

The number of earthquakes recorded on the Milne machine (east-west component) was 145; on the Milne-Shaw (north-south component), 150; and on the Milne-Shaw (east-west component) 149 earthquakes were recorded. Particulars of the numbers of the earthquakes registered on the three machines are given in the following table:—

1927.	Machine Milne.	Machine Milne-Shaw (N.-S.).	Machine Milne-Shaw (E.-W.).	Remarks.
January ..	20	20	20	
February ..	21	21	21	
March ..	14	15	15	
April ..	7	7	7	
May ..	9	11	11	
June ..	6	6	6	
July ..	5	5	5	
August ..	10	10	10	
September ..	8	8	8	
October ..	14	15	15	
November ..	20	21	21	
December ..	11	11	10	One lost on E.-W. through clock stopping.

Officers of the Post and Telegraph and Marine Departments and private observers have given valuable assistance in the reporting of earthquakes felt by them in New Zealand.

The total number of earthquake shocks felt in New Zealand for the year 1927 was 110; 84 of these were felt in the North Island and 16 in the South Island. In ten cases the same shock was felt in both Islands. The maximum intensity of the shocks felt in 1927 was 8 on the Rossi-Forel scale. The maximum intensity of shocks felt in 1921 and 1922 was 8; in 1923 was 6; in 1924 was 7; in 1925, 1926, and 1927 was 8 on the same scale.

Seventy-seven reports were received from officers of the Post and Telegraph Department, eleven from the Marine Department, thirty-nine from other observers, and 229 from the newspapers.

An article on "Earthquakes in New Zealand" was prepared for and published in the New Zealand Year-book. Maps have been prepared showing in considerable detail the distribution and intensity of the earthquake shocks felt in New Zealand; these are now being made ready for publication.

The work in seismology has increased very considerably since the new Milne-Shaw seismograph has been running, and a further addition to the work has been caused by the installation of the second Milne-Shaw seismograph. In addition to the technical reports on the earthquakes, contact prints are made of all important records and are sent to other observatories.

The old Milne machine has proved its usefulness in a number of cases where the local shocks have been strong enough to throw the Milne-Shaw machines out of action.

During the calendar year (1927) earthquake reports have been received from fifty-eight observatories.

Steps are now being taken with a view to obtaining seismographs suitable for recording local earthquakes. By means of these seismographs it is hoped that some precise knowledge of the origins of New Zealand earthquakes may be obtained.

GENERAL.

Observatory Committee.

In January, 1927, the Research Council appointed an Observatory Committee for the purpose of reporting to the Council on the programme of work to be submitted by the Director of the Observatory. The members of the committee are—The Naval Adviser; the Surveyor-General; the Engineer-in-Chief, Public Works Department; and four representatives of the New Zealand Institute. The four members of the New Zealand Institute are Professor C. Coleridge Farr, Christchurch; Professor D. M. Y. Sommerville, Wellington; Mr. A. C. Gifford Wellington; and Professor B. Burbidge, Auckland. This committee continues the work of the Government Observatory Advisory Board.

The first meeting of the committee was held on the 29th March, 1927, when Professor C. Coleridge Farr was elected Chairman. The committee dealt with the statement by the Government Astronomer on the proposed programme of work for the coming financial year. A number of the matters dealt with by the committee are included in this report.

The second meeting of the committee was held on Wednesday, 31st August, 1927, when it was resolved that (1) a number of selected sites be tested in the South Island as to their suitability for observatory work; (2) that a seismograph for recording local earthquakes be purchased; (3) that New Zealand become a member of the Astronomical Union of the International Research Council; (4) that if the Government is represented at the Pan-Pacific Conference at Java in May, 1929, one at least of its representatives should be an astronomer, who should also take part in the observations of the total eclipse of the sun to be observed at Sumatra on 9th May, 1929.

Publications.

The following Observatory publications have been issued during the year:—

Bulletin No. 64.—First Report of the Commission appointed to further the Study of Solar and Terrestrial Relationships. (Extract, *N.Z. Journal of Science and Technology*, Vol. 9, No. 2, 1927.)

Bulletin No. 65.—New Zealand Standard Time. (Wellington Philosophical Society, 1917.)

Bulletin No. 66.—The Longitude, Latitude, and Height of the Dominion Observatory, Wellington, New Zealand. (Extract, *Transactions of N.Z. Institute*, Vol. 47, 1914.)

Bulletin No. 67.—Report of the Dominion Astronomer and Seismologist, 1926–27.

E.-6.—Earthquake Reports for 1923, January–August.

As in past years, the Observatory is again indebted to individuals and to institutions for valuable gifts of publications. Some of these are presented in exchange for the bulletins. In particular,