

maritime dangers and anxieties, and, by keeping ships in touch with the shore or other ships renders unique service to society and commerce.

A large part of the plant for the Awanui high-power station has come to hand, and the task of providing suitable foundations for the towers and other structures appertaining to a modern high-power station is almost completed. Labour troubles have been responsible for delaying to some extent the manufacture and shipment of this plant. The work of erection will shortly be commenced by the contractors, who will next proceed with the erection of a similar South Island station near the Bluff. The material for this station is now coming to hand.

The station on Mount Etako, behind Wellington, is nearing completion. The building is of solid construction, designed to resist the heavy wind-forces to which this station will be subjected, and to ensure sufficient quietness which is essential for the accurate deciphering of attenuated signals. This when completed will be the station called "Radio-Wellington."

The first of the Government steamers to be equipped with wireless plant will be the cable-steamer "Tutanekai." Accommodation for the wireless equipment is now being provided, and as soon as this is ready the equipment will be installed.

The work of linking up the outlying islands has not been lost sight of, and preliminary surveys and estimates have been prepared with this object in view.

During the year 1911 eight ships' licenses for the installation of wireless plants have been issued by the Department.

An event of importance is the International Radio-telegraphic Convention to be held in London in June, 1912. Numerous propositions affecting all phases of radio-telegraphic service will come up for consideration, and the exchange of views on the regulation and control of wireless traffic will no doubt be of considerable benefit to the countries interested. New Zealand will be represented by Messrs. C. F. W. Palliser and T. E. Donne.

Arrangements have been made for the acceptance by the Department of weather radio-telegrams for the Meteorological Office from warships and from vessels belonging to the various companies trading around New Zealand. No charge is at present made by the Department for these weather messages.

Radio-telegrams from ships at sea addressed to the radio-telegraphic station, Wellington, merely announcing their expected time of arrival, are accepted free of charge, and the information is passed on to the shipping companies and to the Press.

The probable hour of arrival of the steamers at Wellington is notified by the wireless station in the General Post Office to the Chief Post Office, thus facilitating arrangements for the disposal of the mail.

Owing to unauthorized wireless installations interfering with official messages, instructions were given to order all amateur aerials to be taken down.

TELEPHONE EXCHANGES.

Thirteen new exchanges were opened during the year, the number of subscribers increased 3,031, and the total number of connections by 4,029.

The total number of exchanges now is 193, made up of 60 central and 133 sub-exchanges.

The total number of connections is 37,257, compared with 33,228 in 1911. They may be classified as follows: Paying, 27,746; bureaux, 3,341; service, 388; extensions, 5,782.

New connections numbered 4,795, and those given up 1,413. The increase in connections is equal to 12.13 per cent.

On the 31st March, 1912, there were 1,538 miles of telephone-line and 37,872 miles of wire.

New exchanges were opened at Huntly, Kohukohu, Mangonui, Rawene, Russell, Taumarunui, Waiuku, Waiwera, Warkworth, Whakatane, Kirwee, Halcombe, Waitotara, Makuri, Takapau, Mataroa, Greenmeadows, Middlemarch, Clyde, and Kelso; and additions were made to existing switch-boards at Morrinsville, Cambridge, Te Kuiti, Levin, Taihape, Carterton, Dannevirke, Stratford, Marton, Waipawa, and Wairoa.

The work of laying conduits at Auckland to place the telephone-cables underground has proceeded steadily, 2 miles 12 chains having been laid, which, with 25 miles 4 chains previously laid, gives a total of 27 miles 16 chains completed. In addition, 4 miles 48 chains of 3 in. steel pipe has been laid. 3 miles 34½ chains of cable has been drawn into the ducts.

At Christchurch, 29½ chains of cable was laid during the year, and 7 miles 68 chains of aerial cable erected.

At Wellington, 2 miles 57 chains of lead cable was drawn into the underground ducts, and in a short time all aerial cables in the congested part of the city will be diverted underground.

At Taumarunui, armoured cable was laid underground to replace the aerial wires, which were becoming too heavy in the main streets.

Subscribers' lines at Lyttelton, Mania, Shannon, and Napier have been converted from earth-working to metallic circuits; and similar alterations will be made early at Eltham, New Plymouth, Gisborne, Hawera, Masterton, Palmerston North, Temuka, Waimate, and Geraldine.

New exchanges are to be erected at Darfield, Coalgate, Fordell, Urenui, and Rangataua.

The Foxton and Patea exchange lines were overhauled and strengthened during the year.

By Order in Council dated the 12th June, 1911, the Telephone Exchange Regulations were amended to provide that an exchange with 151 subscribers or over may be kept open continuously if two thirds of the subscribers express in writing their desire that the exchange should be so open continuously and their willingness to pay a minimum rate of £6 per annum in lieu of £5. This decision can be reversed if at least two-thirds of the subscribers express a desire to return to the original hours—8 a.m. to midnight.

From the 1st January, 1912, the charges on party telephone-lines were materially reduced.