



## REASSESSMENT OF THE RESPONSE TO MARINE SAFETY RECOMMENDATION M04-02

### Adequacy of the regulatory framework for small passenger vessels

#### Background

The *Lady Duck* was an amphibious vehicle based on the conversion of a Ford F-350 truck chassis and arranged to carry up to 12 passengers on combined road and water-borne tours in the National Capital Region and on the Ottawa River. The vehicle was developed and built by the owner and entered commercial service at the start of the tourist season in June 2001.

The *Lady Duck* started the amphibious tour at about 1500 on 23 July 2002, with the driver, 10 passengers and a tour guide on board. When the vehicle entered the water at the Hull Marina, the main bilge pumps were switched on to clear the hull of any shipped water. Because no water was seen to be discharging from the outlets, the emergency bilge pumps were also switched on. Water was then seen to be discharging intermittently from outlets on both sides of the vehicle. The vehicle was driven to the Ottawa side of the river to various points of interest. The river was calm, with waves caused by wakes from boats and other watercraft in the tour area. On occasion, the vehicle encountered waves that washed over the hood and up to the windshield.

Toward the end of the tour, while returning to the Hull Marina, the driver noticed that the front end of the vehicle was floating lower than normal and that water was being continuously discharged from both sides of the vehicle. The driver then ordered the four foremost passengers and the tour guide to move to the back of the vehicle to try to decrease the forward trim.

The forward trim continued to increase and, realizing that the safety of passengers was at risk, the driver instructed the tour guide to tell passengers to don personal flotation devices. The driver then broadcast a MAYDAY on VHF radio. The situation deteriorated rapidly as more floodwater accumulated in the forward end of the vehicle. The driver then called on the passengers to abandon the sinking vehicle. The driver, tour guide and six passengers managed to get free of the sinking vehicle. The remaining four passengers became trapped under the fabric awning and sank with the vehicle in 8 metres of water.

The Board concluded its investigation and released report M02C0030 on 03 June 2004.

#### Board Recommendation M04-02 (June 2004)

The current regulatory framework does not address all aspects of the operation of small passenger vessels with a gross tonnage of 15 or less carrying not more than 12 passengers and, as demonstrated in this occurrence, the *Canada Shipping Act (CSA)*, its regulations, standards, and guidelines are complex and their applicability by ship inspectors and owners/operators is not consistent.

Transport Canada (TC) acknowledged the complexity of its regulatory framework and noted that

a number of initiatives are underway to bring the new *Canada Shipping Act* (2001) into force in 2006. In order to give full effect to the *Canada Shipping Act* (2001), over 100 regulations must be reviewed and restructured.

Subsequent to the increase to the exemption threshold for annual inspection, there has been increased reliance by TC on self-inspection. In fact, regulatory compliance for small passenger vessels with a gross tonnage of 15 or less relies on self-inspection by owners/operators who may not be fully conversant with all safety requirements. Until such time as the regulatory framework can be easily understood, the implementation of a self-inspection regime will be problematic and risks to the travelling public will continue.

The application of the existing and future regulatory framework is dependent upon an up-to-date registry of vessels in operation. While TC estimates that approximately 10 000 small passenger vessels with a gross tonnage of 15 or less are required to be either licensed or registered, as of December 2003, TC reports that there were 736 licensed and 375 registered small passenger vessels. TC is taking steps to address this discrepancy through the establishment of a Small Vessel Register and expects to have all vessels identified by 2011.

The Board acknowledges the initiatives by TC to reform the current regulatory framework to make it more streamlined, applicable, and effective. However, given the planned timeframe of 2006 for completion of this reform, and the large number of small passenger vessels that have yet to be identified, the Board recommended that:

The Department of Transport expedite the development of a regulatory framework that is easily understood and applicable to all small passenger vessels and their operation.

**TSB Recommendation M04-02**

### **Transport Canada's response to Recommendation M04-02 (August 2004)**

Transport Canada agrees with the intent of this recommendation. The Department is committed to the regulatory reform process, which aims to develop modernized regulations that are more effective, applicable and easily understood.

While the new Act and associated regulations are scheduled to come into effect in 2006, Transport Canada has taken steps to further enhance the existing regulatory framework for small passenger vessels. These enhancements pertain to design, construction, and safety equipment. They include, for example, proposed regulatory amendments that will prescribe:

- Minimum construction standards for small non-pleasure vessels (through incorporation by reference to TP 1332 - Construction Standards for Small Vessels);
- Safety equipment carriage requirements for vessels between 5 and 15 tons gross tonnage; and
- Intact stability requirements for new vessels.

In addition, Transport Canada has introduced recommended intact stability requirements for existing vessels and TP 1332 has been reformatted and largely rewritten in plain language in order to enhance the ease of use and comprehension.

TC will continue to take steps to facilitate the comprehension and application, by owners and operators, of small passenger vessel regulatory safety requirements. Recent examples include:

- Developing and distributing the Small Commercial Vessel Safety Guide;
- Revising and expanding the material contained on the Department's Small Passenger Vessel website;
- Providing checklists and guidelines for use in self-inspections; and
- Instructions for assessing the stability of vessels (in accordance with the TC Simplified Stability Requirements). These instructions are scheduled to be issued by way of a Ship Safety Bulletin.

### **Board assessment of the response to Recommendation M04-02 (December 2004)**

In its reply, TC agrees with the intent of the recommendation. The response indicates steps that TC has taken to further enhance the existing regulatory framework for small passenger vessels. However, the steps, which include proposed amendments pertaining to design, construction and safety equipment, as well as those steps to facilitate the comprehension and application by owners and operators of small passenger vessels, had been already taken into consideration and were acknowledged by the Board when the recommendation was issued.

The response also indicates that the new *Canada Shipping Act* and associated regulations are scheduled to come into effect in 2006. The 2006 timeline was re-affirmed by TC at a 27 August 2004 meeting with TSB staff. There is no indication in the response by TC that the development of a regulatory framework that is easily understood and applicable to all small passenger vessels and their operation will be expedited earlier than 2006.

Given the planned timeline of 2006 for completion of the reform of the small passenger vessel regulatory framework, the response is considered **Unsatisfactory**.

### **Board reassessment of the response to Recommendation M04-02 (07 December 2005)**

Instructions for assessing the stability of vessels, in accordance with TC's Simplified Stability Requirements are scheduled to be issued by way of a Ship Safety Bulletin in the fall of 2005. The fall 2005 discussion paper on *Small Vessel Regulations* stated that the intention is to have the new regulations come into force by November 2006. In February 2005, amendments to the Small Vessel Regulations made vessels subject to construction standards. As part of the development of a regulatory framework that is easily understood and applicable to small passenger vessels, TC is currently in the process of approving a simplified intact stability policy for existing small non-pleasure vessels over 6 metres but not more than 12 metres. TC has also proposed Construction Standards for Small Vessels up to 24 metres; responses from stakeholders indicated that more time was required to review and finalize the proposal. Given recent initiatives regarding the broader application of construction standards and ongoing consultations of a simplified intact stability, the safety deficiency is addressed in part.

The response is considered **Satisfactory in Part**.

### **Transport Canada's response to Recommendation M04-02 (November 2006)**

TC's update, dated November 2006, indicated that amendments were made to the *Small Vessel Regulations* in 2005, including incorporation by reference of the Construction Standards for small vessels, clarifying the status of the Standards. At the same time, the Standards were reformatted to make them clearer and to make them easier to use. Revisions to regulations as part of regulatory reform will further improve the safety regime.

### **Board reassessment of the response to Recommendation M04-02 (November 2006)**

The proposed new Small Vessel Regulations, 2007 will apply to pleasure craft and small commercial vessel and are expected to come into force in 2007. Regarding commercial vessels, the proposed regulations will apply to all vessels 15 gross tons or less and carrying 12 passengers or less. As part of the development of a regulatory framework that is easily understood and applicable to small passenger vessels, TC has completed development of a simplified intact stability policy and the construction standards for small vessels. However, for the present, the action has not been sufficiently advanced to reduce the risks to transportation safety. Given completion of initiatives regarding the broader application of construction standards and a simplified intact stability, the planned action when fully implemented will substantially reduce or eliminate the safety deficiency.

Therefore the assessment is assigned **Satisfactory Intent**.

### **Transport Canada's response to Recommendation M04-02 (June 2008)**

TC's update, dated June 2008, indicated that the proposed Small Vessel Regulations are expected to be pre-published in Part I of the *Canada Gazette* in the spring of 2009.

### **Board reassessment of the response to Recommendation M04-02 (September 2008)**

Regarding commercial vessels, the proposed new regulations will apply to all vessels 15 gross tons or less and carrying 12 passengers or less. As part of the development of a regulatory framework that is easily understood and applicable to small passenger vessels, TC has completed development of a simplified intact stability policy and the construction standards for small vessels. Given completion of initiatives regarding the broader application of construction standards and a simplified intact stability policy, the planned action when fully implemented will substantially reduce or eliminate the safety deficiency.

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

### **Next TSB Action (September 2008)**

The TSB will monitor the progress of the implementation of the planned actions and will re-assess the deficiency on an annual basis or when otherwise warranted.

### **Transport Canada's response to Recommendation M04-02 (November 2009)**

TC's update, dated November 2009, indicated the proposed Small Vessel Regulations were pre-published in Part I of the *Canada Gazette* on April 25, 2009, and that final approval and publication in Part II of the *Canada Gazette* is anticipated for spring 2010.

### **Board reassessment of the response to Recommendation M04-02 (28 July 2010)**

Given completion of initiatives regarding the broader application of construction standards and a simplified intact stability policy, the measures will substantially reduce or eliminate the safety

deficiency. Furthermore, the *Small Vessel Regulations* were approved and published in Part II of the *Canada Gazette* on 12 May 2010. The new regulations, which apply to all small commercial vessels of 15 tons gross or less that do not carry more than 12 passengers, incorporate a number of new requirements to improve safety. These include requirements to enhance the protection of passengers in guided excursions, upgrades on safety equipment, and requirements that crews are proficient in the use of life saving equipment. Furthermore, the format of the new regulations is different from previous regulations. Many of the safety equipment requirements are in tabular form, which should make it more easily understood by vessel owners and operators.

Therefore the assessment of the response is **Fully Satisfactory**.