

Increasing attention has been paid to the regular inspection of reporting stations, both in New Zealand and the islands, and every endeavour was made to keep the general standard of observations at the highest possible level. A radiosonde course was conducted at Taieri in November, 1946, at which 14 observers were trained to various stages.

Apart from radiosonde equipment, the supply of meteorological instruments from local and overseas sources has been reasonably well maintained, and, by making minor improvisations, reporting stations were kept supplied with essential equipment. As regards radiosonde material, negotiations were almost completed for the purchase of adequate surplus stocks from the United States Foreign Liquidation Commission, but the equipment was withdrawn at the last moment. Orders have now been placed for supplies from Australia.

Radar wind observations are still being made with wartime equipment. At Fiji, Norfolk Island, and Ohakea, G.L. Mark II sets are in use, and at Whenuapai there is a New-Zealand-built microwave set. Four locally designed microwave wind-finding units are being constructed by the Dominion Physical Laboratory and will be used partly to replace the wartime equipment. At Norfolk Island the set was serviced by the R.N.Z.A.F. Signals Branch, but the other units were maintained by radar technicians attached to the Meteorological Service.

RESEARCH

At present, every member of the professional staff is of necessity being employed full time on routine duties—the majority on continuous forecasting rosters. Under the circumstances, it has been impossible to carry out any systematic research work.

Meteorology is in the developmental stage and there should be no need to emphasize the fact that only by properly organized and painstaking research can we hope to improve the accuracy of forecasts and the value of the general advisory service that can be rendered to the public. Under normal staffing conditions provision is made for two professional officers to be employed full time on research, and, in addition, the establishment is such as to enable each forecaster to devote about one-quarter of his time to non-routine research investigations directed towards improving and developing the service. That such efforts can lead to improvements of great value cannot be denied.

The present position is very serious and if allowed to continue must have far-reaching and detrimental results. The restoration of organized research by the provision of additional well-qualified professional staff is a matter of the greatest urgency.

PUBLICATIONS

In addition to the regular appearance each month of climatological data in the *New Zealand Gazette* and the revision of the article on New Zealand climate in the Year-Book, the following publications were issued from the Meteorological Office during the year under review :—

“Meteorological Observations for 1941.”

“Meteorological Observations for 1942.”

“Maps of Extreme Monthly Rainfall in New Zealand,” by C. J. Seelye.

Meteorological Office Notes—

No. 28 : “Tornadoes in New Zealand,” by C. J. Seelye.

No. 29 : “Notes on the Canterbury Floods of February, 1945,” by E. G. Edie, C. J. Seelye, and J. D. Raeside.

No. 30 : “Variations of Monthly Rainfall in New Zealand,” by C. J. Seelye.

In return for our publications, the Meteorological Office Library in Wellington receives corresponding information from similar institutions overseas. This year has seen an increasing number of publications reaching us from foreign sources. A certain amount of the material is circulated to the branch meteorological offices as received, and, in the case of more important papers, extracts or abstracts are cyclostyled and issued for retention by the branches as N.Z.M.O. Technical Information Circulars, of which Nos. 44 and 45 appeared during the year. N.Z.M.O. Radiosonde Information Circular No. 13 was also issued.