



## **STAFF ASSESSMENT OF THE RESPONSES TO MARINE SAFETY RECOMMENDATION M08-03**

### **CARRIAGE OF VOYAGE DATA RECORDERS**

#### **Background**

At 2000 on 21 March 2006, the passenger and vehicle ferry *Queen of the North* departed Prince Rupert, British Columbia, for Port Hardy, British Columbia. On board were 59 passengers and 42 crew members. After entering Wright Sound from Grenville Channel, the vessel struck the northeast side of Gil Island at approximately 0021 on March 22. The vessel sustained extensive damage to its hull, lost its propulsion, and drifted for about 1 hour and 17 minutes before it sank in 430 m of water. Passengers and crew abandoned the vessel before it sank. Two passengers were unaccounted for after the abandonment and have since been declared dead.

The Board issued the safety recommendation on 12 March 2008.

#### **Board Recommendation M08-03 (12 March 2008)**

Despite the significant safety benefits to operators, accident investigators, and hence the travelling public, there is no requirement for the carriage of VDRs on non-Convention vessels, thereby depriving the industry of a proven and valuable tool for improving safety. The Board, therefore, recommended that:

*The Department of Transport extend the requirement for the carriage of voyage data recorders/simplified voyage data recorders to large passenger vessels over 500 gross tonnage and all other commercial vessels on an equivalent basis to those trading internationally.*

M08-03

#### **Response to M08-03 (3 June 2008)**

The response indicated agreement with the general intent of the recommendation, and TC intends to implement domestic carriage requirements for VDR/S-VDR for certain domestic commercial vessels.

Following the recommendation, TC communicated with Canadian ferry operators in March 2008 to encourage operators to voluntarily adopt this measure. In addition, TC is also working

toward incorporating this requirement into regulation. As part of the *Canada Shipping Act, 2001* Regulatory Reform project, TC commissioned a study to conduct a cost-benefit analysis of potential regulatory requirements for VDRs and Simplified-Voyage Data Recorders (S-VDRs) for Canadian non-SOLAS vessels

TC referred to the U.S. study in the TSB report, where the U.S. Congress directed the U.S. Coast Guard to study the use of VDRs on certain specified ferries, and noted that the U.S. Coast Guard concluded that based on the findings of this study, the Coast Guard recommended against requiring the use of VDRs or S-VDRs on the subject ferries.

TC indicated that it will take into account the results of the study, in consultation with stakeholders, and follow the regulatory process in developing and implementing domestic carriage requirements for VDRs/S-VDRs.

In addition to the original response, the following was provided by TC officials as a follow-up to a discussion, held 03 July 2008.

The proposed *Voyage Data Recorders Regulations* will provide for the mandatory carriage and annual testing of VDR and/or Simplified VDR (S-VDR) equipment onboard certain Canadian passenger vessels and cargo vessels not engaged on international voyages on an equivalent basis to ships required to comply with the requirements of the SOLAS Convention. The proposed *Voyage Data Recorders Regulations* will also consolidate the SOLAS Convention VDR and S-VDR requirements, including those currently reflected in the *Navigation Safety Regulations*.

Pre-publication in Part I of the *Canada Gazette* is anticipated for February 2009. Final approval and publication in Part II of the *Canada Gazette* is anticipated for September 2009.

### **Board Assessment of Response to M08-03 (11 August 2008)**

Although the response indicated TC's intention to develop and implement the domestic carriage requirements for VDR/S-VDR for certain domestic commercial vessels, it has not specified vessels for which the requirements will be made mandatory. However, the additional information from the follow-up discussion stated the intent of the carriage requirement on an equivalent basis to ships required to comply with the requirements of the SOLAS Convention.

TC is working toward incorporating this recommendation into regulation and anticipates that pre-publication and publication will be made in the *Canada Gazette* are for February 2009 and September 2009, respectively. Any extension of the mandatory VDR/S-VDR carriage requirement will provide significant safety benefits to those operators, and allow investigators increased access to safety information in an increased number of occurrences.

The response is considered to be **Satisfactory Intent**.

### **Response to M08-03 (March 2010)**

TC's update, dated March 2010, indicated that the proposed *Voyage Data Recorders Regulations* will provide for the mandatory carriage and annual testing of VDR and/or Simplified VDR equipment onboard certain Canadian passenger vessels and cargo vessels.

A cost-benefit analysis was completed in December 2008. The findings were presented at CMAC in May 2009 and to the TSB. The marine industry was consulted on the draft regulations at CMAC in May and November 2009. Pre-publication of the proposed regulations in Part I of the Canada Gazette is anticipated for the spring 2010.

### **Board Assessment of Response to M08-03 (April 2010)**

The results of the cost-benefit analysis indicated that although it was not possible to quantify the benefits, such as the positive impact on safety over the long term and improved operational procedures, it can be expected that a VDR or S-VDR would have a positive impact on safety over the long term. The study also found that the potential for the benefits to outweigh the costs is greatest for passenger vessels and that mandatory carriage would be generally acceptable for the larger ferry operators. However, cargo vessel operators were concerned about the high cost of retrofitting and maintaining an S-VDR and did not generally accept that there would be any benefit to retrofitting an S-VDR on existing vessels.

During the National CMAC meeting held in November 2009, the proposed new *Voyage Data Recorders Regulations* were presented. At that time, it was indicated that the application of the regulations would apply to the following vessels:

- Canadian passenger vessels of 500 gross tons or more and operating on domestic voyages;
- Canadian passenger vessels of 150 gross tons or more and operating on international voyages, and;
- Canadian cargo vessels of 3000 gross tons that do not engage solely on inland voyages (i.e. the Great Lakes and the St. Lawrence River as far east as Anticosti).

The proposed new *Voyage Data Recorders Regulations* are anticipated to be pre-published in Part I of the Canada Gazette in the third quarter of 2010.

Given the proposed regulatory expansion of the mandatory VDR/S-VDR carriage requirement, the assessment of the response remains at **Satisfactory Intent**.

### **Response to M08-03 (December 2010)**

TC's update in December 2010 indicated that, following consultation with the marine industry, the proposed *Voyage Data Recorder Regulations* will provide for the mandatory

carriage and annual testing of VDR and/or Simplified VDR (S-VDR) equipment onboard certain Canadian passenger vessels and cargo vessels.

The proposed *Voyage Data Recorder Regulations* were pre-published in Part I of the Canada Gazette on November 6, 2010. It is anticipated that final approval and publication in Part II of the Canada Gazette will be in the second quarter of 2011.

### **Board Assessment of Response to M08-03 (March 2011)**

With the publication of the proposed *Voyage Data Recorder Regulations* in Part I of the Canada Gazette, TC has taken a step closer to having domestic VDR regulations in place. If these regulations are fully implemented, the proposed actions will substantially reduce or eliminate the deficiency.

Therefore, the assessment of the response remains as **Satisfactory Intent**.

### **Response to M08-03 (December 2011)**

As of 01 January, 2012, the *Voyage Data Recorder Regulations* require that new passenger vessels of 500 gross tonnage or more and new cargo vessels of 3,000 gross tonnes or more on domestic voyages be fitted with voyage data recorders. Owners of existing passenger vessels have until 01 July 2015 to install the equipment, depending on their inspection schedule. As well, passenger vessels of 150 gross tonnes or more and on international voyages are bound by this new legislation.

Transport Canada inspectors will monitor and enforce compliance with the regulations, including the mandatory use, maintenance and testing of voyage data recorders, through regular inspections.

### **Board Assessment of Response to M08-03 (March 2012)**

With the implementation of the new *Voyage Data Recorder Regulations*, the safety deficiency has been substantially reduced or eliminated for new builds. By 2015, owners of existing passenger vessels will be required to comply with the regulations as well. Therefore, the assessment of the response has been changed to **Fully Satisfactory**.

### **Next TSB Action**

The deficiency file is assigned an **Inactive** status.