

J. RESEARCH

Owing to the limited size and resources of the Territory it has been impossible, and it is impracticable, to establish research facilities locally. Where necessary, expert advice has been sought from New Zealand in such fields as health, education, and economic development. It is considered that the co-operative research work projected under the new South Pacific Commission will be of direct aid in the development of Western Samoa.

The geophysical research work conducted by the Apia Observatory, which is not a part of the Administration, may, however, be of interest.

The Apia Observatory, which was first established during the German regime to undertake geophysical research, still conducts essentially the same work as formerly. It is staffed and controlled by the New Zealand Department of Scientific and Industrial Research. The work of the Observatory embraces the following sciences: Terrestrial magnetism, seismology, meteorology, and some aspects of oceanography.

TERRESTRIAL MAGNETISM

Continuous recordings of the three components of the earth's magnetic field are made. From the records so obtained, hourly values of declination, horizontal force, and vertical force are deduced and forwarded to interested institutions throughout the world. In addition, data pertaining to magnetic storms and their effects on radio propagation conditions is also distributed.

SEISMOLOGY

Continuous recordings of seismic disturbances have been kept for many years. Due to the isolated nature of the islands, the nearest observatories are too far away to record many of the less intense local earthquakes that are recorded here. The station is therefore the only one that covers the surrounding region of the earth's surface. The existing seismographs are nearly fifty years old, and will be replaced in the near future by more modern instruments at present being constructed in New Zealand. Analyses of all earthquakes recorded are forwarded quarterly to most of the other observatories of the world.

METEOROLOGY

A complete meteorological station is maintained and staffed by the New Zealand Air Department and co-operates with all surrounding stations in supplying data for synoptic and climatological work. With the exception of the provision for radio-sonde work, the station is up to date in every way.

OCEANOGRAPHY

The only branch of this science conducted by the Observatory is the recording of tide heights and times, together with sea temperatures. The results are forwarded monthly to the United States Coast and Geodetic Survey. Soon it is hoped to commence the measurement of sea densities also.