



## REASSESSMENT OF THE RESPONSE TO TSB RECOMMENDATION M94-34

### Passage planning

#### Background

On 8 May 1991, at about 0828, while downbound in the St. Lawrence River with a cargo of oil, the Canadian tanker *Irving Nordic* struck bottom to the north of the ship channel, downstream of the Grondines wharf. The vessel ran out of the navigation channel in daylight and in conditions of good visibility. The *Irving Nordic* suffered considerable bottom damage, but there were no injuries. Minor pollution was observed as the vessel arrived at Québec (Quebec), but it was contained.

The Board determined that the *Irving Nordic* struck bottom because the vessel left the navigation channel as a result of a premature alteration of course.

The Board concluded its investigation and released report M91L3012 on 27 September 1994.

#### TSB Recommendation M94-34 (December 1994)

The pilot prematurely made the alteration of course putting the ship's head to the north of the north power-line pylon. Such a conspicuous mark should have warned the pilot and the OOW of the impending danger of the vessel being off course. Further, buoy D4 was on the starboard bow, another indication that the vessel was off course. However, this course deviation went unrecognized by the pilot and the OOW. Such errors could have been detected if adequate passage planning had been put in place and if the progress of the vessel had been monitored effectively. In confined compulsory pilotage waters, a pilot's passage plan containing all key navigational elements such as course alteration points, wheel-over positions, and points where the accuracy of position fixing is critical, etc. could reduce the risk of such errors.

Approximately two months after this occurrence, the Canadian bulk carrier *Halifax* grounded in the same area, also due to a premature alteration of course (TSB Occurrence #M91L3015).

The Board believes that close and continuous monitoring of a vessel's progress along the pre-planned track is essential for the safe conduct of the vessel. Knowledge of the pilot's passage plan would provide a focus for the OOW to effectively monitor the intentions of the pilot, the track and the progress of the vessel. Currently, it is not common practice for pilots to provide passage plans to ship's personnel or for the pilotage authorities to provide such plans to their pilots. Therefore, the Board recommends that:

The Department of Transport require that the pilotage authorities publish official passage plans for compulsory pilotage waters and make them available to masters to facilitate monitoring of the pilot's actions by the vessel's bridge team.

#### **TSB Recommendation M94-34**

### **Transport Canada's response to Recommendation M94-34 (March 1995)**

The Minister of Transport does not accept the recommendation.

In accordance with Section 24(6)(b) of the *Canadian Accident Investigation Safety Board Act*, the recommendation is not accepted for the following reasons.

The *Pilotage Act* clearly delineates the objects and powers of the Pilotage Authorities and makes no provision for the Department of Transport to require them to take action of the nature proposed.

It is the Authorities' and the Department's view that piloting, by its nature, is a process requiring the pilot to constantly adjust to changing conditions throughout the voyage. Course alteration points and wheel-over positions depend on a number of variables including the vessel's initial position, its speed, turning characteristics which vary according to its state of loading and trim, wind speed and direction, tidal flow and current, weather and ice conditions, limiting water depths and underkeel clearance, and other traffic in the generally restricted waterways concerned. All of these factors cannot be foreseen in advance and a passage plan is therefore viewed as being of limited, if any, practical value.

As an example, much of the pilotage in Canadian compulsory pilotage waters is based on a system of range lights and any official passage plans would presumably indicate the vessel keeping to these ranges. In reality, however, inbound and outbound traffic necessarily have to deviate from the ranges in order to avoid collision and this would thereby require constant deviations from such a passage plan. In many instances, a vessel's heading is not the track made good and, once again, this would result in deviations from such a plan.

While the Atlantic Pilotage Authority has an agreement with Imperial Oil to provide chartered tankers entering Halifax with an abbreviated passage plan outlining the general courses to be followed, the plan is rarely followed exactly, as the previously mentioned variables enter into play.

Other considerations militating against the recommendation include the manning status of many vessels, the number and quality of their bridge watch personnel, and the fact that linguistic considerations often inhibit the ready exchange of information. Additionally, there are many locations and instances where the pilot embarks in already restricted compulsory pilotage waters and has to immediately direct his attention to ensuring the safety of the vessel (particularly in traffic), thereby precluding potentially lengthy exchanges with respect to any passage plan. It should be noted that this is a process which, despite the difficulties previously mentioned, would have to be repeated with each of the bridge watchkeeping officers, whenever lengthy transits were involved.

It is considered that the appropriate marine charts and associated publications (e.g. sailing directions) constitute, in effect, an on-going passage plan. It is further considered that, in accordance with the Recommended Code of Nautical Procedures and Practices, it is the responsibility of the Master of the vessel to have his own passage plan for checking the accuracy

of the ships' position and movement. It is also recognized that many of the considerations previously mentioned were not factors in this marine occurrence involving, as it did, a Canadian flag vessel. However, it is believed that a more effective bridge resource management regime (including enhanced communication between the pilot and the officer of the watch), rather than a voyage plan, may potentially have contributed to the incident being avoided.

### **TSB assessment of Transport Canada's response to Recommendation M94-34 (July 1995)**

The reply indicates that Transport Canada (TC) does not accept the recommendation. The primary reason given is that the *Pilotage Act* clearly defines the objects and powers of the Pilotage Authorities and makes no provision for the TC to require them to take action of the nature proposed by the recommendation. It appears that the response has focused on the wording of the recommendation as opposed to the deficiency that being the detection by other bridge team members of unsafe course alterations.

The response does, however, recognize that more effective Bridge Resource Management (BRM) might have prevented the occurrence. As such, the TC is indirectly supporting the recommendation. BRM training, as offered at the Scandinavian Airline System Flight Academy in Sweden and by the Centre for Marine Simulation, in St. John's, features passage planning as a dominant pillar for an effective BRM regime and as a pre-requisite for the effective communication of a pilot's voyage intentions to the bridge personnel.

While the reply alludes to effective BRM as a means to prevent recurrence of this type of accident, it does not indicate actions to promote BRM within the marine industry. Therefore, the response is assessed as being **Unsatisfactory**.

Moreover, BRM and Passage Plans are issues being addressed by the safety study on "The Operational Relationship between Ship's Master and Marine Pilots." Depending on the findings of the study, staff will consider the need to propose further recommendations with respect to passage plans into the final version of the study.

### **TSB reassessment of Transport Canada's response to Recommendation M94-34 (November 2004)**

With the new pilotage certification training program, Module 1 of the course provides a 5 week training course to develop a passage plan for the St-Lawrence River. A candidate attending this course will receive the assistance of an instructor to develop a passage plan for the use of the vessel he/she works on. The Authority does not feel it can produce specific passage plans for each ship entering the system but the passage planning course helps individuals develop their own plans. The Laurentian Pilotage Authority (LPA) has taken action and developed a Pilotage Certificate Training Program for the Laurentian Region. It was published in June 1999. TC's Recommended Code of Nautical Procedures and Practices states that the "intended voyage shall be planned in advance taking into consideration all pertinent information....the need for voyage planning and passage planning applies to all vessels." In general pilots do review the passage plan with the master. The re-assessment is changed from Unsatisfactory to **Satisfactory in Part**.

## **TSB reassessment of Transport Canada's response to Recommendation M94-34 (November 2005)**

With the new pilotage certification training program, Module 1 of the course provides a 5 week training course to develop a passage plan for the St-Lawrence River. A candidate attending this course will receive the assistance of an instructor to develop a passage plan for the use of the vessel he/she works on. The Authority does not feel it can produce specific passage plans for each ship entering the system but the passage planning course helps individuals develop their own plans. The LPA has taken action and developed a Pilotage Certificate Training Program for the Laurentian Region. It was published in June 1999. TC's Recommended Code of Nautical Procedures and Practices states that the "intended voyage shall be planned in advance taking into consideration all pertinent information....the need for voyage planning and passage planning applies to all vessels." In general pilots do review the passage plan with the master. Since 1995, there have been only two occurrences involving Canadian pilots (M95C0120 and M97L0019) in which there was no agree-upon passage plan in place prior to the commencement of the voyage.

As such, the deficiencies addressed by the recommendation have been substantially reduced. The re-assessment is changed from "Satisfactory in Part" (Apr 04) to "**Satisfactory Intent.**"

The file was assigned an **Inactive** status in 2004.

## **Transport Canada's response to Recommendation M94-34 (December 2014)**

The *Pilotage Act* of 1972 created four Pilotage Authorities: Atlantic, Laurentian, Great Lakes and Pacific. Pilotage Authorities are Crown corporations listed in Schedule III to the *Financial Administration Act*, reporting to the Minister of Transport.

The mandate of each Authority is to provide safe and efficient pilotage services that respond to the particular requirements of its traffic and the varied geography and climatic conditions of the waterways concerned. Pilotage Authorities must provide their services within a commercially-oriented framework that is geared toward maintaining financial self-sufficiency through tariffs that are fair and reasonable.

Pilotage Authorities must also promote sustainable practices internally and contribute to the government's environmental, social and economic policies as they apply to the marine industry in Canada.

Transport Canada Marine Safety & Security (TCMSS) guides and participates in the development and approval of policies, regulations and standards pertaining to the marine pilotage services provided by each of the Pilotage Authority, taking into account the impact of such services on their international and domestic clientele. TCMSS is also responsible for the *General Pilotage Regulations*, which establishes the minimum, qualifications, experience at sea and health requirement that an applicant for a licence or pilotage certificate shall meet before it is issued to the applicant.

Each Pilotage Authority is responsible for their own sets of regulations regarding operational requirements.

Considering that Pilotage Authorities are working at arm's length from Transport Canada, Recommendation M94-34 should have been directly addressed to the Pilotage Authorities.

## **TSB reassessment of Transport Canada's response to Recommendation M94-34 (January 2015)**

On 28 January 2015, the TSB requested information from the four pilotage authorities in Canada:

- Atlantic Pilotage Authority (APA)
- Great Lakes Pilotage Authority (GLPA)
- Laurentian Pilotage Authority (LPA)
- Pacific Pilotage Authority (PPA)

On 01 April 2015, the Board assigned this recommendation an **Active** status.

### **Atlantic Pilotage Authority's response to Recommendation M94-34 (December 2015)**

The Atlantic Pilotage Authority (APA) responded that they are serious about establishing, operating, maintaining, and administering, in the interest of safety, an efficient pilotage service in Atlantic Canada. Out of the 8472 pilotage assignments executed in 2014, there were only 5 minor shipping incidents. Another way to describe this is that 99.94% of pilotage assignments were completed incident-free.

The APA is in the process of employing a Master-Pilot Exchange (MPX) card in the compulsory pilotage areas. An example of one presently in use (Halifax) was attached. These cards are designed to be a reference for the Master and the pilot, and a tool to ensure engagement between the pilot and the bridge team prior to, and during, the pilotage passage plan. MPX cards (similar to the attached) are being developed for the other ports within the APA's jurisdiction and should be in use before the second quarter of 2016.

In addition to the above initiative, the APA committed over \$320,000 in training costs in 2014 (the majority for Pilots) and we are currently on-track to meet the same commitment or even exceed it for 2015. Some examples of pilot training:

- Basic & advanced manned-model training
- Bridge resource management (for pilots)
- Radar errors detection training
- ECDIS (type generic)
- Various simulation exercises – port specific

In addition to the above training commitment, the APA has developed a Pilot/Peer Assessment Program where each pilot is assessed by one of their peers from a different district. The learning experience for both parties has proven to be extremely valuable. From a technology perspective, the APA has extensively trialed a newly designed Portable Pilotage Unit (PPU) with great success. There are plans in place to expand the PPU program, eventually ensuring every pilot has access to a PPU and training required to be proficient.

### **Great Lakes Pilotage Authority's response to Recommendation M94-34 (December 2015)**

The Great Lakes Pilotage Authority responded that they are in the process of developing three documents:

1. Reference Guide on general information which will contain;

- *Pilotage Act*;
- *General Pilotage Regulations*;
- *Great Lakes Pilotage Regulations*;
- General Information on: ship steering, radar, anchors, main engine, propulsion system, rudder, radio communication, speed during transit, under keel clearance, draft, anchoring manoeuvre details, docking or undocking, tug use, presence of ice, etc.
- Notices to Mariners; and
- Seaway Notice.

2. A quick reference card for pilots containing information to be handed to master.

3. A passage plan for each district into the Great Lakes which will include extract of marine charts showing courses, distance of each course, speed limit and tolerance, calling in point, VHF frequency to use, areas designated for anchorages and emergency anchorage.

The GLPA goal is to complete these documents before the opening of the 2016 navigational season, and to post them on their website so that agents, captains, and crew members can download it.

### **Laurentian Pilotage Authority's response to Recommendation M94-34 (February 2015)**

The Laurentian Pilotage Authority (LPA) responded that their pilots are trained in BRM and monitor the progress of the vessel with officers on the bridge, according to the bridge management practice, through the St. Lawrence waterways. Nevertheless, the LPA recognize they should develop incentives to better apply BRM practices on ship.

The LPA is consulting with clients and partners to make changes to its regulations in order to include an obligation for pilots and masters to exchange information among other navigation procedures. The regulations shall include the:

- delivery and presentation by the pilot of the information sheet prepared by the pilotage administration,
- general agreement on plans and methods, including contingency plans concerning the planned passage,
- vessel rate of turn at different speed, turning circles, stopping distance, and other pertinent data,
- special conditions such as weather conditions, water level, tides, and currents, and expected marine traffic,
- unusual manoeuvring characteristics, possible engine failures, issues in regards of navigation equipment or with the crew that could affect the operations, the conduct or the safety of the vessel,
- information on arrangements provided for docking, use, characteristic, and number of tugs, mooring arrangements, and other external installations,
- information and arrangement provided for mooring,
- language used on the bridge and with shoreside installations.

The LPA is also exploring the possibility of including cross track alarms on Portable Pilotage Unit's (PPU) in order to notify the pilot and the crew when the ship deviates from its planned course. The LPA believes that these initiatives, once in place, will meet the spirit and the purpose of the TSB recommendation.

The LPA reiterated that Master-Pilot exchange is still on the LPA top priority list. The project to change the regulation to include an obligation for pilots and masters to exchange information has been circulated to pilot and marine safety; the project received a positive reaction with no opposition so far. In early 2016, the LPA will perform a second consultation with clients and partners and once achieved table their regulatory project with the TC minister with the aim to obtain approval by the end of 2016.

Communication with pilots concerning the installation of an alarm on the PPU when the vessel deviates outside the safe corridors is ongoing and this initiative may be rolled into the regulatory project about Master-Pilot exchange.

### **Pacific Pilotage Authority's response to Recommendation M94-34 (February 2015)**

The Pacific Pilotage Authority (PPA) responded that it takes its mandate of providing a safe and efficient pilotage operation on the west coast of Canada extremely seriously. The PPA and the British Columbia Coast Pilot (BCCP) have worked on a number of safety related initiatives to increase navigation safety on the west coast of Canada. Some of these initiatives include numerous risk assessments, enhanced pilot training, standardized procedures and the implementation of quality & safety management systems.

The PPA has implemented and currently uses safe navigation corridors for the entire BC coast. While course lines draw a mariner's attention to keeping a vessel safe on a pre-determined narrow track, safe navigation corridors open their view to all available safe waters in the immediate vicinity. These corridors include a cautionary zone which will trigger an alarm on the pilots' PPU if the predicted course of the vessel enters this zone. The corridors will ensure that when departing from the agreed upon plan, the bridge team will have the comfort of knowing that they will still remain in safe waters. The expectation and belief of every pilot is that the ships' completed charted routes for the entire passage will complement their safe navigation corridors, both of which will be discussed and agreed upon prior to the pilot assuming the conduct of the vessel.

In conclusion, the PPA will post the safe navigation corridors for the coast on its website at the earliest opportunity along with our expectations under Resolutions A.960 and A.893. In addition, the PPA will publish a Notice to Industry drawing their attention to this fact.

In November 2015, the PPA indicated that pilots have now implemented the use of the safe navigation corridors. The co-ordinates for all of the corridors are on their website at the address [http://www.ppa.gc.ca/text/navigation\\_safety\\_corridors-e.html](http://www.ppa.gc.ca/text/navigation_safety_corridors-e.html).

The pilots conduct a BRM meeting with all navigation officers and during this meeting everyone is made aware of the intended passages.

## **TSB reassessment of the pilotage authorities' responses to Recommendation M94-34 (March 2016)**

The response from the Pacific Pilotage Authority (PPA) indicates that pilots have implemented the use of the safe navigation corridors and that pilots conduct BRM meetings with all navigation officers. During these meetings, both navigation corridors and ships' passage plans are discussed and agreed upon prior to the pilot assuming the conduct of the vessel. Furthermore, the co-ordinates for all of these navigation corridors are available on the PPA's website. It is expected that, with these safety actions in place, the deficiencies addressed by the recommendation will be substantially reduced. Therefore, the reassessment of the response for Recommendation M94-34 from PPA is rated as **Fully Satisfactory**.

The response from the Great Lakes Pilotage Authority (GLPA) indicates that it is in the process of developing documents and tools, including passage plans for every district in their sector, which, among other things, can be used both by pilots and ship personnel during the master/pilot exchange and to create the ship's passage plan. The GLPA aims to have these documents available on its website before the opening of the 2016 navigational season. Although these safety initiatives will substantially reduce the deficiencies addressed by the recommendation, they are not yet fully implemented. Therefore, the reassessment of the response for Recommendation M94-34 from the GLPA is rated as **Satisfactory Intent**.

The response from the Laurentian Pilotage Authority (LPA) indicates that progress is being made with modifications to their regulations to require pilots and masters to exchange information. The LPA is also considering the mandatory use of alarms on PPU's to warn the pilot if the vessel goes off course. Although meaningful progress has been made, the planned safety initiatives do not cover the production of a passage plan and thus do not substantially reduce the deficiencies raised in the recommendation. Therefore, the reassessment of the response for Recommendation M94-34 from LPA is rated as **Satisfactory in Part**.

The response from the Atlantic Pilotage Authority (APA) indicates that it provides BRM training for their pilots and is currently in the process of employing a master-pilot exchange (MPX) card in compulsory pilotage areas. These cards include a marine chart with the vessel's traced route and are designed to be a reference for the master and the pilot as well as a tool to ensure cooperation between the pilot and the bridge team. The MPX cards are currently in use for the Halifax harbour area and are being developed for the other ports within the APA's compulsory pilotage area. It is anticipated that cards for these other ports will be in use before the second quarter of 2016. The APA has also developed a Pilot/Peer Assessment Program and trialed a newly designed PPU, and plans to expand the PPU program to all pilots. Although these safety initiatives will substantially reduce the deficiencies addressed by the recommendation, they are not yet fully implemented. Therefore, the reassessment of the response for Recommendation M94-34 from APA is rated as **Satisfactory Intent**.

Each of the four authorities has developed safety initiatives with the aim of addressing Recommendation M94-33, but each are at different stages of implementation. Only the PPA has taken action to substantially reduce or eliminate the safety deficiency highlighted by Recommendation M94-34 and, therefore, the PPA response is rated as **Fully Satisfactory**. The GLPA and the APA have actions planned that, once implemented, will substantially reduce or eliminate the safety deficiency; therefore, these responses are rated as **Satisfactory Intent**. The LPA's planned action will not eliminate the safety deficiency and additional action is necessary to further reduce the risk; therefore, the LPA response is rated as **Satisfactory in Part**.

Overall, the reassessment of this response has been changed to **Satisfactory in Part**.

### **Great Lakes Pilotage Authority's response to Recommendation M94-34 (November 2016)**

The response from the GLPA indicated that it has been working to develop passage plans for each of the 5 districts of the Great Lakes region. While it has made progress in the development of the passage plans, it is taking the GLPA longer than anticipated to complete the upstream and downstream passage plans. It has completed the routes for 2 of the 5 Great Lakes districts (Cornwall District and District 1). District 2 is completed in the upstream direction, and the downstream direction passage plans are under development. Passage plans for District 3 and for the Lake Ontario District are under development. The GLPA has completed 6 reference guides: 1 on the *Pilotage Act*, 1 on the *General Pilotage Regulations*, 1 on the *Great Lakes Pilotage Regulations*, as well as a reference guide on general information on navigation systems and ship systems, 1 on Notices to Shipping, and 1 on Seaway Notices specific to the Great Lakes. Finally, the GLPA has developed an Aide-Mémoire for the pilots that has been approved and is being designed by a private firm. All of these documents will be available on its website for agents, masters, and ship personnel to download. The GLPA plans to have all of these completed for the opening of the 2017 navigation season.

### **Atlantic Pilotage Authority's response to Recommendation M94-34 (January 2017)**

The Atlantic Pilotage Authority (APA) reported that it has invested in hardware and training for personal pilotage units (PPU) for each pilot. Additionally, the pilots in 2 (of 17) districts - Halifax and Southeast Newfoundland - have been supplied with their own tablet, software, and electronic charting with the corresponding training. The APA plans to continue the implementation of PPU use and training over the next several years. Furthermore, the APA wishes to "advise the Board that MPX cards are currently in use in 12 out of the 17 compulsory areas. The Authority plans to improve this number by adding the remaining compulsory areas by the second quarter of 2017. In addition to this expansion, the Authority will focus on a move from the current paper format to an electronic format via the Pilot's PPU. This will provide improved consistency, tracking and accountability. In November of 2016, the APA reviewed and improved its Pilot Assessment Checklist and added 4 new Pilot Assessors to the group. The Authority now has 8 trained Pilot Assessors and is currently on track to complete the 3-year assessment cycle by the end of 2018 where the process will commence again."

### **Laurentian Pilotage Authority's response to Recommendation M94-34 (January 2017)**

In 2017, the LPA responded that it was planning to pursue its regulatory update; however, its progress has not been as rapid as predicted. It indicated that a consultative committee had been struck to examine the question. The LPA also has an initiative to make the policies for pilots more accessible. The LPA also plans to examine the pilot-master exchange policy. It indicated that it would examine the solutions incorporated by the PPA to determine what might apply to its region.

### **TSB reassessment of the pilotage authorities' responses to Recommendation M94-34 (March 2017)**

The Board reassessed the responses to M94-34 from 3 pilotage authorities.

The GLPA has completed passage plans for half of the routes in its district. There are no passage plans posted on its website yet, but once the GLPA has created and published all of these passage plans, the GLPA will have addressed recommendation M94-34. Therefore, the reassessment of the GLPA's response is **Satisfactory Intent**.

Neither the APA nor the LPA indicated that they were developing or publishing passage plans although they did report to the TSB about related projects in their authority. Therefore, the assessment of the responses from the APA and the LPA is **Unsatisfactory**.

Overall, the reassessment of the responses to M94-34 remains as **Satisfactory in Part**.

### **Great Lakes Pilotage Authority's response to Recommendation M94-34 (October 2018)**

The GLPA response indicated that it has completed the passage plans for the compulsory pilotage areas of the Great Lakes Region and that the Great Lakes Pilotage Authority is now in compliance with the recommendation. The GLPA has also redesigned its web site and has posted the passage plans and instructions to users on its web site at <http://www.glpapl.com/>

Furthermore, it has created and distributed to all its pilots and apprentice-pilots a Pilot/Master exchange of information check list card and wallet size emergency procedures cards in case of grounding, engine failure and steering failures.

### **Laurentian Pilotage Authority's response to Recommendation M94-34 (December 2018)**

The LPA response indicated that a pilot/ship/pilot exchange policy (MPX) was developed and presented to its Pilotage Advisory Committee on 10 October, 2018. The response also indicated that the LPA is now developing a sheet that would be completed electronically and forwarded to the Authority, confirming that the pilot/ship/pilot exchange (MPX) was properly carried out.

Additionally a resource is currently assigned to creating a passage plan for the pilotage water that covers the Escoumins area up to the St. Lambert lock. These plans will be submitted to the Authority experts for approval and should then be distributed via the Authority's website. The LPA believes that once this exercise is completed, the LPA would be able to meet the Board's expectations concerning recommendation M94-34.

### **TSB reassessment of the pilotage authorities' responses to Recommendation M94-34 (March 2019)**

The Board reassessed the responses to M94-34 from the 3 pilotage authorities.

The response from the Great Lakes Pilotage Authority (GLPA) indicates that pilots have implemented the use of passage plans and that pilots conduct a Pilot/Master exchange of information. Furthermore, the passage plans and instructions are available on the GLPA's website. It is expected that, with these safety actions in place, the deficiencies addressed by the recommendation will be substantially reduced. Therefore, the reassessment of the response for Recommendation M94-34 from GLPA is rated as **Fully Satisfactory**.

The LPA indicated that it is developing a pilot-master exchange policy which will eventually result in the creation and publishing of a voyage plan. Therefore, the Board considers the response to the recommendation from the LPA to show **Satisfactory Intent**.

The APA has not provided an update on its intention. The Board is concerned about the lack of progress in the past two years on this long standing issue. Therefore, the assessment of the responses from the APA remains **Unsatisfactory**.

Overall, the reassessment of the responses to M94-34 remains as **Satisfactory In Part**.

### **Laurentian Pilotage Authority's response to Recommendation M94-34 (November 2019 and March 2020)**

The Laurentian Pilotage Authority (LPA) responses of November 2019 and March 2020 indicated that it has adopted the Master-Pilot Exchange (MPX) policy, which was presented to its Pilotage Advisory Committee in fall 2018. LPA also indicated that generic voyage plans were developed for the pilotage area covering the Les Escoumins sector up to the St. Lambert Lock as well as pilotage instructions for its sector intended for vessel captains.

The LPA is currently proceeding with the implementation of the MPX policy. In order to harmonize the current practices of the Corporations des pilotes du Bas Saint-Laurent et du Saint-Laurent central and to implement its policy, meetings were held this fall with the presidents of the 2 pilotage corporations and a final version of the MPX was approved by both corporations. After these meetings, the LPA met with the IT department and communication manager to develop a demo web page that will be presented to the members of the pilotage committee and to corporations for their comments. Subsequently, the web page will be adjusted as necessary and then integrated into the LPA website to be online. The LPA expects to publish the material that it has developed on its website, namely the voyage plans and instructions to captains, as well as to apply its policy, to meet the expectations in respect of the Board's Recommendation M94-34. The LPA aims to put everything in motion and publish the documents mentioned above in the first quarter of 2020.

### **Atlantic Pilotage Authority's response to Recommendation M94-34 (December 2019)**

The Atlantic Pilotage Authority (APA) indicated that proposed variations of Passage plans will be posted online as well as distributed to vessel masters on its Master-Pilot Exchange (MPX) cards. The website design is completed and will be populated once the presentation method is determined. Each port has very different requirements depending on the layout and approaches which allow for different variations compared to the other Authorities.

Examples are as follows:

#### **Placentia Bay:**

Due to the following factors the Pilots propose to set up a no go area similar to the Pacific Pilotage Authority's approach on the west coast.

- Deep waters in the approaches,
- Recommended route not being compulsory,
- Heavy fishing and non reporting traffic regularly occurring

- the required flexibility to allow for the prevailing weather conditions in such a large area facilitating Pilot transfers and efficient service

### **Halifax Harbour:**

While Halifax harbour has a mandatory traffic separation scheme depending on the vessels draft and maneuverability there are multiple ways to approach the inner harbour that are available to Pilots. With this in mind a one size fits all approach does not work for all vessels. The pilots have a chartlet that has been in use for a couple of years on the MPX cards to show the variety of passages available to them.

### **Corner Brook:**

Due to its simpler layout and traffic a basic passage plan suffices for the port of Corner Brook.

### **TSB reassessment of the pilotage authorities' responses to Recommendation M94-34 (March 2020)**

The Laurentian Pilotage Authority (LPA) has indicated that it has developed a pilot-master exchange policy and has published generic voyage plans for certain pilotage areas, as well as instructions for captains. The LPA held meetings with the Corporations des pilotes du Bas Saint-Laurent et du Saint-Laurent central in fall 2019, and a final version of the MPX was approved by both corporations. The Board notes that after these meetings, the LPA will develop a demo web page that will be presented to the members of the pilotage committee and to corporations for their comments. Subsequently, the web page will be adjusted as necessary and then integrated into the LPA website. The Board also notes that the LPA expects to publish the voyage plans and instructions to captains, as well as apply its policy, in the first quarter of 2020. The Board considers the response to the recommendation from the LPA to be **Satisfactory Intent**.

The Atlantic Pilotage Authority (APA) indicated that because each port on the Atlantic coast has different layouts and approaches, it is proposing variations of passage plans to be posted online as well as distributed to vessel masters on the MPX cards. The APA has provided examples for Placentia Bay, Halifax Harbour, and Corner Brook. Once finalized, the APA will post these passage plans on its website. The Board considers the response to the recommendation from the APA to be **Satisfactory Intent**.

Overall, the reassessment of the responses to M94-34 remains as **Satisfactory Intent**.

### **Next TSB action**

The TSB has rated the responses from the Pacific Pilotage Authority and the Great Lakes Pilotage Authority as Fully Satisfactory. No follow-up is required.

The TSB will continue to monitor the progress made by the LPA and the APA.

This deficiency file is **Active**.