



## REASSESSMENT OF THE RESPONSES FROM TRANSPORT CANADA TO MARINE SAFETY RECOMMENDATION M03-05

### STABILITY APPROVAL FOR SMALL FISHING VESSELS

#### Background

At approximately 0700, on 13 August 2002, the small fishing vessel *Cap Rouge II*, after having picked up two children, departed for the north arm of the Fraser River. The vessel was loaded with fish, the quantity of which was about half of the vessel's cargo capacity.

At approximately four miles from Sand Heads, the mate on board a sailing vessel observed that the *Cap Rouge II* was trimmed heavily by the stern and seawater was washing onto its main deck. On board the *Cap Rouge II*, one of the crew members woke the skipper to inform him that the seiner had a starboard list. As the skipper took action to correct the list, the vessel suddenly heeled to starboard. The skipper made his way out of the vessel with the intention of boarding and releasing the seine skiff, so that it might be used as a rescue craft for those on board the vessel. The skipper boarded the skiff and, while attempting to release it, the *Cap Rouge II* capsized. Only one other crew member successfully abandoned the vessel.

The Board concluded its investigation and released report M02W0147 on 20 November 2003

#### Board Recommendation M03-05 (20 November 2003)

As a small fishing vessel not engaged in catching herring or capelin, the *Cap Rouge II* was not required to comply with stability-related requirements of the Small Fishing Vessel Inspection Regulations and meet the minimum intact stability criteria of STAB 4 of the *Stability, Subdivision and Load Line Standards*. However, irrespective of the particular mode of fishing in which a small fishing vessel is engaged, these criteria are generally regarded as the most appropriate "yardstick" against which their transverse intact stability characteristics may be assessed.

The *Cap Rouge II* had undergone modifications since 1987 which adversely affected its stability.

The inherent transverse stability of the *Cap Rouge II* was progressively reduced by structural additions and the installation of more and heavier fishing gear, all of which were located at or above the main deck level. The installation of additional gear and its effects on stability were not monitored or assessed by a suitably qualified person, nor brought to the attention of TC inspectors, between or during routine quadrennial inspections. Although three quadrennial inspections were carried out following the 1987 modifications, Transport Canada (TC) reportedly became aware of these modifications only after this occurrence.

There are approximately 20 000 small fishing vessels in service in Canada. Of that number, 4500 are greater than 15 gross registered tons (GRT) and less than 150 GRT and are inspected by TC on a quadrennial basis. Because of the mode of fishing in which they are engaged, some of these vessels are currently required to comply with regulatory stability requirements. The 15 500 vessels of less than 15 GRT are uninspected and are not required to meet any regulatory stability standard nor to have any basic stability data provided for the guidance of their operators.

In May 2003, TC sought to modernize stability requirements with a project based, in part, on input from the Standing Committee on Fishing Vessel Safety of the Canadian Marine Advisory Council (CMAC). Because of the ongoing loss of lives and vessels, the necessity for developing and introducing appropriate stability requirements for all small fishing vessels has been recognized. A comprehensive program has been set in motion to evaluate and assess the impact of new proposed safety standards developed from the results of stability experiments and tests conducted on a representative sampling involving some 30 vessels of the small fishing vessel fleet, many of which are below 15 GRT.

The TC project calls for the participation of vessel operators. A primary goal is to validate more appropriate stability standards for future application to fishing vessels under 24 metres in length. Review and analysis of the collected data, intended to define appropriate minimum stability criteria related to various sizes of vessel and their operational characteristics, are to be completed by September 2004. Timely approval and acceptance of the proposed new criteria by TC and industry stakeholders are scheduled so that the results may be incorporated in the new *Fishing Vessel Safety Regulations* due for implementation in 2006.

The Board is encouraged by the initiation of this project to determine and extend the application of appropriate stability standards for all small fishing vessels and notes that TC is in the process of actively addressing a major safety risk to which crews of small fishing vessels have been and continue to be exposed. Until such time as new small fishing vessel safety regulations are introduced 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

## **Response to M03-05 (16 February 2004)**

As part of Transport Canada's (TC) Canada Shipping Act (CSA) 2001 regulatory reform on fishing vessel safety, a project has been initiated to address fishing vessel stability concerns. The goal of the project is to evaluate and establish mandatory stability requirements that would be applicable to all fishing vessels less than 24 metres in length, regardless of the type of fishery they are engaged in.

TC recently completed a survey of existing fishing vessels across the country in order to validate the proposed simplified stability proof test requirements by determining the minimum allowable freeboard/maximum cargo load and the minimum allowable GM (the GM value is the vertical distance between the centre of gravity and the transverse metacentre) for fishing

vessels under 15 metres. The next step in the project is to examine the application of the requirements of TP 7301, *Stability, Subdivision and Load Lines Standards, Part I: Stability, STAB 4* to larger fishing vessels in the 15 metre to 24 metre length overall range.

Amending the regulations to prescribe stability requirements for all fishing vessels under 24 metres must follow due regulatory development process. This process includes public consultation, an impact analysis of the proposed regulation and, in the case of stability requirements, a validation of the requirements. To support the implementation of the Canada Shipping Act 2001, new Fishing Vessel Safety Regulations are scheduled to come into force in 2006.

The results of the ongoing research and assessment of fishing vessel stability requirements will be published on the TC web site.

### **Board Assessment of the Response to M03-05 (08 June 2004)**

The response by TC provided an update of its project to evaluate and establish mandatory stability requirements that would be applicable to all fishing vessels less than 24 metres in length, regardless of the type of fishery they are engaged in.

With respect to that project, a survey of existing fishing vessels across the country for validating the proposed simplified stability test requirements for fishing vessels less than 15 metres has been completed. The next step in the project will be to examine the application of the *Stability, Subdivision and Load Line Standards, Part 1: Stability, STAB 4* to larger fishing vessels 15 metres or more and less than 24 metres.

Thus, for new fishing vessels less than 15 metres in length, it is proposed that these vessels be subject to a minimum freeboard and minimum metacentric height (GM). For new vessels 15 metres or more but less than 24 metres in length, these vessels would be subject to STAB 4 requirements.

With respect to existing small fishing vessels currently without any approved stability data, the above-mentioned proposed stability requirements would also be applicable to existing vessels. However, TC will, based on the findings to the project, review inspection requirements. If appropriate, inspection requirements will be amended to include verification of vessel stability.

TC further indicated in its response that any new requirements to address fishing vessel stability concerns must follow due regulatory development process and are expected to be incorporated in the new *Fishing Vessel Safety Regulations*, scheduled to come into force in 2006. There is no indication in the response by TC that, prior to such time as the new regulations are introduced, the measures described in recommendations M03-05 will be implemented.

The response is considered **Unsatisfactory**.

## **Board Reassessment of the Response to M03-05 (07 December 2005)**

TSB staff already had taken into account the extension of the application of stability requirements when the recommendation was being considered.

No substantial change to address the safety deficiency since the last assessment

## **Next TSB Action (07 December 2005)**

TSB Branch staff will monitor the proposed actions.

## **Response to M03-05 (06 March 2006)**

The Board issued Recommendation M05-04 as a follow-up to this recommendation. Refer to TC's response, dated 06 March 2006, to recommendation M05-04.

## **Board Reassessment of the Response to M03-05 (22 June 2006)**

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. The interim safety measure is described in Ship Safety Bulletin 04/2006 (07 March 2006), 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 (that is, 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 (that is, 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 safely. 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 deficiency identified in recommendation M03-05 would be substantially reduced.

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

### **Next TSB Action (22 June 2006)**

Notwithstanding that the safety deficiency associated with recommendation M03-05 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 M03-05 (June 2008)**

Refer to TC's response, dated June 2008, to recommendation M05-04.

### **Board Reassessment of the Response to M03-05 (September 2008)**

Refer to Board reassessment, dated September 2008, to recommendation M05-04.

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

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

Notwithstanding that the safety deficiency associated with recommendation M03-05 is considered rectified, it is noted that the new *Fishing Vessel Safety Regulations* are now expected to be published in the *Canada Gazette, Part I*, in the fall/winter of 2009/2010. Therefore, TSB staff will continue to monitor the results of the implementation of the interim safety measure.

### **Response to M03-05 (November 2009)**

(In its 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 M03-05 (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.

The SSB strongly encouraged all owners and operators to submit a completed *Stability Information Questionnaire* to identify risk factors to determine the need for stability booklets. However, 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.

Notwithstanding 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 proposes 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 deficiency identified in recommendation M03-05.

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

### **Next TSB Action (28 July 2010)**

The safety deficiency associated with recommendation M03-05 is considered rectified.