



## REASSESSMENT OF THE RESPONSES TO MARINE SAFETY RECOMMENDATION M97-01

### Periodic inspection of life rafts

#### Background

On 10 April 1995, the *Hili-Kum* down flooded and sank off the coast of Moresby Island, British Columbia. The three crew members abandoned the vessel, and boarded a life raft which capsized several times. Two of the crew succumbed to hypothermia and drowned.

The life raft on-board the *Hili-Kum* had not been inspected annually by a technician from an accredited service depot and Transport Canada (TC) had not detected this non-compliance. The Board had previously expressed concern that the requirement to have life rafts serviced annually is frequently ignored and that the practice of many fishermen to have their life rafts tested only during the vessel's quadrennial inspection apparently is often tolerated by the regulatory authorities.

The Board concluded its investigation and released report M95W0013 on 4 July 1997.

#### Board Recommendation M97-01 (4 July 1997)

Given that failure to perform the annual servicing permits defects to go undetected and uncorrected, thereby unnecessarily jeopardizing the crews' chances of survival in emergency situations at sea, the Board recommended that:

The Department of Transport implement procedures to verify that life rafts on all vessels including fishing vessels are serviced as required by the Life Saving Equipment Regulations.

M97-01

#### Response to M97-01 (23 September 1997)

The Minister of Transport agrees with the intent of the recommendation. Transport Canada does validate inspections by ensuring the life raft has a valid and current inspection certificate during the quadrennial survey mandated by the *Small Fishing Vessel Inspection Regulations*. The yearly check requirement under the LSE (*Life Saving Equipment Regulations*) is being re-examined by the Department. There are concerns that the current procedure may be more harmful due to unfolding and refolding of the units, than beneficial. There is a Transport Canada Research and Development project to evaluate this procedure and the results of this project will be transmitted to the Board upon completion.

In addition, as part of the current exercise of developing construction standards for small commercial vessels, one of the monitoring mechanisms being contemplated is a self check inspection record. Life raft servicing could be added as part of the process. This represents a potential avenue for achieving the objective of the recommendation at a lesser cost.

### **Board assessment of the response to M97-01 (28 November 1997)**

The response indicated agreement with the intent of the recommendation and stated that TC does validate inspections during a quadrennial survey. However, the response also indicated that the practice of checking life rafts yearly is being re-examined by the Department.

In follow-up discussions with TC, TSB staff learned that the Transportation Development Centre (TDC) is currently financing a R&D project to evaluate the benefit of yearly inspections. One objective of this project is to evaluate the consequences of implementing a two or three year cycle for life raft inspection. The current one year cycle is costly for vessels operating on a seasonal basis, and there is concern that this cycle may be causing unnecessary wear and tear on the life rafts. Moreover, new technologies, such as vacuum packing and longer life batteries, may allow for extended inspection intervals. This R&D project is scheduled to take five years to complete; the results of the project will be provided to the Board when they become available.

The TC reply also makes mention of a self check inspection record; however, in follow-up, it was found that TC does not have any specific plan as to how and when this concept will be implemented.

It is recognized that the on-going R&D project could result in determining that inspections may not be required at one year intervals. However, TC has not addressed the deficiency with respect to ensuring that these inspections are done regardless of the inspection cycle. Given that life rafts that do not meet current safety standards will likely remain in service for some time, and that the likelihood of defects going undetected as a result of missed inspections remains, the response is therefore considered **Unsatisfactory**.

### **Board reassessment of the response to M97-01 (15 September 2004)**

TC has published an amendment to the LSE Regulations extending the service interval to two years for seasonally operated vessels. Further amendments add other life rafts not seasonally operated to go to a 30-month service interval with the agreement of the manufacturer and TC and are now in force. This amendment applies to domestic vessels only, not fishing vessels. The Life Raft Service Interval Project was finalized in December 2003.

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

### **Board reassessment of the response to M97-01 (7 December 2005)**

TC has published an amendment to the *Life Saving Equipment Regulations* extending the service interval to two years for seasonally operated vessels. Further amendments to add other life rafts not seasonally operated to go to a 30-month service interval with the agreement of the

manufacturer and TC and are now in force. This amendment applies to domestic vessels only, not fishing vessels. The Life Raft Service Interval Project was finalized in December 2003. At present fishing vessels 15 gross tons and less are not subject to mandatory periodic inspections. A new compliance regime, the Small Fishing Vessel Monitoring and Inspection Program is being proposed for all small fishing vessels. The proposed program will make use of random inspections and promote self-monitoring. If fully implemented, the proposed action will substantially reduce the risks associated with unserviced life rafts on board uninspected fishing vessels.

The response is considered **Satisfactory Intent**.

### **Response to M97-01 (November 2006)**

TC's update, dated November 2006, provided no new information to address the safety deficiency associated with recommendation M97-01.

### **Board reassessment of the response to M97-01 (November 2006)**

The Small Fishing Vessel Monitoring and Inspection Program being proposed for all small fishing vessels will make use of random inspections and promote self-monitoring. If fully implemented, the proposed action will substantially reduce the risks associated with unserviced life rafts on board uninspected fishing vessels.

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

### **Response to M97-01 (June 2008)**

TC's update, dated June 2008, indicated that work is ongoing on a revised inspection regime for small fishing vessels as part of the proposed *Fishing Vessel Safety Regulations*. (Follow-up information indicated that the regulations are expected to be pre-published in Part I of *The Canada Gazette* in the fall/winter 2009/2010.)

### **Board reassessment of the response to M97-01 (September 2008)**

It is anticipated that the revised inspection regime being proposed for all small fishing vessels will make use of random inspections and promote self-monitoring. If fully implemented, the proposed action will substantially reduce the risks associated with unserviced life rafts on board uninspected fishing vessels.

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

### **Response to M97-01 (March 2010)**

TC's update, dated March 2010, indicated that work is ongoing on a revised inspection regime for small fishing vessels. TC is reviewing an industry proposal that consideration be given to

authorizing qualified boat builders to inspect on behalf of TC as an alternative delivery channel for inspection services.

### **Board reassessment of the response to M97-01 (March 2010)**

It is anticipated that the revised inspection regime being proposed for all small fishing vessels will make use of random inspections and promote self-monitoring. Furthermore, an industry proposal that qualified boat builders inspect on behalf of TC is being considered; however, it is not known if such inspections will be limited to first inspections (i.e. prior to the vessel coming into service).

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

### **Response to M97-01 (December 2010)**

TC's update of December 2010 indicated that instructions regarding periodic checks of life raft servicing stations were sent to Transport Canada Regional offices in November 2010. Discussions with five Recognized Organizations (classification societies) are ongoing and it is anticipated that they will provide oversight of servicing stations when an agreement is signed. TC is currently developing tools for Canada's small fishing vessel population that consolidate regulatory requirements by vessel type and includes guidance notes and checklists for fishermen. This is intended to raise awareness of regulatory requirements among small fishing vessel owners, as well as encourage them to continuously assess and maintain their vessel's compliance. Transport Canada is also working on establishing a risk-based monitoring and inspection regime for small vessels, which allows TC to focus its inspection resources on vessels that require the most support to meet their regulatory requirements.

Consultations have begun with the fishing industry to determine if this approach can be adapted to meet the needs of fishing vessels. In addition, Transport Canada 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 3 of this program is for all fishing vessels and vessels under 15GT to have on board guidelines for operational safety.

Transport Canada Marine Safety has undertaken a pilot project, in collaboration with the Council of Marine Carriers, to test safety management system implementation in the Canadian domestic fleet. Results from this pilot project will be used to aid in the adoption of safety management throughout the Canadian domestic fleet.

### **Board reassessment of the response to M97-01 (March 2011)**

Some 14 years later, there have been no effective steps to address this issue. It is anticipated that the revised inspection regime being proposed for all small fishing vessels will make use of random inspections and promote self-monitoring. Furthermore, an industry proposal that qualified boat builders inspect on behalf of TC is being considered; however, it is not known if such inspections will be limited to first inspections (i.e. prior to the vessel coming into service).

If the proposed *Safety Management Regulations* for fishing vessels are developed and fully implemented, the proposed action will substantially reduce or eliminate the deficiency therefore, the assessment of the response remains as **Satisfactory Intent**.

### **Response to M97-01 (December 2011)**

TC's update of December 2011 indicated that the following procedures have been implemented to verify that life rafts on all fishing vessels are serviced:

- The TC database indicates last life raft servicing date, which is mandatorily required to be updated by an inspector at each statutory inspection.
- Inspection certificates issued to Canadian domestic vessels have a note (note 5) included to remind the owner/master that the validity of the certificate is contingent upon the life raft being serviced annually. Therefore, although Marine Safety Inspectors may not always be present annually on some vessels, the owner is consistently reminded of this requirement."

With TC's introduction of the Small Vessel Compliance Program (SVCP) for small non-pleasure vessels in June 2011, vessel owners have been provided with a compliance package that consists of a checklist of consolidated regulatory requirements and guidance notes so that owners may verify that their own life rafts are serviced as required. This program is voluntary and owners are required to pay a fee for inclusion.

### **Board reassessment of the response to M97-01 (March 2012)**

The status of the proposed amendments to the *Safety Management Regulations* is unknown. Should Transport Canada require domestic commercial vessels under 24 m or carrying fewer than 50 passengers to have an SMS, this has the potential to address the risk identified in the Board recommendation.

The inclusion of life raft servicing information in the TC SIRS database and the reminder to vessel owners included with the issuance of certificates linking the validity of the certificate with annual life raft servicing is a positive initiative on the part of TC. The revised inspection regime for all small non-pleasure vessels, including small fishing vessels, will make use of random inspections and promote self-monitoring. The risks associated with the carriage of un-serviced life rafts will be addressed if owners and TC Inspectors continue to work together to ensure that life rafts receive annual servicing.

Once fully implemented, the actions planned will substantially reduce the risk associated with the carriage of life rafts. Therefore, the assessment of the response remains **Satisfactory Intent**.

### **Response to M97-01 (November 2012)**

Transport Canada has completed the following actions to verify that life rafts are serviced, and believes to have met this recommendation:

1. The *Small Commercial Vessel Safety Guide*, which includes information on life rafts and their servicing and stowage, as well as an explanation of how hydrostatic releases work, was mailed to the registered owners of all small commercial vessels other than fishing vessels in the spring of 2011.
2. In June 2011, Transport Canada launched the Small Vessel Compliance Program (SVCP) for small non-pleasure vessels. The SVCP provides Canada's small non-pleasure vessel owners with a compliance package that consists of a checklist of consolidated regulatory requirements as well as accompanying guidance notes. This type of tool is designed to raise awareness of regulatory requirements, including the servicing of life rafts, and to encourage small non-pleasure vessel owners to continuously assess and maintain their vessel's compliance. Transport Canada is also working on establishing a risk-based inspection regime for small vessels, which allows TC to focus its inspection resources on vessels that require the most support to meet their regulatory requirements. Transport Canada is developing similar tools for the small fishing vessel community and consultations have been held to adapt the Small Vessel Compliance Program to meet the needs of fishing vessels. An Annual Compliance Report is part of the SVCP which when rolled out will require owners and operators to report on compliance status of their vessel including that the vessel's lifesaving equipment meets servicing requirements.
3. Transport Canada's proposed *Safety Management Regulations* and associated tools will provide a framework for owners/operators of Canadian vessels (including fishing vessels) to develop their own procedures for tracking and documenting the servicing of life rafts, subject to Transport Canada oversight.

Transport Canada will continue to promote the adoption of Safety Management Systems by all commercial vessel operations. As part of the SMS tools being produced by TCMS and available for use by all vessel operators, references to liferaft servicing has been included to assist the operators in ensuring that liferaft service requirements continue to be met regardless of the vessels inspection periodicity.

4. CSA 2001 Section 106 puts the responsibility on the Authorised Representative of a Canadian vessel to ensure that the equipment on board their vessel meets the requirements of the regulations and that they develop procedures for the safe operation of the vessel. This includes life rafts and their servicing. This section applies equally to quadrennially inspected vessels and ensures that there is accountability in the years between TC inspections. Vessels may be boarded at any time to ascertain compliance with the regulations and the AR held accountable via monetary penalty or vessel detention as appropriate.
5. Transport Canada Marine Safety is in the process of updating the *Contravention Regulations* to allow Peace Officers to issue contravention notices to non-pleasure vessels 0-24m. By expanding the roles of Peace Officers to non-pleasure vessels TCMS is leveraging its resources to enforce CSA 2001 which includes the expiry of life rafts.
6. Marine Safety Inspectors are trained to inspect safety equipment, including the periodic servicing of life rafts and other equipment. Procedures for the inspection of life rafts are included in *Notices to Inspectors*, 2005 Part 50-02, Section 5.

7. The Ship Inspection Reporting System has an entry field for the last liferaft servicing date. This field is mandatorily required to be updated by an inspector at each statutory inspection. This is a systematic process to ensure that liferaft servicing is checked.

### **Board reassessment of the response to M97-01 (March 2013)**

The TSB recognizes that TC has implemented procedures to assist owners in verifying that their life rafts are serviced as required. The assessment of the response has been changed to **Fully Satisfactory**.

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