



REASSESSMENT OF THE RESPONSES FROM TRANSPORT CANADA TO MARINE SAFETY RECOMMENDATION M05-04

STABILITY OF SMALL FISHING VESSELS

Background

On 19 September 2004, the small fishing vessel *Ryan's Commander* of 149.4 gross tons departed Bay de Verde, Newfoundland and Labrador, for a trip to its home port of St. Brendan's (Cottel Island), Newfoundland and Labrador. The trip was uneventful as the vessel proceeded on a northerly course. At approximately 1800 Newfoundland daylight time, the vessel was about seven nautical miles off Cape Bonavista, Newfoundland and Labrador, and the course was altered toward the northwest. During the next 30 minutes, with the vessel running beam to the wind and sea, it experienced three heavy rolls to port. It recovered from the first two; however, the third roll left the vessel on its beam-ends. A distress message was transmitted and the crew of six abandoned ship into an inflatable liferaft. One crew member was subsequently rescued from the liferaft by a search and rescue helicopter. The remaining five crew members were thrown from the liferaft into the water as the liferaft came ashore; there were two fatalities.

The *Ryan's Commander* was constructed earlier that year under the *Small Fishing Vessel Inspection Regulations*. Although the Transport Canada (TC) approved general arrangement plan of the vessel called for the submission of stability data upon completion of the vessel's construction, no stability data for this vessel was submitted for approval and the vessel's stability was not fully assessed. However, the vessel was issued a steamship inspection certificate.

The Board concluded its investigation and released report M04N0086 on 21 November 2005.

Board Recommendation M05-04 (21 November 2005)

In August 2002, the Transportation Safety Board (TSB) investigated an accident involving the small fishing vessel *Cap Rouge II*, which capsized with seven persons on board off the entrance to the Fraser River, British Columbia (M02W0147). Five persons, including two children, remained within the overturned hull and drowned. The investigation into this accident found that the vessel's inherent transverse stability was progressively reduced by structural additions and the installation of more and heavier fishing gear. Furthermore, the installation of additional gear and its effects on stability were not monitored or assessed by a qualified person, nor brought to the attention of TC inspectors. None of these modifications, having an adverse effect on vessel stability, was noticed by TC inspectors during routine quadrennial inspections.

Current regulations require that only those small fishing vessels (over 15 gross tons but not more than 150 gross tons) engaged in fishing for herring or capelin submit stability data for approval. Other fishing vessels, such as the *Ryan's Commander*, are not required to submit such data for approval, nor is there any requirement for owners of these vessels to forward this information to TC for safety review or information purposes.

In May 2003, TC decided to modernize stability requirements and establish mandatory stability requirements that would be applicable to all fishing vessels under 24 metres in length, regardless of the type of fishery in which they are engaged. Any new stability requirements applicable to new and existing fishing vessels were to be incorporated in the new *Fishing Vessel Safety Regulations*, then scheduled to come into force in 2006.

The Board was encouraged by TC's intent to extend the application of appropriate stability standards for all small fishing vessels. However, in light of the findings of the investigation into the *Cap Rouge II*, the Board was concerned that the lives of crews on fishing vessels will continue to be exposed to undue risk until such time as new *Fishing Vessel Safety Regulations* were introduced. Therefore, in the interim, the Board recommended that:

The Department of Transport require all new inspected small fishing vessels of closed construction to submit stability data for approval.

(M03-05, issued November 2003)

and that:

The Department of Transport require all existing inspected small fishing vessels currently without any approved stability data be subjected to a roll period test and a corresponding freeboard verification not later than their next scheduled quadrennial inspection.

(M03-06, issued November 2003)

In its February 2004 response, TC indicated that any new requirements to address fishing vessel stability concerns must follow due regulatory development process and were expected to be incorporated in the new *Fishing Vessel Safety Regulations*. The Board was concerned that the response provided no indication of substantive action or commitment to addressing the safety issue in the short term. In July 2004, the Board assessed TC's response to the two recommendations as "Unsatisfactory" and conveyed it to TC.

In October 2004, subsequent to a follow-up meeting with TC officials in August 2004, TSB staff was informed that, until the new regulations come into effect, TC was considering targeting, in concert with other agencies and fishing vessel associations, both new and existing fishing vessels considered to be a risk regarding their stability.

The Board acknowledged TC's intention to extend the application of appropriate stability standards to all small fishing vessels in the new regulations, which are now due to come into force no earlier than mid 2007.

As evidenced by the capsizing of *Ryan's Commander*, the absence of formal requirements for stability information allows vessels with inadequate stability characteristics to continue to enter into service.

In addition, in the absence of appropriate stability data fishers may not fully appreciate the risks inherent in the operation of their vessels. The Board was concerned that, in the short term, new and existing small fishing vessels will be operated without the benefit of a proper assessment of their stability characteristics. The Board, therefore, recommended that:

The Department of Transport ensure that the Board's previous recommendations M03-05 and M03-06 are immediately implemented.

M05-04

Response to M05-04 (06 March 2006)

In its 06 March 2006 letter, TC provided the following comments:

- The Minister of Transport, Infrastructure and Communities agrees with the intent of the recommendation.
- In February 2004, TC responded to TSB's recommendations M03-05 and M03-06, indicating that a project had been initiated as part of TC's regulatory reform on fishing vessel safety to address fishing vessel stability concerns. New requirements introduced as a result of this project must follow due regulatory process and are expected to come into force by 2007.
- Until such time as the new *Fishing Vessel Safety Regulations* come into force, TC has established an interim measure for determining, based on a list of risk factors, whether a small fishing vessel requires a stability booklet. This interim measure will take effect immediately, and will also serve to remind vessel owners of their responsibility to make safe operational decisions that ensure an adequate margin of safety.
- TC will issue a Ship Safety Bulletin outlining the process that vessel owners and operators must follow. The bulletin will apply to all owners and operators of fishing vessels, new and existing, that are less than 150 gross tons or less than 24.4 metres, with the priority for TC on monitoring vessels that are more than 15 gross tons.
- Section 29 of the *Small Fishing Vessel Inspection Regulations* requires a stability booklet if a vessel carries capelin or herring. Also, section 48 of the same regulations permits an inspector to require any test felt necessary to verify a vessel's seaworthiness. In addition to fishing for capelin or herring, TC has identified a number of risk factors that can negatively affect stability, thus establishing a standard interpretation of the application of section 48.
- TC will require that a stability booklet all vessels that have any of the identified risk factors. A vessel's certificate will not be issued if a vessel has one of the risk factors but does not have a stability booklet.
- The stability information will be reviewed with the master. This review will be carried out on all new and existing inspected small fishing vessels when the certificate is issued. It should be noted that owners are still required to notify TC of any modifications made to their vessel that may affect stability.

Board Assessment of Response to M05-04 (22 June 2006)

The interim safety measure is described in Ship Safety Bulletin 04/2006 (07 March 2007), which was issued by TC. The bulletin describes the process for determining whether a small fishing vessel requires a stability booklet and what to do if it does. The bulletin applies all owners and operators of fishing vessels, new and existing, that are between 15 and 150 gross tons, or not more than 24.4 metres in length (i.e. vessels inspected by TC on a quadrennial basis).

With the interim measure described in the bulletin in effect, the certificate of any small fishing vessel that does not have a stability booklet may not be issued or renewed if the vessel has one of the risk factors that negatively affect its stability. If a stability booklet is required and the vessel has a certificate that is about to expire, the vessel may be given up to twelve months of grace to obtain a stability booklet by use of a short-term certificate. The stability information questionnaire, which is to be completed by the master, lists the stability risk factors that may apply to the vessel. Before issuing a certificate to a small fishing vessel, TC inspectors will review the stability information questionnaire for determining whether a vessel's characteristics indicate a stability booklet is required to be on board.

The bulletin, which was posted on the TC website, was also mailed to the owners of fishing vessels between 15 and 150 gross tons using the TC Ship Registry and the Small Commercial Vessel Licence databases. A second mailing was made to the owners of vessels 15 gross tons and less (i.e. uninspected vessels). Although the interim safety measure does not apply to the owners of these vessels, they will be encouraged to take note of the bulletin, and if any of the risk factors identified in the questionnaire could affect their vessel, a stability booklet would be beneficial to operating their vessel safety. The two mailings were completed on 29 May 2006.

In conjunction with these instructions, if the operators/owners of small fishing vessels accurately assess and report the risks factors for their vessels to identify the need for stability assessment of their vessels, the risks associated with the deficiencies identified in recommendations M03-05 and M03-06 would be substantially reduced.

The aforementioned interim actions and measures taken by TC will substantially reduce the risks associated with safety deficiencies identified in the Recommendations M03-05 and M03-06.

Therefore, the assessment is assigned **Fully Satisfactory**.

Next TSB Action (22 June 2006)

Notwithstanding that the safety deficiency associated with recommendation M05-04 is considered rectified, it is noted that the new *Fishing Vessel Safety Regulations* are now expected to come into force in 2008. Therefore, TSB staff will monitor the results of the implementation of the interim safety measure.

Response to M05-04 (June 2008)

TC's update, dated June 2008, indicated that the safety deficiency associated with this recommendation is considered rectified. (Follow-up information indicated the proposed *Fishing Vessel Safety Regulations* are expected to be pre-published in Part I of the *Canada Gazette* in the fall/spring 2009/2010.

Board Assessment of Response to M05-04 (September 2008)

The interim actions and measures taken by TC and described in the department's response of June 2008 will substantially reduce the risks associated with safety deficiencies identified in the Recommendations M03-05 and M03-06.

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

Next TSB Action (September 2008)

The TSB staff will monitor the results of the implementation of the interim safety measure.

Response to M05-04

(In their response of June 2008, TC considered the safety deficiency associated with this recommendation rectified. As a consequence, an update was not expected and none was received.)

Board Reassessment of the Response to M05-04 (28 July 2010)

Ship Safety Bulletin (SSB) 04/2006, *Safety of Small Fishing Vessels: Information to Owners/Masters about Stability Booklets*, was issued in March 2006, as an interim measure in anticipation of the new *Fishing Vessel Safety Regulations* coming into force.

Although regarded by Transport Canada as mandatory, the SSB, which strongly encouraged all owners and operators to submit a completed *Stability Information Questionnaire* to identify risk factors to determine the need for stability booklets, has not been implemented in a consistent manner throughout the department. The rate of submission of the questionnaires varies across the country. At the Canadian Marine Advisory Council meeting held in April 2010, Transport Canada (TC) reported that owners and operators in the Quebec Region submitted 153 questionnaires, of which 58 per cent identified risk factors. It was noted that the submission rate in the Pacific Region is reportedly low. There was no information reported regarding the submission of questionnaires for the Atlantic, Ontario, and Prairie and Northern regions. The result of this inconsistent implementation of the SSB is that operators of small fishing vessels—for which an assessment of their stability characteristics has not been carried out—may continue to operate without the knowledge of the risk criteria that can negatively affect stability.

Notwithstanding the inconsistent implementation and therefore the limited extent to which owners may be making use of the SSB, TC is making progress in achieving the objective of the SSB. In May 2010, TC reported that of the 5368 fishing vessel inspections carried out by its inspectors in the Atlantic Region since 2006, 224 indicated that modifications have been made to the vessel. Of the 634 fishing vessels inspected in the Pacific Region over the same period, 30 indicated that modifications had been made. Modification to vessels is one of the risk factors identified in the *SSB Stability Information Questionnaire*.

It is now anticipated that the new *Fishing Vessel Safety Regulations*, which propose to expand the application of the vessel stability requirements to new and existing vessels regardless of the type of fishery in which they are engaged, will be pre-published in Part I of the Canada Gazette in the fourth quarter of 2011. As such, the measures taken by TC will address the safety deficiencies associated with the intent of this recommendation to address recommendations M03-05 and M03-06.

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

Next TSB Action (28 July 2010)

The safety deficiency associated with recommendation M05-04 is considered rectified.