



REASSESSMENT OF THE RESPONSE TO TSB RECOMMENDATION M94-33

Guidelines for small fishing vessel stability booklets

Background

While en route from Cap-aux-Meules, Magdalen Islands, to Rivière-au-Renard the *Le Bout de Ligne* disappeared on 13 December 1990 with the loss of all hands. The most probable cause is that the vessel suddenly capsized in adverse weather conditions due to a loss of transverse stability.

The Board concluded its investigation and released report M90L3033 on 16 December 1994.

TSB Recommendation M94-33 (December 1994)

Since most fishermen do not have formal training in vessel stability, they are unable to extrapolate the stability of their vessel under different conditions. Consequently, essential information is not being put to effective use. Therefore, the Board recommended that

The Department of Transport establish guidelines for stability booklets so that the information they contain is presented in a simple, clear and practicable format for end-users.

TSB Recommendation M94-33

Transport Canada's response to Recommendation M94-33 (March 1995)

The Minister of Transport agrees with the recommendation. The *Small Fishing Vessel Inspection Regulations* are currently being replaced by the *Small Fishing Vessels Safety Regulations*, which have been updated to reflect modern technology and specific problems in the fishing industry. These regulations will require stability booklets for all fishing vessels 15 metres in length and over.

Research and development projects are currently underway with the Centre for Marine Vessel Design and Research at the Technical University of Nova Scotia and the Institute for Marine Dynamics with regard to the development and validation of stability criteria for small fishing vessels.

Depending on the availability of funds, the Centre for Marine Vessel Design and Research contract will be amended to include the production of *Guidelines for Stability Booklets*.

TSB assessment of Transport Canada's response to Recommendation M94-33 (June 1995)

As indicated in the response to Recommendation M94-33, the research and development projects are being conducted with an objective to develop and validate stability criteria for small fishing vessels. Depending on the availability of funds, the Department will include the production of recommended Guidelines for Stability Booklets.

The response is considered **Satisfactory Intent**.

TSB reassessment of Transport Canada's response to Recommendation M94-33 (September 2004)

In May 2003, Transport Canada (TC) sought to modernize stability requirements with a project based 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 response is considered **Satisfactory Intent**.

TSB reassessment of Transport Canada's response to Recommendation M94-33 (December 2005)

In May 2003, TC sought to modernize stability requirements with a project 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 proposed new Fishing Vessel Safety Regulations will require every fishing vessel under 24 m to have an assessment of its stability (fishing vessels under 15 m will be subject to a simplified stability assessment). As a result, a new stability standard is also being proposed that will provide owners and operators more clear and simplified guidance concerning the trim and stability booklet. If fully implemented, the proposed action will substantially reduce the risks associated with stability problems.

No substantial change to address the safety deficiency since the last reassessment.

Transport Canada's response to Recommendation M94-33 (November 2006)

TC's update, dated November 2006, indicated that in advance of the new Fishing Vessel Safety Regulations, TC has established an interim policy for determining, based on a list of risk factors, whether a small fishing vessel will require a stability booklet. The Ship Safety Bulletin 04/2006, entitled *Safety of Small Fishing Vessels: Information to owners/masters about stability booklets* includes requirements for naval architects and inspectors to explain the contents of the stability booklet to the master.

As part of TC's Marine safety management system, internal instructions have been issued to inspectors, Classification Societies and Naval Architects, as appropriate, outlining additional information on the process described in the bulletin and including a template for Notes to Masters.

National CMAC (Canadian Marine Advisory Council) in November 2006 included presentations and discussion on educating naval architects on how to pass on useful information to masters.

TSB reassessment of Transport Canada's response to Recommendation M94-33 (November 2006)

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. 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.

Notwithstanding the interim measures identifying the risk factors that can affect stability, no follow-up information was provided regarding the new stability standard which will provide owners and operators more clear and simplified guidance concerning the trim and stability booklet.

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

Transport Canada's response to Recommendation M94-33 (June 2008)

TC's update, dated June 2008, indicated that internal instructions have been issued to inspectors, classification societies and naval architects, outlining additional information on the process described in the *Safety of Small Fishing Vessels: Information to owners and masters about stability booklets*. Work continues on a simplified format for instructions to masters regarding stability assessments of their vessels as part of the proposed Fishing Vessel Safety Regulations.

Follow-up information indicated that pre-publication of the proposed regulations in Part I of the *Canada Gazette* is anticipated in fall/winter 2009/2010.

TSB reassessment of Transport Canada's response to Recommendation M94-33 (September 2008)

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. 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 development of a simplified format for instructions to masters regarding stability assessments of their vessels as part of the proposed new Fishing Vessel Safety Regulations will provide owners and operators more clear and simplified guidance concerning the trim and stability booklet. If fully implemented, the proposed action will substantially reduce or eliminate the deficiency.

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

Transport Canada's response to Recommendation M94-33 (March 2010)

TC's update, dated March 2010, indicated that with regards to stability booklets, work continues on a simplified format for instructions to masters regarding stability assessments of their vessels conducted under the proposed new Fishing Vessel Safety Regulations. The proposed new Fishing Vessel Safety Regulations are anticipated to be pre-published in the *Canada Gazette* Part I, in the fourth quarter of 2011.

TSB reassessment of Transport Canada's response to Recommendation M94-33 (March 2010)

The development of a simplified format for instructions to masters regarding stability assessments of their vessels as part of the proposed new Fishing Vessel Safety Regulations continues. If fully implemented, the proposed action will provide owners and operators clearer and simplified guidance concerning the trim and stability booklet, which will substantially reduce or eliminate the deficiency.

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

Transport Canada's response to Recommendation M94-33 (December 2010)

TC's update, dated December 2010, reiterated that work continues on a simplified format for instructions to masters regarding stability assessments of their vessels conducted under the proposed *new Fishing Vessel Safety Regulations*.

The proposed new *Fishing Vessel Safety Regulations* are anticipated to be pre-published in the *Canada Gazette*, Part I in the second quarter of 2012.

TSB reassessment of Transport Canada's response to Recommendation M94-33 (March 2011)

In 1994, the Board recommended that guidelines be developed for stability booklets so that the information they contain is presented in a simple, clear and practicable format for end-users. In 2011, some 17 years later, no such guidelines have been issued and lives continue to be at risk. Nonetheless, the development of a simplified format for instructions to masters regarding stability assessments of their vessels as part of the proposed new Fishing Vessel Safety Regulations continues. If fully implemented, the proposed action will provide owners and operators clearer and simplified guidance concerning the trim and stability booklet, which will substantially reduce or eliminate the deficiency.

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

Transport Canada's response to Recommendation M94-33 (December 2011)

TC's update, dated December 2011, indicates that the proposed Fishing Vessel Safety Regulations are anticipated to be published in the *Canada Gazette*, Part II in the second quarter of 2013. Fishing vessels will be required to have a Stability Notice posted on board. The notice will offer a way to present stability data that can easily and rapidly be interpreted by the ship's master and crew, in the form of pictograms, ideograms and summary notes. There will be guidelines for the creation of these stability notices; the guidelines are expected to be finalized once the new fishing vessel safety regulations are in force.

Six TC Ship Safety Bulletins directly related to fishing vessel stability, stability booklets and stability risks have been issued since this recommendation was made: 16/1996 Vessel Stability And Seaworthiness; 12/2000 Changes to the loading conditions defined in a fishing vessel's stability book; 01/2005 The Use of Passive Anti-Roll Tanks (ART) on Small Fishing Vessels; 04/2006 Safety of Small Fishing Vessels: Information to Owners/Masters about Stability Booklets; 01/2008 Fishing Vessel Safety Record of Modifications; and 04/2010 Fishing Vessel Safety: Hinged Fins as Anti-Roll Devices.

TSB reassessment of Transport Canada's response to Recommendation M94-33 (March 2012)

In 1994, the Board recommended that guidelines be developed for stability booklets so that the information they contain is presented in a simple, clear and practicable format for end-users.

Once fully implemented, the proposed action will provide owners and operators with clear and simplified guidance concerning the stability booklet, which will substantially reduce or eliminate the deficiency. However, it has now been eighteen years since the recommendation was published and the guidelines have not been issued. As a result fisherman, their vessels and the environment continue to be at risk.

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

Transport Canada's response to Recommendation M94-33 (November 2012)

Transport Canada has completed the following actions to address this recommendation:

The proposed new Fishing Vessel Safety Regulations are anticipated to be pre-published in the *Canada Gazette*, Part I in the 1st quarter of 2014. All fishing vessels will be required to have a stability notice posted on board. The notice will offer a way to present stability data that can easily and rapidly be interpreted by the ship's master and crew, in the form of pictograms, ideograms and summary notes.

TC is issuing a research contract for the development of guidelines to prepare stability notices, taking into consideration research work undertaken at IMO and other administrations like the UK MCA. These guidelines are expected to be finalized when the new Fishing Vessel Safety Regulations are in force. The proposed new Fishing Vessel Safety Regulations will require that a stability notice, in an easy to understand format for the master and crew, be provided for every fishing vessel.

In addition, and to help end-users understand information related to stability booklets, a stability component is now included in examinations for all fishing vessel master certification.

The *Small Fishing Vessel Safety Manual* (TP 10038), which includes an overview of stability issues, was distributed to all holders of fishing vessel licences in 2003 and further provides stability information in a simple, clear and practical format.

Transport Canada has collaborated in initiatives for guidance on stability such as the Society of Naval Architects and Marine Engineers' "A Guide to Fishing Vessel Stability" and the FAO Fisheries and Aquaculture Technical Paper No. 517 "Safety practices related to small fishing vessel stability", links to which are on the Marine Safety website.

Six ship safety bulletins directly related to fishing vessel stability, stability booklets and stability risks have been issued to raise awareness of risks and understanding of what goes in stability booklets since this recommendation was made: 16/1996 “Vessel Stability and Seaworthiness”, 2/2000 “Changes to the loading conditions defined in a fishing vessel’s stability book”, 01/2005 “The Use of Passive Anti-Roll Tanks (ART) on Small Fishing Vessels”, 04/2006 “Safety of Small Fishing Vessels: Information to Owners/Masters about Stability Booklets”, 01/2008 “Fishing Vessel Safety: Record of Modifications”, and 04/2010 “Fishing Vessel Safety: Hinged Fins as Anti-Roll Devices”.

Transport Canada supports and encourages work by industry associations that emphasizes improvement in the safety culture by taking “ownership” of stability issues, such as FishSafe (British Columbia), the Fisheries Safety Association (Nova Scotia), the Fish Harvesting Safety Association (Newfoundland and Labrador), and the Canadian Council of Professional Fish Harvesters (distance learning for Fishing Master 4, stability simulator).

Support is indirect for the most part, for example, providing a forum for discussion of common issues (national and regional CMACs). Direct support was provided, however, in the case of the FishSafe training program where funding was provided over 5 years for the development and pilot of a vessel stability education program through the Memorandum of Understanding with the Worker’s Compensation Board (WCB) of British Columbia.

TSB reassessment of Transport Canada’s response to Recommendation M94-33 (March 2013)

TC has taken several actions towards mitigating the risks identified in this recommendation. Furthermore, its proposed actions will provide fishing vessel owners and operators with clear and simplified guidance concerning the stability booklet, which will substantially reduce or eliminate the deficiency identified in this recommendation.

However, it has now been 19 years since the recommendation was published, and neither the *Fishing Vessel Safety Regulations* nor the guidelines to support the stability notice required therein have been issued. As a result of TC’s continued delays, fishermen, their vessels, and the environment continue to be at risk.

The assessment of the response remains **Satisfactory Intent**.

Transport Canada’s response to Recommendation M94-33 (November 2013)

Transport Canada has completed the following actions to address this recommendation:

Phase 1 of the proposed new Fishing Vessel Safety Regulations is anticipated to be pre-published in the *Canada Gazette*, Part I in the 2nd quarter of 2014. All fishing vessels will be required to have a Stability Notice posted on board, the notice will offer a way to present stability data that can easily and rapidly be interpreted by the ship’s master and crew; in the form of pictograms, ideograms and summary notes. TC is issuing a research contract for development of guidelines to prepare stability notices taking into consideration research work undertaken at IMO and other administrations like UK MCA. These guidelines are expected to be finalized when Phase 1 of the new Fishing Vessel Safety Regulations are in force. Phase 1 of the proposed new Fishing Vessel Safety Regulations will require that a stability notice, in an easy to understand format for the master and crew, be provided for every fishing vessel. Completion of phase 1 should achieve the close out of this recommendation.

In addition, and to help end-users understand information around stability booklets, a stability component is now included in examinations for all fishing vessel master certification.

The *Small Fishing Vessel Safety Manual* (TP 10038), which includes an overview of stability issues, was distributed to all holders of fishing vessel licences in 2003 and further provides stability information in a simple, clear and practical format.

Transport Canada has collaborated in initiatives for guidance on stability such as the Society of Naval Architects and Marine Engineers (SNAME) “A Guide to Fishing Vessel Stability” and the Food and Agriculture Organization (FAO) Fisheries And Aquaculture Technical Paper No. 517 “Safety practices related to small fishing vessel stability”, links to which are on the Marine Safety website.

Six Ship Safety Bulletins directly related to fishing vessel stability, stability booklets and stability risks have been issued to raise awareness of risks and understanding of what goes in stability booklets since this recommendation was made: 16/1996 Vessel Stability And Seaworthiness; 12/2000 Changes to the loading conditions defined in a fishing vessel’s stability book; 01/2005 The Use of Passive Anti-Roll Tanks (ART) on Small Fishing Vessels; 04/2006 Safety of Small Fishing Vessels: Information to Owners/Masters about Stability Booklets; 01/2008 Fishing Vessel Safety Record of Modifications; and 04/2010 Fishing Vessel Safety: Hinged Fins as Anti-Roll Devices.

Transport Canada supports and encourages work by industry associations that emphasizes improvement in the safety culture by taking “ownership” of stability issues, such as FishSafe (British Columbia), Fisheries Safety Association (Nova Scotia); the Fish Harvesting Safety Association (Newfoundland and Labrador) and the Canadian Council of Professional Fish Harvesters (distance learning for Fishing Master 4, stability simulator).

Support is indirect for the most part, for example, providing a forum for discussion of common issues (National and Regional CMACs). Direct support was provided, however, in the case of the FishSafe training program where funding was provided over five years for the development and pilot of a vessel stability education program through the Memorandum of Understanding with the Worker’s Compensation Board (WCB) of British Columbia.

TSB reassessment of Transport Canada’s response to Recommendation M94-33 (March 2014)

Transport Canada’s response contains little new substantive information or rationale for the protracted delay in promulgating these new regulations. Once fully implemented, the proposed Fishing Vessel Safety Regulations will require all fishing vessels (required to have a stability booklet) to have a “Stability Notice” posted on board. The notice is meant to present stability data in an easy to understand method that can rapidly be interpreted by the ship’s master and crew. That is, in the form of pictograms, ideograms and summary notes. Phase 1 of the proposed new Fishing Vessel Safety Regulations are now anticipated to be pre-published in the *Canada Gazette*, Part I in the 2nd quarter of 2014.

The TSB agrees with TC’s response that industry associations and fishermen need to take ownership of the ongoing stability issues. An easy-to-understand stability notice will not prevent a fishing vessel from capsizing – the fishermen on board must understand and apply the principles of stability specific to their own vessel.

The assessment of the response remains **Satisfactory Intent**.

Transport Canada's response to Recommendation M94-33 (March 2015)

Transport Canada's response reiterated a number of previous initiatives that were described in its response of November 2013, including: distribution of TP 10038, collaboration with the SNAME and FAO on stability guidance materials, and the issuing of 6 Ship Safety Bulletins related to stability. The response also noted the previous work related to stability that carried out by various industry associations, and provided the following update as part of the proposed new Fishing Vessel Safety Regulations:

Phase 1 of the proposed new *Fishing Vessel Safety Regulations* are expected to be pre-published in the *Canada Gazette*, Part I in the 1st quarter of 2015. This regulatory proposal would apply to fishing vessels that do not exceed 24.4 metres in length or 150 tons, gross tonnage.

These regulations will require that a portion of the fishing vessel fleet to have a Stability Notice posted on board. More specifically, stability notices will be required for new fishing vessels that have a hull length of more than 9 metres; fishing vessels that have a hull length of more than 9 metres that undergo a major modification or series of modifications or any significant change in activity that is likely to affect the stability of the vessel; or fishing vessels conducting herring or capelin operations that were required to undergo a stability assessment before the coming into force of these regulations. This notice will offer a way to present stability data that can easily and rapidly be interpreted by the ship's master and crew in the form of pictograms, ideograms and summary notes. TriNav Marine design is currently working on the development of these stability notices and related guidelines, and have presented their progress to Transport Canada and stakeholders at the Fall 2014 Canadian Maritime Advisory Council. These guidelines are expected to be finalized in May 2015. Completion of Phase 1 is anticipated to achieve the close out of this recommendation.

Transport Canada will issue vessel stability guidelines to encourage fishing vessel owners to voluntarily abide by the proposed stability requirements to ensure fishing vessels that are not required to have stability booklets are safe to operate (in terms of stability).

In addition to these proposed regulations, Transport Canada has taken several initiatives to ensure fishing vessel owners understand the importance of stability. First, a stability component is now included in examinations for all fishing vessel master certification to help end-users understand information around stability booklets.

Transport Canada is continuing to explore options to support industry led education and awareness activities aimed at improving safety onboard commercial fishing vessels.

TSB reassessment of Transport Canada's response to Recommendation M94-33 (March 2015)

Transport Canada's response provided further details regarding the application requirements of the stability notices under the proposed new Fishing Vessel Safety Regulations. The requirements for posting the notice will apply to

- new fishing vessels that have a hull length of more than 9 metres but do not exceed 24.4 metres in length or 150 tons, gross tonnage;
- fishing vessels that have a hull length of more than 9 metres but do not exceed 24.4 metres in length or 150 tons, gross tonnage that undergo a major modification, a series of modifications, or any significant change in activity that is likely to affect the stability of the vessel; or
- fishing vessels that conduct herring or capelin operations that were required to undergo a stability assessment before the coming into force of these regulations.

The posting of a stability notice that can easily be interpreted by the master will strengthen understanding of the operating limits of the vessel's stability.

The TSB made this recommendation to establish guidelines for stability booklets 20 years ago. In 2008, TC indicated that pre-publication of the proposed regulations was expected in the fall/winter of 2009/2010. This date has been continually postponed since then and was planned for the first quarter of 2015. The proposed requirement for the posting of the Stability Notice should address, for the most part, the risks which led the recommendation to be made. While the proposed measures are reasonable, the protracted delay is not reasonable.

Therefore, the assessment rating has been changed to **Unsatisfactory**.

Transport Canada's response to Recommendation M94-33 (February 2016)

The regulations amending the *Small Fishing Vessel Inspection Regulations* were published in the *Canada Gazette*, Part I on 06 February 2016. The public, stakeholders, and industry now have until 06 April 2016 to review and comment on the proposed regulations before they are enacted, and then published in the *Canada Gazette*, Part II.

TSB reassessment of Transport Canada's response to Recommendation M94-33 (March 2016)

The posting of a stability notice is specifically required for vessels over 9 metres (but under 24.4 metres and less than 150 gross tonnes) that are new builds and those that have undergone a major modification or will be engaging in an activity that likely affects vessel stability. The requirement for a stability notice will mitigate the risk that was identified in this recommendation, however only for new vessels between 9 metres and 24.4 metres. Therefore, the new proposed *Fishing Vessel Safety Regulations* do not include the 164 large fishing vessels registered in Canada. These large fishing vessels would not be required to "establish guidelines for stability booklets so that the information they contain is presented in a simple, clear and practicable format for end-users," as required by Recommendation M94-33.

Due to the protracted delay of the proposed new *Fishing Vessel Safety Regulations* coming into force, even though the Regulations amending the *Small Fishing Vessel Inspection Regulations* were published in the *Canada Gazette*, Part I on 6 February 2016, as well as the fact that only a portion of the Canadian fishing fleet will be required to post the stability notice required by the new proposed regulations, the rating of this response is changed to **Satisfactory in Part**.

Transport Canada's response to Recommendation M94-33 (December 2016)

TC considers that the risks are reduced as follows:

Phase 1 was published in the *Canada Gazette*. Part II on July 13, 2016 and will come into force one year after the publication date.

A Stability notice will be required for new small fishing vessels more than 9m but not more than 24.4m or 150 gross tonnage. Furthermore, a stability notice will be required for fishing vessels that have undergone a major modification or change in activity that is likely to adversely affect its stability, fishing vessels which are fitted with an anti-roll tank, and existing fishing vessels which do not have adequate stability.

Phase 1 does not address large fishing vessels. Phase 3 will address and update the current *Large Fishing Vessel Inspection Regulations* by incorporating the provisions of the Cape Town Agreement of 2012, including Canadian modifications as appropriate.

Transport Canada has developed the Phase 1 regulatory amendments following extensive consultation with industry representatives and will continue to engage with the industry to raise awareness of regulatory requirements.

Please also note that TSB had previously stated the following:

“The posting of a stability notice is specifically required for vessels over 9 metres (but under 24.4 metres and less than 150 gross tonnes) that are new builds and those that have undergone a major modification or will be engaging in an activity that likely affects vessel stability. It also applies to existing vessels involved in herring and capelin fisheries that were previously required to have a stability notice on board. The requirement for a stability notice will mitigate the risk that was identified in this recommendation, however only for vessels between 9 metres and 24.4 metres and those herring and capelin vessel that previously required a stability notice.”

TC advises that existing vessels of closed construction used for catching herring or capelin (of more than 15 gross tonnage) during the period beginning July 6, 1977 and ending on the day before this Division comes into force will continue to be required to have an up to date stability booklet onboard. These vessels will not be required to have a stability notice unless they are reassessed. As such, we would recommend that, in order to be accurate and correct misinformation, TSB delete the text: It also applies to existing vessels involved in herring and capelin fisheries that were previously required to have a stability notice on board.” and, “those herring and capelin vessel that previously required a stability notice”.

TSB reassessment of Transport Canada’s response to Recommendation M94-33 (March 2017)

The TSB acknowledges that amendments are required to the Board’s reassessment of TC’s response to Recommendation M94-33 dated March 2016. The TSB reassessment from March 2016 has been amended to remove the reference to those vessels involved in capelin and herring fisheries.

As late as 2013, TC stated that all fishing vessels would be required to have a Stability Notice posted on board. This notice would offer a way to present stability data that can easily and rapidly be interpreted by the master and crew, in the form of pictograms, ideograms and

summary notes. However, the new *Fishing Vessel Safety Regulations* state that, only new fishing vessels > 9 m built after July 18, 2018 and existing vessels that may be required to have their stability assessed or reassessed, will be required to post a Stability Notice on board.

The *Le Bout de Ligne* occurrence identified that fishermen have difficulty extrapolating the stability of their vessel using the current information provided by their vessel's stability booklets. Therefore, Recommendation M94-33 calls for TC to establish guidelines to ensure that stability booklets provide information that is presented in a simple, clear and practicable format for end-users to reduce the risk that fishermen do not understand the information presented. The TSB acknowledges that TC is in the process of developing these guidelines to accompany the new *Fishing Vessel Safety Regulations* but TC has not provided any timeline for their completion. TC's intent is to provide guidelines for stability information so that, moving forward, Canadian fishermen will be provided with simple, clear and practicable stability information. However, the new *Fishing Vessel Safety Regulations* partly addresses the risk identified in the *Le Bout de Ligne* occurrence. The proposed stability notices will only be required for a small portion of the Canadian fishing fleet. The crews on board the majority of the approximately 24 000 existing registered fishing vessels may not be provided with easy to understand stability information based on a stability assessment.

Therefore, the reassessment of TC's response to recommendation of M94-33 remains **Satisfactory in Part** until the stability guidelines are provided to the TSB and reviewed, and until all fishing vessels that have had their stability assessed are required to post Stability Notices on board.

In December 2016, following the investigation into the capsizing and sinking of the *Caledonian* the TSB issued 3 recommendations related to providing stability information that is adequate to meet the needs of fishermen. Recommendation M16-01 calls for TC to ensure crews on all large fishing vessels have access to adequate stability information. Recommendation M16-02 calls for TC to ensure crews on all small fishing vessels that have had their stability assessed have access to adequate stability information from that assessment. Recommendation M16-03 calls for TC to require that all small fishing vessels undergo a stability assessment and establish standards to ensure that the information is adequate and readily available to the crew.

This recommendation is linked to, and will be fully addressed once recommendations M16-01, M16-02, and M16-03 have been fully addressed.

Transport Canada's response to Recommendation M94-33 (December 2017)

TC considers that this recommendation should be Fully Satisfactory for Phase 1 (small fishing vessels). The Stability Notice template will be sent to the TSB for consideration.

Regarding the TSB statement that "As late as 2013, TC stated that all fishing vessels would be required to have a Stability Notice posted on board" TC would like to clarify that this statement was directed at small fishing vessels (not large) and also that the statement was made prior to the current context- adopted since 2014- whereby the approach for small fishing vessels was changed following discussion with stakeholders. Existing small fishing vessels are now required to have adequate stability. If it is determined that an existing vessel is required to have its stability assessed or reassessed, it will be required to post a stability notice on board.

TC is continuing regulatory work related to phase 2 and 3 of the FVSR. Phase 3 will address and update the current *Large Fishing Vessel Inspection Regulations* by incorporating the provisions of the Cape Town Agreement of 2012, including Canadian modifications as appropriate.

Also, please note the following typo: the sentence “However, the new *Fishing Vessel Safety Regulations* state that, only new fishing vessels > 9 m built after July 18, 2018 and existing vessels that may be required to have their stability assessed or reassessed, will be required to post a Stability Notice on board” should be amended to correct the date to July 13, 2018.

TSB reassessment of Transport Canada’s response to Recommendation M94-33 (March 2018)

TC’s new *Fishing Vessel Safety Regulations* state that only new fishing vessels > 9 m built after 13 July 2018 and existing vessels that may be required to have their stability assessed or reassessed will be required to post a stability notice on board. The proposed stability notices will therefore only be required for a small portion of the Canadian fishing fleet. The risks still remains for the vast majority of existing small and large fishing vessels with stability booklets.

Furthermore, TC has not stated on what basis it will determine which existing small fishing vessels may be required to have their stability assessed or reassessed. This means that there remains a risk that many vessels will not post stability notices.

Therefore, until the stability guidelines are provided to the TSB and reviewed, and until all fishing vessels that have had their stability assessed are required to post stability notices on board, the Board considers the response to the recommendation to be **Satisfactory in Part**.

Transport Canada’s response to Recommendation M94-33 (January 2019)

Transport Canada (TC) agrees in principle with the recommendation. In order to create additional clarity for end-users, the Department updated the TC Small Fishing Vessel Safety webpage to provide information on how to obtain stability notice templates and instructions for individuals to assist in completing them.

Further, TC has revised Ship Safety Bulletin (SSB) 01/2008 – “Fishing Vessel Safety: Record of Modifications.” This bulletin now includes emphasis on the importance of having accurate stability information and up-to-date operational procedures when modifications to the vessel are made, as well emphasis on obtaining stability notices. The Bulletin is in the final publication phase and is expected to be made available in winter 2019. As a result, the risk of instability will be reduced accordingly as more owners of fishing vessels obtain stability notices for their vessels.

In addition, both the *Guidelines for Fishing Vessel Major Modifications or a Change in Activity* (TP 15392) and the *Adequate Stability and Safety Guidelines for Fishing Vessels* (TP 15393), were published in October 2018 on the TC Marine Safety Publications webpage and the TC Small Fishing Vessel Safety webpage. At the National Canadian Marine Advisory Council (CMAC) meeting in November 2018, industry representatives agreed to support distribution of these guidelines to fish harvesters.

TSB reassessment of Transport Canada's response to Recommendation M94-33 (March 2019)

The Board notes that Transport Canada (TC) has updated its website to include stability notice templates and guidelines for how to complete them. The Board also notes that TC has published the *Adequate Stability and Safety Guidelines for Fishing Vessels* (TP 15393) and the *Guidelines for Fishing Vessel Major Modifications or a Change in Activity* (TP 15392), which includes a Fishing Vessel Safety: Record of Modifications form.

The Board considers that these actions meet the intent of the recommendation. However, the Board is concerned that the voluntary application of these guidelines may not be sufficient to reduce the risk. This recommendation is linked to recommendations M16-01, M16-02, and M16-03. The TSB will continue to monitor the progress made by Transport Canada on these recommendations.

The Board considers the response to Recommendation M94-33 to be **Fully Satisfactory**.

The deficiency file is **Closed**.