11 H.--15.

The Department's position in the matter is that it believes in the value and reliability of radiodirection-finding and that it is prepared to fully respond to any indication on the part of shipowners that if radio-direction-finding beacons are provided they, in turn, will equip their ships with the complementary apparatus.

## Examination of Masters and Mates, etc.

The examinations for certificates of competency as master or mate in the mercantile marine have been performed monthly during the year, alternating quarterly at the ports of Lyttelton, Wellington, and Auckland in accordance with the Department's regulations. The number of candidates for examination shows an increase, the total number being one hundred and five for all grades of certificates, of which sixty-six sat for certificates for foreign-going vessels and thirty-nine for certificates for vessels in the home trade and restricted limits. The amount of failures for the year is 54 per cent., a slight increase in comparison with former years; the increase in failures probably resulting from the "time" alteration made by the Board of Trade in the manner in which navigation problems were set in 1925, and in which respect this Dominion copies the Board of Trade very closely so as to maintain uniformity in the examinations, thus ensuring recognition of New-Zealand-issued certificates The "time" alteration marked a in Great Britain and in other portions of our Great Empire. distinct departure in nautical astronomy, the science by which ships are taken across the oceans of the world, and, although the "time" alteration involved in principal nothing more than commencing the astronomical day at midnight instead of at midday as has been the custom of astronomers and navigators throughout the past, it necessitated resetting the whole of the astronomical problems used in the examinations of masters and mates, a work requiring much time and care. Probably a small percentage of the failures may be attributed to the larger number of marks now allotted to trigonometrical problems, as prior to 1925 those problems were less difficult and were entitled to marks incommensurate with their importance.

One candidate sat twice (unsuccessfully) for the higher examination as extra master.

Five candidates sat for the voluntary examination in compass-deviation, two being successful. A "pass" in this examination qualifies a person to apply for this Department's license as an adjuster of ship's compasses. One candidate passed an examination as Pilot for the Port of Wanganui; but there were no applicants for examination for a license as Coastal Pilot, or for the voluntary examination in speed signalling.

Of the total number of candidates who sat for examination it is pleasing to see that twenty-six passed at first attempt. The inability of some candidates to successfully contest an examination appears to be shown in the case of one candidate for a lower-grade certificate who was unsuccessful

at his seventh sitting.

The decrease in sailing-vessels is shown by the increasing numbers of candidates who sat for certificates for steamships only, and of the total number of foreign-going certificates issued during the year only seven entitled their holders to serve on square-rigged sailing-vessels. By this it will be seen that it now becomes increasingly difficult to obtain experience on square-rigged vessels, so that few candidates are able to sit for "ordinary" (square-rigged) certificates.

Of the total number of candidates, seven passed for a certificate as master of a river steamer.

The holder of this certificate is entitled to act as master of a steamer of any size plying within restricted limits at any port within this Dominion. Before he can sit for a certificate he is required to have served at least one year at sea or on board of a vessel plying within restricted limits, and the examination at present does not call for any navigational knowledge other than is embraced by the Collision Regulations. The brief sea service required and the very meagre nature of the examination does not appear sufficient to qualify a person for such an all-embracing certificate entitling him to take charge of any steamer in any of the many ports in this Dominion; and the question as to whether future conditions for this certificate should not require more adequate sea service and some knowledge of navigation, also as to this certificate being localized for use in the limits for which a candidate is examined, demands consideration.

In 1926 a further improvement in the examinations for foreign-going certificates is to be made by the Board of Trade, and in which this Dominion will require to comply; the main feature being that certain problems may be solved by optional processes, and greater knowledge will be required of some subjects of which hitherto an elementary knowledge only was expected. The higher examination for extra master is to include a general mathematical paper embracing mensuration. Also, in 1926, in Great Britain, the examination for home trade or coastal certificates are to be considerably improved, and candidates for those certificates will then be required to find the deviation of the compass in a more satisfactory manner than exists at present. They will also be required to find the longitude by astronomical observations, such as is performed by their competers in overseas vessels. In this respect it is desirable that this Dominion adopt these improvements in respect of its coastal navigators, as the coasts of this Dominion are more exposed and are not nearly as plentifully provided with artificial aids to navigation as are the coasts of the United Kingdom.

On and after the 1st January, 1926, the Board of Trade will require every candidate for a foreign-going certificate of competency, and similarly for home-trade certificates issued in the

United Kingdom, to produce a certificate of efficiency as lifeboatman.

This alteration is for the purpose of ensuring that individual officers who will be in possession of certificates of competency issued subsequent to the 1st January, 1926, shall be efficient in the use of the modern life-saving equipment on ships. The Board of Trade has agreed to accept similar certificates of efficiency as lifeboatman issued in this Dominion, and in this Dominion arrangements for candidates to be examined and the necessary certificate to be issued will require to be made. In the United Kingdom these examinations are carried out by officers appointed by the Board of Trade.