

The first objection in Auckland was that the draft regulations covered a number of ships which voyaged in allegedly sheltered waters, never out of sight of land and but short distances from port to port, and that in such cases the requirement to carry wireless was absurd and unreasonable. The second objection was to the cost of the normal and emergency installations required by the regulations, and to the cost in wages, accommodation, and keep of a special operator, who would have practically nothing to do, and would perform no other duty than that of wireless operator. The third objection was that in the case of some of the ships in question it was impracticable to install wireless because there was no space for accommodation of operator or wireless cabin, that masts were too short and too close together to give a satisfactory aerial, and that in some cases the ships had only one mast, and that even if wireless could be installed the installation was unnecessary and would be ineffective.

Subsequently we investigated a modern installation of a type which under older definition would be described as an emergency installation. Although the time of inspection was noon, and the ship on which it was installed badly shrouded by wharf-shed structures, no difficulty whatever was experienced in communicating with radio stations at Wellington and Awarua. This set had been operated for some time by one of the ship's officers.

After full consideration we unanimously concluded that efficient wireless communication could be installed on "home trade" ships (that is, ships engaged solely in coastal trade) if the installation definitions were altered to provide in their case for "Home Trade Major" and "Home Trade Minor" installations, the former having not less than 200-watt capacity and the latter not less than 100-watt capacity. The question as to whether a home-trade ship should carry a "Major" or a "Minor" installation would depend on the class of ship and the voyages she engaged in.

We also concluded that, so far as operation was concerned, the position would be adequately met by permitting the home-trade ship installations to be worked by deck officers specially examined and certificated for that purpose.

This possible amelioration of conditions, which does not in any way abate the efficiency of installations from a life-saving point of view, was put to the Wellington Conference and accepted by them.

With regard to intercolonial and foreign-going ships, however, it was necessary to conform to Wireless Convention requirements.

In the final revision of the regulations the requirement to carry wireless was in no way abated; all that was done in the way of variation was that the conditions were made easier and more practicable, thus enabling wireless installation to be carried much further than would otherwise have been the case.

The provision enabling the apparatus on home-trade ships to be worked by qualified deck officers marks an entirely new departure in wireless-on-ships legislation.

Our regulations as finally passed are in advance of either Great Britain or the Commonwealth of Australia to the extent shown by the following comparison:—

| <i>Great Britain and Commonwealth of Australia.</i> | <i>New Zealand.</i> |
|---|---|
| (a.) Any ship over 1,600 tons gross register. | (a.) Any ship over 1,600 tons gross register. |
| (b.) Any ship carrying more than twelve passengers. | (b.) Any ship carrying more than twelve passengers. |
| | (c.) Any ship the number of whose crew, plus the number of passengers the ship is authorized to carry, exceeds twenty-five persons. |

After a very careful study of the loss of life arising from marine casualties on our coast during a period of ten years, and having regard to the possible saving of life which might, under most favourable review, have been effected by wireless, it did not seem reasonable to drive the installation of wireless any further for the time being. Doubtless further developments in wireless communication in the future will make practicable the further extension of its use on ships.

LIGHTHOUSES.

During the year Tiritiri and Anglem Point lights have been converted to automatic.

Authority has been obtained and the necessary apparatus ordered for the conversion of Piako River leading-lights, Cape Foulwind, and Kahurangi lights to automatic.

The old-fashioned sixteen-burner light at Dog Island will shortly be replaced by an up-to-date second-order dioptric light.

A new automatic light is now being installed at Matakaoa Point (Hicks Bay).

New lenses are being placed in the East Cape light, which has also been connected with the telephone system.

Bad weather on the coast frequently causes the lighthouse tender to be delayed for days in replacing gas-cylinders in automatic lights. To overcome this delay a large additional number of cylinders have been ordered which will enable the gas-capacity of a number of the automatic stations to be duplicated. Thus if bad weather precludes a station being served without undue delay it can be left until next trip without fear that the gas-supply will run out.

As some of the automatic lights have been in use for a number of years it has become necessary to order a number of spare parts for burner and flasher apparatus. By this means worn parts can be replaced by spare parts and repairs and overhaul effected in Wellington.

Wireless Installation at Lighthouses.—*Puysegur Point and Stephen Island.*—The telephone connection to Puysegur Point, the most isolated station in New Zealand, became impossible of