



## REASSESSMENT OF THE RESPONSES TO MARINE SAFETY RECOMMENDATION M93-03

### Stowage and launching of life rafts

#### Background

On 16 December 1990, while returning from fishing grounds in the Gulf of St. Lawrence in heavy weather, the *Nadine*, a 37-metre fishing vessel, listed to port and sank by the stern. There is evidence that several openings on the after deck had not been secured/closed, and the vessel flooded through these openings, disabling the steering unit in the lazaret, eventually leading to the sinking.

In a separate occurrence on 30 January, 1993, the 35.4m scallop dragger *Cape Aspy* of Lunenburg, Nova Scotia, with a crew of 16, sank off the south coast of Nova Scotia south-east of Cape Sable, Island. Evidence provided by the survivors indicates that several watertight/weathertight doorways and hatches were left in the open position during the severe weather conditions prevailing at the time.

The Board issued interim recommendation M93-03 in 1993. The Board concluded its investigation and released report M93M4004 on 7 July 1994.

#### Board Recommendation M93-03 (25 March 1993)

Prior to sinking, the *Cape Aspy* listed to starboard and some crew members reported they were physically unable to launch the life raft. On many vessels, such as the *Cape Aspy*, manual launching of the life rafts weighing 250 to 350 lbs (which are normally stowed behind fixed railings) is required for safe abandonment. To manually launch such life rafts, they must be lifted over fixed railings. Icing on the life raft and its securing devices in winter months may exacerbate the difficulty of launching and require extreme effort, perhaps unnecessarily delaying the abandonment. The Board, therefore, recommended that:

The Department of Transport ensure that life rafts on all federally approved or inspected vessels are stowed in such a manner as to permit easy manual launching under any conditions likely to be encountered by that vessel.

M93-03

#### Response to M93-03 (23 June 1993)

The Minister of Transport accepts the recommendation. The stowage and availability of life rafts is extremely important. Present regulations already address this issue. A Ship Safety

Bulletin with recommendations for their installation and subsequent easier manual launching will be issued.

### **Board assessment of the response to M93-03 (23 July 1993)**

As indicated in the response, a SSB with recommendations for installation of inflatable life rafts and subsequent easier launching was issued (SSB No. 9/93 dated 93-07-06).

The response also indicates that the Transportation Development Centre and the Canadian Coast Guard are jointly funding a research and development project into ways of improving the stowage of life rafts on board small vessels. It was further pointed out that proposed amendments to LSE regulations, currently under development, will require life rafts to be stowed in such a manner as to be available for direct launching under unfavourable conditions of trim and list. However, TSB staff has noted that the inflatable life rafts installed on several fishing vessels in the past were not in accordance with the intent of similar existing regulations. The staff believes that to ensure that these life rafts are stowed to permit easy manual launching, not only the regulations have to be in place but also effective implementation of such regulations is essential, i.e., the need for vigilance in monitoring and enforcement of such regulations. For example, it is felt that corrective measures could be taken by the Department of Transport during the ship plan approval process, during construction surveys, and during periodical inspections of vessels in service to ensure proper installation of inflatable life rafts. There was no explicit indication that this type of follow-up is being planned.

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

### **Response to M93-03 (14 March 2002)**

Amendments regarding the stowage of life rafts have been incorporated into the *Life Saving Equipment Regulations*.

### **Board reassessment of the response to M93-03 (15 September 2004)**

The amendments regarding the stowage of life rafts have been incorporated into the amended LSE Regulations; however these regulations do not apply to fishing vessels. As a result, the new Fishing Vessel Safety Regulations, which are still in the development stage will contain the same requirements when they are released, which will be in 2006. Vessels less than 25 m and classed a IV under the LSE (such as the Famille Dufour II) are not required to have their life rafts fitted with a float free arrangement. The response is considered **Satisfactory Intent**.

### **Response to M93-03 (7 December 2005)**

TC has circulated the discussion paper of its intention to pursue provisions (*Life Saving Equipment Regulations* and the *Fishing Vessel Safety Regulations*) that all life rafts carried on passenger vessels and fishing vessels float free in the event of sinking.

### **Board reassessment of the response to M93-03 (7 December 2005)**

Although TC considers this recommendation closed, TC has circulated the discussion paper of its intention to pursue provisions (*Life Saving Equipment Regulations* and the *Fishing Vessel Safety Regulations*) that all life rafts carried on passenger vessels and fishing vessels float free in the event of sinking. If fully implemented, the proposed action will substantially reduce the risks associated with non-deployment of life rafts.

No substantial change to address the safety deficiency since the last re-assessment.

### **Response to M93-03 (November 2006)**

TC's update, dated November 2006, indicated that TC amended the *Life Saving Equipment Regulations* to require float free life rafts on passenger vessels and has proposed that similar provisions be adopted in the *Fishing Vessel Safety Regulations* for fishing vessels. The *Fishing Vessel Safety Regulations* are expected to be finalized in 2008.

### **Board reassessment of the response to M93-03 (November 2006)**

The proposal to require float free life rafts for fishing vessels, if fully implemented, will substantially reduce the risks associated with non-deployment of life rafts.

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

### **Response to M93-03 (June 2008)**

TC's update, dated June 2008, indicated that TC has amended the *Life Saving Equipment Regulations* to require float free life rafts on passenger vessels and has proposed that similar provisions be adopted in the proposed *Fishing Vessel Safety Regulations* for fishing vessels. Work is ongoing with respect to the carriage of life rafts in the proposed *Fishing Vessel Safety Regulations*. (Follow-up information indicated that the regulations are expected to be pre-publication of the proposed regulations in Canada Gazette, Part I, is the fall/winter 2009/2010.)

Ship Safety Bulletin 07/2007 was issued in August 2007 to shipowners, masters, mariners, operators, and fishers concerning the optimum stowage of life rafts. The Bulletin advises all shipowners and operators that the float free requirement for life rafts (including those that are davit launched) will be proposed to become mandatory for all vessels as part of the proposed *Fishing Vessel Safety Regulations* and the proposed *Small Vessel Regulations*.

### **Board reassessment of the response to M93-03 (September 2008)**

The proposal to require float free life rafts for fishing vessels, if fully implemented, will substantially reduce the risks associated with non-deployment of life rafts.

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

## **Response to M93-03 (March 2010)**

TC's update, dated March 2010, indicated that the *Life Saving Equipment Regulations* currently require float free life rafts on passenger vessels and similar provisions are included in the proposed new *Fishing Vessel Safety Regulations* for fishing vessels. Work is ongoing with respect to the carriage of life rafts in the proposed new *Fishing Vessel Safety Regulations*. Ship Safety Bulletin 07/2007 advised all shipowners and operators that the float free requirement for life rafts will be proposed to become mandatory for all vessels as part of the proposed new *Fishing Vessel Safety Regulations* and the proposed *Small Vessel Regulations*.

The proposed new *Fishing Vessel Safety Regulations* are anticipated to be pre-published in Part I of the Canada Gazette in the fourth quarter of 2011.

The proposed *Small Vessel Regulations* were pre-published in Part I of the Canada Gazette on April 25, 2009. Final approval and publication in Part II of the Canada Gazette is anticipated for the second quarter of 2010.

## **Board reassessment of the response to M93-03 (May 2010)**

The *Small Vessel Regulations* were approved and published in Part II of the Canada Gazette on 12 May, 2010. Every life raft stored on board a passenger-carrying vessel of not more than 15 gross tonnage that carry not more than 12 passengers, and a workboat of not more than 15 gross tonnage, is to be stored in a manner that allows it to automatically float free if the vessel sinks.

The proposal to require float free life rafts for fishing vessels, if fully implemented, will substantially reduce the risks associated with non-deployment of life rafts.

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

## **Response to M93-03 (December 2010)**

TC's update, dated December 2010, restated the *Life Saving Equipment Regulations* currently require float free life rafts on passenger vessels and similar provisions are included in the proposed new *Fishing Vessel Safety Regulations* for fishing vessels. Work is ongoing with respect to the carriage of life rafts in the proposed new *Fishing Vessel Safety Regulations*. Ship Safety Bulletin 07/2007 advised all shipowners and operators that the float free requirement for life rafts will be proposed to become mandatory for all vessels as part of the proposed new *Fishing Vessel Safety Regulations* and the approved *Small Vessel Regulations*.

The proposed new *Fishing Vessel Safety Regulations* are anticipated to be pre-published in Part I of the Canada Gazette in the second quarter of 2012. The proposed regulations require that every life raft that is carried on board the vessel is stored in a manner that allows it to automatically float free if the vessel sinks.

## **Board reassessment of the response to M93-03 (March 2011)**

Since the proposed new *Fishing Vessel Safety Regulations* and the approved *Small Vessel Regulations* include the requirement that life rafts float-free, the risk of not being able to launch under distress and in adverse environmental conditions will be substantially reduced or eliminated. However, the protracted delay in implementing these *Fishing Vessel Safety Regulations* continues to place lives at risk. Therefore, the assessment of the response remains as **Satisfactory Intent**.

## **Response to M93-03 (December 2011)**

TC's update, dated December 2011, focused on the training that is provided to TC Ship Safety Inspectors – both initially and as part of the Inspector update process. Information concerning life rafts is included in the Inspectors Training Program, and the Small Vessel Inspector Training Program given to all new inspectors and as an update to existing inspectors during refresher training.

Furthermore, Ship Safety Bulletin No. 07/2007 was issued and provides guidance information to both owners and Marine Safety Inspectors regarding the importance of optimum storage of life rafts onboard vessels. As well, the *Small Vessel Regulations* were published in the Canada Gazette, Part II, on May 12, 2010. These regulations require all life rafts to be float free. The proposed new *Fishing Vessel Safety Regulations* are anticipated to be published in Canada Gazette, Part II in the 2<sup>nd</sup> quarter of 2013. The proposed regulations also require that every life raft that is carried on board the vessel is stored in a manner that allows it to automatically float free if the vessel sinks.

## **Board reassessment of the response to M93-03 (March 2012)**

Through the Inspector training that TC has implemented, TC is providing a mechanism to ensure that the location of life rafts on all federally approved or inspected vessels are examined to verify that they are stowed to permit easy launching under any distress situation. The *Small Vessel Regulations* and the proposed *Fishing Vessel Safety Regulations* include the requirement that life rafts be float-free. The risk of not being able to launch under distress and in adverse environmental conditions will be substantially reduced or eliminated.

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

## **Response to M93-03 (November 2012)**

Transport Canada has met this recommendation by way of the following actions and verifications and considers this closed:

1. *Life Saving Equipment Regulations* S.143(5)(c) require every survival craft to be “stowed in a state of continuous readiness so that crew members may carry out preparation for embarkation and launching in less than 5 minutes”. This clause has been adopted from

SOLAS Chapter III Regulation 13.1.3. The intent of this clause is to apply in all weather conditions.

2. The *Small Vessel Regulations* published in the *Canada Gazette*, Part II, on May 12, 2010 require all life rafts to be float free.
3. Every member of a vessel's complement, who is required to be onboard in order for the vessel to meet safe manning requirements of the *Marine Personnel Regulations*, must undergo Marine Emergency Duties (MED) training in which they are trained to launch life rafts in severe environmental conditions.
4. [Ship Safety Bulletin No. 07/2007](#) was issued and provides the guidance information to both owners and Marine Safety Inspectors regarding the importance of optimum stowage of life rafts onboard vessels.
5. The information concerning life rafts is included in both the Inspector's National Training Program and the Small Vessel Inspector Training Program that is given to all new inspectors and as an update to existing inspectors during refresher training. Inspectors are also shown and given access to a manufacturer-specific (Hammar) executable file which explains the operation and fitting of hydrostatic type releases on life rafts.
6. The Ship Inspection Reporting System includes an entry field for the last life raft servicing date, which is mandatorily required to be updated by an inspector at each periodic inspection. The information is contained on the life raft itself, which ensures that the inspector visually checks the position of installation of the life raft.

### **Board reassessment of the response to M93-03 (March 2013)**

As indicated by Transport Canada's response of November 2012, TC's *Life Saving Equipment Regulations* specify that life rafts are to be "stowed in a state of continuous readiness" and in addition, the *Small Vessel Regulations* require all life rafts to be float free. TC has also issued *Ship Safety Bulletin* (SSB) 07/2007 providing guidance to shipowners, masters, operators, and fishers regarding the stowage of liferafts as indicated:

1. Liferafts should be easily accessible and stowed in such a manner so as to ensure they have sufficient space around them for launching, they are not required to be lifted more than 1.5 m (5ft) from their cradles, and that at no time would it be necessary for persons to lift a liferaft over their heads.
2. Unless launching arrangements are provided, liferafts should be stowed in a location so that, when lifted from their cradles and moved over to the shipside railing or bulwark, they fall directly overboard.
3. Launching ramps used to assist in the deployment of liferafts should be significantly inclined to the horizontal so that their functioning is not adversely affected by an unfavourable 20° list.
4. Mariners operating in conditions of potential icing are reminded to pay particular attention to ensuring that their survival appliances are operationally ready at all times.

This SSB satisfies the recommendation, and in addition, TC inspectors are checking the float free mechanisms, installation position and the date of the last life raft servicing. Also the TC Ship Inspection Reporting System requires the TC inspector to verify that the position and installation of the life raft has been inspected.

Therefore, the assessment of this response has been changed to **Fully Satisfactory**.

### **Next TSB action**

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