

PLACES OF REFUGE FOR SHIPS IN NEED OF ASSISTANCE IN CANADA: POLICY LESSONS FROM OTHER MARITIME NATIONS

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Introduction

In an era of rapidly growing maritime trade, national and international efforts to prevent marine environmental disasters have taken various dimensions, including vessel safety mandates, traffic control measures and increased state inspections of ships. The unquenchable demand for fossil fuel has led to large modern tankers creating new risks for coastal communities and the marine environment. The customary right of access to a place of refuge for vessels in distress has become a complex issue from increasingly conflicting values. The humanitarian rationale for granting the right of access to a vessel in distress is being undermined by technological developments enabling passengers and crew to be rescued at sea. Environmental protection, enshrined in international law, has gained significance by narrowing the focus to local jurisdictions while clouding the broader issue of safety at sea.

In light of several international incidents of ships in need of assistance being refused access to refuge in sheltered waters with resulting severe environmental, social, economic and political consequences, the IMO adopted two resolutions in December 2003, on “Places of Refuge for Ships in Need of Assistance”. This was an important step in formulating guidelines for decision-making involving incidents leading to the need for ‘Safe Harbour’ and acknowledged the critical nature of this topic.

The Canadian Status

With 243,792 kilometres of coastline (including islands) bordering three oceans, and another 9,500 kilometres along the Great Lakes, Canada has the longest coastline in the world. Canada’s population is

33 million and its Exclusive Economic Zone (EEZ) covers 3.7 million square kilometres which, combined with the second largest national continental shelf, makes Canada's total offshore area 6.5 million square kilometres. Despite the extensiveness of its coastlines and offshore natural assets, Canada has not designated places of refuge for ships in need of assistance nor adopted a national policy for places of refuge. The Department of Fisheries and Oceans and Transport Canada are, however, studying various submissions following the sense of urgency generated by the 2003 IMO resolutions.

The former geographical, political, cultural and financial constraints in international trade are rapidly being dissipated as the world moves towards free markets and a global economy. Ships carry the major proportion of international trade. Trade growth, however, brings with it the reality of maritime accidents. Canada's international seaborne trade potential mirrors the world scene. Hence, Canada's marine accident profile requires adequate steps be taken to handle situations, which may prove devastating if not dealt with rapidly and prudently. It is here that the development of a national policy on 'Places of Refuge for Ships in Need of Assistance' is crucial for Canada.

Many states, including Canada, give their ministers, harbour authorities or delegated persons the power to permit the entry, or conversely, to take unilateral action to remove or destroy a vessel where there is a risk to the safety of a port, or the coastal environment. This power underlies the importance of places of refuge as an international issue requiring action for the protection of commercial, social and environmental interests.

The policies adopted by major maritime nations to deal with places of refuge need to be evaluated to gauge their relevance and applicability to Canada. Six major maritime nations have been selected in this study: United States, United Kingdom, Spain, Australia, Norway and Denmark.

United States

The US is comprised of 48 contiguous states on the North American continent; Alaska, which forms the northwestern part of the North

American continent; and Hawaii, an archipelago in the Pacific Ocean. There are also several United States territories in the Pacific Ocean and the Caribbean Sea. The US has a population of 308 million, an area of 9.16 million square kilometres and a coastline 19,924 kilometres long.

The US National Response System is a three-tiered process with federal, state and local governments working together. The National Response Team (NRT) coordinates activities at the national level. Sixteen federal agencies are included in the NRT, each having responsibilities and expertise in various elements of emergency pollution response. By executing its nationwide responsibilities for inter-agency planning, policy and coordination, the NRT is prepared to deal with various pollution incidents. The NRT provides policy guidance and information prior to an incident, and technical advice and access to resources and equipment through its member agencies during an incident. The NRT is chaired by the US Environmental Protection Agency (EPA) and vice-chaired by the US Coast Guard (USCG).

In 2006, the NRT created a Places of Refuge Workgroup to develop guidelines on places of refuge. This Workgroup produced the 2007 NRT Guidelines for Places of Refuge Decision-Making (NRT POR Guidelines). The NRT POR Guidelines support the decision-making process when there is a request for refuge by:

- providing a systematic process of incident specific decision-making to assist the USCG Captains of the Port in deciding whether a vessel needs to be moved to a place of refuge and, if it does, which place of refuge to use, and
- developing a framework for pre-incident identification of potential places of refuge locations, for inclusion in the appropriate Area Contingency Plans.

Thus, the NRT POR Guidelines address both the pre-identification and the pre-approval of places of refuge while emphasizing that each incident is unique. Recognizing that places of refuge are not all suitable in all situations, the NRT POR Guidelines state that: “The NRT does not support the pre-approval of places of refuge in waters subject to U. S. jurisdiction”.¹

Although pre-approval of places of refuge is not supported by the NRT, it does support the pre-incident identification of potential places of refuge locations. If a location is considered as a place of refuge, it will receive an incident-specific evaluation to determine its suitability before it is approved as a place of refuge. To encourage the pre-incident identification of potential places of refuge, the NRT POR Guidelines outline the rationale for potential places of refuge pre-incident identification. Recognizing that multiple interests need to be considered when identifying a suitable place of refuge, the NRT POR Guidelines include the following elements:

- protecting human life
- protecting sensitive natural and cultural resources
- protecting historic properties
- national defense
- security
- economic considerations
- critical infrastructure, and
- reducing or eliminating a hazard to navigation

The incident specific characteristics of the selection of the best place of refuge location require real-time input by appropriate stakeholders and other technical experts. The NRT POR Guidelines include a list of potential stakeholders for the decision-making process. The Guidelines also specify when each of these stakeholders is to be included. Despite the vessel's request for refuge, each of the following options needs to be considered:

- remaining in the same position
- continuing on its voyage
- moving farther from shore
- intentionally scuttled in deep water
- intentionally grounded

The significant lessons for Canada learnt from the U.S. approach are:

- the importance of stakeholder input prior to making a decision, and
- the importance of a rigid federal command and control system with several bodies providing information and advice on various elements of emergency response and pollution control.

The disadvantages of the U.S. approach are:

- the multi-faceted federal bureaucracy which could bog down the decision-making process, and
- the time required for an incident-specific evaluation of a location as a place of refuge, which could prove time-consuming and result in exacerbating a hazardous situation.

United Kingdom

The United Kingdom's (U.K.'s) coastline is long and varied in geography and habitats. The coastline of the main island (Great Britain) is 17,820 kilometres long. If the coastlines of U.K.'s larger islands are included, the length is 31,368 kilometres. The country has a land area of 245,000 square kilometers and a population of 61 million.

With the experience of having had to respond to three of the top twenty marine global oil spills (Torrey Canyon – 1967; Braer – 1993; and Sea Empress – 1996), the U.K. has put the experience gained from these events to good use and implemented many recommendations stemming from subsequent investigations and reports. Four key changes were made in the command and control structure for responding to marine pollution incidents in U.K. waters:²

- Having federal ministers involved in operational decision-making is not practical. A Secretary of State's Representative for Maritime Salvage and Intervention (SOSREP) was created.
- The Procedural Manual of the Maritime and Coastguard Agency (MCA) is required to identify the trigger point for action.
- Four new MCA posts were created as Counter Pollution and Salvage Officers.
- The threat of significant pollution from or involving an offshore installation is comparable to that of a shipping casualty and the response should be equally intense. The parallel SOSREP function for the offshore industry was thus created.

When a request for refuge is received from a ship in need of assistance in U.K. waters, the MCA Counter Pollution and Response

Branch is the responsible government body for first response. The MCA assesses the level of risk associated with the incident and decides on the level of response (local, regional or national). If there is a threat of significant pollution which calls for a regional or national response, the SOSREP assumes control. Acting in the overriding interest of the U.K., the SOSREP oversees and, if necessary, intervenes and exercises ultimate control.

The U.K. reacts on an event-specific basis, armed with a pre-event generic analysis of possible place of refuge locations. The assessments of possible place of refuge locations are carried out by the MCA. There is no pre-conceived ranking of places of refuge because of the varied and transient nature of each incident. The driving factors of choosing a place of refuge are event-specific data such as weather, ship characteristics, location of the incident and type of threat posed by the vessel and her cargo.

The safety and risk to human life, both of the vessel's crew and those in the vicinity of the threat are of paramount importance. If it is possible, the preference is for the threat to be dealt with at sea. However, the ship may require access to a suitable place of refuge to address the root cause of the request for refuge, without exacerbating environmental damage. There have been incidents in the past in the U.K., where the decision was made to tow the casualty vessel out to sea and sink her, even by using bombs (as in the case of the Torrey Canyon - 1967) or by allowing the damaged vessel to sink (as in the case of the Christos Bitas - 1978).

The U.K. system addresses places and ports of refuge by using the intervention powers invested in the SOSREP, working with the MCA Counter Pollution and Response Branch. This place of refuge response system has worked well for the U.K. The response structure has the following components:³

- 24-hour support from the Coastguard rescue centres.
- SOSREP providing the decisive decision-making authority.
- Qualified and trained officers from the MCA Counter Pollution and Response Branch.
- A robust National Contingency Plan.

- Involvement of independent experts in salvage and marine pollution response, through framework agreements.
- Environmental advice through the Environment Group.
- Fully established cooperation with UK harbour masters.

The relevant lessons for Canada from the U.K. approach are:

- the importance of designating an individual commander (the SOSREP) for quick and decisive action, and
- the importance of pre-event generic analysis of possible place of refuge locations.

The disadvantages of the U.K. approach are:

- the preference to deal with a threat at sea, which could influence the refuge decision and worsen the damage to the ship and the environment, and
- the lack of risk criteria based ranking of potential places of refuge, which would make it difficult to determine the best location in a reasonable period of time.

Spain

Spain is in southwestern Europe and occupies about 85 percent of the Iberian Peninsula, which it shares with Portugal. The current population of Spain is 47 million and it has a land area of 499,400 square kilometers with a coastline length of 4,964 kilometres. As in Canada, the place of refuge decision-making structure in Spain is complex. The national government, maritime administration and port authorities all play a role in the acceptance or rejection of the request for refuge from a ship in need of assistance

The Spanish maritime organizational structure has two bodies reporting to the national government – one for control of the public ports (major Spanish ports are publicly controlled) and the other for control of the country's maritime jurisdiction (the maritime administration)⁴. Although the port authority is charged with responsibility for the waters of the port, the maritime administration has the ultimate authority as it has the oversight over national waters. The overlap of jurisdictional authority could cause confusion, which could lead to severe consequences (as in the case of the Prestige in

2002). A similar overlap of maritime authority between local, regional and national bodies exists in Canada.

From the ports' perspective, they have the knowledge and expertise regarding equipment availability and possible locations for refuge for the damaged vessel. The port authority and maritime administration have to jointly assess, evaluate and arrive at a decision. If such a decision cannot be made the national government will step in, which will politicize the outcome and cause the influence of social, environmental, economic and vested interests to interact in the decision-making process. This is what happened in the *Prestige* incident of November 2002.

Learning from the problems emerging from the *Prestige* incident, the Spanish government adopted the "Royal Decree 210/2004 on the Monitoring and Information of the Maritime Traffic". This decree charges the Spanish Merchant Navy with formulating procedures to determine the objective criteria and rules for dealing with a request for refuge. The decree identifies three salient features:

- Providing refuge to a ship in distress is not an obligation.
- Granting access to a place of refuge is done on a case-by-case basis after an analysis, and the final decision is made by the General Director of the Spanish Merchant Navy.
- The consequences of the ship remaining at sea is assessed against its acceptance in a place of refuge before any final decision is made.

The decree sets technical and objective criteria to be used by the General Director of the Spanish Merchant Navy to decide whether the ship in need of assistance is granted refuge or refused. This authority may be delegated by the General Director to the Spanish Maritime Administration. The decree's procedures are clear about the functions and responsibilities of each of the interested parties in the process of refuge decision-making. Thus, the coordination and communication requirements of the IMO Guidelines are fulfilled.

The Spanish Royal Decree 210/2004 also calls for the establishment of a Maritime Assistance Service (MAS) whose function is being the

point of contact between the shipmaster and the Spanish authorities in the event of an incident and receiving the various reports, analyses and notifications about the accident.

The lessons for Canada from the Spanish approach are:

- the importance of technical and objective criteria to decide whether refuge is granted or refused, and
- the creation of information sharing and communication structures for joint assessment of refuge requests by governmental authorities.

The disadvantages of the Spanish approach are:

- the multi-faceted federal bureaucracy which could bog down and confuse the decision-making process, and
- the lack of decision-making clarity in its disparate and overlapping maritime organizational structure.

Australia

Australia has a population of 21.8 million and a land area of 7.6 million square kilometres, with 25,760 kilometres of coastline. The National Maritime Place of Refuge Guidelines were revised by the National Plan Management Committee in March 2007 to ensure consistency with the IMO Resolution A.949 (23), entitled "Guidelines on Places of Refuge for Ships in Need of Assistance". These Australian Guidelines were authorized in 2009 and are now in force.

The Australian Guidelines were created to assist maritime administrations, the Maritime Emergency Response Commander (MERCOCM), shipmasters, and the maritime industry in identifying places of refuge along Australia's. The Guidelines also identify the appropriate procedures to access a place of refuge.

In order to implement an integrated national approach for emergency response (referred to as the National Maritime Emergency Response Arrangement or NMEARA), the Australian Maritime Safety Authority appointed a Maritime Emergency Response Commander (MERCOCM) to act on its behalf during an emergency. The MERCOCM is the single national decision-maker authorized to manage a maritime casualty, with powers of intervention to take necessary measures to prevent,

mitigate or eliminate a risk of significant pollution. This national approach integrates the responses of the Australian National, State and Northern Territory governments. Powers to deal with lesser pollution threats or other environmental damage within their respective jurisdictions are retained by the State and Northern Territory Governments but the MERCOM can override and intervene if such action is needed to address the situation in the national interest.

Australian places of refuge are not pre-designated but are determined on a case-by-case basis. Hence, the most suitable place of refuge is determined based on the weather, features of the potential refuge site and characteristics of the casualty vessel. The granting of refuge is considered only after the option of continuing to respond to the maritime casualty at sea has been exhausted and a risk analysis reveals that the risks of the ship remaining at sea exceed the risks of the ship being granted refuge. A Casualty Coordinator may be used for expert advice, survey and objective analysis. The Rescue Coordination Centre Australia notifies the MERCOM, the State/Northern Territory maritime agencies and other stakeholders, when a request for refuge is received. The list of personnel and organizations to be contacted is contained in the Australian National Marine Oil Spill Contingency Plan.

The Inter-Governmental Agreement on the Australian National Plan to Combat Pollution of the Sea by Oil and Other Noxious and Hazardous Substances contains the division of responsibilities for pollution response, as follows:⁵

- Refuge in a port or within the three nautical mile coastal waters zone is assessed by the relevant State/Northern Territory
- Refuge in waters outside the three nautical mile coastal waters zone of a State/Northern Territory, in a port of an external territory or the coastal waters of an external territory is assessed by the Australian Maritime Safety Authority.
- Refuge in the Great Barrier Reef Marine Park outside coastal waters is assessed by the Australian Maritime Safety Authority in consultation with Maritime Safety Queensland and the Great Barrier Reef Marine Park Authority.

The assessment of a request for a place of refuge is done on the basis of the Guidelines and in consultation with the port authorities, statutory agencies and other bodies responsible for the areas affected or likely to be affected. The MERCOM, as the delegate of the Australian Maritime Safety Authority, has the power to direct that a specified place be treated as a place of refuge. If refuge is refused, the Guidelines require consideration to be given to alternative arrangements to assist the maritime casualty.

The lessons learnt from the Australian approach are:

- the creation of the Australian National Maritime Places of Refuge Guidelines
- the identification of appropriate procedures to access a place of refuge
- the appointment of a Maritime Emergency Response Commander (MERCOC) to act on behalf of the Australian Maritime Safety Authority in an emergency, and
- consideration being given to alternative arrangements to assist the maritime casualty in case refuge is refused.

The disadvantages of the Australian approach are:

- the splitting of decision-making responsibilities based on distance of the ship from the shoreline, which could lead to confusion from overlapping jurisdictions
- consideration of refuge only after the option of continuing to respond to the maritime casualty at sea has been exhausted, which could worsen the damage to the ship and the environment, and
- consultations with port authorities, statutory agencies and other bodies in the assessment of refuge requests, which could cause the loss of valuable time and exacerbate the situation.

Norway

Norway borders the North Sea and the North Atlantic Ocean, west of Sweden and has an area of 324,220 square kilometres, with a coastline of 25,148 kilometres and a population of 4.6 million.

Norway's Federal Ministry of Fisheries and Coastal Affairs assigned the Norwegian Coastal Directorate the task of developing a procedure for handling situations applying to granting access to a place of refuge or a place of grounding along Norway's coast. Such a procedure was developed and harmonized with the IMO guidelines relating to the handling of vessels in distress. The Norwegian procedure and action guidelines were approved in 2004.

The approach taken by the Norwegian Coastal Directorate is to identify and list places of refuge and places of grounding in the Norwegian Coastal Administration's Emergency Response Plan. These places of refuge and grounding are used in cases where there is a danger of severe pollution as a result of accidents at sea. The procedure developed by the Directorate assumes that allowing the leaking oil cargo to contaminate the sea along Norway's coastline could lead to the pollution of vast coastal areas and hence towing the damaged ship to a place of refuge or grounding would be the preferred option, as the spill could then be better controlled, contained and cleaned. The procedure assumes that the ship in need of assistance passing along Norway's coast can be towed ashore to a grounding site to prevent it from sinking. As each operation is unique, the Emergency Response Plan requires evaluation on a case-by-case basis of using a place of refuge or grounding from the list provided. This list contains 69 designated places of refuge and 62 places of grounding along the Norwegian coast. These designated sites help in the process of accurate, efficient and timely decision-making during an emergency involving a damaged vessel. The two lists are constantly reviewed and updated as new information is obtained on the sea, environment and dynamics of ship traffic.

Ole Hansen (Adviser in the Norwegian Coastal Directorate) stated: "We consider the possible places of refuge and places of grounding as important and precautionary tools, if accidents should occur. We will save time and money, as well as reduce the risk of damages if we, at an early stage, develop thorough analyses that tell us how vulnerable the coastal areas are, how suited the areas are for navigation, how protected they are in terms of weather, wind and current, and whether there are services such as farming facilities in the area".⁶

The lessons for Canada from the Norwegian approach are:

- the importance of a procedure for handling situations applying to the need for granting access to a place of refuge or grounding
- the importance of identifying and listing Norway's designated places of refuge and places of grounding.

The disadvantages of the Norwegian approach are:

- the assumption that a ship in need of assistance passing along Norway's coast can be towed to a designated refuge or grounding site
- the lack of focus on Norwegian ports and harbours which would have facilities for dealing with refuge requests .

Denmark

Denmark consists of 406 islands and the peninsular Jutland with a total land area of 43,100 square kilometres and a coastline of 7,400 kilometres, with a population of 5.4 million. Denmark has designated 22 places of refuge along its coastline and in Danish harbours for ships in distress. These places of refuge were designated by the Danish Ministry of the Environment in consultation with the Danish Ministry of Defense and the Danish Ministry of Economic and Business Affairs, in accordance with the IMO Guidelines as well as with the European Union Monitoring Directive.

Fourteen ports and areas have been designated as places of refuge in situations where there is a high risk of pollution⁷. Nine of these fourteen are ports and the rest are anchorages. Eight places of refuge have been designated in situations where there is a low risk of pollution. These eight places of refuge are in sheltered areas such as anchorages. The issue of the designated ports and harbours functioning normally while permitting access to a ship in need of assistance was considered as well as nature and the environment. The Danish focus is on rapid and effective assistance when there is a maritime incident requiring access to a place of refuge, so that environmental disasters are averted. Denmark has no Coast Guard and the operational tasks at sea are carried out by the Danish Navy. The Admiral Danish Fleet is the body charged with search and rescue operations and with responding to pollution incidents at sea. Stockpiles of oil pollution response equipment are placed at various

Danish ports along the major shipping lanes. Local authorities normally deal with threats and damage to the environment on the coast and in ports. In serious pollution incidents, however, the Danish Ministry of Defense takes charge of the entire operation, both at sea as well as in the port.

Denmark has also established a Maritime Assistance Service under the Ministry of Defense (as part of the Admiral Danish Fleet) which will assign the place of refuge, after an evaluation process. The Danish Maritime Assistance Service is the contact point for shipping and draws on a broad spectrum of Danish maritime expertise to act as a centre for exchange of information, evaluation, specialist advice, and coordinated action when ships need assistance in Danish or surrounding waters.

The lessons for Canada from the Danish approach are:

- the importance of rapid and effective assistance when there is a maritime incident requiring access to a place of refuge, so that environmental disasters are averted
- the importance of identifying and listing Denmark's designated places of refuge for ships with a high pollution potential and for ships with a low pollution potential
- the Danish Maritime Assistance Service drawing on a broad spectrum of Danish maritime expertise.

The disadvantages of the Danish approach are:

- no Coast Guard with the required expertise for dealing with regulatory matters pertaining to commercial maritime activities
- the assumption that a ship in need of assistance passing along Denmark's coast can be towed to one of the designated refuge sites
- local authorities normally dealing with threats and damage to the environment on the coast and in ports, which could result in a fragmented and inconsistent approach.

Lessons Learned from the Policies of Other Nations

There are several valuable lessons learned from the approaches adopted by other major maritime nations to places of refuge. These lessons can be used by Canada in its policy formulation

considerations. The lessons learned are summarized below, where there is an identified need for:

- An unified and coordinated Canadian command and control structure for rapid and effective decision-making.
- Evaluating possible refuge sites in Canada before an event occurs, with the involvement of the stakeholders.
- Risk criteria based ranking of potential places of refuge in Canada.
- Input from all the stakeholders when designing a strategy and a risk assessment procedure for Canada.
- Establishing technical and objective criteria and procedures for risk assessments pertaining to requests for refuge in Canada.
- Ranking Canadian ports based on their risk category; as designating other places of refuge is not feasible along Canada's extensive coastline.
- Ensuring that Canadian ports with heavy maritime traffic are well equipped for responding to and handling requests for refuge.

These lessons should form the basis for the development of a Canadian policy on places of refuge for ships in need of assistance.

¹ The National Response Team, "Guidelines for Places of Refuge Decision-Making", *Overview*, July 26, 2007, 8.

² Toby Stone, "The Experience of the United Kingdom", *Places of Refuge for Ships – Emerging Environmental Concerns of a Maritime Custom*, Chapter 16, Martinus Nijhoff Publishers, Leiden/Boston, 2006, 435.

³ Toby Stone, "The Experience of the United Kingdom", *Places of Refuge for Ships – Emerging Environmental Concerns of a Maritime Custom*, Chapter 16, Martinus Nijhoff Publishers, Leiden/Boston, 2006, 441.

⁴ Rosa Mari Darbra Roman, "Port Perspectives and Environmental Management Considerations", *Places of Refuge for Ships – Emerging Environmental Concerns of a Maritime Custom*, Chapter 6, Martinus Nijhoff Publishers, Leiden/Boston, 2006, 131.

⁵ National Plan Management Committee, "National Maritime Place of Refuge Guidelines", *Decision-Making Processes*, 3.2.3, 22 May 2009, 10.

⁶ Kystverkets Hovedkontor, "Summary of Places of Refuge and Grounding", *The Norwegian Coastal Administration Department of Emergency Response*, 1.

⁷ Danish Ministry of the Environment, "Designated Places of Refuge for Ships", *Advance Designation of Places of Refuge*, January 2004, 2.