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IV. - PORT DEFENCES
The duties of the Meteorological Officers at the Coast Guard are available all meteorological information to shore and sea-going personnel, as well as the inspection of all meteorological instruments and correction of barometers aboard ships.

Information under this heading is to be found in Chapter X "Technical Development", and particularly under the section headed "Boom Defences". This Analysis gives the position and movements of Highs, Lows, Fronts and Isobars, which is of the greatest use in the larger ships of the Royal Navy and Royal Canadian Navy.

Another interesting function of the Meteorological Department has been the comparison of the Actual Weather with the United States Long Range Forecasts.

The United States are now issuing two Long Range Forecasts, for a ten day period, and for a one month period. Rough comparisons with the Actual Weather were made covering only three areas -- The Gulf and Maritimes, Newfoundland, and the Ottawa District -- for the months of July and August, and there was a definitely higher degree of accuracy shown in the forecasts for August.

With regard to developments in the United Kingdom, Air Ministry scientists are working on a highly technical method using harmonic functions. These forecasts have a very limited distribution. Research workers offer positive results for thirty day forecasts but the Meteorological data supplied is very general. They forecast tracks and positions of disturbances rather than actual weather.

Admittedly work on pressure distribution over two day periods with a one day overlap. Local indices of pressure distribution are the important aspect of this method. The forecasts are for five days. The original investigator claims only 65% accuracy, and maintains that no method of long range forecasting known to the allies is past the experimental stage at the present time.

During this quarter, one Meteorological Officer returned from the United Kingdom having completed a twelve weeks' course at Greenwich. This course consists of the usual features, but also includes a short course in the meteorological applications of chemical warfare.

It is considered highly desirable that all R.C.N. meteorological officers undergo this course, complementing as it does the training they have already received in the Canadian Meteorological Service (Department of Transport) which is designed primarily -- if not indeed solely -- with flying requirements in mind.

Accordingly, two more officers are taking the next course.

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