



REASSESSMENT OF THE RESPONSE TO TSB RECOMMENDATION M04-01

Management of safety by operators of passenger vessels

Background

The *Lady Duck* was an amphibious vehicle based on the conversion of a Ford F-350 truck chassis and arranged to carry up to 12 passengers on combined road and water-borne tours in the National Capital Region and on the Ottawa River. The vehicle was developed and built by the owner and entered commercial service at the start of the tourist season in June 2001.

The *Lady Duck* started the amphibious tour at about 1500 on 23 July 2002, with the driver, 10 passengers and a tour guide on board. When the vehicle entered the water at the Hull Marina, the main bilge pumps were switched on to clear the hull of any shipped water. Because no water was seen to be discharging from the outlets, the emergency bilge pumps were also switched on. Water was then seen to be discharging intermittently from outlets on both sides of the vehicle. The vehicle was driven to the Ottawa side of the river to various points of interest. The river was calm, with waves caused by wakes from boats and other watercraft in the tour area. On occasion, the vehicle encountered waves that washed over the hood and up to the windshield.

Toward the end of the tour, while returning to the Hull Marina, the driver noticed that the front end of the vehicle was floating lower than normal and that water was being continuously discharged from both sides of the vehicle. The driver then ordered the four foremost passengers and the tour guide to move to the back of the vehicle to try to decrease the forward trim.

The forward trim continued to increase and, realizing that the safety of passengers was at risk, the driver instructed the tour guide to tell passengers to don personal flotation devices. The driver then broadcast a MAYDAY on VHF radio. The situation deteriorated rapidly as more floodwater accumulated in the forward end of the vehicle. The driver then called on the passengers to abandon the sinking vehicle. The driver, tour guide and six passengers managed to get free of the sinking vehicle. The remaining four passengers became trapped under the fabric awning and sank with the vehicle in 8 metres of water.

The Board concluded its investigation and released report M02C0030 on 3 June 2004.

TSB Recommendation M04-01 (June 2004)

The picture that emerged from this investigation was one of an organization pursuing minimal compliance with regulations rather than one seeking to minimize risk through all available means. The organization did not demonstrate a commitment to operating safely in that it did

not seek the advice of Transport Canada (TC) with respect to the condition of the vehicle and was reticent to follow recommendations that were not specifically required by regulation.

The *Lady Duck* was designed and built by its operator to conduct amphibious tours. Characteristics of the vehicle indicated a lack of awareness of marine standards of construction and maintenance, in that the vehicle was constructed with low freeboard, without watertight fittings at through-hull penetrations and with incorrectly installed bilge pumping arrangements.

The company's full-time mechanic in charge of vehicle maintenance had no formal training and held no formal certification.

Training provided by the company to enable drivers to make such decisions was minimal and informal. There was no formal training program offered to guides before conducting tours on any of their amphibious vehicles and there were no written company policies or procedures on what and how to train tour guides.

The effective management of safety requires operators to be able to identify the hazards associated with their operation, assess the risk arising from those hazards, and identify mitigation strategies to reduce the risks to the lowest possible level. However, as demonstrated in this occurrence, small passenger vessel operators may not be aware of the risks associated with the operation of their vessels or possess the competence to manage those risks.

Given the benefits associated in preventing accidents, and the need for a structured approach for operators to effectively manage the risks associated with their operation on an ongoing basis, the Board recommends that:

The Department of Transport take steps to ensure that small passenger vessel enterprises have a safety management system.

TSB Recommendation M04-01

Transport Canada's response to Recommendation M04-01 (August 2004)

Transport Canada agrees with the intent of the recommendation. The Department is actively reviewing the feasibility of implementing safety management systems for operators of Canadian domestic (i.e. non-SOLAS Convention) vessels, including small passenger vessel operators. The review will assess the benefits and costs of marine safety management systems and examine the experience of other marine administrations (such as New Zealand and the U.K.) in their implementation of such systems.

The review is scheduled to be completed by mid-2005. If the results indicate that safety management systems are warranted and feasible for any given sector of the domestic marine industry, Transport Canada will, in consultation with industry, determine the best approach to effectively implement such regulatory requirements. In the meantime, Transport Canada continues to support the voluntary adoption of safety management systems by domestic operators.

TSB assessment of Transport Canada's response to Recommendation M04-01 (December 2004)

In their reply, TC agrees with the intent of the recommendation. A study to evaluate the feasibility of implementing a safety management system for the domestic fleet was completed in May of 2002. The study found that there is no clear indication that safety management has improved maritime safety although there was some evidence that safety management in other environments has delivered benefit [The study included a survey but there were no responses from the Canadian Shipowners Association, the Canadian Ferry Operators Association and the Canadian Passenger Vessel Association. There were only six responses from tour and other passenger vessels.] The study recommended that consideration of the New Zealand two-tier approach in which a safety management system (SMS) be applied to all commercial vessels carrying more than 12 passengers or above 15 gross tons. For smaller passenger and cargo vessels, a Safe Operating Plan (SOP) programme should be implemented. An SOP is a scaled-down version of an SMS aimed at providing a practical and affordable set of safety requirements for small commercial vessels. Individual operators draw up an SOP which includes a written record of the vessel's maintenance and safe operating procedures. It also details the conditions under which a vessel operates and the conditions for carrying passengers.

The department is reviewing the feasibility of implementing safety management systems for operators of Canadian domestic vessels, including small passenger vessel operators. The review of that study is scheduled to be completed by mid-2005. If the results indicate that safety management systems are warranted and feasible, TC will, in consultation with industry, determine the best approach to effectively implement regulatory requirements for such systems. TC continues to support the voluntary adoption of safety management systems by domestic operators.

Since TC intends to consult with industry to determine how best to implement safety management systems, should the results of the review warrant their implementation, the response is considered **Satisfactory Intent**.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (December 2005)

Although the review by TC of the study on domestic safety management systems was completed in August 2005, no update of TC's further action has been received by TSB. If the study recommendations are fully implemented, the risks associated with small passenger vessel operations will be substantially reduced. This review has been completed and a report, entitled *Analysis of Options for Safety Management Systems in the Canadian Domestic Shipping Industry*, was submitted to the TC Marine Safety Executive Committee in September 2005 for consideration. TC intends to review all essential information, including that which may come from an anticipated coroner's investigation, and consult with stakeholders prior to implementing any additional safety requirements.

The response is considered **Satisfactory Intent**.

Transport Canada's response to Recommendation M04-01 (November 2006)

TC's update, dated November 2006, indicated that the report on the feasibility of implementing safety management system (SMS) for small vessel operators, even a relatively simple safety management system can represent a significant operational and cost burden. The justification

for applying SMS across the entire domestic passenger vessels would have to be reviewed. However the report suggested that if a suitable industry sector be identified, a pilot project on the implementation of a safety management system approach could be commenced.

Transport Canada Marine Safety will consult with the small passenger vessel industry for their feedback.

The booklet for Small Commercial Vessels Safety Guide (TP 14070) contains elements of SMS such as a self-inspection checklist and routine maintenance schedule. And also provides information regarding applicable regulations.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (November 2006)

The report on the feasibility of implementing a SMS for small vessel operators found that even a relatively simple safety management system can represent a significant operational and cost burden. However, the report suggested that if a suitable industry sector be identified, a pilot project on the implementation of a safety management system approach could be commenced.

Transport Canada Marine Safety intends to consult with the small passenger vessel industry for their feedback.

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

Transport Canada's response to Recommendation M04-01 (June 2008)

TC's update, dated June 2008, indicated that TC conducted a study of safety management systems (SMS) with regards to the domestic fleet, including holding consultations with industry. Following on this study, TC continues to review the application of SMS to small vessels and will consider its application in the future where appropriate.

The booklet for *Small Commercial Vessel Safety Guide* (TP 14070) contains elements of SMS such as a self-inspection checklist and routine maintenance schedule. And also provides information regarding applicable regulations. Revisions to the *Small Commercial Vessel Safety Guide* will expand upon the SMS concept and both promote and explain the concept.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (September 2008)

TC's update, dated June 2008, indicates that it continues to review the application of SMS to small vessels and will consider its application in the future where appropriate and that the to-be-revised *Commercial Vessel Safety Guide* (TP 14070) will be used to promote SMS, indicates support for the voluntary adoption of safety management systems by domestic operators.

The effective management of safety requires operators to be able to identify the hazards associated with their operation, assess the risk arising from those hazards, and identify mitigation strategies to reduce the risks to the lowest possible level. SMS represents a systematic process for managing safety risks and has been widely embraced.

While voluntary application of safety measures can be achieved if their adoption is encouraged and promoted, all small passenger vessel operators may elect not to participate and, therefore,

unknowingly continue to put at risk the safety of their crews and passengers. Until such time that efforts to promote the use of SMS has become the norm for the small passenger vessel industry, or that it is required, the safety deficiency identified by the recommendation will not be substantially reduced or eliminated.

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

Transport Canada's response to Recommendation M04-01 (December 2009)

TC's update, dated December 2009, indicated that TC is in the process of consulting with industry to develop a safety management system (SMS) tailored to the needs of the Canadian domestic fleet, which is comprised primarily of smaller vessels.

A two-year pilot project commenced early in 2009 to test the functionality of what has been become known as a Domestic Safety Management System (DSM). The goal of introducing a DSM is to:

- Enhance the safety culture on board Canadian vessels
- Entrench this safety culture throughout the Canadian maritime industry
- Improve safety and environmental performance
- Improve operational reliability
- Improve industry safety credentials
- Increase industry productivity

As of January 2010, TC is in the final stages of developing a Domestic Safety Management manual and other tools that will assist Canadian operators to implement a SMS. These will be available to all operators in the near future as part of an information and outreach campaign that will seek to inform operators how SMS will strengthen stewardship over safety and environmental protection in their operations.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (May 2010)

The proposed Domestic Safety Management (DSM) system for the Canadian domestic fleet is a voluntary system based on the International Safety Management (ISM) Code. The objectives of DSM are to encourage domestic operators to develop a safety management system as a tool to enhance safety and assist operators in complying with the modernized *Canada Shipping Act, 2001*, specifically section 106(l)(b), which requires operators to develop procedures to ensure the safety of their vessels and to deal with emergencies.

While voluntary application of safety measures can be achieved if their adoption is encouraged and promoted, not all small passenger vessel operators will elect to participate and, therefore, unknowingly continue to put at risk the safety of their crews and passengers. Until such time that efforts to promote the use of DSM has become the norm for the small passenger vessel industry, or that it is required, the safety deficiency identified by the recommendation will not be substantially reduced or eliminated.

At the April 2010 meeting of the Canadian Marine Advisory Council, a Domestic Vessel Regulatory Oversight Working Group, co-chaired by TC and an industry representative, was

formed that will include exploring how to implement by regulation a safety management system for the domestic fleet.

The response is therefore considered **Satisfactory Intent**.

Transport Canada's response to Recommendation M04-01 (December 2010)

TC's update of December 2010 reiterated that, under the *Canada Shipping Act, 2001*, safety is the responsibility of the authorized representative/owner. TC indicated that its role is to provide tools and guidance to help Authorized Representatives meet their regulatory requirements and to develop regulations that efficiently and effectively promote safety.

TC 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. TC 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. Tier 2 of this program covers vessels over 15 GT and/or with 12 or more passengers and would require a Domestic Safety Management (DSM) system to be put in place. Tier 3 of this program is for vessels under 15GT and carrying less than 12 passengers to have on board guidelines for operational safety.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (March 2011)

If fully implemented, the proposed actions will enable operators to identify the hazards associated with their operation, assess the risk arising from those hazards, and identify mitigation strategies to reduce the risks to the lowest possible level. As such, risk will be substantially reduced or eliminated.

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

Transport Canada's response to Recommendation M04-01 (December 2011)

Transport Canada has taken steps to ensure that small passenger vessel enterprises have a safety management system. The proposed *Safety Management Regulations* will require safety management systems on all Canadian vessels. These are anticipated to be pre-published in *The Canada Gazette, Part II*, in the fourth quarter of 2014. As part of this process, a discussion paper has been presented at the Canadian Maritime Advisory Council (CMAC), as well as to the Canadian Passenger Vessel Association.

In 2008, TC launched a pilot project in collaboration with the Council of Marine Carriers to test the feasibility of implementing safety management systems in the Canadian domestic fleet. The concepts and ideas of a functioning SMS have been jointly developed and shared with industry, and have been met with much support for regulatory reform which will make them mandatory. TC's proposed *Safety Management Regulations* include requirements for small vessels, including small passenger vessels. Canadian sail training vessels are required, through a jointly developed industry and regulator policy, to have a functioning SMS prior to undertaking sail training operations.

In June, 2011, TC launched, the Small Vessel Compliance Program (SVCP) in an effort to increase and promote a safety culture within small vessel industry. 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 tool is designed to raise awareness of regulatory requirements and to encourage small non-pleasure vessel owners to continuously assess and maintain their vessel's compliance.

TC Inspectors are instructed to remind owners of their responsibilities under the *Canada Shipping Act, 2001* in regards to developing procedures for the safe operation of the vessel, and ensuring the crew and passengers receive safety training.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (March 2012)

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. Transport Canada was considering safety management systems for small passenger vessel enterprises and a discussion paper was presented at the Canadian Maritime Advisory Council (CMAC), as well as to the Canadian Passenger Vessel Association. However, despite previous indications, the status of this initiative and the proposed amendments to the *Safety Management Regulations* is now unknown.

Therefore, the Board is **unable to rate** the response to this recommendation.

Transport Canada's response to Recommendation M04-01 (May 2012)

On 01 March, 2012, TC advised TSB that the proposed *Safety Management Regulations* would not be applied to vessels less than 24 m in length and carrying fewer than 12 passengers. At that time, TC stated that the new SMS regulations would mirror the ISM Code, incorporating each of the 13 required items. The presentation cited negative stakeholder consultations and recent initiatives by the federal government to reduce the regulatory burden on small businesses (from the Regulatory Cooperation Council Action Plan (*RCC Action Plan*) and from the Recommendations Report - *Cutting Red Tape...Freeing Business to Grow*). Furthermore, TC indicated that the financial burden of implementing a safety management system would be "too onerous for small companies with limited personnel" and that there are a limited number of qualified organizations that could audit and certify SMS for marine companies. Although TC indicated that it will promote SMS as a best practice for vessels less than 24m, it will not require SMS, inspect it or audit it. The proposed amendments to the *Safety Management Regulations* will come into force in 2014.

In response to a request by the TSB for further information, TC sent additional information on 09 May 2012. The information provided focussed largely on the history of development, direction and intended outcomes of the *Small Vessel Compliance Program* (SVCP). TC indicated that prior to the coming into force of the *Canada Shipping Act, 2001* (CSA 2001), vessels not more than 15 tons, gross tonnage (GT) and carrying 12 passengers or less ("small vessels") were largely uninspected by Marine Safety. Safety has been promoted and monitored through the *Small Vessel Monitoring and Inspection Program* (SVMIP) which comprised various regional-based initiatives. Following the coming into force of the CSA 2001, Marine Safety updated the *Small Vessel Regulations* to address changes in the industry, to better reflect the reality of the Canadian fleet of small vessels and to harmonize, where possible, with international standards. The updated regulations came into force in May 2010.

To support the implementation of these regulations, Marine Safety reviewed its existing oversight programs for small non-pleasure vessels, including the SVMIP, and consolidated the best practices into one new program, the *Small Vessel Compliance Program (SVCP)*. The SVCP provides small non-pleasure vessel owners with a simple, yet effective reporting infrastructure that educates small vessel owners on their regulatory requirements and provides them with guidance on how to meet each requirement.

There are two key activities for Marine Safety within the SVCP: the enrolment of vessels into the program, and the risk-based inspection of vessels to verify compliance. The national planned level of activity is 500 vessels enrolled and 50 inspections on newly enrolled vessels.

Marine Safety continues to focus on improving the level of compliance and safety among the small vessel industry through targeted education, outreach and inspection efforts. These activities support the objective of reducing the frequency and severity of small vessel incidents and accidents and contribute directly to a safe transportation environment for Canadians.

Marine Safety's approach to improving small vessel safety addresses the risks identified in the Transportation Safety Board Recommendation M04-01 with respect to small passenger vessels and therefore addresses the intent of the Recommendation.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (September 2012)

Transport Canada and the marine, air and rail industries have long recognized the advantages of a formalized approach to safety management. Until recently, TC was considering an approach in which all commercial vessels would require a safety management system. Small commercial vessels would be required to have a scaled-down version of an SMS, with TC providing a practical and affordable set of safety requirements for individual small vessel operators. In recent years, TC consulted with stakeholders to determine the best approach to effectively implement regulatory requirements for such systems. In collaboration with the Council of Marine Carriers (CMC), TC also tested the implementation of an SMS in the Canadian domestic fleet. CMC has conveyed that the results from this pilot project were encouraging.

However, TC has recently indicated that vessels under 24 m or carrying fewer than 12 passengers will not be required to have an SMS, as was previously planned. While TC indicates in its response that an SMS for vessels less than 24 m will be promoted, it will not be required, inspected, or audited. As such, many small vessel operators may elect not to institute an SMS, and, therefore, may not benefit from the advantages that SMS would bring. Given the benefits of a formalized, documented, and auditable SMS, including its significant potential for accident prevention, the need for this system on small commercial vessels remains. The actions proposed by TC will not address this need or fulfill the requirements of this recommendation.

The TSB has reiterated the benefits of SMS in the marine industry in its Watchlist this June, encouraging TC to require all commercial vessels to have an SMS that is certified and audited.

Since the risks for small passenger vessels will not be substantially reduced if a safety management system is not required, the assessment of the response has been changed to **Unsatisfactory**.

Transport Canada's response to Recommendation M04-01 (December 2012)

Transport Canada has taken steps to ensure that small passenger vessel enterprises have safety management.

- Regulations requiring safety management systems are anticipated to be pre-published in the *Canada Gazette*, Part I, in the 2nd quarter of 2014. As part of this process, a discussion paper has been presented at the Canadian Maritime Advisory Council, as well as to the Canadian Passenger Vessel Association. In addition, Marine Safety has been taking various other steps to promote SMS within the marine industry in Canada.
- Transport Canada has taken steps to improve small vessel safety to address the risks identified in the Transportation Safety Board Recommendation M04-01 with respect to small passenger vessels.
- Since 2004, Transport Canada Marine Safety and Security has worked towards voluntary adoption of Safety Management Systems for non-convention vessels.
- From 2009 to 2011, Transport Canada Marine Safety ran a Pilot Project on Safety Management Systems and Alternate Compliance, in collaboration with the Council of Marine Carriers. Lessons learned from the pilot and feedback from initial consultation has been incorporated within the proposed regulations.
- From 2008 to present, Transport Canada has been examining the feasibility of implementing safety management systems in the Canadian fleet. The concepts and ideas of functional and appropriate approaches to safety management have been jointly developed and shared with industry, and have been met with much support for regulatory reform which will make them mandatory. Regulations requiring safety management systems are anticipated to be pre-published in the *Canada Gazette*, Part I, in the 2nd quarter of 2014. They will apply to SOLAS Convention vessels; vessels over 500 gross tonnage (GT), vessels certified to carry more than 50 passengers and vessels over 24 meters.
- In June 2011, Transport Canada introduced the Small Vessel Compliance Program (SVCP). The foundation of the program is a tool (TP15111) which consolidates in one place all the regulatory requirements governing small non-pleasure vessels in Canada and also includes guidance notes. The tool educates vessel owners/operators about the regulatory requirements and using a checklist approach also helps them verify their vessel is in compliance. The program is supported by a dynamic and informative web/social media presence and also includes outreach activities and videos to help raise safety awareness. Transport Canada conducts compliance inspections of small vessels based on documented risk evidence. The SVCP currently applies to small non-pleasure vessels that are 0 to 15 GT and carry 0 to 12 passengers.
- Work is underway to include small fishing vessels and tugs in the SVCP. In addition, Transport Canada is in the process of building a relationship with municipal/provincial business licensing bureaus and the Canadian Board of Underwriters to encourage them to require that small vessel owners provide proof of compliance with marine regulations prior to being issued a business license and insured. Transport Canada is also working towards leveraging its compliance and enforcement oversight efforts through partnerships with the Canadian Coast Guard and law enforcement marine units and amending the Contraventions Act to include enforcement of non-pleasure vessels.

The SVCP applies the essential components of good safety management to the small vessel fleet. It is helping make vessel owners aware that they are accountable and responsible for the safe operation of their vessel. At the same time, the program tools and guidance material help vessel owners become aware of and understand their regulatory obligations which builds their capacity and capability to operate safely. The program's reporting requirements encourage continual compliance and a proactive approach to safety.

Outreach activities

- The SVCP Detailed Compliance Report (DCR) tool is well received by vessel owners/operators and considered very useful in helping them be aware of their regulatory obligations and verify that their vessel is in compliance.
- Creating awareness of the program and the DCR tool is paramount but challenging given the size and scope of the small vessel community nationally.
- Outreach activities that have been conducted to increase awareness are as follows:
 - Presentations at national and regional CMACs since 2010
 - Inter-departmental meeting held in March 2010 with federal departments who own/operate small vessels to inform them of the program, encourage their enrolment and support in helping increase awareness of the program
 - Developed and maintain a dynamic and informative web presence and use Twitter to issue short bulletins
 - During Q3/Q4 of 2011-12, Marine Safety launched an enhanced outreach campaign:
 - Atlantic Region organized and delivered four town hall meetings. Marine Inspectors also visited specific companies to encourage enrolment, such as, the Halifax Fire Department, Halifax Harbour Authority, Canadian Coast Guard, Department of Fisheries and Oceans, Environment Canada and the RCMP.
 - Ontario Region organized and delivered seven (7) outreach/townhall meetings, which included municipal/provincial governments that operate small vessels, as well as the OPP and CCG.
 - Quebec, Pacific and Prairie and Northern Regions focused their outreach activities visiting specific clients, including provincial/municipal governments and harbour authorities.
 - Headquarters developed a promotional postcard for the SVCP that was sent to over 5,000 small vessel owners.
- To date in 2012-13, Marine Safety:
 - Is in the process of producing five (5) small vessel safety videos using a cross-section of industry representatives that promote the SVCP and safe practices.
 - Has drafted a letter for distribution to municipal/provincial business licence bureaus nationally to make them aware of the SVCP and encourage them to consider vessel compliance when issuing business licences
 - Collaborated in a Transport Canada outreach tour which brought awareness and education concerning small vessel registration, certification and compliance to marine communities in the Pacific region.

- Has made a presentation to the Canadian Board of Marine Underwriters (CBMU) to make them aware of the SVCP and encourage their clients to consider vessel compliance when insuring vessels
- Is in the process of establishing relationships with the CCG and law enforcement marine units nationally to help leverage Marine Safety's compliance monitoring and enforcement efforts within the small vessel community. The *Contraventions Act* is being reviewed to assess the potential for including regulatory offences of non-pleasure craft as designated contraventions under the *Act*.
- Several new small vessel industry associations have recently been formed in the Pacific, Ontario and Atlantic Regions. They support the SVCP and the DCR tool and are working with Marine Safety and their clients to help raise awareness of the program. FishSafe in British Columbia are also avid supporters of the program and are working with Marine Safety to advance the development of a similar DCR tool for small fishing vessels.

Statistics and comments

- Period is from program inception (June 2, 2011) to end of Q2 (September 30, 2012)
- Total number of applications received = 1,376
- Total number of Blue Decals issued = 876
- Total number of applications in progress = 500

The program is gaining momentum. The trend in terms of the number of applications received is increasing. In Q4 of 2011-12, Marine Safety received and processed triple the number of applications compared to Q3 (124 applications). In the first half of 2012-13, a total of 571 new applications were received.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (March 2013)

The SVCP is designed to encourage compliance with existing regulations. TC continues to focus on small vessel compliance, whereas the TSB maintains that compliance with existing regulations does not necessarily ensure safety. Legislating SMS for small passenger vessels would require operators to identify, assess, and mitigate risks on a day-to-day basis.

The TSB reiterated the benefits of SMS for the marine industry in its June 2012 Watchlist and encouraged TC to require all commercial vessels to have an SMS that is audited and certified. If an SMS is not required, the risks for small passenger vessels and for all commercial vessels will not be substantially reduced.

Therefore, the assessment of the response remains **Unsatisfactory**.

Transport Canada's response to Recommendation M04-01 (November 2013)

Transport Canada has taken steps to ensure that small passenger vessel enterprises have safety management.

- The work towards development of the regulations is well underway. Drafting of the proposed regulations is targeted to be complete by 2nd quarter of 2014. The date of pre-

publication in *Canada Gazette*, Part I, is targeted for 3rd quarter of 2014, however that date is dependent upon factors beyond Transport Canada's control. As part of this process, a discussion paper has been presented at the Canadian Maritime Advisory Council, as well as to the Canadian Passenger Vessel Association. In addition, Marine Safety has been taking various other steps to promote SMS within the marine industry in Canada. Transport Canada has taken steps to improve small vessel safety to address the risks identified in the Transportation Safety Board Recommendation M04-01 with respect to small passenger vessels.

- Since 2004, Transport Canada Marine Safety and Security has worked towards voluntary adoption of Safety Management Systems for non-convention vessels.
- From 2009 to 2011, Transport Canada Marine Safety ran a Pilot Project on Safety Management Systems and Alternate Compliance, in collaboration with the Council of Marine Carriers. Lessons learned from the pilot and feedback from initial consultation have been incorporated within the proposed regulations.
- From 2008 to present, Transport Canada has been examining the feasibility of implementing safety management systems to the Canadian fleet. The concepts and ideas of functional and appropriate approaches to safety management have been jointly developed and shared with industry, and have been met with much support for regulatory reform which will make them mandatory. Regulations requiring safety management systems are anticipated to be pre-published in the *Canada Gazette*, Part I, in the 3rd quarter of 2014 however that date is dependent upon factors beyond Transport Canada's control. They will apply to SOLAS Convention vessels; vessels over 500 gross tonnage (GT), vessels certified to carry more than 50 passengers and vessels over 24 meters.
- In June 2011, Transport Canada introduced the Small Vessel Compliance Program (SVCP). The foundation of the program is a tool (TP15111) which consolidates in one place all the regulatory requirements governing small non-pleasure vessels in Canada and also includes guidance notes. The tool educates vessel owners/operators about the regulatory requirements and using a checklist approach also helps them verify their vessel is in compliance. The program is supported by a dynamic and informative web/social media presence and also includes outreach activities and videos to help raise safety awareness. Transport Canada conducts compliance inspections of small vessels based on documented risk evidence. The SVCP currently applies to small non-pleasure vessels that are 0 to 15 GT and carry 0 to 12 passengers.
- Work is underway to include small fishing vessels and tugs in the SVCP. In addition, Transport Canada is in the process of building a relationship with municipal/provincial business licensing bureaus and the Canadian Board of Underwriters to encourage them to require that small vessel owners provide proof of compliance with marine regulations prior to being issued a business license and insured. Transport Canada is also working towards leveraging its compliance and enforcement oversight efforts through partnerships with the Canadian Coast Guard and law enforcement marine units and amending the Contraventions Regulations to include enforcement of non-pleasure vessels.
- Transport Canada is developing an SMS guidance website and material to build awareness and assist operators in the development of their own systems.

The SVCP applies the essential components of good safety management to the small vessel fleet. It is helping make vessel owners aware that they are accountable and responsible for the safe operation of their vessel. At the same time, the program tools and guidance material help vessel owners become aware of and understand their regulatory obligations which builds their capacity and capability to operate safely. The program's reporting requirements encourage continual compliance and a proactive approach to safety.

Outreach activities

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- Creating awareness of the program and the DCR tool is paramount but challenging given the size and scope of the small vessel community nationally.
- Outreach activities that have been conducted to increase awareness are as follows:
 - Presentations at national and regional CMACs since 2010
 - Inter-departmental meeting held in March 2010 with federal departments who own/operate small vessels to inform them of the program, encourage their enrolment and support in helping increase awareness of the program
 - Developed and maintain a dynamic and informative web presence and use Twitter to issue short bulletins
 - During Q3/Q4 of 2011-12, Marine Safety launched an enhanced outreach campaign:
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 - Collaborated in a Transport Canada outreach tour which brought awareness and education concerning small vessel registration, certification and compliance to marine communities in the Pacific region.

- Has made a presentation to the Canadian Board of Marine Underwriters (CBMU) to make them aware of the SVCP and encourage their clients to consider vessel compliance when insuring vessels
- Is building relationships with the Canadian Association of Workmen's Compensation Boards and Provincial Workmen's Compensation Boards
- Is in the process of establishing relationships with the CCG and law enforcement marine units nationally to help leverage Marine Safety's compliance monitoring and enforcement efforts within the small vessel community. The *Contraventions Act* is being reviewed to assess the potential for including regulatory offences of non-pleasure craft as designated contraventions under the *Act*.
- Several new small vessel industry associations have recently been formed in the Pacific, Ontario and Atlantic Regions. They support the SVCP and the DCR tool and are working with Marine Safety and their clients to help raise awareness of the program. FishSafe in British Columbia are also avid supporters of the program and are working with Marine Safety to advance the development of a similar DCR tool for small fishing vessels.

Statistics and comments

- Period is from program inception (June 2, 2011) to end of Q2 (September 30, 2013)
- Total number of Blue Decals issued = 1564

TSB reassessment of Transport Canada's response to Recommendation M04-01 (March 2014)

The response from TC in 2013 contains no new information and indicates no shift on the previous year's stance. TC maintains that small vessel operators (those less than 24 m in length and carrying fewer than 12 passengers) will not be required to adopt a safety management system. The *Lady Duck* sank in 2002 and the recommendation that small passenger vessel enterprises have a safety management system was issued in 2004 after rigorous analysis by the TSB. TC conducted its own analysis at the time and agreed with this recommendation.

The TSB reiterated the benefits of SMS for the marine industry in its June 2012 Watchlist and encouraged TC to require all commercial vessels to have an SMS that is audited and certified. If an SMS tailored to the needs of operators of small passenger vessels and small commercial vessels is not required, the risks associated with small vessel operations will not be substantially reduced. TC's position means that passengers on small commercial passenger vessels, such as the *Lady Duck* will continue to be placed at risk.

Therefore, the assessment of the response to Recommendation M04-01 remains **Unsatisfactory**.

Transport Canada's response to Recommendation M04-01 (December 2014)

Transport Canada's response reiterated the information, the steps taken to improve small vessel safety, and the outreach activities provided in its response of November 2013, and noted that "drafting of the proposed regulations is targeted to be complete by 1st quarter of 2015. The date of pre-publication in *The Canada Gazette*, Part I, is targeted for 2nd quarter of 2015, however that date is dependent upon factors beyond Transport Canada's control."

The response also updated the results of its Small Vessel Compliance Program, noting that 2001 Blue Decals had been issued since the program's inception (02 June 2011) up to 30 September 2014.

TSB reassessment of the response to Recommendation M04-01 (March 2015)

The response from Transport Canada contains little new substantive information. TC had initially planned that vessels over 15 gross tonnage and carrying fewer than 12 passengers would have been required to have an SMS. TC now maintains that it will be promoting SMS for vessel operators (vessels less than 24 m in length and vessels carrying 50 passengers or less), which, under the proposed measures, will not be required to have a safety management system. There are 4067 passenger vessels currently registered in Canada (Transport Canada's Vessel Registration Query System), of which 3896 are less than 24 m in length and certified to carry fewer than 50 passengers. The operators of many of these smaller passenger vessels may elect not to adopt an SMS or put into place a formal safety management process for them and therefore may not benefit from the advantages that safety management would bring.

In its November 2014 Watchlist, the TSB reiterated the responsibility of all companies to manage the safety risks in their operations, and the benefits of SMS in identifying hazards and mitigating risks. The TSB also noted that even small companies need to have some safety processes in place to manage risk.

If safety management processes tailored to the needs of operators of small passenger vessels and small commercial vessels are not required, the risks associated with small vessel operations will remain.

Therefore, the assessment of the response to Recommendation M04-01 remains **Unsatisfactory**.

Transport Canada's response to Recommendation M04-01 (December 2015)

Transport Canada was very pleased with the change of wording in the 2014 Watchlist publication. Transport Canada (TC)'s regulatory framework is in line with the TSB proposed solution - Section 106(1)(b) of the Canada Shipping Act, 2001 requires that authorized representatives develop procedures for the safe operation of the vessel and for dealing with emergencies (which consists, in other words, of safety management processes); TC has an ISM observation audit framework to monitor the companies and the vessels subject to the *Safety Management Regulations* on a risk-based prioritization and ensure they are compliant with the applicable requirements; and marine inspectors may take enforcement action if evidence suggests that a vessel or a company engages in unsafe operating practices.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (March 2016)

The referenced section of the *Canada Shipping Act, 2001*, requires the authorized representative of a Canadian vessel to develop procedures for the safe operation of the vessel and for dealing with emergencies and to ensure that the crew and passengers receive safety training; however, managing safety requires a comprehensive approach. Effective management of safety requires that processes be in place to be able to identify the hazards associated with the operation of the vessel, assess the risks arising from those hazards, and identify mitigation strategies to reduce the risks. The Board believes that, in addition to providing a safety management framework that is easily understood by small vessel owners/operators, the regulator needs to take steps to

ensure owners/operators have processes in place to address the risks specific to an operation. Until such time as these are in place, the risks associated with an operation may not be identified nor addressed.

In the 2014 Watchlist, the TSB reiterated the responsibility of all companies to manage safety risks in their operations, and the benefits of SMS in identifying hazards and mitigating risks. However, if safety management processes tailored to the needs of operators of small passenger vessels and small commercial vessels are not required, the risks associated with small vessel operations will remain.

Therefore, the assessment of the response to Recommendation M04-01 remains **Unsatisfactory**.

Transport Canada's response to Recommendation M04-01 (December 2016)

Transport Canada continues to promote the development of Safety Management Systems among marine operators, therefore Transport Canada is currently in the process of amending the *Safety Management Regulations*. The regulatory proposal applies to Canadian non-Convention vessels. Transport Canada's proposed amendments to the *Safety Management Regulations* are in line with the intent of the Transportation Safety Board's 2016 Watchlist. Transport Canada is confident that its current proposal reflects a strong endorsement of SMS for the domestic fleet to complement and enhance existing inspection and certification requirements.

When the Authorized Representatives (AR) of a Canadian vessel initially performs a risk assessment they look at their operations and attempt to identify all risks that may affect their operations, they cannot possibly identify every risk, as some risks only become apparent over time. Risk assessment is therefore an ongoing and continuous process as the company conducts its operations and continues to identify the risks. It does not mean that the management of safety is faulty or ineffective when a previously unknown or unanticipated risk becomes known as a result of an incident. One of the objectives of managing safety is once, a risk is identified after an incident/accident the company puts safeguards in place and continue to improve on safety.

Transport Canada has developed an SMS guidance website and material to build awareness and assist operators in the development of their own systems:

<http://www.tc.gc.ca/eng/marinesafety/dvro-4067.htm>

<http://www.tc.gc.ca/fra/securitemaritime/dvro-4067.htm>

Consultations on the proposed amendments were conducted since 2010 and will continue through the development of the proposed amendments. As part of the proposed amendments to the *Safety Management Regulations*, Transport Canada is drafting the *Canadian Modifications to the International Safety Management (ISM) Code* which will be incorporated by reference pursuant to section 32(4.1) of the *Canada Shipping Act, 2001*, amongst others.

In addition to the above proposed amendments, Transport Canada is expanding the application of the *Small Vessel Compliance Program (SVCP)* to include small fishing vessels below 15 Gross Tonnage. The SVCP for fishing vessel is currently under development and is expected to be launched in July 2017. SVCP for small tugs will follow at a later date.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (March 2017)

The TC website page for SMS indicates that only 3 types of vessels “that operate on international voyages/waters must adopt an SMS that complies with the International Safety Management (ISM) Code:

1. Passenger ships including passenger high-speed craft;
2. Oil tankers, chemical tankers, gas carriers, bulk carriers and cargo high-speed craft of 500 gross tonnage and upwards; and
3. Other cargo ships and mobile offshore drilling units of 500 gross tonnage and upwards.”

The proposed *Safety Management Regulations* indicate that “the following vessels and the companies that operate them will be required to adopt a SMS in compliance with the ISM Code:

1. A Canadian vessel subject to Chapter IX of the International Convention for the Safety of Life at Sea (SOLAS);¹
2. A Canadian vessel of 500 gross tonnage and upwards;
3. A Canadian vessel that is certified to carry more than 50 passengers; and
4. A Canadian vessel that is more than 24 meters in length and less than 500 gross tonnage.” (these vessels are not subject to audit and certification process).

While TC has indicated that the *Safety Management Regulations* are in line with the 2016 TSB Watchlist, TC has not taken steps to ensure that small passenger vessel enterprises, including enterprises that operate in sheltered waters, have a safety management system.

As there is no indication that TC intends to take steps to ensure that small passenger vessel enterprises have a safety management system, the reassessment of this recommendation remains as **Unsatisfactory**.

Transport Canada's response to Recommendation M04-01 (December 2017)

Transport Canada continues to promote the development of Safety Management Systems among marine operators, and is currently in the process of amending the *Safety Management Regulations*. The regulatory proposal applies to Canadian non-convention vessels.

Transport Canada has promoted safety culture among domestic fleet operators through presentations at venues like CMAC. These presentations provided detailed information regarding the importance of having safety management systems at both the company and vessel level. To facilitate ease of developing and implementing SMS, Transport Canada has developed an SMS guidance website and material to build awareness and assist operators in the development of their own systems:

<http://www.tc.gc.ca/eng/marinesafety/dvro-4067.htm>

<http://www.tc.gc.ca/fra/securitemaritime/dvro-4067.htm>

¹ Canadian vessel subject to Chapter IX of the International Convention for the Safety of Life at Sea (SOLAS) are currently required to comply with the existing *Safety Management Regulations*.

Consultations on the proposed amendments started in 2010 and will continue through the development of the proposed amendments. As part of the proposed amendments to the *Safety Management Regulations*, Transport Canada will resume the drafting of the Canadian Modifications to the International Safety Management (ISM) Code which will be incorporated by reference pursuant to section 32(4.1) of the Canada Shipping Act, 2001, amongst others.

In addition to the above proposed amendments, Transport Canada is expanding the application of the Small Vessel Compliance Program (SVCP) to include small fishing vessels below 15 Gross Tonnage. The SVCP for fishing vessel is currently under development and is expected to be launched by the end of 2017/ early 2018. SVCP for small tugs will follow at a later date.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (March 2018)

Transport Canada (TC) has indicated previously and reiterated to the Board at a briefing held in early March 2018 that TC was in the process of amending the *Safety Management Regulations*. In addition to those vessels currently required to have an SMS (Canadian vessels subject to Chapter IX of the International Convention for the Safety of Life at Sea (SOLAS)), the following vessels and the companies that operate them will be required to adopt an SMS in compliance with the ISM Code:

1. Canadian vessels of 500 gross tonnage and upwards;
2. Canadian vessels that are certified to carry more than 50 passengers; and
3. Canadian vessels that are more than 24 meters in length and less than 500 gross tonnage." However, these vessels would not be subject to an audit and certification process.

TC reiterated its expectation that excluded vessels must still have procedures for their safe operation and for dealing with emergencies in accordance with section 106 of the *Canada Shipping Act, 2001*. Nevertheless, TC acknowledged that the risk to passengers who board small passenger vessels for purposes such as tourism is different from the risk to crew members who board other types of small vessels (e.g., tugs or fishing vessels). Therefore, TC intends to assess the level of risk with respect to different categories of non-convention vessels with a view to determining if the requirements for SMS on such passenger vessels should be treated differently.

The proposed TC actions will increase the number of vessels required to have an SMS once fully implemented. Although TC has not committed to making SMS mandatory for small passenger vessels, TC intends to re-examine the risk associated with such vessels. Therefore, the response to Recommendation M04-01 is assessed as **Satisfactory in Part**.

Transport Canada's response to Recommendation M04-01 (January 2019)

Transport Canada (TC) agrees in principle with the TSB's recommendation; however, TC requires further research and justification to determine the most effective means to address the recommendation and to what extent the cost and benefits of SMS can be justified for smaller vessel operations.

TC is currently undertaking analysis of the *Safety Management Regulations* to determine if the scope of the proposed amendments could be expanded to capture certain vessels less than 24m, taking into account the safety benefits and cost for smaller businesses. The analysis will

consider the size of the vessel and the company, the type of vessel and operations, and the type of safety management systems (SMS) (e.g., third-party audit, approval or risk-based monitoring, modelled after ISM or adapted domestic SMS). At the November 2018 National Canadian Marine Advisory Council (CMAC) meeting, the Domestic Vessel Regulatory Oversight Standing Committee requested initial comments from stakeholders on the expansion of mandatory SMS requirements to smaller vessels. TC will collect the comments during the winter and take them into consideration in developing an updated proposal for initial consultation at the spring 2019 CMAC.

Until the regulatory amendments are finalized, the safety culture and safe practices continue to be regulated and promoted by TC through the *Canada Shipping Act, 2001* and through various regulations (e.g., the *Fishing Vessel Safety Regulations*, *Marine Personnel Regulations*, *Safe Working Practices*, *MOSH*), programs (e.g., *SVCP*, *SVCP-F*) and supporting guidelines.

TSB reassessment of Transport Canada’s response to Recommendation M04-01 (March 2019)

In March 2018, TC indicated that it was in the process of amending the *Safety Management Regulations*. TC reiterated its expectation that excluded vessels must still have procedures for their safe operation and for dealing with emergencies in accordance with section 106 of the *Canada Shipping Act, 2001*. Nevertheless, TC acknowledged that the risk to passengers who board small passenger vessels for purposes such as tourism is different from the risk to crew members who board other types of small vessels (e.g., tugs or fishing vessels). TC intended to assess the level of risk with respect to different categories of non-convention vessels with a view to determining if the requirements for SMS on such passenger vessels should be treated differently.

The Board notes that TC is currently undertaking analysis of the *Safety Management Regulations* to determine if the scope of the proposed amendments could be expanded to capture certain vessels less than 24 m, taking into account the safety benefits and cost for smaller businesses. The Board also notes that TC plans to develop an updated proposal for initial consultation at the spring 2019 CMAC. However, TC no longer mentions its previous concern with the risk for non-convention vessels, including small passenger vessels.

The Board is unaware of the scope of the consultations and what the new proposal for the *Safety Management Regulations* may contain. The Board therefore cannot determine if TC actions will increase the number of vessels required to have an SMS once fully implemented. The Board considers the response to the recommendation to be **Unable to Assess**.

Transport Canada’s response to Recommendation M04-01 (January 2020)

Transport Canada (TC) agrees with this recommendation. TC has carried out additional analysis pertaining to the implementation of safety management systems (SMS) throughout the Canadian vessel fleet. An overview of the analysis was presented at the Fall 2019 national Canadian Marine Advisory Council (CMAC) to obtain initial commentary from stakeholders on the expansion of mandatory SMS requirements.

TC is currently developing a regulatory proposal that is expected to be presented at the Spring 2020 CMAC. TC will convene a meeting with the TSB in early 2020 to provide a detailed brief on TC’s proposed way forward and to further inform the reassessment of this

recommendation. The amended *Safety Management Regulations* are targeted to be published in the *Canada Gazette*, Part I in June 2020.

TSB reassessment of Transport Canada's response to Recommendation M04-01 (March 2020)

The Board notes that TC has undertaken additional analysis regarding the implementation of SMS throughout the Canadian vessel fleet, but has not provided the TSB with information about the outcome of this analysis.

On 05 February 2020, TC convened a meeting with the TSB and provided details on the regulatory proposal to be presented at CMAC in the spring of 2020, before publishing the amended *Safety Management Regulations* in the *Canada Gazette*, Part I, in June 2020. While TC has made some progress, given that it has not yet consulted with industry on the proposal, the Board presently cannot determine the practicality or effectiveness of the actions proposed to address the safety deficiency in the passenger vessel sector that is the object of this recommendation.

The Board is **unable to assess** the response to Recommendation M04-01.

Next TSB action

The TSB will monitor the progress made by TC.

This deficiency file is **Active**.