschrift für Geophysik*, Vol. 16, No. 1-2, 40-56, Braunschweig, 1940.  
The author's abstract, translated by W. Ayvazoglou, appears as No. 5928, p. 16, of *Geophysical Abstracts 104*, reported as No. 5280 (2) of this list.
5331. REPETTI, W. C., S.J.,  
 (1) "Catalogue of Earthquakes felt in Guam 1825-1938", *Seismological Bulletin, Manila Central Observatory, Jan.-June, 1939*, 27-43, Manila, 1939.  
 (2) "Philippine Earthquake Epicentres, 1930-1931-1932", *Seismological Bulletin, Manila Central Observatory, July-Dec., 1939*, 65-78, 1 map.  
 (3) "Philippine Earthquake Epicentres, 1933-1934", *Seismological Bulletin, Manila Central Observatory, Jan.-June, 1940*", 23-34. W.C.R.
5332. RICHTER, C. F., "Earthquake near Whittier, California, January 29, 1941", *Bulletin, Seismological Society of America*, Vol. 32, No. 1, 7-9, 2 tab., bib., Berkeley, Jan., 1942.
- RICHTER, Charles F., and Buwalda, John P., "Imperial Valley Earthquake of May 18, 1940" (abstract). See p. 1944 of the publication reported as No. 5303 of this list.
5333. ROMBERG, Frederick, "The Probable Errors of Delta-*T* Velocities", *Geophysics*, Vol. 6, No. 4, 356-369, 9 fig., bib., Menasha, Oct., 1941.
5334. ROSAIRE, E. E., "Prospecting Effectiveness" *Geophysics*, Vol. 6, No. 4, 428-448, Menasha, Oct., 1941.
5335. ROSAIRE, E. E., "Prospecting Principles", *International Oil*, Vol. 1, No. 2, 37-42, Houston, July, 1940.  
A review by Dart Wantland appears on p. 40 of *Mines Magazine*, Vol. 32, No. 1, Golden, Jan., 1942.

- ROSAIRE, E. E., and KANNENSTINE, F. M., "Method and Apparatus for Recording Waves" (Patent). U.S. No. 2,257,859, issued Oct. 7, 1941. See No. 5327 of this list.
- SALVATORI, Henri, "Seismic Well-logging Method" (Patent). Canadian No. 390,568, Aug. 6, 1940. See No. 5280 (1) of this list.
- SCHERBATSKOY, Serge A., and NEUFELD, Jacob, "Seismic-prospecting Apparatus" (Patent). Canadian No. 389,668, June 25, 1940. See No. 5280 (1) of this list.
5336. SCHULZ, P. E., "Tilt Recordings at the Hawaiian Volcano Observatory and Their Conversion to Seconds of Arc", *Volcano Letter*, U.S. Department of Interior, National Park Service, No. 473, p. 1, University of Hawaii, July-Sept., 1941.
- Discusses the corrections necessary to allow for the variations in the angle of inclination of an horizontal pendulum due to tilt, when the pendulum is being used to measure tilt.
5337. SCIENCE. Brief items of interest to seismologists have appeared in recent issues of Vol. 94 of the above periodical (New York, 1941), as follows:
- (1) "Epicentre of the Lisbon Earthquake of Nov. 25", No. 2449, p. 12 Suppl., Dec. 5.
  - (2) "Formosa Earthquake, Dec. 17, 1940", No. 2452, p. 14 Suppl., Dec. 26.
5338. SCIENCE. Brief items of interest to seismologists have appeared in recent issues of Vol. 95 of the above periodical (New York, 1942), as follows:
- (1) "Address by H. E. McComb on 'Geophysical Measurements in the Laboratory and in the Field'", No. 2456, p. 94, Jan. 23.
  - (2) "Fellowship in Science Awarded by the Guggenheim Foundation to Dr. George Prior Woollard, Geophysicist, Princeton, N.J.: Seismic, Gravitational and Magnetic Investigations of the Geologic Structure Underlying the North Atlantic Coastal Plain", No. 2469, p. 437, April 24.
5339. SCIENCE NEWS-LETTER. Short items of interest to seismologists have appeared in recent issues of Vol. 41 of the above periodical (Washington, 1942), as follows:
- (1) "Earthquake Felt in Fairbanks, Alaska", No. 1, p. 8, Jan. 3.
  - (2) "Severe Earthquake off Coast of New Guinea", No. 6, p. 88, Feb. 7.
  - (3) "Hoover's Son Invents Way to Locate Oil Deposits: Invention Uses Artificial Earthquake Method of Prospecting; Seismic Wave Produced by Explosion", No. 10, p. 148, March 7.
  - (4) "Veteran Geophysicist Honored with Bowie Medal", No. 17, p. 267, April 25.
5340. SELGA, Miguel, S.J.,
- (1) "Los terremotos de enero de 1743 en Tayabas y Laguna de Bay", *Publications, Manila Central Observatory*, Vol. 5, No. 1, 28 pp., 1 map, Manila, 1941.
  - (2) "Bibliografía del temblor de San Andrés en Manila", *Ibid.*, No. 3, 24 pp.
  - (3) "La relación oficial del Terremoto del 3 de junio de 1863 en Manila", *Ibid.*, No. 4, 20 pp.
  - (4) "El temblor de 1863 y las actas del ayuntamiento de Manila", *Ibid.*, No. 5, 11 pp.
  - (5) "Índice y breve resumen de documentos relativos al temblor de Manila del 3 de junio de 1863", *Ibid.*, No. 6, 38 pp.

- SHEPARD, Francis P., "Submarine Relief of the Gulf of California", and "Hypothetical Submarine Valleys" (abstracts). See pp. 1933-1934 of the publication reported as No. 5303 of this list.
5341. SHEPARD, Francis P., and EMERY, K. O., "Submarine Topography off the California Coast", *Geological Society of America Special Publications*, No. 31, 171 pp., 4 charts, 18 pl., 42 fig., New York, 1941.
5342. SMITH, B. M., "Alnico: Properties and Equipment for Magnetization and Test", *General Electric Review*, Vol. 45, No. 4, 210-213, 7 fig., bib., Schenectady, April, 1942.
5343. STEELE, W. E., Jr., "Comparison of Well Survey and Reflection 'Time-Delta-Time' Velocities", *Geophysics*, Vol. 6, No. 4, 370-377, 4 fig., Menasha, Oct., 1941.
5344. STONELEY, R. Review of book by R. A. Daly, entitled: "Strength and Structure of the Earth", reported as No. 5035 of these lists. *Nature*, No. 3756, Vol. 148, 482-483, London, Oct. 25, 1941.
5345. STULKEN, E. J., "Seismic Velocities in the Southeastern San Joaquin Valley of California", *Geophysics*, Vol. 6, No. 4, 327-355, 21 fig., bib., Menasha, Oct., 1941.
5346. SULKOWSKI, Eugene L., "The Cut-off Bias Principle in Automatic Time Recording", *Bulletin, Seismological Society of America*, Vol. 31, No. 4, 345-347, 2 fig., bib., Berkeley, Oct., 1941.
- SULKOWSKI, Eugene L., and BRADFORD, Donald C., "Seismological Observatory Bulletin, University of Pittsburgh". See No. 5284 of this list.
5347. SVERDRUP, H. U., "The Pacific Ocean", *Science*, No. 2439, Vol. 94, 287-293, 6 fig., New York, Sept. 26, 1941.
5348. SWARTZ, C. A., and LINDSEY, R. W., "Reflected Refractions", *Geophysics*, Vol. 7, No. 1 78-81, 2 fig., Houston, Jan., 1942.
5349. SYNGE, J. L., and GRIFFITH, B. A., "Principles of Mechanics", McGraw-Hill Book Co 514 pp., illus. Price \$4.50. New York, 1942.
- A review by R. H. Oppermann appears on page 407, *Journal, Franklin Institute*, Vol. 233, No. 4, Philadelphia, April, 1942.
5350. TILLOTSON, Ernest, "Seismology and Earthquake-proof Design", *Nature*, No. 3758, Vol. 148, 551-554, London, Nov. 8, 1941.
5351. ULRICH, Franklin P., "Progress Report for 1940 of the United States Coast and Geodetic Survey in the Western United States", *Bulletin, Seismological Society of America*, Vol. 31, No. 4, 335-344, 2 fig., 2 tab., Berkeley, Oct., 1941.
5352. WEAVER, P., "The Aid of Geophysics to Geology in the Finding of Oil Fields", *International Oil*, Vol. 1, No. 1, 50-52, Houston, July, 1940.
- A review by Dart Wantland appears on p. 40 of *Mined Magazine* Vol 32 No. 1, Golden, Jan., 1942.

- WETZEL, W. W., BALENSIEFER, E., BÜTTNER, Kurt, and PFLEIDERER, H., "Untersuchungen über die Bodenunruhe auf Sylt". See No. 5281 of this list.
5353. WILLIAMS, J. Stewart, "The Oldham Seismograph Station at Utah State Agricultural College, Logan, Utah", *Bulletin, Seismological Society of America*, Vol. 32, No. 1, 49-59 5 fig., bib., Berkeley, Jan., 1942.
- WILLIAMS, P. S., "Seismic Exploration Method" (Patent). See No. 5326 of this list.
5354. WOLF, Alexander, "A Mechanical Device for Computing Seismic Paths", *Geophysics*, Vol. 7, No. 1, 61-68, 4 fig., bib., Houston, Jan., 1942.
5355. WOOD, H. O., and HECK, N. H., "Earthquake History of the United States: Part II—Stronger Earthquakes of California and Western Nevada", *Publications, U.S. Coast and Geodetic Survey*, No. 609 (revised 1941 edition), 30 pp. Price 10c., from Superintendent of Stationery, Washington, 1941. N.H.H.
5356. WORRELL, Francis T., "On the Calibration of the Wenner Seismograph", *Bulletin, Seismological Society of America*, Vol. 32, No. 1, 31-48, 2 fig., 1 tab., bib., Berkeley, Jan., 1942.
- WYCKOFF, Ralph D., "Seismograph Prospecting Apparatus" (Patent). U.S. No. 2,217,828, Oct. 15, 1940. See No. 5280 (2) of this list.

---

#### LIST OF COLLABORATORS

The initials appended to various items throughout the *Bibliography* indicate, in each case, the contribution by the respective collaborator.

Bodle, Ralph R., United States Coast and Geodetic Survey, Washington, D.C., U.S.A.	R.R.B.
Heck, N. H., United States Coast and Geodetic Survey, Washington, D.C., U.S.A.	N.H.H.
Heiland, C. A., Colorado School of Mines, Golden, Colo., U.S.A.	C.A.H.
Repetti, Wm. C., S.J., Manila Observatory, Manila, Philippine Islands.	W.C.R.