

Up to the 1st September, 1930, the radio call sign for the Observatory was ZLO, but owing to the fact that the station was shown as having the call sign ZLY in the International List the call sign was amended to ZLY on and after 1st September, 1930. This sign is used in transmitting radio time signals.

*Non-automatic Time Signals—*

- (1) To ships and watchmakers in Wellington and to the Public Works Department, by telephone, on application to the Observatory.
- (2) The Observatory automatic time signals sent to the General Post Office are distributed by telegraphic hand signals to some 2,300 telegraph and telephone offices distributed all over New Zealand at 9 a.m. daily.
- (3) Similar hand signals are also sent to all railway offices in New Zealand at 9 a.m. daily—by telegraph to 221 offices and by telephone to 257 stations.

*Government Buildings Clock.*

The Government Buildings clock has been kept under fairly close control. A record is obtained at the Observatory by direct circuit from the clock, and the adjusting weights on the pendulum are altered from time to time. The greatest errors of this clock were 32 seconds slow on 1930, November 7, and 29 seconds fast on 1930, October 28.

*Wellington General Post Office Clock.*

The Post Office clock is checked at 3 p.m. on Mondays, Tuesdays, Thursdays, and Fridays by the broadcast signal through Station 2YA, Wellington.

On Wednesdays, when Station 2YA is not broadcasting, the clock is frequently checked by the signal heard through the air.

This clock is not under the control of the Observatory. The greatest errors were 7.5 seconds slow on 1930, July 11, and 9.5 seconds fast on 1930, April 3.

*Sun-spots.*

The regular observation of sun-spots has been discontinued. An enlarging camera for photographing the sun-spots has been obtained, and is fitted for use to the Wellington City Council's 9 in. equatorial telescope. The camera is available for any particularly interesting groups of sun-spots.

Numerous observations of the sun are made by members of the Solar Section of the New Zealand Astronomical Society, and the records obtained are available for use at the Observatory. These observations are sent to Zurich, where they are used for international work in determining the Wolf-Wolfer relative sun-spot numbers.

*International Astronomical Union.*

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

*“New Zealand Nautical Almanac.”*

An article on the Dominion time-service arrangements, giving full particulars of all the time signals supplied by the Observatory, was prepared for and published in the “New Zealand Nautical Almanac.”

*Occultations.*

In response to a request from Professor E. W. Brown, F.R.S., for more observations of occultations, the following New Zealand observatories have expressed their willingness to make the necessary observations: Christchurch, Dunedin, Hawera, Nelson, New Plymouth, Wanganui, Wellington. Accurate time signals are sent out from the Dominion Observatory on two evenings a week at 9h. G.M.T., and every day at 23h. G.M.T. Additional automatic time signals have been broadcast through Station 2YA, Wellington, since June 21 at 4h. G.M.T. and 8h. G.M.T. In addition to the ordinary occultation observations, a photographic method is in use at the Wellington Observatory by means of which the moon and surrounding stars are photographed on the same plate, and the time of the exposure of the moon is recorded on the chronograph. In this way a number of plates were obtained with the 9 in. telescope. The plates have not yet been measured, as there is no staff available for this duty.

The occultation of stars were observed at Wellington on July 2, August 2, and September 5. An observation was also made at New Plymouth on May 4.

*Aurora.*

During the calendar year 1930 only one display of the aurora australis was observed. This was at Christchurch on September 19.

*Zodiacal Light.*

Observations of the zodiacal light are made by members of the Aurora and Zodiacal Light Section of the New Zealand Astronomical Society, and the results are available for study at the Observatory. Observations were made at Wellington and Auckland during the year.