

Damage to Shoreline by Passing Ships

advised mariners of the necessity of imposing temporary speed limits due to the present high water levels. It also included a warning that surveillance crews would be enforcing the speed regulations on a round-the-clock basis using radar equipment. This is extremely important. If we have regulations they must be enforced on an around-the-clock basis because the shoreline does not go to sleep at night and can be damaged at one time as well as at another. Mariners were requested to exercise vigilance in adhering to the prescribed limits; failing to do so might cause shoreline property damage and create the risk of possible serious injury or loss of life. The following are the temporary speed limits. In Parts of Lake St. Louis 12 knots to 13 knots, depending on the width. Between Ogden Island and Blind Bay, 14 knots, and between Bartlett Point and Tibbetts Point 13 knots.

The rising water levels in Lake Ontario and the Upper St. Lawrence River were in April, 1973, reaching the point where shoreline and property damage could result from normal vessel speeds. All predictions based on close monitoring indicated that this point would be reached within the following few days. Due to these facts, the Canadian and American Seaway authorities jointly announced that they had reached agreement on further temporary speed reductions. In general, vessels would be limited to a maximum of 12 miles an hour between Tibbetts Point on Lake Ontario and Lancaster, Ontario on Lake St. Francis. In making this announcement, Dr. Camu and Mr. Oberlin said:

These further speed reductions are being made in recognition of the serious threat which the forecast high water poses to the citizens on both sides of the waterway. We have called upon the shipping industry to join us in recognizing the emergency conditions by strict adherence to the prescribed limits even though the efficiency of the waterway will be significantly reduced as a result of these restrictions.

When vessel speed limits are established they are based on the results of continuing field studies which take into account a number of factors including vessel speed, wave height, shape of hull, width and depth of channel, current velocity and other related criteria. While all these points are carefully considered in arriving at a speed limit, the effects of high water levels are also given substantial consideration with respect to the areas under study, the use to which the waters are to be put and the extent, development, condition and proximity of the shoreline.

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On April 10, 1973, notice No. 8 was issued by the Seaway, superseding notice No. 7 of 1973. This notice further reduced the speed limits in force and, in addition, included three areas previously not affected.

Notice No. 9 of May 8, 1973, imposed a temporary speed limit of 11 miles an hour over the bottom in the area of the Canadian middle channel for all vessels in excess of 40 feet in length.

During the latter part of this summer, the water levels on Lake Ontario and the upper St. Lawrence River were receding to more normal conditions. This is not the case in the upper lakes, and certainly not the case on Lake Superior, so we have a year or two before we can expect that situation to occur. As a matter of fact, with the closing of a couple of the locks at Sault Ste. Marie we can

[Mr. McRae.]

expect the levels of Lake Superior to be high for two or three years, possibly even higher than they were this year. If there is any significant run-off this spring, we may have considerable shoreline flooding and damage next summer when the high water usually occurs, that is about the first of August. As a result of the water levels on Lake Ontario and the upper St. Lawrence River receding, some of the temporary speed limits were removed. However, notice No. 15 of August 15, 1973, while expressing appreciation for the co-operation of pilots and masters during the high water periods, continued to stress that their co-operation in adhering to the speed limit was essential.

In the period from April 19 to July 20, 455 commercial vessels were checked. Of this total, 55 were found to be exceeding the speed limit, 30 offenders received letters of warning because they only exceeded the speed limit by a small amount, and six had recorded violations and were fined between \$100 and \$300, very small fines considering the damage that was done. The charges against the remaining 19 violators are still being processed.

On May 4, 1973, the Ministry of Transport published notice No. 417 to mariners warning mariners of the damage caused by the excessive speed of ships and boats. This notice would also be published in the annual edition of "Canadian Notices to Mariners":

During recent years, there has been a marked increase in the damage caused by draw-off and wave disturbance generated by the passage of ships and boats.

In addition to damage caused to wharves, boat houses, small boats, moored ships, and erosion of the shoreline, there is also the attendant risk of causing serious bodily harm to persons in, on, or near the shore, particularly children.

The amount of draw-off and the size and intensity of the waves at any given speed varies with the hull form and draft of each vessel. Other factors include the proximity to the shore and objects concerned and the configuration of the channel.

Existing water levels must be taken into account since high water levels tend to increase and extend the damaging effects of a vessel's passage beyond what would otherwise be expected.

Masters, pilots and owners of vessels may be subject to court action for damages sustained by injured parties as a result of damage or injury caused by the passage of their vessels.

Regulations designed to control this type of damage would require speed limits sufficiently low to prevent damage by any type of vessel. This might impose on some vessels unrealistic speed limits and cause undue economic and recreational restraints.

Control of vessels' speed limits by regulation can be avoided if persons in charge of the navigation of vessels, who best know the individual characteristics of their vessel, exercise restraint and reduce speed as necessary, taking into account all factors that may contribute to or aggravate the damaging effects of draw-off and wave disturbance—

Whereas many speed restrictions are of a specific nature, tailored to the needs of a particular area, this notice is general in nature and is intended to apply in all Canadian waters. The notice is reprinted yearly in the "Canadian Notices to Mariners". This publication is one that must be carried on board all ships in waters under Canadian jurisdiction under the charts and publications regulations.

The problem of vessel speed can also be approached in another way. The boating restriction regulations provide a means of control where the operation of boats creates specific problems such as noise nuisance, danger to other