

There were three tropical cyclones in the vicinity of the islands during the wet season. The dates of these were as follows:—

18th January, 1932: A cyclone passed over the Tonga Islands.

6th February, 1932: A cyclone occurred near the Tonga Islands which ultimately developed into a storm covering a wide area to the south of the islands.

12th March, 1932: A cyclone passed over the Tonga Islands having previously developed northward of Samoa.

#### STORM WARNINGS.

Daily reports of weather were prepared, as in former years, for inclusion in the broadcast from Apia Radio Station. During the hurricane season, November to April, these reports go out twice a day, and they include reports of weather from the various groups of Southern Pacific islands.

#### TIME SERVICE.

The standard clock (by Strasser and Rohde) continued to give satisfactory service. It was checked at intervals by means of wireless time signals from Annapolis, U.S.A., and by transit observations of the sun.

#### ATMOSPHERIC ELECTRICITY.

The potential of the air has been registered by Benndorf self-recording electrometers at two stations, as in previous years—one in the lagoon, and the other in the grounds of the Observatory. The necessary financial support for this work was given by the Carnegie Institution, of Washington. A new insulator for the lead-in wire at the land station, designed by Mr. Sanderson, proved to be very satisfactory. The Public Works Department erected a platform in the lagoon for the purposes of making absolute observations, using a raft carrying a stretched wire. This arrangement was also suggested by Mr. Sanderson, and supersedes the older and more tedious method of observing on Watson's Island.

#### PERSONNEL, BUILDINGS, AND EQUIPMENT.

Mr. H. B. Sapsford arrived at the end of November, 1931, to take the place of Mr. K. C. Sanderson. Mr. Sanderson left the Observatory at the end of December, 1931. Mr. Wadsworth visited the observatories and headquarters of the Department of Scientific Research in New Zealand in August, and also the meteorological stations in Fiji and Tonga.

The building used as a library was enlarged by taking in the space occupied by the veranda. The books and papers were then arranged in an orderly manner on the shelves. Rats have proved to be a great nuisance in the library, and they have damaged a good many of the books, especially the bindings. The grounds of the Observatory have been thoroughly cleared of shrubbery and some paths have been made by the Chinese labourers between the various buildings and huts. The doors and windows of the office and residences were thoroughly overhauled, and fitted with locks and fasteners. A new roof of malthoid cloth was put on the hut occupied by the two Chinese coolies. The Department of Public Works put up a new hut to house the spectroheliometer which the Observatory has received on loan from Mount Wilson Observatory.

The Observatory purchased a duplicating-machine and a typewriter in the course of the year, and is using these machines to issue its monthly and quarterly reports.

Some preliminary experiments on the ripening of bananas were carried out in February and March at the Observatory, using the spare room in the magnetograph-house.

His Excellency the Administrator of Western Samoa visited the Observatory in May, 1931.

The Observatory makes grateful acknowledgment to the British Admiralty, the Department of Terrestrial Magnetism of the Carnegie Institution, and to the Rockefeller Foundation of New York for very generous and substantial grants made during the past year.