

Notes on Storms, 1936-37.

April, 1936 : A cyclone crossed the Cook Islands on the 10th April.

November, 1936 : A series of cyclonic disturbances associated with a trough of low pressure affected conditions over the South Pacific region during the first week of November.

January, 1937 : A cyclonic disturbance appeared near Norfolk Island on the 12th January, and moved towards northern New Zealand. Another intense cyclone developed north of the New Hebrides on the 19th, and travelled slowly southwards.

February, 1937 : An intense depression developed near Santo, New Hebrides, on the 8th February, and moved slowly southward. A cyclone, which developed near Nukualofa on the 20th, was associated with strong winds in Tonga and later in Fiji.

March, 1937 : Towards the end of the third week in March a cyclone developed near Santo. After moving slowly at first, this disturbance deepened, and then travelled rapidly southward.

ATMOSPHERIC ELECTRICITY.

In conjunction with the Department of Terrestrial Magnetism, Washington, a recording Benndorf electrometer was maintained as in the past, and gave continuous records of potential gradient in the atmosphere. The reduction factor of the electrometer was determined on 17th August, 1936, by means of absolute observations on the sand-flats to the south of the Observatory. The stretched-wire method was used for this experiment, and gave a value of 1.05 for the reduction factor.

The monthly mean values, expressed in volts per metre, of the atmospheric potential gradient during 1936 at Apia were as follows : January, 120 ; February, 116 ; March, 118 ; April, 105 ; May, 99 ; June, 114 ; July, 127 ; August, 120 ; September, 123 ; October, 109 ; November, 119 ; December, 135. Mean for the year, 117.

TIDES.

The recording tide-gauge continued in use at the Lagoon Station, and the results of the measurements were sent to the United States Coast and Geodetic Survey at Washington. In September, 1936, the gauge went out of commission through extreme corrosion of the float and float-tube. Considerable delay was experienced in obtaining replacements, and the gauge was out of action until March, 1937. The new parts were then fitted, and the instrument again functioned very satisfactorily.

TIME SERVICE.

The standard clock, Strasser and Rohde No. 381, was controlled by wireless time signals from Annapolis and San Francisco. Until June, 1936, these comparisons were made by means of a portable chronometer carried between the Observatory and the Radio Station. The transit telescope eye-piece, which had been sent to England for repairs, was returned to Apia in July, and a new Gulbransen all-wave receiver was installed in the same month. The old short-wave receiver was rebuilt during June.

Time marks on the magnetograms and seismograms were provided by the "Synchronome" clock.

PERSONNEL, BUILDINGS, EQUIPMENT, AND GENERAL.

The Director, Mr. J. Wadsworth, left Apia on 20th August, 1936, for Wellington, where he spent several months in the Meteorological Office. He expects to return to Apia during April. During Mr. Wadsworth's absence, Mr. W. R. Dyer acted in his stead.

A locally recruited clerk, Robert Stanley, resigned from the Observatory staff after eight-and-a-half years' excellent service.

From time to time information of general interest has been supplied to the *Western Samoa Mail* for publication.

Various pieces of work were carried out by the Public Works Department during the year, including the construction of a septic tank appurtenant to the Director's residence.

The annual report of the Observatory for 1933 was received from the Government printer, and the material for the 1934 report was sent forward for printing.