

Radio-Awanui is engaged to a considerable extent on the maintenance of communication with Apia, and through Apia with the Cook and other Pacific islands. This long-distance communication has been carried on very satisfactorily throughout the year, and with a degree of efficiency and continuity comparing favourably with results obtained by stations of similar power in other parts of the world.

During the year a steel tower was substituted for two steel masts that had done good service at Chatham Islands.

From the 9th to the 14th May auroral disturbances of unusual severity were experienced, causing remarkable variations in the intensity and uniformity of wireless signals throughout the Australasian wireless area. Land-line telephone and telegraph communication was also seriously interrupted.

Twenty-one vessels are at present licensed by the Department to be equipped with wireless installations. During the year one fresh license was issued and one installation dismantled.

In order to meet the growing demand for permission to experiment in wireless telegraphy, the Department issued in April, 1921, what are called "provisional permits" authorizing the use of wireless receiving-apparatus for experimental or instructional purposes, the conditions of the permits being designed to prevent interference with the conduct of public wireless-telegraph work. The interest that is being taken in the subject by wireless enthusiasts in New Zealand is indicated by the fact that 400 of these permits have already been issued. At a later date it is intended to replace the permits by permanent licenses, for which an annual fee will be charged. The experience gained with the provisional permits now being issued will enable the Department to distinguish between those genuinely interested in the subject and willing to abide by reasonable regulations and those who are unwilling to observe essential regulations and conditions, and whose indiscriminate operation of wireless apparatus may cause interference with the conduct of public radio traffic.

Up to the present time the issue of licenses for transmitting wireless signals has been confined to persons either engaged in the scientific study of radio problems or actually closely connected with the manufacture of wireless apparatus from a technical or a commercial point of view.

TELEPHONE EXCHANGES.

Six exchanges were opened during the year, and none were closed. There is now a total of 301 exchanges. Additional switchboard accommodation was provided at 40 exchanges. The work of converting single-line earth-working systems to metallic circuit has proceeded steadily. At the end of the year there were 271 metallic circuit and 30 earth-working exchanges. The number of new subscribers connected during the year was 9,259: this number constitutes a record. The number of party-line connections now stands at 5,937, with a total of 20,988 subscribers, an increase of 543 and 2,389 respectively.

The total number of telephone-stations (meaning exchange connections of all kinds) in use in the Dominion on the 31st March, 1922, was 94,683. This includes 14,371 extensions and 4,005 bureau and service connections.

The number of telephone-stations at the ten principal exchanges on the 31st March, 1922, was as follows: Auckland, 10,678; Christchurch, 8,265; Dunedin, 6,098; Gisborne, 2,358; Hamilton, 2,074; Hastings, 2,034; Invercargill, 2,209; Napier, 2,174; Wanganui, 2,505; Wellington, 11,405.

The following table shows the distribution of telephones in the Dominion and the four chief centres:—

	Population.	Telephones.	Inhabitants per Telephone.
Dominion	1,248,216	94,683	13
Auckland	160,750	10,678	15
Wellington	109,428	11,405	10
Christchurch	106,972	8,265	13
Dunedin	75,230	6,098	12

The total revenue received was £614,367, an increase of £80,832 on the previous year's figures.

Waiting Subscribers.

Despite the fact that all previous records in regard to new connections have this year been eclipsed by the connection of 9,259 subscribers, there still remains 6,132 on the waiting-list, as compared with 7,374 for the year ended 31st March, 1921.

The numbers awaiting connection in each district are as follows: Auckland District—Auckland, 821; Hamilton, 116; remainder of district, 1,961: total, 2,898. Wellington District—Gisborne, 24; Hastings, 14; Masterton, 23; Napier, 18; Nelson, 7; Wanganui, 76; Wellington, 213; remainder of district, 971: total, 1,346. Canterbury District—Christchurch, 661; Timaru, 9; remainder of district, 644: total, 1,314. Otago District—Dunedin, 239; Invercargill, 12; Oamaru, 3; remainder of district, 320: total, 574. Grand total, 6,132.

Telephone-exchange Plant.

The development of both pole line and wire has been well maintained, the increases for the year being 543 miles and 15,502 miles respectively. During the year 63 miles of telephone-exchange cables of various sizes, containing 15,109 miles of wire, were run out, and 32 miles of cable, containing 4,561 miles of wire, were dismantled. The total length of telephone-exchange cable of various sizes in existence on the 31st March, 1922, was 829 miles, and this length of cable contains 160,314 miles of conductors. In addition to the telephone-exchange wires contained in cables, 5,271 miles of open aerial wire for subscribers' circuits were erected, and 317 miles dismantled during the year. The total length of trench-line for telephone-cables on the 31st March, 1922, was 95 miles, and in this length of trench 249 miles of single-duct line of various kinds were buried.