

Repairs were effected by the aid of the Government steamer "Janie Seddon." The work, which involved the laying-in of a new piece of cable 680 yards long, extended over a period of five days, and was finally completed on the 14th March, when the cable was restored to full working-order.

During the period that the four-core cable was severed to facilitate the replacement of the faulty section, emergency telephone channels were provided by means of special stand-by systems designed for operation over the single-core telegraph cables. These emergency facilities enabled the Department to maintain continuity of service while repairs were being made.

An earth fault affected the operation also of No. 5 Lyall Bay - White Bay single-core telegraph cable and finally put it out of commission in June last year. Tests showed the fault to be approximately 2.75 nautical miles from the Lyall Bay cable-hut. As the remaining telegraph cables across the Strait are sufficient to meet traffic requirements, repairs to No. 5 are being deferred until a second cable becomes affected.

FOVEAUX STRAIT CABLE.

The submarine cable between Stewart Island and the mainland has remained in good working-order throughout the year. A short-wave radio telegraph link between Half-moon Bay (Stewart Island) and Awarua-Radio is being maintained as an emergency channel of communication.

RADIO TELEGRAPH AND TELEPHONE SERVICES.

DEPARTMENTAL RADIO-STATIONS: OPERATION.

GENERAL.

The advances which are constantly being made in the science and practice of radio telegraphy and telephony entail consequent improvements in radio-station equipment if the stations are to function with efficiency and economy. The Department's endeavour is to maintain its radio service at a standard which will enable the best possible service consistent with requirements to be given to the travelling public and to the residents of the Dominion's island dependencies. In consequence, several improvements have been made at the various radio-stations during the year, and these are referred to in more detail below.

In accordance with the requirements of the International Radio-telegraph Convention of Madrid (1932), the use of the spark type of transmitting apparatus has been discontinued at all the Department's coast stations. In most cases this apparatus has been dismantled, but at certain stations it is being retained as an emergency measure.

WELLINGTON-RADIO.

During the year certain building extensions have taken place at the Mount Etako station (Wellington-Radio). The original station building has now been converted into one transmitting-hall, having had most of the internal partitions removed in order to provide more adequate space for the housing of existing and proposed transmitting equipment. The small receiving-hut has also been enlarged to form the receiving and traffic-clearing section of the station. All the services are conducted from this building; and arrangements have been made to accommodate the staff on a more satisfactory basis than was possible in the small building prior to its extension.

Collaterally with the improvement in the building accommodation, arrangements have been made to modernize all the transmitting facilities. Improved stability has been provided for the Tasman radio-telephone transmitter, and arrangements are in train to facilitate a quick change of wave-length which will be necessary to enable a 24-hour service to be provided if required.

AUCKLAND-RADIO.

With the aid of the remote receiving-station at Brown's Bay, the Department continues to provide from the Auckland station an efficient service for shipping.

AWARUA-RADIO.

Although the spark transmitter, until lately forming part of the station apparatus, was rarely used owing to the interference thereby caused to broadcast reception in the vicinity, there were occasions when the alternative medium-wave apparatus consisting of a small valve transmitter was of inadequate power for communication with ships situated at some distance. With the dismantling of the spark set, therefore, it has been necessary to install a valve transmitter of a power suitable for all normal traffic requirements. In addition, a modern short-wave transmitter has been provided, and when the installation of these sets is completed the station will be well equipped for all classes of radio-telegraph service.

In conjunction with the provision of the apparatus referred to, certain alterations have been made to the station buildings to permit the transmitting apparatus to be accommodated in the detached room used originally as an engine-room in connection with the high-power spark equipment. The transmitters will be remotely controlled from the operating-room in the main station building thus enabling two or more services to be conducted simultaneously without mutual interference.

With the increasing use being made of short-waves by overseas shipping, arrangements have been made for regular watch on the 36-metre mobile-service band to be kept at Awarua-Radio during certain hours daily. Although prearranged schedule watches have for some years been kept as required for certain vessels which regularly communicate with New Zealand stations, the watches now provided will enable any ship however remote to obtain short-wave contact with the Dominion.