

ASTRONOMY (GENERAL).

*Solar Work.*—Observations of sunspots were continued during the year by Mr. Thomsen with the 5 in. Grubb refractor belonging to the Astronomical Section of the Wellington Philosophical Society. The results have been sent regularly to Zurich, according to arrangements with the International Astronomical Union. New Zealand is considered by the authorities to be a very valuable station for this work, on account of its geographical position.

*Occultations.*—The programme of observing occultations at Wellington with the 9 in. telescope of the Wellington City Observatory by the Dominion Observatory staff, and with the 6 in. telescope at New Plymouth by the local Astronomical Society, has been continued. The Observatory is indebted in this work to the voluntary assistance by members of the New Zealand Astronomical Society, Inc., and also to the predictions in the Handbook of the British Astronomical Association. During 1935 conditions were not very good for this work, and therefore the number of observations is not as great as in former years. The details of the observations have been forwarded to Dr. L. J. Comrie, Superintendent of H.M. Nautical Almanac Office, London.

*Astronomical Discoveries.*—By courtesy of the Central Bureau at Copenhagen, arrangements have been made for this Observatory to receive advice of all important astronomical discoveries. The information is forwarded by the Bureau through the Melbourne Observatory.

*Longitude Work.*—Progress was made during the year with the reduction of the longitude observations made in 1933, October and November. Mr. R. C. Hayes completed his reductions, and by comparison with results already published by other observatories the following longitude differences were found, as compared with values obtained in 1926, October and November :—

—		1926.			1933.	Difference (1933–1926).
		h.	m.	s.	s.	s.
Greenwich-Wellington	..	11	39	4·03	3·99	–0·04
Paris-Wellington	..	11	29	42·96	43·08	+0·12
Algiers-Wellington	..	11	26	55·43	55·62	+0·19
Washington-Wellington	..	7	12	40·25	40·16	–0·09

Later, when the work was being checked, a slight systematic error in the application of the level corrections to the transit observations was found. Although this correction is not likely to seriously affect the above results, it has delayed the work somewhat in its final stages.

The work by Mr. I. L. Thomsen was nearing completion, but no results were available by the end of the year.

*Property on Loan.*—The 5 in. altazimuth refractor is still on loan to Mr. M. Geddes, of Otekura. This instrument is being used very well by Mr. Geddes. The conditions of loan for instruments are that they must be periodically returned to the Observatory for inspection, and that the borrowers must insure them against loss by fire or damage, and make regular reports of the use made of telescopes.

One chronometer has been lent to Mr. H. de Denne, Hastings, to check the time on the seismograph.

SEISMOLOGY.

*General.*—Seismic activity in New Zealand was lower in 1935 than in 1934, being more comparable with 1933 in respect to the number and intensity of earthquakes felt. The most severe earthquake in 1935 occurred near Taupo on 15th July, when a maximum intensity of R.-F. 7 was reported. This was the maximum intensity reported during the year.

*Seismograph Stations.*—During the year 1935 continuous seismograph records were kept at the Dominion Observatory, Wellington, the Magnetic Observatory, Christchurch, and at the following subsidiary stations: East Cape, Arapuni, Tuai, New Plymouth, Stratford, Hastings, Bunnythorpe, Greymouth, and Chatham Islands.

The Imamura seismograph at Takaka was not recording during the latter part of the year. This was due to extensive overhaul and alterations. A special stand and case were made for the seismograph, and it was found that this necessitated extensive alterations to the clock and driving-gear. The clock had to be sent to the Observatory for the necessary alterations, and portion of it had in turn to be sent to Christchurch for the construction of a new part.

In July a Milne-Jaggard seismograph was installed at the Lake Monowai Power Station, Southland. The seismograph was placed in charge of Mr. W. H. Hutton, Chief Engineer, Southland Power Board.

Two seismograph stations which are privately owned have continued to assist the Observatory by forwarding information regarding earthquakes recorded by their seismographs. Thanks are due to these voluntary workers, and also to officers of other Government Departments and private individuals who operate seismographs.