

MAINTENANCE OF TELEGRAPH AND TOLL COMMUNICATION SERVICES.

Interruptions of a major nature to the Department's telegraph and telephone services during the year were comparatively few, there being an absence of heavy snowfalls and severe storms in areas where important trunk lines and large exchanges are situated.

The most serious interruption was caused by a storm of some severity which swept the central Auckland area during the period 14th-16th May, 1937, and which affected to varying degrees the exchange services in the Auckland metropolitan area. Some 1,900 telephones were disconnected, but complete service was restored within thirty-six hours of the cessation of the storm.

On the 24th January a heavy rainstorm was experienced in the Hawke's Bay district and floods interrupted the telegraph and toll services on the Napier-Taupo route. The restoration of the service was hampered through a bridge at Eskdale being washed away, but all lines were restored by the evening of the 25th January. The same storm was responsible for damage in the Hastings telephone-exchange area where upwards of three hundred subscribers were temporarily deprived of service. Most of the subscribers were given service by the 26th January, but in a few instances, owing to difficulties of access, circuits were not restored until some two days later.

Exceptionally heavy rain, which was accompanied by an electrical disturbance, in the vicinity of Matakana in the Auckland Province on the evening of the 11th February caused slips, washouts, and extensive flooding of the surrounding country. Lightning operated the fuses at telephone exchanges and offices, and also the lightning guards associated with subscribers' telephones, thus causing temporary interference with communications. Repair work on telephone-lines, including the replacement of a number of poles that had been washed away, was hampered by damage to bridges, but all services had been restored by the evening of the 14th February.

Telegraph and toll services in the vicinity of Greymouth were interrupted during stormy weather on the 21st March, an extensive slip carrying away a number of telegraph-lines. Satisfactory temporary outlets were soon arranged and permanent repairs were effected the following day.

During January and February magnetic storms of varying intensity accompanied by displays of the aurora australis were responsible for a number of interruptions in the operation of telegraph channels between Christchurch and the West Coast, between Christchurch and Dunedin, and also between Wellington and stations in the Taranaki district. Fortunately, communication was not disrupted completely at any time, and traffic was disposed of without undue delay. These magnetic storms create strong electrical earth currents, and, as the Department's telegraph circuits operate on the earth-return principle, interference with the operation of the telegraph services varies with the intensity of the storms. As the majority of telephone channels are metallic circuits (*i.e.*, each circuit is composed of two wires), telephone services are not affected.

Early in December the main telegraph and toll-line circuits on the East Coast of the South Island for some distance north and south of Kaikoura were subject to fairly frequent interruption as a result of important road and railway construction work. With the approach of the Christmas-New Year period, when telegraph and toll traffic assumes its peak for the year, it was considered advisable to take precautions to ensure that circuit interruptions were cleared promptly. Arrangements were made, therefore, for the area in question to be patrolled by faultmen equipped with instruments for "cutting-in" on a minor circuit at frequent intervals in order to receive any instructions from headquarters that might be necessary for the maintenance of the circuits.

EXTENSION OF TELEGRAPH AND TOLL SYSTEMS.

The increasing use which is being made of the toll facilities provided by the Department has necessitated improved and additional toll outlets in various parts of the Dominion. The offices between which better facilities have been provided by the erection of new lines and/or the rearrangement of existing lines are set out hereunder:—

Kerikeri Central—Ohaeawai, Whangarei—Auckland, Whangarei—Waipu, Whangarei—Waiotira, Whangarei—Dargaville, Whangarei—Maungaturoto, Whangarei—Paparoa, Whangarei—Kaiwaka, Paparoa—Maungaturoto, Dargaville—Maungaturoto, Maungaturoto—Waipu, Maungaturoto—Wellsford, Maungaturoto—Whakapirau—Batley, Maungaturoto—Kaiwaka, Maungaturoto—Auckland, Kaiwaka—Wellsford, Paparoa—Auckland, Wellsford—Auckland, Warkworth—Auckland, Silverdale—Auckland, Albany—Auckland, Albany—Brown's Bay, Auckland—Kawau Island, Auckland—Rotorua, Auckland—Hamilton, Auckland—Manurewa, Auckland—Howick—Whitford, Auckland—Waiheke Island, Whitianga—Coroglen, Thames—Hamilton, Hamilton—Rotorua, Hamilton—Tirau, Hamilton—Cambridge, Paeroa—Hamilton, Te Aroha—Hamilton, Tauranga—Opotiki, Whakatane—Opotiki, Rotorua—Punaruia, Ngauwahia—Te Akau, Taumarunui—Te Kuiti, Hamilton—Putaruru, Te Karaka—Whakatutu, Napier—Hastings, Napier—Dannevirke, Napier—Wellington, New Plymouth—Inglewood, New Plymouth—Stratford, New Plymouth—Waitara, Inglewood—Matau, Wanganui—Taihape, Marton—Taihape, Marton—Hunterville, Hunterville—Ohingaiti, Ohingaiti—Taihape, Feilding—Halcombe, Paraparaumu—Wellington, Porirua—Tawa Flat, Masterton—Wellington, Martinborough—Pirinoa, Martinborough—Featherston, Upper Hutt—Featherston, Wellington—Christchurch, Wakefield—Thorpe, Hope Junction—Murchison, Blenheim—Seddon—Kaikoura, Kaikoura—Culverden, Cheviot—Parnassus, Stillwater—Otira, Bealey—Otira, Christchurch—Dunedin, Christchurch—Tai Tapu—Little River—Akaroa, Lake Pukaki—Omaru, Cromwell—Queenstown, Arrowtown—Queenstown, Alexandra—Clyde—Cromwell, Gore—Mataura—Edendale—Woodlands—Invercargill.