

It has become necessary to review the position regarding the adequacy of the existing single-aerial tower which is used for supporting a number of transmitting-aerials for various services, and consideration is now being given to proposals for the rearrangement of the aerial systems with a view to relieving the present tower of a portion of its load and, at the same time, providing more efficient aerials for the several short-wave and long-wave services which now devolve upon this station.

Two new aerial systems have been erected at the Mount Crawford receiving-station, with beneficial results in the reception of radio-telephone speech from overseas.

AWARUA-RADIO.

The medium-wave and short-wave transmitters referred to in last year's report have proved useful in handling long-distance and local traffic. A small addition to the apparatus makes provision for modulated continuous-wave transmissions from both transmitters. This has effected some improvement in the service when certain types of interference are experienced at the receiving-station, and on the medium-wave transmitter better results are obtained by vessels in connection with direction-finding. Some improvement has been effected in the receiving-apparatus at this station, and the results obtained have been useful in indicating the most suitable types of receiving-equipment for installation at Awarua-Radio, where the excellent receiving-conditions justify the use of high-grade equipment having special operating characteristics. The further improvement of short-wave receiving-plant at Awarua-Radio is under consideration.

FREQUENCY-MEASURING EQUIPMENT.

With the increase in the number of broadcasting-stations, particularly in Australia, it is necessary that the transmitters of all such stations be maintained on their correct frequencies. In this connection the high-precision frequency-measuring equipment provided by the Department for the purpose of checking the operating frequencies of New Zealand broadcasting-stations has proved of considerable value.

INSTALLATION OF RADIO-STATIONS IN NORTHERN COOK ISLANDS GROUP.

Radio apparatus for installation at the Islands of Manihiki, Penrhyn, and Pukapuka (in the Northern Cook group) is now being provided. The communication system will consist of low-power stations at Penrhyn and Pukapuka in communication with a central station at Manihiki, where more powerful apparatus will be installed for direct communication with Rarotonga. The station at Manihiki has already been opened, and the apparatus has been despatched to Penrhyn and Pukapuka.

SHIP-TO-SHORE AND OTHER PRIVATE RADIO-TELEPHONE SERVICES.

For some years past privately owned radio-telephone stations have been satisfactorily operated at Gisborne and Wanganui for the purpose of providing communication between the port and ships lying in the roadstead. Recently approval was given for a similar service to be established and maintained by the Napier Harbour Board.

A license was issued during the year to a whaling company at Picton for the installation of a radio-station at Whekenui (in the Marlborough Sounds), from which point communication may be established by radio-telephone with the whale-chasing vessels operating in Cook Strait. The service has now been in operation for some months.

Licenses were also issued for two aeradio services—one at Nelson operating temporarily in conjunction with Cook Strait Airways, Ltd., and one at Auckland operated by Pan-American Airways, Inc. The latter station is authorized to communicate with the company's base at Pago Pago regarding meteorological and other matters in connection with the company's proposed trans-Pacific air service.

Interest has been displayed by several Power Boards throughout New Zealand in the possibility of using radio-telephony as a means of rapid communication between their central offices and the various mobile units operating in outlying areas where prompt telephone communication is not available, and the Department has decided to license such installations. The equipment will be installed and operated entirely by the Power Boards concerned and will not be connected in any way with the departmental telephone system. Experiments have been or are being carried out by several Power Boards, some of which have indicated that they are proceeding with radio-telephone installations. In view of the fact that wave-lengths suitable for use in this type of service in New Zealand are limited, it is the policy of the Department to grant licenses of the kind only in connection with services operated by public utilities controlled by Government or by local government bodies.

OVERSEAS RADIO-TELEPHONE SERVICE.

In common with other activities of the Department, the overseas radio-telephone traffic is expanding at a substantial rate. The number of radio-telephone calls handled during the year between New Zealand and Australia and between New Zealand and the United Kingdom was 1,406, an increase of 616 calls, or 79 per cent., over the number handled during the previous year. No doubt the fact that secrecy equipment is now available for use with all calls is responsible to an appreciable extent for the increased use of the service.

On the 25th January a system of "contract" or "subscription" calls was introduced between New Zealand and Australia, and on the 5th April it was extended to the New Zealand—United Kingdom service. The new system, which provides for the booking of regular calls at stated times from persons who are willing to contract for three or more calls per week, covering an aggregate of fifteen minutes weekly, for a period of not less than one month, enables regular users of the overseas radio-telephone service to obtain appreciable reductions in charges. The rates for "subscription" calls are 12s. 6d. a minute for calls to and from Australia, and £1 4s. a minute for calls to and from the United Kingdom.