

The Stakeholder Workgroup Review of Planning and Response Capabilities for a Marine Oil Spill on the U.S./Canadian Transboundary Areas of the Pacific Coast

Project Report

Sponsored by the Pacific States/British Columbia Oil Spill Task Force

April 2011



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Cover art: The cover graphic on this report was originally designed for the Pacific States/British Columbia Oil Spill Task Force by Sutton Design Ventures in 1996. Native art and Orcas are common to both U.S./Canadian borders addressed in this report.

The Stakeholder Workgroup Review of Planning and Response Capabilities for a Marine Oil Spill on the U.S./Canadian Transboundary Areas of the Pacific Coast Project Report

FORWARD

Eighty-eight (88) trustees and stakeholders who live and work along the two Pacific Coast marine borders between Canada and the United States have worked together for the last three years to document “who’s who” and “what’s what” when it comes to oil spill response planning and preparedness for those transboundary areas. The work of these individuals – either as members of the Project Workgroup or chartered subcommittees, invited reviewers or others who submitted comments on drafts of this Project Report – was supported by the Pacific States/British Columbia Oil Spill Task Force. Member agencies of the Oil Spill Task Force are the spill prevention, preparedness and response authorities in the States of Alaska, Washington, Oregon, California and Hawaii, and in the Province of British Columbia. The Task Force was created in 1989 as a result of a transboundary oil spill from the *T/B Nestucca* and provides a forum for multi-jurisdictional collaboration and coordination (see www.oilspilltaskforce.org).

Most of the recommendations in this Project Report are directed at state, provincial, or U.S. and Canadian federal agencies, many of which must already balance mission overload with limited, even reduced funding. This is a formula for priority setting and we feel that improving oil spill response capacities in these transboundary areas is worth prioritizing for action. Not only are there irreplaceable natural resources at stake, but there is also a potential for significant economic impacts in both areas. However, no one agency or constituency should bear all the responsibility for improving oil spill response in these transboundary areas. Local governments, Tribal and First Nations, environmental NGOs, oil spill response organizations and industry must all share the load.

A February 17, 2011 letter from Vice Admiral Manson K. Brown, Commander of the U.S. Coast Guard Pacific Area, notes that, “the countless hours invested by this workgroup in the preparation of this study are evident in the solid, well thought-out conclusions and recommendations detailed in your report.” He commits to forward this Project Report to the CANUSDIX and CANUSPAC Joint Response Teams “for review and incorporation into their existing planning cycles.” VADM Brown concludes, “I recognize the unique challenges affecting operations within the transboundary areas. Strengthening of existing international partnerships will enhance preparedness to ensure the safety and security of the maritime environment.”

On behalf of the many stakeholders involved in this Project, we thank VADM Brown for his acknowledgement and commitment to follow through on the Recommendations in this Report. On behalf of the Pacific States/British Columbia Oil Spill Task Force, we thank all the dedicated stakeholders who worked with us on this Project.

David Byers, Project Workgroup Chair and Command Subcommittee Chair

Response Section Manager, Washington Department of Ecology

Graham Knox, Planning Subcommittee Chair

Manager, Environmental Emergencies, British Columbia Ministry of Environment

Kevin Gardner, Operations Subcommittee Chair

President & General Manager, Western Canada Marine Response Corporation

Bob Mattson, Logistics Subcommittee Chair

Statewide Logistics Manager, Alaska Department of Environmental Conservation

David R. Owings, Finance Subcommittee Chair

General Manager, SE Alaska Petroleum Resource Organization (SEAPRO)

Jean R. Cameron, Project Manager

Executive Coordinator, Pacific States/British Columbia Oil Spill Task Force

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EXECUTIVE SUMMARY

The Need for this Project

When a significant spill occurs, many people have a stake in a successful response and cleanup, including the federal, state, or provincial responding agencies, the Responsible Party and their Incident Management Team, natural resource trustees, response organizations, wildlife experts, the media and the public. When a significant spill occurs in a transboundary area, the number of these stakeholders is at least doubled; consequently, the potential for miscommunication and conflict – as well as public scrutiny – also escalates. Thus, the need for proper prior planning in order to improve coordination during a transboundary response is critical. This report identifies a number of response topics which could benefit from advanced and coordinated planning between the U.S. and Canadian government agencies at all levels, trustees and key stakeholders.

Risk is calculated as a function of probability multiplied by potential impact. On the borders of British Columbia with Alaska (referred to as the CANUSDIX area) and British Columbia with Washington (referred to as the CANUSPAC area) the probabilities of an oil spill have been ameliorated by a number of regulatory requirements as well as safety initiatives by the oil handling and shipping industries. On the other hand, predicted increases in vessel traffic in both areas may increase the probability of an incident resulting in an oil spill. The potential impacts to local economies and the environment would be very significant.

The Pacific States/British Columbia Oil Spill Task Force was created in 1989 as a result of two major oil spill events: the *Nestucca* fuel barge spill in December, 1988 and the *Exxon Valdez* spill of March, 1989. The *Nestucca* spill was a transboundary event that began on December 23rd, 1988 when the tow cable between a tug and the full tank barge *Nestucca* broke off Grays Harbor, Washington; 231,000 gallons (875,000 liters) of intermediate fuel oil eventually spilled into the northerly offshore coastal current. In the U.S., oiling impacted beaches from northern Oregon to Dungeness Spit in the Strait of Juan de Fuca and tens of thousands of oiled sea birds died. Shoreline impacts in British Columbia eventually extended over 300 miles; estimates of birds impacted in Canada ranged from 3,100 to 56,000 birds. The final cleanup costs incurred by Canadian government agencies were estimated to be \$4.6 million.

As demonstrated by the *Nestucca* incident, spills to marine waters do not respect interstate or international boundaries. Transboundary pollution incidents will impact resources that are shared by the U.S. and Canada, the States and the Province of British Columbia. Water, fish, birds and other natural resources also do not recognize international boundaries and environmental impacts will likely be experienced by both nations regardless of where the pollution originated.

In addition to the fact that there are two Transboundary areas within the Oil Spill Task Force's region (CANUSDIX and CANUSPAC), a comprehensive review of the elements of a transboundary response – where efficient coordination is essential – is seen by the Task Force Members as appropriate to their Mission to “strengthen State and Provincial abilities to prevent, prepare for, and respond to oil spills.”

Project and Report Organization

The Task Force Members agreed in their 2007-2008 Annual Work Plan to initiate a review of the status of preparedness and response for a U.S./Canadian transboundary spill on both border areas within their region of concern: the Alaska/British Columbia border and the British Columbia/Washington border. The Task Force Coordinating Committee was tasked with developing a Scope of Work for the project.

The Oil Spill Task Force invited key stakeholders and trustees from Alaska, British Columbia and Washington to meet in June of 2008 to review that Scope of Work, be briefed on key background issues and draft a Project Work Plan. As part of that Work Plan, they adopted the following Project Goal: *To review and document existing U.S./Canadian transboundary oil spill response plans and capabilities for the British Columbia/Alaska and British Columbia/Washington borders, acknowledging existing authorities and response management systems; and to recommend improvements as needed for both joint response and planning efforts, as well as for planning and capacity building within each jurisdiction.*

More information on how the Project was organized and the 88 stakeholders and trustees who participated on the Project Workgroup and Subcommittees can be found in the Introduction, which also describes the spill risks in the two transboundary areas in more detail.

The main body of this report presents topic papers on issues related to COMMAND, PLANNING, OPERATIONS, LOGISTICS and FINANCE (see the topic list below). Each topic paper begins with “Summary Observations” which are then fully developed in the “Discussion” section. A list of the trustees and stakeholders who developed, edited and finalized the topic papers and recommendations is found at the end of each section. The APPENDICES for the Project Report include: I) the Final Recommendations; II) the Project Work Plan; III) the Project Workgroup; IV) Background Information on the CANUSDIX and CANUSPAC areas; V) a Glossary; and VI) Reference documents

In addition to the list of Final Recommendations in Appendix I, the Project Workgroup’s recommendations can also be found at the end of each topic paper so that the reader may see the relationship of each recommendation to the Summary Observations and Discussion in each paper.

Transboundary Planning and Preparedness Topics Addressed in this Report

Command Topics

- Initial Notifications and Activation of the Joint Contingency Plan
- Coordination of Canadian/U.S. Response Structures and Command Posts
- Transboundary coordination during a decision to take over Spill Management from a Responsible Party
- Transboundary Coordination for an Orphan Spill
- Integrating State, Provincial, Local Government, Landowner, and Tribal Interests into U.S. and Canadian Command Posts
- Media Coordination between Command Posts
- Access and Coordination for Investigations and Law Enforcement
- Security Coordination during a Transboundary Spill
- Natural Resource Damage Assessments

Planning Topics

- Membership of the CANUSPAC and CANUSDIX Joint Response Teams
- JCP/Annex-mandated Transboundary Exercise Programs
- Geographic Response Plans and Strategies for Transboundary areas
- Response capabilities in Transboundary Areas (Equipment, Personnel, and Plans)
- Wildlife Response Capabilities in Transboundary Areas
- Waste Management for Transboundary Areas
- Dispersant and In-Situ Burn Decision-Making
- Role of First Nations and Federally-recognized Tribes in Transboundary Oil Spill Planning and Response
- Places of Refuge Decision-making in a Transboundary Response
- Closures of Fisheries during Transboundary Spill Response

- Volunteer Management Plans for Transboundary Areas

Operations

- Mutual Aid Plans, Agreements and Arrangements
- Equipment cross-training during Transboundary field exercises
- Equipment Compatibility
- Utilization of Fishermen for oil recovery
- Transboundary Traffic Control (vessels, aircraft, vehicles) during response
- Responder Immunity and Worker Liability Issues
- Standards for response personnel safety training and PPE
- Coordination of Operations Documentation

Logistics

- Procedures for Moving People and Equipment across Borders for Emergency Situations
- Response Software
- Remote location Issues
- Vessel to Vessel to Aircraft Communications
- Pre-identification of Command Center locations

Finance

- Response Funding Regimes
- Limits of Liability and COFR Requirements
- Claims, Cost Recovery, Financial Reciprocity, & Finance Section Coordination

Key Observations in this Report

In addition to the U.S. and Canadian federal agencies mandated to respond to a marine oil spill on the U.S./Canadian border, many other response agencies, trustees and stakeholders will be involved in a response. The Deepwater Horizon oil spill in the Gulf of Mexico in 2010 continues to provide many lessons for oil spill planners, one of which is the importance of involving local, tribal and state (provincial in Canada) governments in federal spill planning, preparedness and response. This is especially applicable for the local and tribal governments on both sides of the border, since much more could be done to include them in spill planning. It is also particularly crucial that the Province of British Columbia be allowed to participate in Canadian federal planning and response efforts. Implementation of many of the Recommendations from this Project Report will provide opportunities to broaden the base of stakeholders involved in improving transboundary planning and response.

As this report will show, a number of challenges from the *Nestucca* spill event remain to this day, including:

- The need for international coordination of the Port-of-Refuge decisions in Transboundary areas;
- Coordination of media relations;
- Wildlife rehabilitation and volunteer management capacities (volunteer involvement became a main media focus during the *Nestucca* response);
- Waste disposal – “To which side of the border?” is the question; and
- Significant logistical challenges exist relating to response on remote shorelines, especially in winter;

Other significant issues identified by this Project include:

- Although spill response organizations in both transboundary areas have been working together for years and have robust mutual aid agreements, U.S. response organizations will need Transport Canada’s designation as an “Approved response organization” in order to qualify for responder immunity when operating in Canada;

- The CANUSDIX and CANUSPAC Joint Response Teams can learn from each other's initiatives - as well as those of the CANUSLANT JRT - and promote consistency on both British Columbia borders in the process; and
- Considering their potential liability as well as their potential role as the Responsible Party if a spill occurs, the shipping and oil industries operating in the transboundary areas should demand a stronger role in transboundary response planning and exercises, since industry will be critical to implementation the Recommendations in this Report.

Conduct an Implementation Status Review in 2016

At their final meeting in 2011, the Transboundary Project Workgroup recommended that the Pacific States/British Columbia Oil Spill Task Force to lead a review in 5 years to determine the implementation status of each of their recommendations.

Recommendations in this Project Report are directed to the following organizations or constituencies:

- The U.S. and Canadian Coast Guards
- The CANUSDIX and the CANUSPAC Joint Response Teams
- Transboundary Exercise Planners
- Transport Canada
- Industry
- U.S. and Canadian Response Organizations
- The NW Area Planning Committee and the Region 10 Regional Response Team
- The Alaska Department of Environmental Conservation
- The British Columbia Ministry of Environment
- The Washington Department of Ecology
- Canadian and U.S. Trustee Agencies
- Federally-recognized Tribes and First Nations
- The Pacific States/British Columbia Oil Spill Task Force
- The SE Subarea Contingency Plan Logistics Group

Many persons - representing many organizations and interests - have made a significant investment in this review of planning and preparedness along the two Pacific Coast borders of the U.S. and Canada. Many of these same persons will now be involved in implementing the recommendations in this Project Report in order to improve oil spill response on those borders. The Pacific States/British Columbia Oil Spill Task Force is deeply grateful for their ongoing commitment.

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INTRODUCTION

I. BACKGROUND

Oil Spills in the Pacific Coast Transboundary Areas

There is a long history of bilateral efforts to address oil spills that cross between the marine waters of Washington State, British Columbia and Alaska reflecting changes in risk exposure over the years. Prior to the 1968 discovery of oil in Alaska's North Slope and the decision to pipe the oil to the port of Valdez, refineries in Washington and British Columbia received crude oil from Alberta oil fields by pipeline. Then as now, refined products were distributed by pipeline, barge and tanker through the shared waterways. There did not appear to be a sense of one country putting the other at disproportionate risk of a spill at that time.

Things changed in 1971 when ARCO (now BP) built the Cherry Point refinery near the Canadian border in Blaine. It was designed to receive crude oil from the Alberta pipeline as well as by tanker in anticipation of the construction of the trans-Alaska pipeline that was completed in 1977. Canadians expressed concern about the proximity of tankers serving Washington's largest refinery so close to the border. On June 4th 1972 this concern was realized when a flange on the Liberian flagged tanker *World Bond* - which was carrying 247,000 barrels (10,374 million gallons or 39,269,862 liters) of middle east crude – failed, spilling over 13,000 gallons (49,210 liters) of oil (Bellingham Herald 6/5/1972) during the height of a particularly large herring spawn (Bellingham Herald 6/8/1972).

Once the oil reached Canadian shores BC Premier W.A.C. Bennett telegraphed Washington Governor Evans to convene a meeting to discuss ways of controlling oil spills (Bellingham Herald 6/13/ 1972). The Washington State Congressional delegation sent a letter to Secretary of State William Rogers calling for a US/Canadian cleanup conference with international consequences. Canada also made a formal request to the U.S. for full and prompt compensation, plus payment for all cleanup costs associated with the spill (Bellingham Herald 9 June 1972).

While representatives of British Columbia and Washington State did meet, no ongoing effort was created as a result of that spill. However, it did serve to initiate action at the Federal level which led to the creation of the Cooperative Vessel Traffic Service (CVTS) and the passage of the Port and Waterways Safety Act (Bellingham Herald 6/29/1972).

Spill risks in the British Columbia/Alaska border area are exemplified by the sinking of the *Lee Wang Zin* on December 25th, 1979. The vessel was carrying iron ore loaded in Prince Rupert and was headed for Japan. It capsized in British Columbia waters during high winds with the loss of 30 crew members and spilled 200,000 gallons (757,820 liters) of bunker fuel. Bad weather and the remoteness of the location prevented any offshore cleanup. Over 350 miles of shoreline were impacted and oil was even identified months later as far north as Prince of Wales Island in Alaska. By the end of April, 1980 585 bbl of oil had been removed; cleanup cost estimates range from \$3,570/bbl to \$8,970/bbl.

The *Nestucca* spill was a transboundary event that began on December 23rd, 1988 when the tow cable between a tug and the full tank barge *Nestucca* broke off Grays Harbor, Washington. When the tug attempted to recapture the barge, it rammed it, puncturing a hole in the barge's starboard side; 231,000 gallons (875,000 liters) of intermediate fuel oil eventually spilled into the northerly offshore coastal current.

The barge was towed further offshore to protect Grays Harbor's oyster beds and wildlife; this was a consensus port-of-refuge decision made by the U.S. Coast Guard and the Washington Department of Ecology. A temporary patch was placed on the damaged barge, which was then towed into the mouth of the Columbia River and inspected by Coast Guard and Ecology personnel. In the course of these operations, the leaking barge was towed for 24 hours at a distance of 40 km from the point of collision to the edge of the Continental shelf – leaking all the while. This directly contributed to the spread of the oil and the eventual inability to track it. The oil was affected by both the coastal current and the Davidson current.

In the U.S., light to heavy oiling impacted beaches from northern Oregon to Dungeness Spit in the Strait of Juan de Fuca and tens of thousands of oiled sea birds died. The offshore oil appeared to disappear based upon over flight observations, so the U.S. agencies concluded that natural dispersion has occurred. In reality, the oil had broken into patties and was floating in the northerly current just below the surface, headed for Canada. Canada was then caught by surprise, since the initial reports from the U.S. had indicated that oil would not impact Canada. By December 31st tar balls were showing up on Vancouver Island and by January 3rd large quantities of oil were washing ashore. Shoreline impacts eventually extended over 300 miles from Carmanah Point to Moore Island on the British Columbia central coast; several First Nation communities - as well as the Pacific Rim National Park - were impacted. Estimates of birds impacted in Canada ranged from 3,100 to 56,000 birds; one sea otter was known to have died. A total of 450 tons of waste was removed manually. The final cleanup costs incurred by Canadian government agencies were estimated to be \$4.6 million.

After the spill, the Premier of British Columbia contacted the Governor of Washington and recommended a mechanism to inform and support a more coordinated response. The Pacific States/British Columbia Oil Spill Task Force was the eventual product of that recommendation, as well as the *Exxon Valdez* spill of March, 1989. The member agencies of the Pacific States/British Columbia Oil Spill Task Force are the state and provincial oil spill prevention, preparedness, and response authorities in Alaska, British Columbia, Washington, Oregon, California, and Hawaii.

In July of 1991 a collision between the bulk carrier *Tuo Hi* and fish processor *Tenyo Maru* off Swiftsure Bank resulted in the sinking of the *Tenyo Maru* with 600,000 gallons (2,271,247 liters) of various oils on board. Oil from that spill extended from the west side of Vancouver Island to Oregon.

The Canada-United States Joint Marine Pollution Contingency Plan

The Canada-United States Joint Marine Pollution Contingency Plan (JCP) for the Great Lakes was promulgated in 1974 under the Canada-United States Great Lakes Water Quality Agreement of 1972. In September of 1983, it was agreed that the JCP would be expanded to include four geographical annexes: one for the Atlantic (CANUSLANT); two for the Pacific (CANUSDIX and CANUSPAC); and one for the Beaufort Sea area (CANUSNORTH). The responsible Canadian Coast Guard (CCG) Regional Directors and the United States Coast Guard (USCG) District Commanders were tasked to develop detailed bilateral Annex supplements to the Joint Marine Pollution Contingency Plan for their respective transboundary regions.

The Canada-United States Joint Marine Pollution Contingency Plan provides guidance for "Joint Response Teams" in Section 304. For the U.S. Coast Guard, the District Commanders (District 17 and District 13) serve as Co-Chairs of the CANUSDIX and CANUSPAC Joint Response Teams respectively. The Sector Commanders for Juneau and Puget Sound would serve as the Federal On-Scene Coordinators (FOSC) for the response. For the Canadian Coast Guard (CCG), the Regional Director serves as the Joint Response Team Co-Chair and the Regional Superintendent serves as the On-Scene Commander (OSC).

The U.S. FOSC and the CCG OSC activate the Joint Response Team (JRT) as needed to facilitate the movement of response personnel and equipment across the borders or to activate other agencies as needed; the JRT liaisons

from other agencies are not pre-designated since they will be a function of incident-specific needs. The JRT's role also focuses on preparedness and advice and it can make recommendations for changes to the annexes as necessary.

Spill Risks and Risk Management in the Pacific Coast Transboundary Areas (CANUSDIX and CANUSPAC)

The entire study area is characterized by deep narrow glacially carved straits with significant fresh water and nutrient contributions from numerous rivers forming a highly productive estuarine habitat. The large tidal ranges found in this temperate region are squeezed through the narrow channels and islands that create fast currents in excess of 3 knots. The combination of hundreds of miles of shoreline, fast currents and notoriously stormy winters pose significant challenges to spill response efforts.

While the species assemblages are similar in the CANUSDIX and CANUSPAC Regions, there is a greater abundance of fish and wildlife in the northern region than the southern. Therefore, an oil spill in the north is likely to have a higher natural resource impact. However, the far denser human populations to the south will likely result in higher personal property damages. In addition, there are numerous species listed under the U.S. Endangered Species Act as well as under the Canadian Species at Risk Act (SARA). Species such as the Southern Resident population of Killer Whales are listed separately as endangered on both sides of the border. Other species such as halibut and salmon are jointly managed by the International Pacific Halibut Commission and the Pacific Salmon Commission respectively.

Both regions are home to numerous indigenous Tribes and First Nations whose cultural and economic livelihoods are still closely tied to the marine environment making for difficulty in trying to enumerate the full impacts of an oil spill.

CANUSDIX

The CANUSDIX Annex to the Canada-United States Joint Marine Pollution Contingency Plan covers the area known as the Dixon Entrance, a strait about 80 kilometers (50 miles) long and wide in the Pacific Ocean at the boundary between the U.S. state of Alaska and the Canadian province of British Columbia. For more information on the CANUSDIX Area (geography, weather, tides, demographics, economy, historic and cultural features and the environment) please refer to Appendix IV.

CANUSDIX Spill Risks

Approximately 100 to 150 million gallons (378 to 566 million liters) of oil product enter Southeast Alaska at Dixon Entrance annually via barge. There are between 400 and 500 large cruise ship sailings into Southeast Alaska during the summer tourist season; each of these vessels carries up to 700,000 gallons (2,649,788 liters) of fuel oil on board. Approximately 12 log ships enter Southeast Alaska annually with fuel capacities of up to 500,000 gallons (1,892,706 liters) of fuel oil; these freight vessels may be using heavy oil as fuel rather than the lighter diesel oil. Two freight barge lines have sailings twice/week and carry a variety of hazardous materials including explosives, lube oil, propane and up to 10 ISO tanks of 5,000 gallon (18,927 liter) capacity with aviation gasoline, diesel and gasoline.

In British Columbia, tankers using the Dixon Entrance to access the Port of Kitimat are currently bringing in condensate that is transported overland to the oil sands operations in Alberta. There are proposals to construct pipelines to carry the condensate to Alberta and bring crude oil back to Kitimat for export by tanker, which would increase the tanker traffic. There are also proposals to construct an LNG/LPG terminal and expand bulk cargo capabilities, since Kitimat is the deepest and closest inland port on Canada's Northwest Transportation and Trade Corridor. With minor modifications by the Canadian National Railways Kitimat could grow to serve substantial North American import and export markets, including the U.S. Midwest.

The Port of Prince Rupert is the northwestern most port in North America linked to the continent's rail network. Located on the Great Circle Route between eastern Asia and western North America, the port is the first inbound and last outbound port of call for cargo ships on that Route. In addition, passenger ferries operating from Prince Rupert include both U.S. Ferries and Alaska Marine Highway ferries. The Prince Rupert Ferry Terminal is co-located with the rail terminal and offers connections to inland British Columbia and to the rest of the continent as well.

The Port of Prince Rupert handled 12,173,672 tonnes of cargo in 2009, up 15 per cent over 2008 volumes. The Container Terminal had a 45.9 per cent increase over 2008. On the bulk cargo side of the business, grain volumes jumped 35.1 per cent in 2009. The Port of Prince Rupert also experienced increased cargo volumes for logs (79.6 per cent) and wax (30.8 per cent). Coal volumes were down 14.2% in 2009 compared to 2008. In the cruise business, passenger traffic was also down 46.8 per cent, although Prince Rupert had 31 cruise vessel visits in 2009. In the first quarter of 2010, container traffic was up 87.3% and total tonnage increased 72.8% compared to the first three months of 2009. Long-term development plans call for growth in the bulk, auto, and general cargo terminals. The town of Stewart at the head of the Portland Canal is also promoting bulk cargo development for its port, which could further increase the vessel traffic along the U.S./Canadian border.

In recent years significant increases in vessel traffic have occurred to serve new port development in Prince Rupert and Kitimat. Shipping giants such as COSCO now serve Prince Rupert and plans exist to export Alberta oils and import LNG are on the drawing board for Kitimat. Kitimat was explored as an oil terminal for Alaskan North Slope crude but was deemed too risky at the time. Spill risks in this area are amplified by the remote nature of the area and weather-dependent logistics. The aids to navigation in these areas - as well as the nautical charts - have not kept up with the needs of existing vessel traffic, much less expanding traffic. This fact was noted in the Environmental Impact Statement on marine transportation for Enbridge's Northern Gateway Project. These current developments have lead to broad public concerns in Canada and a major vessel traffic study is under way known as TERMPOL.

In March of 2010, the Pacific States/British Columbia Oil Spill Task Force submitted a FOIA request to the U.S. Coast Guard for the following data:

- Marine casualties by type (grounding, allision, collision, loss of main propulsion or steering, or any event affecting a vessel's seaworthiness or the environment); and
- By vessel type (tank barge, tank vessel, and nontank vessel greater than 300 GT);
- For the following CANUSDIX area:
 - SE Alaska inland waters between Dixon Entrance and Ketchikan
 - SE Alaska waters offshore between Dixon Entrance and Ketchikan
 - U.S. boundary waters in the Portland Canal
- For the ten year period from 1999 to 2009.

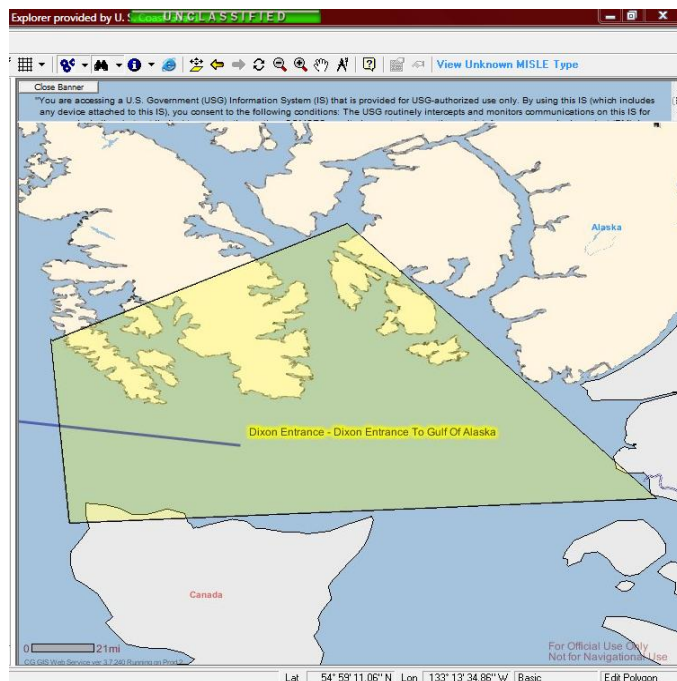
Once received, that data was reviewed and compiled for the Task Force by a data analyst at the Washington Department of Ecology.

Please note that "casualty" implies a reportable event which could have resulted in an oil spill, but did not necessarily do so. The applicability of reportable marine casualties in USCG regulations is as follows: Any casualty or accident involving any vessel other than a public vessel that---

- Occurs upon the navigable waters of the U.S, its territories or possessions;
- Involves a U.S. vessel wherever such casualty or accident occurs; or
- With respect to a foreign tank vessel {this would include barges} operating in waters subject to the jurisdiction of U.S., including the EEZ, involves significant harm to environment or material damage affecting the seaworthiness of efficiency of vessel

For casualty data in Canadian waters we cooperated with the Living Oceans Society, who had received casualty data from the Canadian Transportation Safety Board (TSB) for all British Columbia waters covering January 1999 to July of 2009. At our request, they sorted for data specific to the two transboundary areas.¹

Below are USCG maps of the CANUSDIX area followed by the USCG and the Canadian TSB data summaries:



The Dixon Entrance Area

USCG DATA ACTIVITY TYPE	NUMBER OF INCIDENTS
Allison	9
Capsize	2
Collision	4
Flooding	2
Grounding	34
Loss of Electrical Power	11
Sinking	12
TOTAL	74

¹ The Living Oceans Society is not responsible for the accuracy of the Canadian TSB dataset and checks of the data revealed possible discrepancies between the mapped coordinates and the location descriptions.

CN TSB DATA ACTIVITY TYPE	NUMBER OF INCIDENTS
Flooding	7
Capsize	3
Collision	1
Near Collision	2
Grounding	28
Near grounding	6
Striking	9
Sinking	1
Fire/explosion	3
Engine trouble or failure	8
General machinery failure	4
Other	15
TOTAL	87

It is obvious that the Canadian data is both more comprehensive and less targeted to vessel type than was our data request to the U.S. Coast Guard. Nevertheless, the two data sets taken together represent a general picture of the casualties in CANUSDIX area.

CANUSDIX Risk management measures

Risks associated with vessel traffic in the CANUSDIX area are managed by Vessel Traffic Services for the CANUSDIX area and pilotage requirements for the area ports. There is one Vessel Traffic Service in the CANUSDIX region - located in Prince Rupert, B.C. - which covers the area from the U.S. border on the north to the northern end of Tofino Traffic's Area of Operations. This VTS goes up to the A-B Line at the north end of Dixon Entrance and follows the international line on the coast which goes up Pearse Canal until it intersects with Portland Canal then bisects Portland Canal until a point just north of Hyder, AK where the border goes inland, so Stewart is in the VTS AOR. The A-B line runs from Pt. Cornwallis on Dall Island to near Wales Island at the entrance to Portland Inlet.

The Southeast Alaska Pilotage Area covers the waters from Dixon Entrance to Yakutat Bay and is a compulsory pilotage area. Comprehensive marine pilotage in Southeast Alaska is provided by Southeast Alaska Pilots' Association. Pilots are licensed by the State of Alaska and the United States Coast Guard to provide compulsory marine pilotage to all vessels entering the waters of Southeast Alaska except those vessels identified in Alaska Statute 08.62.180. See <http://www.seapa.com/>. On the Canadian side, the BC Coast Pilots are responsible for the entire coastline, including the northern ports. See <http://www.bccoastpilots.com>.

CANUSPAC

According to the CANUSPAC Annex to the Canada/U.S. Joint Contingency Plan, it applies to the internal and navigable waters of both the U.S. and British Columbia, as well as to the waters off the Pacific Coast from the Canada/U.S. border in Boundary Bay, through the Strait of Georgia, Boundary Pass, Haro Strait, Strait of Juan de Fuca, and then to position: 48-29-39.11N, 124-42-34.69 W to position: 48-29-38.11 N, 125-00.00 W, and to position: 48-04-00 N, 126-10-35 W. For more information on the CANUSDIX Area (geography, weather, tides, demographics, economy, historic and cultural features and the environment) please refer to Appendix IV.

CANUSPAC Risks

Spill risks along the CANUSPAC border are primarily associated with vessels (both tank vessels that carry oil as cargo and large commercial vessels that may carry hundreds of thousands of gallons of oil as fuel), refineries, and bulk storage facilities. There are eight major ports in the Puget Sound area.

According to the Washington Department of Ecology's Vessel Entries and Transits (VEAT) report for 2010 (<http://www.ecy.wa.gov/pubs/1108001.pdf>) there were a total of 2,137 cargo and passenger vessels entries bound for Washington ports, including 1,663 through the Strait of Juan de Fuca, 407 through the Strait of Georgia and Haro Strait and 67 to Gray's Harbor/Aberdeen. In addition, there were 2,040 cargo and passenger vessel entries through the Strait of Juan de Fuca bound for Canadian ports. The number of entries for commercial fishing vessels bound for Washington ports in Puget Sound or transiting Washington waters en-route to Canada in 2010 was 73. The total number of entries for factory fishing vessels or fish processors bound for Washington ports in Puget Sound or transiting Washington waters en-route to Canada was 92. When considering these numbers, please note that these are entries only, so the actual number of transits on these waters would be at least twice as much.

There were also 163,966 transits by Washington State Ferries, 106 by ferries in the Alaska Marine Highway System and 1,770 transits by the Black Ball ferries that run between Port Angeles and Victoria.

There are also five refineries in the CANUSPAC area to which crude oil may be transported, or from which refined products would be carried. In addition, tankers carry crude oil from the pipeline terminus in Vancouver. 2010 VEAT data for tank ships shows 548 entries through the Strait of Juan de Fuca bound for Washington ports and another 20 entries through the Strait of Georgia and Haro Strait headed to Washington ports. There were 252 tank ship entries through the Strait of Juan de Fuca bound for Canadian ports, for a total of 820 entries. For tank barges, the VEAT tracks transits rather than entries; there were 3,223 tank barge transits in Puget Sound in 2010. VEAT data does not document whether tank ships and barges in transit are carrying cargo or are in ballast.

The tanker traffic moving from the Port of Vancouver has increased over the past few years and is projected to continue to grow in both numbers of transits as well as tanker size. According to a *Vancouver Sun* article by Don Whiteley, published in December 2009 (http://www.vancouver.sun.com/story_print.html?id=2291515&sponsor), Kinder Morgan Canada, which operates a crude oil pipeline from Alberta to Burnaby, recently expanded the line to carry 300,000 barrels (12.6 million gallons or 47,696,188 liters) a day of oil and has another expansion planned that would take that pipeline up to 700,000 barrels (29.4 million gallons or 111,291,106 liters) a day. Some of that oil continues through an extension to Burnaby's Chevron refinery and oil refineries in Washington State and about another 20% of the pipeline's capacity is used to ship refined products, but most of the expanded capacity is intended for shipment overseas by tanker.

As of October 2009, Whiteley explained, crude oil shipments from the Port of Vancouver had increased by 94 per cent – from 1.7 million tonnes in 2008 to 3.3 million tonnes in 2009. Kinder Morgan officials stated that they expected to load 80 oil tankers in 2009, compared with 55 in 2008. In addition, Port Metro Vancouver has been developing plans designed to first allow the current fleet of ships taking on oil at Burnaby's Westridge Terminal to take on maximum loads, then to allow larger tankers to serve the port. Aframax tankers — the largest to currently berth at Westridge — can carry about 700,000 barrels of oil. But restrictions dictated by the Second Narrows waterway means they can never take a full load and can draw only 12.5 meters of water. "The goal is to be able to have an Aframax, fully loaded, at 15 meters," Whitely quotes the Port Metro Vancouver's harbormaster as saying. Their next goal is to determine if Suezmax-sized tankers, which can carry one million barrels (42 million gallons or 158,987,294 liters), can safely get to and from the Westridge loading dock. Although the Aframax and the smaller Panamax-sized tankers are adequate for the California trade, where most ships from Vancouver are currently sailing, larger tankers would be needed for the Asian markets.

According to an article by Mitchell Anderson published in *The Tyee* in June of 2010, China is becoming heavily invested in the Alberta oil sands, just as the U.S. market may be shying away from Alberta crude due to its heavy carbon load and high environmental impacts. ([Global Forces Making Vancouver a Major Oil Port](#)) Mitchell wrote: "While much attention has rightly been focused on the proposed Enbridge Northern Gateway pipeline to Kitimat,

local First Nations have made it clear they will seek to block the project. A long and likely litigious battle began this month when Enbridge applied for regulatory approval. Which brings us back to Burrard Inlet – the only current oil sands access to the ocean. While it is true that small oil tankers have moved surplus oil out of Second Narrows for decades, it has never been done on this scale – or using ships that exceed the dimensions of what the Port Metro Vancouver (PMV) previously considered safe....Tankers exiting the Kinder Morgan Westridge Terminal in Burnaby must thread the narrow spans of the CN Railway bridge in Second Narrows, only at the highest tides, and only during daylight hours. The navigable channel here is only 121 metres across and as little as 12 metres deep at zero tide. The PMV Operations Manual from 2007 states that tankers with a draft up to 12.5 metres can only transit through Second Narrows at a high tide of 14 feet....The Second Narrows navigation restrictions date back to the 1970s, but are now being rolled back. In May of last year, PMV announced to the shipping industry changes allowing for tankers to transit Second Narrows with a draft of 13.5 metres.”

There are also risks associated with vessel traffic and anchorage areas near the San Juan and Southern Gulf Islands. In November of 2009 the bulk carrier *Hebei Lion* dragged anchor in high winds overnight and was blown onto a rocky reef near Mayne Island in the Strait of Georgia. Fortunately, it was towed off the following day and no oil was spilled, but the risk was high. Dale Jensen, manager of the Washington Department of Ecology’s Spill Prevention, Preparedness and Response Program, was quoted in their news release as saying “Damage to fuel tanks on a cargo ship that size could have oiled the islands on both sides of the border...A major spill also could have forced a closure to vessel traffic.” That news release also quoted Washington State Senator Kevin Ranker, who represents the 40th District, including his San Juan Island home, as saying “This incident once again highlights the importance of having a strong spill prevention and response system in place, not only for Puget Sound but also for large transboundary spills that can have potentially devastating effects on our environment and economy.”

Staff at the Washington Department of Ecology have stated that a much smaller spill than the Deepwater Horizon oil spill could still have a disastrous effect along the CANUSPAC border due to the heavier crude oil transported, strong tidal currents and large tidal ranges, cold water and the high vulnerability of natural resources – all factors that make responding to an oil spill very difficult. In addition, given the natural resource based and trade dependent economies around the region, the scope of disruption from a major environmental disaster would be huge.

CANUSPAC Risk management measures

Fortunately, there are a number of policies and programs in place along the CANUSPAC border which help ameliorate the spill risks. One of these is the Cooperative Vessel Traffic Service between Canada and the U.S., which not only provides management of maritime traffic in the Strait of Juan de Fuca, Puget Sound, and the Strait of Georgia, but also requires comparable protection. Section 711 of the 2010 U.S. Coast Guard Authorization Act directs the Coast Guard and State Department to engage their Canadian counterparts to review the comparability of marine safety standards in this joint area of operations with a particular focus on tug escorts for oil tankers, emergency towing and spill response.

Another risk reduction factor for the area is that vessels entering U.S. and Canadian waters are required to take on a marine pilot. Under Canadian law every foreign ship over 350 gross registered tons is required to utilize the services of a marine pilot when they enter the waters of British Columbia. The Pilot is responsible to ensure the vessel is safely navigated through the various passageways along the coast so there is no damage to the ship, its crew, or the marine environment. In British Columbia there are two groups of marine pilots that supply this service: the BC Coast Pilots and the Fraser River Pilots. The Fraser River Pilots are responsible for the area beginning at the mouth of the Fraser River and inland, while the BC Coast Pilots are responsible for the entire coastline stretching from the southern Canadian border to Alaska. (<http://www.bccoastpilots.com>).

Vessels bound for Washington ports pick up a Puget Sound pilot. The area covered by Puget Sound Pilots includes all waters east of Port Angeles and south of the Canadian border. These waterways are home to more than a dozen major ports, including container ports in Seattle and Tacoma, general cargo ports in Everett, Bellingham, Port Angeles and Olympia, and oil refinery berths near Anacortes, Ferndale and Cherry Point. There are 194 docks in the Puget Sound district. According to their website (<http://www.pspilots.org>), their duties “are carried out 24 hours a day, in all weather conditions, 365 days a year. Over the last 20 years, members of Puget Sound Pilots have compiled an extraordinary safety record, completing more than 165,000 piloting assignments without a major incident.” Marine pilots also provide assistance for vessels transiting in/out of Grays Harbor. For more information on marine pilots and their spill prevention role, please reference the 1997 Pacific States/British Columbia Oil Spill Task Force report [Marine Pilots and Vessel Safety on the West Coast](#).

In light of the current and proposed increases in tanker traffic noted above, on 9/15/10 the Pacific Pilotage Authority issued *Interim Operating Rules for Loaded Crude Oil Tankers in Excess of 40,000 DWT* (http://www.cosbc.ca/index.php?option=com_docman&task=doc_view&gid=124&tmpl=component&format=raw&Itemid=53) for Boundary Pass and Haro Strait. The regulations apply to loaded tankers underway between three miles north of East Point and the Victoria Pilot station. They require two Pilots on the bridge at all times, plus two ship’s officers and two seamen, and two further seamen on standby. The Pilots, the ship’s master and the tug master must agree on a passage plan covering such items as course, speed, positioning of an escort tug and communications frequencies and protocol. The Interim Rules dictate passages according to tides as well as tanker speeds. Tankers must have an escort tug capable of applying steering and braking forces to the ship at speeds of six knots or more; it must be tethered to the tanker at specified locations and “in attendance” at other locations, such as Race Rocks. The rules further specify that tugs shall have a minimum bollard pull of between 50 and 65 metric tons, with special arrangements being necessary for tankers with length plus width exceeding 295 metres.

The Area To Be Avoided (ATBA) off the Washington Coast partially overlaps the Olympic Coast National Marine Sanctuary (OCNMS); it was established to reduce the risk of a marine casualty and resulting pollution and damage to the OCNMS. The ATBA was designated by the International Maritime Organization and applies to all ships and barges carrying cargoes of oil or hazardous materials, as well as to all ships 1600 gross tons or larger. Overall compliance with the transit restrictions for this area was estimated to be 98.9% according to the 2009 VEAT report.

The emergency response tug stationed at Neah Bay is an important safety net to prevent disabled ships and barges from grounding in the western Strait of Juan de Fuca or off the outer coasts of both Washington and British Columbia. Funding for the Neah Bay tug was successfully transitioned this past year from Washington State management to private maritime industry financed and managed operations in order to maintain standby towing capability at Neah Bay. In addition, the U.S. Coast Guard and Department of Ecology can separately contract for the services of the tug to respond to an emerging maritime casualty, or as a precautionary measure. Since 1999, the tug has deployed to stand by or directly assist 46 vessels that were either completely disabled or had reduced maneuvering ability. On eleven of these responses the tug had to take the disabled vessels in tow to prevent them from drifting onto the rocks and spilling oil. The actions taken in those 11 cases helped prevent a combined spill potential of nearly 5 million gallons (19 million liters) of oil. (http://www.ecy.wa.gov/programs/spills/response_tug/tugresponsemainpage.htm)

Tug escorts are required for laden tank vessels east of Dungeness Spit by both Washington state law (1975) and Federal law (Oil Pollution Act of 1990). U.S. federal law requires that laden single hull oil tankers of 5000 gross tons (GT) or more must be escorted by at least two tugs in all U.S. navigable waters east of Port Angeles (including U.S. waters within the transboundary waters of the Straits of Juan de Fuca, Puget Sound, Haro Strait, Boundary Pass, and the Strait of Georgia). State law requires that laden oil, LNG and LPG tankers of 40,000 DWT or more meet certain operational and structural performance criteria or be escorted by at least one tug in all state waters

east of Port Angeles; these requirements do not apply to laden tank barges. In Canadian waters, tug escort rules are voluntary operating rules published as a Notice to Industry enforced by the Pacific Pilotage Authority; they require that laden Crude Oil tankers of 40,000 DWT or more be escorted by one or more tugs (based on tanker size) in waters of Boundary Pass, Haro Strait and the Strait of Juan de Fuca between three miles north of East point (the east end of Boundary Pass) and the Victoria Pilot station near Race Rocks.

Other safety measures in the CANUSPAC area include:

U.S. Requirements:

- Tankers greater than 125,000 deadweight tons (DWT) may not proceed to a U.S. port or place east of Port Angeles; and
- Minimum Navigation Watch: Two licensed deck watch officers, one of which may be a pilot; helmsman and Lookout. Pilot could be a licensed officer actually assigned as a member of the ship's crew if vessel is engaged in United States coastwise trade. Pilotage requirements imposed by state for vessels operating under registry (foreign trade).

Canadian requirements (Voluntary operating rules published as a Notice to Industry enforced by the Pacific Pilotage Authority):

- No tanker size limitation noted; and
- Minimum Navigation Watch: Two pilots, two licensed deck watch officers, two seaman (presumably for helmsman and lookout).

Washington State requirements:

- Tankers greater than 125,000 DWT may not proceed to a U.S. port or place east of Port Angeles; and
- Minimum Navigation Watch: As required under U.S. safe manning standards, with the exception that each tanker of 5000 GT or more registered for foreign trade must be under the direction and control of a WA state pilot in U.S. waters east of Port Angeles.

The Pacific States/British Columbia studied the double hull conversion status for tankers and tank barges calling on West Coast ports in 2009 and determined that 97% of the tank vessels calling on Puget Sound ports were double-hulled. The data for British Columbia included both Kitimat and Vancouver; the British Columbia rate was 89%. Sixty-seven (67) percent of the tank barges operating in the Puget Sound area are double-hulled; no data was available for barges operating in the Vancouver area. Please note that, while double hulls are a strong spill prevention tool, they cannot prevent incidents such as groundings, which may be averted with assistance from an escort tug.

As we did for the CANUSDIX area, the Pacific States/British Columbia Oil Spill Task Force submitted a FOIA request to the U.S. Coast Guard for the following data:

- Marine casualties by type (grounding, allision, collision, loss of main propulsion or steering, or any event affecting a vessel's seaworthiness or the environment); and
- By vessel type (tank barge, tank vessel, and nontank vessel greater than 300 GT);
- For the following CANUSPAC areas:
 - For Sector Seattle:
 - Offshore Washington State
 - The Straits of Juan de Fuca
 - Puget Sound waters north of Admiralty Inlet
 - For Sector Portland, only the Washington coast between the Columbia River entrance and the border of Sector Seattle's AOR on the Coast
- For the ten year period from 1999 to 2009.

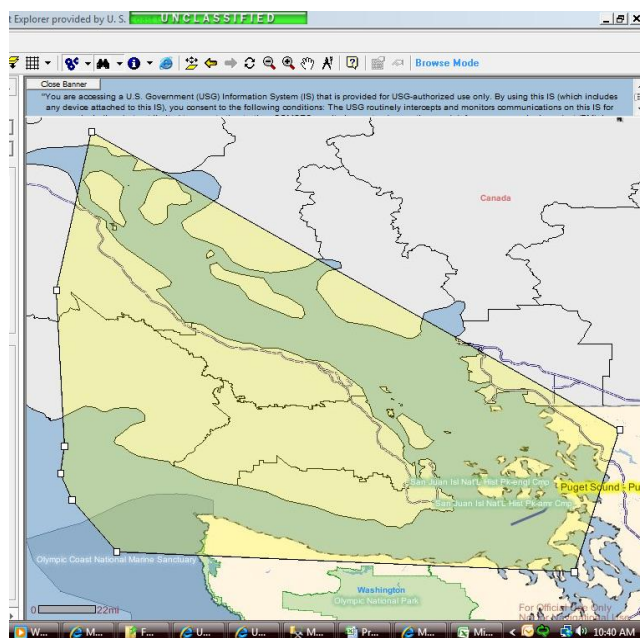
Once received, that data was reviewed and compiled for the Task Force by a data analyst at the Washington Department of Ecology.

Please note that “casualty” implies a reportable event which could have resulted in an oil spill, but did not necessarily do so. The applicability of reportable marine casualties in USCG regulations is as follows: Any casualty or accident involving any vessel other than a public vessel that---

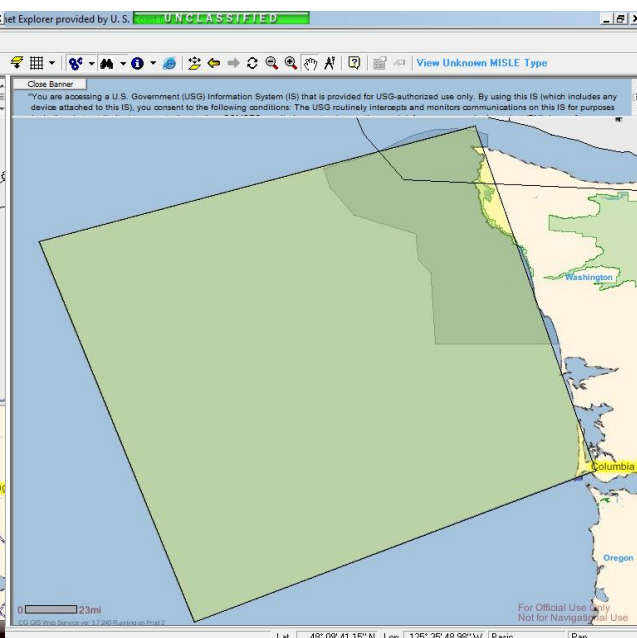
- Occurs upon the navigable waters of the U.S, its territories or possessions;
- Involves a U.S. vessel wherever such casualty or accident occurs; or
- With respect to a foreign tank vessel {this would include barges} operating in waters subject to the jurisdiction of U.S., including the EEZ, involves significant harm to environment or material damage affecting the seaworthiness or efficiency of vessel

For casualty data in Canadian waters we cooperated with the Living Oceans Society, who had received casualty data from the Canadian Transportation Safety Board (TSB) for all British Columbia waters covering January 1999 to July of 2009. At our request, they sorted for data specific to the two transboundary areas.²

Below are USCG maps of the CANUSPAC areas reviewed, following by the USCG and the Canadian TSB data summaries:



The Straits of Juan de Fuca and Puget Sound



Area off the Washington Coast (Northern currents may carry oil spilled off the Washington Coast onto British Columbia's shorelines)

² The Living Oceans Society is not responsible for the accuracy of the Canadian TSB dataset and checks of the data revealed possible discrepancies between the mapped coordinates and the location descriptions.

USCG DATA ACTIVITY TYPE	NUMBER OF INCIDENTS
Allison	38
Capsize	3
Collision	24
Equipment Failure	1
Fire	3
Grounding	70
Loss of Electrical Power	51
Sinking	12
Structural Failure	2
TOTAL	204

Canadian TSB Data for the South British Columbia coast near the CANUSPAC Border:

CN TSB DATA ACTIVITY TYPE	NUMBER OF INCIDENTS
Flooding	1
Capsize	1
Collision	1
Near Collision	1
Grounding	1
Sinking	1
Other	2
TOTAL	8

Canadian TSB Data for the Puget Sound area:

CN TSB DATA ACTIVITY TYPE	NUMBER OF INCIDENTS
Flooding	66
Capsize	36
Collision	34
Near Collision	205
Striking	151
Near Striking	3
Grounding	174
Near Grounding	20
Sinking	39
Structural Damage	15
Fire/Explosion	91
Engine Failure	74
Engine problems/trouble	36
Broke mooring + Broke mooring & adrift	13
Broke tow + Broke tow and adrift	11
Towline struck by other vessel	2
Fuel blockage or loss of fuel	5
General machinery failure	95
Propeller or Rudder problems	21
"Other" and "Other Msc"	150
Total	1241

It is obvious that the Canadian data is both more comprehensive and less targeted to vessel type than was our data request to the U.S. Coast Guard. Nevertheless, the two data sets taken together represent a general picture of the casualties in the two Transboundary areas.

II. THE U.S./CANADIAN TRANSBOUNDARY SPILL PLANNING AND RESPONSE PROJECT

As demonstrated by the *Nestucca* incident, spills to marine waters do not respect interstate or international boundaries. Transboundary pollution incidents will impact resources that are shared by the U.S. and Canada, the States, and the Province of British Columbia. Water, fish, birds and other natural resources also do not recognize international boundaries and impacts on either side of the international border will likely be experienced by both nations regardless of where the pollution originated. Both the 1988 *Nestucca* spill and the 1991 *Tenyo Maru* fishing vessel spill affected shorelines in Washington as well as British Columbia.

When a significant spill occurs, many people have a stake in a successful response and cleanup, including the federal, state, or provincial responding agencies, the Responsible Party and their Incident Management Team, natural resource trustees, response organizations, wildlife experts, the media and the public. When a significant spill occurs in a transboundary area, the number of these stakeholders is at least doubled; consequently, the potential for miscommunication and conflict – as well as public scrutiny – also escalates.

Besides the fact that there are two Transboundary areas within our area of interest, a comprehensive review of the elements of a transboundary response – where efficient coordination is essential – is seen by the Task Force Members as appropriate to their Mission to “strengthen State and Provincial abilities to prevent, prepare for, and respond to oil spills.” This project is also consistent with our history of managing projects that acknowledge our transboundary legacy in the *Nestucca* spill as well as our continued efforts over the past twenty years to facilitate cooperative planning and response beyond state or national borders. For example, the Task Force was a strong supporter of amendments to the Jones Act that allow use of foreign-flagged Oil Spill Response Vessels on an emergency basis.

The Task Force Members agreed in their 2007-2008 Annual Work Plan to initiate a review of the status of preparedness and response for a U.S./Canadian transboundary spill on both border areas within their region of concern: the Alaska/British Columbia border and the British Columbia/Washington border. That Work Plan called for the Task Force to *convene a stakeholder workgroup to review U.S./Canadian transboundary spill response issues and capabilities and to develop recommendations for improvements*. The Task Force Coordinating Committee was tasked with developing a Scope of Work for the project.

The Oil Spill Task Force invited key stakeholders from Alaska, British Columbia, and Washington to meet in Lacey, Washington on June 11-12, 2008 to review that Scope of Work, get briefed on key background issues, and draft a Project Work Plan. Issues reviewed at the meeting included:

- The Canada/U.S. Joint Marine Pollution Contingency Plan (JCP), the CANUSDIX Annex to that plan which covers the Dixon Entrance border area between British Columbia and Alaska, and the CANUSPAC Annex which covers the British Columbia/Washington border area (the Canada/U.S. Joint Marine Pollution Contingency Plan and the CANUSPAC and CANUSDIX Annexes to the JCP can now be accessed on USCG Homeport: (<http://homeport.uscg.mil/mycg/portal/ep/home.do>); point and click on the Environmental block in the left hand column, then point and click on outreach programs in the left hand column, then click on Canada-United States Joint Marine Pollution Contingency Plan (JCP) and finally on the desired Annex in the supporting documents block to the right);
- Existing response systems and key agencies in both countries;
- Existing mutual aid agreements, both government and private sector; and
- The CANUSDIX Annex guidelines for wildlife and resource agency decision-making.

Summary notes of this June 2008 meeting are available at:

http://www.oilspilltaskforce.org/docs/June_2008_Workgroup_meeting_notes.pdf.

The Project Workgroup discussed how to organize the project, who to involve, topics to be addressed, and a project timeline. These aspects of the *Stakeholder Workgroup Review of Planning and Response Capabilities for a Marine Oil Spill on the U.S./Canadian transboundary areas of the Pacific Coast Project* were drafted into a Project Workplan, which the Project Workgroup reviewed and revised through a series of emails following the meeting. The final Project Work Plan was adopted on October 2, 2008. This Work Plan is Appendix II of this report; key aspects include the following:

Project Goal

To review and document existing U.S./Canadian transboundary oil spill response plans and capabilities for the British Columbia/Alaska and British Columbia/Washington borders, acknowledging existing authorities and response management systems; and to recommend improvements as needed for both joint response and planning efforts, as well as for planning and capacity building within each jurisdiction.

Project Organization

- Five Subcommittees were tasked to review assigned topics and develop reports: Command, Planning, Operations, Logistics, and Finance. Each Subcommittee was chaired by a Workgroup member, and Dave Byers of the Washington Department of Ecology serves as the Chair for the Project Workgroup as a whole.
- Workgroup members agreed to serve on one or more Subcommittees. Subject experts were also recruited to serve on the Subcommittees as well. The Project Workgroup would provide oversight and guidance for the project, including review of subcommittee work products.
- Subcommittees would convene by conference call and work by email in order to minimize travel needs. The Project Workgroup would also function largely by phone and conference call, although they agreed to meet in person two additional times.
- The Subcommittee reports were to be compiled into a First Draft Project Report for review/comment; a second draft would be developed by the Subcommittees based on those comments. After Workgroup review and revisions, a public comment draft would be widely circulated.
- The Project Workgroup and subcommittees would operate by consensus; failing consensus, a majority vote and a minority report would be allowed.
- The Pacific States/British Columbia Oil Spill Task Force Executive Coordinator will staff the Project Workgroup and the Subcommittees, as well as compile and edit the draft reports.

Project Deliverable

A final report documenting the status of current transboundary oil spill response planning, with recommendations for improvements as appropriate, will be provided to the federal, state, and provincial agencies and organizations responsible for marine oil spill planning and response for the CANUSDIX and CANUSPAC annex areas, as well as to key stakeholders in these areas and to the Members of the Pacific States/British Columbia Oil Spill Task Force.

Development and Organization of the Project Report

As noted above, the Project Work Plan chartered five subcommittees, each chaired by a Workgroup member. Subcommittee members included persons serving on the Project Workgroup as well as persons recruited for their subject expertise. Lists of each Subcommittee's members can be found on the final pages of each Subcommittee's section of this report.

Each Subcommittee convened by conference call in October, 2008 and reviewed the list of topics assigned by the Project Workgroup. In some cases they added more topics and in a few cases they referred some topics to other

Subcommittees. Various Subcommittee members volunteered as “leads” for each topic; working by email with other subcommittee members who volunteered by topic, they developed draft topic reports.

Each Subcommittee convened by conference call again in December, 2008 to review and comment on the draft reports. Each topic lead and his/her team then made revisions based on this feedback, and submitted the final draft to the Oil Spill Task Force Executive Director by late February. Some of the Subcommittees or topic groups had additional conference calls as needed during this period.

The Project Work Plan provided a format for the topic reports, to include:

- Summary Observations (brief statements of fact that may include identified problems or conflicts);
- Discussion (a fuller discussion of the facts and issues);
- Recommendations (as needed; these should be as specific and as feasible as possible); and
- Sources (documents referenced and persons contacted).

With so many persons involved in drafting so many topic reports, however, some variation exists as a function of tone, style, or approach. Nevertheless, different authors also bring different experiences and perspectives to bear and this report - as well as this project as a whole - have both benefited from that breadth of experience. It is also worth noting that – in spite of extensive editing – some redundancy of information exists among the topic papers and the report sections where it is needed for context, since each section and each paper must retain its own integrity.

Draft topic reports were edited and compiled into a First Draft report by the Oil Spill Task Force Executive Coordinator during March and April of 2009. The Project Subcommittee Chairs also reviewed and commented on the drafts during that time. U.S. and Canadian federal agencies were afforded an opportunity for review and comment during May and June. Revisions in the First Draft report, as well as the Project Timeline, were made in July based on their feedback. This Project Report then went through additional iterations of review and comment during 2009 and 2010 by the Project Workgroup, Subcommittee members, and reviewers invited to provide feedback and comment. Our goal for this extensive review process was to ensure that the information and analyses are correct. Following that process, U.S. and Canadian federal agency members of the CANUSPAC and CANUSDIX Joint Response Teams were invited to suggest recommendations for further action based on the final second drafts; none were submitted. The recommendations suggested by the authors of the original topic papers were then reviewed and amended by the Project Workgroup for inclusion into this Public Comment Draft. The Project Workgroup will adopt a final report reflecting public comments and their final consensus recommendations in 2011.

Stakeholders Involved

Members of the U.S./Canadian Transboundary Spill Planning and Response Project Workgroup are listed in Appendix III of this report. Twenty-four stakeholders are serving on the Project Workgroup. They represent the U.S. Fish and Wildlife Service (Alaska and Washington), the U.S. Department of the Interior’s Office of Environmental Policy and Compliance for the Alaska region, the Olympic Coast National Marine Sanctuary, the Makah Tribe Office of Marine Affairs, the British Columbia Chamber of Shipping, the Washington State Maritime Cooperative (WSMC), the Marine Spill Response Corporation (MSRC) for the Pacific/NW Region, the Western Canada Marine Response Corporation, the Bureau of Indian Affairs for the Alaska Region, the Pacific Region of the American Waterways Operators, O’Brien’s Oil Pollution Services, the SE Alaska Petroleum Resource Organization (SEAPRO), the National Response Corporation’s Environmental Services, ECM Maritime Services LLC, the Georgia Strait Alliance, BP Crises Management and Emergency Response, the Council of Marine Carriers in British Columbia, the Marine Exchange of Puget Sound, People for Puget Sound, NOAA’s Office of Response and Restoration and the Task Force member agencies in Alaska, British Columbia and Washington.

Subcommittee members are listed in each Subcommittee's section in this report. In addition to the Project Workgroup members, forty-three subject matter experts are also working on these Subcommittees; they represent NOAA's Assessment and Restoration Division, Western Canada Marine Response Corporation, SEAPRO, the Washington Department of Fish and Wildlife, the Makah Office of Marine Affairs, the 13th U.S. Coast Guard District, the Canadian Wildlife Service, the Canada Border Services Agency Pacific Region, U.S. Customs and Border Protection, attorneys from Vancouver, British Columbia and Seattle, Washington who represent various protection and indemnity (P&I) clubs, and the Task Force member agencies in Alaska, British Columbia and Washington.

Representatives of seventeen tribes in the border areas of Washington and Alaska, as well as five First Nations and Treaty governments in British Columbia have been invited to review and comment on the draft reports. Representatives of EPA Region 10, U.S. Coast Guard Headquarters, the Seattle Audubon Society and the Pacific Merchant Shipping Association have also been contacted for review and comment.

Representatives from the Canadian Coast Guard, the U.S. Coast Guard, Environment Canada and Transport Canada (who declined to participate as official members of the Project Workgroup since the final recommendations are likely to affect their agencies) have been afforded opportunities to review and comment on the iterative drafts of this report.

The Pacific States/British Columbia Oil Spill Task Force member agencies are both impressed and grateful that so many persons representing such a wide range of agencies, organizations, governments and interest groups have been involved in drafting, reviewing and commenting on this report. This level of commitment adds integrity to both this process and this product. It also underscores the value of the recommendations submitted with this Project Report; the Task Force will urge its member agencies – as well as other organizations to which these recommendations are directed – to give these recommendations serious consideration for action.

Project Authorization

The Pacific States/British Columbia Oil Spill Task Force and members of the Stakeholder Workgroup whom we are supporting in this review process take full responsibility for this report and its contents. Although the U.S. and Canadian Co-Chairs of the CANUSDIX and the CANUSPAC Joint Response Teams, as well as other JRT members, have been consulted during development of this report, this report was neither solicited nor authorized by these Joint Response Teams.

SECTION 1
REPORTS FROM THE COMMAND SUBCOMMITTEE

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SUMMARY OBSERVATIONS:

- Spill notification requirements are established at both the U.S. and Canadian federal levels as well as for Alaska, Washington and the Province of British Columbia. In accordance with the *U.S. National Oil and Hazardous Substance Pollution Contingency Plan*, the Federal OSCs are responsible for ensuring that trustees for natural resources are promptly notified of discharges or releases as well as for notifying Federally-recognized tribes that are affected or potentially-affected by a discharge or release.
- The Washington Department of Ecology notifies both local governments and Indian tribes when spills are likely to impact their areas. The Alaska Department of Environmental Conservation also provides local government and tribal notification when spills have the potential of impacting their areas. The Province of British Columbia will notify appropriate local governments and First Nations based on the location and specifics of the incident.
- The *CANUSDIX Wildlife Response Guidelines* and the *CANUSDIX Guidelines for Resource Agency Input to Places of Refuge, Dispersant Use, and In-Situ Burning Decision-Making* include information on, and procedures for, notifications of appropriate British Columbia- and Alaska-based Federal, Provincial, and State of Alaska agency representatives when the CANUSDIX Annex is invoked.
- Section 401 of the Canada – U.S. Joint Marine Pollution Contingency Plan (JCP) provides for notification scenarios triggered by an incident in “contiguous waters.”
- Notification scenarios described in the CANUSDIX and CANUSPAC Annexes are more specific than the JCP, and also differ from each other somewhat.
- Insofar as these Notification/Activation sections, as well as the definitions of “contiguous waters,” represent policy or procedure, they are not likely to need to be maintained. However, the contact names and phone numbers in the annexes do require maintenance.
- A review of the after-action reports for recent CANUSDIX exercises and the lessons-learned reports from recent CANUSPAC exercises does not indicate that notifications/activation issues were consistently drilled.

DISCUSSION:

SPILL NOTIFICATIONS

United States (NW Area Contingency Plan and Federal Law)

All spills of oil or hazardous substances into navigable water as defined by the Clean Water Act and all spills of a reportable quantity of hazardous substances must be immediately reported by the spiller to the National Response Center (NRC). The NRC will contact the appropriate local U.S. Coast Guard (USCG) or U.S. Environmental Protection Agency (EPA) office. Notifying state offices does not relieve the spiller from federal requirements to notify the NRC nor vice versa. The NRC’s number is 1-800-424-8802.

Washington (NW Area Contingency Plan and Washington Law)

All spills of oil into Washington State waters must be immediately reported to the Washington State Emergency Management Division (WEMD). The WEMD’s number is 1-800-258-5990. For spills of hazardous substances of any amount, the spiller is also required to notify the nearest Washington State Department of Ecology regional office.

Alaska (Alaska Regional Response Team Unified Plan, Federal and Alaska Law)

Any release of oil to water or a hazardous substance must be reported as soon as the spiller has knowledge of the discharge. The notification is made to both the National Response Center (1-800-424-8802) and the nearest Area Response Team during working hours or to the 24-hour reporting number during non-working hours (1-800-478-9300). Area response teams are located in Anchorage, Fairbanks and Juneau. In addition, the Unified Plan

outlines notification requirements and emergency contact information for “Primary Response Agencies,” State and Federal Natural Resource Trustees, and Federally-recognized tribes.

British Columbia

Provincial law requires a person who had possession, charge or control of a substance immediately before it is spill to immediately report the spill to the Provincial Emergency Program by telephoning 1-800-663-3456 or 1-800-OILS-911. A report to the Canadian Coast Guard must also be made to 1-800-889-8852. For inland spills, Transport Canada must be notified at 606-666-6012 or 604-666-5300. Transport Canada has to be notified for any ship source spill (pollution or threat of pollution) in waters under Canadian Jurisdiction and not only for Inland Spills.

West Coast States Pollution Reporting

The Pacific States/U.S. Oil Spill Task Force and Pacific Oil Spill Prevention Education Team together maintain a number for reporting oil spills in British Columbia, Washington, Oregon, and California; this system is an easy to remember number provided primarily for recreational boaters and other non-regulated sectors. By dialing 1-800-OILS-911, the caller is linked to the appropriate state or provincial emergency dispatch service based on the source location of the call.

Other Reporting Systems

The *CANUSDIX Wildlife Response Guidelines* includes information on, and procedures for, notifications of appropriate British Columbia- and Alaska-based Federal, Provincial, and State of Alaska wildlife resource agency representatives when the CANUSDIX Annex is invoked. Likewise, the *CANUSDIX Guidelines for Resource Agency Input to Places of Refuge, Dispersant Use, and In-Situ Burning Decision-Making* includes information on, and procedures for, notification of appropriate British Columbia- and Alaska-based Federal, Provincial, and State of Alaska resource agency representatives when the CANUSDIX Annex is invoked and requests are made to resource agency representatives for input to places of refuge, in-situ burning, and/or dispersant use decision-making.

In Washington State, the Department of Ecology notifies local governments by contacting the county emergency management agency for spills of oil and hazardous substances to surface waters exceeding 25 gallons (95 liters). State law does not mandate this notification. Counties are responsible for notifying the appropriate individual jurisdictions within their borders. Although the USCG has the formal responsibility for notifying Indian tribes under the *National Oil and Hazardous Substances Pollution Contingency Plan*, Ecology regularly notifies Indian tribes when spills occur within their reservation or when spills impact tribal usual and accustomed treaty areas.

In Alaska, in accordance with the *National Oil and Hazardous Substance Pollution Contingency Plan*, the Federal OSCs are responsible for ensuring that trustees for natural resources are promptly notified of discharges or releases. In addition, Federal On-Scene Coordinators (OSCs) are responsible on behalf of the U.S. Government for notifying Federally-recognized tribes that are affected or potentially-affected by a discharge or release, including those that occur on the Alaska side of the CANUSDIX transboundary area. The State of Alaska has no formal mandated requirements to notify local governments or Alaska Native Corporations, but the Alaska Department of Environmental Conservation does provide local government and tribal notification when spills have the potential of impacting their areas. In addition, Alaska routinely sends situation reports to local and tribal entities as the response situation develops.

The Province of British Columbia will notify appropriate local governments and First Nations based on the location and specifics of the incident. The Ministry of Environment will also ensure that other provincial agencies are notified as required. A one-window reporting structure is being implemented between the province and Environment Canada that will funnel all federal notifications (those required to be made to Environment Canada only) through the province’s Provincial Emergency Program’s 1-800 number. The Ministry of Environment will

also notify the federal department of Indian and Northern Affairs if there is the potential for First Nations to be impacted.

JOINT CONTINGENCY PLAN AND ANNEX ACTIVATION and NOTIFICATION

Section 401 of the Canada – United States Joint Marine Pollution Contingency Plan (JCP) provides for two notification scenarios:

- 401.1: “Each party will promptly report to the other any harmful substance incident in its contiguous waters,” according to procedures outlined in the geographic annex; and
- 401.2: If an incident only affects the waters of one party, the OSC will inform the other party about the response.

Activation of the JCP is triggered by this notification, and is defined in the CANUSPAC and CANUSDIX Annexes as follows:

- CANUSPAC, Section VII, Notification Procedures: *The CCG Assistant Commissioner or the USCG District Commander or their designated representatives may invoke the plan in the event of a release, and /or threat of, a harmful substance.*
- CANUSDIX, Section 701, Activation of the Plan: *The CCG Assistant Commissioner or the District Commander 17th Coast Guard District, or their designated representative, may activate by agreement the JCP and the CANUSDIX Annex. The JCP and CANUSDIX Annex shall be activated only by formal initiation. This will normally be done by telephone followed by activation message or letter sent via email or fax.*

Activation is triggered by an incident in “contiguous waters.” This term is generally defined in Section 104 of the JCP for each Annex area. The relevant contiguous waters are more specifically defined in the CANUSPAC Annex (Section II, Area of Coverage) and in the CANUSDIX Annex (Section 200, Area of Coverage).

Notification scenarios described in the CANUSDIX and CANUSPAC Annexes are more specific than the JCP, and also differ from each other somewhat, as follows:

- The activation of the CANUSPAC Annex will occur when:
 - *The harmful substance incident originates within one nation’s (Canada or United States) area of responsibility and threatens the area of responsibility of the other nation. (i.e., likely impacts to adjacent waters)*
 - *The harmful substance threat originates within one nation’s (Canada or United States) area of responsibility and where a significant threat exists of the pollutant spreading into the area of responsibility of the other nation. (i.e., potential impacts to adjacent waters)*

For notification of a Canadian Representative by the United States:
Contact CCG Environmental Response at the 24 hour MCTS centre in Vancouver: Ph. # (604) 666-6012, Fax # (604) 666-8453

For notification of the United States Representative by Canada:
Contact USCG Thirteenth District Planning Division at the 24 hour Coordination Center in Seattle: Ph. # (206) 220-7001, Fax # (206) 220-7009
- The activation of the CANUSDIX Annex will occur when:
 - *A pollution incident originates within the area of responsibility of one Party and is accompanied by a threat of the pollutant spreading into the area of responsibility of the other Party, or where the spreading has already occurred. (i.e., existing or likely impacts to adjacent waters)*
 - *A pollution incident occurs where no pollutants have spread or threaten to spread into both areas of responsibility, but the magnitude of the incident, or other factors, makes a joint response desirable. (i.e., mutual aid)*

- *A pollution incident originates outside the areas of responsibility of both Parties and results in a threat to the spread of the pollutant into the area of responsibility of both parties. (i.e., potential impacts from outside of adjacent waters)*

For notification of a Canadian Representative by the United States:

Contact CCG Environmental Response at the 24 hour MCTS numbers: Ph. # (250)627-3074, Fax# (250) 624-2465

For notification of a United States Representative by Canada:

Contact USCG Seventeenth District Command Center: Ph. # (907) 463-2000, Fax # (907) 463-2023

Insofar as these Notification/Activation sections, as well as the definitions of “contiguous waters,” represent policy or procedure, they are not likely to need to be maintained. However, the contact names and phone numbers in the CANUSPAC Annex (Section VII) and in the CANUSDIX Annex (Section 700) do require maintenance.

EXERCISES OR LESSONS LEARNED

Although notifications are part of Area Exercises which take place every three years in both Alaska and Washington through the USCG NPREP program, a review of the after-action reports for the CANUSDIX exercises of 2002, 2003, 2004, and 2007 does not indicate that notifications/activation issues were drilled for these transboundary exercises. Similarly, a review of the lessons-learned reports from the CANUSPAC exercises of 2000, 2006, 2007, and 2008 does not indicate that notifications/activation issues were drilled. Activation of the JCP Annex is probably assumed in the drill scenario.

RECOMMENDATIONS:

1. Insofar as the CANUSDIX activation scenarios are more comprehensive (e.g, consideration of other factors and pollution origins beyond both areas of concern), the CANUSPAC Joint Response Team (JRT) should consider these as a model for revisions to Section VII.
2. Both the CANUSDIX and CANUSPAC JRTs should consider drilling the notification procedures for each of the various scenarios provided for in their annex as well as notifications to other agencies and organizations involved in any drill, documenting all lessons learned and recommending improvements to the annexes as warranted.
3. Updated contact information for spill notifications should be maintained regularly in both the CANUSDIX and CANUSPAC annexes.

SOURCES:

- The Canada-United States Joint Marine Pollution Contingency Plan (JCP); available at <http://homeport.uscg.mil/mycg/portal/ep/home.do> (Click on “Environmental” and then on “International programs” under “Outreach”)
- The CANUSPAC Annex to the JCP, available at <http://homeport.uscg.mil/mycg/portal/ep/home.do>
- The CANUSDIX Annex to the JCP, available at <http://homeport.uscg.mil/mycg/portal/ep/home.do>
- Northwest Area Contingency Plan – <http://www.rtt10nwac.com/NWACP/Default.aspx>
- Washington State Law, RCW 90.56.280 Duty to notify coast guard and division of emergency management of discharge.
- Alaska State Law, AS 46.03.775 and 18 AAC 75.300-.307, Oil and other hazardous substances pollution control, Discharge or release notification; reporting requirements.
- British Columbia Law, Environmental Management Act, Spill Reporting Regulations, http://www.qp.gov.bc.ca/statreg/reg/E/EnvMgmt/263_90.htm

SUMMARY OBSERVATIONS:

- According to the Canada-United States Joint Marine Pollution Contingency Plan, “responses to harmful substance incidents will be carried out under the provisions and procedures of each Party’s national response system.” The Canadian Coast Guard uses the Response Management System and the U.S. Coast Guard uses the Incident Command System (NIMS ICS).
- NIMS ICS is required by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). NIMS ICS provides for an emergency response management structure that includes Command, Operations, Planning, Logistics, and Finance functions.
- In the U.S., a Unified Command is composed of the Federal (U.S. Coast Guard or EPA) On-Scene Coordinator (OSC), the affected State’s OSC, affected tribal government(s), if any, and the Responsible Party (RP). Every attempt is made to achieve consensus among the Unified Command members, but if there is a disagreement, the Federal On-Scene Coordinator (FOSC) has the final say. This does not relieve the Responsible Party (RP) from their obligation to respond and to pay for the response; it simply lets the FOSC dictate final terms and directions within the response.
- The USCG is responsible for responding to oil spills that affect navigable waters of the United States. Numerous other federal and state agencies in the U.S. also have responsibilities during an oil spill response.
- The State of Alaska’s Department of Environmental Conservation has responsibility for managing the response to oil spills on land, on non-navigable and navigable internal waters, and on marine waters within three miles of the shoreline.
- The Washington State Department of Ecology has the responsibility to manage cleanup of coastal and inland spills of oil and hazardous substances within 3 miles of shoreline and to the Canada/U.S. international boundary of the Strait of Juan de Fuca.
- Any spill in the CANUSDIX area is likely to involve the Southeast Alaska Petroleum Resource Organization (SEAPRO) as an oil spill response organization. SEAPRO uses the NIMS ICS system is also familiar with the RMS system based on participation in CANUSDIX drills. The USCG District 17 also has Basic Ordering Agreements with several commercial cleanup companies in Southeast Alaska that can be activated depending on the scenario; all are familiar with ICS. In the CANUSPAC area there are several spill response organizations including the Marine Spill Response Corporation (MSRC) and the National Response Corporation (NRC).
- Most Canadian organizations subscribe to ICS at some level; it forms the basis for the British Columbia Emergency Response Management System (BCERMS) and the Canadian Federal Emergency Response Management System (FERMS) which integrates the Government of Canada’s response to emergencies. There is also a CSA (Canadian Standards Association) standard (CAN/CSA-Z731-03 (R2009)) on emergency response planning that mandates ICS for Canadian Industry. Since about 1992, the *BC Guideline for Industrial Emergency Planning* has recommended the use of ICS.
- The Response Management System (RMS) is used by the Canadian Coast Guard (CCG) in all monitoring/response operations to incidents and exercises. RMS establishes two possible authorities for the CCG: Federal Monitoring Officer or On-Scene Commander.
- The policy of the Canadian government is to place the expectation for pollution preparedness and response activities on the polluter. The Canadian Coast Guard will monitor the polluter’s response to a pollution incident to ensure that the response is immediate and effective; to this end, the CCG will designate a Federal Monitoring Officer.
- If the polluter is unknown, unwilling or unable to take on the duties of the On-scene Commander, or has reached his limits of liability and declines to continue the management of the response, the Canadian Coast Guard will assume the management of the pollution incident as the On-Scene Commander (OSC).
- The RMS organizational structure is based upon a network of subordinate sections, also known as the Response Management Team (RMT) under the On-Scene Commander (OSC), or the Incident Monitoring Team

(IMT) under the Federal Monitoring Officer (FMO). The Incident Monitoring Team under the FMO includes both Advisory Staff and Monitoring Staff. The Response Management Team consists of an Advisory Staff to the OSC and a Response Staff.

- It is probable that the Canadian Coast Guard would only assume the On-Scene Commander role during a transboundary spill.
- The Canadian Coast Guard's National Response Plan defines the roles and responsibilities of the Canadian Coast Guard and various government and industry agencies and outlines the operational framework through which a response would be conducted. The National Response Plan also covers the Canadian Coast Guard's liaison relationships, the National Response Team System, the Coast Guard's Response Management Structure and how the CCG would respond as a resource agency when other agencies are designated as lead agencies.
- In British Columbia, the Ministry of Environment will have a presence at all spills impacting Provincial lands, and will be the lead agency when it is a land-source spill from Provincial lands. The Province of British Columbia uses ICS and the British Columbia Emergency Response Management System (site support level) for all emergencies affecting the province.
- Environment Canada (EC) is the lead for oil spills originating from the land under their jurisdiction (i.e. First Nations, Federal Parks, etc). For marine spills, Environment Canada is recognized by the Canadian Coast Guard as the federal authority for environmental advice during a pollution incident, working through the Regional Environmental Emergency Team (REET) which it co-chairs with the Province.
- Section 2 of Public Safety Canada's Federal Emergency Response Plan (December 2009) describes the Federal Emergency Response Management System (FERMS) as a comprehensive management system which integrates the Government of Canada's response to emergencies which is based on the tenets of the Incident Command System and the Treasury Board Secretariat's Integrated Risk Management Framework; Environment Canada and other Canadian agencies are able to operate according to FERMS as well as the RMS system used by the Canadian Coast Guard.
- A number of other Canadian agencies or jurisdictions may be involved in a response, including the National Energy Board of Canada, Transport Canada Ship Safety, Transport Canada Marine Security, the Canadian Wildlife Service, Indian and Northern Affairs Canada and First Nations themselves.
- The Western Canada Marine Response Corporation (WCMRC) is the only Transport Canada-certified Response Organization (RO) for the Pacific Coast of Canada. WCMRC offers standard spill response services (i.e. containment, recovery, etc.) as well as response management services (i.e., partial or full ICS Response Management Teams as required).
- The Response Management System (RMS) is ICS- based in that it uses a similar organizational model and similar terminology. However, there are some significant differences. For instance, RMS does not:
 - Subscribe to the concept of Unified Command, although the CCG will work closely with all involved stakeholders and First Nations;
 - Follow the Planning "P," although it does have a similar planning process; or
 - Form a Joint Information Center, although the CCG will work with and support Public Affairs.
- Although there are a number of distinctions between the U.S. and Canadian models for response, the primary difference lies in the Command structure. Under the ICS system, the Responsible Party (RP) will be in a Unified Command with the Federal On-Scene Coordinator (OSC), plus affected state and tribal OSCs. Under the RMS system, the RP may be the Incident Commander (IC), with the Canadian Coast Guard serving as a Federal Monitoring Officer. As a result, an RP's IC could have the final say in Canadian waters, whereas the USCG's FOSC would have the final say in U.S. waters.
- The Canadian Coast Guard uses two different sets of forms at a spill depending on the situation. The U.S. Coast Guard, Alaska, and Washington will use standard ICS forms. The Province of British Columbia uses their British Columbia Emergency Response Management System (BCERMS), which is ICS-based. While documentation tools may have different names, they are essentially producing the same information. What

may be more of an issue is that the RMS operational period and meeting schedules are not consistent with ICS planning periods which are both documented by and generate ICS forms.

- Under the ICS paradigm, the Environmental Unit Leader does not directly advise the command staff as the REET chairs do in the RMS system.
- Coordination on decisions such as wildlife rescue and care, use of alternative technologies, or Places of Refuge is not specifically addressed in the Canada-United States Joint Marine Pollution Contingency Plan. The *CANUSDIX Wildlife Response Guidelines* and the *CANUSDIX Guidelines for Resource Agency Input to Places of Refuge, Dispersant Use, and In-Situ Burning Decision-Making* provide information on, and procedures for, coordination among British Columbia- and Alaska-based Federal, Provincial, and State of Alaska resource agency representatives when the CANUSDIX Annex is invoked. Another model for transboundary coordination of environmental decision-making worth consideration is use of the Joint Environmental Team as described in Appendix K of the CANUSLANT Annex.
- Canada's Commissioner of the Environment and Sustainable Development recommended in 2010 that the Canadian Coast Guard review the differences between the Response Management System and Incident Command System, assess whether these differences could affect a multi-party response to a major spill and address significant differences, if any.
- According to the Canada-United States Joint Marine Pollution Contingency Plan (JCP), an "issue in dispute" should first be referred to the CCG On-scene Commander and/or the USCG On-Scene Coordinator. The JCP describes the protocol to refer an issue which cannot be resolved by the two OSCs to the Joint Response Team (JRT). "Issue Resolution" as a topic is not addressed in either the CANUSPAC or CANUSDIX annexes.
- The role of Liaison Officers is addressed in all three documents. Noting the need for close cooperation between the Canadian and U.S. OSCs, the JCP authorizes each to request and appoint "a representative from the other Party to participate as a liaison officer to facilitate the flow of information and support direct communications" between the two OSCs. The Annexes elaborate by describing the knowledge and experience which a Liaison should have.
- Although not addressed in the Joint Marine Pollution Contingency Plan, both the CANUSPAC and CANUSDIX Annexes discuss three types of response actions which would need to be coordinated between the U.S. and Canadian OSCs: Coordinated Action, Joint Response Actions, and Separate Response Actions.
- The lead agencies in a transboundary spill derive their authority from their own jurisdictions; this basic fact makes it difficult to establish one joint Command Center. The legal and logistical challenges to operating outside of one's home jurisdiction would be especially challenging if the response was an extended one. On the other hand, the use of separate command posts will potentially raise the cost of response by requiring the responsible party (RP) to staff two command posts. An RP would be in the position of having two entities to satisfy, one on each side of the border, and differences in the amount of spilled oil on the respective sides of the border, its movement, shoreline types and natural resources at risk will almost guarantee that the responses will not be identical.
- The Joint Contingency Plan does not address how a transboundary spill response would function if it were escalated to the level of a Spill of National Significance in the U.S. or the equivalent status in Canada. The levels of coordination which would be required would be increased considerably.

DISCUSSION:

Coordination between the Incident Command System and the Response Management System

According to Section 203 "Organizational Concepts" of the Canada-United States Joint Marine Pollution Contingency Plan, "The Incident Command System or the Response Management System for managing response activities will be utilized as referred to in the Geographic Annexes to this plan." "Responses to harmful substance incidents will be carried out under the provisions and procedures of each Party's national response system."

According to the CANUSPAC Annex, the operational structure for the Canadian Coast Guard will be the Response Management System as outlined in Section 4 of the Canadian Coast Guard Marine Spills Contingency Plan –

National Chapter. The operational structure for the U.S. is described in the Northwest Area Contingency Plan, Section 2100, “Command” (i.e., the Incident Command System).

According to the CANUSDIX Annex, Section 600, Operational Structure, the Canadian Coast Guard will refer to the Response Management System as outlined in Section 4 of the Canadian Coast Guard Marine Spills Contingency Plan, and the U.S. response will refer to the Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases (Unified Plan), Annex B.

THE INCIDENT COMMAND SYSTEM IN THE UNITED STATES

The Incident Command System (ICS) is a system designed for emergency response and management that has evolved since the early 1970’s. Originally developed to deal with wildfires in southern California, it has been expanded and refined into a more comprehensive response management system.

The United States Coast Guard, all state governments and many tribal governments use the National Incident Management System (NIMS) ICS when responding to oil pollution incidents. As noted on the Federal Emergency Management Agency (FEMA)’s NIMS Resource Center website, “NIMS works hand in hand with the [National Response Framework \(NRF\)](#). The NIMS paradigm provides the template for the management of incidents, while the NRF provides the structure and mechanisms for national-level policy for incident management.” NIMS ICS guidance is generated from the NIMS Resource Center. The National Response Team issues planning guidance covering such topics as Volunteer Management, Places of Refuge Decision-Making, or the Joint Information Center; this guidance is then applied and customized in local Area Plans.

NIMS ICS is required by The National Oil and Hazardous Substances Pollution Contingency Plan (NCP). NIMS ICS provides for an emergency response management structure that includes Command, Operations, Planning, Logistics, and Finance functions. It describes the roles and duties of staff of each of these functional sections, establishes regular planning cycles for development of daily Incident Action Plans and provides for regular reports and meetings to support planning and operations. It also establishes the format for required reports.

At a large fire that covers numerous jurisdictions those in command join together to coordinate their actions and reach a consensus on response objectives and priorities. As it has evolved then, the purpose of a Unified Command (UC) is to develop consensus among the UC members. UC also establishes response objectives which will guide response actions. Additionally, potential problems are brought before the UC and discussed; in the vast majority of cases an agreement on modifying a response to meet the concerns of Federally-recognized tribes and stakeholders are met.

In the U.S., the Unified Command is composed of the Federal (U.S. Coast Guard or EPA) On-Scene Coordinator (OSC), the affected State’s OSC, affected tribal government(s) (if any) and the Responsible Party (RP). The States of Alaska and Washington have authority for managing the waters between the shoreline and the three-mile line or the original territorial sea line. Tribal governments in Washington State have a role in management of the waters throughout all of their Usual and Accustomed (U&A) fishing grounds and stations. The number of tribal governments represented in the Unified Command depends on the spill location and which tribal governments have Usual and Accustomed (U&A) grounds and stations in the area. Because the U&A of tribal governments can overlap, more than one tribal government could have an On-Scene Coordinator representative.

Since the FOSC, the SOSC and the Tribal On-Scene Coordinators have major roles in any potential response, the Unified Command system thus avoids having an RP serving several different agencies during a response. Every attempt is made to achieve consensus, but if there is a disagreement, the Federal On-Scene Coordinator (FOSC) has the final say. This does not relieve the Responsible Party (RP) from their obligation to respond and to pay for the response; it simply lets the FOSC dictate final terms and directions within the response.

The oil spill response organization established by NIMS ICS also provides for a Command Staff consisting of an Information Officer, a Liaison Officer and a Safety Officer. The Safety Officer's job is to develop and recommend measures for ensuring the safety of response personnel. The Public Information Officer (PIO)'s role is to develop and release information about the incident to the news media, incident personnel, and other appropriate agencies and organizations. The PIO is expected to work with the Joint Information Center (JIC); see the topic paper "Media Coordination between Command Posts" in this section.

It is the role of the Liaison Officer to coordinate with representatives of state and local governments, Federally-recognized tribes and key stakeholders; please see the topic paper "Integrating State, Provincial, Local Government, Landowner, and Tribal interests in Command Posts" later in this Section. The Liaison Officer is also expected to coordinate with the Natural Resource Damage Assessment (NRDA) activities which typically occur concurrently with the spill response; see the topic paper "Natural Resource Damage Assessments" in this Section.

UNITED STATES COAST GUARD (USCG) RESPONSIBILITIES

The USCG is responsible for responding to oil spills that affect navigable waters of the United States, whether marine or inland, e.g. the Yukon River; where the oil spill originates is not an issue. Their responsibilities include salvage, environmental protection, vessel safety, waste management, public and responder safety, and numerous other areas of a spill response. As a federal agency, the USCG has a trust responsibility to affected Indian tribal governments.

STATE OF ALASKA RESPONSIBILITIES

The State of Alaska's Department of Environmental Conservation (ADEC), Spill Prevention and Response has responsibility for managing the response to oil spills on land, on non-navigable and navigable internal waters, and on marine waters within three miles of the shoreline. ADEC is responsible for the overall management of an incident including response activities, waste management, public and responder safety, and protection of property and the environment. ADEC also partners with other state and federal agencies during a response. ADEC has also been authorized by the Alaska Legislature to assume responsibility for the spill response if the RP is unable or unwilling to meet the state's response objectives.

STATE OF WASHINGTON RESPONSIBILITIES

The Washington State Department of Ecology (Ecology) Spill Prevention, Preparedness and Response Program has the responsibility to manage the cleanup of coastal and inland spills of oil and hazardous substances within 3 miles of shoreline and to the Canada/U.S. international boundary of the Strait of Juan de Fuca. Ecology is the pre-designated State On-Scene Coordinator by state law and is responsible to represent all state interests. The Washington State Legislature has also delegated authority to the Department of Ecology to assume responsibility for the spill response if the RP is unable or unwilling to meet the state's response objectives.

OTHER U.S. AGENCIES:

Numerous other agencies in the U.S., both federal and state, have responsibilities during an oil spill response. Examples include:

- The U.S. Department of the Interior, including:
 - The Office of Environmental Policy and Compliance (e.g., overall DOI contact and lead U.S. resource agency contact for the *CANUSDIX Wildlife Response Guidelines* and *CANUSDIX Guidelines for Resource Agency Input to Places of Refuge, In-Situ Burning, and Dispersant Use Decision-Making*)
 - The Fish and Wildlife Service (e.g., migratory birds, sea otters, and national wildlife refuges)
 - The Bureau of Indian Affairs (e.g., Native allotments);
- The National Oceanographic and Atmospheric Administration (Scientific support and NRDA);
- The Alaska Department of Natural Resources (Ocean and Coastal Management);

- The Alaska Department of Fish and Game (fisheries resources and wildlife);
- The Alaska Department of Environmental Conservation's Division of Air, Division of Water, and Division of Environmental Health;
- Tribal Departments of Natural Resources, Police, and Historic Preservation; and
- The Washington State Departments of Fish and Wildlife, Natural Resources, Health, Parks, Archaeology and Historic Preservation.

The input of the natural resource trustees to the OSCs is critical to planning the cleanup of an oil pollution incident, since one of the primary goals is to protect the environment and help ensure that injuries to natural resources are minimized or avoided.

RESPONSE ORGANIZATIONS

In Southeast Alaska there is one USCG-certified Oil Spill Response Organization (OSRO): the Southeast Alaska Petroleum Resource Organization (SEAPRO), based in Ketchikan. SEAPRO is a cooperative of member companies but can be contracted by the USCG for non-member responses. Any spill in the CANUSDIX area is likely to involve SEAPRO as a prime resource, although the USCG District 17 also has Basic Ordering Agreements with several commercial cleanup companies in Southeast Alaska that can be activated depending on the scenario. SEAPRO uses the NIMS ICS system, but is familiar with the RMS system through CANUSDIX drills.

In the CANUSPAC area there are several spill response organizations, including the National Response Corporation, Environmental Services (NRCES) and the Marine Spill Response Corporation (MSRC), which are the primary on-water dedicated spill response organizations for Washington. Washington also has several other capable commercial response companies that provide spill response support, including on-water oil spill containment and recovery and oiled beach cleanup. The USCG can contract with MSRC and the Washington State Department of Ecology has existing contracts with MSRC and all other OSROs in Washington State. NRCES is the primary OSRO serving the Washington State Maritime Cooperative, which is the mandated entity that must be called out in response to the majority of marine related incidents involving ships over 300 GT.

THE RESPONSE MANAGEMENT SYSTEM IN CANADA

Most Canadian organizations subscribe to ICS at some level. It forms the basis for the British Columbia Emergency Response Management System (BCERMS) and the Canadian Federal Emergency Response Management System (FERMS) that integrates the Government of Canada's response to emergencies. There is also a CSA (Canadian Standards Association) standard (CAN/CSA-Z731-03 (R2009) on emergency response planning that mandates ICS for Canadian Industry. In fact, the Canadian Coast Guard's Response Management System (RMS) is ICS-based and uses an ICS-type structure.

According to the Canadian Coast Guard's Environmental Response web page, "The Canadian Coast Guard Response Management System has been designed to aid Environmental Response personnel monitor or respond to marine pollution incidents or other natural or manmade disasters. It has been accepted as the management system used by the Canadian Coast Guard in all monitoring/response operations to incidents and exercises. The Response Management System is an organization that provides the necessary coordination to facilitate effective and efficient monitoring or response operations to an incident. It is based upon a structure with clear lines of authority and an appropriate span of control, facilitated by common terminology. The RMS is based upon a "management by objectives" philosophy where objectives are established based upon the needs of the circumstances. This embedded philosophy allows for the use of this system in virtually any situation requiring a response, regardless of severity."

The policy of the Canadian government is to place the expectation for pollution preparedness and response activities on the polluter. Therefore, the Canadian Coast Guard endeavors to place the onus of response on the polluter, particularly with regard to implementation of the arrangement required with a certified response

organization. The Canadian Coast Guard will monitor the polluter's response to a pollution incident to ensure the response is immediate and effective.

When a pollution incident occurs, the first response of the Canadian Coast Guard under the RMS system is to appoint a Federal Monitoring Officer. The Federal Monitoring Officer will normally be from the Regional Environmental Response Branch or someone appointed by the Regional Superintendent, Rescue, Safety and Environmental Response.

The Federal Monitoring Officer will first determine whether the polluter will take on the responsibilities of the On-scene Commander. If the polluter is unknown, unwilling or unable to take on the duties of the On-scene Commander or has reached his limits of liability and declines to continue the management of the response, the Canadian Coast Guard will assume the management of the pollution incident as the On-Scene Commander (OSC). If the polluter accepts responsibility for managing the incident, the polluter will identify its On-scene Commander to the Canadian Coast Guard. The Canadian Coast Guard Federal Monitoring Officer will provide advice/guidance to the On-scene Commander as necessary. If the polluter is unwilling or unable to respond to the satisfaction of the Federal Monitoring Officer, the Canadian Coast Guard will assume the management of the response as the On-scene Commander. In those circumstances, the Canadian Coast Guard will inform the polluter of its intention in writing.

The appointed OSC assumes the overall management of the incident. The steps taken in this stage are:

- Initiation of the first Planning Cycle
- Revision of the initial objectives
- Development of the first formal IAP
- Transition to Project Phase

The RMS organizational structure is based upon a network of subordinate sections, also known as the Response Management Team (RMT) under the On-Scene Commander (OSC), or the Incident Monitoring Team (IMT) under the Federal Monitoring Officer (FMO). The RMS under the FMO serves 2 different functions: 1) monitoring of the polluter's response operations and assigning tasks to the Incident Monitoring Team (IMT) to monitor the conduct of those operations; and 2) identifying resources required by the IMT to facilitate their monitoring role. The FMO uses the same RMS process used by the OSC to establish issues and identify and execute mission objectives, although the mission objectives in this case refer to the monitoring tasks. The FMO uses the Planning Cycle to develop monitoring Incident Action Plans. The Operational Period is the timeframe the monitoring IAP is implemented for.

The Incident Monitoring Team under the FMO includes both Advisory Staff and Monitoring Staff. The Advisory Staff includes a Communications Officer, a Health and Safety Officer, the Regional Environmental Emergency Team (REET), a Legal Officer, and a Liaison Officer. The Monitoring Staff are organized around Planning, Operations, Logistics and Finance functions.

There may be a need during the response for the use of public services and resources to augment the polluter's response efforts. This may be at the request of the polluter's On-scene Commander. When such a request is made by the polluter's On-scene Commander, the Federal Monitoring Officer shall make a determination as to whether or not it is in the best interest of the public to use public sector services or/and resources to augment the polluter's response. When deemed necessary by the Federal Monitoring Officer, the Canadian Coast Guard may deploy its response equipment to assist the polluter's response. Additionally, it may be necessary and reasonable to deploy equipment to contain the spill in the following circumstances:

- in the initial stages of the incident;
- in the public's interest; and/or

- Until the polluter's contracted resources are deployed.

Once the polluter is able to carry out operations, the Canadian Coast Guard may begin to stand down their operations and equipment.

In the event that the CCG assumes management of the response, the FMO becomes the On-Scene Commander (OSC). When this occurs, funding for the continuation of the response would be recovered from the Ship-source Oil Pollution Fund (SOPF), which would seek reimbursement from the Polluter.

During a CCG-led response, the RMS structure consists of an Advisory Staff to the OSC and a Response Staff. The members of the Advisory staff are the same as for a FMO (Communications, Health and Safety, Legal, REET, and Liaison). The Response staff sections are Planning, Operations, Logistics, and Finance; through these functions, the Response Staff execute and support the mission objectives of the Incident Action Plan, provide all necessary resources and account for all response costs.

It is probable that the Canadian Coast Guard would only assume the On-Scene Commander role during a transboundary spill. According to the Joint Marine Pollution Contingency Plan (JCP), Section 202.5, "The On-scene Commander, CCG and the On-scene Coordinator, USCG, in accordance with their respective national response systems and this JCP, are tasked with ensuring that a timely and appropriate response is undertaken to a discharge." The role of the CCG as OSC in a transboundary spill is further underscored in Section VI of the CANUSPAC annex and Section 601 of the CANUSDIX Annex; identical language in both annexes states "In all cases where the Canada-U.S. JCP is activated, the CCG will assume the OSC in Canadian waters."

THE CANADIAN COAST GUARD RESPONSIBILITIES

The Canadian Coast Guard's National Response Plan is developed with the intention of responding to marine spill incidents in waters of Canadian interest. The plan defines the roles and responsibilities of the Canadian Coast Guard (when responding to a marine spill incident as the lead agency or when it supports another agency leading the response), plus other various government and industry agencies, and outlines the operational framework through which a response would be conducted.

The Environmental Response Branch of the Canadian Coast Guard is the custodian of the Canadian Coast Guard National Response Plan. The National Response Plan covers the Canadian Coast Guard's liaison relationships, the National Response Team System, the Coast Guard's Response Management Structure (see above), and how the CCG would respond as a resource agency when other agencies are designated as lead agencies. The plan is divided into the following three sections:

- The National Response Plan, which establishes the Canadian Coast Guard policy for the conduct and the procedure for monitoring a polluter-led response or responding to a marine pollution incident for which is lead agency or where it supports another agency leading the response;
- The Regional Response Plan, that corresponds to the Canadian Coast Guard regional geographic areas of responsibility and which translates policy direction into operational measures appropriate to the geographic area; and
- The Area Response Plan; these are local level plans pursuant to the Regional Contingency Chapter.

The National Response Team is comprised of Canadian Coast Guard Headquarters and Regional personnel who are knowledgeable and trained to monitor, manage or assist in responses to pollution incidents. Within the Environmental Response Branch of the Canadian Coast Guard there is a cadre of personnel from both Headquarters and the Regions that make up the bulk of the National Response Team.

THE PROVINCE OF BRITISH COLUMBIA'S RESPONSIBILITIES

Provincial and territorial governments, through their various agencies and departments, have legislative mandates and expertise that can contribute to the overall response and are included in Regional Response Plans. In British

Columbia, the Ministry of Environment will have a presence at all spills impacting or threatening Provincial lands and will be the lead Provincial agency. For spills from federal lands, pipeline leaks, or ship-source spills that affect the Province, the Ministry will have a lead individual working in a Unified Command and/or in a senior management advisory team.

The Province of British Columbia uses ICS and the British Columbia Emergency Response Management System (BCERMS) for all emergencies affecting the province. BCERMS is a comprehensive management system based upon the Incident Command System (ICS) that ensures a coordinated and organized response and recovery to all emergency incidents and disasters. It provides the framework for a standardized emergency response in British Columbia.

The Province's legislation enables the Ministry to take over the response to a spill if it deems that the Responsible Party (RP) is not managing an appropriate response. For significant spills, the Province may choose to enter Unified Command with the RP in order to augment their response efforts and ensure that provincial economic, social and environmental interests are protected. The Province also has the option of issuing a legal "order" to force the RP to comply with the Province's directions, so the Province does not necessarily have to exercise their option to take over the response or portions of it. This does not relieve the Responsible Party from their obligations to respond and pay.

ENVIRONMENT CANADA RESPONSIBILITIES

Environment Canada (EC) is the lead for oil spills originating from the land under their jurisdiction (i.e. First Nations, Federal Parks, etc), except when a spill is from an inter-provincial pipeline; then the National Energy Board is the lead federal agency. It is unlikely, however, that a land spill from these locations will be large enough to warrant an international response. For marine spills, Environment Canada is recognized by the Canadian Coast Guard as the federal authority for environmental advice during a pollution incident, working through the Regional Environmental Emergency Team (REET), which it co-chairs the with the Province.

The Co-Chairs of the REET sit on the Advisory staff of the OSC and provide consolidated environmental advice during the course of response operations. Such information may include weather forecasts and information on the physical operating environment, spill movement and trajectory forecasts, and the REET would need to approve the use of spill treating agents and cleanup techniques.

The Co-chairs of the REET will review and provide advice to the OSC on the daily Incident Action Plan. In addition, the co-chairs or their designees also work with the Response Planning Officer to ensure all environmental issues are considered during a response.

Environment Canada is currently reviewing how the REET can best interface with ICS and most specifically, with the Environmental Unit within the Planning Section.

OTHER CANADIAN AGENCIES

There may be a number of other Canadian agencies which could be involved in a response, such as:

- The National Energy Board of Canada, which is the lead federal agency for spills from inter-provincial pipelines;
- Transport Canada Marine Safety, which is responsible for the salvage of a stranded vessel, investigations, and ship safety issues as well as for the Marine Transportation Security Act (ISPS Code in Canada);
- The Canadian Wildlife Service, which participates through Environment Canada;
- Indian and Northern Affairs Canada, which supports First Nations when their lands or territories are impacted; and

- First Nations themselves, which are a recognized level of government in Canada and therefore may participate in Unified Command if the incident directly affects reserve lands. Canadian courts have decided that First Nations must be consulted when their lands or territories are affected.

In general, these agencies will either have command and control over their jurisdictional responsibilities, or will support another agency with recognized standing in the response organization. Using the examples above for instance,

- Transport Canada Marine Safety (TCMS) has final decision-making authority over all aspects of the vessel salvage. Where there is an associated oil spill they will coordinate their efforts with the OSC (either the Polluter or the Canadian Coast Guard) and with the Operations Section.
- Transport Canada Marine Security has final decision-making authority over all aspects of marine security and will coordinate their response with the OSC (Polluter or CCG).
- The Canada Wildlife Service (CWS) has legislative authority over migratory birds for example, but will work as a support to Environment Canada, coordinating through the REET.

RESPONSE ORGANIZATIONS

The Western Canada Marine Response Corporation (WCMRC) is the only Transport Canada-certified Response Organization (RO) for the Pacific Coast of Canada. As such, it is very likely that WCMRC will be directly involved in any major spill – especially international spills originating in Canada.

WCMRC uses a NIMS-based ICS system and is fully capable of linking with and forming a Joint Command Center with their U.S. OSRO counterparts. They are highly trained and adaptable to most circumstances. Because Canadian law says the Polluter is in charge, WCMRC offers both standard spill response services (i.e. containment, recovery, etc.) as well as response management services (i.e., partial or full ICS Response Management Teams as required).

The Western Canada Spill Response Corporation is certified by Transport Canada for a spill of up to 10,000 tonnes, but they have a mutual aid agreement with the Eastern Canada Response Corp (ECRC) to supplement support. If the spill is larger than 10,000 tonnes WCMRC would respond and bring in additional equipment as needed. It should be noted, however, that the certified Response Organizations in Canada are not required to provide services for a vessel casualty itself (such as salvage, cargo removal, etc.)

BRITISH COLUMBIA INDUSTRY

Provincial legislation pertaining to industry response planning includes the [Environmental Management Act](#) and [Emergency Program Act](#) and regulations adopted pursuant to these laws. Under Section 12 of the Environmental Management Act the Minister of Environment may order a person having charge of a polluting substance to prepare a response (contingency) plan in accordance with the Minister's directions. Such a plan should be based on standards for emergency planning, including:

- BC Guidelines for Industry Emergency Response Plans:
<http://www.env.gov.bc.ca/eemp/resources/guidelines/bc.htm>;
- The international Incident Command System (ICS) as per the standard for site (Command Post) level of the [B.C. Emergency Response Management System \(BCERMS\)](#)

RMS/ICS DIFFERENCES

THE RESPONSE MANAGEMENT PARADIGMS

The Canadian Response Management System (RMS) is ICS- based in that it uses a similar organization and terminology. However, RMS does not:

- Subscribe to the Unified Command, although the CCG will work closely with all involved stakeholders and First Nations;
- Follow the Planning “P,” although it but does have a similar planning process; or
- Form a Joint Information Center, although the CCG will work with and support the Public Affairs process in consultation with others.

The comparison below is taken from Table 14 in the paper “Major Marine Vessel Casualty Risk and Response Preparedness in British Columbia,” prepared by EnviroEmerg Consulting for Living Oceans Society in July 2008. It highlights some of the differences between the Response Management System and standard ICS.

	International/Provincial Incident Command System (ICS)	Canadian Coast Guard’s Response Management System (RMS)
Organizational/Terminology	Staff that report to Commander are called “command staff” and referred to as “officers”	The RMS uses several different names such as “Communications” instead of “Information Officer”
	ICS uses sections, branches, units, divisions and groups with defined names.	RMS uses the five functional aspects of ICS: command, operations, planning logistics, and finance, but does not use the ICS hierarchy or nomenclature under those functions.
Response Management Integration	Integration is via Unified Command with other jurisdictions and the Responsible Party, as well as integrating positions within a single industry/government Incident Management Team	“Advisory Staff” and “Monitoring Staff” do not integrate per se with a RP managed team, but shadow and record performance. Other stakeholders – including jurisdictions and First Nations – are accommodated by the REET.
	ICS uses “divisions” to demarcate operational areas	RMS uses “zones”
	ICS uses “strike teams” and “task forces” to define operational working relationships	RMS does not use strike teams/task forces to manage tactical resources
	ICS uses specific color coding for functions that are internationally recognized – such a green vest for Incident Commander or blue for planning section personnel	RMS uses different vest colors than used by those agencies/companies that employ ICS

While there are a number of distinctions between the U.S. and Canadian models for response, the primary difference lies in the Command structure. Under the ICS system, the Responsible Party (RP) will be in a Unified Command with the Federal On-Scene Coordinator (OSC), plus affected state and tribal OSCs.

Section 4.2 of the CCG’s National Contingency Plan states “The Canadian Coast Guard has adopted certain sections of the U.S. [NIMS ICS] as the response system to be used in all incidents covered by the [Contingency Plan], as well as the Regional Contingency Chapters and Area Contingency Chapters. However, in keeping with the lead/resource agency system, the Coast Guard will not subscribe to the use of the Unified Command within its incident management system. The Canadian Coast Guard will respond to all incidents within its mandate to which a polluter is known, first as the Federal Monitoring Officer, and then, if the polluter is unable or unwilling to respond, as the On-scene Commander.”

Therefore, under the RMS system, the Polluter may be the Incident Commander, with the Canadian Coast Guard serving as a Federal Monitoring Officer. In Canada the Incident Commander of the Organization/Agency paying for the response has the final say, regardless of whether they are a government agency or private corporation, so a Transboundary Response could see the Polluter’s Incident Commander having the final say in Canadian waters, while the USCG’S FOSC would have the final say in U.S. waters (if consensus could not be achieved in Unified Command). As noted earlier in this paper, it is not clear whether the Canadian Coast Guard would assume the

Federal Monitoring Officer or the On-Scene Commander role during a transboundary spill; language in the Joint Contingency Plan and in both the CANUSDIX and CANUSPAC annexes suggests that the CCG would assume the OSC role for a transboundary spill.

In his 2010 Fall Report to the House of Commons, Scott Vaughan, Canada's Commissioner of the Environment and Sustainable Development, noted in Chapter 1, "Oil Spills from Ships" that "Using a common system for emergencies contributes to standard response and operational procedures and a reduced potential for miscommunication when responding to incidents. Inconsistent use may be a concern in the event of a major ship-source spill where resources are shared among regions. The Canadian Coast Guard, certified response organizations and other federal entities in Canada and the United States use response systems that are based on the Incident Command System....The Canadian Coast Guard's system is called the Response Management System. Concerns have been raised by some stakeholders that the Response Management System could affect coordination of a response to a major spill that requires a multi-party response."

The Commissioner's Report goes on to recommend that "The Canadian Coast Guard should review the differences between the Response Management System and Incident Command System, assess whether these differences could affect a multi-party response to a major spill and address significant differences, if any.." The Canadian Coast Guard's response was: "Agreed; the Canadian Coast Guard will endeavour to identify the differences between the Response Management System and Incident Command System. This will include whether these differences could affect a multi-party response to a major spill."

According to their agreement with the Commissioner's recommendation, a consultant has been hired by the Canadian Coast Guard to conduct a review of the differences between the Incident Command System (ICS) and their Response Management System (RMS). The consultant has been in contact with various federal and provincial agencies and other stakeholders to gather their input and views on ICS versus RMS and the implications for marine spill response.

SPILL MANAGEMENT FORMS/DOCUMENTATION

The Canadian Coast Guard uses two different sets of forms at a spill depending on the situation. When a Polluter is taking action the CCG uses the Federal Monitoring Officer forms. If there is no known Polluter, or a Polluter refuses to take action, the On-Scene Coordinator forms are utilized. In the Incident Command System the same forms are used for any response situation, expanding as the size of the response organization grows to match the magnitude of the response.

The U.S. Coast Guard, Alaska and Washington will use standard ICS forms. The Province of British Columbia uses their U.S. Emergency Response Management System (BCERMS). U.S. ERMS uses the same forms as NIMS- ICS with minor modifications to name jurisdictions correctly – e.g. State IC to Provincial IC.

While documentation tools may have different names, they are essentially producing the same information, such as status, maps, resources, etc. For instance, RMS does not use ICS forms such as 201, 204, etc. They do use "Next Operational Period Plans" and "Mission Statement" forms which are analogous. What may be more of an issue is that the RMS operational period and meeting schedules are not consistent with ICS planning periods which are both documented by and generate ICS forms.

The 2006 CANUSPAC Exercise report identifies the lack of consistent 204 work assignments on the Canadian side of the border as an issue.

The CANUSLANT 2007 after-action report noted there were problems with ordering resources across the border. The report stated "RMS and ICS forms were incompatible for cross-border resource ordering requests."

In a 2008 exercise CANUSPAC noted some issues with the use of forms, especially as it related to work assignments and communications issues.

Consistency of information is essential to an effective response. This can be achieved through uniform documentation or bridging documents.

U.S./CANADIAN COORDINATION ON ENVIRONMENTAL DECISIONS

The input of the natural resource trustees to the OSC, whether the CCG or the federal and state OSC's on the U.S. side of the border, is critical to planning a pollution response, since one of the primary goals is to protect the environment and help ensure that injuries to natural resources are minimized or avoided. The method of input appears to differ between Canada and the U.S.

As noted previously, the RMS system uses a Regional Environmental Emergency Team (REET), which is co-chaired by Environment Canada and the Province of British Columbia as represented by the Ministry of Environment. The REET is made up of all regulatory and advisory bodies from government and industry. The Chairmen of the REET sits on the Advisory staff of the OSC and provides advice and guidance to the OSC. The Chair of the REET or a designee works with the Response Planning Officer to ensure all environmental issues are considered during a response.

The Environmental Unit used in the ICS system – which includes representatives of regulatory personnel and natural resource trustees, industry representatives and advisory personnel – is part of the Planning Section. The unit is responsible for identifying environmental priorities, developing various plans for response activities, SCAT teams, obtaining required permits, etc. Following the ICS protocol to the letter, the Environmental Unit Leader (EUL) does not directly advise the command staff as the REET chairs do in the RMS system; instead, the Environmental Unit Leader reports to a Planning Section Chief who reports to and receives direction from the UC. In many instances, however, the EUL and staff have good access to the Unified Command.

Coordination on environmental decisions such as wildlife rescue and care, use of alternative technologies, or Places of Refuge is not specifically addressed in the Canada-United States Joint Marine Pollution Contingency Plan, although Section 503.2 states that “Non-mechanical measures not specified in a Geographic Annex may be used by agreement between the CCG On-scene Commander and USCG On-scene Coordinator or with concurrence of the appropriate authority of the other Party, as specified in that Party’s national response system.”

In the CANUSPAC annex, Section XI.C, Sensitive Environments Plan, it is noted that the Regional Environmental Emergencies Team (REET) will provide all environmental sensitivity information in Canada. In British Columbia it is the Province that has done the coastal resource and oil sensitivity mapping, so Provincial representatives would be the primary source for this data. The NOAA SSC will coordinate environmental sensitivity information, using the Area Plan and resource personnel from U.S. Fish and Wildlife, NOAA Fisheries, Washington Fish and Wildlife, and “other local knowledge sources.” Section 1103 of the CANUSDIX Annex makes a similar statement for SE Alaska.

The *CANUSDIX Wildlife Response Guidelines* provide information on, and procedures for, coordination among British Columbia- and Alaska-based Federal, Provincial, and State of Alaska wildlife resource agency representatives when the CANUSDIX Annex is invoked. Likewise, the *CANUSDIX Guidelines for Resource Agency Input to Places of Refuge, Dispersant Use, and In-Situ Burning Decision-Making* includes information on, and procedures for coordination among the appropriate British Columbia- and Alaska-based Federal, Provincial, and State of Alaska resource agency representatives when the CANUSDIX Annex is invoked and requests are made to

resource agency representatives for input to places of refuge, in-situ burning, and/or dispersant use decision-making.

Another model worth consideration is the Joint Environmental Team (JET) described in Appendix K of the CANUSLANT Annex. Appendix K states that “Due to the challenges of coordinating scientific, environmental and regulatory functions during an international spill, a separate ICS/RMS section (called the Joint Environmental Team) will be formed that will report directly to the Unified Command. This separate section provides for an uninterrupted governmental chain-of-command, a necessary component for many of the Canadian environmental regulatory agencies.”

“Despite the independence of the JES, it will coordinate and collaborate closely with the Operations and Planning Sections of the ICS/RMS, acting as a technical resource to both, as well as the Unified Command. The JES will help design strategies within the Planning Section, as well as adjust tactical approaches by the Operations Section in order to improve the response outcome. The JES will be jointly led by the NOAA Scientific Support Coordinator and the Chair of the Regional Environmental Emergencies Team (REET) or their designees.”

“The JES will consist of 2 primary entities, the U.S. Environmental Unit (including the NOAA Scientific Support Team) and the Canadian Atlantic Regional Environmental Emergencies Team (REET). Coordination and information flow between countries within the JES will be the responsibility of the co-chairs. Either co-chair will direct the efforts of the JES as they affect the established International Response Zone (IRZ). Activities that affect individual countries, outside the defined IRZ, will be directed by the co-chair of that country, or as determined by the lead federal official for the respective country.”

The JES will have four standing units: Fate and Behavior, Habitat Protection, Fish and Wildlife, and Data Management. As needed, joint U.S./Canadian task forces may be formed from within the JES in order to address specific command issues such as in-situ burning and dispersant use. Such task forces will be staffed based on the objectives of the task and the skills of the JES personnel available. These task forces may be temporarily assigned, by the JES leaders, to other sections or units of the command.

EXISTING MECHANISMS TO RESOLVE DIFFERENCES

According to Section 405 “Issue Resolution” of the Canada-United States Joint Marine Pollution Contingency Plan (JCP), an “issue in dispute” should first be referred to the CCG On-scene Commander and/or the USCG On-Scene Coordinator. It is not clear from this statement how that would play out if the CCG is in the Federal Monitoring Officer role. Nor is it stated how the USCG OSC would involve the Unified Command in this process.

Section 405 then notes the protocol to refer an issue which cannot be resolved by the two OSCs to the CCG Regional Director and the USCG District Commander, i.e., the chairs of the Joint Response Team (JRT). The role of other agency members of the JRT is not addressed.

“Issue Resolution” as a topic is not addressed in either the CANUSPAC or CANUSDIX annexes. However, the role of Liaison Officers is addressed in all three documents. Section 401 of the JCP, noting the need for close cooperation between the Canadian and U.S. OSCs, authorizes each to request and appoint “a representative from the other Party to participate as a liaison officer to facilitate the flow of information and support direct communications” between the two OSCs.

Section 604 of the CANUSDIX Annex and Section VI.D of the CANUSPAC Annex elaborate by stating that “Such a representative shall be someone with the following knowledge and experience in: Spill Management, Contingency Planning, Pollution Response Equipment, the Joint Contingency Plan, and Coast Guard and Industry Response

Capabilities.” It further states that “Liaison officers shall have immediate access to and speak for their own Coast Guard On-Scene Commander or Coordinator.”

It may be worth supplementing the Liaison Officers with additional Situation Unit staff whose purpose would be to ensure both command posts have up-to-the minute information on the status of the response as well as the response assets being deployed. Spill response incident management software and web-based tools, e.g. WebEOC, could also be a means to provide this situational awareness during the dynamic response.

As a consequence of the independent nature of the management of a cross border spill when two command posts are established, the single RP/Polluter would be in the position of having to satisfy multiple agencies on each side of the border. Ideally the RP would have consistent and uniform demands placed on them regarding the appropriate level of response needed. However, differences in the amount of spilled oil on the respective sides of the border, its movement, shoreline types and natural resources at risk will almost guarantee that the responses will not be identical. The Liaison Officers placed in the respective command posts would be in the ideal positions to provide good inter-command post communication in this regard. Such communication will help ensure that the RP understands and can best meet the expectations of each Coast Guard.

Response Action Levels

Although not addressed in the Joint Marine Pollution Contingency Plan, both the CANUSPAC and CANUSDIX Annexes discuss three types of response actions which would need to be coordinated between the U.S. and Canadian OSCs. These are described as follows:

- Coordinated actions will involve activities that are enhanced by involvement and input of both parties. Examples may be logistic activities near the border such as: beach cleanup, waste disposal, Shoreline Cleanup Assessment Team (SCAT) process, and salvage operations.
- Joint response actions are those that can best be completed by both parties sharing limited resources and expertise. Examples of joint operations may include: initial over-flights, wildlife protection, personnel support, securing of source, establishment of on-scene communications, open water skimming, and public affairs.
- Separate response actions will involve those activities that are required or permitted in one country but not the other. Examples may include In-situ burning or shoreline cleaning well away from the border.

Joint or Dual Command Posts

The lead agencies in a transboundary spill derive their authority from their own jurisdictions (i.e., the Canadian Coast Guard has authority in Canada and the U.S. Coast Guard has authority in the U.S.). This basic fact makes it difficult to establish one joint Command Center. The States of Alaska and Washington are even more constrained in its ability to operate in a joint command post in another country; the State On-Scene Coordinators (SOSCs) would most likely be prohibited from joining a command post that is established out of country. In addition, support services are established in the home jurisdiction. The legal and logistical challenges to operating outside of one's home jurisdiction would be especially challenging if the response was an extended one.

On the other hand, the use of separate command posts will potentially raise the cost of response by requiring the responsible party (RP) to staff two command posts. The extra costs associated with two command posts could result in the RP reaching their limits of liability sooner than they would with just one command post; however, such costs will be minimal compared with other response costs. Moreover, the RP/Polluter is responsible for determining where an Incident Command Post is located.

The question of a single versus dual command posts has been raised at both drills and spills. The CANUSLANT and CANUSDIX Joint Response Teams have conducted drills using a single command post while CANUSPAC has an agreement that separate command posts will be used. In Appendix D of the report from the 2007 CANUSLANT

Workshop, the strengths and weaknesses of one Incident Command Post (ICP) versus dual ICPs was evaluated for a number of scenarios. (These strengths and weaknesses, as well as proposed solutions, can be found in the Attachment to this Command section.)

It was noted by Scott Lundgren of USCG District One that, although the spring 2007 CANUSLANT Workshop favored a single joint command, “a fall 2007 exercise...gave us pause.” The CANUSLANT workgroup was scheduled to address this issue in November 2008 and a decision-making flowchart regarding the joint/dual command decisions was a possible outcome. Lundgren also noted that a “single command may be beneficial in tactically intensive operations where joint decisions are required with major repercussions on each side (e.g., salvage, lightering, significant on water removal/dispersants, etc.).” Another alternative for the management of a trans-boundary spill would be the adoption of the principle of Area Command as outlined (typically at the ICS 400 level) as part of the Incident Command System. The current Joint Response Team structure appears to have similarities with the concept of Area Command and the Area Command “model” may provide mechanisms to coordinate management of a transboundary spill.

A Spill of National Significance

The recent Deepwater Horizon oil spill in the Gulf of Mexico was declared to be a Spill of National Significance by the President of the United States. A Spill of National Significance (SONS) is defined as, “a spill that, due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and clean up the discharge” and allows greater federal involvement.

According to the National Response Framework, a Principal Federal Official is designated, as well as a National Incident Commander who is supported by the National Response Team. Multiple Incident Command Posts (ICPs) may be established to meet the response needs over a broad geographic area. These ICPs are supported by a Unified Area Command (UAC) which coordinates with the Regional Response Team, and one Federal On-Scene Coordinator will operate out of this UAC. It is a very complex organizational structure that has seldom been road-tested, in spite of triennial Spill of National Significance exercises run by the U.S. Coast Guard. It is very likely that experience gained from this extraordinary spill incident in the Gulf of Mexico will drive changes and revisions, or at least clarifications to this policy.

Section 3 of the Canadian Coast Guard’s National Response Plan describes the National Response Team System and how it would work to support the work of the CCG’s FMO or OSC. It does not address an equivalent organizational system to deal with a “Spill of National Significance.” In his 2010 Fall Report to the House of Commons, Scott Vaughan, Canada’s Commissioner of the Environment and Sustainable Development, noted in Chapter 1, “Oil Spills from Ships” that the Coast Guard conducted a table-top exercise in March 2010 designed to test its ability to respond to a major oil spill of national significance. This exercise involved headquarters as well as selected regional staff and identified important lessons learned, including the Agency’s lack of a response model and related procedures for responding to a major oil spill.

The Joint Contingency Plan does not address how a transboundary spill response would function if it were escalated to the level of a Spill of National Significance. The levels of coordination which would be required would be increased considerably.

RECOMMENDATIONS:

1. The CANUSPAC and CANUSDIX Joint Response Teams (JRTs) should consider establishing a joint working group to review all coordination issues related to separate command posts (including review of the work done by the CANUSLANT JRT) and should consider adopting consistent policies for both annex areas, since having one standard in the region would enhance planning and promote more efficient use of resources.

2. Regardless of which Incident Management System is in place, there are a number of roles and responsibilities that are consistent on both sides of the border. The following role linkages should be considered, discussed and formalized by the working group recommended above, if deemed appropriate:

Command:

The two Command Centers and the Incident Commanders or On-Scene Coordinators should coordinate their planning processes and schedules as well as their response activities to the extent that it improves the response. Tools for coordinating their response might include regular teleconference meetings using standard agenda templates, secure full time communications links (Commander to Commander) and response software, plus uniform templates for Incident Action Plans. A transboundary spill response should also utilize multiple liaison officers in order to represent the other command post as well as stakeholders, First Nations and Federally-recognized tribes.

Command Staff:

- Health and Safety on each side of the border should be linked but should operate independently. Both jurisdictions have different legislation that will need to be addressed. Responders traveling in the trans-border areas or who are working in the other Command Center will need to be briefed and equipped by those responsible in the specific jurisdiction. Systems and procedures should be in place to accommodate this.
- Security on each side of the border should be integrated (also see security paper later in this section)
- Public Affairs/Communications need to be linked to coordinate key messages but should operate independently. While it is important that the two Command Centers are in agreement with messages and that they do not contradict each other, it is also important that the Command Centers are seen as independent. (also see media coordination paper later in this section)

General Staff:

- Operations on each side of the border should be linked but should operate independently. Each Operations Section should be familiar with the other's documentation and response systems. They should have Operational Liaison Officers supporting each other and should consult on overall tactics to improve response efficiency.
- Planning on each side of the border should be linked but should operate independently. Each Planning Section should be familiar with the other's documentation and response systems. They should have Planning Liaison Officers supporting each of the various Planning Section disciplines (as needed) (i.e. SCAT, Environmental Unit, Next Operational Period Plan development, response etc).
- Logistics on each side of the border should be linked and should operate jointly. While each Logistics section will need to support and supply their own response, it is critical that response resources are deployed where they are needed, regardless of which side of the border they are on.
- Finance on each side of the border should be linked. Issues like costing and limits of liability will need to be coordinated and discussed. Up-to-date response estimates should be frequently shared. For some aspects of the response (i.e. cost recovery from the RP/Insurer, or funds) each Finance Section will need to operate independently. (Also see the Finance Section of this Project Report)

3. The CANUSPAC and CANUSDIX Joint Response Teams (JRTs) should consider establishing a Joint Working Group on Forms and Documentation Procedures. This Working Group should survey the British Columbia Provincial response agencies, Environment Canada, Transport Canada, Washington and Alaska state response agencies, the two U.S. Regional Response Teams, response organizations, and others participating in

transboundary exercises to determine whether any conflicts have been noted with the use of RMS and ICS forms and what solutions were developed, if any. As Canada is party to both JRTs, it would be most efficient to have one standard for both borders, so this Joint Working Group on Forms and Documentation Procedures should develop recommendations for both the CANUSPAC and the CANUSDIX JRTs, if any are needed.

4. In considering the results of their survey, the Joint Working Group on Forms and Documentation Procedures should consider establishing a formal process and timetable to be adhered to by both Command Centers during a response. This would include:
 - A standard meeting schedule (between the USCG/CCG and others in command) with specific documentation requirements;
 - A process to align information required by the RMS and ICS forms; and
 - A process to ensure familiarity with both types of forms for those working in the Incident Command Posts.
5. Potential RPs should anticipate the need to have representation in both the U.S. and Canadian command posts during a transboundary response, and should be familiar with the differences in their roles on either side of the border, i.e., as the Incident Commander in Canada and as the RP's Incident Commander as part of a Unified Command in the United States.
6. Recognizing that in a transboundary spill response the ICPs will be staffed and run by the RP and its response organization according to their spill response plans, the shipping industry and oil handling facilities near the Transboundary borders and the response organizations serving these areas should address issues identified in this Project Report, such as:
 - Recognizing the differences between the U.S. and Canadian approaches and capabilities to manage an oil spill; and
 - Developing an industry-based position and policy on such matters as using the Incident Command System, endorsing Unified Command, integration of Incident Management Teams, and identifying locations for Incident Command Posts.

SOURCES:

- CANUSLANT 2007 Exercise Report (<http://www.uscg.mil/D1/response/jrt/reports.html>)
- CANUSDIX Exercise Reports (<http://www.akrrt.org/reports.shtml>)
- CANUSPAC 2008 Exercise Report (available in PDF format)
- EnviroEmerg Consulting Services Inc., Major Marine Vessel Casualty Risk and Response Preparedness in British Columbia. July 2008 Prepared for Living Oceans Society:
http://www.livingoceans.org/files/PDF/energy/LOS_marine_vessels_report.pdf
- Scott Lundgren of U.S. Coast Guard District One, email 10/24/08
- Canadian Coast Guard National Response Plan - http://www.ccg-gcc.gc.ca/eng/ccg/er_National_Response_Plan
- Canadian Coast Guard- RMS Guide Book – http://www.ccg-gcc.gc.ca/eng/CCG/ER_Response_Mgmt_System
- Northwest Area Contingency Plan – <http://www.rtt10nwac.com/NWACP/Default.aspx>
- 2003- Firestorm Report (BC Government), - <http://www.2003firestorm.gov.bc.ca/firestormreport/default.htm>
- Joint Response Team Operational Reports- Exercises 2006 -2008 –
<http://www.uscg.mil/d1/response/jrt/reports.html>
- FEMA'S NIMS Resource Center website: <http://www.fema.gov/emergency/nrf/>
- The Canada-United States Joint Marine Pollution Contingency Plan (JCP); available at
<http://homeport.uscg.mil/mycg/portal/ep/home.do> (Click on "Environmental" and then on "International programs" under "Outreach")
- The CANUSPAC Annex to the JCP, available at <http://homeport.uscg.mil/mycg/portal/ep/home.do>

- The CANUSDIX Annex to the JCP, available at <http://homeport.uscg.mil/mycg/portal/ep/home.do>
- The British Columbia Provincial Emergency Program's page on the British Columbia Emergency Response Management System (BCERMS): <http://www.pep.bc.ca/bcerms/bcerms.html>
- The British Columbia Ministry of Environment's "Guidelines for Industry Emergency Response Plans": <http://www.env.gov.bc.ca/eemp/resources/guidelines/bc.htm>
- Public Safety Canada's Federal Emergency Response Plan (December 2009): <http://www.publicsafety.gc.ca/prg/em/ferp-eng.aspx>
- The Canadian Commissioner of the Environment and Sustainable Development's 2010 Fall Report to the House of Commons: http://www.oag-bvg.gc.ca/internet/English/parl_cesd_201012_e_34435.html

TOPIC: TRANSBOUNDARY COORDINATION DURING A DECISION TO TAKE OVER SPILL MANAGEMENT FROM A RESPONSIBLE PARTY

SUMMARY OBSERVATIONS:

- Both the United States and Canadian philosophies are similar in that the “Responsible Party” (RP) is held responsible for conducting and funding the oil spill response and clean up.
- There are differences in the command structure and the role of the RP under the U.S. and Canadian systems. Under NIMS ICS system used in the U.S., the RP is part of a Unified Command (UC). In the Canadian Response Management System, the RP is designated as the On-Scene Commander, while the Canadian Coast Guard (CCG) assumes the title of Federal Monitoring Officer (FMO); in this paradigm, the RP as OSC manages the response and the CCG provides advice/guidance when necessary.
- If the RP is not managing the response to the satisfaction of the USCG FOSC and other UC members, or if the RP decides to discontinue managing the response (which may occur if they reach their limit of liability), the USCG may take over the management of the response.
- There are no precise or exacting criteria regarding when an RP is or is not properly managing the response; the decision to take over the response is left to the judgment of the respective CG official in charge.
- When the USCG takes over responsibility of the response, funding is provided by the Oil Spill Liability Trust Fund (OSLTF). The OSLTF may later pursue the RP for the costs incurred for the response.
- The States of Alaska and Washington also have authority to assume control of all or a portion of the spill response, and both states have dedicated cleanup funds from which to finance response actions, similar to the USCG’s OSLTF. This would be done in close coordination with the USCG to ensure a smooth transition of response resources.
- The Northwest Area Contingency Plan Responsible Party Policy provides guidance to responsible parties and outlines the requirement for a Full and Rapid Response. This policy states that if a responsible party fails to respond in a manner consistent with this guidance, the FOSC or SOSC may assume the lead for a portion of or the entire spill.
- The Canadian Coast Guard will monitor the Responsible Party and will regularly ask the RP to address certain issues. Only if the RP refuses to or is unable to comply with these requests would the CCG consider taking over.
- Since the RP in a transboundary spill will be the same in both Command Centers, any decision to take over the spill response by either the U.S. FOSC/Unified Command or the Canadian Coast Guard Federal Monitoring Officer would need to be closely coordinated between the two commands.
- The issue of the assumption of the management of the spill response by the Coast Guard has not been tested or drilled during cross border exercises.

DISCUSSION:

There is no specific reference to a “Responsible Party” in the Joint Contingency Plan (JCP) or the CANUSPAC and CANUSDIX annexes, although each document refers to the U.S. and Canadian national response systems, and both systems establish by law that the “Responsible Party” (RP) is responsible for conducting and funding the oil spill response and clean up. Section 201.1 of the JCP notes that “Response to discharges of harmful substance incidents in Canada and the United States is predicated on the principle of the use, to the greatest extent possible, of private sector resources augmented by public resources as necessary.” The term “Polluter” as used in Canada is synonymous with the term “Responsible Party” as used in the U.S.

As noted in the preceding paper, in the U.S., federal, state, local, and tribal governments and the RP will come together in the ICS system to manage the response. While it is true the FOSC has “51% of the vote,” the system is designed to maximize collaboration and resource sharing, and also to avoid dictatorial practices and conflict that could possibly occur during a response. This system is also designed to eliminate, as much as possible, the taking

over of an incident response by the FOSC, or in some instances by the State On-Scene Coordinator (SOSC). If the RP is not managing the response to the satisfaction of the USCG FOSC, or if the RP decides to discontinue managing the response (which may occur if they reach their limit of liability), the USCG may take over the management of the response. The SOSC and TOSC(s), as part of the Unified Command, provide input into the determination as to whether the RP is conducting a proper response. When the USCG takes over responsibility of the response, funding is provided by the Oil Spill Liability Trust Fund (OSLTF). The OSLTF may later pursue the RP for the costs incurred for the response. Partial assumption by the FOSC or state is also possible. In any of these cases, the RP may continue to function as a member of Unified Command. It should also be noted that an RP in the U.S. would probably make every effort to prevent a “take over” since under OPA 90 s/he would be penalized at a rate of three times the response costs associated with the Federal Government directed and/or authorized response efforts. This is a significant factor in doing whatever is directed.

In the case of a marine spill in Canada, the Canadian Coast Guard (CCG) will monitor the Polluter and only take over the response if the Polluter is not responding adequately. The CCG will regularly ask the RP to address certain issues. Only if the RP refuses to or is unable to comply with these requests would the CCG consider the taking over of an incident.

Both response management systems place the ultimate responsibility on their respective Coast Guard (CG) officials to ensure a proper response is conducted by the Polluter/RP. There are no precise or exacting criteria regarding when an RP is or is not properly managing the response; the decision to take over the response is left to the judgment of the respective CG official in charge. The assumption of the management of the response is not trivial and would be done only after consultation between the Coast Guard and the Polluter/RP. Thus both systems encourage communication and coordination between the Coast Guard and the Polluter/RP. This affords ample opportunity to provide the RP with guidance, feedback and even direction on how best to manage the response and meet the expectations of the respective Coast Guards, as well as the SOSC and TOSC(s) in the case of the U.S. Therefore, should it reach the point when either Coast Guard assumes management of the spill response, it will only happen after extensive discussions during which the RP has been afforded the opportunity to meet these expectations.

Independent from USCG authority, the States of Alaska and Washington also have authority to assume control of all or a portion of the spill response. Both states have dedicated cleanup funds from which to finance response actions, similar to the USCG’s OSLTF. This would be done in close coordination with the FOSC in order to ensure a smooth transition of response resources. Additionally, Unified Command would still function to ensure that the RP was informed and could provide input to response actions.

The Northwest Area Contingency Plan Responsible Party Policy provides some guidance to responsible parties and outlines the requirement for a Full and Rapid Response. This policy states that if a responsible party fails to respond in a manner consistent with this guidance, the FOSC or SOSC may assume the lead for a portion of or the entire spill.

British Columbia’s Environmental Management Act provides the Ministry of Environment with the power to order the responsible party to undertake spill response actions to address their spill or may initiate any necessary response actions it deems necessary address the spill and ensure public safety and the environment are protected. The powers of the Ministry to order actions by the spiller or initiate actions on its own are outlined in Part 7 of the Environmental Management Act.

There are questions to be answered regarding coordination of these authorities, however. For instance, what happens if the FOSC is satisfied with the RP’s response, but the state government is not, or vice versa? Similarly, what happens in Canada if the Polluter is meeting the requirements of the Canadian Coast Guard’s FMO but the

Province is not satisfied? What happens if the Province issues a “Legal order” which conflicts with a Polluter-led response that is acceptable to the CCG-FMO?

A potentially difficult situation could also arise when the Polluter/RP is conducting a proper response on one side of the border to the satisfaction of the respective CG, but across the border is not conducting a response sufficient to meet the expectations of that CG. While not a likely scenario, it is possible due the subjective nature of determining what constitutes a proper spill response. Such a situation could have political and media implications that have the potential to detract from the proper management and oversight of the spill response.

Since the RP in a transboundary spill will be the same in both Command Centers, any decision to take over the spill response by either the U.S. FOSC/Unified Command or the Canadian Coast Guard Federal Monitoring Officer would need to be closely coordinated between the two commands.

The issue of assumption of the management of the spill response by either Coast Guard is not something that has been tested or drilled during cross border exercises. On the other hand, while exercising a scenario where an RP does not provide an adequate response to either the satisfaction of the U.S or Canadian authorities may be possible, it would be difficult to have an RP volunteer to participate in an exercise that is designed for failure.

RECOMMENDATION:

CANUSDIX and CANUSPAC transboundary exercises planners should consider including a scenario involving the assumption of command from a Responsible Party by either Coast Guard.

SOURCES:

- U.S. 40 CFR Section 300.120(a)
- CAN National Contingency Plan, Chapter 5, Section 5.2 (June 1998) D
- Section 1750, Responsible Party Policy, Northwest Area Contingency Plan, www.rrt10nwac.com

SUMMARY OBSERVATIONS:

- Each nation, state, and the Province of British Columbia has a legal mandate to respond to and cleanup orphan spills that originate in their jurisdictions. Additionally, there are identified funding mechanisms in place to cover these respective agencies' costs.
- Both the USCG and the Washington Department of Ecology have contracting authority and existing contracts with oil spill response organizations (OSROs) and with commercial cleanup companies to expedite cleanup actions when the spiller is unknown or unwilling to take appropriate cleanup actions. The State of Alaska uses term contractors for responses to pollution incidents and most OSROs have not applied to become term contractors under Alaska State rules. However, in an emergency the State can hire OSROs and other contractors using emergency contracting guidelines.
- Mutual aid agreements between the states of Alaska, Washington, Oregon, California, Hawaii and the Province of British Columbia provide mechanisms for both government and private sector mutual aid which could be used for a response to an orphan spill. In addition, the response organizations operating in the Transboundary areas also have mutual aid agreements.
- The Joint Contingency Plan and both the CANUSDIX and CANUSPAC Annexes include commitments to make timely notifications and coordinate response actions in the event that a spill will impact an adjacent nation. However, protocols may need to be clarified to facilitate the rapid movement of on-water responding resource from the "source nation" to pursue an orphan spill across the border into an adjacent nation.

DISCUSSION:

According to Section 203.2 of the Canada-United States Joint Marine Pollution Contingency Plan, "Responses to harmful substance incidents will be carried out under the provisions and procedures of each Party's national response system. Both the CANUSPAC and CANUSDIX Annexes state: *In cases where the responsible party cannot be located or is unwilling or unable to respond, the U.S. Coast Guard will assume control of the response and use federal funds to minimize and mitigate damage.*

United States (NW Area Contingency Plan and Federal Law)

The Oil Pollution Act (OPA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) charge the USCG with responding to and cleaning up oil spills to navigable waterways. In the event of a spill where a Responsible Party is not identified, does not respond to the spill, or does an inadequate job of responding, federal responsibilities may include taking over the response or assuming a co-lead role in Unified Command with state, tribal, and local responders.

OPA established the Oil Spill Liability Trust Fund to cover response costs when the responsible party is unknown or refuses to pay. The U.S. Coast Guard would normally open the Oil Spill Liability Trust Fund in response to an orphan spill in Transboundary waters as well. The USCG has contracting authority and existing Basic Ordering Agreement (BOA) contracts with oil spill response organizations (OSROs) and with commercial cleanup companies to expedite cleanup actions when the spiller is unknown or unwilling to take appropriate cleanup actions.

Washington (NW Area Contingency Plan and Washington Law)

Washington State law (RCW 90.56.350) directs Ecology to take all action necessary to respond to a substantial threat of a discharge of oil or hazardous substance into waters of the state, including collecting and removing oil and hiring contractors. For orphan spills with substantial cleanup costs, the state has a dedicated clean-up fund, the Oil Spill Response Account. Ecology has a process for approving oil spill response organizations, called Primary Response Contractors (PRCs), and Ecology has existing contracts with response organizations, including MSRC and other PRCs in the state in order to expedite response actions.

Alaska (Spills in State Waters, Unified Plan, Subarea Contingency Plan; Alaska Law)

Under Alaska state law the Department of Environmental Conservation responds to all reports of pollution incidents in State waters (includes internal waters and all waters measured from the baseline from which the territorial sea is measured to three miles offshore) and has authority to assume the cleanup of a spill from an unknown source. In the CANUSDX transboundary area all State waters are also navigable waters of the United States and may also be waters within Usual and Accustomed grounds and stations of one or more federally-recognized Indian governments. As a result, the U.S. Coast Guard, the tribal governments, and the State would normally form a Unified Command to respond to an Orphan spill. If the spill threatened Canadian Waters as well the CANUSDX Annex would most likely be activated.

The State of Alaska has a pollution response fund called the Oil and Hazardous Substance Release Prevention and Response Fund (the Fund). The Fund is available for responding to oil and hazardous substance spills in all State waters and would be accessed as needed during an Orphan spill event. The State of Alaska does not have the ability to hire OSROs in most cases. The State uses term contractors for responses to pollution incidents and most OSROs have not applied to become term contractors under Alaska State rules. However, in an emergency the State can hire OSROs and other contractors using emergency contracting guidelines.

Canada (Canadian Law)

The Canadian Coast Guard is the lead federal agency for response to all ship-source spills of oil or other noxious substance into the marine environment in waters under Canadian jurisdiction. In those cases where the polluter is unknown, unwilling or unable to respond, the Canadian Coast Guard will assume the overall management of the incident as On-Scene Commander (OSC) and ensure an appropriate response. The Canadian Ship Source Oil Pollution Fund would be used to refund response costs incurred by provincial and federal agencies when the responsible party is unknown or refuses to pay. Other Canadian federal agencies might also be in a lead role, depending on the spill source; e.g., Environment Canada for federal lands or the National Energy Board for pipelines. Whether these agencies bring resources other than authority to the table varies, as does their familiarity with command systems such as ICS or RMS.

It is stated in Section 5.2 of the National Contingency Chapter that “In a situation where no polluter can be identified and the Canadian Coast Guard is responding as On-Scene Commander (OSC), if a polluter comes forward at a later time and wishes to take over the role of the OSC, the Canadian Coast Guard should turn over the management of the spill to the polluter.”

British Columbia (Ministry of Environment Marine Spill Plan and British Columbia Law)

British Columbia law directs the Ministry of Environment to act as the lead provincial agency for all spills affecting the province and take all actions necessary to respond to and clean-up spills. When the Responsible Party is unknown, the Ministry will provide the same services and functions which are provided to a Responsible Party to the lead federal agency for a unified (joint) government-lead response.

Mutual Aid Agreements supplement response resources

Mutual aid agreements exist between the states of Alaska, Washington, Oregon, California, Hawaii and the Province of British Columbia. The 1993 Pacific States/British Columbia Oil Spill Task Force Mutual Aid Plan provides a mechanism for notification and request for assistance (equipment and personnel). The 1996 Mutual Aid Agreement established policies and procedures to temporarily reduce contingency plan response standards in order to maximize equipment and resource availability in the event of a major west coast spill. Such Mutual Aid from other states may supplement resources available to respond to an orphan spill. (For more information, please reference the Mutual Aid topic paper in the Operations Section of this Report).

Coordinated notifications and response actions for orphan spills

The JCP and both the CANUSDIX and CANUSPAC Annexes include commitments to make timely notifications and coordinate response actions in the event that a spill will impact an adjacent nation. Section 402.3 of the JCP states that *“the On-scene Commander (Canada) or Coordinator (U.S.) will take, to the extent possible, necessary response actions to prevent the spread of the harmful substance to the waters of the other Party, and coordinate its response actions with both parties...”* It is stated in Section 403.3 of the JCP that *“Where a coordinated response is activated...each Party will, to the greatest extent possible, facilitate any required transboundary movement of response resources as set out in the relevant Geographic Annex.”* It is stated in Section 500 of the CANUSDIX Annex that *“Wherever possible, both Coast Guards will coordinate response activities to maximize clean-up effort.”* “Joint Response” is described in Section 502 as including “securing the source” and “open water skimming.” Identical language exists under Part V of the CANUSPAC Annex.

With these authorizations in mind, the U.S. and Canadian Coast Guards should clarify protocols facilitating the rapid movement of on-water responding resources from the “source nation” across the border into an adjacent nation to pursue an orphan spill, since the initial responding nation is most likely to have resources already on-scene. If on-scene response resources are allowed to cross the border as needed to maintain an aggressive response at the “epicenter” of the spilled oil, more oil would be recovered before it comes ashore on either side of the border.

SOURCES:

- Canada – United States Joint Marine Pollution Contingency Plan (JCP), Annex 3 Canada – United States Pacific – Geographic Annex (CANUSPAC), August 22, 2003.
- Northwest Area Contingency Plan, 2008, <http://www.rtt10nwac.com/NWACP/Default.aspx>
- Washington State Law, RCW 90.56.350, Investigation, removal, containment, treatment or dispersal of oil and hazardous substances – Record of expenses.
- Canada-United States Joint Inland Pollution Contingency Plan, EPA 550-B-94-003, 2003
<http://www.epa.gov/OEM/docs/chem/jcpcan.pdf>;
- Canada and International Agreements: http://www.ccg-gcc.gc.ca/eng/CCG/ER_International_Agreements
- Canadian Coast Guard Marine Spills Contingency Plan – National Contingency Chapter, Section 1 – Introduction, http://www.ccg-gcc.gc.ca/eng/CCG/ER_National_Response_Plan
- Oil Pollution Act, 1990; <http://www.epa.gov/emergencies/content/lawsregs/opaover.htm>
- National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR 300;
<http://www.epa.gov/OEM/content/lawsregs/ncpover.htm>
- Pacific States/British Columbia Oil Spill Task Force 1993 Mutual Aid Plan, revised 2007;
<http://www.oilspilltaskforce.org/agreements.htm>
- Pacific States/British Columbia Oil Spill Task Force 1996 Mutual Aid Agreement;
<http://www.oilspilltaskforce.org/agreements.htm>
- BC Marine Oil Spill Response Strategy: <http://www.env.gov.bc.ca/eemp/resources/strategies/oilstrat.htm>
- BC Marine Oil Spill Response Plan:
http://www.env.gov.bc.ca/eemp/resources/response/pdf/marine_oil_response_plan.pdf

TOPIC: INTEGRATING STATE, PROVINCIAL, LOCAL GOVERNMENT, LANDOWNER, AND TRIBAL INTERESTS INTO U.S. AND CANADIAN COMMAND POSTS

SUMMARY OBSERVATIONS:

- One of the response objectives is coordination with all parties who have a legitimate interest in the incident.
- The Liaison Officer position within both the ICS and RMS structures is the focal point for integrating the interests of all affected parties into Command.
- Coordination usually occurs with representatives of any federal, state, provincial, tribal, or local governments either affected by a spill or which have authorities related to spill response.
- Section 2 of Fisheries and Oceans Canada's *Environmental Response National Plan* identifies key agencies and stakeholder groups as well as mechanisms for coordination with these stakeholders.
- The Southeast Alaska Subarea Plan and the NW Area Contingency Plan also identify key stakeholders and provide mechanisms for coordination with them.
- The readiness of interested parties varies depending upon the capacity and experience of the parties.
- In the event of a transboundary oil spill, it is important that both Command Centers provide a Liaison Officer to work directly in the other jurisdiction's command center to ensure cross boundary interests are addressed. These positions will be in addition to Liaison Officers who are working within each of the Command Centers to address stakeholder interests, but they can help represent the input from the "stakeholder" liaison officers to the other command post.

DISCUSSION:

Regardless of the response system (RMS or ICS) one of the response objectives is coordination with all parties who have a legitimate interest in the incident. This occurs through several means, ranging from inclusion within the Unified Command to formation of a Stakeholder Committee. The command staff is tasked with ensuring that input is received and considered in order to ensure that response measures appropriately address the interests of these parties. The Liaison Officer position within the ICS and RMS structures is the focal point for integrating the interests of all affected parties into Command.

As outlined in the U.S. Coast Guard's 2006 Incident Management Handbook, the primary responsibility of the Liaison Officer is to be a point of contact for representatives from other agencies or government entities; this includes establishing contact information for them and ensuring regular communications, both informing them of the daily status of the response as well as seeking their input and advice. In order to do this, the Liaison Officer is expected to monitor incident operations and participate in Planning Section meetings. The Province of British Columbia and other Canadian agencies use the same Liaison Officer role defined under ICS.

In the United States, coordination occurs with representatives of the natural resource trustee agencies and with other affected government entities – including Federally-recognized tribes – in order to undertake damage assessments (please reference the Natural Resource Damage Assessment topic paper in this Command Section; also see the topic paper "Role of First Nations and Federally-Recognized Tribes in Transboundary Oil Spill Planning and Response" in the Planning Section of this Report).

In the Canadian Response Management System, the Liaison Officer is part of the advisory staff, whether to the On-Scene Commander or to the Federal Monitoring Officer. In both cases, his/her role is described as: "Responsible for coordinating and maintaining relations and communications with outside agencies, community leaders and other interest groups. The Liaison officer is the point of contact within the RMS whenever representatives from outside organizations require information regarding the incident. The Liaison officer will also coordinate meetings with these individuals to discuss issues or pass on information related to the incident."

Fisheries and Oceans Canada's *Environmental Response National Plan* notes that "there are various legislation, agreements, customs and precedents that establish operational liaisons between the Canadian Coast Guard and various agencies in response to pollution incidents"(Section 2). The "various agencies" listed in this section include Aboriginal Groups; several Offshore Petroleum Boards; Environment Canada; Fisheries and Oceans; Indian Affairs and Northern Development; Local Governments, Agencies, or Boards; National Defense, Natural Resources Canada; Provincial and Territorial Governments; Response Organizations; Transport Canada, Marine Safety; and Volunteers and Volunteer Organizations. Various means of coordination with these groups are outlined in this Section; the Regional Environmental Emergency Team (REET) is the primary forum for coordination with most groups and agencies.

The BC Ministry of Environment has Operational Guidelines on how to establish a Liaison Office. Their Operational Guidelines also cover establishing a Joint Information Centre (JIC) and explore the relationship between the roles of Information Officer and Liaison Officer, since these can "cross paths." Both guidelines are based on the work done by the U.S. Coast Guard National Strike Team.

Alaska's Unified Plan and the NW Area Contingency Plan both acknowledge the role of the Liaison officers and provide some direction. In Part B of Alaska's Unified Plan (Response Organization), it is stated that: "Unified Liaison Officers [are the] point of contact for affected communities, interest groups....." The Liaison Officer's role – as described in the NW Area Contingency Plan (Section 2240) – mirrors that outlined in the U.S. Coast Guard's Incident Management Handbook. The Plan does note, however, that "... given the importance of the Liaison Officer duties, and to ensure public confidence and trust, it is the policy of the RRT/Northwest Area Committee for the Liaison Officer position to be filled by a qualified representative of a federal, state, tribal, or local agency, if available. If no such agency representative is initially available, qualified, or willing to be the Liaison Officer, a responsible-party representative may, upon the Unified Command's concurrence, fill that role. Furthermore, a transition to a responsible party designated Liaison Officer may occur with the concurrence of the Unified Command. The RRT/Northwest Area Committee also encourage responsible parties to designate an Assistant Liaison Officer, who will participate in all the meetings attended by and briefings made by the Liaison Officer."

The readiness of interested parties varies depending upon the capacity and experience of the parties. Some of the agencies or parties are very experienced, while others may have minimal experience in responding to oil spills and/or the management structure. Exposure to the response organization structure and function through exercises helps to raise awareness of the expectations required during a response and prepare representatives in the event of an event.

In the event of a transboundary oil spill, it is also important that both Command Centers provide a Liaison Officer to work directly in the other jurisdiction's command center to ensure cross boundary interests are addressed. This is provided for in Section 404 of the Joint Contingency Plan, Section 604 of the CANUSDIX annex, and Section VI.D of the CANUSPAC annex. However, these liaison officers will be in addition to the Liaison Officers who are working within each of the Command Centers to address state/provincial/tribal/aboriginal/local government/landowner and other stakeholder interests, but they can help represent the input from the "stakeholder" liaison officers to the other command post.

RECOMMENDATIONS:

1. The CANUSPAC and CANUSDIX JRTs - as well as potential RPs and their ROs - should consider exercising the integration of state/provincial/tribal/aboriginal/local government/landowner and other stakeholder interests into Command Centers during their drills.

2. The use of liaison officers to represent stakeholder interests in both command posts should be specified in both the CANUSDIX and CANUSPAC annexes in order to indicate that additional liaison officers are needed beyond those representing the two Command Centers.

SOURCES:

- Canadian Coast Guard Response Management System Version 3.0 (http://www.ccg-gcc.gc.ca/eng/CCG/ER_Response_Mgmt_System)
- Fisheries and Oceans Canada, Environmental Response National Response Plan, Section 2 (http://www.ccg-gcc.gc.ca/eng/Ccg/er_National_Response_Plan)
- Don Rodden, Canadian Coast Guard
- Graham Knox, Ministry of Environment
- United States Coast Guard Field Operations Guide 2000, ICS-OS-420-1
- Washington State of Ecology Website – When spills happen
- CANADA-UNITED STATES JOINT MARINE POLLUTION CONTINGENCY PLAN (JCP)
- U.S. Department of the Interior Natural Resource Damage and Restoration <http://restoration.doi.gov/>
- Canada-U.S. Joint Marine Pollution Contingency Plan, CANUSDIX Annex: *Guidelines for Resource Agency Input to Places of Refuge, Dispersant Use, and In-Situ Burning Decision-Making* Revised Draft – November 16, 2004
- Ministry of Environment, Marine Oil Spill Response Plan and Operational Guideline on the Liaison Officer, and Operational Guideline on Liaison Office

SUMMARY OBSERVATIONS:

- The number of large oil spills to transboundary marine waters has been steadily declining in the region, although the risk remains; as a result, there have been fewer opportunities and less immediate need for public information experts on both sides of the U.S./Canadian border to work together. It is therefore unlikely that many public information experts on either side of the border have been faced with the need to coordinate regarding how public information for a transboundary spill.
- Under the U.S. Incident Command System, an integral part of Unified Command is the Public Information Officer who oversees the formation and operation of a Joint Information Center (JIC). The Unified Command must approve JIC news releases.
- In Canada, the Province and Responsible Party work together and coordinate with a Communications Officer from the Canadian Coast Guard and Environment Canada.
- Annex D of the Canadian Coast Guard's National Response Plan provides Media Enquiry Guidelines.

DISCUSSION:

Major oil spills to marine waters do not respect interstate or international boundaries. In the past 20 years a few incidents, including the 1988 *Nestucca* fuel barge spill and the 1991 *Tenyo Maru* fishing vessel spill, have simultaneously affected coastlines in Washington and British Columbia. Predictably, these large oil spills and related cleanup responses have spurred public outrage as well as focused attention from local, national and international media. However, since the number of large oil spills to marine waters has been steadily declining in the region – especially in the past decade – there have been fewer opportunities and less immediate need for public information experts on both sides of the U.S./Canadian border to work together to understand one another's organizations and coordinate public information and involvement activities.

In the Summer 2010 Issue of *Spill Alert* (produced by UK Spill and edited by Roger Mabbott), an article titled "Deepwater Horizon; a very public media spill" considers what the Deepwater Horizon spill means for the future, including:

- Oil spills exposed to media can influence everyone;
- The media can manipulate the spill outcome through pressure on politics;
- The internet empowers minorities to change politics;
- Technical solutions can be overwhelmed by political expediency; and
- The political pressure for instant solutions is contradicted by environmental concerns.

Unfortunately, although the number of large spills has declined, the risk of a major oil spill has not diminished. Every year, about 18 billion U.S. gallons (68 billion liters) of oil and petroleum products are transported just through Washington State alone. A large oil spill, especially along the outer coast or in international waters, would benefit from joint messaging and outreach activities as well as coordinated political leadership. In any spill event, coordinating key public information and messages is likely to be challenging, particularly in the first critical hours of a spill response; that challenge is even greater when multiple authorities are involved.

When a significant oil spill incident occurs on the U.S. side of the border, Incident Commanders representing federal and state agencies (plus local and tribal OSCs as appropriate) as well as the Responsible Party join forces to form a Unified Command. An integral part of Unified Command is the Information Officer – most often a representative from a government agency – who oversees the formation and operation of a Joint Information Center (JIC). Information to the media and public is disseminated jointly through the JIC, with prior Unified Command approval.

Responsible Parties normally utilize professional public information consultants as their representatives to the JIC. These consultants usually represent many ship owners and other companies across the country. Therefore, they routinely participate on many more spills than Federal and State IO's generally do on a regional basis. This experience can be of extreme value in large spill events.

For an oil spill in Canada, representatives of the Province of British Columbia, federal agencies such as Environment Canada and the Responsible Party will coordinate with a Communications Officer from the Canadian Coast Guard. Annex D of the Canadian Coast Guard National Response Plan outlines the following guidelines:

- For the purposes of a response to a pollution incident, spokespersons may be the Canadian Coast Guard Federal Monitoring Officer, On-scene Commander or the Communications Officer(s) appointed to the incident command team.
- If there is any doubt as to the scope of the issues or the sensitivity, the Regional Communications Officer should be consulted immediately. While a local issue can be handled in the field, an issue which is regional in scope should be dealt with by Regional Headquarters. If an issue is of national scope it should be referred to Headquarters Communications.
- The Regional Communications Group will facilitate the flow of accurate and timely information and provide communications advice to the Canadian Coast Guard Federal Monitoring Officer/On-scene Commander. It will be chaired by a Communications Officer, who will implement departmental marine emergency communication procedures.
- The Communications officer assigned to the Canadian Coast Guard Command Team is responsible for:
 - Recommending who will act as spokesperson for the department;
 - Making contact with communications representatives from other departments and agencies to establish basic operating procedures and to maximize the cooperation between all parties on communication matters;
 - Ensuring that, where necessary, qualified spokespersons are available in both official languages and other languages as appropriate;
 - Establishing and coordinating a media briefing centre, where appropriate, and assisting media representatives;
 - Preparing and arranging for approval of written statements in both official languages for issuance to the media and for translation and interpretation in the Arctic; and
 - Establishing a community relations program, if necessary, in support of the Canadian Coast Guard Federal Monitoring Officer/On-scene Commander.

Since it has been more than a decade since an oil spill to marine waters has simultaneously affected U.S. and Canadian territories and/or interests, it is doubtful whether many public information experts on either side of the border have been faced with the need to coordinate regarding how public information will be gathered, approved, and disseminated during the response.

RECOMMENDATIONS:

1. Following is a set of recommendations regarding how the CANUSPAC and CANUSDIX Joint Response Teams should consider improving efforts to coordinate, compile, approve and distribute public information during an international oil spill of significance:
 - Convene an annual meeting involving Public Information Officers on both sides of the border and the NW Area Committee Media Communications and Outreach Workgroup to address the regulatory environment and philosophical approaches to communication during an oil spill response.
 - Follow up after this initial meeting with periodic conference calls to build understanding and forge professional relationships with U.S.-Canadian public information counterparts.

- Develop and adhere to formal command center processes and timetables that both countries would use during a spill response. This should include establishing a meeting schedule between the two command structures, including Information Officers and other key members of the Joint Information Centers.
- Link public information/communications on both sides of the border to coordinate as many single messages as possible. However, the two public information centers should operate independently.
- Establish Public Affairs liaisons in both command centers.

2. Following is a list of issues that should be considered by the Transboundary Public Information Officer team:
Joint Information Center

- Who “controls” the information?
- How will information be coordinated for factual consistency?
- What will the JIC organization look like?

Key messages

- Unified Command goals, objectives and response status
- The process for agreeing on and vetting facts – including ensuring they are linked to Command Center goals and objectives
- Volume estimates, conversion between metric/SAE, natural resource damages, etc.

Public Outreach

- Cultural differences – What do Canadians expect? Americans? Washingtonians? British Columbians? What are the differences between U.S. Indian tribes and Canadian First Nations?
- What are expectations about community participation in decision-making?
- What will local/provincial political figures want?
- How does joint cooperation work in Canada? America?

Disseminating information

- Obviously, it’s much easier to manage this element when everyone is in the same room; but with Internet connections, web sites and cell phones, is this less of an issue?
- Do the U.S. Coast Guard, Alaska, and Washington State all have 24-hour PIOs on stand-by? What about Canada/British Columbia?

SOURCES:

- Suzanne Lagoni, December 2008
- Thomas Callahan, Response Manager, Washington State Maritime Cooperative, December 2008
- John Staynor, Island Tug & Barge Co., December 2008
- Canadian Coast Guard Marine Spills Contingency Plan-National Chapter, Annex D, *Media Enquiry Quidelines*; http://www.ccg-gcc.gc.ca/eng/CCG/ER_National_Response_Plan
- Northwest Area Contingency Plan: <http://www.rrt10nwac.com/NWACP/Default.aspx>
- Joint Information Center Manual, USCG Public Information Assist Team: http://www.rrt10nwac.com/Files/NWACP/Chapter_9610.pdf
- The Summer 2010 Issue of *Spill Alert* (produced by UK Spill and edited by Roger Mabbott): <http://www.ukspill.org/spillalert/Spill-Alert-Issue-4.pdf>

SUMMARY OBSERVATIONS:

- Oil discharges and hazardous substance releases may include three types of on-scene activities: (1) response activities; (2) law enforcement, criminal investigation, and other investigation and law enforcement (collectively referred to as investigative/enforcement) activities; and (3) Natural Resource Damage Assessment (NRDA) activities. While independent of each other, these three activities (particularly during the early phases of an incident) may include overlapping elements, so coordination will help ensure that each element is accomplished efficiently.
- The U.S. Coast Guard's authority to conduct marine casualty and pollution incident investigations derive from numerous statutes and regulations.
- If there is an oil pollution incident from a ship, it is Transport Canada's mandate to inspect/investigate the incident. Transport Canada has MOUs with Environment Canada and the Transportation Safety Board of Canada regarding coordination of investigation responsibilities.
- No sections of either the Alaska Unified Plan or the SE Alaska Subarea Plan focus on federal and state authorities for investigation of marine casualties or pollution incidents, or on guidance for coordination of investigations between state and federal agencies, or with Canadian authorities in a transboundary spill response.
- Incident Investigation is addressed in Section 2260 of the NW Area Plan, and protocols for coordination of investigations and enforcement are outlined under a MOU between the U.S. Coast Guard District 13 and the State of Washington.
- If a transboundary spill originates in the U.S., Transport Canada would defer to the U.S. Coast Guard (USCG). Similarly if a spill originates in Canadian waters, Transport Canada would investigate and USCG Inspectors could participate as observers only.
- According to a draft policy, the Ministry of Environment's involvement in an investigation of a marine oil spill would be in a liaison role with the federal investigative agency in order to ensure that the province is aware of the status of any investigations, and to ensure that federal agencies are aware of provincial interests. If provincial interests are directly affected by a marine oil spill, Ministry involvement may evolve from liaison to active participation with the federal investigating agency.
- Access for investigations has not been addressed in recent CANUSDIX or CANUSPAC transboundary exercises.

DISCUSSION:

Oil discharges and hazardous substance releases may include three types of on-scene activities: (1) response activities; (2) law enforcement, criminal investigation, and other investigation and law enforcement (collectively referred to as investigative/enforcement) activities; and (3) Natural Resource Damage Assessment (NRDA) activities. Each of these activities is managed (or controlled) by different entities.

Response activities are conducted under the authority of agency On-Scene Coordinators (OSCs); investigative/enforcement activities are conducted under the authority of agency investigative/enforcement personnel; and NRDA activities are conducted under the authority of Natural Resource Trustees. Funding for these activities is typically provided via different sources; expenditures for these activities are tracked separately.

While independent of each other, these three activities (particularly during the early phases of an incident) may include overlapping elements, such as the collection of wildlife carcasses and/or the collection of discharge/release source samples. Coordinating overlapping elements will help ensure that each element is accomplished efficiently and in a manner that meets the needs of each activity.

The Joint Contingency Plan and Annexes

Although access for response personnel is addressed, access for incident investigations is not specifically addressed in the Canada – U.S. Joint Marine Pollution Contingency Plan or in either the CANUSPAC or CANUSDIX annexes.

U.S. Coast Guard Policy

The U.S. Coast Guard's authority to conduct marine casualty and pollution incident investigations derive from numerous statutes and regulations, including:

- 14 USC 89; Law Enforcement*
- 14 USC 93 (e); Commandant, General Powers*
- 14 USC 141; Cooperation with other agencies*
- 46 USC 6101; Marine Casualties and reporting*
- 46 USC 6301; Investigation of Marine Casualties*
- 46 USC 6304; Subpoena Authority*
- 46 USC 6305; Reports of Investigations*
- 33 CFR 151.07(d); COTP/OCMI Subpoena Authority*
- 49 CFR 1.46(uu) (4); Delegations to the Commandant of the Coast Guard – Marine Casualties*
- 46 CFR 4.03-30; Investigating Officer*
- 46 CFR 4.07-1; Commandant or District Commander to order investigation*
- 46 CFR 4.07-5; Powers of Investigating Officers*
- 46 CFR 4.07-10; Report of Investigation*

Incident investigations are generally conducted apart from the pollution response, with investigators working through liaisons to coordinate/communicate with Unified Command.

Normally, any U.S. investigation of a spill that had its source in Canada would defer to the Canadian authorities. If they requested assistance, the U.S. Coast Guard would work through U.S. Department of State channels.

Transport Canada Policy

If there is an oil pollution incident from a ship, it is Transport Canada's mandate to inspect/investigate the incident. Transport Canada has authority for pollution prevention and Investigations under Canada Shipping Act 2001, as found in:

- Part 9 Sections 186 – 193; and
- Part 11 Sections 211, 212 & 219.

A Memorandum of Understanding (MOU) between Transport Canada and Environment Canada establishes Transport Canada as the lead investigative agency for "ship source" marine oil spills. Environment Canada provides investigative support to Transport Canada where required. If Transport Canada does not investigate for any reason, then Environment Canada can do so on their own under their applicable authorities.

Transport Canada also has a MOU with the Transportation Safety Board of Canada (TSB), whose mandate is to investigate and find cause and contributing factors to an incident. The TSB does not investigate for contravention of regulations, so they do not take Enforcement actions.

If a spill takes place in the U.S., Transport Canada would defer to the U.S. Coast Guard (USCG). Similarly if a spill originates in Canadian waters, Transport Canada would investigate and USCG Inspectors could participate as observers only. There do not appear to be any U.S./Canada agreements in place to formalize protocols for these types of investigations.

A question has been raised regarding the legal concerns of a Responsible Party (RP) operating in two countries, specifically, whether they could be held in custody or jailed in one country versus the other due to spill regulations. This U.S./Canadian Transboundary Spill Project Report was not intended to include a comparative analysis of an RP's legal exposure under U.S., Canadian, state, and provincial laws. The intent to defer to the authorities in the country of origin, as expressed above, addresses the coordination issue of concern here.

Alaska

In both the Alaska Unified Plan and the Southeast Alaska Subarea Contingency Plan, investigations are referenced in A. *Response*; Part 3, *Operation Checklists*; D. *Containment and Cleanup Checklist*; Subpart D, *Evidence Collection*. No sections of either plan focus on federal and state authorities for investigation of marine casualties or pollution incidents, or on guidance for coordination of investigations between state and federal agencies, or with Canadian authorities in a transboundary spill response.

Washington

"Incident Investigation" is addressed in Section 2260 of the NW Area Plan as follows: *Investigators from federal and state agencies will not normally be a part of the Unified Command. While personnel may report to individuals that are part of the UC, the investigators should be separate so as not to introduce polarizing forces into the Unified Command system.*

The Memorandum of Agreement signed by Washington Governor Christine Gregoire and U.S. Coast Guard Rear Admiral Richard Houck, Commander of the 13th District, in June of 2007, addresses coordination of Investigations and Enforcement in Part VIII. Part VIII acknowledges that the Coast Guard has authority under federal law and the State has authority under state law "...to investigate oil spills and incidents posing substantial threat of an oil spill, establish cause for remedial action, and support both civil and criminal enforcement." It further notes that investigation data and analysis supports efforts to "further enhance marine safety and spill prevention." Thus the parties agreed to maintain protocols on coordination of marine casualty and pollution investigations, including "timely sharing of information"; these were developed in Protocol 5 pursuant to this MOA.

British Columbia

According to a draft policy, the Ministry of Environment's involvement in an investigation of a marine oil spill would be in a liaison role with the federal investigative agency in order to ensure that the province is aware of the status of any investigations and to ensure that federal agencies are aware of provincial interests. If provincial interests are directly affected by a marine oil spill, Ministry involvement may evolve from liaison to active participation with the federal investigating agency.

The Ministry will assess the need for deployment of investigators and will ensure an investigative team is deployed when needed to the Incident Command Post to liaise with the Provincial Incident Commander. Regular contact must take place between the Provincial Incident Commander or the Provincial Deputy Incident Commander and the Investigative Team Commander to ensure a coordinated response and identify any potential conflicts between the response and the investigation.

The Investigation Team Commander is responsible for liaison with other investigative agencies to establish lead and supportive roles. It is important for the investigation team to liaise with other investigative agencies such as Transport Canada, Transportation and Safety Board, Environment Canada and the Department of Fisheries and Oceans. This will ensure a coordinated response to these incidents rather than duplication of effort.

Exercises or Lessons Learned

Although cross-border access for response personnel has been addressed, access for investigations was not addressed in the 2000, 2006, 2007, and 2008 Lessons-Learned from the CANUSPAC exercises. Moreover, this issue was not addressed in the 2002, 2003, 2004, or 2007 After-Action Reports of CANUSDIX exercises.

RECOMMENDATION:

The U.S. Coast Guard and Transport Canada should consider whether the coordination of U.S. and Canadian authorities to investigate oil spill incidents should be addressed in the Joint Contingency Plan and whether specific investigation protocols are needed in the transboundary geographic annexes.

SOURCES:

- CDR David S. Fish, Chief, Oil and Hazardous Substances Division, USCG Commandant (CG-533); email January 7, 2009
- CDR Rick Rodriguez, Office of Contingency Plan Policy and Exercises, Coast Guard District Seventeen (dxc); email February 9, 2009
- CAPT Khushru Irani, Senior Marine Inspector, Transport Canada Marine Safety; email 3/2/2009
- Lance Sundquist, British Columbia Ministry of Environment; email 12/24/2008
- USCG MOA with the State of Washington and related protocols:
<http://www.ecy.wa.gov/programs/spills/ecyuscg/main.html>
- Alaska Unified Plan and SE AK Subarea Plan are available at: <http://www.akrrt.org/plans.shtml>
- NW Area Contingency Plan: <http://www.rrt10nwac.com/NWACP/Default.aspx>

SUMMARY OBSERVATIONS:

- Coordination of maritime security concerns during a transboundary spill response is not addressed in the Joint Contingency Plan, the CANUSPAC or the CANUSDIX Annexes, the NW Area Plan, or the SE Alaska Subarea Plan.
- U.S. Maritime Security law pre-designates U. S. Coast Guard Sector Commanders as Federal Maritime Security Coordinators (FMSC) for their sectors; the FMSCs would set the priorities of the incident and change the MARSEC level as necessary.
- Under the U.S. Transportation Worker Identification Credential (TWIC) requirements, any responder entering the property of a regulated marine facility must have a TWIC card.
- The Transportation Security and Emergency Preparedness Branch of Transport Canada regulates marine security issues in Canada and would coordinate with the Canadian Coast Guard during an oil spill response.
- There are no specific legal requirements presently in place in Canada with respect to security matters as they relate to the response to transportation emergencies involving dangerous goods.
- Coordination of spill responses with maritime security concerns was not addressed in recent CANUSPAC or CANUSDIX exercises.

DISCUSSION:

The Joint Contingency Plan, Annexes, and Area Plans

Coordination of maritime security concerns and of agencies' authorities during a transboundary spills response is not addressed in the Joint Contingency Plan, the CANUSPAC or the CANUSDIX Annexes, the NW Area Plan, or the SE Alaska Subarea Plan.

U.S. Policy

U.S. Maritime Security policy, or MARSEC, is delineated in 33 CFR, Chapter One, Part One. U. S. Coast Guard Sector Commanders are by federal law pre-designated as Federal Maritime Security Coordinators (FMSC) in addition to serving as Captains of the Port (COTP). The FMSC has the authority to develop the area maritime security plan and coordinate actions under the National Transportation Security Act. The COTP has the authority to coordinate and direct Federal removal efforts at the scene of an oil or hazardous substance discharge as prescribed in the National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan), published in [40 CFR Part 300](#). In an event that is both a security event and a spill response, the Sector Commander will set the priorities of the incident and change the MARSEC level as deemed necessary.

Security restrictions may place certain constraints on a response if the response is on the property of a regulated marine facility. For example, with the new Transportation Worker Identification Credential (TWIC) requirements, any responder would have to have a TWIC to enter a facility that falls under those federal requirements.

Canadian Policy

Marine Security issues in Canada are under Transport Canada, specifically the Transportation Security and Emergency Preparedness Branch. They would coordinate with the Canadian Coast Guard during an oil spill response. According to Transport Canada's *Cross-Border Emergency Response Guide* (page 7): "There are no specific legal requirements presently in place in Canada with respect to security matters as they relate to the response to transportation emergencies involving dangerous goods. However, the Transportation of Dangerous Goods Act is presently being reviewed and proposals have been made to expand the authorities found in the Act to require that certain security measures be put in place by those who handle, offer for transport, transport or import dangerous goods. These measures could cover a wide range of topics..." While this Guide generally applies to hazardous materials and not specifically to petroleum products, the security emphasis in both cases is on the transport of goods, rather than on coordination of security concerns during an emergency response.

Exercises or Lessons Learned

Coordination of spill responses with maritime security concerns was not addressed in the 2000, 2006, 2007, and 2008 Lessons-Learned from the CANUSPAC exercises; nor was it addressed in the 2002, 2003, 2004, or 2007 After-Action Reports of CANUSDIX exercises.

RECOMMENDATION:

The CANUSPAC and CANUSDIX Joint Response Teams should consider reviewing the lessons learned from the cooperative efforts between the U.S. and Canada for the 2010 Olympics, in order to determine whether any lessons are transferable to the oil spill response plans for the CANUSPAC and CANUSDIX border areas.

SOURCES:

- CDR David S. Fish, Chief, Oil and Hazardous Substances Division, USCG Commandant (CG-533); email January 7, 2009
- CDR Rick Rodriguez, Office of Contingency Plan Policy and Exercises, Coast Guard District Seventeen (dxc); email February 9, 2009
- *Cross-Border Emergency Response Guide, 3rd Edition*; Transport Canada, 2007

SUMMARY OBSERVATIONS:

- U.S. natural resource trustees are granted authority to pursue Natural Resource Damage Assessment and Restoration (NRDAR) under the Oil Pollution Act and the National Contingency Plan.
- NRDA activities are performed parallel to – but independent from – response activities, coordinated through the NRDAR liaisons as needed.
- The CANUSPAC and CANUSDIX annexes to the Canada-U.S. Joint Marine Contingency Plan (2001) do not discuss NRDA and a joint transboundary NRDA effort is not envisioned. Nevertheless, U.S. Trustee agencies would work closely with Environment Canada and the British Columbia Ministry of Environment as the co-chairs of the Regional Environmental Emergency Team (REET).
- Cooperative Natural Resource Damage Assessment and Restoration (NRDAR) amongst Trustees and Responsible Parties (RPs) are becoming commonplace in the U.S. and many RPs will be interested in cooperating and conducting early natural resource injury assessment during a spill response.
- Interactions of parties likely to be involved in a transboundary oil spill NRDA are more effective when they occur prior to a spill. The West Coast Joint Assessment Team (JAT), which includes contiguous U.S. west coast co-trustees and industry representatives, serves as a model for such interactions.

DISCUSSION:

U.S. natural resource trustees are granted their authority to pursue Natural Resource Damage Assessment (NRDA) and Restoration (NRDAR) under the Oil Pollution Act and the National Contingency Plan.

NRDA activities are performed independently but parallel to response activities. However, coordination of the NRDA process with response activities during all phases of the response is essential, especially during the ephemeral data collection phase, and should be established in the early stages of setting up a response organization. Close coordination between the NRDA team and the response decision-making structure is needed to improve efficiencies, avoid redundant activities, avoid additional resource damage from response activities, share information and ensure the safety of NRDA personnel. A NRDA Liaison provides a linkage between NRDA activities conducted by natural resource trustees and the response activities conducted by Unified Command. In addition to NRDA team interactions with the Command systems through the NRDAR liaison identified in the U.S. Coast Guard's 2006 Incident Management Handbook, additional communication (liaisons) may be necessary throughout the response structure. In the U.S., Federal/State/Tribal NRDA pre-assessment guidelines exist for natural resource trustees.

Cooperative Natural Resource Damage Assessment and Restoration (NRDAR) among Trustees and Responsible Parties (RPs) are becoming commonplace and many RPs will be interested in cooperating and conducting early natural resource injury assessment during a spill response. The West Coast Joint Assessment Team (JAT), which includes contiguous U.S. west coast co-trustees and industry representatives, has published guidance in 2006 to conduct cooperative NRDA as well as recommendations for correlating NRDA into the ICS structure, primarily through a liaison(s) to IC and other pertinent ICS Units.

The CANUSPAC and CANUSDIX annexes to the Canada-U.S. Joint Marine Contingency Plan (2001) do not discuss NRDA. There would not be a joint NRDA across the international border because regulations do not provide for this. Nevertheless, U.S. Trustees will need to work closely with Environment Canada and the British Columbia Ministry of Environment, since they advise the Canadian Coast Guard on environmental matters as co-chairs of the Regional Environmental Emergency Team (REET). Although the Provincial Environmental Management Act (Section 80) gives the British Columbia Ministry of the Environment the authority to take actions and recover costs associated with the recovery and rehabilitation of wildlife - and to restore wildlife habitat - Canada's federal law

does not currently provide for natural resource damage assessment authorities similar to those in the U.S. The lack of consistency between the U.S. and CANADA with regard to Natural Resource Damage Assessments may be a significant political issue; public out-cry in Canada may result when U.S. citizens see compensation occurring for natural resource damages whereas Canadians do not.

Interactions of parties likely to be involved in a transboundary oil spill NRDA are more effective when they have already occurred prior to a spill. Dialogue in NRDA planning groups that include Canada and the U.S. would not be so constrained outside the context of specific cases and could serve to complement future case discussions by addressing overarching NRDA issues that might otherwise not be broached, and by helping to develop relations outside of emergency situations. The West Coast JAT provides a good model for coordination that includes both trustee agencies and industry.

U.S. Trustees for conducting NRDA in a transboundary spill might include:

CANUSPAC

- Washington Department of Ecology and other appropriate state agencies
- U.S. Department of the Interior
- U.S. Department of Commerce – National Oceanic and Atmospheric Administration
- Hoh Indian Tribe
- Jamestown Skalakine Indian Tribe
- Lower Elwha Klallam Indian Tribe
- Lummi Indian Tribe
- Makah Indian Tribe Ozette Indian Tribe
- Ozette Indian Tribe
- Quilleute Indian Tribe
- Quinalt Indian Tribe
- Swinomish Indian Tribe
- Tulalip Indian Reservation

CANUSDIX

- U.S. Department of the Interior
- U.S. Department of Agriculture
- U.S. Department of Commerce, National Oceanic and Atmospheric Administration
- Alaska Department of Environmental Conservation
- Alaska Department of Fish and Game
- Alaska Department of Natural Resources
- Metlakatla Indian Community

Canadian agencies likely to be involved in resource damage assessments during a transboundary spill might include:

- Environment Canada
- The Environmental Emergencies Program of the British Columbia Ministry of Environment
- Potentially affected First Nations

RECOMMENDATIONS:

1. The CANUSDIX and CANUSPAC JRTs should consider promoting consistency in how the NRDA Team's relationships to the response management structures are outlined in all spill response guidance by:
 - Promoting integration of the NRDA process early in the response; and

- Identifying and clarifying the need for a relationship between the NRDA Liaison and Unified Command, the Environmental Unit Leader, the Planning Section Chief, the Logistics Section Chief, and the Wildlife Branch under Operations in an ICS structure as well as to the REET as appropriate.
2. NOAA, U.S. Fish and Wildlife, Environment Canada, and other state, provincial, and federal trustee agencies in the transboundary areas should consider developing a U.S./Canadian Natural Resource Damage Assessment and Restoration (NRDAR) planning group, or expand existing groups to include Canadian government and industry counterparts (including Environment Canada and the British Columbia Ministry of Environment) in order to be better prepared for an incident that could impact natural resources in the transboundary areas. This group should consider:
- establishing and maintaining a network of potential players in the U.S. and Canada, as well as industry representatives, to ensure that natural resource damage assessment coordination during and after spills occurs as efficiently and quickly as possible (see the list of potential government agencies as listed in the paper above);
 - developing working relationships with representatives who would form or assist the NRDA teams;
 - developing a mechanism for information exchange across the border;
 - discussing resources and associated services at risk and the types of injury that may occur in a transboundary marine spill;
 - developing sampling needs and preliminary sampling strategies and discussing appropriate sampling protocols, especially for ephemeral data that needs to be addressed early in a spill incident;
 - discussing what types of expertise or technical specialists may be required;
 - promoting a streamlined assessment process that focuses on restoration endpoints;
 - engaging in identifying and addressing technical challenges regarding various aspects of natural resource damage assessment;
 - identifying and addressing cross-border issues for information sharing and regulation/policy challenges;
 - promoting the use of best available science in the conduct of natural resource damage assessments;
 - sharing information among the membership, including regulatory changes, technical advancements, research, and case studies;
 - providing relevant guidance on conducting natural resource damage assessment across the Canada/U.S. Border; and
 - Meeting with potential Incident Commanders to clarify expectations regarding “close coordination.”
3. CANUSPAC and CANUSDIX exercise planners should consider including NRDA components in future Transboundary exercise scenarios.

SOURCES:

- Canada – United States Marine Spill Pollution Contingency Plan CANUSDIX Annex – Operational Appendix: Wildlife Response Guidelines, Revised 2006. Available online at: http://www.akrrt.org/CANUS_DixonEntrance
- The CANUSPAC Annex to the JCP, available at <http://homeport.uscg.mil/mycg/portal/ep/home.do>
- Provincial Environmental Management Act [SBC 2003] CHAPTER 53, Section 80
http://www.qp.gov.bc.ca/statreg/stat/E/03053_07.htm#section80
- West Coast JAT Guidance to conduct cooperative NRDA's:
<http://www.darrp.noaa.gov/partner/cap/pdf/2007%2004%20JAT%20Recommendations%20Final.pdf>
- Environment Canada's Environment Damage Fund program: <http://www.ec.gc.ca/edf-fde/default.asp?lang=En&n=C5BAD261-1>

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In Appendix D of the report from the 2007 CANUSLANT Workshop, the strengths and weaknesses of one Incident Command Post versus dual ICPs was evaluated for a number of scenarios. Listed below are a few of the comments summarized in that report:

Strengths of One ICP

- Less duplication of effort
- All the players with RMS/ICS structure working together to face problems as a team: fosters team energy
- Easier to ensure JIC functioning properly and UC send out same message/unified message to media, public, and chain of command
- Visibility and immediacy of big picture
- Common perspective
- Negotiating jurisdictional issues
- Can react quickly and more effectively
- Joint priority setting is better
- No need for liaison officer
- Provides impression we have a unified front
- Facilitates partnership
- Easier to coordinate salvage and dispersant use
- Speeds communication, joint priority setting, and joint decisions
- Enables JIC and JES to be together
- Facilitates interaction with Responsible Party; RP has common operational area
- One voice with RPs
- More available expertise; less overall personnel; one specialist can be spread around with greater ease.
- Favors prevention (actions preventing further impacts: salvage, lightering, source control, on-water removal)
- One set of objectives
- Everyone is in the loop/instant interaction

Weaknesses of One ICP

- Cost recovery mechanisms (financial systems)
- Telecommunication contracts
- Logistics – need larger command post; feeding, sleeping, logistics
- Cost – international travel more expensive
- Requires state department involvement
- Everything logistical becomes more challenging
- Not politically acceptable – creates a perception that country without ICP is not getting attention
- Harder for politicians to visit and get photo time “over the border”
- Political territoriality (loss of voice, location bias)
- Number of participants varies (more of an issue for Canada within U.S.-based ICP)
- Loss of non-federal representation
- Meshing two response systems (ICS/RMS)
- Funding
- Legal issues
- Common training/common approach

Strengths of Dual ICPs

- Integration of first nations
- Smaller command facilities
- More community involvement
- Minimal border issues
- Supports jurisdictional issues
- Favors response (longer term removal actions – few remaining steps to prevent damage)
- Work within their political framework
- Logistically more reasonable for large response
- Response quicker to own command post for situation/media
- Allows for agency to better meet different goals
- Better management of personnel and resources
- Closer to constituents
- Increased access to State, Province, Local and Other Stakeholders
- Easy to set up a command post in your own country; quicker standup
- Existing interpersonal relations and work/trust relations are stronger
- Visibility and immediacy of home turf
- Familiarity with own system
- Balance of perceived “authority”

Weaknesses of Dual ICPs

- Without a good communications program, opportunity for wasting resources, poor strategies, and incomplete message to public, media, chain of command
- Communication between two command posts may be difficult: busy phone lines, not being able to locate people, not aware of what’s said to press, not aware right away of tactical decisions
- In a large event the marketing as part of our spill response to the public may be poor because of a mixed message and perhaps incompatible cleanup operations
- More costly to set up two ICPs and twice as many people required
- Different operational periods and objectives
- Misunderstanding of tactical and strategic issues
- No face-to-face communications (Always develops more trust)
- Someone would have to handle joint financial issues
- Poor information flow between countries
- Without one set of objectives... loss of efficiency
- Difference in approach to competing objectives
- Duplication of effort, equipment, resources
- Harder to keep coordinated response early on
- Harder to do coordinated salvage
- Difficult for RP to decide where to go
- High final overall cost
- Must have a STRONG liaison
- Creates a perception one ICP is doing more than the other
- Could start individually but come together

The 2007 CANUSLANT Workshop Report also captures suggested solutions to the concerns listed above; here's a sampling (more are available at the weblink listed below):

Not politically acceptable

- Before – Awareness sessions for politicians
- During – First Class joint information stressing benefits of one ICP
- Amend AGA – Promoting use of one ICP while retaining flexibility
- Welcome politicians from other country to ICP
- Have major operations center in country without ICP

Need large-scale logistics for ICP

- Pre-designate best large locations for ICP
- Pre-identify resources available
- Develop plans to mitigate shortfalls
- Develop a joint ACP, or highlight existing relevant plans
- Pre-plan ICP setup

Harder to coordinate major decisions like dispersant, salvage, etc.

- Flawless communication
- Have liaison team be senior decision makers
- Maintain joint salvage team and environmental teams

Difficult for RP to decide where to go

- Flawless communication
- Split RP reps and put them in each ICP
- Have joint team located somewhere else

The CANUSLANT 2007 Workshop Report is available at: <http://www.uscg.mil/D1/response/jrt/reports.asp>

SECTION 2

REPORTS FROM THE PLANNING SUBCOMMITTEE

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SUMMARY OBSERVATIONS:

- Section 304 of the Canada-United States Joint Marine Pollution Contingency Plan (JCP) provides for a Joint Response Team (JRT) for each geographic area.
- Section 304.1 states that “the JRT will consist of representatives of specified agencies in Canada and the United States” and that each JRT will be co-chaired by Canadian Coast Guard (CCG) Director of Marine Programs and the appropriate U.S. Coast Guard (USCG) District Chief of Marine Safety.
- Section 304.4 provides for the co-chairpersons of the JRT to jointly select the members of the JRT from each of the regional response teams “bearing in mind the desirability of equal representation from each team.”
- Both the CANUSPAC and the CANUSDIX Annexes to the JCP provide contact information for their respective JRT members.
- Different agencies are listed as members in the CANUSDIX and the CANUSPAC Annexes.

DISCUSSION:

The Canada-U.S. Joint Marine Pollution Contingency Plan (JCP) specifies that for the Pacific geographic area, the Canadian Coast Guard will be represented by their Pacific Region and the U.S. Coast Guard will be represented by the Thirteenth District. The JCP further specifies that, for the Dixon Entrance geographic area, the Canadian Coast Guard will be represented by their Pacific Region and the U.S. Coast Guard will be represented by the Seventeenth District. Thus, the Pacific Region of the Canadian Coast Guard is represented on both JRTs and can serve as a catalyst for consistency between the two annexes as necessary.

Different agencies are listed as members in the CANUSDIX and the CANUSPAC Annexes, as follows:

- Appendix I of the CANUSDIX Annex lists the following Canadian JRT Members:
 - The Canadian Coast Guard, Pacific Region; Director of Marine Programs (JRT Co-Chair)
 - The British Columbia Ministry of Environment; Director, Environmental Management Branch
 - Environment Canada; Manager Enforcement Division, Pacific & Yukon Region
 - Transport Canada, Marine Safety; Regional Director
 - Canada Customs & Revenue Agency; Customs Superintendent, Pacific Hwy District
 - Citizenship and Immigration Canada; Senior Immigration Examination Officer
 - Department of National Defense; Port Operations and Emergency Services Branch
 - Indian and Northern Affairs Canada
- Appendix I of the CANUSDIX Annex lists the following United States JRT Members:
 - U.S. Coast Guard, 17th District; Planning & Exercise Division (JRT Co-Chair)
 - U.S. Coast Guard, Sector Juneau; Commander
 - U.S. Immigration & Naturalization Service
 - U.S. Department of the Interior, Anchorage, Alaska
 - U.S. Customs and Border Protection Service, Area Port Director
 - Alaska Department of Environmental Conservation
- Appendix I of the CANUSPAC Annex lists the following Canadian JRT Members:
 - The Canadian Coast Guard, Pacific Region; Regional Director of Maritime Services (JRT Co-Chair)
 - The British Columbia Ministry of Environment; Director, Environmental Management Branch
 - Environment Canada; Manager Enforcement Division, Pacific & Yukon Region
 - Transport Canada, Marine Safety; Regional Director
 - Canada Border Services Agency, Superintendent, Immigrations; Customs Operations Victoria and Surrey, British Columbia

- Appendix I of the CANUSPAC Annex lists the following United States JRT Members:
 - U.S. Coast Guard, 13th District; Chief, Planning Division (JRT Co-Chair)
 - U.S. Department of the Interior, Regional Environmental Officer
 - U.S. Customs and Border Protection Service, Area Port Director
 - U.S. Department of Commerce, NOAA Response & Restoration
 - U.S. Department of Energy, Emergency Preparedness Specialist
 - Federal Emergency Management Agency, Region 10, National Preparedness Division; Technical Hazards Program Specialist
 - U.S. Department of Labor (OSHA); Assistant Regional Administrator
 - U.S. Environmental Protection Agency; Manager, EPA Emergency Response Program
 - Washington Department of Ecology; Spills Program Manager
 - General Services Administration; Deputy Regional ER Coordinator
 - Department of Defense, U.S. Army Engineers, North Pacific Division

RECOMMENDATIONS

1. The CANUSPAC and CANUSDIX Joint Response Teams (JRTs) should examine inconsistencies between their memberships in order to determine whether any changes are needed.
2. Names, titles, and contact information for JRT members should be reviewed and updated annually.

SOURCES:

- The Canada-United States Joint Marine Pollution Contingency Plan (JCP); available at <http://homeport.uscg.mil/mycg/portal/ep/home.do> (click Environmental, then Outreach, then International Programs)
- The CANUSPAC Annex to the JCP, available at <http://homeport.uscg.mil/mycg/portal/ep/home.do>
- The CANUSDIX Annex to the JCP, available at <http://homeport.uscg.mil/mycg/portal/ep/home.do>

SUMMARY OBSERVATIONS:

- The Canada – U.S. Joint Marine Pollution Contingency Plan (JCP) provides for joint transboundary exercises in Section 302, which provides specific guidance as follows:
 - The exercises should be “based on the current risk analysis and resource availability.”
 - Exercise plans should be developed and documented cooperatively.
 - Exercises may include a call-out exercise, table-top exercise, equipment deployment exercise, area exercise, or other relevant activities.
 - Joint exercises may be conducted in conjunction with each nation’s required national exercise program.
 - Exercise goals can to be met through actual joint pollution responses.
- At a minimum, exercise plans will include a table-top exercise for each Geographic Annex area at least biennially.
- The JCP states that the U.S. and Canada will alternate hosting these exercises.
- The JCP calls on the USCG and the CCG to document Lessons Learned, which are to be taken into account with a view to amend the JCP and the Geographic Annexes as required.
- The CANUSPAC Annex and the CANUSDIX Annex both note that “the scope and frequency of exercises will be in accordance with the JCP.”

DISCUSSION:

The Canada – U.S. Joint Marine Pollution Contingency Plan (JCP) provides for joint transboundary exercises in Section 302. As stated, the exercises should be “based on the current risk analysis and resource availability.” It further states that “Exercise plans will be developed and documented cooperatively. Exercises may include an alerting or call-out exercise, table-top exercise, equipment deployment exercise, area exercise or other relevant activities.” Section 302 of the JCP does set a minimum, i.e. a table-top exercise for each Geographic Annex area at least biennially. It requires that the U.S. and Canada alternate hosting these exercises.

The JCP notes that joint exercises may be conducted in conjunction with each nation’s required national exercise program, thus allowing the U.S. NPREP exercises or Transport Canada certified Response Organization exercises to meet this goal. The JCP also allows the exercise goals to be met through actual joint pollution responses.

The JCP further notes that the Canadian Coast Guard (CCG) On-scene Commander and U.S. Coast Guard (USCG) On-scene Coordinator – and the responsible exercise coordinators within each agency – will document Lessons Learned, which are to be “shared with all affected agencies, the authority responsible for the Geographic Annexes and the Manager, Environmental Response Division, CCG and the Chief, Office of Response, USCG.” The JCP recommends that needed amendments to either the JCP or the Geographic Annexes be considered based on the Lessons Learned.

Section X of the CANUSPAC Annex and Section 1100 of the CANUSDIX Annex both state that “the scope and frequency of exercises will be in accordance with the JCP.”

RECOMMENDATIONS

1. A standard transboundary exercise template should be used for both CANUSDIX and CANUSPAC, and should address all exercise issues identified in this Project Report (see Appendix I, Transboundary Exercise Planners).
2. The CANUSPAC and CANUSDIX JRTs should consider including participation by representatives of Federally-recognized tribes and First Nations, representatives from shipping and oil handling industries, representatives of JRT member agencies, and other stakeholders likely to be involved at the Incident Command Post level in their respective transboundary exercises, as well as in transboundary exercise planning.
3. “Lessons Learned” from CANUSPAC and CANUSDIX exercises should be in a consistent format for both Annex areas and should include analyses of performance vis-à-vis plans, mutual aid agreements, and the stated goals of all exercise participants. These “Lessons Learned” summaries should be made available to the public on the Internet.

SOURCES:

- The Canada-United States Joint Marine Pollution Contingency Plan (JCP); available at <http://homeport.uscg.mil/mycg/portal/ep/home.do> (click Environmental, then Outreach, then International Programs)
- The CANUSPAC Annex to the JCP, available at <http://homeport.uscg.mil/mycg/portal/ep/home.do>
- The CANUSDIX Annex to the JCP, available at <http://homeport.uscg.mil/mycg/portal/ep/home.do>

SUMMARY OBSERVATIONS:

- Geographic Response Plans (GRPs) – called Geographic Response Strategies (GRSs) in Alaska – are site-specific response plans for oil spills to water. GRPs include response strategies tailored to a specific beach, shore, or waterway and are intended to minimize impact on sensitive areas threatened by a spill. Each GRP has two priorities: 1) to identify sensitive natural, cultural, or significant economic resources; and 2) to describe and prioritize response strategies. GRSs have similar priorities; however, they do not prioritize response strategies.
- GRS/GRP development appears to follow a similar process in each transboundary jurisdiction. GRP/GRSs are developed through workshops involving key stakeholders, who identify biological, natural and cultural resources that require protection, develop operational strategies and pinpoint access and logistical support.
- There are some geographic areas that lack GRS/GRPs and the level of verification varies by jurisdiction.
- Currently, all coastal and some selected inland water areas in Washington are covered by GRPs, including in the transboundary areas. GRPs in Washington are primarily tested through the Department of Ecology's contingency plan requirements for drills. GRPs may also be exercised through NPREP exercises.
- The GRPs are maintained on the Department of Ecology's website and can also be accessed by links for the NW Area Committee website.
- The British Columbia Ministry of Environment is working with the Alaska Department of Environmental Conservation, the Western Canada Marine Response Corporation and the CANUSDIX Joint Response Team to develop GRPs for Kitimat and the Stewart-Hyder area of the Portland Canal.
- Southeast Alaska has one GRS in the CANUSDIX transboundary area (Lincoln Channel).
- The GRS for the transboundary area has not been tested during area exercises, although the State of Alaska Department of Environmental Conservation has applied for funding to do so. DEC is also seeking funding from the Alaska legislature to develop additional GRSs statewide.
- The SE Alaska GRSs are on the ADEC website and in the Southeast Alaska Subarea Contingency Plan on the Alaska Regional Response Team website.

DISCUSSION:

Geographic Response Plans (GRPs)/Geographic Response Strategies (GRSs) are site-specific response plans for oil spills to water. They include response strategies tailored to a specific beach, shore, or waterway and are intended to minimize impact on sensitive areas threatened by a spill. Each GRP has two priorities: 1) to identify sensitive natural, cultural or significant economic resources; and 2) to describe and prioritize response strategies. GRSs have similar priorities; however, they do not prioritize response strategies.

GRS/GRP development appears to follow a similar process in each transboundary jurisdiction. GRP/GRSs are developed through workshops involving federal, state/provincial, and local oil spill emergency response experts, response contractors, representatives from tribes, industry, ports and environmental organizations, and maritime pilots. Workshop participants identify biological, natural and cultural resources that require protection. Response strategies are then developed based on the sensitive resources identified, hydrology and climatic considerations. Individual response strategies identify the amount and types of equipment necessary for implementation and pinpoint access and logistical support. Also identified are site access and staging areas, tribal and local response community contacts and the range of local conditions (e.g. physical features, hydrology, currents and tides, winds and climate) that may affect response strategies. The response strategies are then applied to likely spill scenarios (risk) for oil movement and prioritized taking into account factors such as feasibility, wind and tidal conditions. Following the workshops, the data is processed and reproduced in the form of draft strategy maps and matrices which are sent out for review and consideration of strategy viability.

Field verification is conducted in some cases and changes proposed by the participants are included in a semi-final draft, which is offered for final review to all interested parties, including the participants of the field verification exercises.

There are some geographic areas that lack GRS/GRPs, and the level of verification varies by jurisdiction. They are most valuable when response personnel are trained on their use and have verified their effectiveness.

WASHINGTON

Currently, all coastal and some selected inland water areas in Washington are covered by GRPs, including in the transboundary areas of Georgia Strait, the Strait of Juan de Fuca, the San Juan Islands and the port areas of Puget Sound. Funding for testing comes from industry, the state, and the U.S. Coast Guard (USCG). GRPs are primarily tested through state contingency plan drill requirements and NPREP exercises. The strategies are reviewed at the time of the exercise and updates are made as needed. They are maintained on the Department of Ecology's website and can also be accessed by links for the NW Area Committee website.

The GRPs developed in Washington use risk, sensitive areas, biological sensitivity, archeological and operational criteria. Stakeholders working on GRP development for the State of Washington have included federal, tribal and state agencies, environmental groups, communities, response organizations (e.g., MSRC, NRC), and local governments. ESI and ShoreZone methodologies were used for the coastal geomorphology classification system during the development of the GRPs.

The Geographic Response Plans (GRPs) have been posted for review by industries as well as local, state, tribal, and federal agencies to use as a guide for protecting natural and cultural resources during the initial response to oil spills in a geographical area. As with any response plan tied to geographical information, these GRPs are living documents, subject to change based upon changes in local conditions and available resources.

BRITISH COLUMBIA

In British Columbia there is a high reliance on the use of its Coastal Resource Inventory and Oil Sensitivity mapping system in lieu of GRPs. However, the Province is currently exploring funding opportunities to allow for the development and implementation of GRPs. The BC Ministry of Environment is working with the Alaska Department of Environmental Conservation, the Western Canada Marine Response Corporation and the CANUSDIX Joint Response Team on pilot GRPs for Kitimat and the Stewart-Hyder area of Portland Canal. They plan to use the CANUSDIX tabletop exercise as a testing method, with a deployment exercise for validation.

The GRPs developed will use methodologies identifying risk factors, operational restrictions and sensitive areas such as those with biological and archeological priorities for protection. The process of organizing stakeholders for participation of the GRP development is just beginning for British Columbia, however they plan to involve Washington and Alaska stakeholders along the border zones. The Pilot GRPs will eventually be made available online.

ALASKA

In Alaska, the term "Geographic Response Strategy" is used rather than "Geographic Response Plan" in order to clarify that they are not prescriptive in nature, but rather, are recommendations. Southeast Alaska has one GRS in the CANUSDIX transboundary area (Lincoln Channel). Throughout the SE Alaska area, detailed GRSs were developed for 60 sites and 9 sites have been tested thus far. Identification and the sensitive area criteria matrix process have been completed for 189 total sites in Southeast Alaska. The GRSs for Southeast Alaska use risk factors as well as biological and human resource sensitivities as criteria. Archeological and cultural priorities are considered as highly sensitive and are only included as criteria at the judgment of the trustee agencies; as a protective measure they are not overtly included in a GRS.

Stakeholders involved in GRS development have included the Alaska Department of Environmental Conservation (ADEC), EPA, the U.S. Coast Guard, the U.S. Department of the Interior, the U.S. Fish and Wildlife Service, the U.S. National Park Service, Southeast Alaska Petroleum Resource Organization (SEAPRO), the Alaska Dept of Fish and Game, the Alaska Department of Natural Resources, the U.S. Dept of Commerce (both NOAA and NMFS), the U.S. Forest Service and the Central Council of the Tlingit and Haida Indian Tribes. The process also involved outreach to various Southeast communities and Federally-recognized tribes, vessel pilot organizations, and maritime shippers. The coastal geomorphology classification system used in the Southeast area involves both the ShoreZone and ESI mapping protocols. Both systems are currently incomplete; the ESI maps for Southeast Alaska are not spatially referenced.

The GRSs developed by the working group can be found on the ADEC website and in the Southeast Alaska Subarea Contingency Plan on the Alaska Regional Response Team website. The GRS for the transboundary area has not been tested during area exercises. The Alaska Department of Environmental Conservation has received funding from the Alaska Legislature to field test existing GRSs and to develop additional GRSs statewide. The original Southeast Alaska GRS project was funded through an environmental crime settlement grant.

RECOMMENDATIONS

1. The CANUSPAC and CANUSDIX JRTs should consider encouraging existing work groups on both sides of the border to develop GRSs/GRPs where needed for their respective transboundary area, with a particular priority on the Portland Canal area between British Columbia and Alaska.
2. The CANUSDIX and CANUSPAC JRTs should consider including field testing of GRS/GRPs in their respective transboundary area during their transboundary exercises.

SOURCES:

- Washington State site maintained by the Department of Ecology: http://www.ecy.wa.gov/progr_ams/spills/preparedness/GRP/introduction.htm
- Region 10 Regional Response Team and NW Area Committee: <http://www.rrt10nwac.com/GRP/Default.aspx>
- British Columbia Area Plans: <http://www.env.gov.bc.ca/eemp/resources/response/index.htm>
- SE Alaska Subarea Contingency Plan: http://dec.alaska.gov/spar/perp/plans/scp_se.htm
- Alaska DEC site with GRSs for SE Alaska: <http://www.dec.state.ak.us/spar/perp/grs/se/home.htm>

TOPIC: RESPONSE CAPABILITIES IN TRANSBOUNDARY AREAS (EQUIPMENT, PERSONNEL AND PLANS)

SUMMARY OBSERVATIONS:

- Washington has access to a number of response contractors with equipment and fulltime oil spill response personnel, including Global Diving, National Response Corporation Environmental Services (NRCES), the Marine Spill Response Corporation (MSRC), and NWFF Environmental.
- The Washington Department of Ecology has distributed small caches of equipment to local governments and tribes around the state.
- The U.S. Coast Guard also has access to a large amount of spill response equipment and personnel in Washington.
- Response equipment resident in Washington is identified in the Western Response Resource List (WRRL).
- The Northwest Area Contingency Plan (NWACP) provides guidance for spill preparedness and response activities throughout Washington, Oregon and Idaho, including the areas in Washington State that could be affected following an oil spill in the CANUSPAC transboundary spill area.
- There are no tugs dedicated for transporting storage barges in Washington and there is no “Current Buster” available in the Washington area.
- The Southeast Alaska Petroleum Resource Organization (SEAPRO) maintains a significant amount of equipment which exceeds the WCD3 for inland near-shore and offshore requirements.
- The USCG also has equipment in the southeast Alaska area, but with fewer response resources available in the Hyder area.
- Currently there is no single source of equipment information in Alaska like the WRRL, although SEAPRO lists its equipment on WRRL.
- The closest equipment for any response in Dixon Entrance is Ketchikan, a 5-10 hour run depending on the equipment and weather conditions. Almost no equipment is present in the Portland Canal.
- SEAPRO has fulltime oil spill response personnel and over 200 on-call responders. As a spill cooperative, SEAPRO also has access to “Member Company” response personnel.
- The Alaska Department of Environmental Conservation would provide staff for the Incident Management Team at the Incident Command Post.
- The USCG in the CANUSDIX area has approximately seventeen personnel trained in spill response.
- The Spill Tactics for Alaska Responders (STAR) manual provides a statewide tactics guide for the spill response community.
- The Alaska Federal/State Preparedness Plan for Responding to Oil and Hazardous Substances Discharges and Releases Unified Plan (Unified Plan) provides overall guidance for spill preparedness and response activities throughout Alaska. The Unified Plan includes 10 Subarea Contingency Plans (SCPs); of these, the Southeast Alaska SCP includes the area in Alaska that could be affected following an oil spill in the CANUSDIX transboundary spill area.
- The Western Canada Marine Response Corporation (WCMRC) is the Transport Canada-certified response organization for the West Coast of Canada. Their equipment amount and locations exceed the 10,000 ton capacity required by Transport Canada. All WCMRC equipment is tracked using an Asset Management System (AMS) software program and an additional inventory is also kept on the WRRL site.
- The Canadian Coast Guard (CCG) has a significant amount of equipment; they have an 8000-ton response capacity in the CANUSPAC region, including a large hover-craft.
- Canada’s Department of National Defense (DND) has one “Current Buster” in Victoria.
- Environment Canada (EC) has a Dash-8 aircraft dedicated to oil spill surveillance and also has access to RADARSAT data.

- WCRMC utilizes contractors, fisherman, and advisors along with full and part time response personnel, resulting in a total number of people within all these groups of approximately 700.
- The British Columbia Ministry of Environment has eighteen environmental emergency response officers that cover both coastal and inland environmental response. The Ministry also has approximately sixty Technical Specialists that provide subject matter expertise and support. The Ministry can also access other provincial resources through the Provincial Emergency Program.
- The CCG has personnel in the south region on a fulltime basis and CCG vessels move along the entire British Columbia coast. Environment Canada also has personnel to support an oil spill response.
- The Canadian Coast Guard has committed to developing a national plan that defines training requirements for all of the environmental response positions and functions that would be required to respond to a major pollution incident.
- WCMRC has an Oil Spill Response Plan that is approved by Transport Canada on a 3-year basis. WCRMC also maintains web based Area Response Plans. The Province maintains a detailed BC Marine Oil Spill Response Plan.
- With regard to response plans covering the two Transboundary areas, tank vessels operating in Washington and Alaska waters must have both state and USCG approved oil spill contingency plans; the USCG is also developing contingency plan regulations for nontank vessels. Nontank vessels in Washington and Alaska must have state-approved contingency plans. Both tank and nontank vessels operating in Canadian waters are subject to Transport Canada requirements for a Shipboard Oil Pollution Emergency Plan and a contract with the Western Canada Marine Response Corporation for response coverage. Facilities in Washington and Alaska are also subject to both state and federal oil spill contingency plan requirements. Facilities in British Columbia may be required to submit an oil spill contingency plan to the Ministry of Environment.
- In his 2010 Fall Report to the House of Commons, Scott Vaughan, Canada's Commissioner of the Environment and Sustainable Development, provided a review of both plans and risk assessments done by the Canadian Coast Guard, Environment Canada and Transport Canada. His report also contains a number of recommendations for updates to those plans and risk assessments.
- Section 711 of the U.S. Coast Guard Authorization Act of 2011 calls for the USCG to "negotiate with the Government of Canada to update the comparability analysis which serves as the basis for the Cooperative Vessel Traffic Service agreement between the United States and Canada for the management of maritime traffic in Puget Sound, the Strait of Georgia, Haro Strait, Rosario Strait, and the Strait of Juan de Fuca." The Act states that the updated analysis shall consider requirements for laden tank vessels to be escorted by tug boats; vessel emergency response towing capability at the entrance to the Strait of Juan de Fuca; and spill response capability throughout the shared waters, including oil spill response planning requirements for vessels bound for one nation transiting through the waters of the other nation.

DISCUSSION:

STATE OF WASHINGTON

Equipment

Washington has access to a number of approved spill response contractors with response equipment, including Global Diving, National Response Corporation Environmental Services (NRCES), the Marine Spill Response Corporation (MSRC), and NWFF Environmental. The Marine Spill Response Corporation (MSRC) is the largest non-profit Oil Spill Response Organization (OSRO) in North America. MSRC maintains United States Coast Guard (USCG) classified OSRO designations MM (Maximum Most Probable Discharge), WCD1 (or W1 for Worst Case Discharge Tier 1), WCD2 (or W2, for Worst Case Discharge Tier 2), and WCD3 (or W3 for Worst Case Discharge Tier 3). It is also a Washington State Department of Ecology (WA DOE) Approved Primary Response Contractor. All MSRC equipment resident in Washington and Oregon is identified in the Western Response Resource List (WRRL).

Washington has three dedicated equipment caches available for oiled wildlife. MSRC/Clean Rivers and the National Response Corporation each maintain a mobile wildlife rehabilitation unit capable of treating

approximately 100 birds. Additionally, the Washington Department of Fish and Wildlife maintains a mobile field wildlife stabilization unit.

Since 1999, the Washington State Department of Ecology has maintained an emergency response tug at Neah Bay to assist vessels in distress. In June of 2010, the Washington State Legislature mandated that industry maintain this capability and financial support of this response capability transitioned to industry. The emergency response tug is a dedicated resource that is capable of providing emergency towing services off the western coast of Washington, Oregon and British Columbia.

To support alternative response technologies, there is approximately 15,000 gallons (57,000 liters) of dispersant (COREXIT® 9500) and 500 feet of fire boom, both located in Port Angeles.

The State of Washington DOE has distributed small caches of equipment to local governments around the state; these are maintained on the WRRL site. In addition, the Lummi Nation and Makah Tribe have obtained spill response equipment through EPA and WA DOE grants and has identified these resources on the WRRL. The USCG has a large amount of equipment that is also listed on the WRRL site. A significant amount of equipment is also available through local plan holders and regulated communities, e.g. petroleum oil refineries located in the Puget Sound area.

The Islands' Oil Spill Association (IOSA) is a community-based non-profit Oil Spill Response Organization and a Washington-State approved PRC serving planholders operating in the San Juan Islands. IOSA's mission is to provide prompt, effective, local spill response and prevention, which includes spill assessment, oil containment, exclusion and removal, oiled wildlife care and search and rescue (see <http://iosaonline.org/>).

The US Navy has oil spill response resources in locations throughout Puget Sound which includes boom, workboats, oil skimmers, protective equipment and trained personnel. Response resources are located throughout Puget Sound and are summarized on the WRRL.

There are no dedicated tugs for transporting storage barges; tugs are available by Letter of Intent (LOI) or on an “as available” basis. This is also the case for tractor-trucks for hauling trailers.

There are no “Current Busters” available in the Washington area.

Personnel

Washington has access to a number of contractors and fulltime oil spill response personnel. Such contractors include Global Diving, the National Response Corporation Environmental Services (NRCES), MSRC, and NWFF Environmental. The total number of response personnel within these groups would be 400 – 500 people.

The Washington State Department of Ecology can support an Incident Command Post, as can contractors such as Genwest, the O’Briens Group and Gallagher Marine Systems. The USCG has approximately 25 personnel trained within the border area. At least one tribal government (the Lummi Nation) has focused on training personnel on oil spill response and has approximately 25 personnel with the 24-hour OSHA Hazard Materials Technician and related training. There is also a significant amount of trained personnel within the regulated communities (e.g., petroleum oil refinery staff).

Plans

The Northwest Area Contingency Plan (NWACP) provides overall guidance for spill preparedness and response activities throughout Washington, Oregon, and Idaho and thus includes the areas in Washington State that could be affected following an oil spill in the CANUSPAC transboundary spill area.

The NWACP includes emergency notification lists, first responder guidelines, an initial assessment checklist, an Introduction and sections specific to Command, Operations, Planning, Logistics, and Finance Administration. There are also sections for Hazardous Substances and Marine Firefighting. Section 9000 covers topics relevant to a Transboundary response including the Joint Information Center, Washington State Disposal Guidance, Shoreline Countermeasures Manual and Matrices, Communications, Health and Safety, Monitoring of Applied Response Technologies, Spill Response BMPs, Places of Refuge, and a Wildlife Plan.

The NW Area Contingency Plan was developed through joint collaboration between the members of the NW Area Committee and the Region 10 Regional Response Team.

Washington State law also requires that certain vessels and facilities have oil spill contingency plans approved by the Department of Ecology. This applies to all tank vessels and non-tank vessels 300 gross tons or greater, including cargo vessels, fishing vessels and passenger vessels operating in state waters. There is an exception for public vessels and spill response vessels that are exclusively dedicated to spill response activities (WAC 173-182-015). Contingency plans are required for onshore and offshore facilities which transfer oil in bulk to or from a tank vessel or pipeline, used for producing, storing, handling, transferring, processing, or transporting oil. Onshore facility is further defined as any facility that because of its location could reasonably be expected to cause substantial harm to the environment by discharging oil into or on navigable waters or the adjoining shorelines. Facilities also include railroad car, motor vehicle, portable device or other rolling stock used to transfer oil to a non-recreational vessel. These contingency plans must meet regulatory requirements governing response capability. (See RCW 90.56.010 (11) and WAC Chapter 173)

The U.S. Coast Guard also requires approved contingency plans for tank vessels that carry bulk oil as cargo or oil cargo residue if they are U.S. flagged, operating in U.S. waters, or transfer oil in a place subject to U.S. jurisdiction. Exceptions are specified in 33 CFR 155.1015. In addition, the U.S. Coast Guard requires oil spill contingency plans from all Marine Transportation Related (MTR) Facilities that could cause "significant and substantial harm," defined as any fixed MTR facility capable of transporting 250 bbl or more of oil to or from a vessel. (See 33 CFR 154.101.5). The USCG is currently developing contingency plan regulations for nontank Vessels over 400 gross tons or greater.

The U.S. Coast Guard approves Oil Spill Response Organizations (OSROs) to meet the response requirements in the federal (and state) approved contingency plans.

STATE OF ALASKA

Equipment

Southeast Alaska has only one OSRO/PRAC Contractor: the Southeast Alaska Petroleum Resource Organization (SEAPRO), which maintains a significant amount of equipment. The details can be found on their web site or the Western Response Resource List (WRRL) site. They exceed the WCD3 for inland near-shore and offshore requirements.

The State of Alaska has equipment caches in numerous areas around the state including SE Alaska (Hyder) that would be available in the event of a spill. The equipment in the various containers is listed at http://www.dec.state.ak.us/spar/perp/lra/conex_map.htm. Click on the location for the list of equipment in the container.

The USCG also has equipment in the southeast Alaska area, but has fewer response resources available in the Hyder area. There are some gaps in equipment resources for the transboundary area. The closest equipment for

any situation in Dixon Entrance is Ketchikan, a 5-10 hour run depending on the equipment and weather conditions. Almost no equipment is present in the Portland Canal.

The State of Alaska, USCG and SEAPRO have websites that are updated, however nothing is consolidated. Currently there is no single source of information that contains a method for updating equipment. They would also like to develop a list of U.S. and Canadian equipment similar to the WRRL

The Alaska Department of Environmental Conservation has acquired funding to pre-position a vessel Emergency Towing System in Southeast Alaska. The system will be deployable by air or vessel and will be used to assist disabled vessels and bring them under tow to avoid grounding and potential pollution events. For general information on Alaska Emergency Towing Systems, see: <http://dec.alaska.gov/spar/perp/aiets/home.htm>

Personnel

SEAPRO has four fulltime oil spill response personnel and approximately 215 on-call responders. Responders are HAZWOPER-certified personnel present in 23 communities in Southeast Alaska. These responders volunteer for training such as HAZWOPER, wildlife deterrent, and NPREP deployments; they become paid employees during a response situation. SEAPRO also has access to "Member Company" personnel with skill sets such as Incident Management Teams, lightering, and salvage.

The Alaska Department of Environmental Conservation would provide staff for the Incident Management Team at the Incident Command Post. The USCG Sector Juneau has personnel trained in spill response.

The Spill Tactics for Alaska Responders (STAR) manual provides a statewide tactics guide for the spill response community, including federal, state, local, industry and spill cooperatives throughout Alaska, and may also serve as a means for meeting state contingency planning requirements. See: <http://www.dec.state.ak.us/SPAR/perp/star/index.htm>

Plans

The Alaska Federal/State Preparedness Plan for Responding to Oil and Hazardous Substances Discharges and Releases Unified Plan³ (Unified Plan) provides overall guidance for spill preparedness and response activities throughout Alaska. The Unified Plan includes 10 Subarea Contingency Plans (SCPs). The Southeast Alaska SCP⁴ includes the area in Alaska that could be affected following an oil spill in the CANUSDIX transboundary spill area.

The Southeast Alaska SCP provides region-specific guidance for responding to spills in the Southeast subarea. The Unified Plan was developed through joint collaboration between the USCG, the U.S. Environmental Protection Agency, the Alaska Department of Environmental Conservation, and members of the Alaska RRT, which is comprised of Federal agencies, and the State of Alaska.

In addition to the USCG contingency plan requirements for vessels and facilities, the State of Alaska also requires oil spill contingency plans for tank vessels, oil barges, or any other vessel transporting liquid bulk oil cargo as well as nontank vessels greater than 400 gross tons (18 AAC 75.400). State-approved Oil Discharge Prevention and Contingency plans are also required for oil terminal facilities, exploration or production facilities, pipelines and railroad tank cars. (18 AAC 75.400, AS 46.04.030, AS 46.04.050, AS 46.04.055)

³ United States. Alaska Regional Response Team. Alaska Federal/State Preparedness Plan for Responding to Oil and Hazardous Substances Discharges and Releases Unified Plan, 1999. <http://www.akrrt.org/UnifiedPlan/>

⁴ United States. Alaska Regional Response Team. Southeast Sub-Area Contingency Plan, 2006 http://dec.alaska.gov/spar/perp/plans/scp_se.htm

PROVINCE OF BRITISH COLUMBIA

Equipment

The Western Canada Marine Response Corporation (WCMRC) is the Transport Canada-certified Response Organization for the West Coast of Canada. Their equipment amount and locations exceed the 10,000 ton capacity required by Transport Canada.

All WCMRC equipment is tracked using the Asset Management System (AMS) software program. This software produces Preventive Maintenance (PM) work orders, which allows them to maintain equipment as per manufactures' recommendations; it also inventories all their equipment. An additional inventory is also kept on the WRRRL site. All inventories are updated annually.

The British Columbia Ministry of Environment (BC MOE) has minimal amounts of equipment, which is neither inventoried nor included on any tracking system.

The Canadian Coast Guard (CCG) has a significant amount of equipment and maintains equipment depots throughout British Columbia. They have an 8000-ton response capacity in the southern region of British Columbia, including a large hovercraft. They do not have any common inventory system in place and they do not currently have a logistic position to support such an initiative.

In his 2010 Fall Report to the House of Commons, Scott Vaughan, Canada's Commissioner of the Environment and Sustainable Development, noted in Chapter 1, "Oil Spills from Ships" that "the Coast Guard has expressed concern that the age and condition of its oil spill response equipment is putting its preparedness and response capability at risk. For example, some equipment may no longer be fully functional and may not incorporate newer and potentially more effective cleanup technology... Funding of \$5 million was provided to the Coast Guard as part of Canada's Economic Action Plan. This funding, along with \$5 million of the Coast Guard's own funding, is earmarked for the replacement of 30 existing pollution response barges for use in all regions. Delivery of these vessels is expected to be completed by 31 March 2011."

Canada's Department of National Defense (DND) has one "Current Buster" in Victoria. Environment Canada (EC) has a Dash-8 aircraft dedicated to oil spill surveillance; EC also uses RADARSAT technology for spotting oil slicks. Transport Canada has a Dash-8 aircraft dedicated to oil spill surveillance on the Pacific Coast; TC also uses RADARSAT technology for spotting slicks.

The BC Ministry of Forest's Fire Protection has several aircraft and dedicated to aerial surveillance; these are available for oil spill response, subject to competing demands during a fire season. Fire Protection has also ICS team members that can run an "Air Operations" Branch.

Personnel

WCMRC utilizes contractors, fisherman, and advisors along with full and part-time response personnel. The total number of people within all these groups is approximately 700. These personnel are typically trained by WCMRC on an ongoing basis. WCMRC fosters healthy/respectful relationships with all their response personnel, which encourages sustainability. WCMRC continues to monitor response personnel availability; this is done both informally throughout the year and formally at year end.

The British Columbia MOE has nine full-time and 6 part-time environmental emergency response officers that cover both coastal and inland environmental response. The Ministry maintains Incident Management Teams comprised of approximately 60 staff that are assigned to roles on a number of sub-groups covering incident management, shoreline cleanup and assessment techniques, waste management, environmental sensitivity and impact assessment, and oiled wildlife. Additionally the ministry has approximately 60 identified Technical

Specialists that provide subject matter or local expertise and support to a spill response (legal, archaeology, parks, contaminated sites, etc.). The ministry can also access other staff and equipment resources from across the provincial government as required (examples: forest service mobile field camps, communications equipment and operators, etc.).

The CCG Environmental Response Branch is made up of a dedicated team of professionals who work to ensure the Coast Guard is prepared to fulfill its mandate of “Protecting the Marine Environment”. The “ER” Branch maintains three Response Centers located at the Coast Guard Bases in Victoria, Prince Rupert and Sea Island in Richmond. The branch maintains an Environmental Response Duty Officer 24 hours a day, 7 days a week. These Duty Officers are the first line of response to marine pollution incidents which occur within the Region. Their role is to ensure all reports of marine pollution are investigated and that an appropriate response is undertaken.

The Canadian Coast Guard has committed to developing competency profiles for all of the environmental response positions and functions required to respond to a major pollution incident, a national training plan that defines training requirements and a process for monitoring implementation of this plan. Their target date for completing these actions is March of 2012.

Environment Canada has Incident Command Post personnel and regional environmental emergency staff who provide scientific expertise to support an oil spill response. Environment Canada can also provide assistance on oil spill fate and effects and spill modeling through their Environmental Technology Center in Ottawa and can access additional EC environmental emergency staff from other regions of the country as required.

Plans

WCMRC has an Oil Spill Response Plan that is approved by Transport Canada on a 3-year basis; the plan is reviewed and updated annually. WCMRC maintains web-based Area Response Plans, but these plans are in need of review and update. WCMRC also has mutual aid agreements with Alaska Clean Seas, SEAPRO and MSRC.

The Province maintains a detailed British Columbia Marine Oil Spill Response Plan. Ministry of Environment response plans are supported by 28 Operational Guidelines that address both organizational and technical delivery of their spill response plans for oil and hazardous materials. The Ministry keeps an up-to-date notification and tracking database for all response personnel including Response Officers, Technical Specialists, Incident Management Team members, and supporting personnel. This includes tracking training, exercises and response experiences.

Transport Canada (TC) requires tank vessels greater than 150 gross tones and all other vessels that carry oil as fuel or cargo greater than 400 gross tons to have a Shipboard Oil Pollution Emergency Plan (SOPEP). Transport Canada also requires that these vessels have a contract with a Response Organization (RO) certified by TC; for both the CANUSDIX and CANUSPAC borders, the TC-approved RO is the Western Canada Marine Response Corporation. With regard to oil-handling facilities in British Columbia, the Ministry of Environment may require a contingency plan (SBC 41, Part 2, 10 (2)(b)&(c)).

The CCG has a Pacific Region Marine Spill Contingency Plan. In the Canadian Commissioner of the Environment and Sustainable Development’s 2010 Report, it was noted that emergency management plans for the Canadian Coast Guard (1998) and Environment Canada (1999) are out of date...The Canadian Coast Guard’s emergency management plan (called the Marine Spills Contingency Plan) dates back to 1998. Since the release of this plan, significant legislative and administrative changes have occurred that are not reflected in the plan. For example, in December 2003, several sections of the Canada Shipping Act, 2001, including some policy and all regulatory responsibilities for pollution prevention, were transferred from Fisheries and Oceans Canada to Transport Canada. Other changes include revisions to the Canada Shipping Act in 2001 and the enactment of the Emergency

Management Act in 2007... The Coast Guard's plan defines the scope and framework within which it will operate to ensure a response to marine pollution incidents. However, it does not contain an up-to-date response model and related procedures that would be used to manage the Coast Guard's response to a major incident."

Environment Canada has a National Response Plan, written in 1999 (see: <http://www.ec.gc.ca/ee-ue/default.asp?lang=en&n=22F58D1B>). Environment Canada is also cited in the Canada-United States Joint Marine Pollution Contingency Plan as well as the CANUSPAC and CANUSDIX annexes. Mr. Vaughn's Report notes that "The Department's environmental emergencies plan was released in 1999 and has not been updated since. The Department's regional emergency plans and plans for Regional Environmental Emergencies Teams vary by region in their format and content, and in the date they were last updated."

Mr. Vaughn's Report also noted that, "Transport Canada released a plan and a policy for preparedness and response in relation to Canada's Marine Oil Spill Preparedness and Response Regime in June 2010. We found that Transport Canada's plan outlines roles and responsibilities of all parties in the event of a marine incident, including Transport Canada, the Canadian Coast Guard, Environment Canada, private sector certified response organizations, ships, and oil-handling facilities. The plan's purpose is to establish the national preparedness capacity of Canada's Marine Oil Spill Preparedness and Response Regime. However, the plan does not contain information on the state and expected levels of the preparedness relative to risks, or on mechanisms to ensure an adequate response, and therefore the plan does not fulfill its own purpose, which is to establish Canada's national preparedness capacity."

Commissioner Vaughan recommended that "The Canadian Coast Guard and Environment Canada should update their national emergency management plans and review and update their regional emergency management plans as necessary" and that "Transport Canada, the Canadian Coast Guard, and Environment Canada should establish processes for reviewing their national and regional plans on a regular basis and updating them as required (for example, due to changes in risks, legislation, roles and responsibilities, and/or lessons learned from significant incidents or exercises)"; the three agencies have agreed with these recommendations.

The Commissioner's Report further stated that "Some risk assessments need updating." Of specific interest to British Columbia, the report states that "Transport Canada and the Canadian Coast Guard have conducted risk assessments regarding ship-source oil spills. These include a risk assessment study of oil transportation on the coast of British Columbia (2002). The Coast Guard also completed a risk assessment in 2000 as part of an analysis of response capacity in Canada and conducted an update on the probability of oil spills from tankers in 2002. A variety of factors were considered in these risk assessments, such as shipping patterns and trends, types and amounts of oil shipped and the likelihood of spills. In addition, some of the Coast Guard's regional emergency plans discuss risks." The Report goes on to recommend that "Building on the risk assessments conducted to date, Transport Canada and the Canadian Coast Guard should conduct a risk assessment related to ship-source oil spills covering Canada's three coasts. The risk assessment should be conducted in consultation with Environment Canada and the shipping industry. Transport Canada and the Canadian Coast Guard should put in place processes so that risks are reviewed on an ongoing basis and the risk assessment is updated as required. The Canadian Coast Guard should ensure that the risk assessment considers the three roles that it plays (federal monitoring officer, on-scene commander, and resource agency)." The Canadian Coast Guard, Environment Canada and Transport Canada agreed with the Recommendation.

It is noted that Section 711 of the U.S. Coast Guard Authorization Act of 2011 calls for the USCG to "negotiate with the Government of Canada to update the comparability analysis which serves as the basis for the Cooperative Vessel Traffic Service agreement between the United States and Canada for the management of maritime traffic in Puget Sound, the Strait of Georgia, Haro Strait, Rosario Strait, and the Strait of Juan de Fuca." The Act states that the updated analysis shall consider:

- Requirements for laden tank vessels to be escorted by tug boats;
- Vessel emergency response towing capability at the entrance to the Strait of Juan de Fuca; and
- Spill response capability throughout the shared waters, including oil spill response planning requirements for vessels bound for one nation transiting through the waters of the other nation.

The Act further states that the USCG shall consult with the State of Washington and affected tribal governments in conducting this analysis, and no later than 18 months after this Act, shall submit recommendations based on this analysis to Congress. These recommendations shall consider a full range of options for the management of maritime traffic, including Federal legislation, promulgation of Federal rules, and the establishment of cooperative agreements for shared funding of spill prevention and response systems.

RECOMMENDATIONS

1. CANUSPAC and CANUSDIX transboundary exercise scenarios should include calling and assessing the availability of larger equipment such as tugs and tractor-trucks on both sides of the border.
2. The CANUSPAC and CANUSDIX Joint Response Teams should clarify what equipment is available and needed for aerial surveillance, including Canada's National Aerial Surveillance Program aircraft and the protocols to activate its use for Transboundary spill responses.
3. The Joint Response Teams should promote cooperative U.S. and Canadian efforts to fund response technology initiatives addressing response challenges in the CANUSPAC and CANUSDIX areas, including on-water response capability in low-visibility conditions and 24/7 operations.
4. Response organizations covering the CANUSDIX and CANUSPAC annex areas should work with the U.S. and Canadian Coast Guard - as well as with Transport Canada and appropriate state and provincial agencies - to enhance response equipment capabilities in the transboundary operating areas.
5. The Canadian Coast Guard should consider establishing and maintaining an equipment inventory system with a link to the WRRL, as well as updating their Pacific Region Marine Spill Contingency Plan.
6. If the WRRL is merged into the U.S. Coast Guard's Response Resource Inventory (RRI), the U.S. Coast Guard should coordinate with the Canadian Coast Guard (CCG) to address inclusion of CCG resources for transboundary areas.
7. The Alaska Department of Environment Conservation, the SE Alaska Petroleum Resource Organization (SEAPRO), and the Canadian Coast Guard should use the Western Response Resource List (WRRL) to list response equipment available in the CANUSDIX area.
8. The CANUSDIX and CANUSPAC JRTs should establish and maintain websites with links for appropriate documents and website links, such as the Canada/U.S. Joint Marine Pollution Contingency Plan and appropriate annex, the SE Alaska SubArea Plan, the NW Area Plan, appropriate transboundary GRPs/GRSs, the WRRL, RRI, or other relevant equipment inventories, Regional Response Teams and Area Committees, and past exercises summaries.
9. Environment Canada, the British Columbia Ministry of Environment and the Canadian Coast Guard should compare and coordinate their contingency plans to ensure compatibility.
10. U.S. and Canadian response teams and exercise planners should use Environmental Sensitivity Index (ESI) maps and/or ShoreZone mapping for exercises and drills.

11. State, provincial, and federal agencies should consider updating and maintaining baseline ecological and ESI biological resource information, including water column data, for the two transboundary areas at least every ten years.
12. The U.S. and Canadian Coast Guards should work with their Vessel Traffic Services, the British Columbia Chamber of Shipping and the Alaska and Puget Sound Marine Exchanges to periodically assess vessel traffic patterns and volumes in the CANUSPAC and CANUSDIX areas and determine whether there have been any significant changes in the risk levels for vessel incidents that could lead to oil spills in these areas. These periodic reports should be made available to state, provincial, and other federal agencies as well as to members of the JRTs so that the information may be utilized in contingency planning for the transboundary areas and to promote better targeting of prevention efforts.
13. When implementing the Congressional mandate in Section 711 of the U.S. Coast Guard Authorization Act of 2011 regarding a comparability analysis for the CANUSPAC area, specifically the comparison of oil spill response planning requirements, the USCG should consider expanding that analysis to include quantification of available response equipment on both sides of the transboundary area.

SOURCES:

- The Western Response Resource List (WRRRL): http://www.wrrl.us/fmi/iwp/res/iwp_auth.html.
- Canada Shipping Act: <http://laws.justice.gc.ca/en/S-9/index.html>
- [BCO Resource Management System](#)
- <http://www.genwest.com>
- <http://www.theobriensgroup.com>
- <http://www.gallaghermarine.com>
- <http://www.seapro.org/equipment.cfm>
- http://dec.alaska.gov/spar/perp/plans/scp_se.htm
- <http://www.dec.state.ak.us/spar/perp/star/docs.htm>
- <http://www.tc.gc.ca/eng/mediaroom/releases-nat-2004-04-h126e-4791.htm>
- <http://www.msrmc.org/>
- <http://www.nrcc.com/>
- [U.S. Coast Guard](#)
- WCMRC, also known as BCO: [BCO Area Response Plan](#)
- WCMRC, also known as BCO: <http://www.burrardclean.com/>
- [Province of U.S. Marine Oil Spill Plan](#)
- <http://www.ecy.wa.gov/programs/spills/preparedness/GRP/introduction.htm>
- http://www.ecy.wa.gov/programs/spills/preparedness/preparedness_section.htm
- <http://www.ecy.wa.gov/programs/spills/rules/173-182.html>
- <http://www.wsmcoop.org/>
- http://www.ccg-gcc.gc.ca/eng/Ccg/er_National_Response_Plan (Environment Canada, Fisheries & Oceans Environmental Response National Response Plan)
- <http://www.rtt10nwac.com/>
- The Spill Tactics for Alaska Responders (STAR) manual: <http://www.dec.state.ak.us/SPAR/perp/star/index.htm>
- Pacific States/British Columbia Oil Spill Task Force Facility and Vessel C-Plan Table (2009): http://www.oilspilltaskforce.org/docs/2009_Facility_and_Vessel_Cplan_Table_Final.pdf
- The Canadian Commissioner of the Environment and Sustainable Development's 2010 Fall Report to the House of Commons: http://www.oag-bvg.gc.ca/internet/English/parl_cesd_201012_e_34435.html
- Environment Canada's National Response Plan (1999): <http://www.ec.gc.ca/ee-ue/default.asp?lang=en&n=22F58D1B>.

SUMMARY OBSERVATIONS:

- The *Canada-United States Marine Spill Pollution Contingency Plan, CANUSDIX Annex – Operational Appendix (CANUSDIX Annex)* includes Wildlife Response Guidelines (*CANUSDIX Wildlife Response Guidelines*) which address U.S. and Canadian Federal, British Columbia Provincial and State of Alaska wildlife resource agency response strategies for oiled or potentially-oiled wildlife in the Dixon Entrance transboundary area when the *CANUSDIX Annex* is activated.
- A CANUSDIX Wildlife Response Working Group (composed of U.S. and Canadian Federal, BC Provincial, and State of Alaska agencies with management responsibility for wildlife resources with input from partners and stakeholders) developed the *CANUSDIX Wildlife Response Guidelines* and continues to meet annually or biennially to discuss guideline revisions and other topics of mutual interest.
- The *CANUSDIX Wildlife Response Guidelines* include an inventory of potential bird stabilization and treatment facilities in the Ketchikan and Prince Rupert areas. The inventory was first conducted in September 2002 in Ketchikan and September 2003 in the Prince Rupert area.
- The CANUSDIX Wildlife Response Guidelines focus on response strategies for migratory and non-migratory birds, sea otters. The guidelines also address decision-making for terrestrial wildlife, pinnipeds and cetaceans.
- The Northwest Area Contingency Plan currently addresses response for oiled birds and sea otters; orca hazing and monitoring are also provided for.
- The CANUSPAC annex has no wildlife response guidelines, except by reference to the Canadian Coast Guard Marine Spills Contingency Plan – Pacific Region Area Plan and the Northwest Area Contingency Plan.
- The Northwest Area Contingency Plan and the Canadian Coast Guard Marine Spills Contingency Plan – Pacific Region Area Plan have no specific provisions for organizing or implementing a wildlife response during a transboundary spill response.
- The British Columbia Ministry of Environment has drafted operational guidelines on oiled wildlife response and is working with the Canadian Wildlife Service and Fisheries and Oceans Canada (DFO) to develop a consistent federal/provincial approach.
- British Columbia's provincial spill response plans contain sections which address spill-impacted wildlife, as does the BC Marine Oil Spill Prevention and Preparedness Strategy. Provincial authority for dealing with spill-impacted wildlife is found in the Provincial Wildlife Act and in the Environmental Management Act.
- The Canadian Wildlife Service (CWS) has responsibility for licensing bird responders and rehabilitators under the Migratory Bird Regulations, for ensuring their compliance with permits issued, for monitoring their effectiveness, and for ensuring that oiled migratory birds are treated humanely. CWS also has authority to take over a wildlife response if that initiated by a polluter is determined to be inadequate. The Canadian Wildlife Service has authority under the Migratory Birds Convention Act and the Canada Wildlife Act. The Canadian Wildlife Service's input to a response is mediated through the REET (Regional Environmental Emergencies Team).
- The Wildlife Response Plan (Section 9970 of the NW Area Contingency Plan) outlines the responsibilities of the Wildlife Branch within a Unified Command structure during an oil spill. The mission of the Wildlife Branch is to minimize the adverse impacts of oil spills and oil spill response on wildlife. The plan describes the procedures to be used during a spill and identifies the personnel and equipment necessary to meet wildlife protection duties of the responsible party as well as the Federal and State governments.
- The Washington Department of Ecology has adopted administrative contingency plan rules that include a planning requirement for wildlife rescue and rehabilitation and reference the NW Area Plan.
- Planholders in Washington have contracted with private response organizations to supply the equipment necessary to comply with the wildlife rescue planning requirement. The Washington Department of Fish and Wildlife also owns a wildlife rescue trailer.

- Washington administrative rules also establish equipment standards for oiled bird rehabilitation facilities.
- The CANUSLANT Annex to the Canada – U.S. Joint Marine Pollution Contingency Plan establishes a Joint Environment Section that has four standing units, three of which deal with response issues related to wildlife protection.
- Wildlife permits are required for the collection, transport and rehabilitation of wildlife in Canada, as well as for the import or export of wildlife.

DISCUSSION:

CANUSDIX

The *CANUSDIX Wildlife Response Guidelines* (http://www.akrrt.org/CANUS_DixonEntrance/) were completed and signed by appropriate Canadian and U.S. wildlife resource agency officials in April 2003, and were then adopted by the U.S. and Canadian Coast Guard in September 2003. The document provides guidance to wildlife resource agency representatives in coordinating or conducting response activities for wildlife that are oiled or potentially oiled when the Dixon Entrance Annex is activated. The *CANUSDIX Wildlife Response Guidelines* were designed to facilitate the initiation and conduct of selected wildlife-related response activities to help ensure that those activities are conducted in a timely, efficient and coordinated manner.

The *CANUSDIX Wildlife Response Guidelines* focus on migratory birds and sea otters in recognition of 1) their susceptibility and vulnerability to oiling; 2) the ability to handle these animals; and 3) because these species move across the CANUSDIX transboundary borders.

The *CANUSDIX Wildlife Response Guidelines* are based on the following three wildlife response strategies:

- Primary response strategies, which emphasize controlling the release and spread of spilled oil at the source to prevent or reduce contamination of potentially-affected species and their habitat. These strategies include use of mechanical recovery such as booming activities and skimming; use of *In-situ* burning; and use of chemical counter-measures such as dispersants; oiled carcass removal; vessel/aircraft disturbance of wildlife minimization; and rat countermeasures.
- Secondary response strategies, which emphasize keeping potentially-affected wildlife away from oiled areas through the use of deterrents or other techniques, including the pre-emptive capture of *unoiled* wildlife.
- Tertiary response strategies, which address the capture and treatment of oiled wildlife.

The guidelines outline the process for implementing each of these response strategies.

Potential facilities in the Dixon Entrance area which could be used for stabilization and/or treatment of oiled birds were evaluated in September 2002 for Ketchikan and September 2003 for Prince Rupert. The resulting list of potential facilities and facility owner and contact information is included in the guidelines.

Recommendations on whether activities should be initiated to deter wildlife away from oiled areas, whether to conduct pre-emptive capture of unoiled sea otters, and/or whether to capture, stabilize and treat oiled migratory birds and/or sea otters will be made jointly by the appropriate Canadian and U.S. wildlife resource agency representatives and then will be submitted to the Canadian Coast Guard On-Scene Commander and the U.S. Coast Guard FOSC for approval.

Pre-emptive capture of un-oiled sea otters and/or capture of oiled sea otters from the Dixon Entrance area will be overseen by the USFWS with oversight by DFO. This includes sea otters on the Canadian side of Dixon Entrance. Oiled bird capture and treatment programs will be overseen/monitored jointly by USFWS and the Environment Canada-Canadian Wildlife Service (CWS). Individuals conducting migratory bird capture and treatment in British Columbia and in Alaska will have appropriate training under currently established guidelines and procedures.

Decisions regarding terrestrial wildlife will be made on a case-by-case basis by the British Columbia Ministry of Environment and the Alaska Department of Fish and Game (ADF&G) representatives for the geographic area under their respective jurisdictions. Wildlife protection strategies for terrestrial wildlife in the U.S. portion of the Dixon Entrance will follow the guidance provided in Appendix 8 of the *Wildlife Protection Guidelines for Alaska (Alaska Guidelines)*.

Decisions regarding pinnipeds and cetaceans will be made on a case-by-case basis by Fisheries and Oceans Canada and the U.S. Department of Commerce, National Marine Fisheries Service representatives, in coordination with ADF&G representatives, for the geographic area under their respective jurisdictions. Wildlife protection strategies for pinnipeds and cetaceans in the Dixon Entrance will follow the guidance provided in Appendix 7 of the *Alaska Guidelines*.

The CANUSDIX Wildlife Response Working Group includes Environment Canada, the Canadian Wildlife Service, Fisheries and Oceans Canada, the British Columbia Ministry of Environment, the U.S. Department of the Interior's Office of Environmental Policy and Compliance, the U.S. Department of the Interior's Fish and Wildlife Service, and the Alaska Department of Fish and Game.

CANUSPAC

The CANUSPAC annex does not address the issue of wildlife response directly. Indirectly, the annex incorporates any wildlife response guidance contained in the *Canadian Coast Guard Marine Spills Contingency Plan – Pacific Region Area Plan* and in the *Northwest Area Contingency Plan*. No working group has been organized to discuss and explore transboundary issues related to wildlife response.

The Canadian Coast Guard Marine Spills Contingency Plan – Pacific Region Area Plan has only a very general discussion of wildlife rehabilitation guidelines. It makes no mention of transboundary responses.

A wildlife response plan is available in Section 9970 of the Northwest Area Contingency Plan and is described in the Washington State section of this report. It acknowledges the CANUSPAC annex, but does not provide any special guidance on the conduct of transboundary responses for oiled wildlife.

BRITISH COLUMBIA and CANADA

BC Ministry of Environment Provincial Information on Wildlife

Provincial spill response plans (marine oil, inland oil, and hazardous materials) contain sections that address actions of the province in respect to impacted wildlife, as follows:

- The Marine Oil Spill Plan:
http://www.env.gov.bc.ca/eemp/resources/response/pdf/marine_oil_response_plan.pdf – sections 5.19 – 5.21, 6.4 discuss roles related to wildlife;
- The Inland Oil Spill Plan:
http://www.env.gov.bc.ca/eemp/resources/response/pdf/inland_oil_response_plan.pdf; and
- The Hazardous Material Spill Plan:
http://www.env.gov.bc.ca/eemp/resources/response/pdf/hazardous_material_response_plan.pdf – sections 4.7, 6.2 discuss roles related to wildlife.

Provincial legislation regarding spill impacted wildlife is found in the following:

- The Provincial Wildlife Act: http://www.qp.gov.bc.ca/statreg/stat/U.S.96488_01.htm
 - Section 7 establishes that it is an offence to alter, destroy or damage wildlife habitat or deposit on land or water a substance or manufactured product or by-product if wildlife or wildlife habitat is harmed; and

- Section 8 allows the government to recover damages and take a right-of-action against a person who destroys or damages wildlife habitat in a wildlife management area.
- The Environmental Management Act:
 - Section 80 outlines the Province's powers to undertake actions to address spill impacted wildlife and recover costs associated with the recovery and rehabilitation of oiled wildlife and wildlife habitat.

The BC Marine Oil Spill Prevention and Preparedness Strategy includes information on the priority of wildlife rehabilitation; it is available at: <http://www.env.gov.bc.ca/eemp/resources/strategies/oilstrat.htm#19>.

The Ministry of Environment (BC MOE) has drafted operational guidelines on oiled wildlife that include information such as:

- Provincial government policy on oiled wildlife response;
- Facilities;
- Integration of wildlife response in incident command;
- Reasonable actions; and
- Response and care of oiled wildlife decision making.

The Ministry has also identified technical specialists to assist with oiled wildlife management and response, such as veterinarians and wildlife specialists. The Ministry does not possess any significant equipment for oiled wildlife treatment but does have access to Ministry boats and other resources that could be activated.

The capacity for oiled wildlife response is not currently mandated under Transport Canada's Response Organization regulations. Nevertheless, industry, NGOs and provincial and federal wildlife regulators have been working jointly to address the gaps in oiled wildlife response for British Columbia. The group has been reviewing the BCMOE's draft oiled wildlife policy noted above and used it as the basis to draft an Oiled Wildlife Field Operations Guide (FOG). The group is still actively working towards finalization of the FOG, including agreements on oiled wildlife decision-making protocols, roles and responsibilities of the various stakeholders and agencies, and how the oiled wildlife component fits within the ICS structure. Participants include BC MOE, the Canadian Wildlife Service, the Department of Fisheries and Oceans, the Canadian Coast Guard, Environment Canada, Transport Canada's Regional Marine Advisory Committee, the Western Canada Marine Response Corporation, the BC Chamber of Shipping, the Oiled Wildlife Trust of BC (an umbrella organization comprised of six wildlife-related NGOs), Focus Wildlife and a number of others.

The Canadian Wildlife Service

Following is the Abstract from the National Policy on Oiled Birds and Oiled Species at Risk, available at: <http://www.ec.gc.ca/ee-ue/default.asp?lang=en&n=A4DD63E4#toc1>:

The context of the Canadian Wildlife Service's (CWS) role in response to oil spills which affect wildlife is largely set by the legislation and practices of other government agencies. For instance, changes in oil spill response protocols in Canada resulting from amendments to the Canada Shipping Act in 1995 removed the onus of emergency response from the Canadian Coast Guard and placed it with the polluter. Subsequently Response Organizations funded from the bulk oil cargo fee were created to respond to oiling incidents where there is a known polluter.

Some response organizations have organized an oiled wildlife response capability, and the Canadian Wildlife Service has the responsibility for licensing of bird responders and rehabilitators under the Migratory Bird Regulations, for ensuring their compliance with permits issued, for monitoring their effectiveness, and ensuring that oiled migratory birds are treated humanely.

The Canadian Coast Guard has the responsibility of monitoring an oil spill response and of taking over the response if it is seen not to be appropriate or sufficient. In a comparable role, the Canadian Wildlife Service has the responsibility of taking over a wildlife response if that initiated by a polluter is determined to be inadequate.

The Canadian Wildlife Service is charged with the administration of the Migratory Birds Convention Act (MBCA), a responsibility that requires management and conservation of migratory bird populations. There will be an additional responsibility for the federal government under federal endangered species legislation for all listed species at risk under its jurisdiction. The Canada Wildlife Act, also administered by CWS, broadens responsibility providing enabling mechanisms for habitat and all wildlife conservation.

The amendments to the Canada Shipping Act have precipitated this re-writing of the CWS 1990 oiled bird policy, but paralleling this administrative change have been changes in the public's attitudes to oiled wildlife, and increases in our knowledge of the effectiveness of different response strategies. The decision to put resources towards prevention and/or rehabilitation must be done for each oiling event and this policy will give some guidance in that regard.

Throughout Canada, Environment Canada's emergency response, and the Canadian Wildlife Service's input to the response, is mediated through the REET (Regional Environmental Emergencies Team). This organization serves to consolidate environmental advice to the responsible party and to co-ordinate aspects of a government response. Because the REET system and the Canada Shipping Act amendments have national scope, it is necessary that the Canadian Wildlife Service have a nationally consistent oiled birds and species at risk response policy. This Policy is consistent with the oil spill response regime that presently prevails in Canada and it replaces Canadian Wildlife Service Policy on Oiled Birds (April 1990).

The following key points in Canada's National Policy on Oiled Birds and Oiled Species at Risk are also noteworthy:

- "...As a fundamental principle CWS will concentrate its efforts during an oiling event on preventing further damage to wildlife. As necessary, CWS will ensure humane treatment (either through cleaning and rehabilitation or euthanization) of oiled wildlife. (2.1, The Policy)
- CWS has a role in oil spill response in three main areas:
 1. Knowing and providing information on the migratory bird resource and species at risk (under CWS jurisdiction) in the area of a spill (this includes damage assessment and restoration planning after the event);
 2. Minimizing the damage to birds by deterring un-oiled birds from becoming oiled; and,
 3. Ensuring the humane treatment of captured migratory birds and species at risk by determining the appropriate response and treatment strategies which may include euthanization or cleaning and rehabilitation. (2.1, The Policy)
- CWS ...will maintain contingency response plans to describe the roles and responsibilities of the organization and staff during oiling events. (3.1, Preparedness)
- CWS will collect and have readily available information on the distribution and abundance of aquatic birds and species at risk under its jurisdiction throughout the year for areas likely to be impacted by oil spills. (3.2, Preparedness)
- In comparing the seriousness of damage...CWS uses the criterion of 'time to recovery'. [Some] birds have long generation times and with a clutch of only one egg, have a restricted reproductive potential. Species at risk are those which may already have much reduced populations and a negative population trajectory, or occupy limited geographical areas at different times of the year. These make large proportions of the population vulnerable to oil spill events and are thus unlikely to recover naturally following a population reduction. (4, Response During and After an Incident)

Wildlife permits are required for the collection, transport and rehabilitation of wildlife in Canada, and would be issued by the agency with responsibility for the particular wildlife species in question (e.g., the Canadian Wildlife Service, the BC Ministry of Forests, Lands, Natural Resources Operations, or the Department of Fisheries and Oceans.

Transporting of wildlife into British Columbia also requires permits and fees. An import permit application must include information on:

- The number, age and gender of the wildlife to be imported;
- A description of any bands, tags or tattoos on the wildlife;
- A valid Provincial possession permit number;
- The proposed use of wildlife; and
- A plan that demonstrates that public safety will not be jeopardized.

Wildlife Import permits are Director-only permits and require consultation with the wildlife veterinarian, ecosystem specialist and regional manager prior to the application and draft permit being forwarded to the Director for consideration; on average this takes 5 – 10 working days to complete. In addition, the place in which the injured wildlife will be going to in BC must have a valid provincial rehabilitation permit.

Export of wildlife from British Columbia also requires fees and permits. The Export Permit Application requires information on:

- The number, age and gender of the wildlife to be exported
- A description of any bands, tags or tattoos on the wildlife
- A valid Provincial possession permit number
- The purpose of exporting; and
- A public safety plan.

WASHINGTON

The Wildlife Response Plan (Section 9970 of the NW Area Contingency Plan) – available at http://www.rrt10nwac.com/Files/NWACP/Chapter_9970.pdf – outlines the responsibilities of the Wildlife Branch within a Unified Command structure during an oil spill. The mission of the Wildlife Branch is to minimize the adverse impacts of oil spills and oil spill response on wildlife.

The plan describes the procedures to be used during a spill and generally identifies the personnel and equipment necessary to meet wildlife protection duties of the responsible party and the Federal and State governments. It also contains:

- Statutory, policy, and procedural guidelines for Wildlife Branch operations;
- Activation criteria and factors to consider when developing response actions; and
- Organizational infrastructure for wildlife response operations.

The Wildlife Branch is scaled to the size of the event and may range in size from just the Branch Director position to full activation of the organization, including the associated equipment and personnel resources. The Branch coordinates and manages the activities of all personnel assigned to the Branch and working under the authority of the Unified Command, including employees of government, commercial and non-profit organizations. The primary focus of the Wildlife Response Plan is oiled birds; however, provisions to address oiled sea otters and to haze and monitor killer whales are also included. Additional marine mammal information is anticipated in the future.

The Canada-United States Joint Marine Pollution Contingency Plan (CANUSPAC) and the Canada-United States Joint Inland Pollution Contingency Plan (CANUSWEST) are acknowledged within the NW Area Wildlife Response Plan.

The Washington Department of Ecology and the Department of Fish and Wildlife

The Washington State Department of Ecology has adopted administrative rules (Chapter 173-182 WAC) that apply to industry contingency plan holders. The rules describe various oil spill response planning standards that plan holders must meet in order to operate in Washington. Among these standards is a planning requirement for wildlife rescue and rehabilitation. The oiled wildlife planning standard references the NWACP.

Planning standards for wildlife rescue and rehabilitation are available at WAC 173-182-540 (<http://apps.leg.wa.gov/WAC/default.aspx?cite+173-182>), which states that “The plan shall identify applicable federal, state and NWACP requirements for wildlife rescue and rehabilitation and describe the equipment, personnel, resource and strategies for compliance with the requirements. These resources shall have the capability to arrive on scene within twenty-four hours of spill awareness.” In addition to the planning standard, WAC 232-12-275 establishes infrastructure standards for oiled bird rehabilitation facilities. See: <http://apps.leg.wa.gov/WAC/default.aspx?cite=232-12-275>

Plan holders in Washington have contracted with three private response organizations (Clean Rivers Cooperative, MSCR, and NRCES) to supply the equipment necessary to comply with the 24-hour wildlife rescue planning requirement. The equipment developed by the response organizations is capable of meeting the rehabilitation needs of 200 recovered oiled birds. Planning efforts to respond to larger events are underway. Most of the oiled wildlife response equipment in Washington is privately owned, although the Washington Department of Fish and Wildlife does own a wildlife rescue trailer that can be used to support a response.

Appendix 1 of Permit No. 932-1905/MA-009526 issued to the National Marine Fisheries Service’s Marine Mammal Health and Stranding Response Program (NMFS/MMHSRP) authorizes import/export of live marine mammals (all taxa under NMFS jurisdiction included Endangered Species) taken during emergency response. The authorization also includes parts and/or samples for analysis or diagnostic purposes. Other permit requirements such as Convention on International Trade in Endangered Species (CITES) and a USFWS Wildlife Declaration also apply but there is a CITES permit to cover the MMPA/ESA permit and the Wildlife Declaration is a real-time form to complete. If the U.S. is shipping to Canada, DFO would issue the permits based on who receives the animal. The NMFS/MMHSRP is represented in the Operations Section, Wildlife Branch under the ICS structure and either Alaska Regional staff or Northwest Regional staff would be present to cover the import/export through the permit if so ordered by Incident Command.

OTHER MODELS

It is worth noting that the CANUSLANT Annex to the Canada – U.S. Joint Marine Pollution Contingency Plan establishes a Joint Environment Section (JES) that will be jointly led by the NOAA Scientific Support Coordinator and the Chair of the Regional Environmental Emergencies Team (REET). The JES will have four standing units, including a Fate & Behavior Unit that has such responsibilities as tracking physical sciences, weather, trajectory analysis, spill mapping, chemical properties and circulation studies. The Habitat Protection Unit has such responsibilities as resources at risk determinations, shoreline and habitat protection, shoreline cleanup techniques and shoreline assessment. The Fish & Wildlife Unit has such responsibilities as mobile organisms, fisheries management, wildlife assessment, rescue and rehabilitation.

RECOMMENDATIONS

1. The CANUSPAC JRT should charter a workgroup to develop CANUSPAC Wildlife Response Guidelines. The key elements of the CANUSDIX Wildlife Response Guidelines should serve as a template to develop similar guidelines for the Washington/British Columbia border. Membership of the workgroup should include appropriate trustees and regulatory agencies, key stakeholders, wildlife rescue/rehabilitation professionals, Federally-recognized tribes and First Nations, and representatives of key response agencies (e.g., the Canadian and U.S. Coast Guards, a Washington State SOSC and their counterpart from British Columbia, and likely representatives of potential RPs such as QIs, IMTs, or OSROs). Once adopted, the guidelines should be tested during regular CANUSPAC exercises and updated as needed based on lessons learned from exercises or actual incidents.
2. The inventory of wildlife facilities for the Dixon Entrance should be expanded to include Haida Gwaii (the Queen Charlotte Islands) during the next revision of the CANUSDIX Wildlife Response Guidelines.
3. Transport Canada should amend the Canada Shipping Act to include Response Organization requirements to develop the capability to address oiled wildlife during a spill response.
4. CANUSPAC wildlife agencies in Canada and the United States should review the existing permit and other requirements for the cross-border transfer of oiled wildlife and determine if additional measures are required to facilitate the cross-border rehabilitation and release of oiled wildlife in a transboundary spill.

SOURCES:

- Graham Knox, British Columbia Ministry of Environment; e-mail 12/2/2008
- Catherine Berg, U.S. Fish and Wildlife Service; e-mail 12/8/2008 and 1/15/2009
- Dave Smith, Canadian Wildlife Service; e-mail 2/6/2009; National Policy on Oiled Birds: *Its application in the Pacific & Yukon Region* December 2008
- Appendix 8 of the *Wildlife Protection Guidelines for Alaska (Alaska Guidelines)*.
<http://www.akrrt.org/UnifiedPlan/index.shtml>
- [HTTP://DEC.ALASKA.GOV/SPAR/PERP/PLANS/UC/ANNEX%20G%20\(JAN%2010\).PDF](http://DEC.ALASKA.GOV/SPAR/PERP/PLANS/UC/ANNEX%20G%20(JAN%2010).PDF)
- British Columbia Marine Oil Spill Plan:
http://www.env.gov.bc.ca/eemp/resources/response/pdf/marine_oil_response_plan.pdf
- British Columbia Inland Oil Spill Plan:
http://www.env.gov.bc.ca/eemp/resources/response/pdf/inland_oil_response_plan.pdf
- British Columbia Hazardous Material Spill Plan:
http://www.env.gov.bc.ca/eemp/resources/response/pdf/hazardous_material_response_plan.pdf
- British Columbia Marine Oil Spill Prevention and Preparedness Strategy:
<http://www.env.gov.bc.ca/eemp/resources/strategies/oilstrat.htm#19>
- (Canadian) National Policy on Oiled Birds and Oiled Species at Risk
<http://www.ec.gc.ca/ee-ue/default.asp?lang=en&n=A4DD63E4#toc1>
- CANUSDIX Annex – Operational Appendix: Wildlife Response Guidelines:
http://www.akrrt.org/CANUS_DixonEntrance/
- Northwest Area Contingency Plan Section 9970 – Wildlife Response Plan:
http://www.rrt10nwac.com/Files/NWACP/Chapter_9970.pdf
- Provincial Wildlife Act: http://www.qp.gov.bc.ca/statreg/stat/BC_96488_01.htm
- Washington Department of Ecology regulation WAC 173-182-540 Planning standards for wildlife rescue and rehabilitation: <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-182>
- Washington Department of Fish and Wildlife regulation WAC 232-12-275 Equipment standards for oiled bird rehabilitation facilities: <http://apps.leg.wa.gov/WAC/default.aspx?cite=232-12-275>

- CANUSLANT Annex, Appendix K, Joint Environmental Team;
<http://homeport.uscg.mil/mycg/portal/ep/home.do> (click Environmental, then Outreach, then International Programs, then the Joint Contingency Plan, then the CANUSLANT Annex PDF file)
- Kelly Smith, Permit & Authorization Service Bureau, the British Columbia Ministry of Forests, Lands & Natural Resource Operations; email 3/29/11

SUMMARY OBSERVATIONS:

- While it is ultimately the Responsible Party's (RP) obligation to dispose of all associated wastes, authorizing plans for disposal are generally the responsibility of the Province and States. Currently, there is no existing approved state, provincial, national or international policy regarding handling of oily wastes in an emergency spill situation along the relevant international border zones.
- The most advanced working template to date was developed by the British Columbia Ministry of Environment and the Alaska Department of Environmental Conservation to generate an international Incident-specific Oily Waste Management Plan. It was recently tested to support the 2007 CANUSDIX Table Top Exercise (TTX). It has been further updated by regional planning officials in BC MOE and ADEC.
- No equivalent plan has been developed for the BC–Washington border zone, nor has oily waste management been included as an integral part of the CANUSPAC exercises, although the BC Ministry of Environment would likely use the CANUSDIX template until a final plan was developed for the CANUSPAC border.
- The Washington Department of Ecology requires any vessel/facility operating on state waters to follow the waste management guidelines within the Northwest Area Contingency plan.
- It is anticipated that, in the event of a major marine incident on the Alaska/British Columbia border, the majority of wastes to be transferred for final disposal away from the affected area would be transported either via barge to Washington State or by highway to Southern BC or Northern Alberta.
- Both Alaska and British Columbia have an abundance of State or Provincial owned shoreline/inland properties that could be utilized for waste management transfer and treatment activities.
- There are an abundance of dedicated and supplemental waste management resources available on both sides of the Washington/British Columbia border.
- BC-based transporters of hazardous wastes who are given temporary emergency exemptions from possessing Hazardous Waste Transport Licences (Section 52 of the BC Hazardous Waste Regulation) will likely not be allowed to legally cross/operate over the U.S. border, so the transfer of wastes to approved U.S. carriers may be necessary.
- There are a number of institutional or technical planning barriers to the transboundary movement of wastes, including:
 - Competition with local jurisdictions for waste handling and disposal resources;
 - A need to coordinate transport plans through the border security agencies;
 - A lack of consultation with local and tribal/First Nation governments;
 - Complications arising out of dual command posts developing waste management plans;
 - Minimal waste management and final disposal resources along the British Columbia/Alaska border;
 - The lack of legal opinions on critical “what-if” scenarios regarding responsible party/agency/local operational handling of wastes crossing the border; and
 - The lack of international protocols for the handling and disposal of high hazardous wastes from marine incidents.

DISCUSSION:

Marine incidents on international borders will add a layer of extraordinary complication to waste management operations on both land and sea. Recent interagency exercises and proactive planning queries have revealed that even moderately sized spill incidents near the U.S.-United States borders are guaranteed to present significant tactical complexities. Agencies must be cognizant of the reality that a poorly-executed waste management plan can easily cause the entire response operation to slow if frontline operations have no place to transfer the wastes.

While it is ultimately the Responsible Party's (RP) obligation to dispose of all associated wastes, authorizing plans for disposal are generally the responsibility of the Province and States. Currently, there are no existing approved

State, Provincial, National or International policies regarding handling of oily wastes in an emergency spill situation along the relevant international border zones. Transport Canada's Response Organization standard requires an RO to provide temporary storage for oily wastes in compliance with Provincial and other government regulations. Most of the leading response agencies possess an internal plan on Oily and Hazardous Waste Management for marine spill scenarios, but nothing in detail to address the borders or working with international agencies.

British Columbia – Alaska Situation:

The border zones between BC and Alaska are well known for having vast, remote stretches of shoreline and an extremely low population density – with an estimated 3,000 persons living in sporadic pockets along the North Coast of Haida Gwaii (BC), Stewart (BC), Kincolith (BC), Lax Kw'alaams (BC) and Hyder (AK). The largest population centers (totaling in the tens of thousands) within short air travel distance to the border are Prince Rupert (BC) and Ketchikan (AK). Highway access inland from the Alaska shorelines are non-existent, while there exist multiple points of inland access on the British Columbia side (namely at Prince Rupert, Masset, Kincolith and Stewart).

It is anticipated that in the event of a major marine incident, the majority of wastes to be transferred for final disposal away from the affected area will be transported either via barge to Washington State or by Highway to Southern BC or Northern Alberta. Both jurisdictions have an abundance of State or Provincial owned shoreline/inland property that can be utilized for waste management transfer and treatment activities. These need to be sourced and mapped and disposal plans developed.

Emergency waste management resources are extremely limited along both sides of the border. Traditional border control is very limited in scope and addresses a very minimal amount of inland traffic (for example, there is no U.S. border security presence at the Stewart-Hyder crossing).

British Columbia – Washington Situation:

The population within the border zone between BC and Washington totals in the millions; as a result, there is an abundance of dedicated and supplemental waste management resources available on both sides of the border for possible utilization. Border controls are considered more comprehensive compared to the Alaska border and control agencies are tasked to address a very large volume of marine and inland traffic/tonnage.

Canadian certified Response Organizations are only required to have 24 hours of temporary storage of oily wastes; it is then up to the Responsible Party to secure a final disposal site/facility.

Operational Situation of Wastes at Borders:

BC-based transporters of Hazardous Wastes who are given temporary emergency exemptions from possessing Hazardous Waste Transport Licenses (Section 52 of the BC Hazardous Waste Regulation) will likely not be allowed to legally cross/operate over the U.S. border, so the transfer of wastes to approved U.S. carriers may be necessary. Depending on the waste classification, any drivers bringing waste from Canada must have a relevant Hazardous Materials Endorsement (HME) on their license. Transport companies track their own waste truckloads (for billing purposes) via waste manifests and generator numbers issued by the State or Province.

Planning Guides and Templates: U.S. and Alaska Zone

The British Columbia Ministry of Environment (BC MOE) and the Alaska Department of Environmental Conservation (ADEC) have been working on a template that was tested at the 2007 CANUSDIX TTX. Design of the Plan was borrowed largely from earlier versions designed for the *M/V Selendang Ayu* (Alaska) and *F/V Queen of the North* (BC) vessel incidents; there was a longer version drafted in 2008 but it was considered too cumbersome for practical use. Some consideration was given to security interests, but a more comprehensive level of input from higher levels of the border security agencies is required before a final draft is prepared. A variation of the

plan should eventually be developed to address the U.S.-Alaska border zone along the Dixon Entrance (to incorporate the BC Queen Charlotte Islands to the south and Alaska's Dall Island to Duke Island to the North of the Entrance).

The Waste Management Document is intended to serve as a template to enable Planning staff at an incident to largely "fill-in-the-blanks" of what is required in the plan and to make specific adjustments as needed. The Plan would ultimately be approved by a Unified Command and would be incorporated into an Incident Action Plan (IAP). The Plan in general is comprised of the following:

- Situation Background (Casualty, Command, Current Response Effort information);
- Waste Management Best Practices;
- Transboundary Movement;
- Waste Profiles (Dangerous Goods, Deceased Wildlife, Liquid, Solids, etc);
- Collecting, Staging, Identifying, Repackaging, Transferring wastes (including summary tables);
- Disposal Options (in-situ, ex-situ, etc);
- Contact/Notification information;
- Tracking Logs (inland & marine); and
- Appendices (Site Photos, Maps, Tables, Agency approvals, Safety Plans, Logistics lists, etc).

BC developed a comprehensive internal guideline in 1993 intended to address the various waste management issues that arose after the T/V *Nestucca* incident. The British Columbia guide and the M/V *Selendang Ayu* Incident Waste Management plan provided a reference for subsequent development of the current BC-Alaska Plan. However, various passages and sections in the 1993 guideline need to be updated to reflect the evolution in regulations and waste management technologies. The guide does not address in detail cross-boundary waste management issues.

Planning and Operational Templates: BC and Washington Zone

Currently, there are no joint Marine Transboundary Oily Waste Management Plan templates or Operational checklists to address the BC-Washington border zone. No exercises under CANUSPAC have been conducted within Operations or Planning sections that address international marine oily waste management issues. The Washington Department of Ecology requires any vessel/facility operating in state waters to follow the waste management guidelines within the Northwest Area Contingency plan. Example plans and waste tracking forms are provided. The Guideline is available at: http://www.rtt10nwac.com/Files/NWACP/Chapter_9620.pdf

Washington State regulations allow the spiller to receive credit for product recovered from water within the first 24 hours, so a concern could be the segregation of those materials collected within the first 24 hours on both sides of the border. Washington has an internal form and guide that would need to be incorporated or referenced for spills that would affect Washington state waters (<http://www.ecy.wa.gov/pubs/ecy05049.pdf>). The British Columbia Ministry of Environment would likely use the CANUSDIX template until a final plan was developed for the CANUSPAC border.

Institutional or Technical Planning Barriers to Transboundary Movement of Wastes

COMPETITION FOR RESOURCES: Various local agencies situated along both sides of the border have response plans that would likely come into effect during the response, potentially adding to the confusion and increasing competition for waste management resources (e.g., bins, liners, PPE, vacuum trucks, etc).

EMPHASIS ON WASTE MINIMIZATION IS NEEDED: There is a need to address the importance of minimizing oily waste generation during any response, including consideration of such tactics as use of dispersants, in-situ burning and shoreline workforce training/supervision.

VETTING PLANS THROUGH THE BORDER SECURITY AGENCIES

Security along the U.S.-Washington border is far more comprehensive and stringent than that along the British Columbia/Alaska border, leading to a potential for critical delays in moving dedicated emergency waste management assets and personnel crossing the border. Draft plans concerning cross-border movements of oily wastes have not been adequately vetted through the Canadian and U.S. Border Customs agencies.

The Canada-U.S. Agreement on the Transboundary Movement of Hazardous Waste went into force in 1986, and renews itself every 5 years unless one of the Parties gives written notice of termination. The Agreement is intended to ensure that movements of hazardous wastes, hazardous recyclable materials and municipal solid waste destined for final disposal – crossing the Canada-United States boundary – are conducted so as to reduce the risks to human health and the environment. Authority for the Agreement lies with Environment Canada and the U.S. Environmental Protection Agency. It is not clear whether this Agreement covers oily wastes.

Please reference the Logistics Section of this Report for information on U.S. and Canadian border patrol and customs requirements for the movement of equipment and personnel during emergency response; however, that paper does not address movement of oily and hazardous wastes.

LACK OF CONSULTATION WITH LOCAL/FIRST NATION GOVERNMENTS

To date, there has been only minimal engagement regarding the local First Nations/Tribal role in waste management. Local Municipal or County bylaws along the border may prohibit execution of transboundary waste operations via land, or restrict utilization of facilities for waste transfer/disposal.

DIVISION OF U.S. and CANADIAN COMMAND STRUCTURES

In a major spill, Waste Management Units or Branches will need to rapidly expand to include various salvage, disposal, industry, treatment, utilities, legal, transport logistics and other technical experts to assist the agencies and Responsible Party. With separate U.S./Canadian Incident Command Posts (ICPs), Planning and Operational Staff responsible for cross-border coordination will be physically divided. Both ICPs could end up mired in an unnecessary duplication of effort in assessment, consultation and execution of plans. Effective communications between the two ICPs will be necessary in order to coordinate cross-border waste management efforts.

Please note that at the 2007 CANUSDIX TTX in Ketchikan, BC MOE sent a liaison team to the U.S. ICP (working in the Environmental Unit of the Planning Section) to work on developing various plans including waste management. The measure greatly reduced – but did not eliminate – communication difficulties in assembling data and coordinating a comprehensive waste management plan between the ICPs.

MINIMAL WASTE MANAGEMENT FINAL DISPOSAL RESOURCES ALONG THE BC-ALASKA BORDER

Insofar as coastal site access and inland transport routes are severely limited on the Alaska side of the border, most waste streams will likely be trafficked into Northwest BC for staging, treatment and disposal. As no dedicated high hazardous waste disposal facilities exist in Northern British Columbia, most high hazardous wastes would end up being sent further east to Alberta for final disposal. However, due to the large uninhabited stretches of Crown-owned land along the Northern BC border, a more flexible range of lower-cost waste disposal options (via incineration, bioremediation and land farming) are available to responders. In contrast – the options for disposal along the more populated British Columbia-Washington border are very limited in scope.

LACK OF LEGAL OPINIONS ON CRITICAL “WHAT-IF” SCENARIOS REGARDING RP/AGENCY/LOCAL OPERATIONAL HANDLING OF WASTES CROSSING THE BORDER

If the situation arises where wastes have to be moved expediently across the international border, a number of critical legal issues could arise that can potentially present liabilities to the agencies. For example, if an RP based in one country runs out of resources and effectively walks away from managing the incident, what becomes of the legal responsibility for those left to manage the wastes that are now situated in another country?

NO KNOWN INTERNATIONAL PROTOCOLS ARE ESTABLISHED FOR THE HANDLING AND DISPOSAL OF HIGH HAZARDOUS WASTES FROM MARINE INCIDENTS

In an incident involving ferries, container ships, chemical and military vessels, a variety of associated high hazardous wastes can present a far greater threat to responders and the public (in the form of cryogenics, exotic toxic/flammable/reactive chemicals, ordnates, radioactivity, etc) than spilled fuels or crude oils. In these situations a completely different level of safety, equipment and application of expertise is required. Currently, while there are an abundance of plans and protocols available for various scenarios inland or at port facilities, there are no joint plans established to address the above hazards on vessels underway. Some marine responders (with the exception of teams from the USCG, USN, BC MOE, WA DOE and ADEC) do not possess adequate training certifications, expertise and equipment to address a hazardous materials incident.

RECOMMENDATIONS

1. The CANUSPAC and CANUSDIX Joint Response Teams should each charter a Transboundary Marine/Inland Waste Management working group to address the various planning issues surrounding emergency waste management. The relevant State/Provincial agencies should co-chair the group and membership should include all relevant agency, OSRO and private entities (the latter serving as technical experts) from both Canada and the BC First Nations, Federally-recognized Tribes, local governments, border security agencies, and private industry should be invited to participate in the development of plans, operational checklists, waste collection/disposal options, border protocols, MOUs, etc. Annual meetings of the group could coincide with CANUS Annex activities.
2. The CANUSDIX Waste Management Working Group should continue to refine the BC-Alaska Waste Management Plan template.
3. The CANUSPAC Waste Management Working Group should consider adapting the BC-Alaska Waste Management Plan template for the U.S.-Washington situation. The template should be vetted with both Canadian and U.S. Customs to ensure feasibility and avoid critical delays of inland and marine waste management operations at security checkpoints. First Nations, Federally-recognized Tribes, local governments, and private stakeholders along the BC-Washington border should be consulted and existing waste management plans incorporated.
4. The Waste Management Plans for both transboundary areas should include the following provisions:
 - Mutually-agreeable locations (on both sides of the border) for recycling of oily wastes.
 - Joint plans for the selection of mutually-agreeable locations on both sides of the border for in-situ (at or near site) oily waste treatment that includes (but is not limited to) environmentally-sound and practical oiled woody-debris burning, oiled debris/sediment land-farming, and portable incineration. Locations selected for staging should be available in a GIS format that can be utilized at the operations and planning levels. During a response, facilitate consultation with Operations, Logistics and relevant local governments on the assessment and selection of proposed locations.
 - Identified field equipment units (barges, lined trucks, storage bladders, earth-moving equipment, bins, portable incinerators and supporting resources) dedicated to waste management.
 - Lists of coastal facilities with temporary holding capacities over 100,000 metric tonnes located near the border which can be provided to Operations and Logistics.
 - An agreement for deploying on-site monitoring teams (e.g. custody signage and trained supervisors) to ensure that oily wastes are segregated into waste streams (including recyclable elements) before initiating movement across the border.
 - Protocols for acquiring waste management records (including disposal locations) from all agencies and command posts involved in the response.

- After-action reports, lessons learned and any penalties issued from either command post should be made readily available for access by either country for waste/disposal documentation.
 - Legal analyses based on applicable legislation in both countries (and if need be – international law conventions). As the legal issues are predominantly international, the lead federal agencies would be most suited to retain legal counsel and establish a formal legal working group, if needed. Additional legal opinion would be provided by the State/Provincial agencies.
 - Recommendations to facilitate coordination of waste management decisions between both Incident Command Posts should be included in the plans. Waste Management liaisons and specialists should interact extensively with the EU and REET to further develop and adjust the joint waste management plans as required during a specific incident.
 - Border Security agencies should help develop personnel/equipment tracking forms to be included in the waste management plans.
 - Comprehensive provisions in the Waste Management Plans addressing disposal of hazardous wastes from vessel cargoes or supplies (possibly as a separate appendix).
5. With regard to the movement of oily wastes across borders, the CANUSPAC and CANUSDIX JRTs should ensure participation of the Canadian and U.S. Border security agencies at the ICP level during transboundary tabletop exercises.
6. It is recommended that the State and Provincial agencies be responsible for working with the Coast Guards on incorporating waste management into the CANUSDIX and CANUSPAC exercises.

SOURCES:

- EnviroEmerg Consulting Services Inc., Major Marine Vessel Casualty Risk and Response Preparedness in British Columbia. July 2008 Prepared for Living Oceans Society:
http://www.livingoceans.org/files/PDF/energy/LOS_marine_vessels_report.pdf
- Alaska Dept of Environmental Conservation & British Columbia Ministry of Environment, M/V Tarheel Draft WMP Sept 2007. Prepared for CANUSDIX 2007
- British Columbia Ministry of Environment, MV WMP Draft W4-1 June 2008
- The Canada-U.S. Agreement on the Transboundary Movement of Hazardous Waste; information available at:
<http://www.ec.gc.ca/gdd-mw/default.asp?lang=en&n=EB0B92CE-1>

SUMMARY OBSERVATIONS:

- Use of dispersants or other chemicals in a cross-border spill in situations where the countermeasure may affect the other country should be a joint decision, subject to the approval and decision requirements of each country.
- The U.S. National Contingency Plan authorizes the Federal On-Scene Coordinator (FOSC), with the concurrence of the EPA and the state representative to Unified Command and consultation (when practicable) with the U.S. Department of Commerce and the U.S. Department of the Interior to authorize the use of dispersants and in-situ burning on an incident-specific basis. If the RRTs and Area Committees establish pre-authorization plans, an FOSC may authorize the use of dispersants or in-situ burning in the pre-authorized area without obtaining the specific concurrences described above.
- In order to be used in the U.S., a dispersing agent must be listed on the National Contingency Plan Product Schedule maintained by the U.S. EPA. Similarly, Canada has a list of Approved Treating Agents administered by Environment Canada.
- No region in Canada currently has pre-approval authorization for the use of dispersants. Approval for the use of dispersants is currently made on an incident-specific basis and must be evaluated by the REET. Environment Canada is revising their Dispersant Use “Guidelines.”
- Canada has several federal laws and regulations that must be considered during a dispersant use decision, including the Species at Risk Act (SARA) and the Fisheries Act of Canada, which includes “Guidelines on the Use and Acceptability of Oil Spill Dispersants” (currently under revision). There are also provincial and other regional laws and regulations that may apply to the use of dispersants.
- There are few distinct laws regulating the practice of in-situ burning in Canada. As with dispersants, the REET must be contacted to provide an approval/disapproval decision on an incident-specific basis for in-situ burning use. The REET will make a decision based upon net-benefit principles and with consideration of the safety of both responders and the public.
- The Alaska Regional Response Team (ARRT) has guidelines in place for both dispersant use and in-situ burning in Alaska. No pre-authorizations exist in Alaska for either response option.
- In the CANUSDIX transboundary area, guidelines exist that provide for resource agencies on both sides of the border to provide joint, incident-specific recommendations to their respective U.S. Coast Guard (USCG) and Canadian Coast Guard (CCG) incident command systems with regard to dispersant use and in-situ burning use. The U.S. Region 10 Regional Response Team (RRT)’s Northwest Area Contingency Plan includes both a dispersant use policy and an in-situ burn use policy. The dispersant policy states that, if use of dispersants is considered within 3 nautical miles of the international border with Canada, the Region 10 RRT will consult with the CANUSPAC Joint Response Team.
- The in-situ burn policy, which includes a decision process and application checklist, has no provision for consulting with the CANUSPAC Joint Response Team or any Canadian government entity when used near Canadian waters. (This policy is scheduled to be revised in 2011). It is the policy of the Region 10 RRT to also consult with the appropriate tribal governments with off-reservation treaty rights in navigable waters threatened by a release or discharge of oil, when practicable.
- There are no CANUSPAC joint decision-making guidelines for U.S. and Canadian resource agencies similar to those in the CANUSDIX Annex.

DISCUSSION:

U.S. and Canadian policies or guidelines for use of dispersants and *in-situ* burning are based on the premise that a rapid decision is essential if these response techniques are to be used effectively on marine spills and recognize the need, especially in the case of large offshore spills, to have a broad array of response technologies readily available to deploy.

Use of dispersants or other chemicals in a cross border spill in situations where the countermeasure may affect the other country should be a joint decision, subject to the approval and decision requirements of each country. The JRT and any other joint bodies established during an incident should assist in ensuring a consistent decision making process is applied to both sides of the border.

As noted previously in this Planning Section, the CANUSLANT Annex to the Canada – U.S. Joint Marine Pollution Contingency Plan establishes a Joint Environment Section (JES that will be jointly led by the NOAA Scientific Support Coordinator and the Chair of the Regional Environmental Emergencies Team (REET). Joint U.S./Canadian task forces may be formed as needed from within the JES in order to address specific issues such as in-situ burning and dispersant use. These task forces would be staffed based on the objectives of the task and the skills of the JES personnel available. These task forces may be temporarily assigned, by the JES leaders, to other sections or units of the command. This is an organizational model worth consideration.

U.S. Dispersant and In-Situ Burn Use Policies

In the U.S., the National Contingency Plan (NCP), Section 300.910 (Subpart J) authorizes the Federal On-Scene Coordinator (FOSC), with the concurrence of the U.S. Environmental Protection Agency representative to the Regional Response Team and, as appropriate, the concurrence of the State representative to the RRT with jurisdiction over navigable waters threatened by a release or discharge of oil and in consultation with the U.S. Department of Commerce and the U.S. Department of the Interior natural resource trustees, when practicable, to authorize the use of dispersing and burning agents on an incident-specific basis. If the RRT representatives from EPA and the states with jurisdiction over the waters, DOC and DOI natural resource trustees approve in advance the use of dispersants under specified circumstances as described in preauthorization plan, the FOSC may authorize the use of dispersants in the preauthorized area during an emergency spill response without obtaining the specific concurrences described above. In order to be used in the U.S., a dispersing agent must be listed on the National Contingency Plan product schedule maintained by the U.S. EPA.

Following the Deepwater Horizon oil spill response, the U.S. EPA initiated a review in December of 2010 - in cooperation with the Regional Response Teams and Area Committees - of pre-authorization plans for subsea dispersant use, for long-term surface applications, and for dispersant monitoring protocols.

In-situ burning (ISB) is regulated under the Clean Air Act and authorization for ISB will come from the FOSC or SOSC with jurisdictional authority over the area in which the burn is to be conducted. Typically, the RRT or Area Committees will include ISB in pre-planning efforts and will have formulated guidelines to identify policy on the use of in-situ burning as a response tool; the process to be used by the FOSC/SOSC through the Unified Command to determine whether in-situ burning is appropriate following an oil discharge; and which entities are to be consulted by the FOSC/SOSC to obtain input on a request to conduct an in situ burn. If the use of burning agents to improve the combustibility of the oil is included in the ISB plan, the FOSC must authorize the use of the burning agent(s) and follow the same concurrence and consultation requirements as required under the NCP Section 300.910 (Subpart U) for use of dispersants. Burning agents are those additives that, through physical or chemical means, improve the combustibility of the materials to which they are applied.

Canadian Dispersant Use Policy

Recently, there has been renewed interest in the potential use of dispersants by the offshore oil and gas Industry in Canada for several reasons, including the increased risk of spills due to increases in vessel and offshore activity and to the limitations of other response techniques. Dispersants were a focus of discussion at Regional Environmental Emergencies Team (REET) meetings in 2002, 2003 and 2004 and at an Environmental Research Studies Fund Workshop in 2004. Environment Canada is revising its dispersant use “Guidelines.” No region in Canada currently has pre-approval authorization for the use of dispersants, and there are no agreed-upon criteria

for the use of dispersants. Approval for the use of dispersants is currently made on an incident-specific basis and must be evaluated by the REET. Environment Canada administers a list of “Approved Treating Agents.” Canada has several federal laws and regulations that must be considered during a dispersant use decision. These include the Species at Risk Act (SARA) and the Fisheries Act of Canada, which prohibits depositing of “a deleterious substance in Canadian waters frequented by fish.” The Fisheries Act also includes “Guidelines on the Use and Acceptability of Oil Spill Dispersants,” which is currently under revision. There are also provincial and other regional laws and regulations that may apply to the use of dispersants.

The Regional Environmental Emergencies Team (REET) is the scientific advisor to lead agencies for environmental issues during oil spills. REETs, typically co-chaired by Environment Canada (EC) and the local province’s Ministry of Environment, provide interface and an avenue for consensus with other affected agencies and First Nations. In the case when the Canadian Coast Guard (CCG) is the On-Scene Commander, the REET would make an approval/disapproval recommendation to the CCG; the CCG then has authority to make the final decision. Environment Canada has developed guidelines establishing that dispersants may be used with Environment Canada/REET permission under certain conditions, when their use poses a clear net environmental benefit.

Canadian In-Situ Burn Use Policy

Unlike the use of dispersants, there are few distinct laws regulating the practice of in situ burning in Canada. As with dispersants, the REET must be contacted to provide an approval/disapproval decision on an incident-specific basis for in-situ burning use. The REET will make a decision based upon net-benefit principles. In order to make a decision, the REET would need information on oil type, weather and sea conditions, as well as species and habitats in the (potentially) affected area. The focus of the approval decision is ultimately safety of both responders and the general public.

The BC Ministry of Environment drafted a *BC/Canada Decision Guideline on In-Situ Burning* in 1995; it was widely distributed and vetted through Environment Canada’s Spill Technology group, but has never been formally adopted.

Dispersant Use and In-Situ Burning in Alaska

Decisions in Alaska regarding dispersant use and in-situ burning are made in accordance with the Alaska Regional Response Team’s (ARRT) Oil Dispersant Guidelines for Alaska and the ARRT’s In-Situ Burning Guidelines for Alaska. Decision-making for dispersant use and in-situ burning on the Alaska side of the Dixon Entrance transboundary area is made on an incident-specific basis, as is the case statewide.

Dispersant Use and In-Situ Burning in the CANUSDIX Transboundary Area

The Canada-U.S. Joint Marine Pollution Contingency Plan CANUSDIX Annex includes the *CANUSDIX Guidelines for Resource Agency Input to Dispersant Use, In-Situ Burning and Places of Refuge Decision-Making*. These guidelines provide an agreed-upon process for resource agencies on both sides of the border to provide joint, incident-specific recommendations to their respective U.S. Coast Guard and Canadian Coast Guard incident command systems with regard to dispersant use and in-situ burning decision-making. The guidelines are used when an incident in the Dixon Entrance transboundary area results in activation of the CANUSDIX Annex and when Canadian and U.S. resource agency contacts receive a request for input into dispersant use or in-situ burning decision-making.

Dispersant Use and In-Situ Burning in the U.S. Northwest

The U.S. Region 10 Regional Response Team (RRT) Northwest Area Contingency Plan includes both a dispersant use policy and an *in-situ* burn use policy under Section 4600 “Response Technologies for Oil Spills” available at: http://www.rrt10nwac.com/Files/NWACP/Chapter_4000.pdf. The dispersant policy states that, if use of dispersants is considered within 3 nautical miles of the international border with Canada, the Region 10 RRT will

consult with the CANUSPAC Joint Response Team. The in-situ burn policy, which includes a decision process and application checklist, has no provision for consulting with the CANUSPAC Joint Response Team or any Canadian government entity when used near Canadian waters. (This policy is scheduled to be revised in 2011). There are no joint decision-making guidelines for U.S. and Canadian resource agencies similar to those in the CANUSDIX Annex.

RECOMMENDATIONS

1. The U.S. Region 10 RRT should consider incorporating procedures into the *Northwest Area Contingency Plan* In-situ Burn Policy for consulting with the CANUSPAC JRT or Canadian Government if use of in-situ burning close to Canadian waters is considered.
2. The CANUSDIX and CANUSPAC JRTs should both develop guidelines focused on achieving joint decision-making between the U. S. and Canadian Incident Command Posts for the use of either dispersants or *in-situ* burning. These guidelines should provide for input from representatives of appropriate agencies, Federally-recognized tribes, First Nations, technical experts, and stakeholders.
3. The CANUSPAC resource agencies should consider developing guidelines for providing joint incident-specific recommendations to their respective USCG and CCG incident command systems for dispersant use and *in-situ* burning decision-making. The *CANUSDIX Resource Agency Guidelines* should be considered as a template.
4. Federally-recognized tribes and First Nations in the CANUSPAC and CANUSDIX areas should develop guidelines for providing joint incident-specific recommendations to their respective USCG and CCG incident command posts for dispersant use and in-situ burning decision-making.
5. Both the CANUSPAC and CANUSDIX JRTs should drill these transboundary consultation and decision-making procedures for in-situ burning and dispersant use during joint exercises. Federally-recognized tribes and First Nations should be invited to participate in dispersant use and in-situ burning exercises to drill their protocols.

SOURCES:

- Alaska Regional Response Team. Oil Dispersant Guidelines for Alaska. 1989. [http://dec.alaska.gov/spar/perp/plans/uc/Annex%20F%20\(Jan%2010\).pdf](http://dec.alaska.gov/spar/perp/plans/uc/Annex%20F%20(Jan%2010).pdf)
- Alaska Regional Response Team. 2008. *In-Situ* Burning Guidelines for Alaska. [http://www.dec.state.ak.us/spar/perp/docs/ISB-Rev1\(Final-August%202008\).pdf](http://www.dec.state.ak.us/spar/perp/docs/ISB-Rev1(Final-August%202008).pdf)
- CANUSDIX Annex: Guidelines for Resource Agency input to Places of Refuge, Dispersant Use, and *In-Situ* Burning Decision-Making. http://www.akrrt.org/CANUS_DixonEntrance/
- Region 10 Regional Response Team and Northwest Area Committee. Northwest Area Contingency Plan. 2008: <http://www.rtt10nwac.com/NWACP/Default.aspx>
- CANUSLANT Annex, Appendix K, Joint Environmental Team; <http://homeport.uscg.mil/mycg/portal/ep/home.do> (click Environmental, then Outreach, then International Programs, then the Joint Contingency Plan, then the CANUSLANT Annex PDF file)

TOPIC: ROLE OF FIRST NATIONS AND FEDERALLY-RECOGNIZED TRIBES IN TRANSBOUNDARY OIL SPILL PLANNING AND RESPONSE

SUMMARY OBSERVATIONS:

- Presidential Executive Orders address the United States government-to-government relationship with Indian tribes to ensure that Federal agencies and departments consult with tribes as regulations and policies are developed on issues that impact tribal communities. It is also the policy of the States of Alaska and Washington to work on a government-to-government basis with Federally-recognized tribes.
- The CANUSDIX Area to the Joint Contingency Plan provides guidance for overall coordination of response activities in the Dixon Entrance area, supplementing the existing planning and response regime in Alaska (and British Columbia). The CANUSDIX Annex does not specifically address Federally-recognized tribes or First Nations.
- Federally-recognized tribes or the AI-TC have been invited to provide comments on many (but not all) of the planning documents relevant to the CANUSDIX transboundary area. In 2009, Federally-recognized tribes were invited to provide comments on revisions to the CANUSDIX Wildlife Response Guidelines (CANUSDIX Wildlife Guidelines) and the CANUSDIX Guidelines for Resource Agency Input to Places of Refuge, In-Situ Burning, and Dispersant Use (CANUSDIX Resource Agency Guidelines).
- Until 2009, when the U.S. Coast Guard sent letters to Federally-recognized tribes, they had not been invited to participate in CANUSDIX related activities; their input was obtained during one part of a 2007 CANUSDIX exercise via the U.S. Department of the Interior.
- The Alaska Unified Plan (Unified Plan) provides overall guidance for spill preparedness and response activities throughout Alaska. The Unified Plan includes 10 Subarea Contingency Plans (SCPs). The Southeast Alaska SCP includes the area in Alaska that could be affected following an oil spill in the CANUSDIX transboundary spill area. Contact information for Federally-recognized tribes and information regarding the notification of Federally-recognized tribes are included in these documents.
- Federal On-Scene Coordinators (FOSCs) are responsible on behalf of the U.S. Government for notifying Federally-recognized tribes that are affected, or potentially-affected, by an oil spill in Alaska, including on the Alaska side of the CANUSDIX transboundary area. During actual spill responses in Alaska, input from Federally-recognized tribes has been sought by, and provided directly to, the Federal OSC.
- Alaska's State On-Scene Coordinator (SOSC) is tasked with notifying Alaska native organizations, specifically the Alaska Inter-Tribal Council (AI-TC) and native Corporations. The SOSC maintains regular contact with Federally-recognized tribes, local native corporations and other native organizations present in Southeast Alaska and these organizations are routinely notified of pollution incidents in their area of concern. During a spill event information is provided via email and Sitreps, plus personal contacts will also be made with affected native organizations to ensure that their concerns are addressed.
- The Canadian Coast Guard (CCG) would be the lead Canadian federal agency in the event of a ship-source transboundary spill. The CANUSPAC and CANUSDIX Operational Annexes indicate that response activities must be consistent with the CCG's Marine Spills Contingency Plan – Pacific Region. The CCG's Marine Spills Contingency Plan – Pacific Region does not identify how potentially impacted First Nations would be notified or involved in spill response decision making.
- When the CCG manages an incident, First Nations can provide input via the Regional Environmental Emergency Team (REET). Since the REET only addresses environmental issues and not food safety, public safety, etc., it may not be a comprehensive venue for addressing all First Nations' issues related to a spill.
- The CCG has not included First Nations in spill planning or policy and document development.
- There is no specific policy in British Columbia outlining how potentially impacted First Nations and stakeholders should be notified, though rapid notification of First Nations is recognized as an imperative. The British Columbia Ministry of Environment is working with coastal First Nations on the issue of spills and is in the process of developing two guidance documents that will further clarify the notification process.

- If it is determined that a spill has impacted or may impact a First Nation, the information is forwarded to both Indian and Northern Affairs Canada (INAC) and Public Safety Canada. Ministry staff will also attempt to contact the affected First Nation(s) directly.
- The Ministry of Environment includes First Nations in spill planning whenever possible and First Nations are invited to spill planning exercises and notified of emergency management training opportunities as they become available. The Ministry of Environment has not, however, included First Nations in plan or policy development.
- Multiple agencies respond to spills in Washington under the guidance of the Northwest Area Contingency Plan (NWACP). The NWACP determines how potentially-impacted tribes are to be notified in the event of a spill. The Plan recognizes a Unified Command structure and provides for potentially-impacted tribes to have a Tribal On-Scene Coordinator participating in Unified Command.
- Some tribes have participated in planning and the development of Geographic Response Plans (GRPs). Many tribes also have active police departments and a system of emergency response. Ecology has provided many tribes in Washington with oil spill response equipment caches and training which could be used for source control or resource protection. Other tribes have independently developed their spill response capabilities (i.e., training and equipment) in coordination with the federal Environmental Protection Agency, spill response organizations such as Marine Spill Response Corporation (MSRC) and National Response Corporation Environmental Service (NRCES), and local industries.
- Transboundary First Nations and federally recognized tribes were included in the 2007 and 2008 CANUSPAC exercises.
- The U.S. Coast Guard Authorization Act of 2010 provides for improved oil spill prevention, preparedness, and response coordination with tribal governments and gives the USCG authority to enter into memoranda of agreement and associated protocols as needed to establish cooperative arrangements.

DISCUSSION:

ALASKA

A number of Presidential Executive Orders (including the November 2000 Executive Order 13175) and a November 5, 2009, Presidential Memorandum for the Heads of Executive Departments and Agencies) address the United States (U.S.) government-to-government relationship with Indian tribes to ensure that Federal agencies and departments consult with tribes as regulations and policies are developed on issues that impact tribal communities. In September 2000, the Governor of Alaska issued Administrative Order 186, declaring that it is the commitment and the policy of the State of Alaska to work on a government-to-government basis with Federally-recognized tribes in Alaska.

Plans

The Alaska Federal/State Preparedness Plan for Responding to Oil and Hazardous Substances Discharges and Releases Unified Plan⁵ (Unified Plan) provides overall guidance for spill preparedness and response activities throughout Alaska. The Unified Plan includes 10 Subarea Contingency Plans (SCPs). The Southeast Alaska SCP⁶ includes the area in Alaska that could be affected following an oil spill in the CANUSDIX transboundary spill area.

The United States Joint Marine Pollution Contingency Plan (Joint Contingency Plan) provides the overall framework for transboundary planning and response activities. The CANUSDIX Area, Annex 5 Canada-United States Dixon Entrance – Geographical Annex (CANUSDIX Annex) to the Joint Contingency Plan provides guidance for overall coordination of response activities in the Dixon Entrance area, supplementing the existing planning and

⁵ United States. Alaska Regional Response Team. Alaska Federal/State Preparedness Plan for Responding to Oil and Hazardous Substances Discharges and Releases Unified Plan, 1999. <http://dec.alaska.gov/spar/perp/plans/uc.htm>

⁶ United States. Alaska Regional Response Team. Southeast Subarea Contingency Plan, 2005 http://dec.alaska.gov/spar/perp/plans/scp_se.htm

response regime in Alaska (and British Columbia). The CANUSDIX Annex does not specifically address Federally-recognized tribes or First Nations.

Notification

When the CANUSDIX Annex is activated (by either the CCG Regional Director or the USCG District 17 Commander), there are no specific protocols for notifications of Federally-recognized tribes. However, under the Unified Plan, the Federal OSC is responsible on behalf of the U.S. Government for notifying affected, or potentially-affected, Federally-recognized tribes. Contacts for Federally-recognized tribes are included in the Southeast Alaska SCP; a more current list of contacts is included on the Alaska Regional Response Team (RRT) web site.⁷ If necessary, the Federal OSC may call upon the U.S. Department of the Interior (DOI) for assistance in identifying which Federally-recognized tribe(s) may be affected, or potentially affected, by the incident.

Activation of the CANUSDIX plan would trigger activation of the SCP. In the SCP the State On-Scene Coordinator (SOSC) is tasked with notifying Alaska native organizations. By policy, the SOSC will notify the federally recognized tribal governments likely to be impacted by an oil spill.

Spill Response

The Unified Plan states that representatives of Federally-recognized tribes will be afforded an opportunity to provide input into the response process. During actual spill responses in Alaska, input from Federally-recognized tribes has been sought by, and provided directly to, the Federal and State OSCs. When Federal OSCs have requested input from resource agencies on spill response issues/operations affecting Federally-recognized tribes the U.S. Department of the Interior (DOI), through its Bureau of Indian Affairs (BIA), has conducted consultation with affected, or potentially-affected, Federally-recognized tribes to help ensure that their resource interests are taken into account.

The State On-Scene Coordinator maintains contact with all local Alaskan Native groups including Federally-recognized tribes, who may be impacted by an oil or hazardous material spill in Southeast Alaska. During an event information is provided via email and Sitreps and personal contacts will also be made with affected native organizations to ensure their concerns are addressed.

Spill Planning and Policy Development

The Unified Plan was developed through joint collaboration between the USCG, the U.S. Environmental Protection Agency, the Alaska Department of Environmental Conservation, and members of the Alaska RRT, which is comprised of Federal agencies and the State of Alaska. Guidelines included in the Unified Plan have been developed by Alaska RRT working groups or committees, most of which have included representation by the Native community. Revisions to the Unified Plan have included an opportunity for input by Federally-recognized tribes. Federally-recognized tribes in Southeast Alaska have also been afforded the opportunity to provide input to the Southeast Alaska SCP both during the initial drafting and during SCP updates.

Development of the CANUSDIX Wildlife Response Guidelines and the CANUSDIX Resource Agency Guidelines did not include consultation with Federally-recognized tribes. However, at the September 2007 meetings of the CANUSDIX Wildlife Response and Resource Agency working groups, it was agreed that representatives of Federally-recognized tribes and First Nations who have an interest in the working groups should be afforded the opportunity to participate in both working groups. Prior to the September 2009 meetings of the CANUSDIX Wildlife Response and Resource Agency working groups in Prince Rupert, British Columbia, representatives of appropriate Federally-recognized tribes and First Nations were provided background information on the working

⁷ United States. Alaska Regional Response Team. Alaska's 229 Federally-Recognized Tribes. 2010. <http://www.akrrt.org/AK-tribal-Contact.pdf>

groups as well as information on the September 2009 working group meetings, and proposed revisions to the CANUSDIX Wildlife Guidelines and the CANUSDIX Resource Agency Guidelines. In addition, they were invited to attend the working group meetings either in person or via teleconference and were provided with meeting summaries and revisions of the CANUSDIX Wildlife Guidelines and the CANUSDIX Resource Agency Guidelines. Representatives of the GEM Gitxaala Nation, the Gitga'at Nation and the Nisga'a Lisims Government attended the 2009 working group meetings.

BRITISH COLUMBIA

In British Columbia, the inclusion of First Nations is dependent upon the lead agency directing the spill response. First Nations are a level of government and not just interested stakeholders. The BC Marine Oil Spill Response Plan recognizes the legitimate role of First Nations to be represented in Unified Command and integrated within an Incident Management Team as per ICS protocols. The plan is supported by an Operational Guideline on Unified Command and one other OP on the ICS process.

The Canadian Coast Guard

The Canadian Coast Guard (CCG) is the lead federal agency for spill response if the spill originates from a vessel or is an "orphan spill" in marine waters.

Plans

The CANUSPAC Operational Annex to the Canada – United States Joint Marine Pollution Contingency Plan states that "response to marine pollution or a threat of marine pollution shall be consistent with the Canadian Coast Guard Marine Spills Contingency Plan – Pacific Region."⁸ The Canadian Coast Guard's Marine Spill Contingency Plan – Pacific Region does not identify how First Nations are to be included in spill response.

Notification

The Canadian Coast Guard's Marine Spills Contingency Plan – Pacific Region does not identify how potentially impacted First Nations would be notified in the event of a spill. All spills and impacted First Nations are addressed on a case-by-case basis. If there were a transboundary spill the CCG would deal with United States tribes through the U.S. Coast Guard.⁹

Spill Response

When the CCG manages an incident, First Nations can provide input via the Regional Environmental Emergency Team (REET), an advisory group that is co-chaired by Environment Canada and the BC Ministry of Environment. It needs to be noted, however, that the REET only addresses environmental issues and not food safety, public safety, etc. and thus REET may not be a comprehensive venue for addressing all First Nations' issues related to a spill.

Spill Planning and Policy Development

The CCG has not included First Nations in spill planning or policy and document development.

⁸ The CANUSDIX Annex to the JCP, available at <http://homeport.uscg.mil/mycg/portal/ep/home.do>

⁹ Don Rodden. E-mail to Mike Richards. November 5th, 2008

The British Columbia Ministry of Environment

The Ministry of Environment (MOE) is the lead provincial agency for all spills in or affecting the province.

Plans

The Ministry of Environment uses its BC Marine Oil Spill Response Plan for all spills in British Columbia's marine environment. The Plan was updated in January 2007.

Notification

There is no specific policy in British Columbia outlining how potentially impacted First Nations and stakeholders should be notified, though rapid notification of First Nations is recognized as an imperative. The Ministry has been actively working with coastal First Nations on the issue of spills and is in the process of developing two guidance documents that will further clarify the notification process. The first will be targeted at Ministry staff and will provide information on notifying and working with First Nations. The second document will be targeted at First Nations and its aim is to provide them with background information on working with the province and others when a spill occurs.

Currently, when a spill is reported the call is received directly by Emergency Operations staff at the Provincial Emergency Program's (PEP) 24 hour emergency line. If it is determined that the spill has impacted or may impact a First Nation, the information is forwarded to both Indian and Northern Affairs Canada (INAC) and Public Safety Canada. Ministry staff will also attempt to contact the affected First Nation(s) directly. This is done electronically for smaller "code 1" spills and verbally on all larger "code 2" spills. After PEP has contacted a representative from INAC, INAC will in turn notify the appropriate First Nation(s) directly.

This notification process may take a long time. Additionally, First Nations are only notified if the spill has or may have the potential to impact their traditional territories. A key challenge is finding the correct representation by First Nations, as territories may overlap.

Spill Response

The MOE's BC Marine Oil Spill Response Plan "encourage[s] a unified (shared) incident command and team integration among all jurisdictions affected, which can include local, provincial and federal governments, First Nations, as well as with the Responsible Party."¹⁰

First Nations could, therefore, be one of the decision makers participating in the Unified Command. This would only be the case, however, in marine spills that have an identified Responsible Party or a government agency leading the response that supports Unified Command. If the CCG is leading response and has not established a Unified Command, the Ministry of Environment could alternately establish a second Incident Command Post in order to manage provincial interests and provide a venue for First Nations integration. In general, though, more than one Incident Command Post is not recommended. One of the issues under discussion currently is how to cover the upfront costs of the First Nations participating in a response or even their travel to the Incident Command Post, when they may be able to recover those costs later from the RP.

Spill Planning and Policy Development

The Ministry of Environment includes First Nations in spill planning whenever possible. Efforts have been made to engage coastal First Nations and build awareness about the marine spill response regime in British Columbia. Additionally, First Nations are invited to spill planning exercises and notified of emergency management training

¹⁰ British Columbia. Ministry of Environment. BC Marine Oil Spill Response Plan, 2007.
http://www.env.gov.bc.ca/eemp/resources/response/pdf/marine_oil_response_plan.pdf, pg. 2-2.

opportunities as they become available. The Ministry of Environment has not, however, included First Nations in plan or policy development.

WASHINGTON:

The 1989 Centennial Accord between the federally-recognized Indian Tribes in Washington and the State of Washington addresses the government-to-government relationship with Indian tribes to ensure that state agencies and departments consult with tribes as regulations and policies are developed on issues that impact Indian communities.

Plans

This topic is addressed in state policy via the Northwest Area Contingency Plan¹¹ (NWACP). The NWACP was developed through joint collaboration between the U.S. Coast Guard, the U.S. Environmental Protection Agency, and states agencies representing Washington, Oregon and Idaho.

Notification

The NWACP determines that potentially impacted tribes must be notified in the event of a spill. The following statements address notification:

“Tribes with reservation and/or usual and accustomed hunting or fishing grounds within the states of Idaho, Oregon, and Washington, must be notified by the Federal On-Scene Coordinator in the event a spill may impact or threaten to impact any of their resources... Tribes must also be notified if there may be a potential impact from a spill or spill response operations to any tribal cultural resources. Again, the Department of Interior and the Bureau of Indian Affairs may assist in identification of tribes for notification; however, it remains the FOSC’s responsibility to make all proper notifications to tribes.”¹²

The Washington State Department of Ecology generally provides a notification to tribes in Washington when their resources are at risk of being affected by a spill of oil or hazardous materials. They do so as part of the State’s obligations under the Centennial Accord.

Spill Response

The NWACP determines that qualified tribal On-Scene Coordinators may be included in Unified Command. If a tribe does not wish to assume a position in Unified Command, they can provide input via a Liaison Officer.

Spill Planning and Policy Development

Some tribes have participated in planning and the development of Geographic Response Plans (GRPs). Many tribes also have active police departments and a system of emergency response. Ecology has provided many tribes in Washington with oil spill response equipment caches and training which could be used for source control or resource protection. Other tribes have independently developed their spill response capabilities (i.e., training and equipment) in coordination with the federal Environmental Protection Agency, spill response organizations such as Marine Spill Response Corporation (MSRC) and National Response Corporation Environmental Service (NRCES), and local industries.

TRANSBOUNDARY EXERCISES – CANUSDIX ANNEX

Exercises have been conducted for various aspects of the CANUSDIX Annex to help ensure that Canadian and U.S. Federal agencies, British Columbia, the State of Alaska, and Canadian and U.S. oil spill response organizations and wildlife response organizations are prepared to work together in the event of a spill. To date, no representatives of Federally-recognized tribes or First Nations have been formally invited to participate in any exercises or pre-

¹¹ United States. Washington, Oregon, Idaho. Northwest Area Contingency Plan:
<http://www.rrt10nwac.com/NWACP/Default.aspx>

¹² Ibid

exercise-related planning activities. However, during a September 2007 exercise of the Resource Agency Guidelines, the DOI-BIA conducted consultation with Federally-recognized tribes (without advanced notice) and their input was included in the joint recommendations made to the USCG and CCGs regarding potential places of refuge. The CANUSDIX 2007 After Action Report, noted that the “exercise should include First Nations and other federally recognized tribes”¹³ and that “First Nations and other federally recognized tribes should be incorporated in the exercise planning process, participating in all activities.”¹⁴ Representatives of the GEM Gitxaala Nation, Gitga’at Nation, and Nisga’a Lisims Government participated in the CANUSDIX 2009 exercise.

TRANSBOUNDARY EXERCISES – CANUSPAC ANNEX

Formal exercises have been conducted in the CANUSPAC annex to ensure that transboundary BC/WA agencies are prepared to work together in the event of a spill. Transboundary First Nations and federally recognized tribes have been included in recent CANUSPAC exercises as follows:

- June 11 – 15, 2008: the Makah and Quileute tribes
- June 11 – 15, 2007: the Tsawwassen First Nation

MANDATES IN THE 2010 U.S. COAST GUARD AUTHORIZATION ACT

Section 706 of the U.S. Coast Guard Authorization Act, signed by the President in mid-October 2010, provides for improved coordination with tribal governments as follows:

- Within six months of the Act, the USCG is to develop a tribal consultation policy regarding oil spill prevention, preparedness, response, and NRDA.
- If an oil spill is likely “to have a significant impact” on natural and cultural resources owned or used by a federally recognized tribe, the USCG must include tribal representatives in the incident command system; share info about the spill; and involve the tribe in response decisions.

The USCG is given authority to enter into memoranda of agreement and associated protocols as needed to establish cooperative arrangements. Such MOAs may include:

- Assistance to tribes to participate in Area Planning;
- Assistance to tribes to develop the capacity to implement ACPs and local plans;
- Agreements to include tribal representatives on the RRT;
- Training for tribal incident commanders and spill responders; and
- Demonstration projects.

RECOMMENDATIONS

1. The Canadian and U.S. Coast Guards should consider identifying representatives of Federally-recognized tribes and First Nations who could be impacted if a transboundary spill occurred in the CANUSDIX or CANUSPAC areas. Once identified, the following steps should be considered:
 - 24/7 contact information should be maintained;
 - Their concerns should be identified and incorporated into transboundary planning;
 - They should be trained on how they would work within the response structure and how the flow of response-related information and input would take place; and
 - They should be notified of any spills as well as any significant threat of a spill in their areas of concern, following the activation of either the CANUSDIX or the CANUSPAC Annex.

¹³ CANUSDIX Exercise Reports (<http://www.akrrt.org/reports.shtml>)

¹⁴ Ibid, p. 17

2. The USCG and CCG should continue inviting representatives of Federally-recognized tribes and First Nations to participate in CANUSDIX and CANUSPAC-related planning activities, exercises and evaluations. (We note that this would be consistent with the CANUSDIX 2007 After Action Report's recommendations.)
3. British Columbia response agencies should develop a policy defining protocols to expedite notifications to First Nations of any spills that could impact them. The agreement should include contact information for regional First Nations (including transboundary First Nations), should determine that potentially impacted First Nations be notified immediately and should determine who is responsible for making the notifications.
4. The U.S. and Canadian Coast Guards as well as appropriate state and provincial agencies should work with Federally-recognized Tribes or First Nations to clarify what funding mechanisms are available to support their participation in Transboundary spill planning and exercises.
5. The U.S. and Canadian Coast Guards as well as appropriate state and provincial agencies should work with Federally-recognized Tribes or First Nations to clarify their access to response cost recovery through the U.S. Oil Pollution Act of 1990 or Canada's Ship Source Oil Pollution Fund.

SOURCES:

Please reference the footnotes in this report.

SUMMARY OBSERVATIONS:

- In both the CANUSDIX and CANUSPAC transboundary areas, guidelines exist for both the U.S. Coast Guard (USCG) and the Transport Canada-Marine (TC-M)/Canadian Coast Guard (CCG) for addressing incident-specific places of refuge (POR) decision-making on their respective sides of the border. The USCG has the lead for POR decision-making in U.S. waters. TC-M has the lead, with input from the CCG, for POR decision-making in Canadian waters.
- Guidance exists for pre-identifying Potential Place of Refuge (PPOR) locations in Alaska and in the State of Washington (Washington), which may be considered (along with other locations as appropriate) on an incident-specific basis during POR decision-making. The pre-identification of PPORs on the Canadian side of the CANUSDIX and CANUSPAC transboundary areas is inconsistent with the TC-M POR guidelines.
- PPOR locations have been identified on the Alaska side of a portion of the CANUSDIX transboundary area. To date no PPOR locations have been identified in the CANUSPAC transboundary areas.
- In the CANUSDIX transboundary area, the *CANUSDIX Guidelines for Resource Agency Input to Dispersant Use, In-Situ Burning, and Places of Refuge Decision-Making (CANUSDIX Resource Agency Guidelines)* sets forth an agreed-upon process for resource agencies on both sides of the border to provide incident-specific joint recommendations into their respective USCG and TC-M/CCG incident command systems for POR decision-making. This process facilitates recommendations based on what is best for the resources in the entire transboundary area, rather than on what is best for the resources on their respective side of the border.
- In the CANUSDIX transboundary area, the *Alaska Regional Response Team Places of Refuge Guidelines (Alaska RRT POR Guidelines)* outline how agencies, Federally-recognized tribes, and stakeholders may provide incident-specific input to the USCG POR decision-making in U.S. waters.
- The *Transport Canada National Places of Refuge Contingency Plan (PORCP)* outlines how agencies, First Nations, and stakeholders may provide input to the TC-M/CCG POR decision-making in Canadian waters.
- In the CANUSPAC transboundary area, the Region 10 Regional Response Team (RRT)/Northwest Area “Chapter 9690, Places of Refuge” guidelines outline how agencies, Federally-recognized tribes, and stakeholders may provide incident-specific input to the USCG POR decision-making in U.S. waters.

DISCUSSION:

This topic paper assumes that an incident has occurred which triggers activation of the appropriate Geographical Annex to the *Canada-United States Joint Marine Pollution Contingency Plan*, which will include coordination between the U.S. Coast Guard (USCG), the Canadian Coast Guard (CCG), and Transport Canada – Marine Safety/ (TC-M). The paper focuses on the identification of Potential Place of Refuge (PPOR) locations (as a preparedness activity) as well as Place of Refuge (POR) decision-making during an incident when a vessel needs assistance and there is a potential for a petroleum discharge or a petroleum discharge has occurred.

Following the break-up, sinking, and subsequent oil spills from the *T/V Erika* in 1999 and the *T/V Prestige* in 2002, the International Maritime Organization (IMO) prepared and then adopted *Guidelines for Places of Refuge for Ships in Need of Assistance (IMO POR Guidelines)* in 2003. In October 2004, the Alaska Regional Response Team (RRT) adopted the *Alaska RRT POR Guidelines*. In December 2004 the Pacific States/British Columbia Oil Spill Task Force members endorsed the *U.S. Coast Guard Pacific Area and Pacific States/BC Oil Spill Task Force Area Plan Annex for Places of Refuge*. Both documents complement the *IMO POR Guidelines* and take similar approaches to Places of Refuge decision-making.

In July 2006, the Region 10 RRT/Northwest Area Committee (which includes Washington, Oregon, and Idaho) included “Chapter 9690, Places of Refuge” (which was modeled after the *Task Force POR Guidelines*) in the *Northwest Area Contingency Plan*.

In July 2007, the U.S. National Response Team (NRT) approved nationwide POR guidelines for use throughout the U.S. The *NRT Guidelines for Places of Refuge Decision-Making (NRT POR Guidelines)* were based on the *Alaska RRT POR Guidelines*. Also in July 2007, Transport Canada Marine Safety approved the National Places of Refuge Contingency Plan (*PORCP*) for use throughout Canada. This plan also complements the *IMO POR Guidelines*.

None of the guidelines identified above support the pre-designation of Places of Refuge. Instead, all of the guidelines include a process for: (1) the pre-identification of information that could be considered (along with other information) on an incident-specific basis during POR decision-making; and/or (2) the pre-identification of potential POR (PPOR) locations that could be considered (along with other locations) on an incident-specific basis during POR decision-making. It should be noted that while there is a process in both Alaska and Washington for the pre-identification of PPORs, pre-identification of PPORs on the Canadian side of the CANUSDIX and CANUSPAC transboundary areas is not consistent with the Transport Canada *PORCP*.

PPOR locations have been identified on the Alaska side of a portion of the CANUSDIX transboundary area. To date no PPOR locations have been identified in the CANUSPAC transboundary areas.

In March 2006, the Canadian and U.S. Federal, Canadian Provincial, and State of Alaska resource agencies with jurisdiction in the Dixon Entrance area, finalized the *CANUSDIX Resource Agency Guidelines* and submitted the document to the CCG and USCG for inclusion in the *Canada-U.S. Joint Marine Pollution Contingency Plan CANUSDIX Annex*. The purpose of the guidelines is to identify the process to help facilitate timely Canadian and U.S. resource agency input to POR, dispersant use, and *in-situ* burning decision-making. The guidelines will be used when an incident in the Dixon Entrance transboundary area (1) results in the activation of the *Annex 5 Canada–United States Dixon Entrance-Geographical Annex to the Canada-United States Joint Marine Pollution Contingency Plan*, and (2) when Canadian and U.S. resource agency contacts receive a request for input into POR, dispersant use, and/or *in-situ* burning decision-making.

All of the guidelines identified above are based on the premise that vessels requiring assistance (whether their fuel or cargo is already leaking or not) may need to be brought into a harbor or anchored or moored in protected waters in order to take action to prevent, or stop, the discharge of petroleum products and/or other cargo. The guidelines identify similar processes to help expedite decision-making on POR locations with the goal of helping prevent, or minimize, adverse effects on stakeholder interests (e.g., public health and safety, sensitive natural and cultural resources, economic considerations, security, and/or critical infrastructure).

The USCG Captains of the Port and TC-M Representatives take the lead in U.S. and Canadian waters, respectively, for POR decision-making, with input as appropriate and as time allows by agencies, Federally-recognized tribes/First Nations, and stakeholders. When an incident involves the discharge or potential discharge of petroleum products, the TC-M Representative coordinates incident-specific POR decision-making with the CCG On-Scene Commander.

The British Columbia Ministry of Environment provided comment on Transport Canada’s draft National Places of Refuge Contingency Plan and identified recommendations specific to British Columbia. There is a need to do Place of Refuge planning and orientation with coastal communities and First Nations regarding the National Plan.

The Ministry has also developed an Operational Guideline on Place of Refuge Decision Making that models the guidance from Transport Canada, IMO, and the Pacific States/British Columbia Oil Spill Task Force.

RECOMMENDATIONS

1. Both the CANUSDIX and CANUSPAC Joint Response Teams should consider developing guidelines for joint incident-specific Place of Refuge (POR) decision-making by the USCG Captain of the Port and the Transport Canada-Marine representative. This joint decision-making process should include providing information to and receiving information from representatives of appropriate agencies, Federally-recognized tribes, First Nations, technical experts and stakeholders.
2. CANUSPAC resource agencies should consider developing guidelines for providing joint incident-specific recommendations by U.S. and Canadian Federal, Provincial, and State resource agency representatives to their respective USCG and TC-M/CCG incident command systems for POR decision-making. The *CANUSDIX Resource Agency Guidelines* should be considered as a template.
3. Federally-recognized tribes and First Nations representatives in the CANUSDIX and CANUSPAC transboundary areas should consider developing guidelines for providing joint incident-specific recommendations to their respective USCG and TC-M/CCG incident command systems for POR decision-making.
4. Where not already done, U.S. federal and state agencies, Federally-recognized tribes, and stakeholders in Alaska and Washington should consider pre-identifying Potential Place of Refuge (PPOR) locations in their respective transboundary areas, which could be considered (among other locations as appropriate) on an incident-specific basis during POR decision-making.
5. Canadian Federal and provincial agencies, First Nations, and stakeholders in British Columbia should consider identifying Potential Places of Refuge in their transboundary areas that could be considered (among other locations as appropriate) on an incident-specific basis during POR decision-making.
6. U.S. and Canadian Federal agencies should consider initial and continued consultation with Federally-recognized tribes and First Nations on POR and PPOR documents developed to date for use in the CANUSDIX and CANUSPAC transboundary areas.

SOURCES:

- Alaska RRT (Regional Response Team). 2004. *Guidelines for Places of Refuge Decision-Making*. Available online at: [http://dec.alaska.gov/spar/perp/plans/uc/Annex%20O%20\(Jan%2010\).pdf](http://dec.alaska.gov/spar/perp/plans/uc/Annex%20O%20(Jan%2010).pdf)
- CANUSDIX Resource Agency Working Group (Canada-United States Resource Agency Working Group). 2006. *Canada-United States Marine Spill Pollution Contingency Plan, CANUSDIX Annex: Guidelines for Resource Agency Input to Places of Refuge, Dispersant Use, and In-Situ Burning*. Available online at: http://www.akrrt.org/CANUS_DixonEntrance
- IMO (International Maritime Organization). 2003. Resolution A.949 (23): *Guidelines on Places of Refuge for Ships in Need of Assistance*. Available on line at: <http://www.marine-salvage.com/documents/Places%20of%20Refuge.pdf>
- Region 10 RRT (Regional Response Team)/Northwest Area Committee. 2006. *Northwest Area Contingency Plan*. Chapter 9690 Places of Refuge. Available online at: http://www.rtt10nwac.com/Files/NWACP/Chapter_9690.pdf
- NRT (National Response Team). 2007. *Guidelines for Places of Refuge Decision-Making*. Available online at: [http://www.nrt.org/production/NRT/NRTWeb.nsf/AllAttachmentsByTitle/A-857PORGuidelinesforPlacesofRefugeDecisionMaking/\\$File/NRT%20POR%20Guidelines%20WRKGRP%20FINAL%207-26-07.pdf?OpenElement](http://www.nrt.org/production/NRT/NRTWeb.nsf/AllAttachmentsByTitle/A-857PORGuidelinesforPlacesofRefugeDecisionMaking/$File/NRT%20POR%20Guidelines%20WRKGRP%20FINAL%207-26-07.pdf?OpenElement)
- Pacific States/British Columbia Task Force (Pacific States/B.C. Oil Spill Task Force). 2004. *USCG Pacific Area/Pacific States/U.S. Oil Spill Task Force Area Plan Annex for Places of Refuge*. Available online at: www.oilspilltaskforce.org/docs/project_reports/PlacesRefugePlanAnnex.pdf

- Transport Canada. 2007. National Places of Refuge Contingency Plan. Available online at: <http://www.tc.gc.ca/eng/marinesafety/tp-tp14707-menu-1683.htm>
- Capt. Ion Ionescu, Transport Canada Marine Safety, Emails on 1/30/09 and 2/24/09; telephone conversations on 1/3/09 and 2/23/09
- British Columbia Ministry of Environment. 2006. *Analysis of Transport Canada's (Marine Safety) Draft National Places of Refuge Contingency Plan*
- Southeast Alaska Subarea Contingency Plan, 2010. Southeast Potential Places of Refuge, Zone 1, Map 1: <http://www.dec.state.ak.us/spar/perp/seakpor/101221seppormap01LR.pdf>

SUMMARY OBSERVATIONS:

- Transboundary coordination on closures of fisheries during a spill response is not addressed in the Canada/U.S. Joint Contingency Plan (JCP) or the CANUSDIX or CANUSPAC Annexes, nor has it been exercised.
- The Joint Environmental Team Workgroup of CANUSLANT is drafting a fisheries closure agreement which could be a model for other annexes.
- The Alaska Department of Environmental Conservation's (ADEC) Food Safety and Sanitation Program has a "zero tolerance" policy toward any contamination of food processed in Alaska. State regulations outline the responsibilities of fishing vessels, tenders, and processing facilities to ensure contamination of commercial finfish and shellfish species does not reach the consumer. Commercial/sport/subsistence fishery closures are made by the Alaska Department of Fish and Game.
- Environment Canada (EC) advises the Canada Department of Fisheries and Oceans and the Canadian Food Inspection Agency (CFIA) if a spill is in an area open to shellfish harvest; if so, the affected area may necessitate an emergency closure. Following a minimum of seven days after the spill has ceased, EC and CFIA re-evaluate the situation. A similar protocol would be in place for non-bivalve fisheries closures. DFO staff would coordinate with Band Offices and First Nation Fisheries Guardians as needed.
- Washington statutes do not directly address fishery closures with regard to oil spills. The Department of Health (Health) has authority to adopt rules regarding health and safety and the consumption of fish and shellfish, and has focused on closures and advisories as needed. However, public health protection in Washington is a shared responsibility between the State Health Department and thirty-four local health jurisdictions. In addition, public and private landowners can restrict harvesting on their own lands. Any affected tribes would also coordinate with state and local health departments on fishery closure decisions.

DISCUSSION:

THE CANUSPAC AND CANUSDIX ANNEXES

The concept of coordination on fisheries closures during a Transboundary spill response is not addressed by either the CANUSDIX or the CANUSPAC annex to the Canada – U.S. Joint Contingency Plan.

Coordinated fisheries closure issues were not addressed in the 2000, 2006, 2007, and 2008 Lessons-Learned from the CANUSPAC exercises. Nor were they addressed in the 2002, 2003, 2004, or 2007 After-Action Reports of CANUSDIX exercises.

On the Atlantic coast, the Joint Environmental Team Workgroup of CANUSLANT is drafting an agreement on coordinated procedures for fisheries closures which could be a model for consideration by the CANUSPAC and CANUSDIX Joint Response Teams.

ALASKA

When an oil spill occurs in Alaska state waters, there is always the potential that the spilled oil may contaminate commercial fish species. For health and safety reasons, the Alaska Department of Environmental Conservation's (ADEC) Food Safety and Sanitation Program has a "zero tolerance" policy toward any contamination of food processed in Alaska. State regulations (18 AAC 34.600 Article 6) were adopted outlining the responsibilities of fishing vessels, tenders and processing facilities to ensure that oil spill contamination of commercial finfish and shellfish species does not reach the consumer.

Fishing vessel operators, tenders, buying stations and seafood processors are required to undertake special inspection procedures when harvesting and processing seafood products from an area that may be impacted by an oil spill. ADEC may inspect any of the above to make sure that they are free of oil contamination. ADEC will

certify vessels as being free of contamination and the vessels must provide this information to tenders, buyers, and seafood processors to verify safety. Vessels involved in cleanup operations are not permitted to participate in commercial fishing activities until they have been certified clean by ADEC.

The actual commercial/sport/subsistence fishery closures are made by the Alaska Department of Fish and Game (ADF&G). Ideally, an ADF&G representative would be physically working in the Environmental Unit at the Incident Command Post (ICP), although the ADF&G regional biologist who actually makes the closure and re-opener decisions may not be at the ICP. The ADF&G would issue the closure and then this information would be distributed by the Unified Command to the public and stakeholders in Alaska.

In the event of a major oil spill impacting commercial fisheries, an ad hoc work group will likely be established to review available data on the fisheries that may be impacted by the spill. The group should consist of experts from state and federal fishery management agencies, environmental health agencies, fisheries biologists, oceanographers, local governments and fish marketing organizations. The group should meet regularly to consider all available information regarding the potential impact of the spilled oil to the fisheries. Information such as water quality samples, computer models and over flight observations will be needed to determine areas at risk of oil contamination.

A water quality sampling program should be implemented to determine whether oil is present in areas beyond the immediate spill impact zone. Water intakes at local fish processing facilities will also be sampled to ensure that no oil contamination exists. Water quality sampling in potentially at-risk fishing grounds will continue for as long as oil is observed to be in the vicinity of fishery management areas. The activities of the ad hoc work group, results of vessel oil observations, water quality sampling data, and general information on commercial fisheries (including precautionary closures) will be posted on the Unified Command website for the incident. Following the *M/V Selendang Ayu* incident, the State of Alaska published a document entitled “Commercial Fisheries Water Quality Sampling Method and Procedures.” The manual provides scientific water quality sampling methods to assess potential contamination of commercial fishery resources and gear in Alaska waters during an oil spill. It is intended for oil spill response personnel and fishery managers as they assess and manage the risk to commercial fisheries during spill events.

BRITISH COLUMBIA

Marine fisheries and fisheries closures are managed by the Canada Department of Fisheries and Oceans (DFO). In the event of an oil spill or other suspected contamination, Environment Canada as the lead will make the initial assessment and recommend a closure to DFO if appropriate. The Provincial Emergency Program (PEP) is immediately notified when an emergency oil spill occurs in British Columbia. PEP sends notifications to the BC Ministry of Environment, the Canadian Coast Guard, the Radio Room of Fisheries and Oceans, and Environment Canada’s Emergencies Section, specifically the Marine Water Quality group within Environment Canada (EC). Environment Canada would advise Fisheries and Oceans whether to impose a fisheries closure and what the boundaries of that closure should be, depending on size and type of spill.

EC also advises the Canadian Food Inspection Agency (CFIA), and if the spill is in an area open to shellfish harvest, the affected area may necessitate an emergency closure by the Pacific Regional Interagency Shellfish Committee (PRISC) as per the CSSP (Canadian Sanitary Shellfish Program). DFO would seek a closure order from their Regional Director General; the order would go to Compliance and Enforcement and Fisheries officers would post the notice. Fisheries Management staff maintain a contact list with all First Nations that harvest shellfish, as many are involved in the wild shell fisheries as well as some aquaculture operations and are in regular contact with Fisheries and Oceans staff over issues like toxic bloom or sanitary closures.

This means that Fisheries Officers would be on the beaches of the affected areas and they would also phone and fax individual Band Offices and First Nation Fisheries Guardians. If contact cannot be made with the appointed First Nation contacts, Fisheries Officers will post the notice on the Band offices.

Following a minimum of seven days after the spill has ceased, EC and CFIA re-evaluate the situation. In the case of diesel or other chemical spills, CFIA conducts organoleptic testing to verify that no traces of hydrocarbon are detected before the closure can be revoked. A similar protocol would be in place for non-bivalve fisheries closures. See Appendix 8 of the Canadian Food Inspection Agency guidelines: "Protocol for Emergency Closure of any Shellfish Growing Area."

WASHINGTON

Washington statutes do not directly address fishery closures with regard to oil spills. The Washington Department of Fish and Wildlife (WDFW) and affected federally recognized Indian tribes are co-managers of the fishery resources (both fin-fish and shell-fish) in state waters, and tribal governments are the sole managers of their fishery resources in tribal waters. Both WDFW and the affected tribal governments have joint authority to regulate harvests in order to conserve and protect fish and shellfish populations and to promote orderly fisheries.

The WDFW has interpreted its authorizing statutes to not include authority to regulate the health and safety of consuming fish and shellfish. The Department of Health is the agency with the authority to adopt rules regarding health and safety, including the consumption of fish and shellfish. State Health has focused on closures and advisories regarding intertidal shellfish and advisories on fin fish. The regulatory authority for State Health is contained in RCW 43.20.050. Under the Shellfish Consent Decree (Order Regarding Shellfish Sanitation, *United States v. Washington [Shellfish]*, Civil Number 9213, Subproceeding 89-3, Western District of Washington, 1994), the Washington Department of Health (DOH), in consultation with the affected Indian tribe, is also responsible to the federal Food and Drug Administration (FDA) to ensure that the National Shellfish Sanitation Program (NSSP) standards for certification of shellfish growing waters are met on tribal lands. In actual practice, the Departments of Fish and Wildlife and Health and Indian tribal governments coordinate closely on issues relating to the consumption of tainted or polluted shellfish.

In addition, public health protection in Washington State is a shared responsibility between State Health and thirty-four local health jurisdictions. For example, on the Point Wells spill in 2004, Kitsap County Health District, the Washington State Department of Health and the Suquamish Tribe Human Services Department all weighed in on the issue.

The FOSC can choose response strategies to protect health and safety (NWACP Section 3410 Situation Assessment). Imposing an operational closure in the vicinity of the oil spill would have the effect of closing fisheries in that area; however, the FOSC and UC do not have authority to close a fishery directly, only incidental to a general safety closure for operational response purposes. Closure decisions would be made by the affected tribal governments, WDFW and the Washington Department of Health – or the relevant county/city health jurisdiction.

Public and private landowners also can restrict harvesting on their own lands. Most important among these would be Department of Natural Resources (state-owned aquatic lands), Washington State Parks (park lands), Tribal governments (reservation lands), the U.S. Park Service (park lands) and the U.S. Fish and Wildlife Service (refuges and sanctuaries).

With regard to procedures to notify federally-recognized tribes of fishery closures, the decision to close a fishery would be made by the Washington State Department of Health in consultation with the fisheries co-managers, and the responsibility for notifying the relevant tribal governments would fall to them. There are numerous other

ways that the tribes might become aware of the closure (i.e. ICS liaison officer, WDFW staff, etc.), but official notification should come from the Washington Department of Health. This is actually a consultation process – not DOH directing tribes.

RECOMMENDATIONS

1. The CANUSPAC and CANUSDIX Joint Response Teams should consider tracking development of coordinated transboundary fishery closure protocols by the CANUSLANT Joint Response Team. They should then consider them as a model for adding similar protocols to the CANUSDIX and CANUSPAC Annexes.
2. Once such protocols are in place in both annexes, the CANUSPAC and CANUSDIX Joint Response Teams should test them in exercises.

SOURCES:

- Steve Lehman, NOAA SSC District 1; email 10/27/2008 and 2/17/2009
- Mala Kalyan, Alaska Department of Environmental Conservation; email 10/28/2008
- Brian Edie, Washington Department of Fish and Wildlife; emails 11/7/2008 and 2/13/2009
- Barron Carswell, Manager, Operations, Ocean and Marine Fisheries Branch, British Columbia Ministry of Environment; emails 11/28/2008 and 2/13/2009
- Washington Department of Health, Division of Environmental Health, Office Shellfish and Water Protection: (<http://www.doh.wa.gov/ehp/sf/default.htm>).
- Appendix 8 of the Canadian Food Inspection Agency guidelines: “Protocol for Emergency Closure of any Shellfish Growing Area: is at: <http://www.inspection.gc.ca/english/fssa/fispoi/man/cssppccsm/append8e.shtml>
- Alaska regulations (18 AAC 34.600 Article 6) can be found at: [http://www.legis.state.ak.us/cgi-bin/folioisa.dll/aac/query=\[jump!3A!27title18chap34!2C+a!2E+6!27\]/doc/%7B@71345%7D/hits_only?](http://www.legis.state.ak.us/cgi-bin/folioisa.dll/aac/query=[jump!3A!27title18chap34!2C+a!2E+6!27]/doc/%7B@71345%7D/hits_only?)
- Commercial Fisheries Water Quality Sampling Methods & Procedures http://dec.alaska.gov/spar/perp/wq/wq_manual.htm

SUMMARY OBSERVATIONS:

- Although volunteers are addressed in both the CANUSDIX and CANUSPAC annexes to the Canada-United States Joint Contingency Plan, the statements do not appear to be consistent with current volunteer policies in Alaska and British Columbia.
- Policies in both Alaska and British Columbia preclude the use of volunteers; their policies envision volunteers registering to be part of a “workforce” that is paid, equipped and supervised by the Responsible Party and its Response Organization.
- Volunteers are most likely to work in their home jurisdictions during a transboundary spill response unless there are specific needs that only exist within the other country. No procedures are currently available for cross border volunteer utilization.
- Section 2 of Canada’s National Response Plan identifies contributions that trained volunteer organizations and individuals can make to the response to a pollution incident.
- Section 4338 of the NW Area Contingency Plan outlines a volunteer policy that would be implemented in Washington. Section 4340.1 states that “State agencies may provide limited training, but have no resources to manage volunteer organizations.” However, the Washington Department of Ecology has approximately 50 staff trained to be shoreline cleanup supervisors who could manage and supervise trained convergent volunteers. Also, Ecology has developed curriculum for volunteers that complies with federal and state hazardous materials training requirements that could be delivered by Ecology staff or response partners (EPA or USCG).
- Section 4340 of the NW Area Contingency Plan covers the use of volunteers for wildlife rescue and rehabilitation, but it is out-of-date and does not reflect the current situation in Washington State.
- The Olympic Coast National Marine Sanctuary Program has volunteer management capabilities which need to be integrated into state plans.
- Planning guidelines for convergent volunteers have been prepared by the Pacific States/British Columbia Oil Spill Task Force and are also under development by the U.S. National Response Team.

DISCUSSION:

THE CANADA-UNITED STATES JOINT CONTINGENCY PLAN (JCP)

“Integration of Volunteers” is addressed in Section “E” of Part XI “Detailed Sections of the Geographic Annexes” in Appendix 4. Section E outlines the following to be covered in the Annexes: “...the assignment of volunteers, additional training requirements, if any, and persons responsible for integrating volunteers.”

THE CANUSDIX ANNEX

Part 1105, Integration of Volunteers, meets the requirements of the JCP Appendix 4 with the following statements (although it is not clear whether these statements are current):

Canada: Refer to *Canadian Coast Guard Marine Spills Contingency Plan – National Chapter, Section 2-2*.¹⁵
The British Columbia Oil Spill Task Force is composed of volunteers who are trained in Basic Oil Spill

¹⁵ *VOLUNTEERS AND VOLUNTEER ORGANIZATIONS: Trained volunteer organizations and individuals can make contributions to the response to a pollution incident. Contributions may include: awareness and education, development of community contingency plans, shoreline surveillance and information gathering, the response to oiled wildlife, providing vessels of opportunity and the self-protection of the community. In the event the polluter is managing the response, the use of trained volunteers and volunteer groups is at the discretion of the polluter’s On-Scene Commander. In the event the Canadian Coast Guard is managing the response, volunteers and volunteer groups must be trained for the work they do prior to any consideration for the use of their services.*

Health and Safety, Oiled Marine Shoreline Cleanup, and Oiled Bird Collection. The BC MOE acts as registrar for the workforce.

United States: Volunteer information is found in the Alaska Federal and State Preparedness Plan for Response to Oil and Hazardous Substance Discharges and Releases, Vol. 1, Annex E.

The CANUSPAC Annex

Volunteers are addressed in Section E. "Integration of Volunteers" using the same language and references as quoted above from the CANUSDIX Annex, Part 1105.

Volunteers are most likely to work in their home jurisdictions during an oil spill response unless there are specific needs that only exist within the other country. No procedures are currently available for cross border volunteer utilization, and procedures must either be developed or the volunteers may be hired such that they fall under the regimes for compensated workers.

WASHINGTON

Section 4338 of the Northwest Area Contingency Plan (NWACP) outlines a Volunteer Policy that states:

"The general policy accepted by the RRT/NWAC, followed by the guidelines for each organization or state, is that volunteers may be used provided they are sponsored and managed by a recognized organization, and they must be trained and qualified for the position which they will fill...For safety, liability, and management reasons, *individual volunteers* will not be used...The volunteer organizations must be structured and self-sustaining, such as the Red Cross or Salvation Army...Due to the logistical requirements of managing volunteers, the response organization must be large enough to support volunteer participation...The assignments provided will generally be low risk. For example, assistance in the command post, logistics, staging areas and check-in require relatively little training and are low risk activities. In certain circumstances, volunteers may be used for higher risk activities such as wildlife cleaning or pre-cleaning beaches. These activities, however, require specialized training and in some cases licensing...In many cases, the Responsible Party (RP) is responsible for the funding of the spill/release response. In this active role, it is critical that their concerns and limitations on using volunteer organizations are considered."

Washington supports the use of volunteer organizations subject to the policy of Section 4338, but notes in Section 4338.5.1 that "State agencies may provide limited training, but have no resources to manage volunteer organizations." It is also noted in section 4338.5.3 *Washington Volunteer Emergency Worker Program* that "Washington State's Emergency Worker Program is designed for use during emergencies, disasters, and related incidents. Local governments, with the Emergency Management Division, Washington Military Department providing assistance, implement the Emergency Worker Program. While this program has generally been used for search and rescue missions, local officials may elect to implement the program for volunteers in oil spills for specific tasks. However, if local emergency management agencies elect to implement this program for oil spill response, the agency will need to be integrated into the incident command structure."

In Washington, volunteers are managed under Emergency Worker provisions in state law (RCW 38.52 and WAC 118-04). This requires volunteers to be registered at the county emergency management agency in order to receive state medical and disability coverage and liability protection. Additionally, volunteers in Washington must remain uncompensated in order to receive these benefits.

The Washington Department of Ecology is preparing to manage convergent volunteers but does not currently have funding or staffing to manage a robust volunteer program. The agency position on volunteers is that if they are adequately funded to safely and effectively manage volunteers, they will use trained and uncompensated

volunteers for low risk support functions in post-emergency response oil spills. The most typical volunteer function is supporting the recovery and rehabilitation of oiled wildlife. Currently in Washington, the regulated industry relies on the use of volunteers for this function and Ecology participates with other regional partners in training these volunteers. Ecology has developed curriculum for volunteers that complies with federal and state hazardous materials training requirements that could be delivered by Ecology staff or response partners, such as EPA or USCG. Additionally, Ecology has trained approximately 50 staff to be shoreline cleanup supervisors who would be able to manage and supervise trained convergent volunteers in low risk activities such as pre-cleaning in non-oiled areas. Ecology has also prepared curriculum to train additional shoreline cleanup supervisors if necessary. Because of training and medical/disability/liability coverage requirements specific to Washington State, state agencies cannot train or manage out-of-state volunteers.

Ecology has provided training to 'Beach Watchers' community volunteers in several locations around the state. These volunteers are trained to recognize oil from natural phenomenon, estimate the volume and extent of impact and make notification to the agency. In some instances, trained volunteers are used as trained trusted agents to verify reported oil sightings, especially in remote locations where an agency response would be delayed.

The Northwest Area Contingency Plan (NWACP) contains two sections that deal specifically with the use of volunteers for wildlife rescue and rehabilitation: Section 4338.5.2 – Washington Volunteer Wildlife Rescue Operations and Chapter 9970 – Northwest Wildlife Response Plan both. Transboundary spills are not referenced, but since volunteers would most likely be used to support spill response at the state/provincial level, the adequacy of volunteer planning would apply to any transboundary spill affecting Washington.

The Washington Department of Fish and Wildlife has developed a volunteer training curriculum that covers oiled bird primary care and search/rescue. Approximately 150 people have been through the introductory class on basic care, and many of those have also completed the advance care class or the search and rescue class. The funding for the classes was provided by the Department of Ecology. Unfortunately, the funding is no longer available and the last training class was in the spring of 2009. The USCG, Clallam Marine Resources Committee, Marine Spill Response Corporation, Focus Wildlife and the Washington Department of Fish and Wildlife have provided two 8-hour HAZWOPER classes to citizen volunteers in Port Angeles and Everett each year for the past two years; they intend to do so again in 2011. Almost 170 volunteers have attended. In addition, the Clallam County Marine Resources Committee has funded four wildlife classes over the past two years that have been attended by approximately 80 volunteers.

The NW RRT's Wildlife Workgroup has been in contact with the RRT's Volunteer Workgroup to discuss the role of volunteers in wildlife rescue.

The Olympic Coast National Marine Sanctuary (OCNMS) in Washington has a system for registering volunteers with NOAA. These volunteers serve as docents, assist with field research, and help with data management and documents organization. OCNMS also supervises several dozen volunteers who conduct beach bird surveys on a monthly basis (the COASST project), but these volunteers register through the University of Washington. About a dozen COASST volunteers have taken an oiled wildlife response training that included an eight-hour HAZWOPER certification; the status of their current certification is unknown.

The OCNMS does not have a unique system or plan that addresses volunteers who might show up for oil spill response. The NOAA volunteer registration process is fairly quick, however, and can be done in a few minutes. It does not include HAZWOPER training.

ALASKA

The Southeast Subarea plan does not address the volunteer issue, and this issue is not addressed anywhere in Alaska statutes or spill response plans. As stated in the upcoming Change 3 to the Unified Plan, the policy of the Alaska Department of Environmental Conservation regarding the use of volunteers is as follows:

DEC does not embrace the concept of the use of volunteers for a number of reasons, including insurance and liability issues, and general accountability (the need for a dedicated work force to meet specified performance standards, availability to work as scheduled, and not as time permits, etc). In the case of a major spill event, DEC will direct the Responsible Party to train and hire an additional work force (volunteers may be considered, but will be hired only as paid employees) as necessary. If no RP exists (or the RP refuses to hire additional workers), then DEC will utilize our term contractors and proceed with emergency hiring of additional workers as necessary. The agency will bill the RP to recover any and all costs involved in the response, including the costs to bring on additional workers (e.g., paid employees, not volunteers).

BRITISH COLUMBIA

British Columbia's policy is contained in the British Columbia Marine Oil Spill Response Plan and states: "For liability reasons, all non-government response personnel will be hired by and supervised under the direction of the provincial incident management team or that of unified command as an oil spill workforce." A footnote adds "For oil spills, volunteers are not used, but a trained and hired workforce comprised of community and government personnel who have registered for their services, been trained, equipped and hired by the Responsible Party or a lead government agency."

An oil spill workforce initiative and related products were produced by the BC Ministry of Environment's Emergency Program between 1993 and 1995; these included courses and videos on basic oil spill safety and shoreline cleanup training, as well as workforce policies and codes-of-conduct, and a registration database. These materials were used to train over 1600 coastal community people and designed for convergent volunteers. The basic oil spill safety materials were adopted by the CCG as the national course material. At this time, the material needs updating and put in digital format (currently hard copy only).

It is noted in Canada's National Response Plan, Section 2, that "Trained volunteer organizations and individuals can make contributions to the response to a pollution incident. Contributions may include awareness and education, development of community contingency plans, shoreline surveillance and information gathering, the response to oiled wildlife, providing vessels of opportunity and the self-protection of the community. In the event the polluter is managing the response, the use of trained volunteers and volunteer groups is at the discretion of the polluter's On-scene Commander. In the event the Canadian Coast Guard is managing the response, volunteers and volunteer groups must be trained for the work they do prior to any consideration for the use of their services."

Transport Canada's current Response Organization standard only calls for 500 meters of shoreline to be cleaned a day. This level of intensity does not require a large shoreline cleanup workforce. As such, there has been little work on what is required to scale up to 1000 plus workforce personnel.

OTHER

The Pacific States/British Columbia Oil Spill Task Force decided to focus on the issue of Convergent Volunteer Management in the spring of 2008. A workgroup of representatives from each Task Force member agency, as well as a representative from U.S. Coast Guard District 13, gathered information from Alaska's Kodiak Subarea Contingency Plan, California's Local Government Management Plan and Volunteer Guidance Manual, a paper presented at the 2005 International Oil Spill Conference by Michael R. Gass and Henry R. Przelomski, a Volunteer Management Conceptual Model developed by Dave Byers of the Washington Department of Ecology and the

National Oil and Hazardous Substances Pollution Contingency Plan, to compile planning guidelines covering the following topics:

- Initial Volunteer Intake;
- Training;
- Volunteer Supervision, Assignments, Management, and Demobilization;
- Insurance and Liability; and
- Program Funding and Authorities.

These guidelines focus on planning for management of convergent volunteers who are not paid (although there can be a number of associated costs, e.g. transportation, supplies, etc). The Workgroup's research revealed a variety of approaches to convergent volunteer management, including the use of local volunteer coordinators and/or local organizations, or use of an Incident-specific Volunteer Coordinator assigned to Planning or Logistics.

The *Planning Guidelines for Convergent Volunteer Management* is intended to be a resource for the Area Committees. They are also being reviewed by the U.S. National Response Team as the NRT develops planning guidance for Area Committees.

DRILLS/EXERCISES

Volunteer issues were not addressed in the 2000, 2006, 2007, and 2008 Lessons-Learned from the CANUSPAC exercises. Nor were they addressed in the 2002, 2003, 2004, or 2007 After-Action Reports of CANUSDIX exercises.

RECOMMENDATIONS

1. The CANUSPAC and CANUSDIX Joint Response Teams should consider updating references to volunteer management policies in the CANUSDIX and CANUSPAC annexes as needed.
2. The NW Area Committee should update Section 4340.2 of the NW Area Contingency Plan to include reference to both the Olympic Coast National Marine Sanctuary and the COASST program as recognized volunteer management organizations.
3. Washington State should improve funding to the Departments of Ecology and Fish and Wildlife for volunteer training and management.
4. The CANUSPAC and CANUSDIX Joint Response Teams should consider including volunteer management decision-making scenarios in transboundary exercises.

SOURCES:

- Graham Knox, British Columbia Ministry of Environment: email 10/27/2008
- Liam Antrim, Olympic Coast National Marine Sanctuary; email 10/31/2008
- Brian Edie, Washington Department of Fish and Wildlife; email 11/6/2008
- Larry Iwamoto, Alaska Department of Environmental Conservation; email 11/28/2008
- David Byers, Washington Department of Ecology; email 12/4/2008
- The British Columbia Marine Oil Spill Response Plan is available at: <http://www.env.gov.bc.ca/eemp/>
- The *Planning Guidelines for Convergent Volunteer Management* is available at http://www.oilspilltaskforce.org/docs/planning_for_volunteer_management.pdf
- The NW Area Plan is available at: <http://www.rrt10nwac.com/NWACP/Default.aspx>
- RCW 38.52: <http://apps.leg.wa.gov/RCW/default.aspx?cite=38.52>
- WAC 118.04: <http://apps.leg.wa.gov/WAC/default.aspx?cite=118-40>
- Canadian Coast Guard's National Response Plan, National Contingency Chapter, Section 2, Liaison Relationships: <http://www.ccg-gcc.gc.ca/folios/00025/docs/ch2-lson-eng.pdf>

- Canadian Coast Guard National Response Plan - http://www.ccg-gcc.gc.ca/eng/ccg/er_National_Response_Plan
- United States. Alaska Regional Response Team. Alaska Federal/State Preparedness Plan for Responding to Oil and Hazardous Substances Discharges and Releases Unified Plan, Annex V, Volunteers
[http://dec.alaska.gov/spar/perp/plans/uc/Annex%20V%20\(Jan%2010\).pdf](http://dec.alaska.gov/spar/perp/plans/uc/Annex%20V%20(Jan%2010).pdf)

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SECTION 3
REPORTS FROM THE OPERATIONS SUBCOMMITTEE

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TOPIC: MUTUAL AID PLANS, AGREEMENTS and ARRANGEMENTS

SUMMARY OBSERVATIONS:

- Mutual Aid between the Canadian and U.S. Coast Guards comes in the form of the Joint Contingency Plan which provides the authority to work cooperatively. Supporting the overall Plan are the Geographic Annexes which describe the procedures for the transboundary movement of response resources.
- The Pacific States/British Columbia Oil Spill Task Force has two Mutual Aid agreements: the 1993 Mutual Aid Plan which covers sharing of member agency expertise and equipment; and the 1996 Mutual Aid Agreement which established protocols that allow private sector equipment cited in approved contingency plans to leave a jurisdiction for mutual aid in another member jurisdiction. The British Columbia Ministry of Environment, the Alaska Department of Environmental Protection and the Washington Department of Ecology are member agencies of the Oil Spill Task Force.
- There are formal agreements between response organizations to lend assistance across jurisdictional boundaries in the form of either trained personnel for both Incident Command and Field Operational positions, or equipment as approved by Response Organization management and regulatory agencies. Several agreements are in place, as follows:
 - SEAPRO with WCMRC for the Haro Strait/Dixon Entrance;
 - MSRC with WCMRC for the Straits of Juan De Fuca, Haro Strait, Boundary Passage, and Georgia Strait;
 - APICOM provides a response organization support agreement for personnel and equipment from all members;
 - WCMRC has an agreement with the Eastern Canada Response Corporation (ECRC) for personnel and/or equipment mutual aid; and
 - WSMC and WCMRC have a reciprocity agreement for oil spill contingency plan coverage for vessels transiting the Straits of Juan de Fuca and calling on only U.S. or Canadian ports, respectively.
- There are also oil spill response organizations in the U.S. that are not necessarily parties to the formal mutual aid agreements, but who could provide response resources in the event of a transboundary incident.

DISCUSSION:

Canadian Coast Guard/U.S. Coast Guard

Management and maintenance of Mutual Aid through the Canada/U.S. Joint Contingency Plan (JCP) falls under the jurisdiction of the Director General Marine Programs for the Canadian Coast Guard (CCG) and the District Incident Management Branch Chiefs for the U.S. Coast Guard (USCG), insofar as it is their responsibility to ensure that there are no underlying issues that may impact the operational readiness within their geographic area of response. However, neither the JCP nor the Annexes specifically addresses mutual aid.

According to the JCP and annexes, a Joint Response Team (JRT) will be established during an incident at the request of either the CCG On-Scene Commander or the USCG On-Scene Coordinator (OSC). The JRT will provide advisory support to the OSCs. In addition, the OSCs may request a Liaison officer from the other agency to facilitate the flow of information and to support direct communications between the commanders and thus facilitate the “mutual” response.

Section 600.1 of the JCP states “Clearance procedures for the transboundary movement of response resources shall be detailed in the Geographic Annexes.” Pursuant to this requirement, the CANUSDIX annex addresses “Procedures for Customs and Immigration Clearance” in Section 800; the CANUSPAC annex addresses this same topic in Part VIII. Beyond these guidelines, there is no specific guidance on mutual aid.

The Pacific States/British Columbia Oil Spill Task Force Mutual Aid Agreements:

The Oil Spill Task Force's 1993 Mutual Aid Plan is applicable whenever a marine spill incident has the potential to affect people, property, or the environment across jurisdictional boundaries, or whenever the incident is of such magnitude that the resources of the responding state or province are likely to be exhausted. The Plan identifies contacts for prompt notification of a marine spill and for responding to requests for assistance in the form of response equipment, personnel, or both. It also provides guiding principles for arranging for and agreeing to mutual aid in both emergency and non-emergency situations.

Management and maintenance of the Mutual Aid Plan resides with the Task Force members. It is their responsibility to ensure that there are no underlying issues that may impact the execution of requested resources within their geographic area of response.

Mutual Aid requests can cover qualified personnel, technical expertise and/or response equipment. It is the responsibility of the Task Force members to establish and maintain their own inventory of equipment and registry of response personnel. They are also responsible to ensure that their response personnel have current passports for travel between Canada and the U.S.

According to the 1993 Mutual Aid Plan for sharing personnel and resources among member agencies:

- A signed request for aid which outlines the terms-and-conditions for receiving aid should be developed by the requesting state or province. It is the responsibility of the lending agency to assess the request, review terms and conditions, and to authorize, modify or deny issuance of aid.
- Both the requesting and lending agencies should be prepared to provide sufficient information to facilitate the transfer of aid and to propose terms and conditions. Lists and examples for both are provided in the Plan, as well as standards for financial record-keeping.
- The lending agency must provide 24-hour notice of intent to recall any loaned resources; this notice requirement is waived should an emergency arise within its jurisdiction which necessitates the return of any essential resources.
- Members agree that a liaison will be established in order to provide timely situation information on the:
 - cause of the spill incident;
 - volume of oil spilled;
 - anticipated/observed oil trajectory;
 - response activities;
 - responsible party;
 - agencies involved and up-to-date contacts;
 - weather conditions;
 - potential for trans-boundary effects;
 - natural resource sensitivity and potential impacts; and
 - Sensitive decisions on actions such as the use of oil dispersants, in-situ burning, or movement/salvage of leaking vessels.

As part of their 1996 Mutual Aid Agreement, the Task Force Members agreed to:

- Examine each transboundary (cascading) request by a private contractor according to that Agreement;
- Maximize the availability of private and public sector response resources when assistance is requested by another Member;
- Maintain relative equivalency between Members' approaches to mutual aid, to assure effective reciprocity; and to
- Advise other Task Force Members of policy and procedural changes affecting this Agreement.

The purpose of the policies and procedures established in the 1996 Agreement is to set specified conditions whereby certain contingency plan holders may be allowed to meet temporarily reduced response standards in order to allow their contracted response equipment to be available for mutual aid. This agreement thereby assures that most of the spill response equipment on the West Coast will be available to respond rapidly in the event of a major spill. Any private sector response resources over and above those committed to fulfilling the legal requirements of a facility/vessel response plan are not affected by this Agreement.

The 1996 Mutual Aid Agreement also addresses the following factors:

- *Time Frame*: there will be a consultation within 30 days after mobilization between the affected Task Force representatives in order to discuss the continued need to deploy the response resources.
- *Demobilization*: first priority will be given to the demobilization of equipment provided through Mutual Aid unless this equipment has proven to operate more effectively than other equipment.
- *Post Response Evaluation*: after each event, the Unified Command will forward a brief report on the effectiveness of the mutual aid process and policy to those entities providing mutual aid. The Task Force will review the report and determine if changes to the mutual aid procedures are needed.

This Agreement does not authorize pre-approved aid to any coastal states and provinces except those which are signatories to this Agreement. Decisions on requests for aid from other jurisdictions will be made on a case-by-case basis. It is noted in the 1996 Agreement that Task Force Members do not have authority to require that private spill response contractors provide mutual aid assistance and that the Agreement does not address mutual aid by federal agencies. Neither of these agreements has been tested as part of one of the planned cross border exercises (CANUSDIX / CANUSPAC).

Response Organizations

By authorization of Transport Canada, the WCMRC and the East Canada Response Corporation Presidents must ensure that mutual aid is available for incidents impacting Canadian waters. It is not clear, however, whether there have been sufficient opportunities among Canadian Response Organizations to exchange personnel during training and exercises in order to provide an understanding of each other's local issues, challenges, and emergency management styles.

The Association of Petroleum Industry Coop Managers (APICOM)'s mutual aid protocols are reviewed and managed by member company management. There are strong communication ties between the APICOM members at all levels of their organizations. In the event of an oil spill in the geographic responsibility of one of the response organizations they may call for resource support in the form of personnel, equipment and/or a combination of both. APICOM member response organization must have the approvals of internal management and regulatory agencies prior to moving any dedicated equipment out of their geographic area of response. Personnel may be moved with the approval of response organization management only.

MANAGEMENT OF MUTUAL AID PLANS:

It is the responsibility of the President of the Western Canada Marine Response Corporation (WCMRC), of the General Manager of the SE Alaska Petroleum Resource Organization (SEAPRO) and of the Vice-President Northwest for the Marine Spill Response Corporation (MSRC) to manage the NW Coast Mutual Aid agreements.

The transboundary area response organizations exercise and train together on an annual basis to ensure a seamless integration in the event of a real spill. Response organizations share a repeater and frequency system that provides seamless tactical radio communications in the Georgia Basin to the entrance of Juan de Fuca Strait. Communications equipment and communication protocols are reviewed for operational readiness. All response equipment is compatible including but not limited to boom connectors, hose adaptors/fittings, pumps, radio's, etc. Response Organizations serving the transboundary area both plan and exercise together on a regular basis, and also participate in the USCG/CCG CANUSDIX and CANUSPAC cross border exercises.

Clear U.S./Canadian regulatory standards that grant responder immunity for foreign workers and vessels are not currently in place to ensure cross border movement of personnel and equipment. For more information, see the topic paper on Responder Immunity in this section of this Project Report.

In order to facilitate mutual aid between the U.S. and Canada, both nations have passed or amended laws to allow spill response vessels from the other nation to operate in their waters. The following excerpts from Transport Canada's Cross-Border Emergency Response Guide, Third Edition, explain these arrangements:

Section 3.3.2, Use of American Vessels for Emergency Response in Canada:

Under paragraph 3(2)(e) of the Coasting Trade Act, foreign ships or non-duty paid ships can carry goods from one place in Canada to any other place in Canada, with the approval of a pollution prevention officer, provided they are involved in activities related to a marine pollution emergency or to a risk of such an emergency.

American vessels are permitted to conduct pollution response operations in Canadian waters contiguous to the United States. The American vessel may carry goods from one place in Canada to any other place in Canada provided that it is engaged, with the approval of a pollution prevention officer, in activities related to a marine pollution emergency, or to a risk of such an emergency.

Section 4.3.1 Admission of Emergency Response Equipment without Entry or Payment of Duty:

The Jones Act (Section 27 of the Merchant Marine Act of 1920 – 46 USCA 883) prohibits the use of foreign vessels to carry merchandise between points in the United States.

Section 1117 of Public Law 104-324, Use of Foreign Registry Oil Spill Response Vessels (46 USC 12101) allows the use of foreign vessels for oil spill response on an emergency basis if no U.S. flagged response vessels are available. The foreign ships can be used for the purpose of recovering, transporting and loading and unloading in a U.S. port any oil discharged as a result of an oil spill.

For further details, consult the following legislative provisions:

- 19 USC § 1322(b)(2) &(3), 1433, 1435, 1441
- 19 CFR § 10.107, 4.2, 4.3, 4.60, 4.87
- U.S. Customs Headquarters Memorandum 110168, dated April 17, 1989
- 46 USC App. § 91, App. § 313

The following identical language is found in Section 901 of the CANUSDIX Annex and Section IX of the CANUSPAC Annex: "Canadian-flag oil spill recovery vessels must report arrival and make entry when coming into the U.S. These vessels may discharge oil recovered from U.S. waters to a U.S. port (SEC. 117.46 USC 12101) (P.L. 104-324 Section 117)."

The Washington State Maritime Cooperative (WSMC) and Western Canada Marine Response Corporation (WCMRC) maintain a reciprocity agreement for oil spill contingency plan coverage of vessels transiting the Straits of Juan de Fuca. This agreement specifies a Juan de Fuca Arrangement and applies to a specific set of circumstances. Under this Arrangement, vessels transiting the Straits of Juan de Fuca in U.S. waters, bound for Canada, enrolled in WCMRC and not calling at any U.S. ports (typically inbound vessels) are covered under the WSMC Oil Spill Contingency Plan while in U.S. waters. Vessels transiting the Straits of Juan de Fuca in Canadian waters, from U.S. ports, enrolled in WSMC and not calling at any Canadian ports (typically outbound vessels) are covered by WCMRC while in Canadian waters. To ensure coverage under this Arrangement, a vessel must be enrolled in WCMRC or WCMRC, respectively. If a vessel calls on both U.S. and Canadian ports during the course of a voyage, this agreement does not apply and the vessel must enroll in both WSMC and WCMRC. This reciprocity agreement and the Juan de Fuca Arrangement enable vessels to have complete oil spill contingency plan

coverage, meeting both the laws of Canada and Washington State while transiting the Straits of Juan de Fuca and only be required to enroll with, and pay fees to, one blanket oil spill contingency planholder.

OTHER RESOURCES:

In addition to the response organizations described above and included in mutual aid plans, there are private corporations in Washington and Alaska that may provide oil spill response resources under contractual arrangements. Response contractors in Washington State include National Response Corporation Environmental Services (NRCES), Global Diving and Salvage, Cowlitz Clean Sweep, and others. A listing of the response companies, contact information and response resources potentially available from the U.S. Pacific Northwest is provided in the Western Response Resource List (WRRL) and is available on-line at: <http://www.wrri.us/fmi/iwp/cgi?-db=WRRL&-loadframes>.

For transboundary spill incidents that activate the WSMC oil spill contingency plan, the National Response Corporation Environmental Services (NRCES) is the primary response contractor for WSMC. NRCES provides dedicated boats, skimmers, boom, storage as well as personnel to support a response.

Other response contractors in SE Alaska include Southeast Alaska Lighterage (SEAL), Alaska Commercial Divers, and Diversified Diving Services, all of which have Basic Ordering Agreements with the Coast Guard.

RECOMMENDATIONS:

1. The Pacific States/British Columbia Oil Spill Task Force members in Alaska, Washington and British Columbia should exercise their 1993 and 1996 Mutual Aid Agreements as part of the annual transboundary exercises. Such tests should be part of exercise templates and plans, with defined objectives for each exercise. It is particularly recommended that they exercise their 1996 Agreement with regard to establishing conditions whereby contingency plan holders would be allowed to meet temporarily reduced planning standards in order to facilitate the movement of contracted response equipment for mutual aid.
2. The Western Canada Marine Response Corporation should continue day-to-day cross-border exercise opportunities with the SE Alaska Petroleum Resource Organization on British Columbia's Alaska border and with the Marine Spill Response Corporation and the Washington State Maritime Cooperative on British Columbia's Washington border.
3. The Association of Petroleum Industry Coop Managers (APICOM) should review their Mutual Aid agreement in order to identify and address any challenges regarding mutual aid issues for the U.S./Canadian transboundary areas.

SOURCES:

- WCMRC/BCO , MSRC, SEAPRO Response Plans
- Mutual Aid Agreements between Response Organizations; see <http://www.apicom.org/>
- The Canada/U.S. Joint Contingency Plan and geographic annexes are available at: <http://homeport.uscg.mil/mycg/portal/ep/home.do>
- The Pacific States/British Columbia Oil Spill Task Force 1993 Mutual Aid Plan: http://www.oilspilltaskforce.org/docs/agreements_resolutions/MutualAidPlan93.doc
- The Pacific States/British Columbia Oil Spill Task Force 1996 Mutual Aid Plan: http://www.oilspilltaskforce.org/docs/agreements_resolutions/MutualAid96.pdf
- Transport Canada's Cross-Border Emergency Response Guidance: <http://www.tc.gc.ca/eng/tdg/newsletter-fall2007-244.htm#article1>

SUMMARY OBSERVATIONS:

- The spill response organizations serving the transboundary areas create opportunities to participate in small-scale joint equipment exercises and other training several times each year.
- In most organizations, budget and geographic constraints determine their ability to participate in joint field exercises and training. Crossing the Canada/U.S. border with response equipment and personnel invariably results in increased training costs.
- The more formal U.S. Coast Guard (USCG)/Canadian Coast Guard (CCG) led CANUSPAC and CANUSDIX exercises provide annual transboundary equipment movement exercises monitored by each country's border officials. These transboundary exercises also offer the response community on both sides of the border opportunities to cross-train, to keep in contact with their international counterparts and to both identify and resolve logistics issues over time.

DISCUSSION:

The CANUSDIX and CANUSPAC Annexes to the Joint Contingency Plan (JCP) provide for joint exercises within the two transboundary areas. At a minimum, the JCP calls for a tabletop exercise for each annex at least once every two years; however, it does not specify what the exercises should encompass. Under current practices, exercises meet the minimum commitment. The U.S. Coast Guard (USCG) and the Canadian Coast Guard (CCG) utilize different spill response management systems (ICS versus RMS), so exercises provide an opportunity to test and resolve possible system conflicts.

Three regularly scheduled activities provide opportunities for field exercise and equipment cross-training within the region:

- **CANUSPAC EXERCISE** – This USCG/CCG directed activity in both Canadian and U.S. waters (alternates each year) is an annual opportunity for response organizations to participate in planning, executing equipment deployments and identifying lessons learned. Aside from CCG and USCG, regular participants in this event include: U.S. and Canadian Customs and Border Patrols, the U.S. and Canadian Navies, the Washington Department of Ecology (WA DOE), Environment Canada, the British Columbia Ministry of Environment, Western Canada Marine Response Corporation (WCMRC), Marine Spill Response Corporation (MSRC), National Response Corporation Environmental Service (NRCES) and local area emergency management. Exercise activities are planned several months in advance and a variety of skimming systems matched to various types of environments are deployed in task forces to meet established exercise objectives during a 3-4 day period. The focus has been on field equipment deployment, communications and task force assignments since 2001.
- **CANUSDIX EXERCISE** – Similar in design and scope to the CANUSPAC exercise, this USCG/CCG-directed activity is a biennial opportunity for response organizations to participate in planning, executing equipment deployments, and identifying lessons learned. Aside from the CCG and the USCG, regular participants in the CANUSDIX exercises include Environment Canada, the U.S. Department of the Interior, Western Canada Marine Response Corporation, Southeast Alaska Petroleum Resource Organization (SEAPRO), the British Columbia Ministry of Environment, the Alaska Department of Environmental Conservation, and local area emergency management. The Alaska/British Columbia CANUSDIX exercises have been well defined with key learnings documented. The focus since 2001 has been on tabletop exercises combined with field deployment. Key stakeholders join the government agencies listed above to participate in working group meetings to address potential interface issues. Outcomes of these meetings are documented and stewarded as part of the working group's agenda. A variety of skimming

systems matched to the type of spill environment are deployed in task forces to meet established exercise objectives during a 3-4 day period.

- **NORTHWEST OIL SPILL CONTROL COURSE** – This is a 5-day course that is designed to provide basic oil spill response skills and a 24-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) certificate to each student. The USCG District 13 coordinates this course, conducted in Everett, Washington, which combines classroom instruction and field exercises led by instructors from the response community. Participants regularly include personnel and/or equipment from USCG, WADOE, WCMRC, Global Diving & Salvage, MSRC, NRCES and National Oceanic and Atmospheric Administration (NOAA) in classroom training and field exercises.
- The Canadian Coast Guard and the Western Canada Marine Response Corporation conduct First Responder training in many communities and for contractors, the Fisherman's Oil Spill Emergency Team (FOSET) and for First Nations.

Most of the field exercises and equipment cross-training activities taking place between response organizations in the region are relatively small-scale and of limited scope and duration (1-2 days.) Several each year involve moving personnel and equipment across the border. As field equipment deployment and cross-training are usually the focus, these sessions tend to be very effective. Attendance is usually limited to personnel from participating response organizations.

The current system appears to be working well. Because of strong relationships and good communication, response organizations are participating in appropriate training.

SOURCES:

- Scott Knutson, USCG by email correspondence 12/2/2008

SUMMARY OBSERVATIONS:

- SEAPRO, WCMRC, and MSRC regularly exercise field deployment of oil spill response equipment. Compatibility has not been identified as an issue.
- SEAPRO and WCMRC annually review equipment lists to ensure compatibility. Both maintain equipment inventories on their websites.
- SEAPRO, WCMRC and MSRC routinely worked with common suppliers when purchasing new equipment, which ensures common equipment specifications.
- Through membership in APICOM SEAPRO, MSRC, and WCMRC have opportunities to work with each other as well as with other coops in equipment acquisition projects.
- Each organization carries an inventory of adaptors that will ensure connections between the equipment are possible.

DISCUSSION:

The SE Alaska Petroleum Resource Organization (SEAPRO), the Western Canada Marine Response Corporation (WCMRC) and the Marine Spill Response Corporation (MSRC) have worked together to deploy oil spill response equipment in the field. Compatibility has not been identified as an issue during these exercises.

As part of their mutual aid agreement, SEAPRO and WCMRC annually review equipment lists to ensure compatibility. SEAPRO, WCMRC and MSRC have routinely worked with common suppliers when purchasing new equipment, which ensures common equipment specifications. WCMRC's recent acquisition of the OSRV *Eagle Bay* is a prime example of our ongoing efforts to purchase compatible equipment.

Both SEAPRO and WCMRC maintain up-to-date equipment inventories on their websites. Additionally, through membership in APICOM, they have the opportunity to not only work together but to also work with other member coops in equipment acquisition projects.

The use of adaptors is common practice when working with skimmers, pumps, storage devices and boom. Each organization carries an inventory of adaptors that will ensure connections between the equipment are possible.

RECOMMENDATION

WCMRC, SEAPRO, MSRC, WSMC and other response contractors operating in the CANUSDIX and CANUSPAC transboundary areas should continue to identify and solve equipment compatibility issues. Specifically, they should:

- Continue to stock adaptors that allow connections to be made for different size and types of boom;
- Continue to exercise and train together to identify any potential compatibility issues; and
- Continue to order equipment with common equipment specifications to ensure equipment compatibility.

SOURCES:

- CANUSPAC and CANUSDIX equipment deployment exercises
- APICOM (www.apicom.org)

SUMMARY OBSERVATIONS:

- MSRC Pacific/Northwest Region maintains a two-tier Non-dedicated Response Vessel Program (NRVP) which addresses recruitment, operational/training aspects, and database management.
- WCMRC holds contracts with approximately 125 vessels throughout its operating areas, using a combination of Fishermen's Oil Spill Emergency Team (FOSET) members and contractors as sources for vessels, equipment and personnel to supplement responses to marine oil spills. FOSET members are incorporated into annual training and exercise programs and are subject to the same equipment and training standards as other WCMRC/BCO Response Contractors.
- SEAPRO does not currently utilize such a program, but has identified a number of vessels throughout SE Alaska that could be used during a response and is working to develop a suitable agreement.

DISCUSSION:Existing Plans and Capacity**MARINE SPILL RESPONSE CORPORATION (MSRC):**

MSRC Pacific Northwest Region maintains a two-tier Non-dedicated Response Vessel Program (NRVP). The NRVP addresses Non-dedicated Response Vessel recruitment, operational/training aspects, and database management as described below. This NRVP does not include any vessels owned or operated by any other Washington Department of Ecology- approved Primary Response Contractor. MSRC recruits, contracts with, and trains (on a recurring basis) a Tier 1 "core" strike team of Non-dedicated Response Vessels (NRV) in the following distinct zones of Washington waters:

- Columbia River (Astoria to Portland)
- South Sound (Everett/Seattle/Tacoma)
- North Sound (Anacortes/Bellingham)
- Outer Strait (Port Angeles to Neah Bay).

Tier 1 capability in Washington waters consists of approximately four Landing Craft, four Crew boats, eight large workboats, 16 small workboats, 16 skiffs and 88 personnel. This non-dedicated, as available, capability represents a trained cadre of personnel and MSRC-approved vessels appropriate for deployment beginning at 48 hours, but may be available prior to that time, depending on their location and training status.

The Tier 2 NRVP element consists of approximately 200 non-dedicated, as available, Washington/Oregon based, vessels and crews with which MSRC has a signed contract. Tier 2 represents a post – 48 hour pool of Non-dedicated Response Vessels. These vessels represent a much larger pool than Tier 1, but are typically untrained until needed.

WESTERN CANADA MARINE RESPONSE CORPORATION (WCMRC)

WCMRC uses a combination of contractors and the Fishermen's Oil Spill Emergency Team (FOSET) members as sources of vessels, equipment and personnel for responding to marine oil spills. WCMRC holds contracts with approximately 125 vessels throughout its operating areas. The types of vessels include Seiners, Draggers, Gillnetters, Trawlers and Super Skiffs.

Members of the FOSET program provide on-water operations support including boom deployment, recovery, surveillance and assessment. As FOSET members are the vessel owners, each member corresponds to at least one vessel. WCMRC's RMS system contains detailed information on the FOSET members and their vessels. FOSET Area Coordinators are strategically located along the coast to attend to the day-to-day administration and training of the members. Each FOSET vessel enters into a contract for service with WCMRC.

SOUTHEAST ALASKA PETROLEUM RESOURCE ORGANIZATION (SEAPRO):

At this time, SEAPRO does not have a program similar to FOSET. They have identified a number of vessels throughout SE Alaska that could be used during a response and are working on the development of a suitable agreement. During spills SEAPRO can access some vessels owned by its coop member companies, according to contracts with those members.

Training and Exercises

MSRC: Per OSHA's "Training Marine Oil Spill Response Workers Under OSHA'S Hazardous Waste Operations and Emergency Response Standard (2001)," Non-dedicated Response Vessel crews need a minimum 8-hour HAZWOPER training, including those for "hot zone" work without respirators, provided that site characterization has determined that respirators are not needed and that the NRV's are at a safe distance from the source zone. Without respirators there is no requirement for medical monitoring. This is consistent with the time frame for which MSRC would typically call for Non-dedicated Response Vessel deployment. Original and refresher training is accomplished with hands-on training during deployments, or classroom as appropriate (this aspect is managed by MSRC's Health and Safety Administrator under guidance of the Region Response Manager). Tier 1 crews are typically current on HAZWOPER training. For any NRV crews that did not have current HAZWOPER at the time of the incident (most Tier 2 crews). MSRC provides an 8-hour training prior to deployment delivered by the Region Training Manager and/or the Safety Environmental Health and Security Administrator (SHE&S). The Region SHE&S maintains a Personal Protection Equipment (PPE) cache and additional PPE source methodology to support both Tier 1 and Tier 2 vessel crews.

WCMRC: FOSET members are incorporated into the Annual Training and Exercising programs and are subject to the same equipment and training standards as other WCMRC Response Contractors. HAZWOPER training is included. WCMRC has also developed a Shoreline Supervisor Training manual and course outline to help address shoreline cleanup and management.

Contracts

MSRC: The Region's Contract Administrator works with vessel owner/operators on new contracts and routinely reviews and updates NRV contract information for the database. The Region Contract Administrator maintains contacts with fishing fleet associations (gill netters, crabbers, seiners etc...) through the MSRC-contracted Fishing Vessel Coordinator for Tier 2 needs. The Region Maintenance and Logistics Department is responsible for initial and recurring surveying and documenting condition of Non-dedicated Response Vessels in the Tier 1 strike teams, as well as for Tier 2 vessels when activated.

WCMRC: FOSET Contracts are updated and maintained as required with the help of the local Area Manager and FOSET Coordinator.

RECOMMENDATION

MSRC and WCMRC should continue to work with their appropriate governing agencies to clarify whether moving NRV and FOSET resources across the border for a transboundary spill response would be subject to the same issues as other response organization resources, including:

- Ensuring that fishing vessel crews are trained to meet applicable safety training and legal requirements of state, provincial and federal laws:
- Ensuring that fishing vessel crews are covered by both U.S. and Canadian responder immunity provisions; and
- Clearing equipment and personnel through customs and immigration services.

SOURCES:

- Appendix D – WAC 173-182-315 – Planning Standards for Non-dedicated Workboats and Operators
- FOSET Manual – WCMRC
- Response Plan – WCMRC

TOPIC: TRANSBOUNDARY TRAFFIC CONTROL (VESSELS, AIRCRAFT, VEHICLES) DURING RESPONSE

SUMMARY OBSERVATIONS:

- Based on a review of the information in various Lessons Learned reports from the CANUSPAC and CANUSDIX exercises, no issues with control of land traffic were noted in previous exercises; nor was there any indication that the topic of traffic control was considered in the exercises.
- Both Canada and the United States have established land transportation infrastructures in place and the traffic laws are similar.
- There is a potential for significant increases in road traffic within a response area; however, this is not an uncommon occurrence and should be easily remedied by local, state, provincial or federal governments.
- The movement of high-value or critical response equipment en-route could be tracked with GPS technology.
- Response vessels may not all carry AIS for tracking purposes, but would be subject to VTS traffic control where it exists.
- VTS would also need to control non-response vessels in the response area.
- The CANUSPAC transboundary area is covered by three U.S. or Canadian VTS systems as well as a Cooperative VTS system.
- The CANUSDIX transboundary area is covered by a VTS system in Prince Rupert.
- Helicopters and small, light aircraft are likely to be used for various aspects of the response. The same type of aircraft may also be used for non-response purposes such as media coverage. Small aircraft such as these are usually flying at low altitude and are operating under visual flight rules (VFR).
- Foreign ex- military aircraft, such as those often used for dispersant operations, may not land in Canada.
- The Unified Command will normally request that civilian aviation authorities establish no-fly or restricted flight areas in the immediate area of a spill response for the safety of all parties. During a major response the Responsible Party should provide an air group established in the Operations Section and staffed by aviation professionals. The Air Group would establish an aviation communications system and direct all flight operations associated with the response, maintain contact with civilian aviation authorities, and notify aviation authorities of aircraft operating unsafely or of unauthorized flights in a restricted area.

DISCUSSION:

Relevant Plans and Exercise Reports

Neither the Alaska Federal/State Preparedness Plan (the Unified Plan), the Southeast Alaska Subarea Contingency Plan (Subarea Plan), or the CANUSDIX or CANUSPAC Annexes to the Joint Contingency Plan address traffic control or management during response. The Subarea plan does address transportation of personnel and equipment via small aircraft and vessels to the site of an incident. The Subarea Plan addresses requirements for communications in order to maintain contact with responding units as well as requirements to maintain communications schedules. However, the role of communications in traffic management is not addressed.

The Washington State Department of Transportation was contacted regarding traffic management for this report; they did not note any areas of major concern.

Based on a review of the information in various Lessons Learned reports from both the CANUSPAC and the CANUSDIX exercises, there does not seem to have been any issue with control of land traffic noted in previous exercises. Nor was there any indication that the topic of traffic control was considered in the any exercises.

Land based transportation control

Both Canada and the United States have large bodies of law and regulations that apply to land-based traffic management. In addition, the land transportation infrastructure is well established in both countries and the traffic laws are similar.

One issue that could develop during an incident is the potential for significant increases in road traffic within a response area. In more remote areas such an increase could strain local road systems and disrupt local traffic, businesses and residents. Any large increase in traffic in remote areas could also strain local law enforcement officials, requiring overtime for police or requiring that additional law enforcement assets be moved into the impacted area. While disruptive, this is not a totally uncommon occurrence and should be easily remedied by local, state, provincial or federal governments.

One area that may be of concern is the control of high value or critical response equipment while en-route to a spill site. The movement of such equipment could be tracked, if deemed necessary, with the SPOT Satellite Personal Tracker. These could be issued to specific vehicles and the location of the vehicle tracked daily via a website.

In remote regions, where the use of off-road vehicles might be necessary, communications may need to be established for safety purposes. SPOT tracking systems are an option as are satellite telephones for maintaining communications in remote areas. If an area is small, personal use walkie-talkies or family radio service equipment could be acquired and issued on an as-needed basis for the response. WCMRC has an arrangement with BC Communications and by extension Canada Communication for the provision of rental and lease radios. The arrangement has been tested and proven effective during spill responses.

Vessel Traffic Control/Tracking Issues

In any marine spill response in the CANUSDIX or CANUSPAC areas the use of vessels will constitute the largest number and variety of assets being employed. There is also the possibility that large numbers of vessels not involved in a response would be impacted by the response, or conversely, that non-involved vessels could impact the response. This is more likely to be an issue in CANUSPAC than in the more remote regions of CANUSDIX.

VESSEL TYPES

Types of vessels likely to be employed in a response could include:

- Large vessels such as tugs, barges, possibly military assets (CG Buoy Tenders), large skimming vessels (MSRC), and possibly living quarters vessels in remote areas;
- Mid-size vessels such as skimming vessels, spill response barges, large fishing vessels; and
- Small vessels such as skiffs, small fishing vessels, or personal use watercraft (jet skis).

Types of vessels that might be impacted by a response could include:

- Large merchant vessels including container vessels, tankers, large passenger ships, strategic military assets, and ferries;
- Smaller merchant vessels such as small passenger vessels (less than 100 GT), tugs and barges, commercial fishing vessels, and tour boat operators; and
- Pleasure craft including motor and sail boats, fishing boats, and personal use watercraft.

CONTROL OF VESSELS INVOLVED IN A RESPONSE:

Large vessels in a spill response are generally self-supporting and should have licensed seamen on board as well as radar and extensive communications equipment. Radio position reports would most likely be used to maintain positive control of these assets. An additional piece of equipment for such vessels would be the Automated Identification System (AIS) that is currently in use. Certain vessels are required to be equipped with the AIS (see discussion of AIS later in this section), while other vessels may be able to install the equipment for use during spill operations. The Alaska Marine Exchange and similar organizations can provide arrival and departure information as well as real-time position information on vessels equipped with transponders.

Medium-size response vessels should have marine radios aboard and may operate in a task force with a mother ship. The mother ship would then be responsible for maintaining positive control of the vessels assigned to it. Some of these vessels may be outfitted with an AIS system, but are generally not yet required to have the system installed.

Small vessels would be the most difficult to control. Their size, speed and maneuverability would make them difficult to track. They could also move back and forth across boundary lines with little or no notice; this could create a customs/immigration issue. Assigning these vessels to a task force with a lead vessel for communication and control would assure there is adequate oversight of their operations.

The deployment of additional handheld radios may be needed to assist in the control of vessel traffic. Radios would be supplied by the Responsible Party or an Oil Spill Response Organization. Spill response organizations may have supplies of radios available or readily accessible for use in an emergency.

VESSELS NOT INVOLVED IN A RESPONSE:

The potential for a response to impact waterways use is significant. Large vessels may need to use traffic lanes and designated channels in order to arrive and depart port areas. The initial response to an oil spill may require a port area to be closed for a period of time. However, the need to restore commerce is critical to the operation of the port, the population within a port area, and the businesses in the area.

The establishment of safety and security zones will be used to control vessel traffic in the vicinity of a pollution incident and in areas where a Vessel Traffic System (VTS) is in effect, the VTS will probably play a major role in managing some aspects of vessel movement.

VESSEL TRAFFIC SYSTEMS AND OTHER CONTROL SYSTEMS:

There are three vessel traffic systems in the CANUSPAC area that may be impacted during a pollution response. These are Seattle Traffic, Tofino Traffic and Vancouver Traffic; these traffic services essentially cover all of the waters that may be subject to a transboundary pollution incident.

In addition, there is a Cooperative Vessel Traffic Service (CVTS) established in the CANUSPAC area. According to the Thirteenth Coast Guard District's website on CVTS, "The CVTS system was established to provide for the safe and efficient movement of vessel traffic while minimizing the risk of pollution by preventing collisions and groundings...." In the CVTS system the established traffic centers of both countries administer the rules issued by both nations, but only enforce the set of rules issued by the home country in their own area of jurisdiction.

In the CANUSDIX region there is one Vessel Traffic Service located in Prince Rupert, B.C. which covers the area from the U.S. border on the north to the northern end of Tofino Traffic's Area of Operations. This VTS goes up to the A-B Line at the northern end of Dixon Entrance and follows the international line on the coast which goes up Pearse Canal until it intersects with Portland Canal then bisects Portland Canal until a point just north of Hyder, AK where the border goes inland, so Stewart is in the VTS AOR. The A-B line runs from Pt. Cornwallis on Dall Island to near Wales Island at the entrance to Portland Inlet.

Vessels responding to an oil spill in a VTS area will have to comply with VTS regulations/reporting requirements unless waived.

AUTOMATED IDENTIFICATION SYSTEMS (AIS):

One development that can assist in vessel traffic control is the AIS, which provides real time location and movement information for vessels equipped with AIS transponders. Under International Maritime Organization regulations certain vessels are required to be equipped with AIS equipment. This includes:

- All ships of 300 gross tons and upwards engaged on an international voyage
- Cargo ships of 500 gross tons and upwards not on an international voyage
- All passenger vessels irrespective of size

In the United States the following vessels are required to have AIS installed:

- vessels on an international voyage:
 - Self-propelled commercial vessels 65 feet or more in length, other than fishing vessels and small passenger vessels (≤ 150 passengers)
 - Tankers
 - passenger vessels with > 150 passengers
 - vessels, other than passenger vessels and tankers over 300 gross tons
- vessels within a Vessel Traffic System (VTS) areas, that are:
 - self-propelled commercial vessels of 65 feet or more in length, other than fishing vessels and small passenger vessels (≤ 150 passengers)
 - towing vessels of 26 feet or more in length and more than 600 horsepower
 - passenger vessel, regardless of tonnage, certified to carry > 150 passengers for hire

The USCG published a Notice of Proposed Rulemaking on 12/16/2008 which would require all vessels of 65' or longer to carry Automatic Identification System (AIS) as well as certain commercial vessels no matter what length, and would expand AIS coverage beyond VTS areas to all navigable U.S. waters. The USCG's AIS infrastructure is expanding and is able to process more signals. Spill response vessels over 65 feet would need AIS under the proposed rule. A final rule is not expected until 2011.

Moreover, Class B stand-alone AIS equipment is becoming available. During a pollution response, these systems could be placed onboard spill response vessels not already so equipped. The cost of purchasing/leasing such systems for use in a spill response is not insignificant and this expense would most likely be borne by the Responsible Party if the equipment is deployed.

Aircraft Traffic

The uses of aircraft during a spill response are varied, and may include transportation of personnel to/from cleanup sites, aerial surveys, tracking of assets, wildlife recovery, transportation of equipment, or transportation of injured personnel. The most common type of aircraft used in a spill situation is the helicopter, followed by small, light aircraft. Aircraft used in spill response operations are usually flying at low altitude and are operating under visual flight rules (VFR). Aircraft operating under VFR conditions are required to maintain proper separation from other aircraft and are required to see and be seen during operations.

Our study has noted that Transport Canada will not allow foreign aircraft once used by the military to land in Canada; this would preclude MSRC's dispersant aircraft landing in Canada, so any refilling and refueling operations would need to take place at U.S. airstrips.

Aircraft not directly involved in spill response operations may include aircraft used by the press, members of political bodies, certain stakeholder groups and curious citizens. These aircraft would also be operating under the VFR rules and restrictions.

The Wildfire Management Branch in the British Columbia Ministry of Forests, Lands, and Natural Resource Operations has adopted an Automated Flight Following (AFF) standard, as has the US Forest Service; this standard requires mandatory satellite tracking in all aircraft for hire.

The Unified Command will normally request civilian aviation authorities to establish no fly or restricted flight areas in the immediate area of a spill response for the safety of all parties. During a major response the Responsible Party (RP) should provide an air group established in the Operations Section and staffed by aviation professionals. An aviation communications system should be included (RP funded) to ensure positive communications with all air assets assigned to spill response activities.

The air group will direct all flight operations associated with the response, maintain contact with civilian aviation authorities, notify aviation authorities of aircraft operating unsafely or of unauthorized flights in a restricted area, provide flight plan data to aviation authorities, and review and approve safety and maintenance issues associated with aircraft operations.

RECOMMENDATIONS

1. Response organizations should continue to maintain lists of communications systems (radios, satellite phones, etc) available for response operations in the transboundary areas which they serve.
2. Response organizations and contractors covering the transboundary areas are encouraged to equip their dedicated spill response vessels with AIS systems for tracking purposes; they should also investigate the availability of portable GPS tracking devices.
3. Vessels of opportunity used in a transboundary spill response should continue to work in Task Force Groups, with the lead vessels provided with AIS or GPS transponders for tracking purposes.
4. The U.S. and Canadian Coast Guards should determine what role, if any, is defined for vessel traffic control systems (VTS) and during a pollution response. They should also compare the areas of responsibility for each VTS in order to identify any gaps in radar coverage.
5. The U.S. Coast Guard and Transport Canada should undertake a coordinated review of air traffic control coverage, capabilities (including traffic control for low altitude aircraft) and coordination protocols for both transboundary areas. As part of this review, they should determine whether air traffic control capabilities exist in remote areas of the transboundary regions, including identification of available resources and permits needed for access.

SOURCES:

- International Maritime Organization Regulation 19 of SOLAS Chapter V
- Title 33 Code of Federal Regulations, parts 26,161,164,165
- Marine Exchange of Alaska
- See <http://www.shinemicro.com/> for information on Class B AIS technology

SUMMARY OBSERVATIONS:

- The Canada-United States Joint Marine Pollution Contingency Plan (JCP) is silent on the issues of responder immunity and worker liability.
- Currently the Canada Shipping Act (CSA) 2001 protects responders directed by the Canadian Coast Guard (CCG), those approved by Transport Canada (TC) and certified response organizations. Those who are directed by the CCG are subject to a “reasonableness” test, while approved responders and certified response organizations are immune from liability except for personal acts or omissions committed with intent or recklessly and with knowledge.
- A mistake made during the drafting of the new CSA 2001 caused all references to oil handling facilities to be deleted from the text. As a result, unless formally “directed” to respond by the CCG, Canadian responders to spills at oil handling facilities receive no protection under the responder immunity provision.
- Canadian law provides no protection to U.S. OSROs unless they apply to Transport Canada to become approved responders.
- Under U.S. federal law as well as the laws of Alaska and Washington, a person responding to an oil spill is not liable for removal costs or damages caused during the response, as long as the person is not the Responsible Party, and the action taken is consistent with the National Contingency Plan or directed by the On-Scene Coordinator. Furthermore, the person must not have acted willfully or with gross negligence. It appears that Canadian responders are covered during a response in the U.S. as long as their actions meet the criteria above.
- Alaska law provides for responder immunity when the response is in substantial compliance with the applicable contingency plan or directed by the On-Scene Coordinator (AS 46.03.826). Exceptions mirror federal law.
- Washington law also provides for responder immunity except for the Responsible Party and as long as response actions are consistent with the National Contingency Plan or directed by the On-Scene Coordinator (RCW 90.56.390). Similar exceptions for gross negligence or willful misconduct apply.

DISCUSSION:

Canada – U.S. Joint Contingency Plan

The Canada-United States Joint Marine Pollution Contingency Plan (JCP) is silent on the issues of responder immunity and worker liability.

Canada

Clause 181 (2) of the Canada Shipping Act (CSA) 2001 states that a Response Organization which has been designated as an approved or certified responder is not personally liable, either civilly or criminally, in respect of any act or omission occurring or arising during the course of a response operation, unless it is shown that the act or omission was committed with the intent to cause loss or damage, i.e. as a result of gross negligence. This change from the test of reasonableness to one based upon personal act or omission (committed with intent or recklessly and with knowledge) should provide more comfort to Canadian responders.

Currently the CSA 2001 protects three distinct groups of responders: 1) those directed by the Canadian Coast Guard (CCG); 2) those approved by Transport Canada (TC); and 3) response organizations (ROs) certified by Transport Canada such as Western Canada Marine Response Corporation (WCMRC). Those who are directed are still subject to the old “reasonableness test,” while approved responders and certified response organizations enjoy the new personal act test.

The new Canada Shipping Act, 2001 retains the concept of responder immunity but, unlike the old legislation, the new Shipping Act no longer automatically provides the protection of the limited immunity to mutual aid partners such as SEAPRO, simply by virtue of the fact that the mutual aid partner is acting as an agent of a certified Canadian response organization. The Canada Shipping Act now requires a mutual aid partner to take a proactive step and make application to the Minister of Transport asking to be designated in writing as an approved responder. At present, there are no responders in Canada designated as “approved” by the Minister of Transport. Approved responders should not be confused with a certified response organization, of which there are currently four in Canada.

The SE Alaska Petroleum Resource Organization (SEAPRO) is drafting an application to Transport Canada, although it has not as yet been formally submitted. This will be the first such application to the Minister and will help determine how the Minister will consider and handle other applications for designation.

With respect to hiring foreign responders such as U.S. response organizations, the Canadian Coast Guard could legally hire responders from outside of Canada to “work” in Canada. The only exception would be if the responder comes into Canada with a ship. In such a case, pursuant to the Coasting Trade Act, the ship would be authorized to operate on the Canadian side only in an emergency and with the authorization of a Pollution Prevention Officer (TC).

Under the Canada Shipping Act, the definition of a “ship” also covers an oil-bearing barge. Since the owner of a ship is liable for pollution damage, with certain limited exception, the owner of any barge carrying captured oil can be held liable for cleanup costs and other damage should that oil spill.

The issue is whether a U.S. responder is likely to accept operating in Canada because of liability issues. If an outside responder was designated in writing by the Minister of Transport as an approved responder then the liability concern would not be an issue, since the indemnification provision of subsection 181(2) of the Canada Shipping Act 2001 would apply. Transport Canada has not yet designated outside responders.

A mistake made during the drafting of the new CSA 2001 caused all references to oil handling facilities to be deleted from the text. As a result, unless formally “directed” to respond by (CCG), Canadian responders to spills at oil handling facilities receive no protection under the limited responder immunity provision. Until the legislation is amended, CCG must direct responders to respond to the spill in order to provide the requisite coverage. There is no problem with spills from ships, since in that situation ROs and approved responders have the benefit of the new test.

Regarding the omission of Oil Handling Facilities from the recent CSA 2001 amendments, until the Canadian Department of Justice (DOJ), Transport Canada (TC) and the Canadian Coast Guard (CCG) are able to pass amending legislation, the CCG must continue to direct responders. Action on this shortcoming is long overdue and WCMRC continues to wait for advice from TC and CCG concerning a solution.

Regarding convergent volunteers, if they are hired through WCMRC, they are covered by the organization’s immunity protection.

United States

Under U.S. law (CFR 33 USC, Section 1321(c) (4)) a person “providing care, assistance, or advice” in responding to an oil spill is not liable for removal costs or damages caused during the response, as long as the person is not the Responsible Party for the discharge to which the person is responding and the action taken is consistent with the National Contingency Plan or directed by the On-Scene Coordinator. This immunity does not apply to a response

under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), nor with respect to personal injury or wrongful death, or if a person acted willfully or with gross negligence.

Alaska law has similar standards for responder immunity for response action contracts. The response must be in substantial compliance with the applicable contingency plan or directed by the On-Scene Coordinator (AS 46.03.826). Exceptions mirror federal law.

Likewise, Washington law also provides for responder immunity except for the Responsible Party and as long as response actions are consistent with the National Contingency Plan or directed by the On-Scene Coordinator (RCW 90.56.390). Similar exceptions for gross negligence or willful misconduct apply.

It would seem that Canadian responders would be covered during a response in the U.S. as long as their actions meet the criteria above.

RECOMMENDATIONS

1. Considering the potential for a transboundary spill to originate from an oil handling facility, Transport Canada should correct the omission in the CSA 2001 relating to responder immunity for spills from Oil Handling Facilities as soon as possible.
2. Transport Canada and the Canadian Coast Guard should develop protocols that allow U.S. Coast Guard approved response organizations to benefit from Canadian responder immunity provisions through mutual aid agreements with Canadian Response Organizations.
3. WCMRC's mutual aid partners in the U.S. should apply to Transport Canada as soon as possible for approved responder status.
4. Because clear standards are needed from both the U.S. and Canadian governments regarding responder Immunity for foreign workers and vessels, the CANUSDIX and CANUSPAC Joint Response Teams should review and upgrade their annexes to include clear "how to" steps and/or references to U.S. and Canadian responder immunity procedures and protocols.

SOURCES:

- Canada Shipping Act Update (handout), Simon Barker, Oland and Company, 2008
- Limited Responder Immunity (handout), Simon Barker, 2007
- Simon Barker phone interview December 2008 and email 3/25/11
- Correspondence from Jon K. Tillinghast, attorney for SEAPRO
- *Cross-Border Emergency Response Guide, 3rd Edition*; Transport Canada, 2007
- *Responder Liability and Indemnification Issues*; a PowerPoint prepared by Julia Werneburg, Fisheries and Oceans, Canada for the Canada-U.S. Oil Spill Finance Workshop, July 22-23, 2009
- *Responder Liability and Indemnification*; a PowerPoint presentation by Greg Buie, Regional Manager for the USCG's National Pollution Fund Center, for the Canada-U.S. Oil Spill Finance Workshop, July 22-23, 2009

SUMMARY OBSERVATIONS:

- U.S. and Canadian labor safety standards are generally similar, but issues that could potentially impact transboundary spill response operations include:
 - There is not a directly comparable program in Canadian regulation to the hazardous waste operations and emergency response (HAZWOPER) training required by U.S. occupational safety and health regulations (Federal and/or State). However, many Canadian companies are requiring HAZWOPER training for their staff, making it a de facto standard for Industry in Canada.
 - Occupational Exposure Limits (OELs) - either set by regulation or used by different companies – may vary.
 - The medical surveillance requirements that apply to U.S. workers (who may be exposed to hazardous substances or health hazards above permissible or published exposure limits) exceed the applicable Canadian standards for workers in similar conditions.
- Occupational Exposure Limits (OELs) for specific hazards can vary widely depending on the source. Several industry associations publish OEL recommendations which are often incorporated by reference into state safety regulations or referenced by governments and companies worldwide.
- Industry Recommended Practices (best practices and guidelines compiled by knowledgeable and experienced industry and government personnel) may also be incorporated into either national or provincial legislative requirements.
- Use of a common Site-Specific Safety Plan would ensure that responders are meeting applicable standards and promotes consistency with regard to OELs, PPE and procedures.
- More Canadian responders are being trained to the U.S. HAZWOPER standard each year, and U.S. organizations are prepared to conduct training prior to response as necessary.

DISCUSSION:

Although there are many labor standards that apply to spill response operations, the U.S. HAZWOPER training regulations (federal and/or state) account for the most obvious incongruity between Canadian and U.S. labor practices.

U.S. response organizations are required to have personnel trained to the highest level of skill, responsibility, and exposure to which they will be assigned. HAZWOPER training requirements range from a spill site briefing for support personnel to 40 hours of training and three days of supervised field experience for post-emergency responders. U.S. oil spill response organizations typically train their personnel to either the 24-hour or the 40-hour standard and maintain currency through annual 8-hour refresher training. United States spill responders working in Canada should be prepared to provide documentation of their training to appropriate Canadian officials.

Major U.S. response organizations have programs in place for conducting the appropriate level (8-hour or 24-hour) of just-in-time HAZWOPER training for contractors or fishing vessel crews. These programs can also be used to train Canadian response personnel if necessary. At this time, it is understood by all response organizations that Canadian responders need to be certified per the U.S. HAZWOPER training standard in order to respond to a spill in U.S. waters.

Federal and Provincial training requirements for hazardous material responders in Canada are not prescribed to the same level of detail as in the United States, since existing legislation provides descriptive guidance as opposed to specific direction. The Canada Labour Code Part II, (CLC II) and the associated Canada Occupational Safety and Health, (COSH) regulations, describe training requirements for federal government employees in broad terms,

primarily in CLC II, Sections 124 to 126. These sections generally require the employer to provide employees appropriate training, tools and protective equipment in order to allow them to conduct their work in a safe fashion. For employees working with hazardous or controlled substances, Part X of the COSH regulations require that employees be trained regarding the hazard information contained in the Material Safety Data Sheet (MSDS) for the substance. Employees must also be trained in the proper use of personal protective equipment as prescribed by the MSDS. There are no specific courses, formal qualifications, or minimum hours of training required by the CLC II or COSH regulations, however all training provided to the employee must be documented. United States hazardous materials responders who are trained to their jurisdictional provisions will meet Canadian federal and provincial requirements.

The Canadian government does not recognize the term HAZWOPER, which covers all types of chemical exposures and working environments. Canadian agencies and contractors with full time staff in spill response generally train to *National Fire Protection Agency 472* (NAFTA) hazardous material training standards such as Hazmat awareness, Hazmat Operations, and Hazmat Technician levels. Nevertheless, the Western Canada Marine Response Corporation (WCMRC) has enacted a training program to provide their personnel with HAZWOPER training because of Mutual Aid Agreements with Southeast Alaska Petroleum Organization (SEAPRO) and the Marine Spill Response Corporation (MSRC). WCMRC personnel are initially trained to the 8-hour to 24-hour HAZWOPER competence levels and thereafter undergo recurring annual 8-hour HAZWOPER refresher training.

Occupational Exposure Limits (OELs) for specific hazards can vary widely depending on the source. In the U.S., federal OELs represent the minimum protection employers must afford employees for a specific hazard. Some U.S. states mandate the use of OELs that provide a higher level of protection for workers. Several groups that publish their own OEL recommendations for use by trained industrial hygienists are the American Council of Governmental Industrial Hygienists (ACGIH), the American Industrial Hygienist Association (AIHA), the National Institute of Occupational Safety and Health (NIOSH), and Deutsche Forschungsgemeinschaft (DFG). Because recommendations from these reputable independent scientific groups are reviewed and updated much more frequently than U.S. federal standards, they are often incorporated by reference into state safety regulations. Progressive countries and companies worldwide also incorporate OEL recommendations from ACGIH, AIHA, NIOSH, DFG and/or other scientific groups into their safety and health programs. Canada uses the current ACGIH recommendations as the basis for its OELs standards.

In Canada, Industry Recommended Practice (IRP) may also be incorporated into both national and provincial legislative requirements. IRPs are best practices and guidelines compiled by knowledgeable and experienced industry and government personnel and are intended to provide the operator or user with advice regarding particular operations. There are several excellent safety plan formats used by private industry and government agencies; for example, the USCG ICS 208-CG template is quite comprehensive and has been tested to meet the OSHA HAZWOPER requirement.

Groups like the American Petroleum Institute (API), the International Association of Drilling Contractors (IADC), and the International Association of Oil and Gas Producers (OGP) publish guidance materials. Companies worldwide also incorporate these published practices into their operations. U.S. regulations often reference best practices from these and similar industry and professional organizations.

A written site safety plan should be prepared for all cross-border responses prior to post-emergency response action. U.S. law requires site safety and health plans. Site safety plans must be specific to the emergency or hazardous material site and must address any unique features of the site. The site safety plan should address personnel monitoring, environmental monitoring, hazard identification, pre-entry briefings, site security and decontamination procedures etc. For more detailed information refer to 29 CFR 1920.120(b).

If separate site safety plans have been prepared by Canadian and United States responders, the safety officers from Canada and the United States will meet to ensure the site safety plans compliment each other and do not conflict. Differences in OELs, procedures, and PPE requirements may surface during the preparation of the Site Specific Safety Plan for an incident depending on whether U.S. standards, Canadian standards, or a particular response company's policies apply. As long as the more stringent requirement is used for the Safety Plan, there should be no major incoherence. It is important to have Canadian and U.S. safety and/or industrial hygiene professionals involved in drafting any Safety Plan for joint operations. For example, in the U.S., worker entry into a confined space is generally allowed if the atmosphere in the space contains less than 10% of the lower explosive limit (LEL) of a flammable gas present. In Canada, worker entry into the same space with the same gas would generally be allowed if the atmosphere in the space contains less than 20% of the LEL of the gas. The Site Specific Safety Plan prepared for a joint Canadian/U.S. operation should only allow worker entry into confined spaces with atmospheres containing less than 10% of the LEL of any flammable gas present. This provides adequate protection for both U.S. and Canadian responders.

RECOMMENDATIONS

1. Canadian and U.S. responders should continue training to the appropriate standard if they are likely to respond in foreign waters per mutual aid agreements.
2. To address differences in medical surveillance requirements, Canadian responders should not be assigned tasks on a U.S. response incident in which they would or potentially could be exposed to hazardous substances or health hazards above permissible or published exposure limits. Tasks requiring respiratory protection fall into this category.
3. All site-specific safety plans for transboundary operations should continue to be drafted and reviewed by safety and/or industrial hygiene professionals familiar with applicable Canadian standards, U.S. standards and the individual policies of response organizations involved in order to ensure that all responders are afforded adequate protection.
4. Response organizations and agencies operating in the transboundary areas should determine whether their personnel have adequate insurance coverage to operate outside the "normal operating area," and what, if any, time limits apply to their operations across the border. They should also ensure that all workers have baseline medical records available.
5. As part of routine operations, exercises and drills, it is recommended that differences in OELs, procedures, and PPE requirements that potentially inhibit transboundary response continue to be shared by response organizations and agencies as or if they are discovered. If any of the issues can be addressed by conforming to a mutually agreed upon "best practice" that meets the more stringent requirements, it is recommended that written templates be created and distributed to the response community. Incorporation of these practices into routine field training and exercises will promote familiarization with issues. The response organizations' and agencies' safety officers should facilitate this process.

SOURCES:

- ACGIH Publication: *2008 Guide to Occupational Exposure Values*
- Jeff Schultz, SEAPRO by email correspondence on November 18, 2008.
- Rob Robinson, WCMRC by email correspondence on December 4, 2008.
- U.S. Coast Guard Regulations: 46 CFR Shipping and 33 CFR Navigation and Navigable Waters

- U.S. OSHA Publications: *Training Requirements in OSHA Standards and Training Guidelines*, OSHA 2294, 1998 (revised); and *Training Marine Oil Spill Response Workers Under OSHA's Hazardous Waste Operations and Emergency Response Standard*, U.S. DOL, OSHA 3172, 2001
- Washington State labor regulations, Title 296 WAC – WA State Department of Labor and Industries
- WorkSafeBC website: <http://www2.worksafebc.com>
- Canada – U.S. Joint Marine Pollution Contingency Plan, Atlantic Geographic Annex; Appendix J, *Worker Health, Safety, and Compensation*

SUMMARY OBSERVATIONS:

- The transboundary Area Plans, Annexes, and Contingency plans require a coordinated and documented response effort. These plans reference the use of both RMS and ICS, but offer no specific guidance on developing a coordinated documentation system.
- It is difficult – but critically important – to develop a strong documentation unit early in a spill response, since the Documentation Unit must seek and collect the documents that each section develops.
- Institutional or technical barriers may include variations in both forms and the information flow processes between the RMS and ICS systems, various technical problems associated with remote locations, maintaining security for information flow and ensuring that field personnel document the success or failure of their response actions.

DISCUSSION:

The U.S./Canadian Transboundary planning documents (the Northwest Area Contingency Plan, the SE Alaska Subarea Plan, the Canadian Coast Guard Marine Spills Contingency Plan, and the Canada-United States Joint Marine Pollution Contingency Plan with its CANUSPAC and CANUSDIX annexes) all provide for a coordinated and documented response efforts. They do not, however, provide specific guidance regarding coordination of response documentation.

They also provide for the use of the Canadian Coast Guard's Response Management System (RMS) and the U.S. Coast Guard's Incident Command System (ICS). Both RMS and ICS require a clear and accurate understanding of the situation based on documentation developed during the incident. Therefore, it is essential that key agencies on both sides of the international border work together to identify and document decisions and actions taken. Responses to past spill incidents have demonstrated problems in capturing actions and information from the field; any cross-border incident could add another layer of complication to these challenges.

Challenges may include:

- It is difficult – but critically important – to develop a strong documentation unit early in a spill response, since the Documentation Unit must seek and collect the documents that each section develops. Often in the initial phases of a response or during any fast-paced operation, information is lost between sections or not recorded at all. This can pose a frustrating and complex problem once the spill response is complete. As one responder stated, "If it wasn't in writing and collected in a central documentation file, it didn't happen."
- Forms and information process flows can differ between the Canadian Coast Guard's RMS with the U.S. Coast Guard's ICS system. It was noted in the CANUSPAC 2004 Lessons Learned that some difficulties were encountered as a result of this fact.
- Access to phone lines, data ports, cell phone coverage, or the Internet for information sharing may be limited or unavailable in remote locations or during the initial phases of a response.
- Sensitive information shared on channels, websites, or other devices may not be secure and could be inadvertently distributed to the public without being vetted and reviewed by the Unified Command. The internet is a powerful tool, however, and the benefits can far outweigh the potential of information being misdirected.
- Ensuring that personnel operating in the field consistently report back to the Incident Command Post can be difficult. A verbal feedback loop regarding implementation of 204s from the group/division supervisor to the branch director does exist in ICS, but it does not require specific documentation of the success or failure of efforts to implement specific response strategies.
- Saving and documenting information from the Situation Board may not be done consistently.

- Coordinated documentation of expenses may also be a challenge; this topic is addressed in the Finance Section of this report, which notes that operations approved in the daily Incident Action Plans will be monitored by the Responsible Parties' representatives, so the IAPs become important documents for the Finance sections.

To date, these topics have seldom been tested during exercises and drills.

RECOMMENDATIONS

1. The U.S. and Canadian Coast Guards should add protocols to the CANUSPAC and CANUSDIX Annexes covering the coordination of Incident Action Plan development and documentation between the U.S. and Canadian command posts. This documentation should include information collected at the end of each operational period from division/group supervisors regarding actions and events that occurred during the day, shift, or operational period.
2. Responders, vessel masters, division and group supervisors, should maintain and submit a 214 form (or the RMS equivalent) with specific action items recorded. Examples: failure, success, issues, safety incidents, major decisions, etc. This can be tested during future deployment exercises.
3. The CANUSPAC and CANUSDIX Joint Response Teams should determine the legal aspects of sharing transboundary response information, the implications of different federal, provincial and state standards for responding to information requests, and the costs associated with such requests.
4. Transboundary planners should ensure that objectives for future drills and exercises include the execution of a plan to distribute all documentation to involved parties.

SOURCES:

- ICS Manual, Process, Organization, Language, and Forms for Oil Spill Response Management, Prepared by Genwest Systems: http://www.ecy.wa.gov/programs/spills/hottopics/ics/WDOE_ICs_Manual_print_v5.pdf
- Incident Specific Preparedness Review (ISPR) M/V Cosco Busan Oil spill in San Francisco Bay, PART II AND FINAL REPORT, 7 May 2008: <http://www.uscg.mil/FOIA/CoscoBuscan/part2.pdf>
- Lessons Learned Report Foss Maritime Barge 248-P2 Spill, Point Wells Facility Shoreline, Washington, December 30, 2003. Dean Dale, Genwest Systems Inc. May 2004: http://www.akrrt.org/Archives/Response_Reports/AAR_WA_FossBargeSpill_2003.pdf
- Dalco Passage Mystery Spill, 14 October 2004. Lessons Learned Report; John Murphy, Genwest Systems Inc. December 2004: <http://www.ecy.wa.gov/programs/spills/incidents/dalco/Dalco%20Passage%20Lessons%20Learned%20Genwest%20Report%20Final.pdf>
- NPFC User Reference Guide
- REGION I REGIONAL RESPONSE TEAM 2004 ANNUAL REPORT, Period of Report: January 1, 2004 – December 31, 2004: [http://www.rtt2.nrt.org/production/NRT/RRT2.nsf/Resources/AnnualReport/\\$File/RRT_2_2004_Annual_Report_fr.pdf](http://www.rtt2.nrt.org/production/NRT/RRT2.nsf/Resources/AnnualReport/$File/RRT_2_2004_Annual_Report_fr.pdf)
- Canadian Coast Guard, CANUSPAC 2004 Learnings: This web link is no longer available
- CANUSDIX Exercise Reports (<http://www.akrrt.org/reports.shtml>)
- CANUSPAC Operational Annex to the Canada – United States Joint Marine Pollution Contingency Plan: <http://homeport.uscg.mil/mycg/portal/ep/home.do>

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SECTION 4
REPORTS FROM THE LOGISTICS SUBCOMMITTEE

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TOPIC: PROCEDURES FOR MOVING PEOPLE AND EQUIPMENT ACROSS BORDERS FOR EMERGENCY SITUATIONS

SUMMARY OBSERVATIONS:

- The United States Customs and Border Protection (CBP) agency has specific regulations governing the movement of persons and equipment or goods during emergency situations. Emergencies are classified as natural disasters, industrial accidents, or medical emergencies.
- It is CBP policy that emergency responders and emergency conveyances, equipment, or goods not be unnecessarily delayed beyond the declaration or acknowledgement that an emergency exists.
- When assessing the need for emergency response, CBP will treat all situations as genuine, unless evidence exists to the contrary. CBP will consider any requests that have been made by U.S.-based entities for immediate response assistance.
- Advanced notification shall be made to the nearest CBP Port of Entry/Office of all emergency personnel entering the United States in an effort to expedite processing.
- Foreign-based equipment or goods entering the United States in response to an emergency will be allowed to proceed without formal entry and without payment of any duty as long as the equipment leaves the U.S. after the response.
- U.S. based emergency response teams are encouraged to coordinate with the U.S. port of exit pre-departure in registering equipment in order to prevent potential inspection delays upon return.
- Advance notification must be provided to the Canada Border Services Agency (CBSA) in order to expedite processing of emergency vehicles, equipment and personnel. With advance notification, a CBSA representative will provide direction to the representative regarding the appropriate place of entry.
- When time or circumstances do not permit an official notice of an emergency, CBSA officers will assess the situation as it develops.
- CBSA officers will be given discretion to determine the documentation required at the time of importation or entry, based on the nature of the emergency.
- Equipment or goods to be utilized in an emergency response may be imported on a temporary basis, duty free, and relieved of the requirement to pay Goods and Services Taxes.
- Emergency response personnel may be granted entry to Canada as visitors and are exempt from obtaining a work permit when rendering services in times of emergency.
- When the requested assistance is not of an immediate nature, a determination of logistics will be made in consultation with Regional and District CBSA Management.
- Dual security arrangements between CBSA and CBP facilitate travel between the U.S. and Canada through the use of NEXUS cards, which are pre-approved and issued to low risk travelers.
- In order to facilitate the movement of equipment/goods across the border, upon exiting the U.S. response personnel should stop at United States Customs and Border Protection to have their equipment list registered. Upon exiting Canada, U.S. personnel should report to the Canada Border Services Agency (CBSA) to demonstrate that the temporarily imported equipment/goods were consumed or are being exported. Canadian goods being temporarily exported to the U.S. from Canada should also be reported to the CBSA upon exit.

DISCUSSION:

Procedures for entering the United States

The United States Customs and Border Protection (CBP) agency has specific regulations governing the movement of persons and equipment during emergency situations. Emergencies are classified as natural disasters, industrial accidents, or medical emergencies. Included in these regulations are established policies for individual ports of entry. Agencies interested in more information regarding the movement of personnel, equipment or oiled

wildlife should contact the individual ports of entry. The websites for individual ports of entry in Alaska and Washington are:

- Alaska – Ports of Entry listing: <http://www.cbp.gov/xp/cgov/toolbox/contacts/ports/ak/>
- Alaska – Ketchikan: <http://www.cbp.gov/xp/cgov/toolbox/contacts/ports/ak/3102.xml>
- Alaska – Juneau: <http://www.cbp.gov/xp/cgov/toolbox/contacts/ports/ak/3101.xml>
- Washington- Ports of Entry: <http://www.cbp.gov/xp/cgov/toolbox/contacts/ports/wa/>
- Washington-Blaine: <http://www.cbp.gov/xp/cgov/toolbox/contacts/ports/wa/3004.xml>
- Washington-Seattle: <http://www.cbp.gov/xp/cgov/toolbox/contacts/ports/wa/3001.xml>

Additional information may be found by searching the public website for U.S. Customs and Border Protection at: <http://www.cbp.gov/>.

It is CBP policy that emergency responders and emergency conveyances, equipment, or goods should not be unnecessarily delayed beyond the declaration or acknowledgement that an emergency exists.¹⁶ Any admissibility issues or processes for completion of the inspection will be accomplished after the resolution of the immediate emergency. When assessing the need for emergency response, CBP will treat all situations as genuine, unless evidence exists to the contrary. CBP will consider any requests that have been made by U.S.-based entities for immediate response assistance.

PERSONNEL

Advanced notification shall be made to the nearest CBP Port of Entry/Office of all emergency personnel entering the United States in an effort to expedite processing. The emergency personnel's representative should be prepared to provide the following information:

- Company or agency name;
- Nature of the emergency;
- Departure and Arriving locations; and
- Names, dates of birth, citizenships and WHTI-Compliant document¹⁷ numbers of all personnel involved.

The information should be collected on CBP Form I-418 (crew list) or other format approved by the local Port Director. The information can be faxed to the CBP Port of Entry/Office. CBP will grant admissibility based on their Office of International Affairs (INA) policies and adjudicate any issues that may arise.

When time or circumstances do not permit an official notice, CBP will assess each situation on a case by case basis based on local port procedure.

¹⁶ "First Responders or Medical Emergency Situations: There is no change for standard processing of first responders or medical emergency personnel. The department has had and will continue to have procedures in place to ensure prompt processing for these individuals. Special consideration will continue to be made for urgent medical issues, First Responder situations, and cross-border emergency services. However, presenting an acceptable document is likely to be the most expedient means of crossing the border for personnel who routinely cross the border." (Source: the U.S. Department of Homeland Security website)

¹⁷ Western Hemisphere Travel Initiative (WHTI) documents include: Passport, Passport Card, Trusted Traveler Card, State Issued Enhanced Drivers License, Enhanced Tribal Card, Native American Tribal Photo ID Card and Form I-872 American Indian Card. According to the U.S. Department of Homeland Security website, "Canadian citizens ages 19 and older must present documentation that proves both identity and citizenship. Identification documents must include a photo, name and date of birth." See: http://www.cbp.gov/linkhandler/cgov/newsroom/fact_sheets/travel/whti_state_factsheet.ctt/whti_state_factsheet.pdf.

Upon request, the industry or its agent must provide safe transportation to and from the location of the emergency clean-up in order to allow Customs and Border Protection to inspect crewmen and operations.

Foreign workers/crewmen must check out through a Customs and Border Protection office when departing the United States.

EQUIPMENT

Foreign-based equipment entering the United States in response to an emergency will be allowed to proceed without formal entry and without payment of any duty or any tax imposed under the conditions outlined in 19 CFR 10.107. As long as the equipment leaves the U.S. after the response, there is no duty. If the equipment stays in the U.S., then a formal entry must be made.

Equipment information consisting of type and quantity, serial numbers or other visible markings is needed for all vessels, barges and large equipment. The vessel information may be captured on CBP Form-1300 or other company/agency form. Equipment information may be gathered on CBP Form-1302 or other company/agency form. The forms may be faxed to the CBP Port of Entry/Office.

When time or circumstances do not permit an official notice, CBP will assess each situation on a case-by-case basis based on local port procedure.

U.S. based emergency response teams are encouraged to coordinate with the U.S. port of exit pre-departure in registering equipment in order to prevent potential inspection delays upon return. Registration can be accomplished using the Certificate of Registration (CBP Form 4455) or other pro-forma document approved and certified by the Port Director.

The CBP forms can be found at <http://www.cbp.gov/xp/cgov/toolbox/forms/>. Common forms for the U.S. Customs and Border Patrol (CBP) include:

- CREW'S EFFECTS DECLARATION form: http://forms.cbp.gov/pdf/CBP_Form_1304.pdf
- INWARD CARGO DECLARATION form: http://forms.cbp.gov/pdf/CBP_Form_1302.pdf
- VESSEL ENTRANCE OR CLEARANCE STATEMENT form: http://forms.cbp.gov/pdf/CBP_Form_1300.pdf
- PASSENGER LIST/CREW LIST form: http://forms.cbp.gov/pdf/cbp_form_i418.pdf
- VESSEL ENTRANCE OR CLEARANCE STATEMENT form: http://forms.cbp.gov/pdf/CBP_Form_1300.pdf

Procedures for entering Canada

In an effort to provide expedited processing of emergency vehicles, equipment and personnel, it is requested, that advance notification be provided to the Canada Border Services Agency (CBSA), using port level contacts.

A representative of the appropriate municipal, provincial, or state agency, organization, or provider should direct their call to the CBSA Port of Entry where clearance will take place in order to obtain further advice and guidance.

The emergency response personnel and/or representative placing the call should be prepared to provide the following information:

- Nature of the emergency and priority of response;
- Starting point and destination of emergency vehicles and equipment;
- Nature of the transport process and information regarding the number of vehicles, personnel and patients (if applicable) to be processed;
- Details regarding patients (if applicable) to be processed including name, date of birth, citizenship, and place of residence; and
- Estimated time of arrival at the port of entry.

With advance notification, a CBSA representative will provide direction to the representative regarding the appropriate place of entry. In some cases, this may include the use of the NEXUS lanes at the Ports of Pacific Highway or Douglas. In the case of entry through a Port without a designated NEXUS lane, CBSA will provide instruction on the appropriate place to report in order to facilitate processing.

When time or circumstances do not permit an official notice of an emergency, Border Services Officers will assess the situation as it develops by consulting with local response agencies or local or regional management representatives.

DOCUMENTATION

Equipment to be utilized in an emergency response may be imported on a temporary basis, duty free, under Tariff item 9993.00.00 and relieved of the requirement to pay GST (Goods and Services Tax) under the “Goods for Emergency Use Remission Order.”

When time permits, a Temporary Admission Permit E29B will be issued covering all equipment and supplies not consumed in Canada. This permit will be issued covering emergency supplies and equipment without collection of security (duty or GST).

Border Services Officers will be given discretion to determine the documentation required at the time of importation or entry, based on the nature of the emergency. In the event that documentation is completed, the record will be cancelled whenever evidence that the goods have been consumed or exported from Canada is provided, preferably from an official or person involved in the emergency situation.

The driver of the vehicle transporting equipment and personnel to Canada should adhere to the following:

- Carry two copies of the equipment list including serial numbers or other uniquely identifiable markings;
- Present the list to CBSA for clearance approval upon entry; and
- Report to a CBSA office prior to leaving Canada so that the temporary admission documents can be cancelled if completed on entry.

CBSA – IMMIGRATION REGULATIONS WHEN ENTERING CANADA

Emergency response personnel may be granted entry to Canada as visitors. The Immigration Program – Foreign Workers Manual, Section R186 (t) outlines how emergency service providers are exempt from obtaining a work permit when rendering services in times of emergency. These services should be aimed at preserving life and property. Under this provision, they would not be required to obtain an employment authorization.

COORDINATED OR SUSTAINED NON-EMERGENT RESPONSE PROCEDURES

When the requested assistance is not of an immediate nature and involves a response that includes multiple vehicles, equipment movements and personnel, the municipality, province or agency is requested to contact the CBSA Regional Office. A determination of logistics will be made in consultation with Regional and District Management. Co-ordination of efforts involving personnel, vehicles and equipment may be undertaken to facilitate entry into Canada. Should a non-imminent request of this nature be made directly to ports of entry, the Regional Office must also be notified as soon as possible.

The most commonly used Canada Border Services Agency (CBSA) forms include:

- FREIGHT CARGO MANIFEST form: <http://www.cbsa-asfc.gc.ca/E/pbg/cf/a6a/a6a-fill-07b.pdf>
- GENERAL DECLARATION A6 (00) form: <http://www.cbsa-asfc.gc.ca/E/pbg/cf/a6/a6-fill-07b.pdf>
- CREW'S EFFECTS DECLARATION form: <http://www.cbsa-asfc.gc.ca/E/pbg/cf/y14/y14-04b.pdf>
- SHIP STORES DECLARATION form: <http://www.cbsa-asfc.gc.ca/publications/forms-formulaires/e1.pdf>
- Non-Emergency Vessel Crossing guidelines: See Appendix VI

The Western Canada Marine Response Corporation (WCMRC) also uses the following guidelines and forms (replicated in Appendix VI):

- Trans-border Procedures (LAND)
- CANUS forms 1 – 8
- WCMRC Cross-border forms

NEXUS

Dual security arrangements between CBSA and CBP facilitate travel between the U.S. and Canada through the use of NEXUS cards which are pre-approved and issued to low risk travelers. There are dedicated NEXUS/FAST lanes at the bigger ports, such as Blaine, WA in order to reduce border crossings times. The cards also work at most major airports or by telephone when arriving by water. U.S. CBP accepts the NEXUS card as an alternative to a passport.

Citizens of the United States do not need a passport to enter Canada but should carry proof of citizenship such as a birth certificate or certificate of citizenship or naturalization, as well as photo identification. Permanent residents of Canada or the U.S should provide their Permanent Resident Card. Valid NEXUS and FAST cards are also accepted as proof of citizenship when entering Canada at all land and marine ports of entry.

RECOMMENDATION

The existing customs procedures for emergency response personnel and equipment entering either the U.S. or Canada are adequate and should be tested regularly during both OSRO and CANUSDIX and CANUSPAC Annex exercises so that border agency and response personnel are familiar with them.

SOURCES:

- Gilbert Varela, U.S. Customs and Border Protection
- Sharon Nesbitt, Canada Border Services Agency
- Robyn Lane, Canada Border Services Agency
- Kimberly Anthony, Western Canada Marine Response Corporation
- U.S. Customs and Border Protection website: is <http://www.cbp.gov/>
- Canada Border Services Agency website: <http://www.cbsa-asfc.gc.ca/>
- NEXUS: http://www.cbp.gov/xp/cgov/travel/trusted_traveler/nexus_prog/nexus.xml
- U.S. Department of Homeland Security website at: <http://www.dhs.gov/files/travelers.shtm>

SUMMARY OBSERVATIONS:

- The use of software is not addressed in either U.S. or Canadian state, provincial or national policy.
- Guidance on the use of specific software programs is not covered in area or contingency plans.
- The use of software in response activities is relatively new; software systems and information are multiplying rapidly. The most commonly used software systems are listed below.
- The Microsoft Office suite is the prevalent desktop applications system used.
- There are numerous emergency response software programs accessible over the Internet at no cost.
- The ability to communicate electronically between agencies during an incident requires an adequate and secure infrastructure and access to the Internet.
- The ability to communicate between specific software programs is untested and unknown.

DISCUSSION:

The use of software in response activities is relatively new; software systems and information are multiplying rapidly. The Microsoft Office suite is the prevalent desktop applications system used. There are numerous emergency response software programs accessible over the Internet at no cost. The ability to communicate between specific software programs is untested and unknown.

Many software programs have been developed for use in emergency response by government agencies, research institutions and in the private sector. The ability to communicate electronically during an incident requires that an adequate and secure infrastructure is available and that users are connected to the Internet. The web connection can be either hardwired or wireless. Communication through the Internet could occur by email with attached files or via the web. Alternatively, a hard-wired local area network could support communication to the geographic area.

Software used by state, tribal, provincial, and national agencies

Software used by state, tribal, provincial, and national agencies includes:

- Both standard Microsoft and Apple office software is used, including MS Office – Word, Excel, Access, PowerPoint, Visio, Adobe Acrobat Reader, Internet Explorer and Outlook;
- Database management system (DBMS) applications – Filemaker Pro and others;
- Google Earth – a virtual globe, map and geographic information program maps the earth by the superimposition of images obtained from satellite imagery, aerial photography and GIS 3D globe;
- Global Positioning System (GPS) Mapping software – used for various GPS products;
- Geographic Information System (GIS) software such as [ArcGIS](#) –ESRI® ArcGIS® is an integrated family of software products that consists of Desktop GIS, Server GIS, and Mobile GIS. ArcGIS is a platform for building a complete geographic information system (GIS) that lets the user author data, maps, globes, and models on the desktop, then transfer them to a GIS server and use them on the desktop, on the Web, or in the field. ArcGIS is an agency standard used in Geographic Response Plans (GRPs) management/development in Washington, British Columbia and Alaska; and
- [GPS Photo-link](#), which has a variety of applications, can be used to spatially label photographs.

Software developed by National Oceanic and Atmospheric Administration (NOAA)

There are over 74 software programs and data sets offered by the National Oceanic and Atmospheric Administration (NOAA) for emergency preparedness and response to chemical and oil spills. These tools address the following topics: assessing risk to ecological resources, restoration planning tools, responding to spills, chemical reactivity, plume modeling and dispersion, protecting coastal resources, integrating remediation and

restoration, planning for environmental emergencies, and watershed mapping and database projects. These programs include:

- Automated Data Inquiry for Oil Spills ([ADIOS2](#)) – An oil weathering model that runs both on Macintosh computers and in Windows. ADIOS2 incorporates a database containing more than a thousand crude oils and refined products, and provides quick estimates of the expected characteristics and behavior of oil spilled into the marine environment. The predictions it makes, presented as both graphics and text, are designed to help answer questions that typically arise during spill response and cleanup.
- General NOAA Operational Modeling Environment ([GNOME](#)) – oil spill trajectory modeling that can be used to predict how wind, currents, and other natural processes might move and spread oil spilled on water.
- Computer-Aided Management of Emergency Operations ([CAMEO](#)) – Used widely to plan for and respond to chemical emergencies. It is one of the tools developed to assist front-line chemical emergency planners and responders to access, store, and evaluate information critical for developing emergency plans.
- ALOHA (Areal Locations of Hazardous Atmospheres) is a modeling program that estimates threat zones associated with hazardous chemical releases, including toxic gas clouds, fires and explosions. A threat zone is an area where a hazard (such as toxicity, flammability, thermal radiation, or damaging overpressure) has exceeded a user-specified [Level of Concern \(LOC\)](#). Key program features include:
 - Generates a variety of scenario-specific output, including threat zone plots, threat at specific locations, and source strength graphs.
 - Calculates the rate of release for chemicals escaping from tanks, puddles (on both land and water), and gas pipelines and predicts how that release rate changes over time.
 - Models many release scenarios: toxic gas clouds, BLEVEs (Boiling Liquid Expanding Vapor Explosions), jet fires, vapor cloud explosions, and pool fires.
 - Evaluates different types of hazard (depending on the release scenario): toxicity, flammability, thermal radiation, and overpressure.
 - Displays threat zones on MARPLOT maps (and on ArcView and ArcMap with the Arc Tool extensions).
 - Works seamlessly with companion programs CAMEO Chemicals and MARPLOT; it can also be used as a standalone program.

ALOHA was developed jointly by NOAA and the Environmental Protection Agency (EPA), and it runs on both Macintosh and Windows computers.

- Query Manager and MARPLOT Applications, Data, and Maps – Query Manager allows users to select from a menu of pre-programmed queries that sort and analyze the data produced or collected by NOAA.
- Trajectory Analysis Planner (TAP) is a computer-based tool that investigates the probabilities that spilled oil will move and spread in particular ways within a particular area. TAP does this by assessing hundreds of site-specific spill trajectories. Various versions of this software have been developed across the U.S. and internationally. See:
[http://response.restoration.noaa.gov/topic_subtopic_entry.php?RECORD_KEY%28entry_subtopic_topic%29=entry_id,subtopic_id,topic_id&entry_id\(entry_subtopic_topic\)=330&subtopic_id\(entry_subtopic_topic\)=3&topic_id\(entry_subtopic_topic\)=1](http://response.restoration.noaa.gov/topic_subtopic_entry.php?RECORD_KEY%28entry_subtopic_topic%29=entry_id,subtopic_id,topic_id&entry_id(entry_subtopic_topic)=330&subtopic_id(entry_subtopic_topic)=3&topic_id(entry_subtopic_topic)=1).
- Special Monitoring of Applied Response Technologies (SMART) – is a cooperatively designed monitoring program for in-situ burning and dispersants. SMART relies on small, highly mobile teams that collect real-time data using portable, rugged, and easy-to-use instruments during dispersant and in-situ burning operations. Data are channeled to the Unified Command to address such critical questions as: Are dispersants effective in dispersing the oil? Are particulates concentration trends at sensitive locations exceeding the level of concern? Having monitoring data can assist the Unified Command with decision-making for dispersant and in situ burning operations.
- Environmental Sensitivity Index (ESI) maps – ESI maps provide a concise summary of coastal resources that are at risk if an oil spill occurs nearby. Examples of at-risk resources include biological resources (such as birds and shellfish beds), sensitive shorelines (such as marshes and tidal flats), and human-use resources (such as public beaches and parks). ESI Maps and Data features include:

- GIS techniques to integrate maps of a region with geographically-referenced [biological resources](#), [human-use resources](#), and ESI-classified [shorelines](#) that are ranked based on their sensitivity to oiling;
- A summary view of ESI data on the back of the paper map, and GIS versions of the ESI data that can be used for more complex queries; and
- A quick reference for oil spill responders and coastal zone managers.

ESI maps are created by NOAA Office of Response and Restoration researchers, working with colleagues in state government agencies, federal government agencies, and industry. ESI is available as a single map, or a regional collection of maps called an ESI atlas; it is also available in print and electronic formats (including several GIS formats) for most coastal regions of the U.S., as well as a few international locations.

- ARD GIS Tools – GIS tools represent a collection of scripts and extensions used by the ARD or collected by the ARD for use in Watershed Database and mapping projects. These tools aid in analysis and mapping spatial data by simplifying or automating tasks and providing functionality to accomplish complex tasks. These GIS scripts and extensions can:
 - Import, projection and symbolizing ARD Query Manager Data;
 - Facilitate the use of OR&R Environmental Sensitivity Index (ESI) data;
 - Calculate Area/Length/Perimeter;
 - Label multiple co-located points (Cores);
 - Image catalogue (boundaries) creation;
 - Add X/Y coordinates to a table;
 - Import hazardous material potential footprint output from OR&R ALOHA software;
 - Import NOAA raster charts and ENC's; and
 - Create of metadata files.

Software programs/databases developed for use by specific agencies or groups

- The Program of Ship Salvage Engineering (POSSE) is developed, used and maintained by the U.S. Navy Supervisor of Salvage (SUPSALV). This software is used for rapid analysis of a vessel's longitudinal strength and intact/damaged stability. SUPSALV can provide the services of naval architects, may provide the services of naval salvage vessels, and has access to contracts which will provide the services of commercial salvers and equipment. See http://www.supsalv.org/00c2_posse.asp?destPage=00c2 for more information. Phone: 703/607-2758 or 703/602-7527 after hours and on weekends.
- The Marine Information for Safety and Law Enforcement (MISLE) database is the U.S. Coast Guard's primary means of collecting and storing data for pollution investigation and enforcement activities, casualty investigations, vessel inspections, search and rescue (SAR), and Law Enforcement (LE) information. For more information, see: <http://cgmix.uscg.mil/>
- The Contingency Preparedness System (CPS) links U.S. Coast Guard contingency plans, exercises and lessons learned. It provides an efficient means of entering, integrating, managing, and monitoring Contingency Plans, Concept of Exercise (COE) reports, capturing After Action Reports (AARs), Lessons Learned (LL), and Best Practices (BP) from operations, contingency responses and exercises.
- The Environmental Response Tracking System (ERTS) is the Washington Department of Ecology's system to track all incoming calls reporting environmental concerns and follow-up referral to programs/other agencies for response and/or investigation. It contains specific incident details on initial pollution reports from citizens, referrals made to Ecology investigators and the results of internal or external pollution investigations including actions taken by Ecology Spill Operations investigators, the date of various investigation activities, and materials involved in the incident.
- The Marine Information System (MIS) is the primary vessel tracking, screening and inspection system for regulated vessels in Washington waters.
- The Western Response Resource List is the oil spill response equipment database maintained by Pacific Northwest equipment owners and hosted by Genwest Systems, Inc. It is best viewed in Windows using Internet Explorer 7 or on Macintosh using Firefox 2.0 or greater. It is an equipment inventory database

maintained by participating response organizations listed below. Equipment listed on the WRRRL may or may not be available at any given time. Users of WRRRL need to check with the listed contact for the current availability of equipment. See <http://www.wrrl.us/>

Private Response Contractors

Numerous software programs have been developed by companies that may be involved in emergency response. This software may be used for tracking resources, development of an Incident Action Plans (IAP), or for communications, and are available under licenses. These software programs require training for proficiency.

Examples of some of these products include:

- The Incident Action Plan (IAP) software produced by the Response Group in Houston, TX. This is a NIMS-compliant resource tracking software package that is available under license. Several planholders and agencies use this software. Some training is required to become proficient in the use of this software.
- The Emergency Management Information System (EMIS) E Team software, produced by NC4 Inc., is a web-based software tool which creates a platform for a real time, inter-operable, communications system. It is used to maintain situational awareness and document events and functions that occur within the operations center, to request and track resources, to monitor resources status, and to create reports and real-time Geographic Information Systems (GIS) mapping tools. This program has been selected for use as a government standard in British Columbia, but it has not yet been implemented in environmental emergency response.

The following free-to-use applications are offered by EnviroEmerg Consulting;

- *RegEmerg* – an emergency personnel database that provides a structured approach to pre-registering response personnel within an agency, company, or non-government organization such as those that have Incident Management Team, or to register responders as they arrive to participate at an incident (or exercise);
- *ICSEmerg* - is an Incident Command System (ICS) forms database that enables a user to type in incident information and print out hard copies; and
- *WebEmerg* - a useful utility for a facility (pipeline, railway, airport, facility etc) or organization (fire department, government agency) to prepare a contingency (response) plan pertaining to emergency contacts, web-based information sources, and Geographic Area Wide logistics/sensitivity plans using Google Earth.

These are available at: <https://public.me.com/enviroemerg>.

RECOMMENDATION

The Pacific States/British Columbia Oil Spill Task Force should consider chartering a Transboundary Software Committee of representatives from Alaska DEC, the British Columbia Ministry of Environment, the Washington Department of Ecology, the U.S. and Canadian Coast Guards and other federal representatives as appropriate to:

- Survey governmental agencies (at all levels), contractors, and the regulated community in the transboundary areas to determine what response software they use and document any compatibility issues;
- Report the survey results to every agency or organization which could play a part in a transboundary response;
- Consider ways to improve and share response documentation;
- Develop recommendations for reviewing and updating information on software systems on a regular basis; and
- Develop recommendations for testing software compatibility during Transboundary exercises, including reports identifying gaps and lessons-learned in the testing, with the intent of making recommendations to all agencies involved.

SOURCES:

- MS Office: Microsoft, <http://office.microsoft.com/en-us/default.aspx>
- Word: Microsoft, <http://office.microsoft.com/en-us/word/FX100487981033.aspx>
- Excel: Microsoft, <http://office.microsoft.com/en-us/excel/FX100487621033.aspx>
- Access: Microsoft, <http://office.microsoft.com/en-us/access/FX100487571033.aspx>
- PowerPoint: Microsoft, <http://office.microsoft.com/en-us/powerpoint/FX100487761033.aspx>
- Visio: Microsoft, <http://office.microsoft.com/en-us/visio/FX100487861033.aspx>
- Outlook: Microsoft, <http://office.microsoft.com/en-us/outlook/FX100487751033.aspx>
- Internet Explorer: Microsoft, <http://www.microsoft.com/Windows/internet-explorer>
- Adobe Acrobat Reader: Adobe, <http://www.adobe.com/products/reader>
- Filemaker Pro: <http://www.filemaker.com/products/filemaker-pro/?nav=products-pro>
- Google Earth: <http://earth.google.com>
- ArcGIS® : ESRI, <http://www.esri.com/software/arcgis/arcreader/download.html>
- [GPs Photo-link](#)
- Geospatial, <http://www.geospatialexperts.com/gpsphoto-link-series-p-85.html>
- [ADIOS2](#): NOAA
- [GNOME](#): NOAA
- [CAMEO](#): NOAA
[http://response.restoration.noaa.gov/type_subtopic_entry.php?RECORD_KEY%28entry_subtopic_type%29=entry_id,subtopic_id,type_id&entry_id\(entry_subtopic_type\)=402&subtopic_id\(entry_subtopic_type\)=25&type_id\(entry_subtopic_type\)=4](http://response.restoration.noaa.gov/type_subtopic_entry.php?RECORD_KEY%28entry_subtopic_type%29=entry_id,subtopic_id,type_id&entry_id(entry_subtopic_type)=402&subtopic_id(entry_subtopic_type)=25&type_id(entry_subtopic_type)=4)
- ALOHA: NOAA, <http://response.restoration.noaa.gov/aloha>
- Query Manager & MARPLOT:
[http://response.restoration.noaa.gov/topic_subtopic_entry.php?RECORD_KEY\(entry_subtopic_topic\)=entry_id,subtopic_id,topic_id&entry_id\(entry_subtopic_topic\)=375&subtopic_id\(entry_subtopic_topic\)=5&topic_id\(entry_subtopic_topic\)=2](http://response.restoration.noaa.gov/topic_subtopic_entry.php?RECORD_KEY(entry_subtopic_topic)=entry_id,subtopic_id,topic_id&entry_id(entry_subtopic_topic)=375&subtopic_id(entry_subtopic_topic)=5&topic_id(entry_subtopic_topic)=2)
- Trajectory Analysis Planner (TAP): Washington Dept. of Ecology,
<http://www.ecy.wa.gov/programs/spills/preparedness/tap.html>
- Special Monitoring of Applied Response Technologies (SMART): NOAA,
http://response.restoration.noaa.gov/book_shelf/648_SMART.pdf
- Environmental Sensitivity Index (ESI) maps: NOAA,
[http://response.restoration.noaa.gov/topic_subtopic_entry.php?RECORD_KEY%28entry_subtopic_topic%29=entry_id,subtopic_id,topic_id&entry_id\(entry_subtopic_topic\)=74&subtopic_id\(entry_subtopic_topic\)=8&topic_id\(entry_subtopic_topic\)=1](http://response.restoration.noaa.gov/topic_subtopic_entry.php?RECORD_KEY%28entry_subtopic_topic%29=entry_id,subtopic_id,topic_id&entry_id(entry_subtopic_topic)=74&subtopic_id(entry_subtopic_topic)=8&topic_id(entry_subtopic_topic)=1)
- The Program of Ship Salvage Engineering (POSSE): USN Supsalv,
http://www.supsalv.org/00c2_posse.asp?destPage=00c2
- Marine Information for Safety and Law Enforcement (MISLE): U.S. Coast Guard (internal)
- The Contingency Preparedness System (CPS): U.S. Coast Guard
- Environmental Response Tracking System (ERTS): Washington Dept. of Ecology (internal database)
- Marine Information System (MIS): Washington Dept. of Ecology (internal database)
- The Western Response Resource List (WRRL): Genwest & Washington Department of Ecology,
http://www.wrri.us/fmi/iwp/res/iwp_auth.html;jsessionid=053771238BD4A2E715142CA7.wpc1
- Incident Action Plan (IAP) software: Response Group, Inc.,
<http://www.responsegroupinc.com/iapsoftware.html>
- Emergency Management Information System (EMIS) E Team software: NC4 Inc., <http://www.nc4.us>
- EnviroEmerg Consulting Services's public folder: <https://public.me.com/enviroemerg>

SUMMARY OBSERVATIONS:

- No direct linkages to topics under the category of “remote area” planning could be found in Area Plans, Annexes or contingency plans, although Geographic Response Plans (aka Geographic Response Strategies in Alaska) have been developed in the states of Washington and Alaska, and provide limited information regarding remote areas covered by such plans. Development of GRPs is being piloted on the northern coast of British Columbia.
- Likely issues of concern for remote locations focus on access to phone, radio, and electronic communications; access to and deployment of response equipment; access to and deployment of aviation equipment; access to tugs and barges; waste storage and removal; and supporting a workforce (i.e., providing food, water, lodging/berthing, sanitary facilities, etc).
- There are regulatory requirements for potable water and sanitation for personnel in the field.
- Man-camps are available throughout SE Alaska year-round; however, it appears that there is a higher demand during the summer which could seasonally put them in scarce supply.
- There may be several options available for housing, depending on the spill location. Besides fishing/hunting resorts or camps, or hotels/motels, RV rentals may be possible, or contracts with Alaska, British Columbia, or Washington ferries, as well as billeting in local communities. Another option would be to contract with any company specializing in remote support logistics.
- SEAPRO has access to some oil barges through contracts with its members, and barges for wastes or other materials could be chartered through various area tug/tow companies.
- There does not appear to be a database of emergency housing options or waste oil storage barges. As it currently stands, the identification of housing options is dependent on local knowledge.
- Availability of housing and oil storage barges has not been tested in either the CANUSPAC or CANUSDIX exercises.

DISCUSSION:

Regardless of location, remote or not, there are several common logistical issues in spill response that are covered in other topic areas of the Logistics Subcommittee report, such as waste management and communications.

Geographic Response Plans (GRPs) have been developed in Washington and similar Geographic Response Strategies (GRSs) have been developed in Alaska, both as part of Area Plans; these provide limited information regarding remote area issues. Development of GRPs is being piloted on the northern coast of U.S., but further work on the development of GRPs in U.S. would ensure that baseline resource information is collected and maintained. U.S. has developed a Coastal Resource Information System (CRIS) which identifies critical resource information that can be used in an oil spill.

The primary areas of concern in response to an oil spill in remote areas focus on supporting the response and maintaining the workforce. Three general topics are discussed below: 1) communications; 2) equipment access and transportation; and 3) maintaining the workforce (i.e., providing food, water, lodging/berthing, sanitary facilities, etc).

COMMUNICATIONS

Cell and Satellite Phones

Cell phone use will be an issue as coverage is inconsistent in remote locations. Coverage for satellite phones should be mapped.

Radios

Technical support must be provided for radio coverage during incident response. The use of repeater stations is critical and has been tested numerous times during north and south transboundary exercise drills. The use of the U.S. Coast Guard Transportable Communications Central (TCC) package out of Pt. Reyes, California can be arranged for in a major incident and was recommended in the CANUSPAC 2007 Lessons Learned. This package can provide rapid, reliable, secure communications to remote locations or an Incident Command Post.¹⁸

MSRC's Mobile Communications Suite is a satellite based, self-contained communications platform capable of providing 24 phone trunks and up to 96 phones anywhere in the lower 48 states, all of Hawaii and parts of Alaska. In addition to its telephony capability, it has a wide variety of radio options to include VHF and UHF Business Band, Marine Band, and Aviation Band radios. The MCS comes complete with 4 VHF and 6 UHF repeaters and 40 handheld radios so that RF networks can be quickly deployed. The MCS comes complete with its own power source (35KW Generator). If more capabilities are required, cascaded equipment and personnel can be requested from other MSRC Regions.

The British Columbia (BC) Ministry of Environment can request communication support through the BC Provincial Emergency Program. One of the Province's public safety lifeline components is an auxiliary communications section. Groups exist throughout British Columbia which can provide assistance with communications in emergencies where normal communication is either not functioning or not available due to remote location. The BC Fire Protection Services have state-of-the-art communications systems for remote locations, as well as access to thousands of hand-held radios and many repeater stations. The resources of the BC Forest Fire Protection can be found in its annual "Resources" document.

Ensuring that a radio plan is developed before an incident is essential. Updating of communications plans between all agencies must continue to take place with testing of radio frequencies in various locations. (Also see the discussion under *Vessel to Vessel to Aircraft Communications* topic in this Logistics Section)

Electronic communications

The development of the Incident Command Post (ICP) and supporting infrastructure will be a considerable challenge and of utmost importance. The use of electronic communications may be difficult and may require the ICP to be set up some distance from the incident itself. The use of the U.S. Coast Guard Transportable Communications Central (TCC) package out of Pt. Reyes, CA can be arranged for a major incident. (Also see the discussion under Radios above and the *Vessel to Vessel to Aircraft Communications* topic in this Logistics Section)

EQUIPMENT

Equipment access and deployment

Equipment caches have been pre-positioned at numerous locations along the Alaska, British Columbia, and Washington coastal border areas and are available for the initial response, as follows:

- **ALASKA**
 - The Alaska Department of Environmental Conservation has placed response containers throughout Alaska, including in the following three locations which are closest to the Dixon Entrance boundary area:
 - Hyder (<http://www.dec.state.ak.us/SPAR/perp/lra/inventory/hyder.pdf>) ;
 - Ketchikan (<http://www.dec.state.ak.us/SPAR/perp/lra/inventory/ketchikan.pdf>); and
 - Craig (<http://www.dec.state.ak.us/SPAR/perp/lra/inventory/craig.pdf>)

¹⁸ To order the TCC, call CAMPSPAC at (415)669-2047 and discuss the request with the Communications Watch Officer; the request would need PACAREA approval.

- **BRITISH COLUMBIA**
 - The Western Canada Marine Response Corporation maintains or has access to inventories of equipment and supplies at locations throughout British Columbia. Those most accessible to the CANUSDIX border area include:
 - Prince Rupert
 - Masset
 - Queen Charlotte City
 - Those most accessible to the CANUSPAC border area include:
 - Duncan
 - Nanaimo
 - Esquimalt
 - Port Alberni
 - Vancouver
 - Richmond
 - Sechelt
 - Ucluelet
- **WASHINGTON**
 - In 2006 and 2007, Ecology distributed new oil spill response equipment to 99 key locations across Washington State – including remote locations; 67 oil spill response trailers containing 54,800 feet of oil containment boom and another 33 trailers with response supplies. More than 1,000 people state-wide have been trained to use the equipment as first responders. The oil spill response equipment has already been staged or deployed more than 35 times by first responders. See: http://www.ecy.wa.gov/programs/spills/response/equipment_caches.htm.

A database containing various types of response equipment is maintained by participating private and public response organizations in the Pacific Northwest at the Western Response Resource list site: <http://www.wrrl.us/>. This system is a valuable resource for locating and ordering response equipment during a spill, but deployment to a remote area will be a significant challenge. Deployment of equipment may be hampered by weather and equipment may have to be transported by either marine or air transport.

Helicopter and float planes

In large spills the Responsible Party may be required to hire a commercial helicopter company to supply the response with dedicated helicopters. In both the U.S. and Canada, the respective Coast Guards may provide aircraft support during early phases of a response. The Canadian Coast Guard has access to hovercraft out of their Richmond, BC facility. However, the higher cost of the government assets, in addition to the SAR mission priority for these assets, means that securing dedicated commercial aircraft is a priority for logistics early in the response.

Aircraft availability tends to be seasonal with firefighting operations competing for assets during the fire season. Securing air assets is exercised and remains a prime topic of concern. Airspace control in Canada is regulated by Transport Canada and in the U.S. by the Federal Aviation Administration.

The BC Ministry of Forests maintains air support contracts and contacts that can be accessed through the Provincial Emergency Program (PEP) as required. Availability could still be an issue but these companies are pre-approved for government use.

Support for aircraft, including landing areas and fuel supplies, could be difficult in remote areas.

A temporary security zone must be initiated for the emergency response phase. Maritime security zones are established by U.S. Coast Guard in U.S. waters.

Tug and Barge operations

Availability of tugs and barges is critical. Many tug and barge operations support logging and mining camps during summer months; the transfer of these resources to support oil spill responses in remote areas will be more difficult during winter months. In addition, with the decrease in timber industry operations along the coast of British Columbia there is a corresponding decrease in this type of equipment. Contingency plans in Alaska, British Columbia and Washington have identified a number of barges that can be used in such circumstances. SEAPRO has access to some oil barges through contracts with its members; these barges are typically engaged in the delivery of petroleum products, so their availability varies. During an emergency they could be used to store/transport recovered product. The current list of barges maintained by SEAPRO shows a total of just over 388,000 bbls (14.2 million gallons or 53.7 million liters) of storage.

Barges are also available through a number of companies that engage in the transportation of goods in/out of Southeast Alaska. For example, a barge for wastes or other materials could be chartered through Alaska Marine Lines or Northland Services. Deck barges were used during the *M/V Selendang Ayu* spill response in the Aleutians and provided floating waste staging area platforms at the remote site. Each barge had 150 open top waste containers to provide interim storage and consolidation of oily solids in super sacks. At regular intervals a line-haul tug/barge picked up full waste containers from the waste barges and replaced them with empty containers. The full containers were taken to a commercial barge port and shipped to Seattle for disposal.

The Logistics Subcommittee considered the issue of access and egress to deck barges, since they can be 30' above the waterline when empty, but felt that ballasting techniques or use of a Jacobs Ladder placed midship on the barge would address this concern. Since the availability of tug and barge resources can only be determined at the time of an incident, response planners must maintain contact information for barge operators, information on relevant legal requirements for barges used for oil or oily waste storage, and guidance regarding safe access/egress, as needed.

WASTE MANAGEMENT

Specific waste management plans will be required for individual incidents. The collection, storage and disposal of liquid and solid wastes will have a major impact in maintaining and continuing response activities. Alaska and British Columbia are jointly developing a waste management plan template in which the use of deck barges as waste staging and interim storage platforms would be pre-planned.¹⁹

MAINTAINING A WORKFORCE

The care and feeding of the workforce is a major undertaking itself in any large incident response; maintaining a workforce in a remote location will be a particularly difficult task. In the absence of local communities, the use of camps and temporary shelters may be required.

While floating man-camps such as those used to support logging, mining and sport fishing businesses are available throughout SE Alaska, there is no regulatory requirement for them to be included in response plans. The typical floating man-camp is brought to a site for a specific project and then removed upon completion of the project. Floating man-camps are available year round; however, it appears that there is a higher demand during the summer, which could seasonally put them in scarce supply.

¹⁹ Also see the Waste Management topic in the Planning Section of this Report.

There does not appear to be a database of man-camps available. As it currently stands, the identification of floating man camps is dependent on local knowledge and no testing of this has been done in area exercises or CANUSDIX exercises. The availability of these is dynamic and maintaining an updated database is problematic; however, the value of identifying available floating camps and points of contact would be worth the effort.

There are U.S. OSHA requirements for potable water and sanitation that make it imperative that personnel in the field have proper facilities. For example, Table H-120.2 (Toilet Facilities) of 29 CFR 1910.120(n) states that for a work site with 20 – 200 people, there must be 1 toilet seat and 1 urinal for every 40 people. There are additional requirements for lighting and water (potable and non-potable).

There may be several options available for housing, depending on the spill location. Besides fishing/hunting resorts or camps, or hotels/motels, RV rentals may be possible, or contracts with Alaska, British Columbia, or Washington ferries, as well as billeting in local communities. One option would be to contract with a company who specializes in remote logistics, such as Base Camp Logistics. This company will establish a base camp in a remote location with facilities such as berthing, meals, sanitation, showers, portable offices and other services as needed. They can generally have something set up in as little as 48 hours; however, in the remote locations of the U.S./Canadian transboundary area, particularly on the Alaska side, it would likely take longer as equipment would have to be transported by vessel out of Ketchikan or Prince Rupert. The BC Ministry of Forests (now called the Ministry of Natural Resources Operations) Fire Protection Services has remote camp capabilities to feed and house over 400 personnel *per* camp. These resources can be accessed through the Provincial Emergency Program (PEP).

Supporting personnel is a challenge in any response, but especially in remote areas. Personnel support has to be addressed in contingency plans at all levels, including vessel and facility plans, RO plans and area/subarea plans, and the information needs to be maintained on a regular basis.

RECOMMENDATION

The CANUSDIX and CANUSPAC Joint Response Teams should each consider chartering a Remote Areas Working Group whose members include at least one representative from the State, the Province, both Coast Guards and other U.S. and Canadian federal agencies as appropriate. This Remote Areas Working Group should be tasked to implement the following steps:

- Review lessons learned from transboundary exercises (CANUSPAC and CANUSDIX) and remote area responses, including the Exxon Valdez oil spill and develop a list of remote location issues;
- Survey emergency management agencies and response contractors serving the Transboundary area to identify their remote area concerns and priority needs to further supplement this list;
- Once a complete list of remote location issues is developed, recommend solutions for each particular issue on the list.
- Identify remote areas and monitor response equipment capability in these areas using the WRRRL;
- Identify existing and potential equipment staging areas and forward command posts; and
- Develop a list of suppliers (with contact information) of barges, aircraft supplies, housing options, and other support assets as appropriate, including information on the seasonal availability of these resources. Post this information on a website accessible to responders and recommend protocols for maintaining this information on a regular basis.

SOURCES:

- CANUSPAC 2007
- CANUSPAC 2008
- Northwest Area Contingency Plan
 - San Juan Islands GRP

- Strait of Juan de Fuca GRP
- *Selendang Ayu* response waste management plan:
(http://www.dec.state.ak.us/spar/perp/response/sum_fy05/041207201/plans/041207201_plan_waste.pdf)
- Base Camp Logistics; 800-379-4626; D. Owings, Interviewer, 2009, March; <http://www.base-camp-logistics.com/Emergency-Response-Logistics.php>
- Dougans, Craig, Operations Manager, Burrard Clean; D. Owings, Interviewer 2009, March
- Mattson, B., Program Manager, ADEC; D. Owings, Interviewer 2008, December
- OSHA; Hazardous waste operations and emergency response; 1910.120; Retrieved 2009, from United States Department of Labor, Occupational Safety and Health:
http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765

SUMMARY OBSERVATIONS:

- The communication issue is kept up-to-date with testing and use during various exercises such as CANUSDIX and CANUSPAC, plus individualized training. All of the equipment used in past exercises has been compatible.
- Along the British Columbia/Alaska border there is approximately 98% radio coverage in coastal areas via a network of fixed repeaters. Due to the large geographic area, the communication coverage is better closer to the coast. The United States and Canadian Coast Guards, SEAPRO and WCMRC maintain privately owned repeaters in this area.
- On the British Columbia/Washington border there is also approximately 98% coverage along the coast. The United States and Canadian Coast Guards, WCMRC and MSRC also maintain privately-owned repeaters in this area.
- Individually owned UHF repeaters form a network covering much of the affected areas because they share operating frequencies.
- The systems in place are comprised of VHF, UHF, Marine VHF, Ground to Air and Satellite communications. These systems allow for easy transportation and setup with maximum reliability.

DISCUSSION:

An effective communications system is critical for management and control during an emergency response situation. A communication system is used to direct personnel, vessels, aircraft and automobiles and to receive information on the status, logistics needs, and other requirements. For an efficient spill response, the telecommunications network between the command post and field operations must be dependable.

The SE Alaska Petroleum Resource Organization (SEAPRO), Western Canada Marine Response Corporation (WCMRC), and the Marine Spill Response Corporation (MSRC) have dedicated frequencies in their individual response plans. The pre-identified frequencies have been tested during exercises such as CANUSDIX and have proven reliable. The frequencies are identified in the organizations' individual response plans. Satellite communications provide a wide range of coverage that may extend beyond the immediate spill operations area and also provide a backup system.

For minor spills, normal vessel communications equipment will be sufficient and provide point-to-point communications. All response vessels have fixed VHF and UHF radio equipment for routine communication between vessels. Some vessels also carry handheld UHF radios and/or cellular phones.

For major spills, it is necessary to establish a command post to coordinate all communications in a substantially expanded communication network. Priorities will be set with critical operations communications dedicated to particular frequencies in order to avoid communication hindrances. In addition, a communications schedule would be prepared to specify when reports are to be transmitted and when field crews are to report. A command post communications center could include telephone (fixed and mobile), radiotelephones (VHF, UHF, Marine VHF, and Ground to Air), computer modems, facsimile machines, satellite communications and messenger service. In rural or remote areas, a field command may be established and rely on radiotelephones (VHF, UHF, Marine VHF, Ground to Air), satellite communication, messengers and cellular telephones (dependent on coverage).

The number of "black holes" in the communication system is undetermined due to remote locations and the geographical layout of the area. The U.S. Coast Guard (USCG) is working on decreasing the number of black holes by installing a component of the "Rescue 21" system. Rescue 21 is the USCG's advanced command, control and communications system. It was created to improve the ability to assist mariners in distress and save lives and

property at sea. This system is currently being used in the Washington State area. The system will be extended to the Alaska area in several years.

In a conversation with the USCG Sector Juneau concerning digital frequencies, it was found that the Maritime radio frequencies would not be changing over to digital frequencies. (Note: bandwidths are cut in half when they become digital.) The Federal Communications Commission has “grandfathered” maritime broadband frequencies to remain analog. The USCG internal Command and Control operations will be moving to the higher digital bandwidths in the near future as part of Rescue 21.

As noted previously in this report, the Auxiliary Communications component of British Columbia’s Public Safety Lifeline, available through the Provincial Emergency Program, can assist with all types of communications issues.

British Columbia, Southeast Alaska and Washington entities (USCG, SEAPRO, WCMRC, Canadian Coast Guard and MSRC) maintain a variety of communications equipment on their vessels as well as in major communication centers. This equipment includes portable VHF and UHF units, UHF repeaters, single-side band radios, facsimile machines, computer modem lines, satellite phones and cellular phones. Included in this inventory are portable UHF base units and antennas which can be dispatched to the field for establishing remote-site UHF capability between the operations center, field posts and vessel crews. In the event of a spill in an area where line-of-sight communications equipment is not adequate, these units will be used to maintain communications between response personnel and the operations center. Land phone lines and/or cellular phones may also be used to maintain communications between the field crews and the operations center. In addition to cellular phones, response vessels may be reached through a local marine operator on VHF frequencies. For offshore operations, the vessels may operate on single sideband and use a marine operator service if needed.

The following telephone numbers are maintained for daily operations and emergency contact with staff personnel 24 hours a day:

USCG Sector Juneau Command	907-463-2980
USCG District 13 Command Center1	800-982-8813
Canadian Coast Guard	800-889-8852
SEAPRO	907-225-7002
WCMRC	604-294-9116
MSRC	800-OIL-SPIL (800-645-7745)

Each organization has their own communication network in place to advise the appropriate staff in the event of an emergency.

RECOMMENDATIONS

1. The U.S. and Canadian Coast Guards should consider collaborating with the Alaska, Washington and British Columbia emergency response and resource agencies and OSROs to map Transboundary areas where radio, satellite and cell phone communications are not available (black holes), or conversely, are available. This map should be reviewed and updated as needed or at least every five years. For the identified “black holes”, these “communication teams” should recommend solutions such as placement of permanent radio repeaters, or identification of locations where portable repeaters would function, or the use of satellite phones.
2. Response agencies and organizations should continue to evaluate and test their communications equipment through exercises such as CANUSPAC and CANUSDIX.

SOURCES:

- WCMRC Masterfile section on CANUSPAC Communication Matrix
- WCMRC Spill Response Plan dated 10/31/2008.
- Southeast Alaska Petroleum Resource Organization Technical Manual dated 8/19/2001.
- Craig Cornell (MSRC) by email on 1/15/2009.
- Senior Chief Adam DeRocher (USCG) by telephone on 12/14/2008.
- Jim Rackley (USCG) by telephone on 2/17/2009.
- Barry Cunningham (Canadian Coast Guard) by email on 1/19/2009.
- Paul Rath (CBSA) by email on 12/13/2008

SUMMARY OBSERVATIONS:

- Washington State regulation WAC 173-182-510(4) requires plan holders to identify potential Incident Command Post locations; see <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-182-510>. No law, rule, or policy requiring the pre-identification of command posts was identified for British Columbia or Alaska.
- Incident Command Post information was included as a good practice in the Western Canada Marine Response Corporation (WCMRC) area plan.
- The Northwest Area Contingency Plan (NWACP) and associated Geographic Response Plans (GRPs) pre-identify command post locations in Washington State. Information on command posts in Southeast Alaska is in the Southeast Subarea Contingency Plan and the Southeast Area Supplement. Command post information for British Columbia is in the WCMRC area plan.
- The Regional Response Team/Northwest Area Committee (RRT/NWAC), through its Logistics Workgroup, is responsible for maintaining the Logistics Chapter (Chapter 5000) of the NWACP. The RRT/NWAC Logistics Workgroup is currently updating Chapter 5000, including review and verification of all ICPs. ICP information in British Columbia is kept up to date through Logistics and Area Managers.
- No information was discovered on the testing of ICPs in Washington State. ICPs in British Columbia have been tested in Prince Rupert, Tofino, Victoria, and Duncan. In Alaska, ICPs have been tested in both Juneau and Ketchikan.

DISCUSSION:**WASHINGTON STATE**

Chapter 5000 of the Northwest Area Contingency Plan (NWACP) lists pre-designated Incident Command Post (ICP) locations by city for major metropolitan areas within three geographic regions: Puget Sound, Portland, and inland. Geographic Response Plans (GRPs) are referenced for each metro area listed. The chapter provides a list of pre-designated ICPs throughout the state, both near and away from the transboundary area. Twenty-three ICPs were identified near the transboundary area: Anacortes (1), Bellingham (5), Mt. Vernon (1), Port Angeles (5), Coupeville (1), Oak Harbor (1), Port Hadlock (2), Port Townsend (2), Pacific Beach (1), Friday Harbor (3), and Orcas Island (1).

Information for listed ICPs varies in detail but nearly all contain name, location, and contact information with details that include square footage, parking, phone/internet, food service, website information, and notes. No apparent ranking criteria were used to select listed ICPs. ICP alternatives are limited in areas away from larger population centers. In all areas, the availability of facilities on short notice will vary depending on the season and scale of the spill. No information was found regarding the testing of listed ICPs during exercises.

The North Puget Sound/San Juan Islands GRP, Strait of Juan de Fuca GRP, North Central Puget Sound GRP, Admiralty Inlet GRP, and Outer Coast GRP all have the potential to be relied upon during a transboundary response, depending on where an incident occurs. ICP information in the Logistics Chapter (Chapter 7) of the North Puget Sound/San Juan Islands GRP, North Central Puget Sound GRP, and Admiralty Inlet GRP is missing (which indicates that it is being developed) and outdated (1994, 1995, & 1995 respectively).²⁰

Information in Chapter 7 of the Strait of Juan de Fuca GRP is outdated (1996) but provides fifteen ICP locations: Port Angeles (2), Neah Bay (1), Cape Flattery (1), Fresh Water Bay Boat Launch (1), Salt Creek Recreation Area (1),

²⁰ Chapter 4 of the San Juan Islands/North Puget Sound GRP was updated in 2009, but the last update to Chapter 7 (Logistics) for the San Juan Islands/North Puget Sound GRP was published in 1994. See the San Juan Islands/North Puget Sound GRP website for details: http://www.ecy.wa.gov/programs/spills/preparedness/GRP/san_juan.htm.

Whisky Creek Launch (1), Lyre River Launch (1), East Twin River (1), Deep Creek Spit (1), Jim Creek Marina (1), Pillar Point Launch (1), Sekiu (2), and Snow Creek Fish Camp (1). Not all locations include standing structures; many of these sites appear to be only vacant lots or fields near the water.

Information in Chapter 7 of the Outer Coast GRP is outdated (1996) but provides nine ICP locations, some of which overlap with those provided in Chapter 7 of the Strait of Juan de Fuca GRP. ICP locations include Port Angeles (2), Neah Bay (1), Ozette Ranger Station (1), Mora Ranger Station (1), Kalaloch Ranger Station (1), Kalaloch Lodge (1), La Push (1), and Quinault (1). Both the Strait of Juan de Fuca GRP and Outer Coast GRP contain information in Appendix A of Chapter 4 (boat launch locations summary) that might be useful in setting up an ICP at a remote location. This information includes location, parking (trailer and automobile), and restroom information. Chapter 4 of both GRPs was updated in 2008.

ALASKA

The Southeast Subarea Contingency Plan (p. B-111) provides a list of potential command post locations (with contact information) for Juneau, Ketchikan, Sitka, Yakutat, Angoon, and Glacier Bay. It is not known when the information was last updated or verified. No information was located concerning the criteria used to identify/select these facilities or locations.

The Alaska Department of Environmental Conservation (ADEC) maintains the Southeast Area Supplement which contains ICP information for Juneau, Ketchikan, and Sitka. Forward command post locations were identified in the supplement; the document is dated September 28, 2007. The criteria used to identify/select these facilities included overall size, capability for additional dedicated rooms, power, phone and internet connectivity. In each of these communities, the ICP identified was the local community or civic center.

In 1999 ADEC, SEAPRO and the USCG jointly developed and tested activation plans for the Juneau and Ketchikan's ICPs. The activation plans include floor plans which give instructions to civic center staff for set-up of tables, chairs, power and phone lines and activation checklists. A less detailed plan was developed for Sitka but this has not been tested. Of the three ICPs, the Ketchikan ICP has been the most thoroughly tested, serving as the ICP for CANUSDX and Cruise Ship Mass Rescue tabletop exercises. The activation plans for the three ICPs need to be reviewed and updated.

BRITISH COLUMBIA

The pre-identification of command centre locations in British Columbia remains an internal development. British Columbia generally relies on the responsible party to determine where to locate an ICP. Numerous government offices along the coast have been used in the past for command posts. The Provincial Emergency Program (PEP) has three main offices in close proximity to coastal waters with significant infrastructure that may be useable for such a purpose; one of the key roles of PEP is to provide necessary logistical support to other provincial agencies during an emergency.

The Western Canada Marine Response Corporation (WCMRC) plan provides ICP information for British Columbia in eight geographic specific reference and resource information plans. These information plans include Juan de Fuca/Southern Vancouver Island, Fraser River, Vancouver Harbor, Georgia Strait, West Coast Vancouver Island, North Vancouver Island, Prince Rupert and the Queen Charlotte Islands. The plans contain information on twenty ICPs throughout British Columbia, including Victoria (1), Delta (1), Burnaby (3), Coquitlam (1), Nanaimo (1), Sunshine Coast/Gibsons (1), Powell River (1), Tofino (1), Cambell River (2), Port Hardy (2), Prince Rupert (2), Kitimat (2), Alliford Bay (1) and Queen Charlotte City (1). Information for each ICP varies in detail but all contain name, location and contact information. Nearly all provide facility details that include parking, security, food/catering, and space/room information. WCMRC did not use ranking criteria to select listed ICPs. In areas away from larger population centers, ICP alternatives are limited. In all areas, the availability of facilities on short

notice will vary depending on the season and scale of the spill. ICPs have been tested during exercises in Prince Rupert, Tofino, Victoria and Duncan.

RECOMMENDATIONS

1. The Region 10 Response Team/Northwest Area Committee (RRT/NWAC) should consider verifying Incident Command Post (ICP) locations in Washington State near the Transboundary area on an annual basis and updating ICP information in the Northwest Area Contingency Plan (NWACP) as appropriate. The RRT/NWAC Logistics Workgroup should consider working with local governments and industry to identify ICP locations which could be used in remote areas during a Transboundary response.
2. The Region 10 Response Team/Northwest Area Committee should continue its efforts to review, verify, and update Geographic Response Plans (GRPs) in the Transboundary area with special emphasis on the pre-identification of Incident Command Posts. Specific Transboundary GRPs that need to be reviewed, verified, and updated include the North Puget Sound/San Juan Islands GRP, Strait of Juan de Fuca GRP, North Central Puget Sound GRP, Admiralty Inlet GRP, and Outer Coast GRP.
3. The Southeast Subarea Contingency Plan Logistics Group should consider verifying Incident Command Post (ICP) locations in Southeast Alaska on an annual basis and updating the ICP information as appropriate. This group should consider working with local governments and industry to identify ICP locations which could be used in remote areas during a Transboundary response.
4. Western Canada Marine Response Corporation (WCMRC) should consider verifying Incident Command Post (ICP) locations in British Columbia on an annual basis and updating ICP information in the eight reference and resource information plans of the Western Canada Marine Response Corporation plan, as necessary. WCMRC should continue to work with local governments and industry to identify ICP locations which could be used in remote areas during a Transboundary response.

SOURCES:

- (Alaska) Southeast Subarea Contingency Plan Part 3&4 (p. B-111, p. B-115) - http://www.akrrt.org/SEAKplan/PDFs_Ch1/SEAK-SCP_B-Resources_Parts3-4_Ch1_Aug05.pdf
- (Alaska) Southeast Area Supplement (p. 7) – Internal Alaska Department of Conservation document – not publically available
- Incident Command System, Long Term Command Post, setup instructions and Checklist for Centennial Hall and Ted Ferry Civic Center – Internal USCG-ADEC-SEAPRO document
- (British Columbia) Western Canada Marine Response Corporation – <http://www.burrardclean.com/spill-response/area-plans>
- (Washington) Geographic Response Plan – Admiralty Inlet (Chapter 7). Provides dated information (1994) indicating only that command post information is being developed
<http://www.ecy.wa.gov/programs/spills/preparedness/GRP/Admiralty%20Inlet-Hood%20Canal%20pdf/Al-HC%20Chapter%207%20Scan.pdf>
- (Washington) Geographic Response Plan – North Puget Sound/San Juan Islands (Chapter 7). Provides dated information (1994) that only indicates that command post locations are being developed
http://www.ecy.wa.gov/programs/spills/preparedness/GRP/SJI_NPS%20pdf/SJI_NPS%20Chapter%207%20Scan.pdf
- (Washington) Geographic Response Plan – Outer Coast (Chapter 7). Provides dated information (1996) on possible command post locations on the outer coast of Washington State including Port Angeles, La Push, Neah Bay, and south of Forks. <http://www.ecy.wa.gov/programs/spills/preparedness/GRP/Outer%20Coast%20GRP/OC%20Chapter%207%20Scan.pdf>

- (Washington) Geographic Response Plan – Strait of Juan de Fuca (Chapter 7). Provides dated information (1996) on possible command post locations near the Strait of Juan de Fuca including Port Angeles, Sekiu, Neah Bay, and points in between. <http://www.ecy.wa.gov/programs/spills/preparedness/GRP/Strait%20of%20Juan%20de%20Fuca/Straits%20Chapter%207%20Scan.pdf>
- (Washington) Northwest Area Contingency Plan (Chapter 5000). Provides a list of potential command post facilities and reference to area GRPs for information on pre-identified command post locations: http://www.rrt10nwac.com/Files/NWACP/Chapter_5000.pdf
- (Washington) WAC 173-182-510 – <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-182-510>

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SECTION 5
REPORTS FROM THE FINANCE SUBCOMMITTEE

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SUMMARY OBSERVATIONS:

- Funding for spill response is addressed in *Section 801, Funding for Harmful Substance Responses* of the Joint Contingency Plan. The topic is not further addressed by either the CANUSDIX annex or the CANUSPAC annex.
- Canada is a party to international conventions adopted under the International Maritime Organization (IMO): the 1992 Civil Liability Convention (CLC) and the 1992 Fund Convention. In addition, recent amendments to Canada's Marine Liability Act make it possible to ratify two additional international conventions (the Supplementary Fund Protocol and the 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage).
- Under the CLC, a registered shipowner has strict liability for pollution damage, up to a limit of financial liability determined by the tonnage of the ship. The CLC requires that this amount be guaranteed by the shipowner's liability insurer.
- The CLC normally applies to ships carrying more than 2,000 tons of persistent oil in bulk as cargo. Under certain circumstances, the CLC also applies to bunker spills from unladen tankers. Tankers are not covered if they are only being used for storage and are not transporting oil.
- As of May, 2010, the maximum amount payable by the shipowner's insurer (per the CLC) and by the IOPC Funds for each incident is Can\$140 million under the CLC; Can\$318 million under the 1992 Fund Convention; and Can\$1.117 billion under the 2003 Supplementary Fund.
- Canada's national fund, the Ship-source Oil Pollution Fund (SOPF), was established under the Marine Liability Act and currently has a principle of Can\$360 million. The SOPF covers all classes of ships that may discharge either persistent or non-persistent oil, including oil from "mystery spills." For tanker spills of persistent oil, the SOPF can cover additional claims over and above the CLC and IOPC funds.
- Canadian government agencies such as the Coast Guard or the British Columbia Ministry of Environment can file claims for reimbursement of their expenses with the responsible party and then with the various funds; there is no pre-approval for response costs.
- The U.S. regime relies solely on the Oil Spill Liability Trust Fund (OSLTF) created by the Oil Pollution Act of 1990 (OPA 90) and managed by the National Pollution Funds Center (NPFC). Spills of all types of oil are covered, as well as all vessel types, plus spills from facilities and vehicles to waters of the U.S., both coastal and inland.
- In 2005, the Energy Policy Act increased the maximum size of the OSLTF to \$2.7 billion.
- Like Canada, the U.S. follows the polluter-pays principle where the responsible party is responsible for cleanup of the spill and claims up to the Limit of Liability as set forth in 33 USC 2704.
- The Federal On-Scene Commander (FOSC) requests that the Fund be opened to cover response costs and provides the NPFC with a report of all costs associated with the incident. The NPFC ensures that the appropriate documentation is available to support the charges and then bills the responsible party.
- Washington State maintains the Oil Spill Response Account, which is an account reserved for major oil spill response actions. The account has a \$9 million ceiling.
- Alaska's Oil and Hazardous Substance Release Prevention and Response Fund has two separate accounts: the "Response account" and the "Prevention account". The Response account may be used to finance the state's response to an oil or hazardous substance release. The Response account receives funding from two different sources: 1) a surcharge of one cent per barrel that is levied on each taxable barrel of oil produced in the state; and 2) money that is recovered from parties financially responsible for the release of oil or hazardous substance.
- States may seek reimbursement from the National Pollution Fund Center can be obtained by entering into a Pollution Removal Funding Agreement early into the spill response, or by filing a reimbursement claim after the response.

- The Province of British Columbia's Environmental Emergency Program is able to access \$5,000 to \$25,000 in response funds under a Task Number through the Provincial Emergency Program (PEP) to cover expenses required to respond to a spill incident in the province, but only where a public safety risk is indicated and may not be approved if the spill is limited only to environmental impacts.

DISCUSSION:

RESPONSE FUNDING AS COVERED BY THE CANADA – UNITED STATES JOINT MARINE POLLUTION CONTINGENCY PLAN (JCP)

Funding is addressed in *Section 801, Funding for Harmful Substance Responses* of the JCP as follows:

801.1 Each Party will fund its own operations for responding to harmful substance incidents in the contiguous waters that fall under its jurisdiction.

801.2 Unless agreed otherwise, the costs for any assistance provided in the contiguous waters that fall under a requesting Party's jurisdiction shall be borne by the requesting Party.

801.3 Each Party is responsible for preparing the documentation to be used in its territory for the purpose of recovering costs associated with a response to harmful substance incidents.

801.4 For issues respecting limits of liability and compensation resulting from any harmful substance incident, each party will apply its laws for the costs it has assume according to 801.1 and 801.2.

The topic is not further addressed by either the CANUSDIX annex or the CANUSPAC annex.

RESPONSE FUNDING REGIMES

Canada

Canada is a party to two international conventions adopted under the International Maritime Organization (IMO): the 1992 Civil Liability Convention (CLC) and the 1992 Fund Convention. June 2009 amendments to Canada's Marine Liability Act now make it possible to proceed with ratifying two additional international conventions (the Supplementary Fund Protocol and the 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage). While CLC is mentioned in more detail here, the provisions of the Funds (both IOPC and Supplementary) are wider, including mystery spills and threat situations, so costs incurred for response measures taken in anticipation of a potential spill in order to prevent/minimize pollution damage are covered.

The Civil Liability Convention (CLC) provides the first tier of compensation which is paid by the owner of a ship that causes pollution. The Fund Convention provides a second tier of compensation which is financed by receivers of oil in nations which are Parties to the Convention. The Supplementary Fund Protocol to the 1992 Fund Convention, adopted in 2003, provides an increased layer of protection.

Under the Civil Liability Convention, the shipowner has strict liability for any damage by pollution caused by the oil, i.e. the owner is liable even if there was no fault on the part of the ship or its crew. However, the shipowner can normally limit financial liability to an amount that is determined by the tonnage of the ship (please see the "Limits of Liability" topic paper in this section). The CLC requires that this amount be covered subject to certain defenses and an entitlement to limit liability by the shipowner's liability insurer, generally called a Protection and Indemnity (P&I) Club.

"Pollution damage" includes losses and damages caused by the oil but also the costs of preventive measures and any losses/damages caused by preventive measures. This means that damages caused by reasonable clean-up (rather than the oil itself) are covered, as well as the costs of actions taken in "grave and imminent threat" situations, e.g. where a tanker is hard aground and threatening to spill.

Normally, the CLC only applies to tankers carrying persistent oil as cargo and to spills in the territory, territorial waters and Exclusive Economic Zone of a member nation – in this case, Canada. Under certain circumstances, however, the CLC also applies to bunker spills from unladen tankers. Tankers are not covered if they are only being used for storage and are not transporting oil. The CLC can also cover preventive measures – wherever taken – to prevent or minimize pollution damage, including reasonable measures taken in an adjacent nation's territorial waters (including the U.S. as a non-member state) (Article II (b)).

The amendment to the Marine Liability Act assented to in June 2009 gives the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 (Bunkers Convention) the force of law in Canada. The convention provides for liability of the shipowner and compulsory insurance.

The maximum amounts of compensation payable by the shipowner's insurer (per the CLC) and by the IOPC Funds were fixed by governments at the Diplomatic Conferences that adopted the relevant international treaties. At present, the maximum amount payable for each incident is 89.7 million Special Drawing Rights (SDR) of the International Monetary Fund (~ Can\$140 million) under the CLC; 203 million SDR (~ Can\$318 million) under the 1992 Fund Convention; and 750 million SDR (~ Can\$1.117 billion) under the Supplementary Fund recently made law in Canada. (PLEASE NOTE: Conversion rates are those of May, 2010).

The Canadian compensation regime is governed by Part 6 of the Marine Liability Act. The Marine Liability Act (MLA) is Canada's principal legislation dealing with the liability of shipowners and ship operators in relation to passengers, cargo, pollution and property damage. Canada's national fund, the Ship-source Oil Pollution Fund (SOPF), was established in the 1970s under the MLA and currently has a principle of Can\$360 million. The SOPF covers all classes of ships that discharge either persistent or non-persistent oil, including oil from "mystery spills." For tanker spills of persistent oil, the SOPF can cover additional claims over and above the CLC and IOPC funds.

Claims submitted to the SOPF will be verified by the Fund as coming from the vessel in question and the SOPF has the unique authority among the funds to detain a vessel in port after a spill as needed. The offer of payment made by the SOPF to a claimant is final and not open to negotiation.

There is no mechanism in Canada to fund response costs during an incident other than by the shipowner or the Canadian government's funding of its own expenses. Government agencies such as the Canadian Coast Guard or the British Columbia Ministry of Environment can file claims for reimbursement of their expenses with the responsible party and then with the various funds; there is no pre-approval for response costs.

The United States

Unlike Canada, the U.S. is not a party to the international conventions. The U.S. regime relies solely on the Oil Spill Liability Trust Fund (OSLTF) created by the Oil Pollution Act of 1990 (OPA 90) and managed by the National Pollution Funds Center (NPFC). Spills of all types of oil are covered, as well as all vessel types, plus spills from facilities and vehicles to waters of the U.S., both coastal and inland. Expenses can derive from a response to either an actual discharge or to a substantial threat of a discharge to U.S. waters, so a response to a spill in Canadian waters that threatens U.S. waters would be covered. The OSLTF has significant assets that can be used for spill response expenses. In 2005, the Energy Policy Act increased the maximum size of the Fund to \$2.7 billion.

Like Canada, the U.S. follows the polluter-pays principle where the polluter – referred to as the Responsible Party (RP) – is responsible for cleanup of the spill and claims to the Limit of Liability set forth in 33 USC Section 2704. If the RP will not or cannot pay up to its federal Limit of Liability, claimants are eligible for funding from the OSLTF. The OSLTF can also reimburse an RP for response costs paid in excess of its Limit of Liability. If there is no

identified RP, such as in a mystery spill, the Federal On-Scene Coordinator may initiate a response and cover costs through the OSLTF.

The Federal On-Scene Coordinator (FOSC) requests that the Fund be opened to cover response costs and provides the NPFC with a report of all costs associated with the incident. The NPFC ensures that the appropriate documentation is available to support the charges and then bills the responsible party. This bill would include what has been spent from the OSLTF for emergency response, travel/per diem, equipment, and other costs. (For "other costs" see NPFC's TOPS Guide, "examples of Costs Eligible for Charge to the OSLTF" for Phase II and Phase III activities.) It may also include claims that were paid by the NPFC to other parties for uncompensated removal costs, damages to natural resources or property and other economic losses attributable to the spill.

Alaska

The Oil and Hazardous Substance Release Prevention and Response Fund was created by the legislature in 1986 to provide a readily available funding source to investigate, contain, clean up and take other necessary action to protect public health and welfare and the environment from the release or threatened release of oil or a hazardous substance. The fund has two separate accounts: the "Response account" and the "Prevention account". The Response account may be used to finance the state's response to an oil or hazardous substance release that is declared a disaster by the governor, or to respond to a release or threatened release that poses an imminent and substantial threat to the public health or welfare, or to the environment. The Response account receives funding from two different sources: 1) a surcharge of one cent per barrel that is levied on each taxable barrel of oil produced in the state; and 2) money that is recovered from parties financially responsible for the release of oil or hazardous substance. The one cent per barrel surcharge is suspended when the combined balances of the surcharge account, the response mitigation account and the unreserved and unobligated balance in the Response account itself reaches or exceeds \$50 million. A good diagram showing the funding of the Response Fund is available at: <http://dec.alaska.gov/spar/rfa/docs/RF%20Diagram.pdf>. The Response account funds are reserved for use in cases where there is a release or threatened release that poses an imminent and substantial threat to the public health or welfare, or to the environment. ADEC responds to approximately 2000 spills per year, however, the bulk of the responses are funded through normal operating budgets funded via legislative appropriation from the Prevention account.

Alaska can also access the federal OSLTF either through a Pollution Removal Funding Authorization (PRFA) in which the state performs specific removal actions in support of the FOSC, or by a claim process by which the state seeks recovery of its response costs often in cases where there are no identifiable responsible parties.

British Columbia

The province of British Columbia's Environmental Emergency Program is able to access response funds under a Task Number through the Provincial Emergency Program (PEP). Task Number funding is provided to the province's Environmental Emergency Response Officer's to cover any direct expenses required to respond to a spill incident in the province. The Task Number may also be used to cover indirect response costs (example: hiring of response contractors) in those situations where the Responsible Party is either unable or unwilling to take the required actions to address the spill, or have yet to be identified. Task Numbers are generally approved by the Provincial Emergency Program for expense amounts up to \$5000.00 and can be increased with the approval of the PEP Duty Manager up to \$25,000.00. PEP Task Number funding is typically only provided for spill incidents where a public safety risk is indicated and in some cases may not be approved if the spill is limited only to environmental impacts. In a large scale incident that includes significant impacts to public safety and / or the environment, the Minister of Environment may declare an Environmental Emergency which provides access to provincial Treasury Board funds and grants provincial responders enhanced powers to take required measures to address the incident and its consequences. The Ministry of Environment will seek to recover all provincial

expenditures relating to an incident from the Responsible Party based on the provisions of provincial Spill Cost Regulation.

There is a risk that appropriate response measures could be delayed in the event that a PEP Task Number is either not approved (if the incident does not present a public safety issue) or the available funding under a Task Number is insufficient to cover all of the costs. Although a provincial Environmental Emergency declaration will address additional funding requirements above the PEP Task number limits, response delays could occur while the process required to issue a declaration is worked through. Decisions to issue an Environmental Emergency declaration must also consider any additional or unintended impacts that could result from the decision (example: potential impacts to provincial tourism). Response delays resulting from the lack of dedicated and sufficient response funds could potentially lead to increased public safety risks and environmental impacts. Having access to a dedicated and sufficiently funded response fund will ensure that the province of BC can take swift action to mitigate human suffering, environmental impacts and impacts to the provincial economy.

The issue of access to a dedicated response fund may also be a concern for the Canadian Coast Guard, other supporting federal agencies and First Nations in Canada. Available information indicates that none of these groups currently have a spill response fund they can draw upon and thus this could potentially impact their ability to participate in the response or take appropriate actions deemed necessary.

Washington

The Washington State Department of Ecology has independent statutory authority to respond to spills or threats of spills of oil or hazardous substances. The Department is directed by statute to “...take all actions necessary to respond to a substantial threat of a discharge... keep a record of necessary expenses...” and recover necessary expenses from the responsible party or other sources, including the federal government (RCW 90.56).

Ecology funds small, routine spill responses from the department’s operating budget. For large spills, Washington relies on the Oil Spill Response Account to pay for necessary state agency and response expenses. The Oil Spill Response Account is limited to oil spills into navigable waters of the state and is currently capped at \$9 million. The actual available balance in the account may vary depending on recent large spill activity.

As with the U.S. federal government, Ecology expects the responsible party to pay for spill response costs directly. When this occurs, Ecology will bill the spiller for necessary state agency expenses. However, in some instances Ecology will pay for all response expenses and will subsequently bill the responsible party. If the spiller is unable to reimburse Washington for these expenses, Ecology will seek reimbursement directly from the federal Oil Spill Liability Trust Fund. States may seek reimbursement from the National Pollution Fund Center can be obtained by entering into a Pollution Removal Funding Agreement early into the spill response, or by filing a reimbursement claim after the response.

RECOMMENDATIONS

1. The states of Washington and Alaska should evaluate the adequacy of their dedicated pollution response accounts with respect to heightened public response expectations and sustaining prolonged response actions resulting from a major spill.
2. The province of British Columbia should explore the establishment of a provincial spill response fund to ensure that potential delays in the provincial response do not result from a lack of immediately available funds. The province should examine existing funding models for the establishment of a response fund including those in Washington, Alaska and other jurisdictions to ensure that the associated costs are based on the polluter-pays principle.

3. The government of Canada should examine the existing lack of dedicated response funds and the impacts it may have on federal agencies' as well as First Nations' ability to lead and or participate in the response to a spill and take the appropriate actions when a Responsible Party is unable, unwilling or unidentified. The government of Canada should examine potential changes to the Canadian Ship Source Oil Pollution Fund that would enable the lead federal agency to access the fund proactively, as is the case for the U.S. Coast Guard in its ability to access response funding from the U.S. Oil Spill Liability Trust Fund, as a possible solution.

SUMMARY OBSERVATIONS:

- The maximum liability of a shipowner for the damages/expenditures incurred in Canada is described in Section 51 of Canada's Marine Liability Act and is based on the ship's tonnage. Circumstances by which a person may lose the right to a limit of liability are set out in Article 5 of the 1992 Civil Liability Convention (CLC).
- The Marine Liability Act provides that a CLC tanker carrying persistent oil cargo in bulk of more than 2000 metric tons is not to enter or leave a port in Canadian waters or the exclusive economic zone of Canada, or arrive or leave at an offshore terminal in Canadian waters or the exclusive economic zone unless a certificate attesting that insurance or other financial security is in place as provided for in article VII of the CLC is issued.
- The U.S. Oil Pollution Act (OPA) establishes limits of liability based on the type and tonnage of a vessel, and certain types of vessels must have a Certificate of Financial Responsibility (COFR) for these limits before they can enter U.S. waters. If a responsible party pays or incurs damages in excess of an applicable liability limit, the RP may present a claim to the National Pollution Fund Center for compensation of the excess amount. Defenses to liability are found at 33 USC § 2703. OPA 90 also establishes exceptions when the limit of liability does not apply, i.e., liability becomes unlimited.
- The [Comprehensive Environmental Response, Compensation, and Liability Act \(CERCLA\)](#) also established limits of liability for hazardous substance releases.
- OPA 90 requires evidence of financial responsibility via Certificates of Financial Responsibility (COFRs) sufficient to meet the maximum amount of liability to which the responsible party could be subject. COFRs are required of " (1) any vessel over 300 gross tons" {...} "using any place subject to the jurisdiction of the United States; or (2) any vessel using the waters of the exclusive economic zone to trans-ship or lighter oil destined for a place subject to the jurisdiction of the United States" (33 USC § 2716).
- The State of Alaska has unlimited liability covering cleanup costs, third-party damages and natural resource damages. Alaska requires Certificates of Financial Responsibility for tank vessels and barges, nontank vessels, and facilities or offshore wells, as set by statute.
- The State of Washington has unlimited liability covering cleanup costs, third-party damages and natural resource damages. Washington requires Certificates of Financial Responsibility for small tank barges, tank vessels and large tank barges, nontank vessels, and facilities, as set by statute.
- All Limits of Liability for both Canada and the U.S., as well as for affected states, would be in effect in a Transboundary spill event; one requirement does not replace all others.

DISCUSSION:

CANADA

Limits of Liability – CLC tankers

The maximum liability of the ship owner for the damages/expenditures described in Section 51 of Canada's Marine Liability Act (MLA) is based on the ship's tonnage. Where the tonnage is less than 5000, the maximum liability per occurrence is 4,510,000 units of account (the unit is a special drawing right ("SDR") of the International Monetary Fund). If the ship's tonnage is more than 5000, the maximum per occurrence is 4,510,000 units plus 631 units for each additional ton above 5000 up to 89,770,000 units in the aggregate. In May of 2010, the Canadian dollar to SDR rate was 1.56 and the maximum aggregate was therefore \$140,650,000.00 CDN.

Limits of Liability – CLC Vessels

Canada is a party to the 1976 *Convention on Limitation of Liability for Maritime Claims (Limitation Convention)* and the 1996 protocol amending the Convention limits (the *1976 Limitation Convention*). The limitation provisions were moved from the *Canada Shipping Act* to part 3 of the MLA in 2001 which also provides for special

Canadian limits for vessels of less than 300 gross tonnes. Beyond the 300 tonne limit, all vessels are subject to the limitation amount set out in the *Limitation Convention*. The limitation amounts provided for are as follows:

Ships Gross Tonnage	Claims for Loss of Life or Personal Injury	Other Claims
Less than 300	\$1,000,000.00	\$500,000.00
300-2000	2,000,000 SDRs (\$3,680,000.00)	1,000,000 SDRs (\$1,840,000.00)
2001-30,000	2,000,000 SDRs + 800 SDRs for each tonne over 2000	1,000,000 SDRs + 400 SDRs for each tonne over 2000
30,001 – 70,000	24,400,000 SDRs + 600 SDRs for each tonne over 30,000	12,200,000 SDRs + 300 SDRs for each tonne over 30,000
Over 70,000	48,400,000 SDRs + 400 SDRs for each tonne over 70,000	24,200,000 SDRs + 200 SDRs for each tonne over 70,000

**Passenger claims as limited by the Athens Convention have not been included*

**SDR rate at May 2010 – One SDR equals 1.56 Canadian dollars*

Under the Bunkers Convention limitation is based on the Canadian provisions adopted from the *1976 Limitation Convention* which sets limits based on the tonnage of the vessel. For example, a vessel of under 2,000 tonnes has a maximum limitation for bunker oil and pollution damage under the 1976 Convention of 2 million SDR (~ Can \$ 1.56 million), while a vessel of 70,000 tonnes has limitation of approximately 13 million SDR (~ Can \$20 million).

Circumstances by which a person may lose the right to a limit of liability are set out in Article 4 of the *1976 Limitation Convention*. It must be shown that the loss resulted from the personal act or omission of the defendant “committed with intent to cause loss, or recklessly and with knowledge that such loss would probably result.” This provision clearly presents a significant barrier to obtaining compensation in excess of the limitation amounts in the conventions and when compared to the legislation in the United States provides a greater protection for persons categorized as “ship owner” under the Convention as extended by the Canadian legislation.

“Ship owner” in the Convention means the owner, charterer, manager and operator of a sea going ship. The Canadian extension removes the words “sea going” from the Convention wording, makes all vessels subject to limitation and extends “ship owner” to “including any person who has an interest in or possession of a ship from and including its launching.”

Canada’s Marine Liabilities Act (MLA) states that the owner of a ship is liable for:

- 1) Oil pollution damage from the ship;
- 2) Costs and expenses incurred by the Minister of Fisheries and Oceans (F&O), by a certified Response Organization, by any other person in Canada, or by any person in a country other than Canada, that is a party to the CLC (the U.S. is not party to the CLC); and
- 3) Monitoring costs of the Minister of F&O and any other person who is directed to take or prohibited from taking measures.

The MLA also states that if oil pollution damage from a ship results in impairment to the environment, the shipowner is liable for the costs of *reasonable* measures of reinstatement actually undertaken or to be undertaken (similar to the CLC language).

Certificate of Financial Responsibility

S. 55(1) of the *Marine Liability Act* provides that a CLC tanker carrying a persistent oil cargo in bulk of more than 2000 metric tons is not to enter or leave a port in Canadian waters or in the exclusive economic zone of Canada or arrive or leave at an offshore terminal in Canadian waters or the exclusive economic zone unless the Certificate

provided for in Article VII of the CLC is issued. The Certificate is described by Section 56(1) of the *Marine Liability Act* as requiring a ship to carry on board:

- (a) A document issued by the Minister of Transport for Canada if the convention ship is registered in Canada;
- (b) A document issued by or under the authority of the Government of the State of registration if the convention ship is registered in CLC;
- (c) A document issued by or recognized by the Minister of Transport where the convention ship is registered in the State that is not a party to the CLC.

The Minister must be satisfied that a contract of insurance or other security which satisfies Article VII of the CLC is in force for the ship for the period in question.

Provisions in the CLC, Fund and Bunkers Conventions state that a claimant may commence action against the guarantor of the owner of a convention ship and also provides the limited number of defenses for the guarantor including its entitlement to limitation of liability even where the owner might not be entitled to limit.

Under the *Bunkers Convention* where the ship is less than 1,000 gross tons, no Certificate of Financial Responsibility is required.

THE UNITED STATES

Vessel Liability – U.S. Federal

The Oil Pollution Act of 1990 (OPA 90) establishes certain dollar amounts above which a responsible party (RP) is not liable to pay for the damages from an oil spill. These limits are based on the type and tonnage of a vessel, and certain types of vessels must have a Certificate of Financial Responsibility (COFR) for these limits before they can enter U.S. waters. If an RP pays or incurs damages in excess of an applicable liability limit, the RP may present a claim to the NPFC for compensation of the excess amount.

Defenses to liability are found at 33 USC § 2703. Complete defenses include an act of God, and act of war, or an “act or omission by a third party, other than an employee or agent of the responsible party, or a third party whose act or omission occurs in connection with any contractual relationship with the responsible party (except where the sole contractual arrangement arises in connection with carriage by a common carrier by rail), if the responsible party establishes, by a preponderance of the evidence, that the responsible party (A) exercised due care with respect to the oil concerned, taking into consideration the characteristics of the oil and in light of all relevant facts and circumstances; and (B) took precautions against foreseeable acts or omissions of any such third party and the foreseeable consequences of those acts or omissions; or (4) any combination of paragraphs (1), (2), and (3).” Moreover, a responsible party is not liable under section 2702 of this title to a claimant, to the extent that the incident is caused by the gross negligence or willful misconduct of the claimant.

The Oil Pollution Act of 1990 (OPA 90) lists several exceptions when the limit of liability does not apply if the Responsible Party:

- Caused the incident by gross negligence or willful misconduct,
- Caused the incident as the result of violation of an applicable Federal regulation,
- Didn’t report the incident as required by law,
- Didn’t cooperate with the Federal On-Scene Coordinator (FOSC) in charge of the spill cleanup, or
- Didn’t comply with government orders related to the spill cleanup.

The liability limit for a vessel spill is based on a formula that considers the vessel tonnage and whether the vessel is a tank vessel (ship or barge) or nontank vessel. Liability limits for onshore facilities, offshore facilities, and deepwater ports are set at established amounts. These limits are listed in [33 U.S.C. § 2704](#).

Effective July 31, 2009 the limits of liability under OPA 90 for which a vessel operator must provide proof of financial responsibility via a COFR are as follows:

- Double hulled tank vessels over 3,000 gross tons = the greater of \$1,900 per gross ton or \$16,000,000.
- Double hulled tank vessels 3,000 gross tons or less = the greater of \$1,900 per gross ton or \$4,000,000.
- Single hulled tank vessels over 3,000 gross tons = the greater of \$3,000 per gross ton or \$22,000,000.
- Single hulled tank vessels 3,000 gross tons or less = the greater of \$3,000 per gross ton or \$6,000,000.
- Any other vessel other than a tank vessel = the greater of \$950 per gross ton or \$800,000.

In addition, the [Comprehensive Environmental Response, Compensation, and Liability Act \(CERCLA\)](#) has also established certain limits on liability for hazardous substance releases. See the table below:

Vessel Type	Liability Limit
Vessels Over 300 Gross Tons Carrying Hazardous Substance as Cargo	The greater of \$300 per gross ton or \$5 million
Other Vessels Over 300 Gross Tons	The greater of \$300 per gross ton or \$500,000

U.S. Federal Certificates of Financial Responsibility

OPA 90 requires evidence of financial responsibility via Certificates of Financial Responsibility (COFRs) sufficient to meet the maximum amount of liability to which the responsible party could be subjected under OPA 90 in a case where the responsible party would be entitled to limit liability. COFRs are required of “ (1) any vessel over 300 gross tons” {...} “using any place subject to the jurisdiction of the United States; or (2) any vessel using the waters of the exclusive economic zone to transship or lighter oil destined for a place subject to the jurisdiction of the United States” (33 USC § 2716).

U.S. Certificates of Financial Responsibility cover all vessels over 300 gross tons. Canada’s present coverage is for convention ships only (tank vessels). If the *Bunker Convention* is implemented in Canada, then compulsory insurance will be enforced and direct action against the insurer will be available.

The State of Alaska’s Financial Responsibility Requirements

The State of Alaska has unlimited liability covering cleanup costs, third-party damages, and natural resource damages. Alaska requires Certificates of Financial Responsibility for the following categories as follows:

- **Tank vessels and tank barges:** Greater of \$469.80/bbl of crude capacity or \$156.6 million, per incident; greater of \$156.60/bbl of non-crude capacity or \$1.566 million per incident, up to a maximum of \$54,810,000. (See AS 46.04.040 and 18 AAC 75.235)
- **Nontank vessels:** Greater of \$469.80/bbl storage capacity per incident of persistent product, or \$7,830,000 minimum; greater of \$156.60/bbl storage capacity per incident for non-persistent product or \$1,566,000. (See AS 46.04.055 and 18 AAC 75.235)
- **Facilities or offshore wells:** \$78,300,000 for crude oil terminals, pipelines, and offshore exploration facilities; \$1,566,000 for onshore exploration facilities and onshore production facilities producing less than 2,500 bbls per day; \$7,830,000 for onshore productions facilities that produce between 2,500 and 5,000 bbls per day; \$15,660,000 for onshore production facilities producing greater than 5,000 but less than 10,000 bbls per day; and \$31,320,000 for onshore facilities producing greater than 10,000 bbls per day. See AS 46.04.040 and 18 AAC 75.235.

The State of Washington’s Financial Responsibility Requirements

The State of Washington has unlimited liability covering cleanup costs, third-party damages and natural resource damages. Washington requires Certificates of Financial Responsibility as follows:

- **Small Tank Barges:** for tank barges < 300 GT, the greater of \$2 million or \$3,000/bbl for persistent oil or \$1500/bbl for non-persistent oils.
- **Tank Vessels and Large Tank Barges:** For all tank ships and tank barges =>300 GT, \$1 billion
- **Nontank Vessels:** Cargo Vessels and Passenger Vessels with oil capacity > 6000 gals: \$300 million; Fishing Vessels where oil is predominantly persistent product: the greater of \$6.67 million or \$400.20/bbl capacity; where oil is predominantly non-persistent product: the greater of \$1.334 million or \$133.40/bbl capacity.
- **Facilities:** An onshore or offshore facility shall demonstrate financial responsibility in an amount determined by the department as necessary to compensate the state and affected counties and cities for damages that might occur during a reasonable worst case spill of oil from that facility into the navigable waters of the state. The department shall consider such matters as the amount of oil that could be spilled into the navigable waters from the facility, the cost of cleaning up the spilled oil, the frequency of operations at the facility, the damages that could result from the spill and the commercial availability and affordability of financial responsibility. This section shall not apply to an onshore or offshore facility owned or operated by the federal government or by the state or local government.

LIMITS OF LIABILITY IN A TRANSBOUNDARY SPILL

All Limits of Liability for both Canada and the U.S., as well as for affected states, would be in effect in a Transboundary spill event; one requirement does not replace all others. As a result, a responsible party would be liable up to the limits set in Canada as well as the U.S., plus Alaska or Washington. A team of experts from all affected jurisdictions would help coordinate liability claims.

SUMMARY OBSERVATIONS:

- Any individual, business, local authority and government in Canada which has suffered damage caused by oil transported by a tanker can claim compensation from the shipowner/insurer, the 1992 International Fund and, if applicable, the Supplementary Fund, providing that the damage resulted from oil pollution or response actions, caused a quantifiable economic loss and the claimant is able to provide appropriate evidence.
- While there is no specific provision in British Columbia's Environmental Management Act that addresses damage to individuals or businesses from spills, British Columbia Provincial law does allow for recovery by injured parties in many circumstances, usually based on claims of nuisance or negligence.
- Cost recovery claims in Canada must be consistent with the liability provisions of the Marine Liability Act, which provides that a ship owner is liable for costs and expenses to the extent that the measures taken and the costs and expenses are "reasonable," which means that both prevention and response measures should be based on technical appraisals, should enhance natural processes, and should not be taken for political or public relations reasons.
- If agencies at different levels of government differ in their recommendations or directions to the RP, this should be coordinated within Unified Command or its Canadian equivalent and reasonable measures documented in the daily operational plans or Incident Action Plans.
- The definition of reasonableness should not be an issue between the lead RO and any contracted RO, as both ROs would be involved in the development of daily operating plans.
- The U.S. regime relies on the Oil Spill Liability Trust Fund managed by the National Pollution Funds Center (NPFC); spills of all types of oil are covered, as well as all vessel types, plus spills from facilities and vehicles to waters of the U.S., both coastal and inland. Expenses can be related to a response to an actual discharge or a substantial threat of a discharge to U.S. waters.
- The Federal On-Scene Commander provides the NPFC with a report of all costs associated with the incident. The NPFC ensures that the appropriate documentation is available to support the charges and then bills the responsible party.
- In the U.S., costs submitted to the Responsible Party would include expenses for emergency response, plus related salary and equipment costs. It may also include claims that were paid by the NPFC to other parties for uncompensated removal costs, damages to natural resources or property, and other economic losses attributable to the spill.
- The Oil Pollution Act (OPA) expressly provides that it does not preempt or affect the states' ability to impose additional or existing liabilities under State law, including the common law.
- Washington State law allows both statutory and common law causes of action for damages caused by oil spills in most cases. RCW 90.56.370(1) provides strict liability for damages arising from an oil spill and establishes a private right of action against responsible parties by those who are harmed by a spill.
- Alaska State law does not preclude common law actions for damages caused by oil spills, and the Alaska Supreme Court established a precedent for such claims in *FDIC v. Laidlaw* (2001). Damages are broadly defined in Alaska statutes.
- Under the mutual aid agreements in place between the Western Canada Marine Response Corporation (WCMRC), the Marine Spill Response Corporation (MSRC), and Southeast Alaska Petroleum Response Organization, Inc. (SEAPRO), the costs incurred by the assisting response organizations (ROs) would be submitted to the initiating RO for reimbursement. The lead RO would be responsible for submitting its own invoices along with the assisting RO's invoice to the Responsible Party for payment.
- The Association of Petroleum Industry of Co-op Managers' Memorandum of Understanding between independent oil spill response cooperatives in Canada and the U.S. provides for mutual aid assistance; no financial terms are provided in this MOU, so any cost recovery issues would need to be worked out between the parties.

- The Civil Liability Convention (CLC) states that measures “wherever taken” are covered, which includes reasonable measures taken in an adjacent nation’s territorial waters (including the U.S. as a non-member state). The same applies to claims for losses or damages which can be presented by anyone who suffered losses in a CLC member state’s territory, irrelevant of the claimants’ actual citizenship/residence.
- Generally, the U.S. Oil Spill Liability Trust Fund is not available to pay third party (including foreign government) claims for removal costs and damages in foreign territory. Although there are OPA 90 provisions that could allow payment of foreign claims resulting from vessel incidents, those provisions are contingent on express authorization in executive agreements or treaties which do not apply to Canada. However, OPA 90 does provide for fund payment of certain Canadian resident removal costs and damage claims resulting from spills from TAPS tankers carrying TAPs oil from the TAPs terminal in Alaska on its initial transit to a place in the U.S.
- U.S. courts are generally open to claims by non-citizens; however, the issue of whether a court has jurisdiction over either the subject matter or the parties to a lawsuit is a very fact-specific inquiry.
- There is relatively little jurisprudence with respect to transborder claims for pollution of any sort, let alone ship source, although the “Trail Smelter Case,” an arbitration which took place in 1938, resulted in the creation of a mechanism to try the issues when the traditional dispute resolution methods of the courts did not appear to be available.
- A daily work order is presented to the Polluter/RP identifying the operational plan (or Incident Action Plan (IAP)) for the following day, together with the expected resources and cost estimates; this signed work order or IAP establishes that the costs have been accepted and there should be no issues when invoices are submitted.
- P&I Clubs are locally represented by correspondents (often lawyers) who are generally appointed to act on behalf of the Responsible Party (RP) and the Polluter. From the RO’s perspective, the RP and/or ship owner’s representative must sign off on a daily work order summarizing the daily activities.
- With a compatible system set up in each command centre, and each organization/agency documenting its personnel, assets, and costs the current system is adequate and is effective; moreover, this process places the administrative expenses on each organization/agency in the preparation of its own invoices.

DISCUSSION:

COST RECOVERY CLAIMS IN CANADA

Anyone who has suffered pollution damage in a member state of the 1992 Fund such as Canada can claim compensation from the shipowner/insurer, the 1992 Fund and, if applicable, the Supplementary Fund. This applies to individuals, businesses, local authorities and governments. To be entitled to compensation, the loss or damage must result from oil pollution or response actions and must have caused a quantifiable economic loss. The claimant must be able to show the amount of loss or damage by producing accounting records or other appropriate evidence.

Claims against the 1992 Fund and the Supplementary Fund are assessed according to criteria established by the governing bodies of the Funds and claims should be submitted following the guidance provided in the Claims Manual. The types of damages covered by the Funds include:

- Property damage (reasonable costs of cleaning, repairing or replacing property contaminated with oil);
- Clean-up and preventive measures (reasonable clean-up and other measures taken to prevent or minimize pollution damage in a State Party, wherever these measures are taken);
- Pure and consequential economic losses for loss of earnings e.g. by fishermen, those engaged in mariculture, or the tourism sector.
- Environmental damage (Costs for reinstatement of the environment (as stated in Article I.6 of the 1992 CLC, “... provided that compensation for impairment of the environment other than loss of profit from such

impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken”).

In all likelihood, representatives from the Ship-source Oil Pollution Fund (SOPF) as well as the International Oil Pollution Compensation Funds (IOPC) would work closely with a vessel’s P&I club representatives to coordinate the claims process.

British Columbia

There is no specific provision in British Columbia’s Environmental Management Act that addresses damage to individuals or businesses from spills, but British Columbia provincial law does allow for recovery by injured parties in many circumstances, usually based on claims of nuisance or negligence. Primary jurisdiction over spill damage would rest with the jurisdiction where the damage occurs.

The issue of reasonable costs

Agencies’ cost recovery claims must be consistent with the liability provisions of Section 51 of the Marine Liability Act, S.C.2001, C.6, which provides that a ship owner is liable for costs and expenses incurred with respect of measures taken to prevent, repair, remedy or minimize pollution damage from ship, to the extent that the measures taken and the costs and expenses are reasonable. All costs must meet the reasonableness test.

Reasonable is defined by Canada’s Ship-source Oil Pollution Fund (SOPF) as follows: To qualify for compensation.....the costs as well as the preventative measures themselves have to be “reasonable”. This is generally interpreted to mean that the measures taken or equipment used in response to an incident were, on the basis of an expert technical appraisal at the time the decision was taken, likely to have been successful in minimizing or preventing pollution damage. The facts that the response measures turned out to be ineffective or the decision was shown to be incorrect with the benefit of hindsight are not reasons in themselves for disallowing a claim for the costs involved. A claim may be rejected, however, if it was known that the measures would be ineffective but were instigated simple because, for example, it was considered “to be seen to be doing something.”

In brief, “reasonable” means that both prevention and response measures should be based on technical appraisals, should enhance natural processes, and should not be taken for political or public relations reasons (IOPC Fund Claims manual 3.1.5 – 3.1.7). This definition of “reasonable” is the guideline followed by the Canadian Coast Guard.

Examples of response actions which may be considered “reasonable” for spill response in open water include the application of chemical dispersants or containment and recovery of spilled oil using booms and skimmers. Weather and site conditions (currents, sea state, and water depth) as well as the type of oil will influence equipment and strategy choices. Strategies should also result in reducing threats or damages to sensitive resources. The rates paid to implement these choices will be judged “reasonable” based on actual costs and comparable commercial rates.

There may also be government jurisdiction issues; i.e., agencies at different levels of government are involved and are responsible for similar authorities, but may differ in their recommendations or directions to the RP. This should be coordinated within Unified Command (if ICS is being used) and reasonable measures documented in the daily Incident Action Plans (IAPs) or their equivalent. Unified Command decision memos and/or the IAP will need to document decisions, especially those associated with expensive costs.

The definition of reasonableness may differ between the Response Organization (RO)’s perspective and that of the RP and P&I Club representative, as well as between Canada and the U.S. This could potentially be an issue in cost recovery unless written acceptance exists between the RO and RP. This should not be an issue between the lead RO and any contracted RO, as both ROs would be involved in the development of the operating plan for the following day.

Issues that have been contentious in the past include costs associated with environmental surveillance or oiled wildlife care, or seeking payment for actions considered unreasonable (e.g., costs involved in rehabilitating oiled wildlife where an egg removal program is in place in the same general area to control the same species and population). Wildlife rehabilitation issues continue to create a negative focus at each British Columbia spill due to the lack of overall coordination and field execution that would meet the standard of “reasonableness.” In response to this problem, the Western Canada Marine Response Corporation (WCMRC) is developing a working committee including representatives of government agencies, industry and other interested parties to review and upgrade the wildlife rehabilitation guidelines.

While this section focuses on cleanup costs and preventive measures, other costs are subject to the same criteria of reasonableness. The IOPC Claims Manual covers these criteria as applicable to claims for clean-up and preventive measures in the subsection: scope of compensation (3.1.5-3.1.15)

COST RECOVERY CLAIMS IN THE UNITED STATES

As noted previously, the U.S. regime relies on the Oil Spill Liability Trust Fund (OSLTF) created by the Oil Pollution Act of 1990 (OPA 90) and managed by the National Pollution Funds Center (NPFC). Only spills of oils defined as “OPA Oils” by the U.S. Coast Guard are covered, as well as all vessel types, plus spills from facilities and vehicles to waters of the U.S., both coastal and inland. Expenses can be related to a response to an actual discharge or a substantial threat of a discharge to U.S. waters.

The Federal On-Scene Coordinator (FOSC) provides the NPFC with a report of all costs associated with the incident. The NPFC ensures that the appropriate documentation is available to support the charges and then bills the Responsible Party (RP). This bill would include what has been spent from the OSLTF for emergency response, plus related salary and equipment costs. It may also include claims that were paid by the NPFC to other parties for uncompensated removal costs, damages to natural resources or property, and other economic losses attributable to the spill.

OPA 90 claims must meet the following requirements:

- A claimant must be able to prove the damage was caused by an oil spill that falls under the Oil Pollution Act of 1990, as follows:
 - Oil must have caused the damage;
 - The damage must come about as a result of a discharge or substantial threat of discharge of oil; and
 - The discharge or substantial threat of discharge must be to a navigable water of the United States.
- The discharge or substantial threat of discharge must come from a vessel or facility.
- A claimant must prove that property damage was caused by the spill and that the amount claimed is appropriate.
- A claimant must show that s/he has presented a claim to the RP of the spill, unless that party is not known or unless the NPFC has advertised for claims.
- The claim must be for a certain sum (specific dollar amount).
- The claim must be submitted within three years of the date the damage was reasonably discoverable.
- The claim must be submitted in writing and signed.

Please see the following Table for the types of claims that may be submitted by the claimants. Claims must be fully supported with appropriate documents.

Types of Claims covered by the U.S. Oil Spill Liability Trust Fund

Claim Type	Description	Who Can Submit
Natural Resource Damages (NRD)	Costs for: Assessing an area's natural resource damages, Restoring the natural resources, and Compensating the public for the lost use of the affected resources.	Only specially designated natural resource trustees
Removal Costs	Costs to prevent, minimize, mitigate, or clean up an oil spill. (The costs of cleaning up your own property fall under the category of property damage, not removal costs).	Clean-up contractors, called Oil Spill Recovery Organizations (OSROs) Federal, State, tribal and local government entities. The responsible party Anyone who helped clean up the spill
Property Damage	Injury to or economic loss resulting from destruction of real property (land or buildings) or other personal property. Does not include personal injury!	People or entities who own or lease the damaged property.
Boat Damage	Injury to or economic loss resulting from damage to a boat (a subset of property damage).	People or entities who own or lease the damaged boat
Loss of Profits & Earning Capacity	Damages equal to the loss of profits or impairment of earning capacity due to the injury, destruction, or loss of property or natural resources	Anyone with loss of profits or income (You do not have to own the damaged property or resources to submit a claim under this category.)
Loss of Subsistence Use of Natural Resources	Loss of subsistence use claim if natural resources you depend on for subsistence use purposes have been injured, destroyed, or lost by an oil spill incident.	Anyone who, for subsistence use, depends on natural resources that have been injured, destroyed, or lost (You do not have to own or manage the natural resource to submit a claim under this category).
Loss of Government Revenue	Net loss of taxes, royalties, rents, fees, or net profit shares due to the injury, destruction, or loss of real property, personal property, or natural resources.	Federal agencies States, tribal, and local governments
Increased Public Services	Net costs of providing increased or additional public services during or after removal activities, including protection from fire, safety, or health hazards, caused by a discharge of oil or directly attributable to response to the oil spill incident.	States, tribal, and local governments

Cost Recovery in Washington and Alaska

WASHINGTON: The Oil Spill Liability Trust Fund is not a plaintiff's exclusive remedy; further remedies are available under Washington State law for those who have suffered damages as a result of an oil spill. The Oil Pollution Act (OPA) expressly provides that it does not preempt or affect the states' ability to impose additional or existing liabilities under State law, including the common law (see CFR 33 U.S.C. § 2718). Furthermore, while pre-OPA maritime law precluded purely economic damages, OPA plainly specifies that such damages are available and that states may impose similar or greater liability (see CFR 33 U.S.C. § 2702 (b)(2)(D)-(E)). Washington law in most cases allows both statutory and common law causes of action for damages caused by oil spills. RCW 90.56.370(1) provides strict liability for damages arising from an oil spill. This provision establishes a private right of action against responsible parties by those who are harmed by a spill.

ALASKA: Alaska law does not preclude common law actions for damages caused by oil spills. The Alaska Supreme Court in *FDIC v. Laidlaw* (Alaska Supreme Court 2001) recognized a private cause of action under AS 46.03.822 for recovery of oil spill damages/response costs by private persons under AS 46.03.822. Damages are broadly defined in AS 46.03.822(m) and AS 46.03.824.

COST RECOVERY AS COVERED BY MUTUAL AID AGREEMENTS BETWEEN RESPONSE ORGANIZATIONS

Under the mutual aid agreements in place between the Western Canada Marine Response Corporation (WCMRC), the Marine Spill Response Corporation (MSRC) and Southeast Alaska Petroleum Response Organization, Inc. (SEAPRO), the costs incurred by the assisting response organizations would be submitted to the lead RO for reimbursement; i.e., in a Canadian-led response, the U.S. response organization (RO) would submit their expenses to WCMRC for payment and the reverse would apply in a U.S. led response.

The lead RO would be responsible for submitting its own invoices along with the assisting RO's invoice to the RP for payment. If the ROs work within the terms of the Mutual Aid agreements, there should be no issues. Moreover, the Civil Liability Convention states that measures "wherever taken" are covered. This includes reasonable measures taken in an adjacent nation's territorial waters (including the U.S. as a non-member state). It is irrelevant who undertakes the measures and whether they are a resident or citizen of a member state.

There is also an APICOM (the Association of Petroleum Industry of Co-op Managers) Memorandum of Understanding covering oil spill response cooperatives in Canada and U.S. to provide mutual aid assistance in the form of equipment, materials, chemicals, personnel, technical or any other assistance or that can be made available to the requesting cooperative. There are no financial terms provided in this MOU so any cost recovery issues would need to be worked out between the parties.

There is currently no mutual aid agreement between Western Canada Marine Response Corporation and the National Response Corporation (NRC) or the Washington State Maritime Cooperative (WSMC) (WSMC covers ship-source spills from nontank vessels on the U.S. side of the Straits of Juan de Fuca for up to 24 hours).

U.S. DAMAGE CLAIMS IN CANADA

Section 51 of the Marine Liability Act limits recovery for costs and expenses to the Canadian Minister of Fisheries and Oceans, a Canadian response organization, any other person in Canada or any person in a State other than Canada that is a party to the *Civil Liability Convention*. In other words, although the general provision in Section 51(a) makes the ship owner liable for "oil pollution damage from the ship", there is no recovery available to a U.S. citizen/resident based on that statutory provision (as opposed to a claim based on tort common law), since the U.S. is not a party to the CLC.

Under the international regimes, any person has the right to be compensated for losses incurred following damages to resources/commercial activities in Canadian waters. Hunting and sports fishing would only be

considered if undertaken for business, not as a leisure activity. First National subsistence activities may be compensated if they can be economically quantified. However, the right of recovery is available only to persons who are Canadian citizens or permanent residents of Canada, or to corporations formed under the laws of Canada or a province. It would seem that the SOPF is generally not available to U.S. citizens who sustain damage in the U.S. from oil originating in Canada. A U.S. citizen may make claims for damages sustained in Canada.

CANADIAN CLAIMS IN THE UNITED STATES

According to NPFC Policy document CL18, "...the fund is not available to pay third party (including foreign government) claims for removal costs and damages in foreign territory. Except, OPA does provide for fund payment of certain Canadian resident removal cost and damage claims resulting from spills from tankers carrying TAPs (Trans-Alaska Pipeline) oil from a TAPs terminal to a place in the U.S. While there are OPA provisions that could allow payment of a broader range of foreign claims resulting from vessel incidents, those provisions (OPA section 1007, 33 USC 2707) are contingent on express authorization in executive agreements or treaties or findings that the foreign claimant's country provides comparable remedies to U.S. claimants. These contingencies have not been met."

As a general matter, U.S. courts (both state and federal) are generally open to claims by non-citizens. However, the issue of whether a court has jurisdiction over either the subject matter or the parties to a lawsuit is a very fact-specific inquiry. As a result, the question of whether an action may be taken in U.S. courts will depend on the specific circumstances of the individual spill (i.e. where the spill occurred, where the damages were incurred, the residencies/nationalities of the parties, etc.).

There is relatively little jurisprudence with respect to transborder claims for pollution of any sort, let alone ship source. The well known "Trail Smelter Case," an arbitration which took place in 1938, resulted in the creation of a mechanism to try the issues when the traditional dispute resolution methods of the courts did not appear to be available. The matter arose from damage allegedly done by the air emissions from the Trail Smelter which was about ten miles north of the Washington/British Columbia border. The real question was in essence a tort claim between the private citizens of the United States and a corporation in Canada. It was not possible for the individuals who were damaged in the State of Washington to seek a remedy in British Columbia for that damage because it occurred outside of the Province. In any event, the Governments of Canada and the United States took the matter to arbitration and in the result a principle was enunciated to the effect that no nation may undertake acts on its territory that will harm the territory of another State. This principle, although significant and helpful, does not necessarily overcome the jurisdictional problems of a citizen in one country suing a polluter in another country.

A more recent proceeding arising with respect to the same smelter many years later was commenced in the U.S. District Court Eastern District of Washington (*Pakootas v. Techcominco Metals Ltd.*) The claimants, who were members of a Indian tribe in Washington State argued that the U.S. legislation under CERCLA should be applied to address the cleanup of hazardous waste created by discharges originating outside of the U.S. While pollution such as that apparent in the *Pakootas* case has usually been dealt with through diplomatic channels, the attempts to recover judgement against the polluter on the other side of the border will have enormous implications with respect to the future of transborder oil pollution recovery in somewhat similar circumstances.

COST ACCOUNTING AND FINANCE SECTION COORDINATION

Under the U.S. system, a daily work order is presented to the RP identifying the operational plan (or Incident Action Plan (IAP)) for the following day, together with the expected resources and cost estimates. In Canada, the operational plan will address the issues identified by the Regional Environmental Emergencies Team (REET) and the stakeholders committee, issues which may have the potential for increased costs. In Canada, the Spill Response Manager reviews the plan with the RP and the RP may sign off on the plan signifying agreement. In the

U.S., this is accomplished in the Unified Command. This signed work order or IAP establishes that the costs have been accepted and there should be no issues when invoices are submitted.

According to Section 4.5 *Cost Recovery Guidelines* of the Canadian Coast Guard's National Response Plan, the On-scene Commander/Federal Monitoring Officer is responsible for collection of all documentation necessary to initiate cost recovery in accordance with Ship source Oil Pollution Clean-up Costing Principles and Documentation Standards (TP 6217) and the approved charge-out rates. The On-scene Commander/Federal Monitoring Officer is also responsible for the submission of claims for cost recovery. Resource Agencies should submit their costs to the On-scene Commander/Federal Monitoring Officer for inclusion in the claim.

The Canadian Coast Guard's National Response Plan also notes that the Finance Section is responsible for all financial and cost analysis aspects of the incident, including recording personnel and equipment times; procuring or contracting requested resources; tracking, analyzing and estimating costs; and recommending areas for potential cost savings.

P&I Clubs are typically represented by lawyers who are generally appointed to act on behalf of the RP. A surveyor will also be appointed to monitor the cleanup process. The lawyers' involvement includes on-site liaison with the ship's captain and surveyor. They will also observe the cleanup, receive information as solicitor for the ship, provide advice relative to retaining experts and consultants as required, advise the ship owner and P&I Club on the legal requirements and responsibilities of the responsible party, and review contracts, documents and invoices, including supporting documents relating to cost recovery claimed by government agencies and third parties. From the RO's perspective, the RP and/or ship owner's representative (i.e. lawyer, agent, etc.) will sign off on a daily work order summarizing the daily activities.

With a compatible system set up in each command centre and each organization/agency documenting its personnel, assets and costs (including supporting documentation) the current system is adequate, works properly and is effective. This process shares the administrative expenses between each organization/agency in the preparation of its own invoices, rather than one organization being responsible for all billings.

RECOMMENDATIONS

1. To help resolve cost-recovery issues in both the U.S. and Canada, key state, provincial and federal agencies – as well as industry - should endeavor to improve agreement on required response actions. Government agencies' advice and directions to the RP should be based on agency authorities and responsibilities, best professional judgment and expert scientific opinion in consideration of the RP's legal obligations.
2. The CANUSDIX and CANUSPAC Joint Response Teams should consider testing cost recovery issues during Transboundary exercises and should consider including representatives of relevant federal, provincial, and state agencies in the Finance Sections during the exercises.
3. During both Transboundary exercises and actual response operations, RPs and their representatives should consider working closely with response organizations, federal, state, and provincial agencies and the Finance Sections in both Command Centers to ensure that there is no duplication of activity costs and claims and to ensure timely tracking of all costs.
4. If an RO is working for and being paid by a lead RO, both ROs should consider working together in all sections – including Finance – at both Command Centers, as the work assignments issued pursuant to the daily Incident Action Plans may involve a mix of RO personnel/equipment.

FINANCE SECTION SOURCES

- Transport Canada's site on Compensating for Response Costs: <http://www.tc.gc.ca/eng/marinesafety/oep-ers-regime-compensation-314.htm>
- <http://www.iopcfund.org/>
- <http://www.ssopfund.gc.ca>
- http://www.uscg.mil/ccs/npfc/About_NPFC/osltf.asp
- British Columbia's Spill Cost recovery regulation: http://www.qp.gov.bc.ca/statreg/reg/E/EnvMgmt/250_98.htm
- National Pollution Fund Center Policy memo CL18, 10/15/2004 (PDF file)
- *Financial Preparedness for a Major Marine Spill in British Columbia*; prepared for the Ministry of Environment, Lands, and Parks by Aengus RM Fogarty, BCL, LLM, September 1995
- *The International Oil Pollution Compensation Funds*, March 2006 Edition
- Presentations by the following persons at the Canada-U.S. Oil Spill Finance Workshop sponsored by U.S. Coast Guard District 13, July 22-23, 2009:
 - Don Rodden, Canadian Coast Guard
 - Scott Knutson, USCG D13
 - Scott Lundgren, USCG D1
 - Greg Buie, National Pollution Fund Center
 - Alfred Popp, Ship-source Oil Pollution Fund
 - Katharina Stanzel, IOPC Fund
- Emails or phone conversations with:
 - Simon Barker, Oland & Co.
 - Fred Beech, Environment Canada
 - Peter Bernard, Bernard & Partners
 - Katharina Stanzel, IOPC Fund
 - Kevin Gardner, Western Canada Marine Response Corporation
 - David Jones, Bernard & Partners
 - Linda Laba, Western Canada Marine Response Corporation
 - George Legge, Ship-source Oil Pollution Fund
 - Verisimo Lunasin, Alaska Department of Environmental Conservation
 - Roger Mowery, Washington State Maritime Cooperative
 - David Owings, South East Alaska Petroleum Resource Organization
 - Don Rodden, Canadian Coast Guard
 - D'Arcy Sego, British Columbia Ministry of Environment
 - Harry Chichester, Washington Department of Ecology
- West Coast Oil Spill Financial Responsibility Requirements at: http://www.oilspilltaskforce.org/docs/project_reports/CofrMatrix3.pdf
- The National Pollution Fund Center page regarding COFRS: <http://www.uscg.mil/ccs/npfc/COFRs/default.asp>
- The National Pollution Fund Center page regarding Limits of Liability: http://www.uscg.mil/ccs/npfc/Response/RPs/limits_of_liability_faqs.asp
- The National Pollution Fund Center page regarding Claims: <http://www.uscg.mil/npfc/claims/default.asp>
- Canadian Coast Guard National Response Plan - http://www.ccg-gcc.gc.ca/eng/ccg/er_National_Response_Plan
- NPFC TOPS GUIDE: <http://www.uscg.mil/ccs/npfc/docs/PDFs/urg/Ch2/NPFC TOPS.pdf>
- 33 USC 2704(a)(3): [http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=\\$\\$xa\\$\\$busc33.wais&start=4683182&SIZE=13816&TYPE=TEXT](http://frwebgate.access.gpo.gov/cgi-bin/usc.cgi?ACTION=RETRIEVE&FILE=$$xa$$busc33.wais&start=4683182&SIZE=13816&TYPE=TEXT)
- Washington State Law, Revised Code of Washington (RCW) 90.56

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Appendix I

The Stakeholder Workgroup Review of Planning and Response Capabilities for a Marine Oil Spill on the U.S./Canadian Transboundary Areas of the Pacific Coast Project Report

PROJECT REPORT RECOMMENDATIONS

Recommendations to the CANUSPAC Joint Response Team	Section, Topic Paper and Page
Insofar as the CANUSDIX activation scenarios are more comprehensive (e.g., consideration of other factors and pollution origins beyond both areas of concern), the CANUSPAC Joint Response Team (JRT) should consider these as a model for revisions to Section VII of their Annexes.	Command; Initial Notifications & Activations; page 27
The CANUSPAC JRT should charter a workgroup to develop CANUSPAC <i>Wildlife Response Guidelines</i> . The key elements of the CANUSDIX <i>Wildlife Response Guidelines</i> should serve as a template to develop similar guidelines for the Washington/British Columbia border. Membership of the workgroup should include appropriate trustees and regulatory agencies, key stakeholders, wildlife rescue/rehabilitation professionals, Federally-recognized tribes and First Nations, and representatives of key response agencies (e.g., the Canadian and U.S. Coast Guards, a Washington State SOSC and their counterpart from British Columbia, and likely representatives of potential RPs such as QIs, IMTs, or OSROs). Once adopted, the guidelines should be tested during regular CANUSPAC exercises and updated as needed based on lessons learned from exercises or actual incidents.	Planning; Wildlife Response; page 97
The CANUSPAC resource agencies should consider developing guidelines for providing <u>joint</u> incident-specific recommendations to their respective USCG and CCG incident command systems for dispersant use and <i>in-situ</i> burning decision-making. The <i>CANUSDIX Resource Agency Guidelines</i> should be considered as a template.	Planning; Dispersant and In-situ Burn Policies; page 108
CANUSPAC resource agencies should consider developing guidelines for providing <u>joint</u> incident-specific recommendations by U.S. and Canadian Federal, Provincial, and State resource agency representatives to their respective USCG and TC-M/CCG incident command systems for POR decision-making. The <i>CANUSDIX Resource Agency Guidelines</i> should be considered as a template.	Planning; Places of Refuge; page 119

Recommendations to the CANUSDIX Joint Response Team	Section, Topic Paper and Page
The inventory of wildlife facilities for the Dixon Entrance should be expanded to include Haida Gwaii (the Queen Charlotte Islands) during the next revision of the CANUSDIX Wildlife Response Guidelines.	Planning; Wildlife Response; page 97

Recommendations to Both Joint Response Teams	Section, Topic Paper and Page
<p>The CANUSPAC and CANUSDIX Joint Response Teams (JRTs) should consider establishing a joint working group to review all coordination issues related to separate command posts (including review of the work done by the CANUSLANT JRT) and should consider adopting consistent policies for both annex areas, since having one standard in the region would enhance planning and promote more efficient use of resources.</p>	<p>Command; Coordination of Response Structures & Command Posts; page 43</p>
<p>Regardless of which Incident Management System is in place, there are a number of roles and responsibilities that are consistent on both sides of the border. The following role linkages should be considered, discussed and formalized by the working group recommended above, if deemed appropriate:</p> <p><u>Command:</u></p> <p>The two Command Centers and the Incident Commanders or On-Scene Coordinators should coordinate their planning processes and schedules as well as their response activities to the extent that it improves the response. Tools for coordinating their response might include regular teleconference meetings using standard agenda templates, secure full time communications links (Commander to Commander) and response software, plus uniform templates for Incident Action Plans. A transboundary spill response should also utilize multiple liaison officers in order to represent the other command post as well as stakeholders, First Nations and Federally-recognized tribes.</p> <p><u>Command Staff:</u></p> <ul style="list-style-type: none"> • Health and Safety on each side of the border should be linked but should operate independently. Both jurisdictions have different legislation that will need to be addressed. Responders traveling in the trans-border areas or who are working in the other Command Center will need to be briefed and equipped by those responsible in the specific jurisdiction. Systems and procedures should be in place to accommodate this. • Security on each side of the border should be integrated (also see security paper later in this section) • Public Affairs/Communications need to be linked to coordinate key messages but should operate independently. While it is important that the two Command Centers are in agreement with messages and that they do not contradict each other, it is also important that the Command Centers are seen as independent. (Also see media coordination paper later in this section) <p><u>General Staff:</u></p> <ul style="list-style-type: none"> • Operations on each side of the border should be linked but should operate independently. Each Operations Section should be familiar with the other's documentation and response systems. They should have Operational Liaison Officers supporting each other and should consult on overall tactics to improve response efficiency. • Planning on each side of the border should be linked but should operate independently. Each Planning Section should be familiar with the other's documentation and response systems. They should have Planning Liaison Officers supporting each of the various Planning Section disciplines (as needed) (i.e. SCAT, Environmental Unit, Next Operational Period Plan development, response etc). • Logistics on each side of the border should be linked and should operate jointly. While each Logistics section will need to support and supply their own response, it is critical that response resources are deployed where they are needed, regardless of which side of the border they are on. • Finance on each side of the border should be linked. Issues like costing and limits of liability will need to be coordinated and discussed. Up-to-date response estimates should be frequently shared. For some aspects of the response (i.e. cost recovery from the RP/Insurer, or funds) each Finance Section will need to operate independently. 	<p>Command; Coordination of Response Structures & Command Posts; page 44</p>

Recommendations to Both Joint Response Teams, continued	Section, Topic Paper and Page
<p>The CANUSPAC and CANUSDIX Joint Response Teams (JRTs) should consider establishing a Joint Working Group on Forms and Documentation Procedures. This Working Group should survey the British Columbia Provincial response agencies, Environment Canada, Transport Canada, Washington and Alaska state response agencies, the two U.S. Regional Response Teams, response organizations, and others participating in transboundary exercises to determine whether any conflicts have been noted with the use of RMS and ICS forms and what solutions were developed, if any. As Canada is party to both JRTs, it would be most efficient to have one standard for both borders, so this Joint Working Group on Forms and Documentation Procedures should develop recommendations for both the CANUSPAC and the CANUSDIX JRTs, if any are needed.</p> <p>In considering the results of their survey, the Joint Working Group on Forms and Documentation Procedures should consider establishing a formal process and time-table to be adhered to by both Command Centers during a response. This would include:</p> <ul style="list-style-type: none"> • A standard meeting schedule (between the USCG/CCG and others in command) with specific documentation requirements; • A process to align information required by the RMS and ICS forms; and • A process to ensure familiarity with both types of forms for those working in the Incident Command Posts. 	Command; Coordination of Response Structures & Command Posts; pages 44-45
<p>The use of liaison officers to represent stakeholder interests in both command posts should be specified in both the CANUSDIX and CANUSPAC annexes in order to indicate that additional liaison officers are needed beyond those representing the two Command Centers.</p>	Command; Integrating other government levels into command; page 55
<p>The CANUSPAC and CANUSDIX Joint Response Teams should consider reviewing the lessons learned from the cooperative efforts between the U.S. and Canada for the 2010 Olympics, in order to determine whether any lessons are transferable to the oil spill response plans for the CANUSPAC and CANUSDIX border areas.</p>	Command; Security Coordination; page 64
<p>The CANUSDIX and CANUSPAC JRTs should consider promoting consistency in how the NRDA Team's relationships to the response management structures are outlined in all spill response guidance by:</p> <ul style="list-style-type: none"> • Promoting integration of the NRDA process early in the response; and • Identifying and clarifying the need for a relationship between the NRDA Liaison and Unified Command, the Environmental Unit Leader, the Planning Section Chief, the Logistics Section Chief, and the Wildlife Branch under Operations in an ICS structure as well as to the REET as appropriate. 	Command; NRDA; pages 66-67
<p>The CANUSPAC and CANUSDIX Joint Response Teams (JRTs) should examine inconsistencies between their memberships in order to determine whether any changes are needed.</p>	Planning: JRT Membership; page 74
<p>Names, titles, and contact information for JRT members should be reviewed and updated annually.</p>	Planning: JRT Membership; page 74
<p>The CANUSPAC and CANUSDIX JRTs should consider including participation by representatives of Federally-recognized tribes and First Nations, representatives from shipping and oil handling industries, representatives of JRT member agencies, and other stakeholders likely to be involved at the Incident Command Post level in their respective transboundary exercises, as well as in transboundary exercise planning.</p>	Planning; Transboundary Exercise Programs; page 76
<p>The CANUSPAC and CANUSDIX JRTs should consider encouraging existing work groups on both sides of the border to develop GRSs/GRPs where needed for their respective transboundary area, with a particular priority on the Portland Canal area between British Columbia and Alaska.</p>	Planning; GRPs & GRSs; page 79
<p>The CANUSDIX and CANUSPAC JRTs should consider including field testing of GRS/GRPs in their respective transboundary area during their transboundary exercises.</p>	Planning; GRPs & GRSs; page 79

Recommendations to Both Joint Response Teams, continued	Section, Topic Paper and Page
<p>Following is a set of recommendations regarding how the CANUSPAC and CANUSDIX Joint Response Teams should consider improving efforts to coordinate, compile, approve and distribute public information during an international oil spill of significance:</p> <ul style="list-style-type: none"> • Convene an annual meeting involving Public Information Officers on both sides of the border and the NW Area Committee Media Communications and Outreach Workgroup to address the regulatory environment and philosophical approaches to communication during an oil spill response. • Follow up after this initial meeting with periodic conference calls to build understanding and forge professional relationships with U.S.-Canadian public information counterparts. • Develop and adhere to formal command center processes and timetables that both countries would use during a spill response. This should include establishing a meeting schedule between the two command structures, including Information Officers and other key members of the Joint Information Centers. • Link public information/communications on both sides of the border to coordinate as many single messages as possible. However, the two public information centers should operate independently. • Establish Public Affairs liaisons in both command centers. <p>Following is a list of issues that should be considered by the Transboundary Public Information Officer team:</p> <p><u>Joint Information Center</u></p> <ul style="list-style-type: none"> • Who “controls” the information? • How will information be coordinated for factual consistency? • What will the JIC organization look like? <p><u>Key messages</u></p> <ul style="list-style-type: none"> • Unified Command goals, objectives and response status • The process for agreeing on and vetting facts – including ensuring they are linked to Command Center goals and objectives • Volume estimates, conversion between metric/SAE, natural resource damages, etc. <p><u>Public Outreach</u></p> <ul style="list-style-type: none"> • Cultural differences – What do Canadians expect? Americans? Washingtonians? British Columbians? What are the differences between U.S. Indian tribes and Canadian First Nations? • What are expectations about community participation in decision-making? • What will local/provincial political figures want? • How does joint cooperation work in Canada? America? <p><u>Disseminating information</u></p> <ul style="list-style-type: none"> • Obviously, it’s much easier to manage this element when everyone is in the same room; but with Internet connections, web sites and cell phones, is this less of an issue? • Do the U.S. Coast Guard, Alaska, and Washington State all have 24-hour PIOs on stand-by? What about Canada/British Columbia? 	<p>Command; Media Coordination; pages 57-58</p>
<p>The CANUSDIX and CANUSPAC JRTs should both develop guidelines focused on achieving <u>joint</u> decision-making between the U. S. and Canadian Incident Command Posts for the use of either dispersants or <i>in-situ</i> burning. These guidelines should provide for input from representatives of appropriate agencies, Federally-recognized tribes, First Nations, technical experts, and stakeholders.</p>	<p>Planning; Dispersant & ISB Policies; page 108</p>
<p>Both the CANUSDIX and CANUSPAC Joint Response Teams should consider developing guidelines for <u>joint</u> incident-specific Place of Refuge (POR) decision-making by the USCG Captain of the Port and the Transport Canada-Marine representative. This joint decision-making process should include providing information to and receiving information from representatives of appropriate agencies, Federally-recognized tribes, First Nations, technical experts and stakeholders.</p>	<p>Planning; Places of Refuge; page 119</p>

Recommendations to Both Joint Response Teams, continued	Section, Topic Paper and Page
<p>The CANUSPAC and CANUSDIX Joint Response Teams should each charter a Transboundary Marine/Inland Waste Management working group to address the various planning issues surrounding emergency waste management. The relevant State/Provincial agencies should co-chair the group and membership should include all relevant agency, OSRO and private entities (the latter serving as technical experts) from both Canada and the BC First Nations, Federally-recognized Tribes, local governments, border security agencies, and private industry should be invited to participate in the development of plans, operational checklists, waste collection/disposal options, border protocols, MOUs, etc. Annual meetings of the group could coincide with CANUS Annex activities.</p>	<p>Planning; Waste Management; page 103</p>
<p>The CANUSPAC and CANUSDIX Joint Response Teams should consider tracking development of coordinated transboundary fishery closure protocols by the CANUSLANT Joint Response Team. They should then consider them as a model for adding similar protocols to the CANUSDIX and CANUSPAC Annexes.</p>	<p>Planning; Fishery Closures; page 134</p>
<p>Because clear standards are needed from both the U.S. and Canadian governments regarding responder Immunity for foreign workers and vessels, the CANUSDIX and CANUSPAC Joint Response Teams should review and upgrade their annexes to include clear “how to” steps and/or references to U.S. and Canadian responder immunity procedures and protocols.</p>	<p>Operations; Responder Immunity; page 151</p>
<p>The CANUSPAC and CANUSDIX Joint Response Teams should determine the legal aspects of sharing transboundary response information, the implications of different federal, provincial and state standards for responding to information requests, and the costs associated with such requests.</p>	<p>Operations: Documentation Coordination; page 157</p>
<p>The CANUSDIX and CANUSPAC Joint Response Teams should each consider chartering a Remote Areas Working Group whose members include at least one representative from the State, the Province, both Coast Guards and other U.S. and Canadian federal agencies as appropriate. This Remote Areas Working Group should be tasked to implement the following steps:</p> <ul style="list-style-type: none"> • Review lessons learned from transboundary exercises (CANUSPAC and CANUSDIX) and remote area responses, including the Exxon Valdez oil spill and develop a list of remote location issues; • Survey emergency management agencies and response contractors serving the Transboundary area to identify their remote area concerns and priority needs to further supplement this list; • Once a complete list of remote location issues is developed, recommend solutions for each particular issue on the list. • Identify remote areas and monitor response equipment capability in these areas using the WRRRL; • Identify existing and potential equipment staging areas and forward command posts; and • Develop a list of suppliers (with contact information) of barges, aircraft supplies, housing options, and other support assets as appropriate, including information on the seasonal availability of these resources. Post this information on a website accessible to responders and recommend protocols for maintaining this information on a regular basis. 	<p>Logistics; Remote Location Issues; page 174</p>

Recommendations to CANUSDIX and CANUSPAC Transboundary Exercise Planners	Section, Topic Paper and Page
Both the CANUSDIX and CANUSPAC JRTs should consider drilling the notification procedures for each of the various scenarios provided for in their annex as well as notifications to other agencies and organizations involved in any drill, documenting all lessons learned and recommending improvements to the annexes as warranted.	Command; Initial Notifications & Activations; page 27
CANUSDIX and CANUSPAC transboundary exercises planners should consider including a scenario involving the assumption of command from a Responsible Party by either Coast Guard.	Command; Decisions to Assume Command from an RP; page 49
The CANUSPAC and CANUSDIX JRTs - as well as potential RPs and their ROs - should consider exercising the integration of state/provincial/tribal/aboriginal/local government/landowner and other stakeholder interests into Command Centers during their drills.	Command; Integrating other government levels into command; page 54
CANUSPAC and CANUSDIX exercise planners should consider including NRDA components in future Transboundary exercise scenarios.	Command; NRDA; page 67
A standard transboundary exercise template should be used for both CANUSDIX and CANUSPAC, and should address all exercise issues identified in this Project Report (i.e., this page).	Planning; Transboundary Exercise Programs; page 76
The CANUSPAC and CANUSDIX JRTs should consider including participation by representatives of Federally-recognized tribes and First Nations, representatives from shipping and oil handling industries, representatives of JRT member agencies, and other stakeholders likely to be involved at the Incident Command Post level in their respective transboundary exercises, as well as in transboundary exercise planning.	Planning; Transboundary Exercise Programs; page 76
“Lessons Learned” from CANUSPAC and CANUSDIX exercises should be in a consistent format for both Annex areas and should include analyses of performance vis-à-vis plans, mutual aid agreements, and the stated goals of all exercise participants. These “Lessons Learned” summaries should be made available to the public on the Internet.	Planning; Transboundary Exercise Programs; page 76
With regard to the movement of oily wastes across borders, the CANUSPAC and CANUSDIX JRTs should ensure participation of the Canadian and U.S. Border security agencies at the ICP level during transboundary tabletop exercises.	Planning; Waste Management; page 104
Both the CANUSPAC and CANUSDIX JRTs should drill these transboundary consultation and decision-making procedures for in-situ burning and dispersant use during joint exercises. Federally-recognized tribes and First Nations should be invited to participate in dispersant use and in-situ burning exercises to drill their protocols.	Planning; Dispersant & ISB Policies; page 108
Once coordinated transboundary fishery closure protocols are in place in both annexes, the CANUSPAC and CANUSDIX Joint Response Teams should test them in exercises.	Planning; Fishery Closures; page 124
Transboundary planners should ensure that objectives for future drills and exercises include the execution of a plan to distribute all documentation to involved parties.	Operations: Documentation Coordination; page 157
The existing customs procedures for emergency response personnel and equipment entering either the U.S. or Canada are adequate and should be tested regularly during both OSRO and CANUSDIX and CANUSPAC Annex exercises so that border agency and response personnel are familiar with them.	Logistics: Moving People & Equipment across Borders; page 164
Response agencies and organizations should continue to evaluate and test their communications equipment through exercises such as CANUSPAC and CANUSDIX.	Logistics; Communications; page 177
The CANUSDIX and CANUSPAC Joint Response Teams should consider testing cost recovery issues during Transboundary exercises and should consider including representatives of relevant federal, provincial, and state agencies in the Finance Sections during the exercises.	Finance; Cost Recovery; page 203

Recommendations to the U.S. Coast Guard	Section, Topic Paper and Page
Updated contact information for spill notifications should be maintained regularly in both the CANUSDIX and CANUSPAC annexes.	Command; Initial Notifications & Activations; page 27
The U.S. Coast Guard and Transport Canada should consider whether the coordination of U.S. and Canadian authorities to investigate oil spill incidents should be addressed in the Joint Contingency Plan and whether specific investigation protocols are needed in the transboundary geographic annexes.	Command; Investigations & Enforcement; page 62
When implementing the Congressional mandate in Section 711 of the U.S. Coast Guard Authorization Act of 2011 regarding a comparability analysis for the CANUSPAC area, specifically the comparison of oil spill response planning requirements, the USCG should consider expanding that analysis to include quantification of available response equipment on both sides of the transboundary area.	Planning; Response Capabilities; page 90
Where not already done, U.S. federal and state agencies , Federally-recognized tribes, and stakeholders in Alaska and Washington should consider pre-identifying Potential Place of Refuge (PPOR) locations in their respective transboundary areas, which could be considered (among other locations as appropriate) on an incident-specific basis during POR decision-making.	Planning; Places of Refuge; page 119
U.S. and Canadian federal agencies should consider initial and continued consultation with Federally-recognized tribes and First Nations on POR and PPOR documents developed to date for use in the CANUSDIX and CANUSPAC transboundary areas.	Planning; Places of Refuge; page 119
The U.S. Coast Guard and Transport Canada should undertake a coordinated review of air traffic control coverage, capabilities (including traffic control for low altitude aircraft) and coordination protocols for both transboundary areas. As part of this review, they should determine whether air traffic control capabilities exist in remote areas of the transboundary regions, including identification of available resources and permits needed for access.	Operations; Traffic Control; page 148

Recommendations to the Canadian Coast Guard	Section, Topic Paper and Page
Updated contact information for spill notifications should be maintained regularly in both the CANUSDIX and CANUSPAC annexes.	Command; Initial Notifications & Activations; page 27
Transport Canada and the Canadian Coast Guard should develop protocols which allow U.S. Coast Guard approved response organizations to benefit from Canadian responder immunity provisions through mutual aid agreements with Canadian Response Organizations.	Operations; Responder Immunity; page 151

Recommendations to both the U.S. and Canadian Coast Guards	Section, Topic Paper and Page
The U.S. and Canadian Coast Guards should work with their Vessel Traffic Services, the British Columbia Chamber of Shipping and the Alaska and Puget Sound Marine Exchanges to periodically assess vessel traffic patterns and volumes in the CANUSPAC and CANUSDIX areas and determine whether there have been any significant changes in the risk levels for vessel incidents that could lead to oil spills in these areas. These periodic reports should be made available to state, provincial, and other federal agencies as well as to members of the JRTs so that the information may be utilized in contingency planning for the transboundary areas and to promote better targeting of prevention efforts.	Planning; Response Capabilities; page 90
<p>The Canadian and U.S. Coast Guards should consider identifying representatives of Federally-recognized tribes and First Nations who could be impacted if a transboundary spill occurred in the CANUSDIX or CANUSPAC areas. Once identified, the following steps should be considered:</p> <ul style="list-style-type: none"> • 24/7 contact information should be maintained; • Their concerns should be identified and incorporated into transboundary planning; • They should be trained on how they would work within the response structure and how the flow of response-related information and input would take place; and • They should be notified of any spills as well as any significant threat of a spill in their areas of concern, following the activation of either the CANUSDIX or the CANUSPAC Annex. 	Planning; Role of 1 st Nations and Tribes; page 115
The USCG and CCG should continue inviting representatives of Federally-recognized tribes and First Nations to participate in CANUSDIX and CANUSPAC-related planning activities, exercises and evaluations.	Planning; Role of 1 st Nations and Tribes; page 116
The U.S. and Canadian Coast Guards as well as appropriate state and provincial agencies should work with Federally-recognized Tribes or First Nations to clarify their access to response cost recovery through the U.S. Oil Pollution Act of 1990 or Canada's Ship Source Oil Pollution Fund.	Planning; Role of 1 st Nations and Tribes; page 116
The U.S. and Canadian Coast Guards should determine what role, if any, is defined for vessel traffic control systems (VTS) and during a pollution response. They should also compare the areas of responsibility for each VTS in order to identify any gaps in radar coverage.	Operations; Traffic Control; page 148
Response organizations and agencies operating in the transboundary areas should determine whether their personnel have adequate insurance coverage to operate outside the "normal operating area," and what, if any, time limits apply to their operations across the border. They should also ensure that all workers have baseline medical records available.	Operations; Personnel Training & PPE Standards; page 154
As part of routine operations, exercises and drills, it is recommended that differences in OELs, procedures, and PPE requirements that potentially inhibit transboundary response continue to be shared by response organizations and agencies as or if they are discovered. If any of the issues can be addressed by conforming to a mutually agreed upon "best practice" that meets the more stringent requirements, it is recommended that written templates be created and distributed to the response community. Incorporation of these practices into routine field training and exercises will promote familiarization with issues. The response organizations' and agencies' safety officers should facilitate this process.	Operations; Personnel Training & PPE Standards; page 154
The U.S. and Canadian Coast Guards should add protocols to the CANUSPAC and CANUSDIX Annexes covering the coordination of Incident Action Plan development and documentation between the U.S. and Canadian command posts. This documentation should include information collected at the end of each operational period from division/group supervisors regarding actions and events that occurred during the day, shift, or operational period.	Operations; Documentation Coordination; page 157
The U.S. and Canadian Coast Guards should consider collaborating with the Alaska, Washington and British Columbia emergency response and resource agencies and OSROs to map Transboundary areas where radio, satellite and cell phone communications are not available (black holes), or conversely, are available. This map should be reviewed and updated as needed or at least every five years. For the identified "black holes", these "communication teams" should recommend solutions such as placement of permanent radio repeaters, or identification of locations where portable repeaters would function, or the use of satellite phones.	Logistics; Communications; page 177

Recommendations to both the U.S. and Canadian Coast Guards	Section, Topic Paper and Page
Response agencies and organizations should continue to evaluate and test their communications equipment through exercises such as CANUSPAC and CANUSDIX.	Logistics; Communications; page 177
To help resolve cost-recovery issues in both the U.S. and Canada, key state, provincial and federal agencies – as well as industry - should endeavor to improve agreement on required response actions. Government agencies' advice and directions to the RP should be based on agency authorities and responsibilities, best professional judgment and expert scientific opinion in consideration of the RP's legal obligations.	Finance; Cost Recovery; page 203

Recommendations to Transport Canada	Section, Topic Paper and Page
The U.S. Coast Guard and Transport Canada should consider whether the coordination of U.S. and Canadian authorities to investigate oil spill incidents should be addressed in the Joint Contingency Plan and whether specific investigation protocols are needed in the transboundary geographic annexes.	Command; Investigations & Law Enforcement; page 62
Transport Canada should amend the Canada Shipping Act to include Response Organization requirements to develop the capability to address oiled wildlife during a spill response.	Planning; Wildlife Response; page 97
Canadian Federal and provincial agencies , First Nations, and stakeholders in British Columbia should consider identifying Potential Places of Refuge in their transboundary areas that could be considered (among other locations as appropriate) on an incident-specific basis during POR decision-making.	Planning; Places of Refuge; page 119
U.S. and Canadian Federal agencies should consider initial and continued consultation with Federally-recognized tribes and First Nations on POR and PPOR documents developed to date for use in the CANUSDIX and CANUSPAC transboundary areas.	Planning; Places of Refuge; page 119
The U.S. Coast Guard and Transport Canada should undertake a coordinated review of air traffic control coverage, capabilities (including traffic control for low altitude aircraft) and coordination protocols for both transboundary areas. As part of this review, they should determine whether air traffic control capabilities exist in remote areas of the transboundary regions, including identification of available resources and permits needed for access.	Operations; Traffic Control; page 148
Considering the potential for a transboundary spill to originate from an oil handling facility, Transport Canada should correct the omission in the CSA 2001 relating to responder immunity for spills from Oil Handling Facilities as soon as possible.	Operations; Responder Immunity; page 151
Transport Canada and the Canadian Coast Guard should develop protocols which allow U.S. Coast Guard approved response organizations to benefit from Canadian responder immunity provisions through mutual aid agreements with Canadian Response Organizations.	Operations; Responder Immunity; page 151

Recommendations to the NW Area Committee and/or Region 10 RRT	Section, Topic Paper and Page
The U.S. Region 10 RRT should consider incorporating procedures into the <i>Northwest Area Contingency Plan</i> In-situ Burn Policy for consulting with the CANUSPAC JRT or Canadian Government if use of in-situ burning close to Canadian waters is considered.	Planning; Dispersant & ISB Policies; page 108
The Region 10 Response Team/Northwest Area Committee (RRT/NWAC) should consider verifying Incident Command Post (ICP) locations in Washington State near the Transboundary area on an annual basis and updating ICP information in the Northwest Area Contingency Plan (NWACP) as appropriate. The RRT/NWAC Logistics Workgroup should consider working with local governments and industry to identify ICP locations which could be used in remote areas during a Transboundary response.	Logistics; ID of Command Centers; page 181
The Region 10 Response Team/Northwest Area Committee should continue its efforts to review, verify, and update Geographic Response Plans (GRPs) in the Transboundary area with special emphasis on the pre-identification of Incident Command Posts. Specific Transboundary GRPs that need to be reviewed, verified, and updated include the North Puget Sound/San Juan Islands GRP, Strait of Juan de Fuca GRP, North Central Puget Sound GRP, Admiralty Inlet GRP, and Outer Coast GRP.	Logistics; ID of Command Centers; page 181

Recommendations to Industry	Section, Topic Paper and Page
Potential RPs should anticipate the need to have representation in both the U.S. and Canadian command posts during a transboundary response, and should be familiar with the differences in their roles on either side of the border, i.e., as the Incident Commander in Canada and as the RP's Incident Commander as part of a Unified Command in the United States.	Command; Response Structures & Command Posts; page 45
<p>Recognizing that in a transboundary spill response the ICPs will be staffed and run by the RP and its response organization according to their spill response plans, the shipping industry and oil handling facilities near the Transboundary borders and the response organizations serving these areas should address issues identified in this Project Report, such as:</p> <ul style="list-style-type: none"> • Recognizing the differences between the U.S. and Canadian approaches and capabilities to manage an oil spill; and • Developing an industry-based position and policy on such matters as using the Incident Command System, endorsing Unified Command, integration of Incident Management Teams, and identifying locations for Incident Command Posts. 	Command; Response Structures & Command Posts; page 45
Canadian Federal and provincial agencies, First Nations, and stakeholders in British Columbia should consider identifying Potential Places of Refuge in their transboundary areas that could be considered (among other locations as appropriate) on an incident-specific basis during POR decision-making.	Planning; Places of Refuge; page 119
To help resolve cost-recovery issues in both the U.S. and Canada, key state, provincial and federal agencies – as well as industry - should endeavor to improve agreement on required response actions. Government agencies' advice and directions to the RP should be based on agency authorities and responsibilities, best professional judgment and expert scientific opinion in consideration of the RP's legal obligations.	Finance; Cost Recovery; page 203
During both Transboundary exercises and actual response operations, RPs and their representatives should consider working closely with the response organizations, federal, state and provincial agencies and the Finance Sections in both Command Centers to ensure that there is no duplication of activity costs and claims and to ensure timely tracking of all costs.	Finance; Cost Recovery; page 203

Recommendations to the Pacific States/BC Oil Spill Task Force	Section, Topic Paper and Page
<p>The Pacific States/British Columbia Oil Spill Task Force should consider chartering a Transboundary Software Committee of representatives from Alaska DEC, the British Columbia Ministry of Environment, the Washington Department of Ecology, the U.S. and Canadian Coast Guards and other federal representatives as appropriate to:</p> <ul style="list-style-type: none"> • Survey governmental agencies (at all levels), contractors, and the regulated community in the transboundary areas to determine what response software they use and document any compatibility issues; • Report the survey results to every agency or organization which could play a part in a transboundary response; • Consider ways to improve and share response documentation; • Develop recommendations for reviewing and updating information on software systems on a regular basis; and • Develop recommendations for testing software compatibility during Transboundary exercises, including reports identifying gaps and lessons-learned in the testing, with the intent of making recommendations to all agencies involved. 	Logistics; Response Software; page 169
The Pacific States/British Columbia Oil Spill Task Force should reconvene the Transboundary Project Workgroup in five years (i.e., 2016) to review the status of implementation of the Recommendations in this Report.	Introduction; page 6

Recommendations to Oil Spill Response Organizations	Section, Topic Paper and Page
The Western Canada Marine Response Corporation should continue day-to-day cross-border exercise opportunities with the SE Alaska Petroleum Resource Organization on British Columbia's Alaska border and with the Marine Spill Response Corporation and the Washington State Maritime Cooperative on British Columbia's Washington border.	Operations; Mutual Aid; page 138
The Association of Petroleum Industry Coop Managers (APICOM) should review their Mutual Aid agreement in order to identify and address any challenges regarding mutual aid issues for the U.S./Canadian transboundary areas.	Operations; Mutual Aid; page 138
WCMRC, SEAPRO, MSRC, WSMC and other response contractors operating in the CANUSDIX and CANUSPAC transboundary areas should continue to identify and solve equipment compatibility issues. Specifically, they should: <ul style="list-style-type: none"> Continue to stock adaptors that allow connections to be made for different size and types of boom; Continue to exercise and train together to identify any potential compatibility issues; and Continue to order equipment with common equipment specifications to ensure equipment compatibility. 	Operations; Equipment Compatibility; page 141
MSRC and WCMRC should continue to work with their appropriate governing agencies to clarify whether moving NRV and FOSET resources across the border for a transboundary spill response would be subject to the same issues as other response organization resources, including: <ul style="list-style-type: none"> Ensuring that fishing vessel crews are trained to meet applicable safety training and legal requirements of state, provincial and federal laws; Ensuring that fishing vessel crews are covered by both U.S. and Canadian responder immunity provisions; and Clearing equipment and personnel through customs and immigration services. 	Operations; Utilization of Fishermen for oil recovery; page 143
Response organizations should continue to maintain lists of communications systems (radios, satellite phones, etc) available for response operations in the transboundary areas which they serve.	Operations; Traffic Control; page 148
Response organizations and contractors covering the transboundary areas are encouraged to equip their dedicated spill response vessels with AIS systems for tracking purposes; they should also investigate the availability of portable GPS tracking devices.	Operations; Traffic Control; page 148
Vessels of opportunity used in a transboundary spill response should continue to work in Task Force Groups, with the lead vessels provided with AIS or GPS transponders for tracking purposes.	Operations; Traffic Control; page 148
WCMRC's mutual aid partners in the U.S. should apply to Transport Canada as soon as possible for approved responder status.	Operations; Responder Immunity; page 151
Canadian and U.S. responders should continue training to the appropriate standard if they are likely to respond in foreign waters per mutual aid agreements.	Operations; Personnel Safety Training &PPE standards; page 154
To address differences in medical surveillance requirements, Canadian responders should not be assigned tasks on a U.S. response incident in which they would or potentially could be exposed to hazardous substances or health hazards above permissible or published exposure limits. Tasks requiring respiratory protection fall into this category.	Operations; Personnel Safety Training &PPE standards; page 154
All site-specific safety plans for transboundary operations should continue to be drafted and reviewed by safety and/or industrial hygiene professionals familiar with applicable Canadian standards, U.S. standards and the individual policies of response organizations involved in order to ensure that all responders are afforded adequate protection.	Operations; Personnel Safety Training &PPE standards; page 154
Response organizations and agencies operating in the transboundary areas should determine whether their personnel have adequate insurance coverage to operate outside the "normal operating area," and what, if any, time limits apply to their operations across the border. They should also ensure that all workers have baseline medical records available.	Operations; Personnel Safety Training &PPE standards; page 154

Recommendations to Oil Spill Response Organizations, continued	Section, Topic Paper and Page
As part of routine operations, exercises and drills, it is recommended that differences in OELs, procedures, and PPE requirements that potentially inhibit transboundary response continue to be shared by response organizations and agencies as or if they are discovered. If any of the issues can be addressed by conforming to a mutually agreed upon “best practice” that meets the more stringent requirements, it is recommended that written templates be created and distributed to the response community. Incorporation of these practices into routine field training and exercises will promote familiarization with issues. The response organizations’ and agencies’ safety officers should facilitate this process.	Operations; Personnel Safety Training &PPE standards; page 154
Responders, vessel masters, division and group supervisors, should maintain and submit a 214 form (or the RMS equivalent) with specific action items recorded. Examples: failure, success, issues, safety incidents, major decisions, etc. This can be tested during future deployment exercises.	Operations: Documentation Coordination; page 157
Response agencies and organizations should continue to evaluate and test their communications equipment through exercises such as CANUSPAC and CANUSDIX.	Logistics; Communications; page 177
Western Canada Marine Response Corporation (WCMRC) should consider verifying Incident Command Post (ICP) locations in British Columbia on an annual basis and updating ICP information in the eight reference and resource information plans of the Western Canada Marine Response Corporation plan, as necessary. WCMRC should continue to work with local governments and industry to identify ICP locations which could be used in remote areas during a Transboundary response.	Logistics; ID Command Centers; page 181
If an RO is working for and being paid by a lead RO, both ROs should consider working together in all sections – including Finance – at both Command Centers, as the work assignments issued pursuant to the daily Incident Action Plans may involve a mix of RO personnel/equipment.	Finance; Cost Recovery; page 203

Recommendations to the Alaska Department of Environmental Conservation	Section, Topic Paper and Page
Updated contact information for spill notifications should be maintained regularly in both the CANUSDIX and CANUSPAC annexes.	Command; Initial Notifications & Activations; page 27
The CANUSPAC and CANUSDIX Joint Response Teams should each charter a Transboundary Marine/Inland Waste Management working group to address the various planning issues surrounding emergency waste management. The relevant State/Provincial agencies should co-chair the group and membership should include all relevant agency, OSRO and private entities (the latter serving as technical experts) from both Canada and the BC First Nations, Federally-recognized Tribes, local governments, border security agencies, and private industry should be invited to participate in the development of plans, operational checklists, waste collection/disposal options, border protocols, MOUs, etc. Annual meetings of the group could coincide with CANUS Annex activities.	Planning; Waste Management; page 103
<p>The Waste Management Plans for both transboundary areas should include the following provisions:</p> <ul style="list-style-type: none"> • Mutually-agreeable locations (on both sides of the border) for recycling of oily wastes. • Joint plans for the selection of mutually-agreeable locations on both sides of the border for in-situ (at or near site) oily waste treatment that includes (but is not limited to) environmentally-sound and practical oiled woody-debris burning, oiled debris/sediment land-farming, and portable incineration. Locations selected for staging should be available in a GIS format that can be utilized at the operations and planning levels. During a response, facilitate consultation with Operations, Logistics and relevant local governments on the assessment and selection of proposed locations. • Identified field equipment units (barges, lined trucks, storage bladders, earth-moving equipment, bins, portable incinerators and supporting resources) dedicated to waste management. • Lists of coastal facilities with temporary holding capacities over 100,000 metric tonnes located near the border which can be provided to Operations and Logistics. • An agreement for deploying on-site monitoring teams (e.g. custody signage and trained supervisors) to ensure that oily wastes are segregated into waste streams (including recyclable elements) before initiating movement across the border. • Protocols for acquiring waste management records (including disposal locations) from all agencies and command posts involved in the response. • After-action reports, lessons learned and any penalties issued from either command post should be made readily available for access by either country for waste/disposal documentation. • Legal analyses based on applicable legislation in both countries (and if need be – international law conventions). As the legal issues are predominantly international, the lead federal agencies would be most suited to retain legal counsel and establish a formal legal working group, if needed. Additional legal opinion would be provided by the State/Provincial agencies. • Recommendations to facilitate coordination of waste management decisions between both Incident Command Posts should be included in the plans. Waste Management liaisons and specialists should interact extensively with the EU and REET to further develop and adjust the joint waste management plans as required during a specific incident. • Border Security agencies should help develop personnel/equipment tracking forms to be included in the waste management plans. • Comprehensive provisions in the Waste Management Plans addressing disposal of hazardous wastes from vessel cargoes or supplies (possibly as a separate appendix). 	Planning; Waste Management; page 103
The CANUSDIX Waste Management Working Group should continue to refine the BC-Alaska Waste Management Plan template.	Planning; Waste Management; page 103
It is recommended that the State and Provincial agencies be responsible for working with the Coast Guards on incorporating waste management into the CANUSDIX and CANUSPAC exercises.	Planning; Waste Management; page 104

Recommendations to the Alaska Department of Environmental Conservation, continued	Section, Topic Paper and Page
The U.S. and Canadian Coast Guards as well as appropriate state and provincial agencies should work with Federally-recognized Tribes or First Nations to clarify what funding mechanisms are available to support their participation in Transboundary spill planning and exercises.	Planning; 1 st Nations & Tribes; page 116
The U.S. and Canadian Coast Guards as well as appropriate state and provincial agencies should work with Federally-recognized Tribes or First Nations to clarify their access to response cost recovery through the U.S. Oil Pollution Act of 1990 or Canada's Ship Source Oil Pollution Fund.	Planning; 1 st Nations & Tribes; page 116
Where not already done, U.S. federal and state agencies , Federally-recognized tribes and stakeholders in Alaska and Washington should consider pre-identifying Potential Place of Refuge (PPOR) locations in their respective transboundary areas, which could be considered (among other locations as appropriate) on an incident-specific basis during POR decision-making.	Planning; Places of Refuge; page 119
The Pacific States/British Columbia Oil Spill Task Force members in Alaska , Washington and British Columbia should exercise their 1993 and 1996 Mutual Aid Agreements as part of the annual transboundary exercises. Such tests should be part of exercise templates and plans, with defined objectives for each exercise. It is particularly recommended that they exercise their 1996 Agreement with regard to establishing conditions whereby contingency plan holders would be allowed to meet temporarily reduced planning standards in order to facilitate the movement of contracted response equipment for mutual aid.	Operations; Mutual Aid; page 138
Response organizations and agencies operating in the transboundary areas should determine whether their personnel have adequate insurance coverage to operate outside the "normal operating area," and what, if any, time limits apply to their operations across the border. They should also ensure that all workers have baseline medical records available.	Operations; Personnel Training & PPE standards; page 154
As part of routine operations, exercises and drills, it is recommended that differences in OELs, procedures, and PPE requirements that potentially inhibit transboundary response continue to be shared by response organizations and agencies as or if they are discovered. If any of the issues can be addressed by conforming to a mutually agreed upon "best practice" that meets the more stringent requirements, it is recommended that written templates be created and distributed to the response community. Incorporation of these practices into routine field training and exercises will promote familiarization with issues. The response organizations' and agencies' safety officers should facilitate this process.	Operations; Personnel Training & PPE standards; page 154
Response agencies and organizations should continue to evaluate and test their communications equipment through exercises such as CANUSPAC and CANUSDIX.	Logistics; Communications; page 177
To help resolve cost-recovery issues in both the U.S. and Canada, key state , provincial and federal agencies – as well as industry - should endeavor to improve agreement on required response actions. Government agencies' advice and directions to the RP should be based on agency authorities and responsibilities, best professional judgment and expert scientific opinion in consideration of the RP's legal obligations.	Finance; Cost Recovery; page 203

Recommendations to the British Columbia Ministry of Environment	Section, Topic Paper and Page
<p>The CANUSPAC and CANUSDIX Joint Response Teams should each charter a Transboundary Marine/Inland Waste Management working group to address the various planning issues surrounding emergency waste management. The relevant State/Provincial agencies should co-chair the group and membership should include all relevant agency, OSRO and private entities (the latter serving as technical experts) from both Canada and the BC First Nations, Federally-recognized Tribes, local governments, border security agencies, and private industry should be invited to participate in the development of plans, operational checklists, waste collection/disposal options, border protocols, MOUs, etc. Annual meetings of the group could coincide with CANUS Annex activities.</p>	<p>Planning; Waste Management; page 103</p>
<p>The CANUSPAC Waste Management Working Group should consider adapting the BC-Alaska Waste Management Plan template for the U.S.-Washington situation. The template should be vetted with both Canadian and U.S. Customs to ensure feasibility and avoid critical delays of inland and marine waste management operations at security checkpoints. First Nations, Federally-recognized Tribes, local governments, and private stakeholders along the BC-Washington border should be consulted and existing waste management plans incorporated.</p>	<p>Planning; Waste Management; page 103</p>
<p>The Waste Management Plans for both transboundary areas should include the following provisions:</p> <ul style="list-style-type: none"> • Mutually-agreeable locations (on both sides of the border) for recycling of oily wastes. • Joint plans for the selection of mutually-agreeable locations on both sides of the border for in-situ (at or near site) oily waste treatment that includes (but is not limited to) environmentally-sound and practical oiled woody-debris burning, oiled debris/sediment land-farming, and portable incineration. Locations selected for staging should be available in a GIS format that can be utilized at the operations and planning levels. During a response, facilitate consultation with Operations, Logistics and relevant local governments on the assessment and selection of proposed locations. • Identified field equipment units (barges, lined trucks, storage bladders, earth-moving equipment, bins, portable incinerators and supporting resources) dedicated to waste management. • Lists of coastal facilities with temporary holding capacities over 100,000 metric tonnes located near the border which can be provided to Operations and Logistics. • An agreement for deploying on-site monitoring teams (e.g. custody signage and trained supervisors) to ensure that oily wastes are segregated into waste streams (including recyclable elements) before initiating movement across the border. • Protocols for acquiring waste management records (including disposal locations) from all agencies and command posts involved in the response. • After-action reports, lessons learned and any penalties issued from either command post should be made readily available for access by either country for waste/disposal documentation. • Legal analyses based on applicable legislation in both countries (and if need be – international law conventions). As the legal issues are predominantly international, the lead federal agencies would be most suited to retain legal counsel and establish a formal legal working group, if needed. Additional legal opinion would be provided by the State/Provincial agencies. • Recommendations to facilitate coordination of waste management decisions between both Incident Command Posts should be included in the plans. Waste Management liaisons and specialists should interact extensively with the EU and REET to further develop and adjust the joint waste management plans as required during a specific incident. • Border Security agencies should help develop personnel/equipment tracking forms to be included in the waste management plans. • Comprehensive provisions in the Waste Management Plans addressing disposal of hazardous wastes from vessel cargoes or supplies (possibly as a separate appendix). 	<p>Planning; Waste Management; page 103</p>
<p>The CANUSDIX Waste Management Working Group should continue to refine the BC-Alaska Waste Management Plan template.</p>	<p>Planning; Waste Management; page 103</p>
<p>It is recommended that the State and Provincial agencies be responsible for working with the Coast Guards on incorporating waste management into the CANUSDIX and CANUSPAC exercises.</p>	<p>Planning; Waste Management; page 104</p>

Recommendations to the British Columbia Ministry of Environment, continued	Section, Topic Paper and Page
British Columbia response agencies should develop a policy defining protocols to expedite notifications to First Nations of any spills that could impact them. The agreement should include contact information for regional First Nations (including transboundary First Nations), should determine that potentially impacted First Nations be notified <u>immediately</u> and should determine who is responsible for making the notifications.	Planning; 1 st Nations & Tribes; page 116
The U.S. and Canadian Coast Guards as well as appropriate state and provincial agencies should work with Federally-recognized Tribes or First Nations to clarify what funding mechanisms are available to support their participation in Transboundary spill planning and exercises.	Planning; 1 st Nations & Tribes; page 116
The U.S. and Canadian Coast Guards as well as appropriate state and provincial agencies should work with Federally-recognized Tribes or First Nations to clarify their access to response cost recovery through the U.S. Oil Pollution Act of 1990 or Canada's Ship Source Oil Pollution Fund.	Planning; 1 st Nations & Tribes; page 116
Canadian Federal and provincial agencies , First Nations, and stakeholders in British Columbia should consider identifying Potential Places of Refuge in their transboundary areas that could be considered (among other locations as appropriate) on an incident-specific basis during POR decision-making.	Planning; Places of Refuge; page 119
The Pacific States/British Columbia Oil Spill Task Force members in Alaska, Washington and British Columbia should exercise their 1993 and 1996 Mutual Aid Agreements as part of the annual transboundary exercises. Such tests should be part of exercise templates and plans, with defined objectives for each exercise. It is particularly recommended that they exercise their 1996 Agreement with regard to establishing conditions whereby contingency plan holders would be allowed to meet temporarily reduced planning standards in order to facilitate the movement of contracted response equipment for mutual aid.	Operations; Mutual Aid; page 138
Response organizations and agencies operating in the transboundary areas should determine whether their personnel have adequate insurance coverage to operate outside the "normal operating area," and what, if any, time limits apply to their operations across the border. They should also ensure that all workers have baseline medical records available.	Operations; Personnel Training & PPE standards; page 154
As part of routine operations, exercises and drills, it is recommended that differences in OELs, procedures, and PPE requirements that potentially inhibit transboundary response continue to be shared by response organizations and agencies as or if they are discovered. If any of the issues can be addressed by conforming to a mutually agreed upon "best practice" that meets the more stringent requirements, it is recommended that written templates be created and distributed to the response community. Incorporation of these practices into routine field training and exercises will promote familiarization with issues. The response organizations' and agencies' safety officers should facilitate this process.	Operations; Personnel Training & PPE standards; page 154
Response agencies and organizations should continue to evaluate and test their communications equipment through exercises such as CANUSPAC and CANUSDIX.	Logistics; Communications; page 177
To help resolve cost-recovery issues in both the U.S. and Canada, key state, provincial and federal agencies – as well as industry - should endeavor to improve agreement on required response actions. Government agencies' advice and directions to the RP should be based on agency authorities and responsibilities, best professional judgment and expert scientific opinion in consideration of the RP's legal obligations.	Finance; Cost Recovery; page 203

Recommendations to the Washington Department of Ecology	Section, Topic Paper and Page
Updated contact information for spill notifications should be maintained regularly in both the CANUSDIX and CANUSPAC annexes.	Command; Initial Notifications & Activations; page 27
The CANUSPAC and CANUSDIX Joint Response Teams should each charter a Transboundary Marine/Inland Waste Management working group to address the various planning issues surrounding emergency waste management. The relevant State/Provincial agencies should co-chair the group and membership should include all relevant agency, OSRO and private entities (the latter serving as technical experts) from both Canada and the BC First Nations, Federally-recognized Tribes, local governments, border security agencies, and private industry should be invited to participate in the development of plans, operational checklists, waste collection/disposal options, border protocols, MOUs, etc. Annual meetings of the group could coincide with CANUS Annex activities.	Planning; Waste Management; page 103
The CANUSPAC Waste Management Working Group should consider adapting the BC-Alaska Waste Management Plan template for the U.S.-Washington situation. The template should be vetted with both Canadian and U.S. Customs to ensure feasibility and avoid critical delays of inland and marine waste management operations at security checkpoints. First Nations, Federally-recognized Tribes, local governments, and private stakeholders along the BC-Washington border should be consulted and existing waste management plans incorporated.	Planning; Waste Management; page 103
<p>The Waste Management Plans for both transboundary areas should include the following provisions:</p> <ul style="list-style-type: none"> • Mutually-agreeable locations (on both sides of the border) for recycling of oily wastes. • Joint plans for the selection of mutually-agreeable locations on both sides of the border for in-situ (at or near site) oily waste treatment that includes (but is not limited to) environmentally-sound and practical oiled woody-debris burning, oiled debris/sediment land-farming, and portable incineration. Locations selected for staging should be available in a GIS format that can be utilized at the operations and planning levels. During a response, facilitate consultation with Operations, Logistics and relevant local governments on the assessment and selection of proposed locations. • Identified field equipment units (barges, lined trucks, storage bladders, earth-moving equipment, bins, portable incinerators and supporting resources) dedicated to waste management. • Lists of coastal facilities with temporary holding capacities over 100,000 metric tonnes located near the border which can be provided to Operations and Logistics. • An agreement for deploying on-site monitoring teams (e.g. custody signage and trained supervisors) to ensure that oily wastes are segregated into waste streams (including recyclable elements) before initiating movement across the border. • Protocols for acquiring waste management records (including disposal locations) from all agencies and command posts involved in the response. • After-action reports, lessons learned and any penalties issued from either command post should be made readily available for access by either country for waste/disposal documentation. • Legal analyses based on applicable legislation in both countries (and if need be – international law conventions). As the legal issues are predominantly international, the lead federal agencies would be most suited to retain legal counsel and establish a formal legal working group, if needed. Additional legal opinion would be provided by the State/Provincial agencies. • Recommendations to facilitate coordination of waste management decisions between both Incident Command Posts should be included in the plans. Waste Management liaisons and specialists should interact extensively with the EU and REET to further develop and adjust the joint waste management plans as required during a specific incident. • Border Security agencies should help develop personnel/equipment tracking forms to be included in the waste management plans. • Comprehensive provisions in the Waste Management Plans addressing disposal of hazardous wastes from vessel cargoes or supplies (possibly as a separate appendix). 	Planning; Waste Management; page 103

Recommendations to the Washington Department of Ecology, continued	Section, Topic Paper and Page
It is recommended that the State and Provincial agencies be responsible for working with the Coast Guards on incorporating waste management into the CANUSDIX and CANUSPAC exercises.	Planning; Waste Management; page 104
The U.S. and Canadian Coast Guards as well as appropriate state and provincial agencies should work with Federally-recognized Tribes or First Nations to clarify what funding mechanisms are available to support their participation in Transboundary spill planning and exercises.	Planning; 1 st Nations & Tribes; page 116
The U.S. and Canadian Coast Guards as well as appropriate state and provincial agencies should work with Federally-recognized Tribes or First Nations to clarify their access to response cost recovery through the U.S. Oil Pollution Act of 1990 or Canada's Ship Source Oil Pollution Fund.	Planning; 1 st Nations & Tribes; page 116
Where not already done, U.S. federal and state agencies , Federally-recognized tribes, and stakeholders in Alaska and Washington should consider pre-identifying Potential Place of Refuge (PPOR) locations in their respective transboundary areas, which could be considered (among other locations as appropriate) on an incident-specific basis during POR decision-making.	Planning; Places of Refuge; page 119
The Pacific States/British Columbia Oil Spill Task Force members in Alaska, Washington and British Columbia should exercise their 1993 and 1996 Mutual Aid Agreements as part of the annual transboundary exercises. Such tests should be part of exercise templates and plans, with defined objectives for each exercise. It is particularly recommended that they exercise their 1996 Agreement with regard to establishing conditions whereby contingency plan holders would be allowed to meet temporarily reduced planning standards in order to facilitate the movement of contracted response equipment for mutual aid.	Operations; Mutual Aid; page 138
Response organizations and agencies operating in the transboundary areas should determine whether their personnel have adequate insurance coverage to operate outside the "normal operating area," and what, if any, time limits apply to their operations across the border. They should also ensure that all workers have baseline medical records available.	Operations; Personnel Training & PPE Standards; page 154
As part of routine operations, exercises and drills, it is recommended that differences in OELs, procedures, and PPE requirements that potentially inhibit transboundary response continue to be shared by response organizations and agencies as or if they are discovered. If any of the issues can be addressed by conforming to a mutually agreed upon "best practice" that meets the more stringent requirements, it is recommended that written templates be created and distributed to the response community. Incorporation of these practices into routine field training and exercises will promote familiarization with issues. The response organizations' and agencies' safety officers should facilitate this process.	Operations; Personnel Training & PPE Standards; page 154
Response agencies and organizations should continue to evaluate and test their communications equipment through exercises such as CANUSPAC and CANUSDIX.	Logistics; Communications; page 177
To help resolve cost-recovery issues in both the U.S. and Canada, key state , provincial and federal agencies – as well as industry - should endeavor to improve agreement on required response actions. Government agencies' advice and directions to the RP should be based on agency authorities and responsibilities, best professional judgment and expert scientific opinion in consideration of the RP's legal obligations.	Finance; Cost Recovery; page 203

Recommendations to Trustee Agencies	Section, Topic Paper and Page
<p>NOAA, U.S. Fish and Wildlife, Environment Canada, and other state, provincial, and federal trustee agencies in the transboundary areas should consider developing a U.S./Canadian Natural Resource Damage Assessment and Restoration (NRDAR) planning group, or expand existing groups to include Canadian government and industry counterparts (including Environment Canada and the British Columbia Ministry of Environment) in order to be better prepared for an incident that could impact natural resources in the transboundary areas. This group should consider:</p> <ul style="list-style-type: none"> • establishing and maintaining a network of potential players in the U.S. and Canada, as well as industry representatives, to ensure that natural resource damage assessment coordination during and after spills occurs as efficiently and quickly as possible (see the list of potential government agencies as listed in the paper above); • developing working relationships with representatives who would form or assist the NRDA teams; • developing a mechanism for information exchange across the border; • discussing resources and associated services as risk and the types of injury that may occur in a transboundary marine spill; • developing sampling needs and preliminary sampling strategies and discussing appropriate sampling protocols, especially for ephemeral data that needs to be addressed early in a spill incident; • discussing what types of expertise or technical specialists may be required; • promoting a streamlined assessment process that focuses on restoration endpoints; • engaging in identifying and addressing technical challenges regarding various aspects of natural resource damage assessment; • identifying and addressing cross-border issues for information sharing and regulation/policy challenges; • promoting the use of best available science in the conduct of natural resource damage assessments; • sharing information among the membership, including regulatory changes, technical advancements, research, and case studies; • providing relevant guidance on conducting natural resource damage assessment across the Canada/U.S. Border; and • Meeting with potential Incident Commanders to clarify expectations regarding “close coordination.” 	<p>Command; NRDA; page 67</p>
<p>The CANUSPAC resource agencies should consider developing guidelines for providing <u>joint</u> incident-specific recommendations to their respective USCG and CCG incident command systems for dispersant use and <i>in-situ</i> burning decision-making. The <i>CANUSDIX Resource Agency Guidelines</i> should be considered as a template.</p>	<p>Planning; ISB & Dispersant Policies; page 108</p>
<p>CANUSPAC resource agencies should consider developing guidelines for providing <u>joint</u> incident-specific recommendations by U.S. and Canadian Federal, Provincial, and State resource agency representatives to their respective USCG and TC-M/CCG incident command systems for POR decision-making. The <i>CANUSDIX Resource Agency Guidelines</i> should be considered as a template.</p>	<p>Planning; Places of Refuge; page 119</p>
<p>CANUSPAC wildlife agencies in Canada and the United States should review the existing permit and other requirements for the cross-border transfer of oiled wildlife and determine if additional measures are required to facilitate the cross-border rehabilitation and release of oiled wildlife in a transboundary spill.</p>	<p>Planning; Wildlife; page 97</p>

Recommendations to Federally-Recognized Tribes and First Nations	Section, Topic Paper and Page
Federally-recognized tribes and First Nations in the CANUSPAC and CANUSDIX areas should develop guidelines for providing <u>joint</u> incident-specific recommendations to their respective USCG and CCG incident command posts for dispersant use and in-situ burning decision-making.	Planning; Dispersant & ISB Policies; page 108
Federally-recognized tribes and First Nations representatives in the CANUSDIX and CANUSPAC transboundary areas should consider developing guidelines for providing <u>joint</u> incident-specific recommendations to their respective USCG and TC-M/CCG incident command systems for Places of Refuge decision-making.	Planning; Places of Refuge; page 119
Where not already done, U.S. federal and state agencies, Federally-recognized tribes , and stakeholders in Alaska and Washington should consider pre-identifying Potential Place of Refuge (PPOR) locations in their respective transboundary area which could be considered (among other locations as appropriate) on an incident-specific basis during POR decision-making.	Planning; Places of Refuge; page 119
Canadian Federal and provincial agencies, First Nations , and stakeholders in British Columbia should consider identifying Potential Places of Refuge in their transboundary areas that could be considered (among other locations as appropriate) on an incident-specific basis during POR decision-making.	Planning; Places of Refuge; page 119

Other Recommendation	Section, Topic Paper and Page
The Southeast Subarea Contingency Plan Logistics Group should consider verifying Incident Command Post (ICP) locations in Southeast Alaska on an annual basis and updating ICP information as appropriate. This group should also consider working with local governments and industry to identify ICP locations which could be used in remote areas during a Transboundary response.	Logistics; ID Command Centers; page 181

Appendix II

The Stakeholder Workgroup Review of Planning and Response Capabilities for a Marine Oil Spill on the U.S./Canadian Transboundary Areas of the Pacific Coast Project Report Project Work Plan (Adopted October 2, 2008)

I. PROJECT GOAL

To review and document existing U.S./Canadian Transboundary oil spill response plans and capabilities for the British Columbia/Alaska and British Columbia/Washington borders, acknowledging existing authorities and response management systems; and to recommend improvements as needed for joint response and planning efforts, as well as for planning and capacity building within each jurisdiction.

II. PROJECT ORGANIZATION AND DELIVERABLES

- The U.S./Canadian Transboundary Spill Planning and Response Project is sponsored by the Pacific States/British Columbia Oil Spill Task Force and will focus only on marine areas affecting the CANUSPAC & CANUSDIX annex areas
- Dave Byers of the Washington Department of Ecology has agreed to serve as Project Chair on behalf of the Pacific States/British Columbia Oil Spill Task Force.
- A Project Workgroup of key stakeholders (see section III below) met on June 11-12, 2008 and reviewed existing protocols/paradigms – i.e., the Joint Contingency Plan, the CANUSDIX and CANUSPAC annexes, the Response Management System, REET, ICS, mutual aid agreements, and the CANUSDIX decision-making protocols. They also discussed/drafted this Project Work Plan. The Project Workgroup will provide oversight and guidance for the project, including review of subcommittee work products.
- The Project Workgroup has chartered subcommittees to address preparedness and response topics of mutual concern; subcommittee membership may include appropriate experts from outside the Project Workgroup. Each subcommittee has a designated chairperson to move work along according to the approved timeline and to be responsible for draft reports to the Project Workgroup. These chairpersons are Project Workgroup members.
- These subcommittees will work by email/conference call in order to minimize travel. All “full-time” subcommittee members, whether Project Workgroup members or not, have a vote on the subcommittee. “Observers” will participate at their discretion, but do not wish to vote. Subject specialists may be recruited to review/comment on drafts or participate on the subcommittees short-term; they would not be voting subcommittee members.
- The subcommittee process for developing draft reports will include vetting by stakeholders appropriate to that topic. Subcommittee reports will include recommendations to government and private sector organizations as appropriate, e.g., for exercises and other means of continuously improving paradigms, processes, and protocols into the future. The recommended format for subcommittee reports would include:
 - Findings (brief statements of fact – can include identified problems or conflicts)
 - Discussion (A fuller discussion of the Findings and related problems, successes, etc.)
 - Recommendations (As needed – these should be as specific and as feasible as possible)
 - Sources (documents referenced and persons contacted (by name and title))

- Most project work will be done by the subcommittees in order to minimize travel to full Project Workgroup meetings. It is anticipated that the Project Workgroup meetings will not occur more than 2-3 times, and that the meeting locations will rotate between Washington, British Columbia, and Alaska.
- The Project Workgroup and subcommittees will operate by consensus; failing consensus, a majority vote and a minority report will be allowed.
- The Pacific States/British Columbia Oil Spill Task Force Executive Coordinator will staff the Project Workgroup and the Subcommittees.
- The Project Workgroup will be afforded the opportunity to review and comment on draft subcommittee reports, requesting, if appropriate, additional work by one or more subcommittees. The Project Workgroup will then bring all draft subcommittee reports together into a final draft Project Report to be made available for public comment on the Task Force website (with links from other sites as appropriate), as well as presented to appropriate stakeholder groups for comment. Public comments will be addressed in the final Project Report.
- A final report, with recommendations for improvements as appropriate, will be provided to the agencies and organizations responsible for U.S./Canadian transboundary marine oil spill planning and response for the CANUSDIX and CANUSPAC annex areas, as well as to key stakeholders in the CANUSDIX and CANUSPAC annex areas and to the Members of the Pacific States/British Columbia Oil Spill Task Force.
- Subcommittee Chairpersons should be Project Workgroup members. It is the chairperson's responsibility to move work along according to the approved timeline, and to be responsible for draft reports to the Project Workgroup. Subcommittees can meet by email/conference call as needed.
- The Project Workgroup has authorized the following Subcommittees: Command, Planning, Operations, Logistics, and Finance/Administration. The Project Workgroup assigned the topics listed in part III below to these subcommittees. Each subcommittee will review its assigned topics on the first conference call in order to develop a work plan and assign topics for research/drafting reports. If a subcommittee wishes to take on additional topics, that Chairperson should email other chairs to ensure that there are no conflicts or problems.

III. SUBCOMMITTEE TOPICS AS ASSIGNED BY THE PROJECT WORKGROUP

Command

- Initial notifications – how handled in each nation and who's on the notification list
- Activation of JCP/Annex – are protocols clearly defined and consistent?
- Response structures – coordinating RMS (CN) and ICS/UC (U.S. & U.S.) (forms, planning & operational cycles)
- Coordination/communication between Command Centers on both sides of border (as envisioned in the Joint Contingency Plan), including liaison placement, roles, & access to UC
- An RP's representation and role in each command center
- Review the CANUSLANT decision matrix re: formation of a single command center
- How decision-making would be coordinated for an orphan spill versus one with an RP
- How would USCG or CCG decision to take over spill management from the RP be implemented?
- Integrating state/provincial, local government, tribal, and landowner interests into two command centers
- Media/JIC coordination between command centers – of both the JICs and the messages
- Access for investigations
- Natural Resource Damage Assessments (NRDA) (Policies and how coordinated within each management structure)

- MARSEC (how coordinated within transboundary spill response)
- Law enforcement coordination
- Information flow/sharing, including how clean-up endpoints are developed

Planning

- Membership of the Joint Planning groups
- Places of Refuge decision-making (plans, protocols, capabilities)
- Dispersant and ISB decision-making (plans, protocols, capabilities)
- Process for including First Nations, Federally-recognized tribes, and other stakeholders in planning and policy & document development
- Waste management (plans, protocols, capabilities) Note: this topic covers the development of the Waste Mgt Plan (WMP) and not field implementation of the plan
- Wildlife response (plans, protocols, capabilities)
- Historic properties (cultural resources) protection (plans, protocols, capabilities) (placed in the “parking lot” by Subcommittee)
- Fishery closure (plans, protocols, capabilities)
- GRPs or GRSs for Transboundary areas (plans, protocols, capabilities)
- Response capabilities/gaps along borders (equipment, personnel, strategies)
- Volunteer training, management, and liability issues (identify plans that include the use of volunteers)

Operations

- Mutual Aid (OSTF, OSROs, other)
- Traffic control (both vessel and aircraft)
- Cross-training on equipment (tie into joint training & mutual aid agreements)
- Utilization and training of the Fishermen’s Oil Spill Emergency Team and marine contractors
- Waste Management Field Operations, including waste tracking and documentation
- Responder immunity issues
- Equipment compatibility
- Documentation Coordination (The Documentation Unit is absolutely critical for maintaining a record of the progress of the response; and it is hard enough to get a strong Documentation Unit going early in the spill to seek and collect the documents that each Section comes up with and don’t think to share. If it wasn’t in writing (and collected in a central documentation file) it didn’t happen.)
- OSHA (U.S. & CN) and PPE equipment standards – any conflicts?
- Legal issues such as liability or the division of tasks irrespective of national boundaries

Logistics

- Availability of man-camps? Waste barges? Pre-identification of same
- Moving people and equipment through U.S. and CN customs, both at border checkpoints and when working on boundary waters
- Compatibility of software systems; can info be exchanged in a functional form? Is it web-based?
- Vessel to vessel to aircraft communications/channel selection
- Pre-identification of possible command center locations (locations will be determined based on available facility attributes and ability to support space, communicational, power and internet capabilities, etc)
- Remote location issues including:
 - Pre-identification of possible command centers
 - communications capabilities
 - Response equipment caches
 - ability of vessels to operate in remote locations (access to fuel, waste-water holding limits)

Finance

- Cost recovery procedures (do U.S./CN policies and standards differ? Is this a problem?)
- Limits of Liability and requirements for Certificates of Financial Responsibility (do U.S./CN policies and standards differ? Is this a problem?)
- Financial reciprocity between the U.S. and Canada regarding 3rd party claims (do U.S./CN policies and standards differ? Is this a problem?)
- Finance section coordination between U.S./CN command centers to avoid duplication of billing/payments

Appendix III

The U.S./Canadian Transboundary Spill Planning and Response Project Workgroup Members (Alpha order)

Catherine Berg

U.S. Fish and Wildlife Service

Pamela Bergmann

Regional Environmental Officer - Alaska

U.S. Department of the Interior, Office of Environmental Policy and Compliance

Carol Bernthal

Superintendent

Olympic Coast National Marine Sanctuary

Chad Bowechop

Makah Tribe Office of Marine Affairs

CAPT Stephen Brown

BC Chamber of Shipping

David Byers, PROJECT WORKGROUP CHAIR

Response Section Manager

Washington Department of Ecology

Thomas Callahan

Response Manager

Washington State Maritime Cooperative (WSMC)

Craig Cornell

Area Response Manager

Marine Spill Response Corporation Pacific/Northwest Region

Kevin Gardner

President & General Manager

Western Canada Marine Response Corporation

Graham Knox

Manager, Environmental Emergencies

British Columbia Ministry of Environment

Kristin K'eit

Director, Division of Environmental and Cultural Resources Management

Bureau of Indian Affairs, Alaska Region

Charlie Costanzo

Vice President, Pacific Region

American Waterways Operators

Bob Mattson

Statewide Logistics Manager, Prevention & Emergency Response Program (PERP)
Alaska Department of Environmental Conservation

Jim Morris

Manager, NW Region
O'Brien's Oil Pollution Services

David R. Owings

General Manager
SE Alaska Petroleum Resource Organization (SEAPRO)

Jim Riedel

National Response Corporation, Environmental Services

Gary Reiter

ECM Maritime Services, LLC

Mike Richards

Program Coordinator
Georgia Strait Alliance

Dave Sawicki

BP Crises Management & Emergency Response
BP Cherry Point Refinery

Cindy M. Schexnider

Environmental Contaminant Specialist
U.S. Fish and Wildlife Service

John Staynor

Island Tug and Barge, Ltd.
Representing the Council of Marine Carriers

John Veentjer

Executive Director
Marine Exchange of Puget Sound

Bruce Wishart

People for Puget Sound

Ruth Yender

Scientific Support Coordinator, the Northwest and Oceania
Emergency Response Division
NOAA Office of Response and Restoration

APPENDIX IV

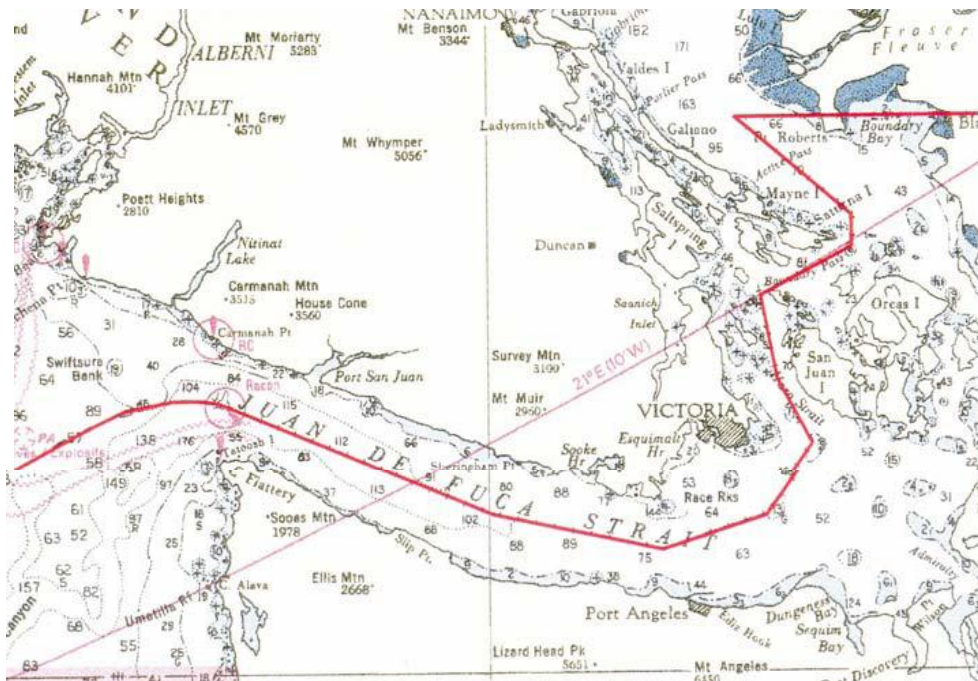
The Stakeholder Workgroup Review of Planning and Response Capabilities for a Marine Oil Spill on the U.S./Canadian Transboundary Areas of the Pacific Coast Project Report

Descriptions of the CANUSDIX and CANUSPAC Transboundary Areas

The CANUSDIX and CANUSPAC Transboundary Areas

Oil spills can have major impacts on both human and marine environments. The following sections describe these environments along the two U.S./Canadian borders: 1) Alaska and British Columbia (the CANUSDIX area); and 2) British Columbia and Washington State (CANUSPAC).

A. The Washington/British Columbia Transboundary Area: CANUSPAC



The following brief overview of the CANUSPAC transboundary area was developed from a review of web based information sites for the region:

GEOGRAPHY

According to the CANUSPAC Annex, it applies to the internal and navigable waters of both the U.S. and British Columbia, as well as to the waters off the Pacific Coast from the Canada/U.S. border in Boundary Bay, through the Strait of Georgia, Boundary Pass, Haro Strait, Strait of Juan de Fuca, and then to position: 48-29-39.11N, 124-42-34.69 W to position: 48-29-38.11 N, 125-00.00 W, and to position: 48-04-00 N, 126-10-35 W. See the Diagram above from the CANUSPAC Annex.

Boundary Bay is situated on the border between British Columbia and the State of Washington. Boundary Bay is bounded on the north by the municipality of Delta. Along the eastern shore is the City of Surrey; further south-east are White Rock and the Semiahmoo First Nation's reserve in British Columbia and Blaine in Washington State.

The Canada/U.S. border runs through the southern part of the Strait of Georgia, which lies between Vancouver Island and the British Columbia mainland. The Canadian Gulf Islands and the U.S. San Juan Islands mark the

southern end of the Strait of Georgia. The main channels to the south are Haro Strait and Rosario Strait, which connect the Strait of Georgia to the Strait of Juan de Fuca.

Haro Strait, often referred to as the Haro Straits because it is really a series of straits, is one of the main channels connecting the Strait of Georgia to the Strait of Juan de Fuca; it separates Vancouver Island and the Gulf Islands in British Columbia from the San Juan Islands of Washington State.

The Strait of Juan de Fuca extends east from the Pacific Ocean between Vancouver Island, British Columbia, and the Olympic Peninsula, Washington, to Haro Strait, San Juan Channel, Rosario Strait and Puget Sound. The Pacific Ocean boundary is formed by a line between Cape Flattery and Tatoosh Island, Washington, and Carmanah Point (Vancouver Island), British Columbia. Its northern boundary follows the shoreline of Vancouver Island from Carmanah Point to Gonzales Point, then follows a continuous line east to Seabird Point, British Columbia, Cattle Point (Washington), Iceberg Point and Point Colville (Lopez Island) and then to Rosario Head on Fidalgo Island. The eastern boundary runs south from Rosario Head across Deception Pass to Whidbey Island, then along the western coast of Whidbey Island to Point Partridge, then across Admiralty Inlet to Point Wilson (Quimper Peninsula). The northern coast of the Olympic Peninsula forms the southern boundary of the Strait. In the eastern entrance to the Strait, the Race Rocks Archipelago is located in the high current zone half way between Port Angeles Washington State, and Victoria, British Columbia.

WEATHER

The Puget Sound region experiences two primary wind regimes. The most significant occurs in late autumn, winter, and early spring, when southerly winds prevail, mostly in advance of approaching low pressure/frontal systems moving eastward across the Pacific Ocean. Sustained winds of small craft velocity are common; gale velocities may occur in advance of the stronger low pressure/frontal systems. Storm force winds are only rarely observed. The second wind regime occurs in late spring, summer, and early autumn when the prevailing direction in central and southern Puget Sound is still south to southwesterly, but velocities are much reduced. A high wind event occasionally occurs during the winter season when a very intense cold front moves southward into northern Washington State. When the polar air mass behind the front reaches southern British Columbia, it flows southwestward through the Fraser River Valley and accelerates toward Bellingham. Gale force northeasterly winds and very cold temperatures are not uncommon with such an event. The cold air normally flows southwestward across the San Juan Islands toward the north shore of the Olympic Peninsula.

In general, wave heights in most of Puget Sound are limited to approximately six feet with gale force winds. Wave motion in the waters of Puget Sound is limited by the complex shape of the geography of the Puget Sound basin; straight line distances are relatively short, so wave generation is restricted due to lack of fetch.

The Strait of Juan de Fuca does not have the fetch limit restriction for east-southeasterly and west-northwesterly winds, however. Because it is exposed to the generally westerly winds and waves of the Pacific, seas and weather in the Strait of Juan de Fuca are, on average, rougher than in the more protected waters inland. Wave motion at the mid-point of the Strait can exceed 15 ft. for some direction, wind speed and duration combinations.

A wet marine West Coast climate predominates in western Washington; it is mild for its latitude due to the presence of the warm North Pacific Current offshore and the relatively warm maritime air masses. The region has frequent cloud cover, considerable fog, and long-lasting drizzles; summer is the sunniest season. The western side of the Olympic Peninsula receives as much as 4064 mm (160 in) of precipitation annually. Portions of the Puget Sound area, on the leeward side of the Olympic Mountains, are less wet, although still humid.

The Olympic Mountains to the south of the Strait of Juan de Fuca are a major influence on weather patterns in western Washington and the San Juan Islands in particular. Most oceanic weather fronts approach the state from

the southwest. The Olympic Mountains pose a formidable barrier which forces the warm, moist air to rise, cool, and form precipitation. In doing so the mountains literally wring the clouds dry, so by the time the weather systems reach the San Juan Islands they have little moisture left in them. Consequently, only 18-20 inches of rain falls in the average year in the San Juan Islands. San Juan Islands summer weather patterns typically include sunny skies, calm winds, and moderate temperatures. The inland sea, with its cool water temperature, acts as a heat sink which prevents the air from getting too hot or too cold.

TIDES & CURRENTS

The Puget Sound region and the Strait of Juan de Fuca both experience a semi-diurnal tide cycle with two high tides and two low tides commonly occurring during an approximate 25 hour period. At Everett, in the northern part of Puget Sound, the normal diurnal tidal range is approximately 11.1 ft, with an extreme range of 19 ft (-4.5 ft to +14.5 ft). At the Port of Seattle in the central part of the Sound, the normal diurnal tidal range is approximately 11.4 ft, but can range as high as 18 ft (U.S. Department of Commerce, 1992).

Currents may also affect oil spill trajectories and impacts; for instance, if a spill occurs west of Low Point in Washington there would probably be a net outward migration to the Pacific where the wave energy of exposed shorelines would promote more natural cleanup. A spill east of Port Angeles or Victoria would probably be held in a circular gyre and migrate into the Gulf and San Juan Islands, likely resulting in a longer, more laborious shoreline cleanup effort.

DEMOGRAPHICS

The major population centers on the Canadian side of the border are around Victoria and Vancouver, British Columbia and are closer to the Boundary Bay, Georgia Strait and Haro Straits portion of the international border area.

The largest metropolitan area in Western Canada, Vancouver ranks third largest in the country and the city proper ranks eighth. According to the 2006 census Vancouver had a population of 578,041 and its metropolitan area exceeded 2.1 million people. Metro Vancouver includes thirteen of the Province's most populous municipalities, including the cities of Vancouver, North Vancouver, Surrey, Burnaby, Coquitlam, Delta, Langley and Richmond. Vancouver is a cosmopolitan, international city with a robust ethnic blend of citizens of European, Asian, and Aboriginal descent.

Key population centers on Vancouver Island include Victoria and Nanaimo. Nanaimo had a population of 78,692 people in the 2006 Canadian Census. The Greater Victoria region has a combined population of 330,088 according to the 2006 census. The Canadian Census ranks Greater Victoria as the 15th largest metropolitan area in Canada by population.

The western shores of Vancouver Island northwest of the Strait of Juan de Fuca are not so densely populated; the larger towns include Port Renfrew (190), Ucluelet (about 1500) and Port Alberni on Barkley Sound (21,282).

The major population centers on the U.S. side closest to the CANUSPAC border are on the mainland (north of Seattle and along the Olympic Peninsula) as well as on Whidbey Island and the San Juan Islands.

On the mainland north of Seattle are Bellingham, Mt. Vernon, Marysville and Everett. The U.S. Census Bureau estimated that Bellingham's population was 80,055 in July 1, 2009. The boundaries of the city encompass the former towns of Fairhaven (now home to the southern ferry terminus of the Alaska Marine Highway System), Whatcom, Sehome and Silver Beach. Mt. Vernon's population was estimated to be 29,984 in 2006. The 2006 estimate for Marysville was 31,938 and 98,514 for Everett.

Oak Harbor is the largest town on Whidbey Island, with a population of 19,795 in the 2000 census. As a whole, Whidbey Island had a population estimate of 58,211 in 2000 census.

The 2009 U.S. Census Bureau estimate for San Juan County, Washington – which incorporates all the San Juan Islands was 15,484. The San Juans are highly dependent on tourism, so the population increases during the milder months of the year. The larger towns include Lopez, Port Stanley and Richardson on Lopez Island; Deer Harbor, Doe Bay, Eastsound, Olga, Orcas and West Sound on Orcas Island; and Friday Harbor and Roche Harbor on San Juan Island.

Although not directly adjacent to the U.S./Canada border, the Seattle metropolitan area of Washington, if not all of Puget Sound, is likely to be affected economically by a transboundary oil spill (see information below regarding vessel traffic for Puget Sound ports) and possibly environmentally if tides and currents carry oil south into the Sound. In addition, the Seattle media market would probably take a keen interest in any oil spill in the Straits of Juan de Fuca, Puget Sound, or off the Washington Coast. The 2006 census estimate for the City of Seattle was 582,454. The 2006 estimate for Tacoma was 196,532 and for Olympia was 44,645.

The Seattle metropolitan area includes the City of Seattle, King County, Snohomish County, and Pierce County within the Puget Sound region. The U.S. Census Bureau defines the metropolitan area as the Seattle–Tacoma–Bellevue, WA Metropolitan Statistical Area, with an estimated population of 3,344,813 on 7/1/08, making it the 15th largest United States Metropolitan Statistical Area.

The population centers along the northern and outer coasts of the Olympia Peninsula include Port Townsend (8,334) and Port Angeles (18,397) along the Strait of Juan de Fuca and Hoquiam (9,097) and Aberdeen (16,461) on Grays Harbor. There are also a number of towns associated with Federally-recognized tribal lands along the outer coast, including Neah Bay (794), La Push (372), Queets (no specific data available) and Taholah (824).

THE ECONOMY

British Columbia

Metro Vancouver's economy was founded around resource sectors like mining, fishing and forestry, but has expanded into technology-based industries, film and television, green products, health sciences, higher education and tourism. Sports, arts and cultural activities are richly diverse and well supported. There are over 65,000 students in universities and technical schools in Metro Vancouver, and the area has the largest workforce in British Columbia; 1.5 million jobs are estimated by 2031. Metro Vancouver is an established distribution gateway to North American and Asian markets with major ports, rail and one of the world's top five airports. The Port of Vancouver - Canada's largest and most diversified - does more than C\$75 billion in trade with over 130 different economies annually. Port activities generate \$10.5 billion in gross domestic product and \$22 billion in economic output. The city's scenic location makes it a major tourist destination and each year over a million people pass through Vancouver on cruise ship vacations, often bound for Alaska through the Inside Passage. The city's selection to co-host the 2010 Winter Olympics has also been a major influence on economic development.

Victoria's chief industries are technology, tourism, education and government administration and services. The City of Victoria is focused on service-oriented and knowledge-based industries. There are approximately 22,000 small businesses in the region and most employ fewer than twenty staff; these small enterprises represent 93% of Greater Victoria's employers. Nearby employers include the Canadian Forces in Esquimalt, the Vancouver Island Technology Park and four post-secondary institutions including the University of Victoria and Camosun College. Other sectors of the Greater Victoria area economy include: investment and banking, online book publishing, various public and private schools, food products manufacturing, light aircraft manufacturing, technology products, various high-tech firms in pharmaceuticals and computers, engineering, architecture and telecommunications. The May 24, 2007 edition of the Victoria *Times-Colonist* newspaper reported that for the

first time in Victoria history, high technology had overtaken tourism as the top performing economic sector in Greater Victoria. Nevertheless, Victoria is a major tourism destination with over 3.5 million overnight visitors per year who add more than a billion dollars to the local economy. An additional 500,000 daytime visitors arrive by cruise ships. The city has hosted high-profile sports events and is also a destination for conventions, meetings, and conferences. The Port of Victoria is a working harbor, tourist attraction and cruise destination. Esquimalt is also a well-protected harbor with shipbuilding and repair facilities.

The Southern Gulf Islands, which are closest to the U.S./Canada border, are part of a larger archipelago that includes the nearby San Juan Islands. The major Southern Gulf Islands are Gabriola Island, Galiano Island, Kuper Island, Mayne Island, North and South Pender Islands, Saltspring Island, Saturna Island, Thetis Island, and Valdes Island. Saltspring Island is the most populated and has three ferry terminals as well as a hospital to serve the area. There are eight provincial parks in the Southern Gulf Islands, so tourism is the primary economic driver.

The economy of Nanaimo was originally based on was coal mining; however, the forestry industry supplanted it in the early 1960s and the MacMillan Bloedel pulp mill – today owned by the employees and local investors – injects well over half a million dollars a day into the local economy. The largest employer is the provincial government. The service, retail and tourism industries are also big contributors to the local economy. Nanaimo has also been experiencing job growth in the technology sector.

The chief source of employment in Port Alberni is the forest industry, although most of the old growth forests have been logged with current logging coming from second growth forests. Both a lumber mill and a large paper mill sit on the edge of the Alberni Inlet. Several smaller sawmills exist throughout the valley, but over the years the forest industry discontinued selling the trees to local mills, leading to a major economic recession and a decrease in the population. Some farming is also practiced on the Alberni Valley's red clay soils. There are attempts to shift the economic focus to tourism, since Port Alberni serves as a hub for those travelling to Ucluelet, Tofino and the Pacific Rim National Park on the West Coast of Vancouver Island. As commodities tend to be much pricier in those remote areas, campers and travelers often do their shopping in Port Alberni before continuing their journey. From 2003 to 2008, several eco-tourism companies set up shop in the Alberni Valley, taking advantage of the city's location on the fringe of wilderness.

In 2008, the landed value of the seafood harvest province-wide was \$709.5 million, while the processed (wholesale) value of these products reached \$1.2 billion. Salmon, derived from both wild and farmed sources, generated over 50 per cent of the wholesale value of seafood products, followed by shellfish, groundfish and halibut.

BC Ferries operates one of the largest ferry systems in the world. The fleet consists of 36 vessels serving 47 ports of call between the Lower Mainland, Vancouver Island and other coastal points. In 2009/2010 fiscal, it carried more than 21 million passengers and over 8 million vehicles.

Washington State

Bellingham's economy was traditionally based on agriculture, fishing, and timber; today, these segments are still vital components of the local economy, although of less importance than they once had been. The bulk of Whatcom County's agricultural activity involves berry and dairy farming. Although the number and size of farms has been steadily declining, production has been climbing. Jobs in service industries are increasingly important; Whatcom County employment in services increased from 18.9 percent in 1981 to 25.6 percent in 2000, while manufacturing employment shrank from 20.8 percent to 14.3 percent over the same period. Despite the losses in paper and aluminum segments, however, manufacturing remains an important industry in Whatcom County and manufacturing of wood products and transportation equipment has seen gains in recent years. Commercial fishing, one of the area's oldest industries, has taken a drastic downturn due to overfishing, shortened seasons,

and falling prices. Once home to one of the largest commercial fishing fleets, Whatcom County had 740 commercial vessels in 1985; by 2002 the Port of Bellingham reported only 177 such vessels. Boat-building is a crucial segment of the transportation equipment sector as its focus has shifted from fishing vessels to the production of luxury yachts and military boats. Healthcare is becoming increasingly vital to the local economy; hospitals, nursing and residential care, ambulatory clinics, and social assistance services employed nearly 7,600 residents of Whatcom County in 2003. The Alaska Marine Highway System runs a ferry out of Bellingham which carries passengers through the Inside Passage to SE Alaska.

The early economy of the San Juan Islands was based on limestone mining, fishing, and farming. Fishing and farming continue, but on a much smaller scale. Tourism, which has played a role in the islands' economy since the late 19th century, is its primary industry in the 21st century. Today, the San Juan Islands are an important tourist destination; sea kayaking and whale-watching are two of the primary attractions.

The economy of the northern end of Whidbey Island is strongly influenced by the presence of the Whidbey Island Naval Air Station, which is Oak Harbor's largest employer; thus, Oak Harbor has a predominantly service-based economy and several national chain stores have been attracted to the Oak Harbor area. The economy of Whidbey Island south of Oak Harbor relies heavily on tourism, small-scale agriculture and the arts.

The Puget Sound region has a very dynamic and vibrant economy. It is a major manufacturing, distribution and commercial center. About 134,800 companies in counties bordering Puget Sound provide 2.2 million jobs with an annual payroll of \$102 billion. This is about 73 percent of state employment and 78 percent of state wages. The Puget Sound's gross business income is \$476 billion a year. In addition, a number of nationally renowned firms are headquartered in the region including Microsoft, Starbucks, Amazon.com, Nordstrom, Paccar, and Weyerhaeuser. The ports of Seattle and Tacoma are among the 10 largest container ports in the nation, serving trade between the United States and Pacific Rim nations. The metro area's infrastructure capabilities extend beyond the Ports to include sophisticated trucking and rail networks as well as access to an international airport. The nexus of Puget Sound, U.S. Interstates 5 and 90, the railroad system and the University of Washington are the primary drivers for the current level of economic activity. Together, the ports of Seattle and Tacoma make the Sound the second largest U.S. harbor for container traffic, as follows:

- \$28 billion in state-originated exports;
- 62.58 million metric tons of cargo;
- 34,000 jobs and \$2.1 billion in income from the Port of Seattle; and
- 28,000 jobs and \$477 million in wages from the Port of Tacoma.

As a body of water, Puget Sound itself provides a variety of economic values, as reported by the Washington Department of Ecology in 2008 (*Publication Number: 06-01-006; rev. 10/08*):

- Fishing – Recreational fishing in Puget Sound is valued conservatively at \$57 million a year and commercial fishing is valued at \$4 million a year.
- Shellfish – Washington produces the largest amount of farmed shellfish in the United States and is a leader in the production of naturally-growing shellfish; a majority of this product comes from Puget Sound. The average annual commercial value for Puget Sound crab, shrimp, mussel, oyster, geoduck and other clams is \$44 million, including treaty, non-treaty, commercial and aquatic farm production. The value of recreational shell fishing is valued conservatively at \$42 million per year.
- Tourism – The Puget Sound area provides \$9.5 billion in travel spending, including 88,000 tourism-related jobs and \$3 billion in income.
- Boating – Boating is a major recreational activity. The National Marine Manufacturers Association rates Washington State 6th in the 50 states for \$489 million in combined boat, motor, trailer, and accessory purchases.

- Recreation – About 390,000 people participate in recreation activities in the waters or on the beaches of Puget Sound, at least once a year. These activities include fishing, swimming, boating, rafting, kayaking, and other water sports.

Washington State Ferries, operated by the Washington State Department of Transportation, is the largest public ferry system in the United States and the third largest in the world; having carried 11 million vehicles annually, the service is also the largest in the world based on the number of vehicles carried. Washington State Ferries serve communities on Puget Sound and in the San Juan Islands, as well as the Province of British Columbia in Canada.

Port Townsend is a popular destination on any tour of the Olympic Peninsula and is accessible by both highway and Washington State Ferries. The city is considered a quaint “Victorian Seaport” for the many Victorian buildings remaining from its late 19th-century heyday and is a popular tourist attraction.

Further west along the northern coast of the Olympic Peninsula, Port Angeles lies below the high peaks of the Olympic National Park and also offers passenger car ferry access to Victoria, British Columbia. In addition to the tourism generated by its location between the Strait of Juan de Fuca and the National Park, the city’s port has a history of handling forest products bound for destinations within Puget Sound and around the Pacific Rim. The port currently operates four deep water berths capable of handling large vessels and provides marine terminal services for vessels entering or exiting the Strait of Juan de Fuca.

Neah Bay, located near the NW tip of the Olympic Peninsula, is on the Makah Tribal Reservation. The local economy is primarily based on fishing and tourism. Neah Bay is a popular fishing area during summer months; bottom fish – such as ling cod, kelp greenling, a variety of rockfish and halibut – as well as salmon are a major attraction for sport fishermen. Other tribal towns on the outer Washington coast are similarly dependent on tourism and fishing.

The economies of Aberdeen, Hoquiam, and the rest of Grays Harbor depend on the timber and fishing industries, a state prison, a cranberry-growing cooperative and retail operations. In 2007, Imperium Renewables of Seattle invested \$40 million in the construction of the biodiesel plant at the Port of Grays Harbor; it is estimated the plant will produce as much as 100 million gallons (379 million liters) annually of biodiesel fuel made from plants and vegetable material.

HISTORIC AND CULTURAL FEATURES

In March 2008, the Chemainus First Nation proposed renaming the Strait of Juan de Fuca the “Salish Sea,” an idea that reportedly met with approval by B.C.’s Aboriginal Relations Minister, who pledged to put it before the B.C. cabinet for discussion. A parallel American movement promoting the name had a different definition, combining of the Strait of Juan de Fuca and Puget Sound as well as the Strait of Georgia and related waters under the name Salish Sea. This latter definition was made official in 2009 by the geographic boards of both Canada and the United States.

“Coast Salish” refers to the aboriginal tribes of the Northwest Coast, living around what are now the Strait of Georgia, Puget Sound, southern Vancouver Island, much of the Olympic Peninsula, and most of western Washington State. For example, the Hul’qumi’num Treaty Group represents six Coast Salish First Nations: Chemainus First Nation, Cowichan Tribes, Halalt First Nation, Lake Cowichan First Nation, Lyackson First Nation and the Penelakut Tribe. Hul’qumi’num is the shared language that connects these tribes, as do their common traditional territory, culture, and history.

Historically, the Coast Salish tribes sustained themselves by hunting, fishing, and gathering wild plants. They lived communally in longhouses that housed large, extended families and tribal groups. All of the Puget Salish people lived on or near rivers, lakes or Puget Sound, so their primary means of transportation was by water – usually in

dugout cedar canoes. The Coast Salish societies share a world view that reflects a spiritual relationship with the environment and an obligation to responsibly manage the use of resources. Music and dance are important parts of celebratory events; storytelling is a very important traditional art form as well. The Puget Salish are highly skilled basket makers and weavers and their wood working and carving skills extended beyond canoe making to include house construction, ceremonial costume and mask making and art work. The Coast Salish people in southern British Columbia and western Washington carved large human figures representing ancestors and spirit helpers on interior house posts and as grave monuments. The tradition of Sgwigwi (inviting) – or what has come to be known as potlatch – was important to maintaining positive relationships as well as a sharing of resources between neighboring tribes and communities. In the late 1800s the ceremony was made illegal in Canada, but the anti-potlatch law was dropped in 1951.

Like other native tribes, the early Makah Tribe had a keen understanding of their environment and a great respect for the plants and animals which sustained them. As people acclimated to the seasons, they knew when and where to hunt and gather food and materials in balance with their life cycles. They observed the common indigenous cultural tradition of using nearly all they took from the land and sea. The Makah were highly skilled mariners and were able to travel the rough waters of the Pacific Ocean and the swift waters of the Strait of Juan de Fuca using various types of canoes. Carved from western red cedar, each canoe was created for a specific task; there were war, whaling, halibut, salmon fishing, sealing canoes and large cargo canoes. There were even smaller canoes which children used for practice. The canoes had sails so that paddlers could use the wind to their advantage. Various fish and marine mammals, including whales, served as staple foods in the early Makah diet and remain so today. By the Late 1700s thousands of tribal members died from epidemics as a result of indirect contact with Europeans. Due to this, the transfer of traditional knowledge was disrupted causing many of the old ways to be lost. In addition, the U.S. government of the 1800s and even into the 20th century banned use of the traditional Makah language and culture. Now the Makah Cultural and Research Center in Neah Bay houses the Makah Museum, the Makah Language Program, the Archives/Library Department, the Makah Education Department and the Tribal Historic Preservation Office, thus providing resources for today's tribal members to restore their traditions.

The Quileute Tribe is located in La Push on the Pacific coast of Washington State. They have lived, hunted, and fished in this area for thousands of years. Like the Makah Tribe to their north, they also hunted whales. Although the current village of La Push is only about one-square mile, the tribe's original territory stretched along the shores of the Pacific from the glaciers of Mount Olympus to the rivers of rain forests. The Quileute language is one of a kind and is one of only six known languages lacking nasal sounds. Like many other tribes in the region, the Quileutes were excellent boat makers; they had cedar canoes ranging in size from small boats that could hold two people to giant vessels capable of holding up to 6,000 pounds. As artists and craftsmen the Quileute Tribe is best known for their tightly-woven baskets and dog hair blankets. Other examples of their craftsmanship were the waterproof skirts and hats they made, using cedar, to shield against the heavy rainfall in the region.

While the history of European and other immigrants to the Puget Sound area is more recent than that of coastal tribes, it has nevertheless left a rich tradition in both British Columbia and Washington State.

Named after Queen Victoria of the United Kingdom, the city of Victoria is one of the oldest cities in the Pacific Northwest, with British settlement beginning in 1841. The city has retained a large number of its historic buildings including its two most famous landmarks, the British Columbia Parliament Buildings (finished in 1897 and home of the Legislative Assembly of British Columbia) and the Empress hotel (opened in 1908). The city's Chinatown is the second oldest in North America after San Francisco's. Erected in 1843 as a Hudson's Bay Company trading post and known briefly as "Fort Albert," the settlement was renamed Fort Victoria in 1846. In 1865, Esquimalt was made the North Pacific home of the Royal Navy and remains Canada's west coast naval base. When the Canadian Pacific Railway terminus on Burrard Inlet was completed in 1886, Victoria's position as the

commercial center of British Columbia was irrevocably lost to the City of Vancouver; Victoria subsequently began cultivating an image of genteel civility within its natural setting.

Vancouver is named for British Captain George Vancouver, who explored the area in the 1790s. A logging sawmill established in 1867 led to the founding of a settlement which came to be known as Gastown and which became the nucleus around which the townsite grew. Following the announcement that the settlement, officially called Granville, would be the railhead, it was renamed Vancouver and incorporated as a city in 1886. By 1887, the transcontinental railway was extended to the city to take advantage of its large natural seaport, which soon became a vital link in a trade route between the Orient, Eastern Canada and London. Vancouver is well known as an urban centre surrounded by nature, making tourism its second largest industry. It is also the third largest film production centre in North America after Los Angeles and New York City. The 2010 Winter Olympics and 2010 Winter Paralympics were held in Vancouver and nearby Whistler, a resort community 125 km (78 miles) north of the city.

Seattle is named after Chief Sealth of the Duwamish and Suquamish native tribes. The first European settlements were made in 1851; the town was officially named Seattle in 1853 and first incorporated in 1865. Seattle has a history of boom and bust cycles; the first such boom was fueled by the lumber industry. The second and most dramatic boom and bust resulted from the Klondike Gold Rush in 1897 when Seattle became the main transport and supply point for the miners in Alaska and the Yukon. A shipbuilding boom in the early part of the 20th century became massive during World War I. The local economy dipped after World War II, but recovered again with manufacturing company Boeing's growing dominance in the airliner market. Seattle made a bid for world recognition with the Century 21 Exposition, also known as the 1962 World's Fair. The Space Needle, dating from the Century 21 Exposition, is Seattle's most recognizable landmark. Today, Seattle has particularly strong information technology, aviation, architecture and recreational industries. It is particularly known as a source for "green" technologies and the epicenter of coffee vendors like Starbucks. The National Register of Historic Places has over 150 Seattle listings and the Seattle Underground Tour is an exhibit of places that existed before the Great Fire of 1889.

Vancouver, Seattle and Victoria each offer a range of performing arts including symphonies, theaters, opera and ballet. Their current music scenes are lively as is the "nightlife." Each has at least one major sporting and entertainment complex, museums, libraries, art and craft galleries, zoos, aquariums, gardens and a variety of buildings of historic importance. All the major cities around Puget Sound also host numerous colleges and universities, as well as places of worship for different cultures and faiths. In addition, these metropolitan areas serve as gateways to a variety of recreational adventures, from cruise ships to backpacking and kayaking.

Bellingham, Port Townsend and Port Angeles are smaller Washington cities near the U.S./Canadian border; they feature similar cultural amenities to those of the larger cities, albeit on a smaller scale. For example, Port Townsend hosts numerous annual cultural events, is a maritime center for independent boatbuilders and related industries and crafts and its historic district is designated as a National Historic Landmark District. Bellingham benefited from the Fraser Canyon Gold Rush in 1858, which transformed it from a small northwest mill town to a thriving seaport. Similar to Vancouver, the film industry is lively in Bellingham, which has a growing independent film community supported by the Whatcom Film Association and the Northwest film school. As noted under the Economics section above, Port Angeles is the location of the headquarters of Olympic National Park, which was established in 1938. Consequently, it serves as a gateway to tourism associated with the Park and Vancouver Island, U.S. It has also been – and continues to be – an active port city.

Many of the Gulf Islands in British Columbia – as well as their waterways, bays and harbors – carry the names of the Spanish and English explorers who arrived in the 18th century: Narvaez Bay, Vesuvius Bay and Galiano, Valdes, and Mayne Islands. The ships that brought later explorers in the 19th century also live on in their namesakes:

Plumper Sound, the Salt Spring town of Ganges, Satellite and Trincomali Channels, to name a few. In the 1850s, gold fever catapulted Miners Bay on Mayne Island into an active port and one of the first Crown colonies. A few years later, Salt Spring Island was settled by Australians and British, as well as African Americans escaping slavery in the United States. Fruit orchards soon followed and for many years the produce from Gulf Islands' orchards was highly prized and profitable. Schools opened, other islands were settled and farming and trading began in earnest. With the boundary finally settled between the United States and Canada in 1872, the Gulf Islands were officially part of Canada and the San Juan Islands part of the United States. Today, the Gulf Islands are renowned for their artists as well as for their magnificent scenery; throughout the islands, there are many painters, sculptors, potters, musicians and authors as well as craftspeople of all types.

The name "San Juan" was given to the islands now on the U.S. side of the border by the Spanish explorer Francisco de Eliza, who charted the islands in 1791, naming them Isla y Archipelago de San Juan. Subsequent explorations of the region by the British under George Vancouver and the Americans under Charles Wilkes resulted in many of the Spanish names being replaced with English ones. Today's "cultural scene" in the San Juan Islands includes museums, crafts and the visual and performing arts typical of a tourist area.

THE ENVIRONMENT

The Strait of Georgia in British Columbia adjoins Puget Sound in Washington State; together they form a huge estuary system where hundreds of rivers flow into the sea. These fresh water sources help to shape the unique characteristics of the region and make the Strait of Georgia biologically rich. The waters of the Strait support a huge variety of plant and animal life including:

- seals, porpoises, killer whales, sea lions and other marine mammals;
- at least 200 species of fish including five species of wild salmon;
- more than 1500 invertebrate species including bottom dwellers such as polychaete worms and burrowing shrimp; intertidal species such as oysters, clams, chitons and anemones; octopus, starfish and many others;
- about 500 marine plant species, including 200 varieties of seaweeds; and
- well over 100 species of marine birds including small shorebirds such as oystercatchers; 3 species of cormorants, which nest on steep cliff faces; large raptors such as bald and golden eagles; great blue herons and more.

As of September 1, 2004, 63 species of concern were either listed or designated as being at risk by one or more of the jurisdictional agencies in either Puget Sound or the Georgia Basin. Species added to the Puget Sound Georgia Basin Marine Ecosystem List between 2002 and 2004 are: Bull Trout; Killer Whale, Offshore Population; Leatherback turtle; Cultus Lake and Sakinaw Lake Sockeye Salmon; Bocaccio; Stellar Sea Lion; Grey Whale – Northeast Pacific population; Harbor Porpoise – Pacific Ocean population; and the Northern, or "Pinto" Abalone. The Northern Resident Killer Whales constitute 16 pods with approximately 205 members. Between 1997 and 2003, the population declined by seven percent. The Southern Resident Killer Whales (pods J, K and L) currently contain about 85 members. The southern residents' population declined 17 percent between 1995 and 2001 and was listed as endangered under U.S. Federal law in late 2005.²¹

There are a wide variety of habitats in the region, from the relatively exposed, rocky shores of the Juan de Fuca Strait, to the more protected inside waters of Georgia Strait and Puget Sound. There are sandy beaches, steep cliffs, sandstone shelves, mudflats, deep fjords and more. From a biological point of view, the most productive

²¹ EPA Region 10's Puget Sound Georgia Basin Ecosystem Indicator Report, 2006
(http://www.epa.gov/region10/psgb/indicators/species_at_risk/media/pdf/Marine%20Species%20at%20Risk%20Indicator%20Summary.pdf)

habitats in the region are estuaries – the places where rivers meet the sea and fresh water gradually mixes with salt. As well as being vital for fish and wildlife, salt marshes and other wetland vegetation serve as the “kidneys” of the ecosystem, trapping and holding water and air-borne contaminants.

The Fraser River carries rich silt and fresh water far across the Strait. This 850-mile long river drains over 20 million hectares – one quarter of British Columbia. The Fraser has the largest salmon runs in North America and its estuary is a vital stopover for migrating birds from three continents. The Fraser River estuary is also a critical point on the Pacific Flyway, providing a stopover between California and Alaska and a wintering ground for at least 100,000 waterfowl. At the peak of migration, up to 180,000 ducks and geese fly into the delta in a single day. The Fraser estuary and Boundary Bay together form the largest winter waterfowl resting area on the west coast of North America. Boundary Bay is an important stop for Western Sandpiper and Dunlin and has been designated a Hemisphere Reserve by the Western Hemisphere Shorebird Reserve Network and a Canadian Important Bird Area. The mudflats, extensive eel grass beds and salt marshes support a rich population of marine invertebrates that are an important source of energy for migrating shorebirds. During migration times the bird count in the bay may exceed 100,000.

Puget Sound alone has 2,800 square miles of inland marine waters; 2,500 miles of shoreline; and 2.1 million acres of state-owned submerged saltwater lands. There are 68 Washington state parks and 8 national parks, plus wildlife refuges, forests and other uses that border Puget Sound. Local governments in Washington provide another 16 regional parks along the Sound.

The San Juan Islands have plant communities that resemble those in the high desert country further inland. Lodgepole pine, Rocky Mountain Juniper, Garry Oak, and Douglas Fir trees are a few of the larger forest species. Although the Islands have a significant forest cover, the south facing shoulders and the inner valleys of many islands are characterized by wide grassy meadows. The dry climate of the San Juans has prevented larger trees from taking a foothold on these southern slopes. The San Juans are the northernmost outpost of cactus in North America and also host the northernmost specimens of Manzanita that grow in the Pacific Northwest. With 1,752 acres and 6.1 miles of shoreline, San Juan Island National Historical Park protects the most extensive public saltwater access in the San Juan Archipelago. The environmentally sensitive coastal areas of the San Juan Islands are regarded as among the most diverse—and fragile—marine ecosystems in the world, and are especially significant given the rich terrestrial and water resources. In the park’s two units on San Juan Island are diverse landscapes ranging from seaside bluffs and marine lagoons to evergreen forests and stands of Garry oak. In spring native wildflowers blanket the dramatic open prairie of American Camp as well as the trails throughout English Camp. Wildlife ranges from Orca whales and bald eagles to over 200 species of birds and 32 species of butterflies, including the rare Island Marble butterfly.

The Southern Gulf Islands are blessed by Canada’s only Mediterranean-type climate – warm and dry in the summer and mild and wet in the winter. About 15 of these islands and over 30 smaller islets comprise the Gulf Islands National Park Reserve. Established in 2003 by Parks Canada, the Gulf Islands National Park was formed to protect the area’s unique ecosystem, which is rich with ecologically diverse plants and sea life, including gnarled Garry oaks, delicate wild lilies, thick kelp beds and magnificent Orca whales. In waterfront areas, the park’s protection extends 200 metres into the sea. The Gulf Islands are also home to 15 endangered species, 10 threatened species and 13 species of special concern. These species include butterflies, shellfish, ferns and orcas. There are also ten British Columbia provincial parks in the Southern Gulf Islands.

The Olympic Coast National Marine Sanctuary (OCNMS) off the northwest tip of the Olympic Peninsula represents one of North America’s most productive marine ecosystems and stunning undeveloped shorelines. In size the OCNMS covers an area approximately 1.7 times larger than the entire Puget Sound. Twenty-nine species of marine mammals and scores of seabird species spend parts of their lives there; gray whales visit as part of the

longest mammal migration on earth and albatross gather food in the OCNMS to carry to nestlings on mid-Pacific islands and atolls. Sea otters feed on macro-invertebrates such as urchins, which in turn graze on majestic kelp forests. Fish occupy a variety of habitats from the deepest ocean canyons to the shallowest tide pools. On the shore side, the Olympic National Park protects 65 miles of wild Pacific coast including tide pools, sandy beaches and rocky cliffs. Near shore marine mammals listed on the Olympic National Park website include sea otter, river otter, harbor seal, Northern fur seal, Steller sea lion, California sea lion, Northern elephant seal, gray whale, minke whale, humpback whale, harbor porpoise, orcas, Dall's porpoise and Pacific white-sided dolphin.

The Pacific Rim National Park is the only national park entirely on Vancouver Island, providing protection for substantial rain forests and an amazing marine environment on the west coast of Vancouver Island. The unique Pacific Rim National Park encompasses a total area of 49,962 hectares of land and ocean in three separate geographic units – Long Beach, the Broken Group Islands and the West Coast Trail. Features of the park include long sandy beaches, an island archipelago, old-growth coastal temperate rainforest and significant Nuu-chah-nulth archaeological sites. Of all the wildlife found within Pacific Rim National Park, the most abundant and diverse is undoubtedly found in the marine environment. The marine components of Pacific Rim include the offshore waters to the 20 meter depth contour adjacent to the Long Beach and West Coast Trail units, and the waters within the designated boundaries of the Broken Group Islands. The open ocean is home for whales, fish, and birds. There are also 20 British Columbia Provincial parks along the Pacific Rim of Vancouver Island, plus over 40 Provincial Parks on the southern tip of the Island around Victoria.

B. The Alaska/British Columbia Transboundary Area: CANUSDIX



The following brief overview of the CANUSDIX transboundary area was developed from a review of web based information sites and contacts with agencies in the region:

GEOGRAPHY

The Dixon Entrance is a strait about 80 kilometers (50 miles) long and wide in the Pacific Ocean at the International Boundary between the U.S. state of Alaska and the province of British Columbia in Canada. The Dixon Entrance is part of the Inside Passage shipping route. It forms part of the maritime boundary between the U.S. and Canada, although that boundary is disputed. The so-called A-B Line (approximately 54°40'N) – which marks the northern boundary of the Dixon Entrance – was delineated during the 1903 Alaska Boundary Treaty. The meaning of the line remains in dispute between Canada and the United States. Canada claims the line is the international maritime boundary, while the United States holds that its purpose was only to designate which islands belonged to which country and holds that the maritime boundary is an equidistant line between islands.

Territorial fishing disputes between the countries remain today as the United States does not recognize the A-B Line for purposes of seafloor resources or fishing rights and has never shown the treaty boundary on its own maps. As noted on the map above, the U.S./Canada border continues up the Portland Canal, and the CANUSDIX Annex planning and preparedness work includes the Portland Canal.

WEATHER

The area has a maritime climate with significant precipitation, cooler summers and warmer winters than generally found in the interior portions of region. Rainfall can reach 200 plus inches annually in some areas, although topography has a strong influence on the level of precipitation in a given area. The Dixon Entrance is subject to strong winds and storms throughout the year with the worst storms generally arriving in the winter. The frequency of severe weather episodes are increasing in some areas – particularly in the North coastal regions of British Columbia where the interface of the Northern Interior Polar and the Southern Pacific Ocean systems occurs.

TIDES

Tidal ranges for the area are 10 to 20 plus feet and strong currents are often present.

DEMOGRAPHICS

The whole of the CANUSDIX area would be considered remote. There are two main population centers in the region, Ketchikan in Alaska (with a total population slightly greater than 14,000) and Prince Rupert in British Columbia (12,815 people according to Statistics Canada, 2006). There are numerous small coastal villages throughout the region, including small fishing villages or subsistence villages. Distances between communities are substantial and there are few roads in many parts of the region.

THE ECONOMY

The major employers in Southeast Alaska are government, fishing, services, and tourism. According to the Alaska Department of Labor and Workforce Development's January 2010 report "Alaska Economic Trends" a slight decrease in jobs was expected for the mining and timber sectors. A 2.8% decrease in jobs was predicted for the Leisure and Hospitality industries as a result of an expected loss in cruise ship passengers. Government (federal, state and local) is the largest employer in the region; a slight overall loss of jobs was predicted. The fishing industry was predicted to stay steady for 2010.

Small communities along the Canadian border rely on fishing, some logging, aquaculture and tourism. The City of Prince Rupert currently relies on the fishing industry, the port, a local paper mill and tourism. Prince Rupert's sheltered harbor is the deepest ice-free natural harbor in North America.

The communities of Hyder and Stewart face one another across the U.S./Canadian border at the head of the Portland Canal, a 70 mile-long fjord which forms a portion of the U.S./Canadian border. Hyder is just 2 miles from Stewart, British Columbia and is the only community in southern Alaska accessible by road. Stewart, on the Canadian side, is also located at the head of the Portland Canal, which is ice free throughout the year and on Highway 37A, a paved access to the interior of the Pacific Northwest. Important to Stewart's economy are the industries of forestry and mining. The community is promoting the development of a wood processor and is endeavoring to cultivate bulk cargo for its port.

HISTORICAL and CULTURAL FEATURES

The Dixon Entrance area is home to a large population of Alaska Natives. Several small native communities are located in the area as is the only federal Indian reservation in the state of Alaska, the Annette Island Reserve. The Reserve, and the Village of Metlakatla, was home for First Nation peoples that migrated from Prince Rupert to the area in the late 1800's. The entire area is rich in native culture and there are numerous archeological sites - both

native and non-native - throughout the region. Prince of Wales Island, Alaska is home to a branch of the Haida, known as the Kaigani Haida. The Queen Charlotte Islands - which lie on the south side of the Dixon Entrance - were named Haida Gwaii by the Haida people in the 1970s and members of the Haida nation maintain free access across the Hecate Strait.

In British Columbia, Prince Rupert lies at the heart of the traditional territory of the Tsimshian First Nation. This territory is bordered by the traditional lands of the Gitksan, Nisga'a, Haida and Heiltsuk people, many of whom today make their home in Prince Rupert as well as in their traditional communities along the coast. These First Nations have rich traditions, including unique art and architecture. For countless generations these communities presented the familiar line of post and beam cedar houses along the forest's edge in sheltered bays, with magnificent canoes drawn up on the beach and tall crest poles telling the story of each house and family. Indeed, the Northwest Coast First Nations are best known for their monumental art with towering totem poles in Prince Rupert and throughout the region. Based on seasonal harvests of numerous marine species, consumption, sharing, trade and feasting of traditional foods by the Northwest First Nations is inextricably linked to a healthy marine environment. South of the Dixon entrance lie the Haida Gwaii ("Islands of the People")²², more commonly known as the Queen Charlotte Islands; they consist of two main islands (Graham Island in the north and Moresby Island in the south) plus approximately 150 smaller islands, separated from the British Columbia mainland to the east by Hecate Strait. Some of the islands to the south are protected under federal legislation as the Gwaii Haanas National Park Reserve and Haida Heritage Site. There are also several provincial parks, the largest of which is Naikoon Provincial Park on northeastern Graham Island, which is close to the CANUSDIX area.

THE ENVIRONMENT

The shore areas consist of temperate rain forests with exposed rocky shorelines and steep, heavily forested lands reaching down to the water. The forest is primarily coniferous and both marine and terrestrial wildlife is plentiful throughout the region.

The U.S. Fish and Wildlife Service reports there are no listed endangered species in the SE Alaska area, but two bird species – the Kittlitz's Murrelet and the Yellow-billed Loon – are designated as candidates for listing as endangered species. NOAA reports that Fin and Humpback whales as well as Steller Sea Lions are listed as either threatened or endangered marine mammal species in the Dixon Entrance area.

Located in the southernmost part of Southeast Alaska, the Misty Fjords National Monument extends from Dixon Entrance to beyond the Unuk River and provides the northern border of the Portland Canal. The Monument is an unspoiled coastal ecosystem with geological features such as fjords, steep sea cliffs, active glaciers and natural canals. These features provide rich and fertile marine and freshwater environments. Wildlife, waterfowl, and bird populations are diverse and nearly every ecosystem in Southeast Alaska is represented within Misty Fjords. Misty Fjords provides habitat for all five northeastern Pacific species of salmon as well as grayling, Dolly Varden char, and brook, rainbow, steelhead and cutthroat trout. Nearly half of all king salmon spawning and rearing streams in Southeast Alaska are located within Misty Fjords. Most wildlife common to southeast Alaska may be found in Misty Fjords, including bald eagles, brown bears, black bears, Sitka black-tailed deer, wolves, mountain goats, beaver, mink, marten, wolverine and river otter. Porpoises, whales, sea lions, and seals are often sighted in the nearby ocean waters.

The Haida Gwaii islands are also home to an abundance of wildlife, including both the largest and smallest subspecies of black bear as well as a subspecies of stoat. Black-tailed deer and raccoon are introduced species that have become abundant.

²² On April 29, 2010, the British Columbia government introduced the Haida Gwaii Reconciliation Act, which proposed officially renaming the islands Haida Gwaii, as part of a reconciliation protocol between the province and the Haida people. The name became official on June 3, 2010 when the legislation received royal assent.

APPENDIX V

The Stakeholder Workgroup Review of Planning and Response Capabilities for a Marine Oil Spill on the U.S./Canadian Transboundary Areas of the Pacific Coast Project Report

GLOSSARY

ACRONYM	REFERENCE
ACGIH	American Council of Governmental Industrial Hygienists
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
AFF	Automated Flight Following
AIS	Automated Identification System
AK	Alaska
AMS	Asset Management System
AOR	Area of Responsibility
APICOM	Association of Petroleum Industry Coop Managers
ARRT	Alaska Regional Response Team
BBL	Barrel
BC	British Columbia
BOA	Basic Ordering Agreement
CANUSDIX	Canada – United States Dixon Entrance (JCP Annex)
CANUSPAC	Canada – United States Pacific (JCP Annex)
CBP	Customs and Border Protection (U.S.)
CBSA	Canada Border Services Agency
CCG	Canadian Coast Guard
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFIA	Canadian Food Inspection Agency
CFR	Code of Federal Regulations (U.S.)
CG	Coast Guard
CCG	Canadian Coast Guard
CLC	Canada Labor Code
CN	Canada or Canadian
COSH	Canada Occupational Safety and Health
CRIS	Coastal Resource Information System (British Columbia)
CSA	Canada Shipping Act
CVTS	Cooperative Vessel Traffic Service
CWS	Canadian Wildlife Service
CLC	Civil Liability Convention
DFO	Department of Fisheries and Oceans (Canada)
DND	Department of National Defense (Canada)
DOE	Department of Ecology (Washington State)
DOI	U.S. Department of the Interior
EC	Environment Canada
EEZ	Exclusive Economic Zone
EPA	Environmental Protection Agency (U.S.)
ESI	Environmental Sensitivity Index
EUL	Environmental Unit Leader
F&O	Fisheries and Oceans (Canada)
FERMS	Federal Emergency Response Management System (Canada)
FMO	Federal Monitoring Officer
FOSC	Federal On-Scene Coordinator

ACRONYM	REFERENCE
FOSET	Fisherman's Oil Spill Emergency Team
GIS	Geographic Information System
GPS	Global Positioning System
GRP	Geographic Response Plan
GRS	Geographic Response Strategy
GST	Goods and Services Tax
GT	Gross ton
HAZWOPER	Hazardous Waste Operations and Emergency Response
IAP	Incident Action Plan
ICP	Incident Command Post
IMO	International Maritime Organization
IMT	Incident Management Team
IRP	Industry Recommended Practice
JCP	Canada-United States Joint Marine Pollution Contingency Plan
JET	Joint Environmental Team
JIC	Joint Information Center
JRT	Joint Response Team
LEL	Lower Explosive Limit
MARSEC	U.S. Maritime Security Policy
MLA	Marine Liability Act (Canada)
MM	Maximum Most Probable Discharge
MOE	Ministry of Environment (British Columbia)
MSDS	Material Safety Data Sheet
MSRC	Marine Spill Response Corporation
NCP	National Contingency Plan (U.S.)
NGO	Non-Governmental Organization
NIMS	National Incident Management System
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration (U.S.)
NPFC	National Pollution Fund Center (U.S.)
NPREP	National Preparedness for Response Exercise Program (U.S.)
NRC	National Response Corporation
NRCES	National Response Corporation Environmental Services
NRDA	Natural Resource Damage Assessment
NRDAR	Natural Resource Damage Assessment and Restoration
NRV, NRVP	Non-dedicated Response Vessel, Non-dedicated Response Vessel Program
NWACP	Northwest Area Contingency Plan
OELs	Occupational Exposure Limits
OPA 90	Oil Pollution Act of 1990
OSC	On-Scene Coordinator or On-Scene Commander
OSHA	Occupational Safety and Health Administration (U.S.)
OSLTF	Oil Spill Liability Trust Fund (U.S.)
OSRO	Oil Spill Response Organization
P&I	Protection and Indemnity
PEP	Provincial Emergency Program (British Columbia)
PPE	Personal Protection Equipment
PRAC	Primary Response Action Contractor (Alaska)
PRC	Primary Response Contractor (Washington)
QI	Qualified Individual
REET	Regional Environmental Emergency Team (Canada)

ACRONYM	REFERENCE
RMS	Response Management System
RMT	Response Management Team
RO	Response Organization
RP	Responsible Party
RRT	Regional Response Team
SCP	Subarea Contingency Plan
SDR	Special Drawing Rights
SEAPRO	Southeast Alaska Petroleum Resource Organization
SEH&S	Safety Environmental Health and Security Administrator
SOPF	Ship-source Pollution Fund
SOSC	State On-scene Coordinator
STAR	Spill Tactics for Alaska Responders
TC	Transport Canada
TOSC	Tribal On-scene Coordinator
SUPSALV	U.S. Navy Supervisor of Salvage
TTX	Table-top Exercise
UHF	Ultra High Frequency
VHF	Very High Frequency
VFR	Visual Flight Rules
VTs	Vessel Traffic Service
U&A	Usual and Accustomed
U.S.	United States
USC	United States Code
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
WA	Washington (State)
WCD 1,2, or 3	Worst-case Discharge Tier 1,2, or 3
WCMRC	Western Canada Marine Response Corporation
WDFW	Washington Department of Fish and Wildlife
WHTI	Western Hemisphere Travel Initiative
WRRL	Western Response Resource List

APPENDIX VI

The Stakeholder Workgroup Review of Planning and Response Capabilities for a Marine Oil Spill on the U.S./Canadian Transboundary Areas of the Pacific Coast Project Report Reference Documents

Reference for page 163: [Non-Emergency Vessel Crossings \(December 2005\)](#)

Entering the U.S.

1. Contact US Customs and Border Protection

US Port Director at Port Angeles Gerry Slaminski Tel: 360-457-4311
Fax: 360-457-7514

NOTE: phone # is for business hrs. If entry is during non-business areas the phone will ring through to a pager.

2. Complete required forms

Forms required by US Customs Form 1300 Vessel Clearance
\$19.00US/vessel each way
Information required about crew (no form):
1) name
2) nationality
3) birth date

NOTE: all persons must show a valid passport or 2 pieces of photo ID: a birth certificate & Drivers License.

- If the person is a landed immigrant, an original birth certificate must be provided.

Re-Entry to Canada

1. Contact Canada Border Services Agency

Canada Border Services Agency: Tel: 250-363-0222 or
(CBSA) 1-888-226-7277 (24/7)
From 0800 to 2400 250-363-3339

2. Complete required forms

Forms required for CBSA
Form A6 General Declaration – for vessel
Form A6A Freight Cargo Manifest – for equipment
Form Y14 Crew's Effects Declaration –crew
Form E1 Ships stores declaration

Reference for page 164: **Western Canada Marine Response Corporation (WCMRC) Trans-Border Procedures (LAND):**

Are you traveling to the **United States** on behalf of WCMRC?

If **YES**

Please read the following steps to cross the international border

Before leaving BCO or your departure point BE SURE TO HAVE:

1. Your passport and driver's license (passport must be valid)
2. 2 copies of the CANUS 3 form
3. 2 copies of the CANUS 4 form

The CANUS 3 & 4 forms will be provided by WCMRC Operations or Logistics

- ◆ The CANUS 3 lists the equipment you're transporting across the border.
- ◆ The CANUS 4 form lists the personnel information for U.S. Immigration.

Entry to the U.S.

1. Cross the Canadian/U.S. border at the Pacific Highway truck crossing.
2. Proceed through U.S. Customs via the designated truck lane located to the right of the crossing access.
3. Present your 2 copies of CANUS 3 & 4 forms to U.S. Customs officials. If you have any problems, contact Logistics at BCO:

604-219-4009 or 604-205-4696

4. Get all copies signed. Keep 1 copy of each form for your return crossing.
5. Fax a signed copy of each form to BCO upon arrival to the response scene:

Attention: LOGISTICS: 604-294-6003

Re-entry to Canada

1. Return via the Canadian/U.S. border Pacific Highway truck crossing.
2. Proceed through Canada Customs via the designated truck lane.
3. Stop and present your signed copies of forms to Canadian border officials.
4. Within 6 hours, notify BCO via phone or fax that you have re-entered Canada:

◆ **Phone: 604-294-6001 ext 203** ◆ **Fax: 604-294-6003**

-- IF YOU HAVE ANY QUESTIONS PLEASE CONTACT LOGISTICS at WCMRC --

Reference for page 164: **CANUS 1-8 FORMS**

CANUS - 1

CCG - Canada Customs and Revenue Agency

International Deployment of Canadian Coast Guard Equipment

DESTINATION:
CONTACT PERSON:
ADDRESS:
PHONE:
FAX:
OTHER:

[illegible]

Authorized by:
Name
Title
Signature
Date

CANUS - 2
CCG - Citizenship and Immigration Canada
International Deployment of Canadian Coast Guard Personnel

DESTINATION:
CONTACT PERSON:
ADDRESS:
PHONE:
FAX:
OTHER:

PERSONNEL – Canadian Coast Guard				
NAME	DATE of BIRTH	DATE DEPART CANADA	DATE RETURN CANADA	CITIZANSHIP

Authorized by:
Name
Title
Signature
Date

CANUS - 3**WCMRC - Canada Border Services Agency****International Deployment of Western Canada Marine Response Corp. Equipment**

DESTINATION:
Contact Person:
Address:
Phone:
fax:
other:

EQUIPMENT – Western Canada Marine Response Corporation				
QTY	TAG #	DESCRIPTION	MODEL #	SERIAL #

Authorized by:
Name
Title
Signature
Date

CANUS - 4
WCMRC - Citizenship and Immigration Canada
International Deployment of WCMRC Equipment

DESTINATION:
CONTACT PERSON:
ADDRESS:
PHONE:
FAX:
OTHER:

PERSONNEL –Western Canada Marine Response Corporation				
NAME	DATE OF BIRTH	DATE DEPART CANADA	DATE RETURN CANADA	CITIZENSHIP

Authorized by:
Name
Title
Signature
Date

CANUS – 5
USCG - U.S. Customs
International Deployment of United States Coast Guard Equipment

DESTINATION:
CONTACT PERSON:
ADDRESS:
PHONE:
FAX:
OTHER:

[illegible]

Authorized by:
Name
Title
Signature
Date

CANUS – 6

**USCG - Immigration & Naturalization Service
International Deployment of United States Coast Guard Personnel**

DESTINATION:
CONTACT PERSON:
ADDRESS:
PHONE:
FAX:
OTHER:

PERSONNEL – United States Coast Guard				
NAME	DATE of BIRTH	DATE DEPART CANADA	DATE RETURN CANADA	CITIZANSHIP

Authorized by:
Name
Title
Signature
Date

CANUS – 7
U.S. Customs
International Deployment of MSRC Equipment

DESTINATION:
CONTACT PERSON:
ADDRESS:
PHONE:
FAX:
OTHER:

[illegible]

Authorized by:
Name
Title
Signature
Date

CANUS – 8
MSRC - Immigration and Naturalization Service
International Deployment of MSRC Personnel

DESTINATION:
CONTACT PERSON:
ADDRESS:
PHONE:
FAX:
OTHER:

PERSONNEL – Burrard Clean Operations Limited				
NAME	DATE OF BIRTH	DATE DEPART CANADA	DATE RETURN CANADA	CITIZENSHIP

Authorized by:
Name
Title
Signature
Date

Reference for page 164: [WCMRC Cross-border forms:](#)

Canada-US Joint Marine Pollution Contingency Plan
Emergency Deployment of _____ Vessels
(company/agency name)

Date: _____ **Deployment Destination:** _____

_____ Contact Person: (company/agency name)
Contact Address:
Contact Phone:
Contact Fax:
Contact Email:

Qty.	Description/Name	USCG Document #	State (WA) Registration # (requires hull #)	Hull #

Canada-US Joint Marine Pollution Contingency Plan
Emergency Deployment of _____ Equipment
 (company/agency name)

Date:

Deployment Destination:

_____ Contact Person:
(company/agency)

Contact Address:**Contact Phone:****Contact Fax:****Contact Email:**[illegible]

Canada-US Joint Marine Pollution Contingency Plan
Emergency Deployment of _____ Vehicles
(company/agency name)

Date:

Deployment Destination:

_____ Contact Person: (company/agency name)
Contact Address:
Contact Phone:
Contact Fax:
Contact Email:

Qty.	Description	VIN # or Serial #	State (WA) License #

Canada-US Joint Marine Pollution Contingency Plan
Emergency Deployment of _____ Personnel
 (company/agency name)

Date: _____ **Deployment Destination:** _____

_____ Contact Person: (company/agency name)
Contact Address:
Contact Phone:
Contact Fax:
Contact Email:

NAME	Job Assignment	DOB	Passport # (optional)	Date Depart US	Expected Date Return To US