



## STAFF REASSESSMENT OF THE RESPONSES TO MARINE SAFETY RECOMMENDATION M01-03

### EMERGENCY PREPAREDNESS AND SURVIVABILITY

#### Background

On 16 June 2000, the small passenger vessel *True North II* was swamped by a series of waves which stove in the vessel's bridge front door, flooded the main deck and downflooded into the hull. The vessel sank rapidly and of the 20 people on board, 18 drifted ashore on two buoyant apparatus. Two grade-seven school children drowned.

The Board identified safety deficiencies with respect to the ship inspection regime, the lack of pre-departure safety briefings, the inaccessibility of life-saving equipment, the lack of float-free arrangements for life rafts, and the absence of immediate means for alerting others of an emergency situation.

The Board concluded its investigation and released report M00C0033 on 11 May 2001.

#### Board Recommendation M01-03 (11 May 2001)

Despite previously identified safety deficiencies relating to emergency preparedness and survivability, the Board's recommendations and Transport Canada's subsequent action taken, the Board's investigations continue to demonstrate that these safety deficiencies remain unresolved. Consequently, the Board recommended that:

*The Department of Transport require small passenger vessels to provide pre-departure briefings, and to be equipped with a life raft that is readily deployable, lifesaving equipment that is easily accessible, and the means to immediately alert others of an emergency situation.*

M01-03

#### Response to M01-03 (29 July 2001)

The Minister agrees with the recommendation.

##### PRE-DEPARTURE BRIEFINGS

On May 17, 2001, regulations amending the *Life Saving Equipment Regulations* came into force that allowed passenger vessels under 25m in length to provide pre-departure

safety briefings in lieu of posting a Life Saving Equipment Plan. Further amendments are currently being processed that will require pre-departure safety briefings, in a format approved by Transport Canada, on all Canadian passenger vessels. It is anticipated that these amendments will come into force by January 2002.

#### VESSELS TO BE EQUIPPED WITH A DEPLOYABLE LIFE RAFT

Amendments to the *Life Saving Equipment Regulations* are currently being processed that will require that all vessels under 25m in length which carry life rafts, have life rafts that float free in the event of the vessel sinking. It is anticipated that these amendments will come into force by January 2002. As an interim measure Transport Canada issued Ship Safety Bulletin #03/2001, on April 25, 2001, recommending that all vessels have float free arrangements for their life rafts. A copy of the bulletin is attached.

#### ACCESSIBILITY OF LIFESAVING EQUIPMENT

Transport Canada will bring forward amendments to the *Life Saving Equipment Regulations* to explicitly require the stowage of lifesaving equipment so that it is readily accessible. As an interim measure, a Ship Safety Bulletin, scheduled to be issued in August 2001, will raise the awareness and the importance of storing lifesaving equipment for rapid deployment. A copy of the bulletin will be forwarded to TSB once it has been completed.

#### EMERGENCY RADIO COMMUNICATIONS

Radio communication requirements for commercial vessels, including means of distress alerting, were reviewed during the development of the recent revision to the *Ship Station (Radio) Regulations*, 1999. In light of this occurrence, Transport Canada will initiate a further review over the next year and re-evaluate the need for more effective distress alerting capabilities on small passenger vessels. The review will consist of a rigorous risk management process that will include stakeholder consultation, risk assessment, cost-benefit analysis and the selection of appropriate prevention and control strategies. The results of this review will be reported publicly and forwarded to the TSB.

### **Board Assessment to the Response to M01-03 (9 November 2001)**

#### **Pre-departure safety briefings:**

The response indicated agreement with the recommendation M01-03. Transport Canada amended the *Life Saving Equipment Regulations* on May 17, 2001, that allowed passenger vessels under 25 m in length to make an 'announcement' if it is impracticable because of the size or design of the vessel to display the life saving equipment plan. The announcement specifies the location of lifejackets and survival craft and, in each area of the vessel, informs passengers in that area of the location of lifejackets and survival craft that is closest to them. There is no requirement for a pre-departure briefing if the lifesaving equipment plan is displayed and no requirement to demonstrate to passengers the use of safety equipment. Further amendments are currently being processed that will require "pre-departure safety briefings, in a format approved by Transport Canada on all Canadian passenger vessels." Although the amendments to the regulations result in the provision of some safety information to passengers on vessels of less than 25m, the staff is not convinced that the scope and depth of the 'announcement', and the absence of the life saving equipment plan, is sufficient to adequately prepare the passengers for realistic emergency situations.

Transport Canada has also proposed amendments to the *Small Vessel Regulations* which will require safety briefings respecting the safety and emergency procedures that are relevant to the vessel. The safety briefing is to be conducted before the vessel leaves any place where passengers embark. The safety briefing will include the location of lifejackets and survival craft, and the location and use of personal protection equipment, boat safety equipment and distress equipment. The briefing will also require demonstrating how to put on each type of lifejacket carried on board the vessel. The *Small Vessel Regulations* apply to vessels that are less than 5 tons and which do not carry more than 12 passengers.

**Readily deployable life rafts:**

Amendments to the *Life Saving Equipment Regulations*, which are expected to come into force by January 2002, will require that vessels under 25 m in length which carry life rafts, have life rafts that float free in the event of the vessel sinking. As an interim measure Transport Canada issued Ship Safety Bulletin #03/2001, recommending that vessels have float free arrangements for their life rafts. However, passenger vessels that are five gross tons or under and are certified to carry 12 passengers or fewer are not subject to the *Life Saving Equipment Regulations* and are not required to carry a life raft or to stow their life rafts, if they are on board, so as to float free if the vessel sinks.

Transport Canada will also bring forward amendments to the *Life Saving Equipment Regulations* to explicitly require the stowage of lifesaving equipment so that it is readily accessible. As an interim measure, a Ship Safety Bulletin will be issued on the importance of storing lifesaving equipment for rapid deployment.

A review of the Ship Safety Bulletin mailing list, however, shows that none of the tour operators operating in the Tobermory area are receiving the bulletins. The mailing list shows a total of 334 individual and company ship owners, pilotage authorities and other commercial marine associations and organizations for all of Canada. It would therefore appear that the response of issuing a Ship Safety Bulletin will not necessarily reach all those persons or organizations that have an interest, or indeed, should take safety action.

**Emergency Communications:**

Transport Canada will initiate a further review over the next year and re-evaluate the need for more effective distress alerting capabilities on small passenger vessels. The review will consist of a risk management process that will include stakeholder consultation, risk assessment, cost-benefit analysis and the selection of appropriate prevention and control strategies. The results of this review will be reported publicly and forwarded to the Transportation Safety Board. The recommendation does not call for a 'review to evaluate the need' for means to immediately alert others of an emergency situation.

The staff therefore considers that the Department of Transport has taken steps to require consistent pre-departure safety briefings as recommended, intends to require some but not all of the small passenger vessels to have their life rafts stowed so as to float free, and since there is no indication to require small vessels to have the means to immediately alert others of an emergency situation, the response to recommendation M01-03 in the context of emergency preparedness and survivability is considered **Satisfactory Intent**.

### **Board Reassessment of the Response to M01-03 (15 September 2004)**

LSE Regulations have been amended to require: vessels under 25 m in length which carry life rafts, have life rafts that float free in the event of the vessel sinking; stowage of lifesaving equipment so that it is readily accessible. An update on the Marine Distress Alerting Risk Assessment Study was presented at the November 2003 national CMAC meeting. An analysis was done to estimate the impact distress alerting equipment might have had on past fatalities. The project is expected to be completed before May 2004.

No substantial change to address the safety deficiency since the last reassessment.

### **Board Reassessment of the Response to M01-03 (07 December 2005)**

Amendments to regulations require all passenger vessels to provide a safety briefing/announcement.

*Life Saving Equipment Regulations* have been amended to require: vessels under 25 m in length which carry life rafts, have life rafts that float free in the event of the vessel sinking; stowage of lifesaving equipment so that it is readily accessible. TC now intends to pursue provisions that all life rafts carried on passenger vessels float free in the event of sinking.

An update on the Marine Distress Alerting Risk Assessment Study was presented at the November 2003 national CMAC meeting. An analysis was done to estimate the impact distress alerting equipment might have had on past fatalities. The preliminary findings were presented at the November 2004 national CMAC meeting. It is anticipated the project will be completed and a decision on distress alerting capabilities will be made by the end of 2005. If fully implemented, the proposed action will substantially reduce the risks associated with emergencies.

No substantial change to address the safety deficiency since the last reassessment.

### **Response to M01-03 (November 2006)**

TC's update, dated November 2006, indicated that it has finalized its report on the Marine Distress Alerting Risk Assessment and it will be presented to the Marine Safety Executive Committee of Marine Safety. Based on the report and the consideration by MSE, TSB will be informed of Marine Safety's action.

### **Board Reassessment of the Response to M01-03 (November 2006)**

TC's update indicated that its Distress Alerting Risk Assessment study to evaluate the need for more effective distress altering capabilities on small commercial vessels has been completed, and that the study will be considered by senior management. The update provided no information regarding TC's stated intention to pursue provisions that all life rafts on passenger vessels float free in the event of sinking. There continues to be no requirement for passenger vessels five gross tons or less and certified to carry 12 passengers or less to carry or stow their life rafts, if carried on board, so as to float free if the vessel sinks.

Therefore, the assessment remains at **Satisfactory Intent**.

### **Response to M01-03 (June 2008)**

TC's update, dated June 2008, indicated that a review of the distress alerting capabilities of small commercial vessels identified certain scenarios where the level of risk was deemed unacceptable. The review recognizes the numerous training and awareness initiatives underway, which could mitigate existing risk levels. TC will pursue a precautionary approach to address the level of risk and has recommended additional EPIRB carriage requirements in consultations to amend the *Navigation Safety Regulations*. Pre-publication in Part I of the *Canada Gazette* anticipated in spring 2010.

### **Board Reassessment of the Response to M01-03 (September 2008)**

If fully implemented, the adoption of a precautionary approach and consideration of additional carriage requirements for distress alerting capabilities based on a level of risk will substantially reduce the risk associated with inadequate emergency communications.

Small passenger vessels are required to provide a safety briefing or announcement before the vessel leaves a place where passengers embark. However, there continues to be no requirement for passenger vessels five gross tons or less and certified to carry 12 passengers or less to carry or stow their life rafts, if carried on board, so as to float free if the vessel sinks.

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

### **Response to M01-03 (December 2009)**

TC's update, dated December 2009, indicated that a review of the distress alerting capabilities of small commercial vessels identified certain scenarios where the level of risk was deemed unacceptable. The review recognizes the numerous training and awareness initiatives underway, which could mitigate existing risk levels.

TC will recommend additional EPIRB carriage requirements in consultations to amend the *Navigation Safety Regulations*. At this time, there is no anticipated pre-publication date for Canada Gazette Part I.

### **Board Reassessment of the Response to M01-03 (February 2010)**

Small passenger vessels are required to provide a safety briefing or announcement before the vessel leaves a place where passengers embark. The *Life Saving Equipment Regulations* currently require float free life rafts on passenger vessels. If fully implemented, the adoption of a precautionary approach and consideration of additional carriage requirements for distress alerting capabilities based on a level of risk will substantially reduce the risk associated with inadequate emergency communications.

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

### **Response to M01-03 (December 2010)**

TC's update of December 2010 indicated that TC has completed a review of the distress alerting capabilities of small commercial vessels and has identified certain scenarios where the level of risk was deemed unacceptable. The review recognizes the numerous training and awareness initiatives underway, which could mitigate existing risk levels. TC will recommend additional EPIRB carriage requirements in consultations to amend the *Navigation Safety Regulations*. At this time, there is no anticipated pre-publication date for Canada Gazette Part I. The regulatory reform of the *Navigation Safety Regulations* is being held in abeyance pending regulatory priorities.

Under the *Canada Shipping Act, 2001*, safety is the responsibility of the Authorized Representative / owner. TC's role is to provide tools and guidance to help Authorized Representatives meet their regulatory requirements and to develop regulations that efficiently and effectively promote safety.

TC has begun consultations to develop *Safety Management Regulations*. A three-tier approach is being proposed for safety management of domestic vessels based on their size, type and/or number of passengers. Tier 2 of this program covers vessels over 15 GT and/or with 12 or more passengers and will require a Domestic Safety Management (DSM) system to be put in place. Under safety management, the Authorized Representatives/owners would need to develop procedures to ensure that the company, vessel's crew and passengers are adequately prepared to respond to potential incidents and accidents.

### **Board Reassessment of the Response to M01-03 (March 2011)**

If fully implemented, the adoption of a precautionary approach and consideration of additional carriage requirements for distress alerting capabilities based on a level of risk will substantially reduce the risk associated with inadequate emergency communications.

Small passenger vessels are required to provide a safety briefing or announcement before the vessel leaves a place where passengers embark. However, there continues to be no requirement for passenger vessels five gross tons or less and certified to carry 12 passengers or less to carry or stow their life rafts, if carried on board, so as to float free if the vessel sinks.

The implementation of a domestic safety management system for small passenger vessels in conjunction with initiatives taken to date will provide the tools necessary for vessel owners/operators to assess risk however at this time there is no proposed date for these regulations to be in place.

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

### **Response to M01-03 (December 2011)**

Since 2002, the *Lifesaving Equipment Regulations* and the *Small Vessel Regulations* have required pre-departure safety briefings on all Canadian passenger vessels. The *Boat and Fire Drill Regulations* require that the master of a vessel which has an inspection certificate, and carries passengers, must either perform a practice safety drill, or provide a safety briefing to passengers prior to or immediately after departing on a voyage.

Transport Canada requires small passenger vessels to be equipped with a life raft and lifesaving equipment that is readily deployable and lifesaving equipment that is easily accessible through the *Small Vessel Regulations*. The requirements for float-free arrangements for life rafts, accessible lifesaving equipment and pre-departure safety briefings are explained in the *Small Commercial Vessel Safety Guide*. This guide was mailed to all owners of small commercial vessels (15 gross tonnes or less), other than fishing vessels and pleasure craft vessels in March 2011.

Transport Canada requires small passenger vessels to have the means to immediately alert others of an emergency situation through the *Ship Station (Radio) Regulations*.

## **Board Reassessment of the Response to M01-03 (March 2012)**

### **Pre-departure briefings:**

All passenger vessels in Canada, including small passenger vessels, are required to provide pre-departure briefings for passengers because of the *Lifesaving Equipment Regulations* and the *Small Vessel Regulations*. Some passenger vessels, such as cable ferries, are exempt from the *Boat and Fire Drill Regulations*, which would require them to practice realistic emergency drills and demonstrate emergency equipment.

### **Readily Deployable Life Raft:**

Passenger vessels in Canadian waters must be equipped with a readily deployable life raft. The Board notes that some passenger vessels are exempt from the *Small Vessel Regulations*. For example, passenger vessels smaller than 8.5 m or operating within the limits of sheltered waters are not required to carry a life raft.

### **Easily Accessible Lifesaving Equipment:**

The *Life Saving Equipment Regulations*, amended on 2007-07-01, require that all classes of vessels stow their lifesaving equipment so that it is readily accessible. The equipment that is specifically referenced is survival craft radios, SARTS and lifejackets. Required lifesaving equipment must be easily accessible as explained in the *Small Commercial Vessel Safety Guide*, TP 14070.

### **Means of Distress Alerting:**

All vessels in Canada must have a means of alerting others in case of an emergency as per the *Ship Station Radio Regulations, 1999*. Most passenger vessels are required to carry either an EPIRB or a VHF-DSC unless they are under 8m, or in sheltered waters.

In the Board's view, these actions will substantially reduce the risks and the residual risk is low. Therefore, the assessment of the response is changed to **Fully Satisfactory**.

## **Next TSB Action (March 2012)**

No further action is warranted on this file. This recommendation is assigned the **Inactive** status.