TABLE II.—DISTANCE OF EPICENTRES OF EARTHQUAKES RECORDED AT APIA DURING 1929.

Epicentres more distant than 5,000 km.	14
Epicentres 5,000–1,000 km. distant	17
Epicentres 1,000–500 km.	33
Epicentres less than 500 km.	53

The most severe earthquake of the year at Apia occurred on August 4, which was just violent enough to shake some articles off shelves. (Intensity 4 on the Rossi-Forel scale.)

The seismograms were promptly analysed and quarterly bulletins issued to about eighty seismological stations and seismologists. Reports of specially severe earthquakes were sent by radio to the United States Coast and Geodetic Survey, Washington, D.C., and to the Dominion Observatory, Wellington.

METEOROLOGY.

Continuous records were obtained of atmospheric pressure, temperature, wind force and direction, sunshine, humidity, and rainfall. Table III gives a summary of the monthly values of some of these elements.

TABLE III.—SUMMARY OF METEOROLOGICAL OBSERVATIONS, 1929.

Month.	Pressure.	Temperature.	Rainfall.	Humidity.	Sunshine.	Wind.
	In.	° F.	In.	Per Cent.	Hours.	m/h.
January	29·705	80·04	24·22	96	111·3	4·65
February	29·789	79·48	14·97	82	88·8	2·60
March	29·808	79·58	11·85	82	181·1	3·15
April	29·820	80·82	2·03	76	274·2	1·78
May..	29·840	79·72	4·51	73	224·8	2·41
June	29·877	79·52	3·77	75	175·3	4·34
July	29·871	78·42	2·95	74	213·2	2·28
August	29·882	75·58	2·89	74	244·8	4·31
September	29·869	78·68	2·29	74	221·3	2·29
October	29·848	79·81	12·58	80	205·3	3·73
November	29·750	80·42	9·43	78	205·3	3·03
December	29·727	80·61	18·52	82	133·5	3·30
Mean or total ..	29·822	79·64	110·01	780	189·9	3·17

The mean temperature for every month in the year was above normal, April being 1·93° F. in excess; June, 1·72° F.; and November, 1·73° F. As generally occurs in the southern Pacific when the temperature continues persistently high, the barometric pressure remains lower than normal. The barometric pressure was accordingly below the average throughout the year, with a mean value of 29·822 in.—0·013 in. less than the normal. The yearly rainfall slightly exceeded the normal, amounting at Apia to 110·01 in. From February to September the rainfall continued less than normal, but heavy falls in January, October, and December produced an excess for the year.

Although six cyclones were reported during the rainy season in the south-western Pacific, only the cyclone on January 17–18 caused damage to the plantations in the Territory. The barometer dropped to 29·492 in. on January 18, while the wind-velocity in gusts reached a velocity of forty-eight miles per hour. The violent winds blew for only brief periods and the financial loss resulting largely from bananas being blown down was small.

SOUTH PACIFIC WEATHER SYSTEM.

The Observatory prepares a report of weather conditions prevailing at 9 a.m. and 4 p.m., which is sent to the Radio Station for broadcasting and to the Harbourmaster's office. Owing to the settled weather conditions occurring in the South Seas from May to October, the morning report is not sent out by wireless during these months.

The following stations now issue daily reports under the supervision of the Apia Observatory: Papeete, Tahiti; Norfolk Island; Vila, New Hebrides; and Ocean Island. These reports, which during the year number about 2,900, render useful service to shipping in those waters by giving timely warning of the development and progress of cyclones. All the weather observers have been extremely conscientious, but closer personal supervision and occasional inspection of instruments are desirable. On the other hand, special praise should be given to the Suva Weather Station, under Captain E. W. G. Twentyman, which approaches the ideal.

UPPER-AIR WORK.

The observation of winds at high altitudes has been carried on. Sixty pilot balloons were released, of which thirteen were followed to heights of 10 km. or more. These long flights invariably disclosed the presence of strong westerly winds at great heights moving contrary to the south-east trades blowing at levels below 10,000 ft. The advent of airship travel makes it most desirable to secure further data of upper winds not limited, as hitherto, to days with unclouded skies.