25 F.—1.

MAINTENANCE OF TELEGRAPH AND TELEPHONE COMMUNICATION.

During the year several storms of varying degrees of intensity caused serious interruptions to toll and telegraph services, but, notwithstanding widespread damage in many places, the Department's organization enabled the work of restoring the services to be commenced and completed with the utmost despatch. In some cases, owing to the extensive damage done, only work of a temporary nature, sufficient to restore satisfactory service, could be undertaken, the work of effecting permanent repairs having to be deferred until normal conditions obtained and until staff, material, and transport could be made available. Much of the temporary work had to be done under very trying conditions at the height of the storms, and very often in darkness.

In cases of major disruption to communication services steps are invariably taken to ensure that the most essential services are restored first. Under emergency conditions, the telegraph service is considered to be of more value to the community as a whole than the toll service, hence initial efforts are directed towards the immediate restoration of at least one Morse outlet between each of the larger

telegraph offices.

Possibly the damage caused by storms during the past year was more extensive than that caused by storms in any previous year, at least within the last decade, and the effecting of permanent repairs

to the damaged plant will cost many thousand pounds.

The most serious general interruption for many years was caused by a gale of exceptional severity which, on the night of the 1st February last, swept practically the whole of the North Island and the northern part of the South Island. The gale was accompanied by heavy rain, and continued during the following day. The most extensive damage occurred in the Palmerston North district, the centre of the storm, but dislocation of services was general. In most districts the work of restoring temporary services was well in hand by the evening of the 3rd February, but the damage to the outside plant was so extensive that it was not for some days afterwards that service was available to telephone subscribers in the areas most affected. The greater part of the damage to the Department's plant was caused by trees falling on and breaking lines and bringing down poles. Slips from hillsides and floods were also responsible for a considerable amount of damage. At the end of the year the work of permanent restoration was still proceeding.

On the 9th and 10th of June, 1935, one of the severest snowstorms in the history of the Canterbury Province caused widespread damage over the whole district. By 9.15 p.m. on the 9th June Christchurch had lost communication with all outside offices. The weight of frozen snow caused hundreds of poles to break or bend, and wires were badly stretched or broken in many places. In one section between Kaiapoi and Christchurch approximately fifty poles were either broken or pulled down, while between Christchurch and Dunsandel sixty poles were similarly affected. About 140 toll and telegraph circuits, and 1,260 telephone-exchange lines serving about 2,240 subscribers, were rendered inoperative due to broken wires, contacts, &c. By the evening of the 11th June service over some circuits on all the main routes had been restored, but it was not until some days later that temporary repairs were effected generally and services restored to normal. Permanent repairs, involving heavy expenditure,

engaged the attention of a large number of men for several months.

A violent storm which struck the eastern and northern parts of the Auckland Province on the night of the 25th March was responsible for considerable damage to telegraph, toll, and telephone-exchange lines. Most of the damage was caused by falling trees and by sheets of roofing-iron from adjacent buildings. High seas washed out a number of poles between Thames and Coromandel, where the line follows the coast for some distance. Telegraph and toll services to the stations north of Auckland and in the Thames District were interrupted, and a total of approximately one thousand subscribers to the Auckland, Matamata, Paeroa, Te Aroha, Waihi, and Wellsford exchanges lost service temporarily, The disruption was of comparatively short duration. By 4 p.m. on 26th March telegraph services had been restored, and by the following day all subscribers had been reconnected.

CARRIER-CURRENT TELEPHONE SYSTEMS.

The equipment for the three-channel carrier-current system for direct operation between Auckland and Wellington, to which reference was made in last year's report, was brought into operation in October. The installation of this system has enabled the Department to provide an additional toll outlet between Auckland and Wellington, thus increasing the number of direct outlets between those centres from two to three, while better facilities are now available for emergency purposes over alternative routes. A speedy and dependable service is now assured between these two important centres.

Further improvement in the Department's long-distance telephone network was also effected by the installation of several new single-channel carrier-current systems, resulting in the provision of additional high-grade direct toll circuits between Auckland and New Plymouth, Auckland and Palmerston North, Palmerston North and Wellington, Palmerston North and Masterton, and between Wellington and Napier. It is proposed to provide in the near future a three-channel system between Seddon and Christchurch, the equipment for which is now being installed. When this system is brought into use it will be practicable to provide an additional direct channel between Wellington and Christchurch.

As existing facilities are proving inadequate for the steadily increasing load of inter-Island traffic, it has been decided to establish a further high-grade telephone channel between Wellington and Blenheim by utilizing No. 4 single-core telegraph cable conjointly for both telephone and telegraph purposes. This will be done by the installation of a second voice frequency-carrier frequency system, similar to the one that has been in operation over No. 5 cable since 1930.