



L'ASSOCIATION DES PILOTES MARITIMES DU CANADA  
CANADIAN MARINE PILOTS' ASSOCIATION

**SUBMISSION  
to the  
TANKER SAFETY EXPERT PANEL**

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## **EXECUTIVE SUMMARY**

As is the case with other commercial vessels, pilots board vessels carrying oil products transiting compulsory pilotage areas to ensure their safe conduct. The only exception to this practice should be in respect of vessels under the conduct of a pilotage certificate holder. By definition, the role of pilots is therefore to prevent accidents, not to respond to them.

Canada has an excellent pilotage system. It has served the country, and marine transportation in particular, very well and compares favourably with anywhere else in the world. The recommendations offered in this submission reflect this fact and, accordingly, focus on making sure the pilotage system is consistently and diligently enforced.

### **Recommendation 1 – Consistent enforcement of the *Pilotage Act***

- Wherever it is applicable, the *Pilotage Act* should be consistently enforced.

### **Recommendation 2 – Diligent review of the need for compulsory pilotage area designation**

- In waters where tankers or other vessels carrying a significant amount of petroleum product are present and there has been no recent risk assessment as to the need for designation as a compulsory pilotage area, such an assessment should be undertaken.

### **Recommendation 3 – Availability of pilotage on a voluntary basis in non-compulsory pilotage areas**

- In waters under the jurisdiction of a Pilotage Authority where tankers or other vessels carrying a significant amount of petroleum product are present but there is no designation as a compulsory pilotage area, the practice of having pilotage (e.g., pilot license holders) available on a voluntary basis should be in place.

### **Recommendation 4 – Examination of the advisability of double pilotage for oil tankers in compulsory pilotage waters where it is not currently required**

- In compulsory pilotage areas where tankers or other vessels carrying a significant amount of petroleum product are present and double pilotage is not currently required, an assessment should be made as to whether or not double pilotage is warranted.

### **Recommendation 5 – Development of a national strategy for the deployment and maintenance of inshore weather buoys**

- A national strategy should be developed for deploying and maintaining inshore weather buoys where currently not available and where there is significant traffic carrying oil products.

## **INTRODUCTION**

By its very nature – which is to contribute to the safe navigation of maritime transportation – the role of marine pilotage is to prevent marine accidents, including oil spills from tankers and other vessels carrying significant amounts of petroleum products.

In light of the Tanker Safety Expert Panel’s mandate to review and assess Canada’s tanker safety system and to make recommendations to the Government of Canada on related matters, the Canadian Marine Pilots’ Association (CMPA) welcomes the opportunity to provide observations on pilotage relevant to the safe navigation of tankers and other vessels carrying petroleum products in Canada.

This submission deals with matters related to the maritime transportation of oil products in southern Canadian waters. It is understood that the Panel will accept submissions related to the transportation of such cargo in arctic waters at a later date. Accordingly, the CMPA will make a further submission dealing with issues related to northern Canadian waters at that time.

Canada has an excellent pilotage system. It has served the country, and marine transportation in particular, very well and compares favourably with anywhere else in the world. The recommendations offered in this submission reflect this fact and, accordingly, focus on making sure the pilotage system is consistently and diligently enforced.

## **PILOTAGE IN CANADA**

### **Paramountcy of safety**

The safe navigation of marine transportation in Canadian waters is the overarching objective of Canada’s pilotage system. It follows that the safety record of pilotage is the single most important measure by which the system’s success is determined.

Marine pilotage, as set out by the *Pilotage Act* (1972), is organized and delivered along four principal characteristics.

#### Protecting the public interest

The Canadian pilotage system is intended to help ensure that marine transportation in Canada, first and foremost, reflects the public interest by establishing safety as the first priority.

In pilotage, the best way of maintaining safety is to make sure it is organized in such a way that pilots are able to exercise their best professional judgement without undue pressure from commercial interests. The independence of pilots is safeguarded by

the fact that they are responsible to an independent federal agency, not to the owners of the vessels contracting for their services.

The delivery model prescribed by the *Pilotage Act* is one in which regional Pilotage Authorities designate compulsory pilotage areas and exclusively provide pilotage services within those areas. Only those individuals whose knowledge of local waters has been duly assessed by an Authority may discharge pilotage duties in designated areas.

### Rigorous standards

In order to be licensed as a marine pilot, candidates must have years of experience as mariners, and pass examinations demonstrating not only their seamanship but also their extensive knowledge of local waters. Once licensed, pilots continue to receive cutting edge ongoing training on navigational techniques and the use of new navigational aids.

### Recognition of regional differences

In the most practical manner possible, Canada's pilotage system takes account of the important differences that exist between its various maritime regions. The climatic conditions, navigational challenges, type of marine traffic, and the available infrastructure vary significantly from the Atlantic ports, to the St. Lawrence River, to the Great Lakes, and to the Pacific coast. Accordingly, pilotage is organized and administered along regional lines, allowing each region to adopt practices and procedures best-suited to the conditions that exist in that region, while always maintaining core national standards, including those set out in the general pilotage regulations.

### Responsiveness to changing circumstances

The framework governing pilotage in Canada has stood the test of time. The current system has been in place for over 40 years and has proven remarkably resilient, given the significant changes that have affected marine transportation, including technology, communications, infrastructure and shipping patterns. The reason for this resilience lies in the pilotage system's ability to adapt to changing circumstances. Pilotage authorities can not only change areas designated for compulsory pilotage, they can also review pilotage requirements in light of evolving circumstances, introduce new pilotage practices, and make exemptions when warranted.

### **Organization and decision-making**

Each Pilotage Authority is a not-for-profit crown corporation governed by a board of directors appointed by the federal Cabinet.

The specific requirements for compulsory pilotage are set by regulation and cover, among other things, the following:

- designation of compulsory pilotage areas;
- vessels subject to, or exempt from, compulsory pilotage;
- pilotage tariffs;
- requirements for obtaining a pilot license; and,
- requirements for obtaining a pilotage exemption certificate.

General pilotage regulations, applying to all pilotage regions, are issued by the federal government in those cases where national standards are deemed necessary. Otherwise, regulations are initiated by the regional Pilotage Authorities.

The regional Pilotage Authorities designate pilotage as compulsory in those areas where an extensive knowledge of local conditions is necessary to ensure safe navigation. The determination of a compulsory pilotage area is based on the specific and unique circumstances of the area in question.

Once designated, the Authority regularly monitors and assesses the compulsory areas to determine if there are material changes that might impact on safe navigation. If there are, the Authority initiates a Pilotage Risk Management Methodology (PRMM), led by qualified external facilitator. The PRMM provides all stakeholders with an opportunity to participate in assessing whether or not the compulsory designation should remain. The same process is used for areas without a compulsory designation, but where changes in circumstances might affect safe navigation.

The types of risk examined during a PRMM include:

- degree of difficulty in conducting vessels through navigable channels;
- degree of difficulty and hazard in the approaches to and within a port;
- maneuverability and size of vessels, and traffic levels;
- design of wharves and actual space available for maneuvering;
- nature of cargo carried (e.g. oil, gas, explosives, hazardous materials);
- environmental concerns, including endangerment of the ecosystem; and,
- weather conditions (e.g., fog, ice, tides, currents).

### **Operating and performance statistics**

The incident-free rate for piloted vessels consistently stands at 99.9%. The few incidents that do occur are usually of a very minor nature. This impressive safety record has been sustained over many years, despite the increasing number and size of vessels using the waterways.

In 2011 – the most recent year for which statistics are available from all four Canadian pilotage regions – 50,962 pilotage assignments were performed in the country (approximately 2,000 more than in 2010). There were only 33 incidents during the year, resulting in an incident-free rate of 99.94%

## **Tariffs**

The tariff charged for vessels using pilotage services is intended only to recover costs associated with providing those services; there is no provision for profit. Canadian pilotage tariffs are among the lowest in the world and help ensure that the country's marine transportation system is globally competitive.

Tariffs are set by the providers of the pilotage service, the Pilotage Authorities, after consultation with the shipping industry. If any interested party objects to a tariff set by an Authority, the party may appeal the tariff to the Canadian Transportation Agency (CTA). The CTA will then undertake an investigation of the proposed tariff to determine whether or not it is in the public interest. This investigation may include public hearings, if the Agency feels such hearings are wanted. The CTA's findings are binding on the Pilotage Authority, and can result in the tariff being maintained, varied or rescinded.

## **The Canadian Marine Pilots' Association**

The Canadian Marine Pilots' Association is an incorporated, not-for-profit professional body founded in 1966 to represent Canada's marine pilots on legislative, regulatory and professional matters. The CMPA is a member of the Canadian Merchant Service Guild (CMSG), the national Association representing masters, mates, pilots, engineers and other marine officers.

The CMPA represents approximately 400 pilots of both entrepreneur and employee status. It is not involved in contract negotiations or the day-to-day relations between pilots, the pilotage authorities and pilotage users. Rather, as a national body, the CMPA addresses marine issues as they affect pilots generally – as expressed through legislation, regulations, public reviews and industry consultations. The Association also helps pilots share their knowledge and experience in order to continuously improve maritime safety everywhere.

The CMPA is part of the International Maritime Pilots' Association (IMPA), which represents pilots from five continents. The CMPA is also active in a number of other worldwide associations – including the International Maritime Organization – and contributes to their deliberations on issues regarding safety and regulation.

## **PILOTAGE AND VESSELS CARRYING OIL PRODUCTS**

By the very definition of pilotage, the role of pilots in respect of oil tanker traffic is to prevent accidents, not to respond to them.

Generally, as is the case with other commercial vessels, pilots board vessels carrying oil products transiting compulsory pilotage areas to ensure their safe conduct. The only exception to this practice should be in respect of vessels under the conduct of a pilotage certificate holder.

It should be noted that under Canadian law (i.e., section 25 of the *Pilotage Act*), no person other than a licensed pilot (or the holder of a pilotage certificate) may have conduct of a ship in a compulsory pilotage area. This principle is important because, in the final analysis, it is the pilot who has the expert knowledge to ensure safe navigation and it must therefore be the pilot who has the conduct of the vessel.

On the St. Lawrence River, it should be noted that the *Laurentian Pilotage Authority Regulations* require a minimum of two pilots on board tankers of 40,000 tonnes deadweight or more.

The *Pacific Pilotage Regulations* also have requirements regarding double-pilotage. These are applicable to voyages during which ships require the services of a pilot on bridge watch for more than eight consecutive hours, or for a distance exceeding 105 nautical miles. The *Pacific Pilotage Regulations* also allow the Pacific Pilotage Authority to assign a second pilot where a ship makes such a request or where it cannot be safely navigated by only one pilot on bridge watch. This latter procedure is followed for tankers and large bulk carriers transiting the Second Narrows Bridge at the Port of Vancouver as well as in product tankers transiting between Victoria Pilot Station and Vancouver.

The *Atlantic Pilotage Regulations* also contain a provision (section 22) providing for the assignment of a second pilot when required in light of the conditions or the nature of the voyage. In practice, this means two pilots board tankers transiting Halifax harbour and oil rigs transiting compulsory pilotage areas.

## **ISSUES AND RECOMMENDATIONS**

As previously noted, vessel traffic under the conduct of pilots in Canadian waters is virtually incident-free. Pilot license holders are highly qualified to ensure the safe navigation of vessels in compulsory areas, being held to the highest standards of seamanship and having demonstrated extensive knowledge of local waters and conditions.

Accordingly, an important element in maintaining safety as tanker traffic grows is to ensure that the provisions of the *Pilotage Act* are properly applied. In this regard, the following recommendations pertain.

### **Recommendation 1 – Consistent enforcement of the *Pilotage Act***

**Wherever it is applicable, the *Pilotage Act* should be consistently enforced.**

Under the *Pilotage Act*, in compulsory pilotage areas, vessels must be under the conduct of a licensed pilot or a certificate holder, unless they are formally exempted by regulation. In exceptional circumstances (e.g., a ship entering a compulsory pilotage area for refuge), waivers can also be issued.



In practice, however, there are instances where vessels carrying a significant amount of oil or other petroleum products transit through a compulsory pilotage area without a pilot, a pilotage certificate holder, an exemption or a waiver.

The case in point is in respect of Canadian barges carrying oil on the Fraser River and along the west coast. Under existing regulations, these vessels should be under the conduct of a person with demonstrated expert local knowledge – either a licensed pilot or a pilotage certificate holder – an approach that provides independent assurance that appropriate measures are in place for safe passage in compulsory pilotage areas, but they are not.

The Pacific Pilotage Authority has indicated it will hold a PRMM on this question. The PPA can also implement a pilotage certification process for the officers conducting Canadian barges on the Fraser River and along the west coast. While there may be more than one way to deal with the situation described above, in the final analysis, it needs to be resolved diligently and in a manner that is consistent with the *Pilotage Act*.

## **Recommendation 2 – Diligent review of the need for compulsory pilotage area designation**

**In waters where tankers or other vessels carrying a significant amount of petroleum product are present and there has been no recent risk assessment as to the need for designation as a compulsory pilotage area, such an assessment should be undertaken.**

As discussed above, there is an established methodology for assessing the need for waters to be designated as compulsory pilotage areas, this being the Pilotage Risk Management Methodology (PRMM). The generally accepted idea is that PRMMs should be done whenever there is a reasonable question as to whether or not compulsory pilotage designation is appropriate or wherever there has been a significant change in traffic patterns. Unfortunately, PRMMs have not been undertaken as often as warranted.

Particularly noteworthy examples are in the Laurentian Pilotage Region, especially in respect of north shore ports along the Lower St. Lawrence. This failure to properly assess risk is especially egregious at the Ports of Sept-Iles, Baie-Comeau and Port-Cartier.

As far back as the Brander-Smith Report of 1990, a recommendation was made to examine “the need to introduce a harbour pilot service for the approaches to the ports of Sept-Iles, Baie-Comeau and Port-Cartier<sup>1</sup>”. This followed on an earlier ministerial investigation into the collision between the *Algobay* and the Italian bulker *Cielo Bianco*, at Sept-Iles, which concluded “the Laurentian Pilotage Authority should consider the desirability of requiring pilots at Sept-Iles to be licensed by that Authority”.

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<sup>1</sup> Brander-Smith Report, 1990, Recommendation 6-18, p.143.

The level of marine traffic at these ports has increased since these recommendations were made, making a review of the need for designation as compulsory pilotage areas all the more pertinent.

**Recommendation 3 – Availability of pilotage on a voluntary basis in non-compulsory pilotage areas**

**In waters under the jurisdiction of a Pilotage Authority where tankers or other vessels carrying a significant amount of petroleum product are present but there is no designation as a compulsory pilotage area, the practice of having pilotage (e.g., pilot license holders) available on a voluntary basis should be in place.**

The practice of having pilotage available on an as-requested basis already exists in several Atlantic Canada locations. Having such a service available for vessels, whose masters may not feel sufficiently familiar with the waters in question or comfortable with the specific conditions at any given time, provides additional assurance of safe transit.

District 3 of the Laurentian Pilotage Region warrants special attention in this respect. Currently, there is no compulsory pilotage in the district, nor is any voluntary pilotage service available. Given the level and nature of traffic and the findings of earlier reviews, it would certainly be useful, at a minimum, if voluntary pilotage service was available. The Brander-Smith Report went even further, suggesting that “the assistance of a pilot be compulsory during ice season for all foreign oil and chemical tankers between Port aux Basques and Les Escoumins and between Sydney and Les Escoumins”<sup>2</sup>.

**Recommendation 4 – Examination of the advisability of double pilotage for oil tankers in compulsory pilotage waters where it is not currently required**

**In compulsory pilotage areas where tankers or other vessels carrying a significant amount of petroleum product are present and double pilotage is not currently required, an assessment should be made as to whether or not double pilotage is warranted on the basis of criteria such as size of tanker, nature of maneuver or difficulty of passage.**

Aside from being compulsory for large cruise vessels and for certain other vessels owing either to their size or the length of the journey, as noted above, double pilotage is required on oil tankers in Districts 1 and 2 of the Laurentian Pilotage Region. Provisions in both the *Atlantic Pilotage Regulations* and the *Pacific Pilotage Regulations* also allow for assignment of a second pilot in certain circumstances.

An examination of the advisability of compulsory double pilotage for oil tankers in all waters where it is not currently the case should be undertaken.

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<sup>2</sup> *Ibid.*

## **Recommendation 5 – Development of a national strategy for the deployment and maintenance of inshore weather buoys**

**A national strategy should be developed for deploying and maintaining inshore weather buoys where currently not available and where there is significant traffic carrying oil products (e.g., Saint John and the Pacific Coast).**

State-of-the-art inshore weather buoys providing valuable real-time information about wave height, direction and period, current speed and direction, air and water temperature, and wind speed and direction are currently either deployed (e.g., Placentia Bay) or are planned to be deployed (e.g., Halifax Harbour) in certain locations. Most other locations, however, do not have inshore buoys, despite the high volumes of petroleum products shipments.

In addition to providing important information in support of safe navigation, including the use of tethered escort tugs, efficient port operations, safety of life at sea, and basic research, inshore weather buoys also significantly enhance the capacity to respond to marine oil pollution incidents through real-time information on the distribution of currents in the water column and wave patterns, for example. Weather buoys, in addition to shore-based sensors, are also excellent devices that contribute to the development of weather forecasts at sea, a key element of navigation safety.

## **CONCLUSION**

The Association offers the outstanding safety record of the Canadian pilotage regime as evidence that it effectively protects the public interest and meets the objectives set out by Parliament when the *Pilotage Act* was enacted in 1972.

There is no more efficient and systematic way to mitigate navigational risks than by making sure that those who conduct vessels in high-risk areas have expert, independently verified, local knowledge. The process of pilotage licensing and, for masters on board Canadian vessels, of pilotage certification provides such assurance.

Every time a pilot boards a vessel, the crew and the public at large are assured it is under the conduct of a well-rested, independent professional, expertly qualified to plan the vessel's passage, effectively appreciate the situation as the mission unfolds in high-risk areas and use expert local knowledge to take appropriate measures and ensure a safe passage. This is the best protection there is against marine accidents.