

for communication with Auckland-Radio and Awarua-Radio respectively: for the establishment of a point-to-point radio service between Owenga and Kaingaroa, Chatham Islands: and (to the Department of Scientific and Industrial Research) for the operation of stations at Winton and Invercargill in connection with auroral observations.

A license was also issued to Pan-American Airways, Inc., for a subsidiary radio station at Russell for use in connection with trans-Pacific air services.

RADIO STATIONS IN NORTHERN COOK ISLANDS GROUP.

Radio stations (to which reference was made in last year's report) at Penrhyn and Pukapuka in the Northern Cook Group were opened on the 25th June and the 26th January respectively.

It was originally intended that these stations should communicate only with Manihiki, which would relay the messages to Rarotonga. It has been found practicable, however, for all three stations to communicate directly with Rarotonga, with a consequent reduction in the operating-costs of the Manihiki station and saving in transit time.

PROPOSED RADIO STATION AT NUKUNONO, UNION ISLANDS.

At the request of the Department of External Affairs arrangements are being made for the provision of radio transmitting and receiving equipment for installation on the Island of Nukunono in the Union Group. The equipment will be forwarded at an early date.

ADVISORY SERVICES FOR OTHER DEPARTMENTS.

As a result of the comparative readiness with which communication can be provided by radio, the Department is frequently called upon to advise other Government Departments which contemplate employing radio either for fixed point-to-point working or for communication with mobile units.

The Department recognizes that it is in the interests of economy and efficiency that its experts should give advice on such technical matters, and has been pleased to prepare specifications for and arrange for the purchase of suitable equipment for the purposes required.

OVERSEAS RADIO-TELEPHONE SERVICE.

The use of the overseas radio-telephone service continues to increase at a gratifying rate. During the year the number of calls handled between New Zealand and Australia and between New Zealand and the United Kingdom was 1,653, an increase of 249 calls, or 17·7 per cent., over the number handled during the previous year.

On two occasions during the year specially-reduced rates were applied in the service—the first being during May in connection with the Coronation, and the second being from the 23rd December to the 4th January. The Coronation concession involved a reduction from £1 14s. to £1 2s. 6d. a minute for calls to and from the United Kingdom. During the Christmas and New Year period the rates for calls to both the United Kingdom and Australia were reduced. The normal charge of 15s. a minute for Australian calls was reduced to 10s. and the rate for calls to and from the United Kingdom was reduced to £1 6s. 8d. a minute. In all cases a minimum charge as for three minutes is made.

Radio-telephone service with the intercolonial steamer "Awatea" was conducted regularly throughout the year, the number of calls exchanged with the vessel being 880. The total number of such calls handled between the inception of the service in September, 1936, and 31st March, 1938, was 1,598, an average of 94 per month. It is clear that the service is much appreciated by passengers.

TELEPHONE EXCHANGE SERVICES.

Telephone development during the year exceeded all previous records, the number of subscribers at the 31st March being 147,850. The number of new connections during the year was 18,330, exceeding last year's record by 1,434. Allowing for relinquishments, the net gain in subscribers during the year was 9,710. Of the total number of connections, 71 per cent. are of residential status and 29 per cent. of business status.

At the end of the year the total number of departmental telephone-stations (public bureaux, public-call offices, extension telephones, &c., as well as ordinary exchange connections) was 188,587. If to this number is added the number of private-line telephones (3,432) connected with toll-stations and non-departmental exchanges, the telephones in service in New Zealand at the 31st March, 1938, numbered 192,019, representing an increase of 7·5 per cent. over the number in operation at the end of the previous year.

Excluding the revenue derived from intercommunicating sets, extension telephones and other miscellaneous services, the average rental in New Zealand in respect of business connections is £11 15s. 2d., and in respect of residential telephones £6 19s. 4d. per annum. Eighty-five per cent. of the telephone subscribers pay their rentals half-yearly, the remaining 15 per cent. paying monthly.

TELEPHONE DENSITY.

The number of telephone subscribers in New Zealand of residential status is 104,829, while the number of householders is 367,200. The percentage of households equipped with telephone connections is thus 28·5.

Based on the total population the average telephone density of the Dominion (including business as well as residential telephones) is 11·97 telephones per hundred persons. However, actual surveys made show a wide variation from this figure in many of the towns of the Dominion. In this connection the following table sets out in column 1 the full telephone density