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Reprint from Volume 19 Number 7

April 5, 2007

***Queen of the North*: what happened ... but not why**

~ Patrick Brown

The recently published BC Ferries' report on the sinking, a year ago, of *Queen of the North* supports the generally held conclusion that the ship had failed to turn to port at the bottom of Grenville Channel and had proceeded straight-on at full-speed, colliding with the rocky shore of Gil Island fourteen minutes later.

Emergency evacuation procedures onboard the ship are reported to have worked well, but two passengers remain unaccounted for. Assistance came promptly from the fishing vessel *Lone Star*, the residents of nearby Hartley Bay, and the Coast Guard vessel *Sir Wilfrid Laurier*.

Queen of the North was replaced on the route on March 31 with the newly refitted *Northern Adventurer*.

A previous report on ferry safety by George Morfitt was released on January 22. (An article, 'Safety reports galore—still awaiting *Queen of North* report,' was published in *Island Tides*, February 8, 2006 and can be downloaded at www.islandtides.com/html/bcferries.htm.) The federal Transportation Safety Board's definitive report is yet to come.

Recommendations For The Bridge

The new report fails to establish why the course turn had been missed, and why nobody on the bridge noticed that anything was amiss until the sudden appearance of trees ahead of the ferry was followed almost instantly by that terrible crunching sound.

However, it is significant that twelve of the recommendations in the report deal with the bridge's navigation equipment, the training of officers and crew in its use, and the establishment of standard procedures for crew handovers and changing from autopilot to manual steering.

These recommendations are consistent with Morfitt's January safety audit which emphasized the need for 'Bridge Resource Management Training.' The recommendations are (also) consistent with warnings by former BC Ferries Safety Director Darin Bowland. Bowland resigned soon after the sinking, claiming that he had not been permitted to conduct his own investigation of its cause.

The recommendations are also consistent with a preliminary Transportation Safety Board (TSB) assessment May 11, 2006, that suggested bridge personnel were not adequately trained to operate new systems on the bridge. In particular, the TSB assessment mentioned the Electronic Chart System display, which shows the exact position and course of the ship on a chart of the area, and a new Steering Mode Selector Switch, which enabled bridge personnel to switch

between manual steering and the autopilot. The autopilot ensures that, once it is set and engaged, the ship maintains an accurate straight line course.

The report notes that a notice entitled 'Steering Changeover Procedures', prepared by the Chief Officer, "A" Crew and the Senior Master, *Queen of the North*, was posted in the wheelhouse. The procedure describes how to change from hand steering to autopilot, and also how to make corrections to the course while on autopilot. The report also notes that the "B" crew (on duty that night) 'chose to operate the steering controls in a different manner. However, this choice does not appear to be causative of the grounding.' No details are given to support this remark.

Ship Was On Autopilot

There were three people on the bridge that night. The Second Officer went for lunch before *Queen of the North* reached Sainty Point at the south end of Grenville Channel.

Sainty Point is where the course was supposed to have been changed to 118° to avoid Gil Island; it was reached at eight minutes after midnight. A radio call was made to check in with Prince Rupert, but it appears that the ship remained under autopilot on a course of 133°—straight onto the Island four nautical miles ahead.

The deckhand at the wheel (when on this duty, this deckhand is known as the Quartermaster, or QM) reported that when trees were sighted, the Officer of the Watch ordered a sudden course change and the autopilot to be switched off, but that she did not know where the switch was located. The authors of the report find this hard to believe. (The deckhand also reported that she had made small course changes as ordered, but the record of the ship's course showed no changes, and the ship had been on autopilot all the time.)

The autopilot, in fact, had been engaged and set on a course of 133° from Ormiston Point on Grenville Channel, well before the deckhand arrived on the bridge to take over the QM duties at 11:50pm. The previous QM said he had advised the incoming QM of the position of the ship, but she testified that she did not know where the ship was.

After the collision with Gil Island, the report says, with dry humour, 'The SOG (speed over ground) went from 17.5 knots to zero in very short order.'

Following the collision, the Officer on Watch was heard to say, 'I'm sorry, I was trying to go around a fishing boat.' The ship's Master (not on the bridge at the time) reported seeing a steady white light to the south about two or three nautical miles away. The report does not explain this sighting.

Two On Lookout

When a ship is on autopilot, Coast Guard rules require only two crew on the bridge (three when hand steering). They are responsible for keeping a lookout, monitoring the location, direction, and speed of the ship, and knowing where there are islands and other ships which should be avoided. The report noted that music was heard playing in the background of radio transmissions from the ship. (Regulations require that a 'proper lookout' includes 'by sight and hearing.')

The QM, on lookout, reported that she could see nothing ... until she saw the trees. Had it been clear, and had the ship been on its correct course, she might have seen Point Cumming light, the next waypoint on the ship's route, almost dead ahead. But then it might not have been visible, because it was 7.8 nautical miles from Sainty Point where the turn was supposed to have been made, and since the light had been downgraded by the Coast Guard a few years ago, it was reported to have a nominal range of only five nautical miles on a clear night. There's no mention of Point Cumming in the report.

A Dark and Possibly Stormy Night

The night of March 21–22, 2006 was, we believe, dark and stormy, though accounts vary. The crew of *Queen of the North* reported wind at twenty knots on the starboard beam (but the ship was traveling at 17.5 knots, so apparent wind may have affected their estimates); the *Lone Star* had sought shelter from 'strong crosswinds in Wright Sound'; a tug towing logbooms in Wright Sound reported that it was a dark, cloudy evening with seven knots of wind from south to southeast. Prince Rupert Coast Guard advised Hartley Bay residents of forty knot winds and two metre seas, but after the wreck, the seas were reported calm with a light rain falling. Wind direction and velocity can, of course, vary a lot in the north coast's maze of inlets and islands.

Navigational Equipment

Two radar sets and the Electronic Chart System (ECS) show the position and course of the ship relative to the shore, rocks, and other landmarks. The report indicates all were operating normally. At least one of the radar sets was set at a range of half a nautical mile, which meant that it might not have shown the

shore until it was too late to avoid it. According to the report, 'as the ECS was recording the vessel's movements during the approach to Gil Island, such data was available to the deck (navigational) watch.'

However, there is no indication whether the ECS display screen was on or off, although the report notes that after the incident, some deck officers complained that the ECS could not be dimmed enough and that its brightness affected night vision. One of the report's recommendations instructs the vice president, engineering, to 'conduct a review of the illumination of navigational equipment.'

Producing The Report

The definitive evidence of the ship's course and speed was found on the hard drive from the ECS computer. This was recovered from the bridge by a remotely operated underwater vehicle (ROV) in 1,400 feet of water on June 15, 2006. (This recovery was a considerable feat.) BC Ferries' Divisional Enquiry Panel and other members of management were shown the track data, reconstructed by TSB laboratories, on June 30. This report, however, was only available publicly at the beginning of last week.

BC Ferries' management has expressed frustration that the Fourth Officer (Karl Lilgert, who was on watch at the time of the collision) and the Second Officer (Keven Hilton, who was at lunch) have, on the advice of union lawyers, refused to testify to the BCFS's Enquiry Panel, but agreed to co-operate with the TSB investigation. The QM, Karen Bricker, did co-operate with the panel.

The two officers claimed that the company would not agree to treat their testimony as privileged, and they would therefore not be protected from future civil lawsuits. After the sinking, BC Ferries had suspended both officers without pay; they in turn had filed a grievance.

Late in the week of March 19, arbitrator Brian Foley confirmed that they had a duty to testify, and disallowed their grievance. Their refusal to testify was, he said, 'a serious and continuing act of insubordination'.

The final TSB report, BC Ferries' disciplinary hearings, and an RCMP missing persons report are still to come. 