

they serve. Similar joint operation of aeradio and other communications facilities has been effected in Samoa and Rarotonga, where the aeradio requirements are being met by extension of the existing radio stations operated by the Island Territories Department. The Civil Aviation Branch is operating stations at Aitutaki, Tongatabu, and Nandi, Fiji.

Although the Nandi station was reconstructed only as a temporary measure pending a decision upon the location of the international airport in Fiji, it has been equipped to a higher scale than any of the other aeradio stations and is able to meet the full requirements of an international airport from the communications aspect. Individual transmitters are available for all channels in operation and adequate stand-by equipment has been installed to cope with equipment failures or other emergency conditions. The station was formerly operated by the United States Forces, but has been extended and reconditioned since being taken over by the Civil Aviation Branch. Landline communication between Nandi and Suva is limited, but the difficulty has been largely overcome by the establishment of voice and telegraph radio circuits between the two points.

With the opening of the station at Nandi, the major aeronautical and meteorological communications facilities formerly operated from Suva have been transferred to Nandi and the aeradio station at Suva closed. This station was originally established in January, 1941, to provide facilities for the initial trans-Pacific air services. Suva Aeradio also undertook important communications functions on behalf of the Armed Forces during the war period. Personnel from the station were also employed on coast-watching duties at many widely separated points in the South Pacific, several losing their lives during the Japanese occupation of Tarawa.

Civilian personnel have also replaced the R.N.Z.A.F. staff employed on communications services at Norfolk Island, but it is anticipated that the Australian authorities will shortly undertake responsibility for manning this island.

The change from military to civil status, particularly in the islands, has led to administrative and technical problems, which, however, are rapidly being solved.

A certain amount of reconstruction has been undertaken at various stations in the Dominion, but man-power and equipment shortages have seriously delayed progress. The only new station opened during the year was at Tauranga.

### RADIO NAVIGATIONAL AIDS

High-frequency direction-finding stations at Suva, Norfolk Island, Waipapakauri, Musick Point, Ohakea, and Awarua continue to provide the main long-range aid to navigation in the area. They also serve an important function in connection with the Search and Rescue Organization. The medium-frequency D/F station at Suva has been decommissioned, and this policy will be extended gradually as other aids become available. The abandonment of medium-frequency D/F services will permit the siting of aeradio receiving facilities in the administrative buildings of aerodromes in many cases, as the rigid site requirements for direction-finding will not require to be met. This will have a substantial bearing upon staff economy as well as giving added convenience.

Non-directional beacons or "homers" are now functioning at most aerodromes, but the majority of them are equipped with comparatively low power transmitters and have only limited range and value. It is hoped to be able to replace these units with standard "homers" having a power output of 3,000 watts in the near future.

Racons or radar beacons are also installed at all island stations and at some internal ones.

A radio range was installed and brought into service at Aitutaki during the year, and the projected ranges in the Christchurch, Wellington, and New Plymouth areas should be completed this winter.