

**ALEUTIANS  
SUBAREA CONTINGENCY PLAN  
POTENTIAL PLACES OF REFUGE  
SECTION**

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# POTENTIAL PLACES OF REFUGE: PART ONE - INTRODUCTION

## A. PURPOSE AND SCOPE

This Potential Places of Refuge (PPOR) section supplements information found elsewhere in the Aleutians Subarea Contingency Plan for Oil and Hazardous Substances Spills and Releases, commonly referred to as the Aleutians Subarea Contingency Plan (SCP). Information about sensitive areas associated with PPOR may be found in the Sensitive Areas -Section D of the SCP. Information about response strategies to protect sensitive areas and areas of public concern associated with PPOR may be found in the Geographic Response Strategies - Section G of the SCP.

A “place of refuge” is defined as a location where a vessel needing assistance can be moved to, and where actions can then be taken to stabilize the vessel, protect human life, reduce a hazard to navigation, and/or protect sensitive natural resources and other uses of the area (e.g., subsistence collection of mussels, commercial fishing, recreational boating). A place of refuge may include constructed harbors, ports, natural embayments, potential grounding sites, or offshore waters. This section identifies potential docking, anchoring, mooring, and grounding locations that may be selected as Places of Refuge in the Aleutians Subarea. Actual designation of a Place of Refuge will always be an incident-specific decision made by the U.S. Coast Guard Captain of the Port for Aleutians.

The Aleutians have many miles of environmentally sensitive coastline. In addition to sensitive shoreline habitats such as marshes, sheltered tidal flats, and exposed tidal flats, the Aleutians supports a number of sensitive biological resources including birds, fish and shellfish, and marine mammals. Additional information about identification of sensitive areas and resources may be found in Section D of the SCP. Additional information about protection of sensitive area may be found in Section G of the SCP.

The Aleutians are managed under a variety of land use management plans including: Alaska Department of Environmental Conservation, Alaska Department of Natural Resources, Alaska Department of Fish and Game Alaska Marine Pilots, Aleutian East Borough, Aleut Marine Mammal Commission, City of Unalaska, City of Akutan, Crowley Maritime Corporation, Magone Marine Services, U.S. Coast Guard, Sector Anchorage, U.S. Department of the Interior – Office of Environmental Policy and Compliance, and the Fish and Wildlife Service<sup>1</sup>.

The Aleutians are also widely used for marine commerce. Oil tanker vessels, log transport ships, fuel barges, freighters, oil industry work boats, ferries, and cruise ships routinely operate throughout the Aleutians. Also, commercial fishing boats, sport fishing charter boats, and privately-owned vessels regularly use local harbors and docks.

There is no perfect docking, mooring, anchoring, or grounding site for all vessels in all situations. Deep draft vessels, such as oil tankers and cruise ships, cannot be taken to certain locations. Some ports may have shallow approaches or small bays, and deep draft ships cannot enter these locations. However, shallow draft vessels, such as fishing vessels and charter vessels, may be able to utilize

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<sup>1</sup> Alaska Department of Natural Resources and Alaska Department of Fish and Game. June 1988.

these shallower ports. For the purposes of this section, vessels have been divided into three categories: deep draft, light draft and shallow draft.

**Deep Draft Vessels** are vessels that exceed 20,000 Gross Tons. These vessels have drafts of 25 to 60 feet and range in size from 450 to 1,000 feet long. Cruise ships and crude oil tankers are the predominant deep draft vessels operating in Aleutians.

**Light Draft Vessels** are vessels of 300 to 19,999 Gross Tons. These vessels have drafts of up to 25 feet and range in size from 200 to 450 feet in length. Freighters and ferries are the most common light draft vessels operating in Aleutians.

**Shallow Draft Vessels** are less than 300 Gross Tons, generally draw less than 15 feet and are less than 200 feet in length. Fishing vessels, fishing tenders, tour boats, and pleasure craft make up the majority of the shallow draft vessels operating in Aleutians.

The information in this section may be used for a vessel of any size that has suffered an incident that creates need for a temporary place of safe refuge, but it is focused on deep draft and light draft size vessels, since there are more potential places of refuge for shallow draft vessels. Some potential places of refuge appropriate only for shallow draft vessels are designated, however many more potential places of refuge for shallow draft vessels exist in PWS.

## **B. HOW THE DOCUMENT WAS DEVELOPED**

This section was developed in 2004 by a Work Group of interested and knowledgeable stakeholders in keeping with the Alaska Regional Response Team's "Guidelines for Places of Refuge Decision-Making," (Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases, Annex O). The Work Group arrived at a consensus on the potential places of refuge and submitted this document to the Subarea Committee for approval and inclusion in the Aleutians Subarea Contingency Plan. The Work Group participants represented the following organizations:

- Alaska Department of Environmental Conservation
- Alaska Department of Natural Resources
- Alaska Department of Fish and Game
- Chugach Alaska Corporation
- Cook Inlet Regional Citizens' Advisory Council
- Aleutians Response Planning Group
- Southwest Alaska Pilots Association
- U.S. Coast Guard, District 17
- U.S. Coast Guard, Sector Anchorage
- U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration (NOAA)
- U.S. Dept. of the Interior, and U.S. Environmental Protection Agency (EPA).

The first step of the PPOR process was to identify candidate sites (anchorage, moorings, docks/piers, and potential grounding sites) within the Aleutians Subarea. The Workgroup began by researching available information to determine major risk factors in the Aleutians Subarea. Maps were developed (see the Background section of this plan), depicting the following risk and logistical information:

- Locations of bulk fuel facilities;
- Primary traffic routes for State ferries and cruise ships;

Primary traffic routes for crude oil tankers;  
Locations of frequent fishing vessel/tramper offload activities;  
Locations of key nearshore fishing grounds, hatcheries and remote release sites;  
Locations of previous major marine spill events;  
Locations of spill response hubs and equipment depots.

The second step was to identify a total of 80 PPOR within the Aleutians Subarea. A site assessment matrix (Table H-2) and key (Table H-1) was developed. This matrix consists of identified sites in each row with information about risk factors and site selection criteria in the columns. The information presented for each site includes:

POR identification  
Name  
Location  
Maximum vessel size  
Swing room or dock face length  
Bottom type  
Exposure/protection  
Conflicting uses  
Sensitive resources  
Response options  
Distance to population centers  
Distance to alternate PPOR.

POR identifications are alpha-numeric; the beginning letter indicates the type of site, as follows:

- Anchorages begin with A
- Docks and piers begin with D
- Potential grounding site begin with G
- Moorings begin with M.

The number following the beginning letter is a unique site identifier with no importance attached to the magnitude of the number. The locations of potential places of refuge (anchorages, moorings, docks/piers, and potential grounding sites) are shown on Figure H-9.

The site assessment matrix contains potentially suitable emergency anchorage, docking, moorage, and potential grounding locations based on operational factors such as water depth, swing room, exposure/protection, and navigational approach. Sites are grouped by the maximum vessel size category suitable for the site. The PPOR sites identified for shallow draft vessels should only be considered a partial list as there are many suitable sites available in Aleutians for the shallow draft vessel category (less than 300 gross tons).

Step 3 was to identify specific factors that should be considered as part of the site assessment process. These factors include:

- Distance from population and logistics centers;
- Proximity to environmentally sensitive areas, wildlife resources, threatened or endangered species or habitats, and/or historic properties;
- Uses, such as fisheries, tourism, and recreational use, subsistence use, and the location of public or private facilities;

- Response factors such as booming feasibility and the proximity to existing Geographic Response Strategies (GRS) sites; and
- The distance from the closest alternative PPOR.

Figure H-10 is a composite map of all PPOR and risk factors combined.

### **C. HOW TO USE THE POTENTIAL PLACES OF REFUGE SECTION**

The "Guidelines for Places of Refuge Decision-Making" (Annex O of the Unified Plan) will be used for places of refuge decision-making in Aleutians. As outlined in the guidelines, when the U.S. Captain of the Port (COTP) receives a request from a vessel master or his/her representative to move a vessel to a place of refuge--or in the event there are no individuals on board the vessel authorized to make the request, or the vessel has been abandoned and the COTP needs to consider moving the vessel to a place of refuge--the COTP will initiate the decision-making process in Appendix 1 of Annex O. As outlined in Steps 2 and 3 in Appendix 1, if the COTP/ Unified Command determines that places of refuge should be considered for an incident-specific response, the information in the PWS PPOR document may be used to provide background information to help expedite the incident-specific place of refuge decision. The steps of the decision-making process are summarized as:

1. Place of refuge assistance requested
2. Immediate action required by COTP
3. COTP/Unified Command evaluates vessel options
4. COTP/Unified Command selects vessel option
5. COTP/Unified Command evaluates potential places of refuge based on operational criteria
6. COTP/Unified Command selects potential places of refuge based on operational criteria
7. Stakeholders provided with places of refuge options, and provide ranking of places of refuge options
8. Stakeholders provide ranking of places of refuge options
9. COTP/Unified Command selects places of refuge
10. COTP/Unified Command prepares documentation of decision.

The information provided in this document should help decision-making by providing site-specific information to the COTP/Unified Command.

Part Two of this document contains site-specific information for some of the PPOR in the PWS Subarea. An index map (Figure H-11) at the beginning of this section shows the location of the PPOR maps. Each PPOR map consists of two parts: 1) a map page showing a locator map, picture, and detailed nautical charts; and 2) a table page providing site information and local site conditions.

**D. WHO TO CONTACT FOR INPUT**

Comments and recommendations on these PPOR are welcomed. Please send your comments to either of the following agencies:

Alaska Department of Environmental Conservation  
Prevention and Emergency Response Program  
555 Cordova Street  
Anchorage, AK 99501

United States Coast Guard  
Captain of the Port, Western Alaska  
Sector Anchorage  
PO Box 5800  
JBER, AK 99505

## POTENTIAL PLACES OF REFUGE: PART TWO - PPOR MAPS

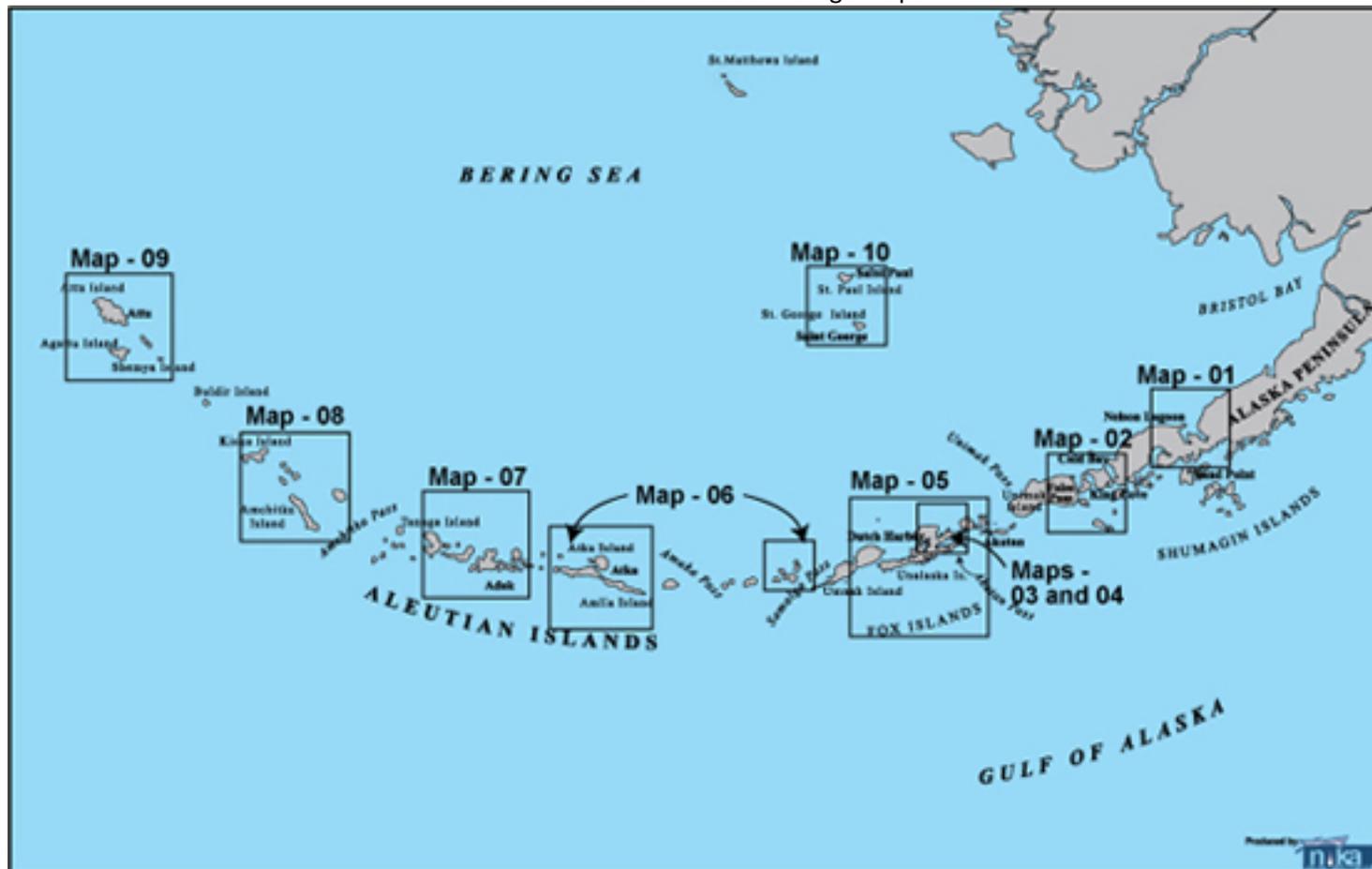
### A. INDEX OF PPOR MAPS

The Workgroup developed 10 PPOR Maps within the Aleutians to aid in the site assessment process. These maps are larger in scale, showing a small portion of the Subarea in more detail than the maps in Part One. The Aleutians PPOR Index map provides an overview of the Aleutians Subarea, identifying the location of each PPOR Map. Each PPOR Map has been assigned an identifying number, which has no relevance other than as a map identifier.

Please visit the Aleutians PPOR website for copies of the PPOR Map Index

<http://dec.alaska.gov/spar/perp/aippor/home.htm>

Index of Potential Places of Refuge Maps



## **B. PPOR MAPS**

Each PPOR Map consists of two parts: 1) a graphic showing a locator map, picture, and detailed nautical charts showing the location of anchorages, docks, moorings, potential grounding sites and other information critical to the selection of a place of refuge; and 2) a series of tables providing site information regarding local site conditions, environmental sensitivities and other considerations.

Please visit the Aleutians PPOR website for copies of the PPOR Maps

<http://dec.alaska.gov/spar/perp/aippor/home.htm>

Site Assessment Matrix

<http://www.dec.state.ak.us/spar/perp/aippor/aleutiansPPORsam.pdf>

Site Assessment Matrix Key

<http://www.dec.state.ak.us/spar/perp/aippor/aleutiansSAMKEY.pdf>

Aleutian Subarea Risk Maps

<http://www.dec.state.ak.us/spar/perp/aippor/airiskmap.pdf>

Aleutians PPOR Index Map

<http://www.dec.state.ak.us/spar/perp/aippor/070716Aipporindexmap.pdf>

Individual PPOR Maps:

PPOR Map 1: <http://www.dec.state.ak.us/spar/perp/aippor/aippormap01.pdf>

PPOR Map 2: <http://www.dec.state.ak.us/spar/perp/aippor/aippormap02.pdf>

PPOR Map 3: <http://www.dec.state.ak.us/spar/perp/aippor/aippormap03.pdf>

PPOR Map 4: <http://www.dec.state.ak.us/spar/perp/aippor/aippormap04.pdf>

PPOR Map 5: <http://www.dec.state.ak.us/spar/perp/aippor/aippormap05.pdf>

PPOR Map 6: <http://www.dec.state.ak.us/spar/perp/aippor/aippormap06.pdf>

PPOR Map 7: <http://www.dec.state.ak.us/spar/perp/aippor/aippormap07.pdf>

PPOR Map 8: <http://www.dec.state.ak.us/spar/perp/aippor/aippormap08.pdf>

PPOR Map 9: <http://www.dec.state.ak.us/spar/perp/aippor/aippormap09.pdf>

PPOR Map 10: <http://www.dec.state.ak.us/spar/perp/aippor/aippormap10.pdf>

## POTENTIAL PLACES OF REFUGE: PART THREE - REFERENCES

Alaska Dept. of Natural Resources and Alaska Dept. of Fish and Game. June 1988. Aleutians Area Plan for State Lands.

Alaska Dept. of Natural Resources, Div. of Parks and Outdoor Recreation. March 1995. Management Plan for State Marine Parks: Aleutians and Resurrection Bay.

Alaska Regional Response Team. October 2004. Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases, Annex O, Guidelines for Places of Refuge Decision-Making.

Dept. of Commerce - National Oceanic & Atmospheric Administration (NOAA), National Ocean Survey can provide detailed hydrographic charts of PPOR locations upon request. Contact Dave Neander, [Dave.Neander@noaa.gov](mailto:Dave.Neander@noaa.gov), (206) 526-6949, NOAA/ORR, 7600 Sand Point Way, NE, Seattle, WA 98115.

International Maritime Organization (IMO). July 17, 2003. Draft Assembly Resolutions Finalized by Nav. 49, Annex 1 Guidelines On Places Of Refuge For Ships In Need of Assistance.

National Wildlife Federation. 2002. Aleutians Biological Hot Spots Workshop Report. 750 W. 7<sup>th</sup> Ave, Ste 200, Anchorage, AK 99501.

Pacific States/British Columbia Task Force. December 2004. Guidelines for Places of Refuge Decision-Making.

U.S. Coast Guard, Marine Safety Office Valdez. March 15, 2004. Aleutians Marine Firefighting and Prevention Plan.

U.S. Coast Guard, Commandant Instruction 16451.9, U.S Coast Guard Places of Refuge Policy.

**A. USEFUL WEBSITES**

Alaska Dept. of Environmental Conservation, Aleutians GRS Information  
<http://www.state.ak.us/dec/spar/perp/grs/pws/home.htm>.

Alaska Dept. of Natural Resources. Tidelands Mapper  
<http://www.tidelands.landrecords.info/>.

Alaska Dept. of Natural Resources, Aleutians Subarea Maps including, general maps, land use and management maps, biologically sensitive area maps, most environmentally sensitive area maps, environmentally sensitive index maps, and geographic response strategies for PWS  
<http://www.asgdc.state.ak.us/maps/cplans/subareas.html#pws>.

Alaska Regional Response Team  
<http://alaskarrt.org>

U.S Bureau of Land Management. Alaska Land Information System,  
<http://www.ak.blm.gov/alis/>.