

Log M-244

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: February 8, 1984

Forwarded to:

Honorable James L. Emery
Administrator
Saint Lawrence Seaway Development
Corporation
Department of Transportation
Washington, D.C. 20591

SAFETY RECOMMENDATION(S)

M-84-1 through -3

On November 26, 1979, the Yugoslavian freighter M/V JABLANICA and the Canadian bulk carrier S/S PIERSON DAUGHTERS collided in navigable waters of the United States near Pullman Shoal Light in the American Narrows Channel of the Saint Lawrence Seaway. The collision damage was estimated at \$1,433,000 to the JABLANICA and \$200,000 to the PIERSON DAUGHTERS. There were no injuries to personnel.

The JABLANICA was bound from Chicago, Illinois, to Port Cartier, Quebec, Canada; it was under the control of a registered Canadian pilot. The PIERSON DAUGHTERS was en route from Three Rivers, P.Q., Canada, to Clarkson, Ontario; it was under the control of the vessel's chief mate, who was also a licensed pilot.

At 0300, on November 26, 1979, both vessels were approaching Pullman Shoal Light. About 0317, the vessels exchanged one-blast passing signals. The vessels were then from 1/2 to 3/4 mile apart. The JABLANICA's pilot said that as the vessels closed, he adjusted his vessel's course to the right to 040° to 041° and observed the PIERSON DAUGHTERS in his line of sight to Sunken Rock Shoal Light. The pilot became concerned that the PIERSON DAUGHTERS was closing with the JABLANICA and ordered 10° and 20° right rudder when the vessels were from 300 to 400 feet apart. Shortly thereafter, he sounded the danger signal and ordered full right rudder. The JABLANICA was swinging to the right when the collision with the PIERSON DAUGHTERS occurred.

About 0317, when the PIERSON DAUGHTERS was about 150 feet from Pullman Shoal, the pilot told the helmsman to change course to 218° gyrocompass and to steer on the Point Vivian fixed green steering light. The pilot said that the vessel "swung" to the right, headed on the light, and that the vessel's bow cleared Pullman Shoal Light by 30 to 40 feet. He then observed that the JABLANICA was very close to port and that there did not appear to be enough room for the vessels to pass safely. When the vessels were about one ship-length apart, the pilot ordered the helmsman to come very slowly a couple of degrees to starboard, and subsequently "more to starboard,--go easy." He heard the JABLANICA's danger signal and about 3 to 4 seconds later he observed the JABLANICA swinging to its starboard; 2 seconds later the vessels collided. The JABLANICA and the PIERSON DAUGHTERS collided on opposite and almost parallel courses, but both vessels' headings were changing to their right at the time of impact, at 0318. The weather at the time of the accident was partly cloudy and there was an occasional light drizzle. Visibility was 6 to 7 miles.

Each pilot described his vessel's trackline just before the collision as being close to his respective right-hand side of the channel. Since the distance between Pullman Shoal and Cherry Island is about 500 feet (about 50 feet wider than the published channel width), the vessels would have passed each other at a distance of about 225 feet if the vessels were proceeding as the pilots stated.

Although the pilots had good radio communications, had operative radar, and were aware that their vessels would meet near Pullman Shoal turning point, no attempt was made to adjust their meeting to a more favorable, less constricted location. Despite the small course change required at Pullman Shoal Light, the need to stay to the right of the channel centerline made it important that the upbound vessel be aligned properly with the channel and not make any significant course changes during the close passing.

The Safety Board has investigated previous accidents in which vessels which have attempted to meet or overtake in river bends and at channel turning points have not used radio communications effectively. This accident also illustrates Board findings that even though only small course changes may be required, the risks in attempting to pass while in bends and channels are greater.

Because there is only a single steering light on Point Vivian, it is difficult for a pilot to accurately determine whether his vessel is on the channel centerline, or drifting to either side of the centerline. In this instance, even though both vessels were apparently within the approximate steering light's high intensity sector, the pilots could not be sure of their vessels' precise location relative to the channel's centerline. An accurately oriented lighted range at Point Vivian would have allowed each pilot to readily determine whether his vessel was to the left or to the right side of the channel center, and might have averted this collision.

A study of the St. Lawrence River currents in the vicinity of the accident shows a current pattern from Stoney Crest Island that runs generally downbound in the direction of the channel, and tends to set to the right into Alexandria Bay. At Pullman Shoal, the 1.75-mph current sets about 052° true. This current would have slowed the PIERSON DAUGHTERS and tended to set the vessel to the left of its 215° course while approaching Pullman Shoal. Because of the meeting situation, and the need for the PIERSON DAUGHTERS to favor the right-hand side of the channel, which also means keeping close to the shoal where the current is stronger, the vessel would have to have been carefully maneuvered with repeated course adjustments.

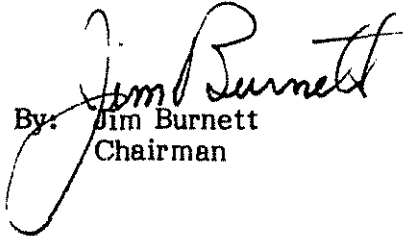
Therefore, the National Transportation Safety Board recommends that the Saint Lawrence Seaway Development Corporation:

Establish a lighted range at Point Vivian for the channel centerline between Comfort Island Shoal and Pullman Island Shoal. (Class II, Priority Action) (M-84-1)

Restrict large vessels from attempting to meet and pass at night in the Saint Lawrence River, American Narrows Channel, between Comfort Island Shoal and Pullman Shoal until a lighted range can be established on Point Vivian which accurately delineates the centerline of the channel between those shoals. (Class II, Priority Action) (M-84-2)

Publish in suitable form for use by mariners the available Saint Lawrence River current and velocity survey measurement data, and update such information as additional survey data become available. (Class II, Priority Action) (M-84-3)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and BURSLEY, ENGEN and GROSE, Members, concurred in these recommendations.


By: Jim Burnett
Chairman