



# ALEUTIAN ISLANDS WATERWAYS SAFETY PLAN

May 2019, Rev 4 **FINAL**

## MISSION

*The mission of the Aleutian Islands Waterways Safety Committee is to enhance safe, efficient and environmentally sound maritime operations in the Aleutian Islands by fostering a productive exchange of information among mariners and other stakeholders and establishing and promoting best practices and standards of care.*

# ALEUTIAN ISLANDS WATERWAYS SAFETY PLAN

## LETTER OF PROMULGATION

The Aleutian Islands and neighboring waterways make up a remote, environmentally rich maritime region located along the Great Circle route that thousands of vessels transit on voyages between North America to Asia. This region is home to one of the most productive fisheries in the world. The extreme weather conditions and limited response resources in this maritime region have contributed to numerous major marine casualties resulting in loss of life, property and environmental harm. The most notable of a major marine casualty in recent history was the loss of the Motor Vessel (M/V) SELENDANG AYU, in which six lives were lost during rescue operations and which resulted in significant environmental impact. This disaster led to the establishment of the Aleutian Island Risk Assessment (AIRA) and the implementation of increased risk mitigation and emergency response capabilities.

This Waterways Safety Plan was promulgated to further enhance marine safety and environmental stewardship in the region through risk-based decision making and the implementation of standards of care, dissemination of information and development of capabilities. This Plan is a living document and the product of the collaboration of maritime stakeholders and communities as represented by members of the Aleutian Islands Waterways Safety Committee (AIWSC) who shared their time and expertise to identify and disseminate initiatives that enhance maritime safety.

The AIWSC has applied the guidelines in the U.S. Coast Guard's NVIC 01-00 in establishing the Committee. The Coast Guard, while prohibited from being a voting member, serves as a primary advisor, active participant and contributor to the Committee and this Plan.

As maritime activities in the Aleutians are dynamic, this Plan will undergo periodic changes and updates to address developments. The Waterways Safety Committee is committed to maintaining and updating this plan as operations change, new information is obtained and evolving technologies warrant.

The Aleutian Islands Waterways Safety Plan and other details regarding the activities of the Committee can be found at:

[www.aleutianislandswsc.org](http://www.aleutianislandswsc.org)

Comments and suggestions regarding the plan may be forwarded to the Committee through this web site.

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## SECTION A

### INTRODUCTION

## A.1. STATEMENT OF PURPOSE

The Aleutian Islands Waterways Safety Committee (AIWSC) was created in 2017 to enhance safe, efficient and environmentally sound maritime operations in the Aleutian Islands and adjacent waters, including the Pribilof Islands by fostering a productive exchange of information among mariners and other stakeholders and establishing and promoting best practices and standards of care. It is modeled after Harbor Safety Committees established in other regions of the U.S. and the guidance provided in U.S. Coast Guard NVIC 1-00 (Navigation Vessel Inspection Circular).

The AIWSC provides a proactive forum for identifying, assessing, planning, communicating and implementing operational and environmental measures beyond statutory and regulatory requirements that promote safe maritime operations in the challenging waters encompassing the Aleutian Islands and adjacent waters. The Waterways Safety Committee (WSC) is made up of delegates appointed by broadly based organizations representing a span of interests focused on maritime operations, maritime safety and environmental protection in the region. Various governmental agencies formally support the work of AIWSC in advisory roles.

With broad stakeholder participation, the AIWSC offers a forum to lead the stakeholder community in identifying and resolving conflicts or concerns in the course of conducting maritime operations in the Aleutian Islands and neighboring waters. The intent of establishing the AIWSC is to serve as an inclusive organization that can explore issues and develop non-regulatory solutions for managing and reducing the risk of maritime casualties that result in loss of life, property and environmental harm. The standards of care and protocols developed and incorporated in the Aleutian Islands Waterways Safety Plan are intended to complement and supplement existing federal, state and local law, regulations and guidelines.

The WSP target audience is the maritime community and associated stakeholders that operate in and through the Aleutian and Pribilof Island area.

- **Section B** of the WSP presents general information on relevant topics identified by the WSC members and related to safe navigation.
- **Section C** focuses on Standards of Care, or procedures and practices to ensure safe, secure, efficient and environmentally responsible operations.
- **Section D** (Appendix) provides supplementary details related to the geographic region's history, ecological and economic issues of concern illustrating the importance of protecting the resources and mitigating future maritime incidents.

## A.2. PROCEDURES

The elements of the Aleutian Islands Waterways Safety Plan are developed by subcommittees of the WSC. To assure the broadest perspectives on measures are considered, these teams are

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expected to include interested parties from within the AIWSC and to reach beyond the AIWSC for membership, participation and advice. Decisions and policies will be made by consensus.

As possible additions and/or corrections to the Waterways Safety Plan are identified, the Chair of the WSC will appoint one or more AIWSC members to lead a subcommittee to consider specific issues and forward recommendations to the full AIWSC.

### A.3. WATERWAYS SAFETY COMMITTEE MEMBERS

The Aleutian Islands Waterways Safety Committee (AIWSC) is a stakeholder organization that represents the interests of each stakeholder group through nomination of a primary representative and alternate for each stakeholder seat. The Chair of the Waterways Safety Committee (WSC) appoints the chairs of the various WSC subcommittees.

Committee membership shall not, by itself, be construed to in any way limit the legal rights, obligations, or authorities of an individual representative or the groups or agencies which they represent. For additional information refer to the [AIWSC Charter](#).

#### A.3.1. Voting Members

The Waterways Safety Committee includes representatives from the following stakeholder groups:

##### **Marine Vessel Operations**

At-Sea Fish Processors  
Commercial Fishing  
Commercial Fishing Vessels < 60 feet  
Passenger Vessels  
Cargo Ships  
Tank Vessels  
Barges (including cargo and petroleum) and  
Associated Tugs  
Assist Tugs (docking, rescue)

##### **Ports and Harbors**

Port Director, Harbormaster, Local  
Government  
Terminal Operators

##### **Response Operations**

Oil Spill Response  
P&I Clubs  
Salvage

##### **Others**

Alaska Native Interest  
Conservation Organizations  
Marine Pilots  
Ships' Agents  
Subsistence User  
AIWSC Managing Board Director  
At-large  
Vessel Monitoring and Tracking

#### A.3.2. Ex-Officio (Non-Voting) Members

In addition to the stakeholder groups listed above, there are a number of governmental agencies that are invited to serve on the Waterways Safety Committee in a non-voting, advisory capacity and to the extent the agency consents to participate on the Committee.

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- Alaska Department of Environmental Conservation
- Alaska Department of Fish and Game
- National Oceanic and Atmospheric Administration
- North Pacific Fisheries Management Council
- U.S. Fish and Wildlife Service
- U.S. Coast Guard



## SECTION B

### GENERAL INFORMATION

# ALEUTIAN ISLANDS WATERWAYS SAFETY PLAN

## B.1. STANDING POLICIES AND DIRECTIVES

Standards and protocols included in the Waterways Safety Plan (WSP) address operational and environmental issues unique to the Aleutian Islands. This Plan is not intended to supplant or otherwise conflict with federal, state, or local regulations, policies or directives developed under legal authorities. Nor is the plan intended to replace the good judgment of a ship's master in the safe operation of his/her vessel. The WSP is intended to complement existing regulations by advising the mariner of unique conditions and requirements that may be encountered in the Aleutian and Pribilof Islands, and the standards and protocols developed by local experts for ensuring greater safety in light of those conditions and requirements.

## B.2. GEOGRAPHIC SCOPE

The geographic scope of the Aleutian Islands WSC includes the area encompassed by the boundaries of the Aleutians East Borough and the Aleutians West Coastal Resource Service Area, including the Pribilof Islands and adjacent shorelines and waters to the outer boundary of the U.S. Exclusive Economic Zone as depicted in Figure B-1.

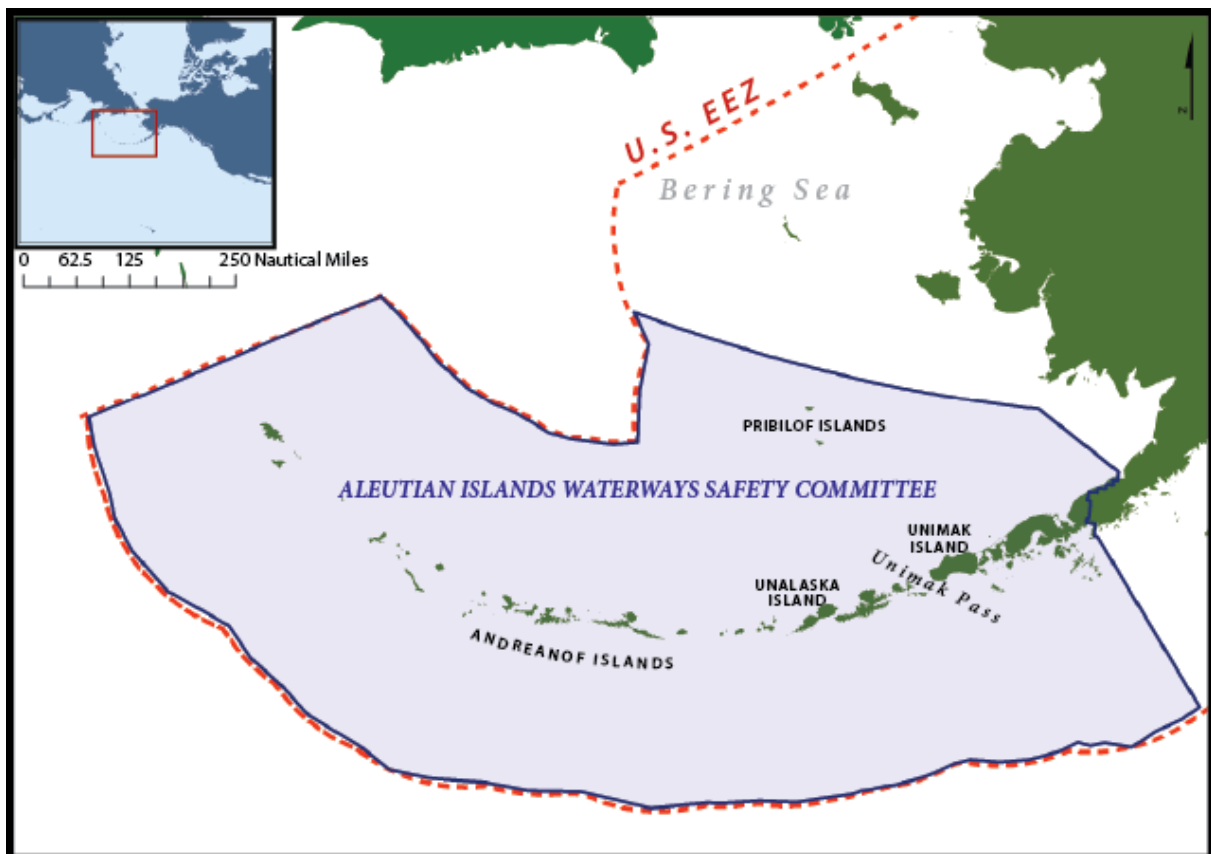


Figure B-1. Geographic Scope of the Aleutian Islands Waterways Safety Committee.

## B.3. U.S. COAST GUARD SECTOR ANCHORAGE

For all U.S. Coast Guard mission areas including waterways management, marine safety, search and rescue, law enforcement, maritime security, and environmental stewardship, Sector Anchorage is the primary authority. The Sector Anchorage Commander has five unique federal authorities throughout Western Alaska:

- Captain of the Port (COTP)
- Search and Rescue Mission Coordinator (SMC)
- Federal on Scene Coordinator (FOSC)
- Federal Maritime Security Coordinator (FMSC)
- Officer in Charge Marine Inspection (OCMI)

Tasked with the oversight of marine safety, security, and environmental stewardship throughout Western Alaska, Sector Anchorage conducts a broad array of activities that includes vessel inspection, investigations of marine casualties, search and rescue, aids to navigation, and federal pollution response efforts. The legal boundaries for the COTP Western Alaska are set forth in 33 Code of Federal Regulations 3.65-10. The COTP has varying levels of jurisdiction extending to the outer limit (200 nautical miles) of the Economic Exclusion Zone (EEZ) for foreign and domestic vessels.

## B.4. ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

For all commercial vessel and waterways management, marine safety, and environmental protection and spill preparedness and response issues in Alaska waters, including all of the Aleutian and Pribilof Islands, the Alaska Department of Environmental Conservation (ADEC) is the primary state authority responsible for dealing with vessel and facility incidents as they might impact state resources. The state's jurisdiction extends to activities occurring in the coastal waters within the U.S. territorial seas, and state interests may extend beyond those limits to the extent the event would likely impact state waters and resources. Similar to the U.S. Coast Guard, the Spill Prevention and Response (SPAR) program of ADEC conducts vessel examinations utilizing accepted industry standards for tank and non-tank vessels and oil barges, as well as conducting fuel and cargo oil transfer monitoring inspections.

## B.5. COAST PILOT

Coast Survey published its earliest version of the United States Coast Pilot in 1858, as Appendix No. 44 in Coast Survey's Annual Report. Now as part of the National Oceanic and Atmospheric Administration (NOAA), Coast Survey publishes nine regional volumes providing navigational information that cannot effectively be represented on nautical charts. Volume 9 provides information on the maritime regions of Western Alaska, including the region represented by AIWSC.

The Coast Pilot provides information on ports and harbors, hazards, safety and environmental issues beyond that which can be incorporated on NOAA charts. The publication provides a

means for the AIWSC to provide information to mariners not familiar with Western Alaska ports as well as “Standards of Care” and other information generated by the Committee. The AIWSC will periodically review the Coast Pilot information on Western Alaska ports covered by the AIWSC to ensure it is current and accurate. After conducting vetting of information provided NOAA will publish recommended changes and data in the appropriate section of the manual.

The on-line version of the Coast Pilot can be accessed via the internet at <https://nauticalcharts.noaa.gov/publications/coast-pilot/index.html>

### B.6. DUTCH HARBOR FAIRWAY MANAGEMENT

Occasionally deep draft vessels at anchor in the Fairway present a navigational hazard in port to tugs in tow. Figure B-2 depicts the boundary points for the identified area.

**Fairway Protocols:**

Anchoring within this area is not recommended without first contacting the Harbormaster’s Office.

**Dutch Harbor Harbormaster Contact Information:**

Telephone: (907) 581-1254

On Duty Officer Cell: (907) 359-1254

VHF CH 16/14.

[City of Unalaska website - Ports and harbors contact information](#)

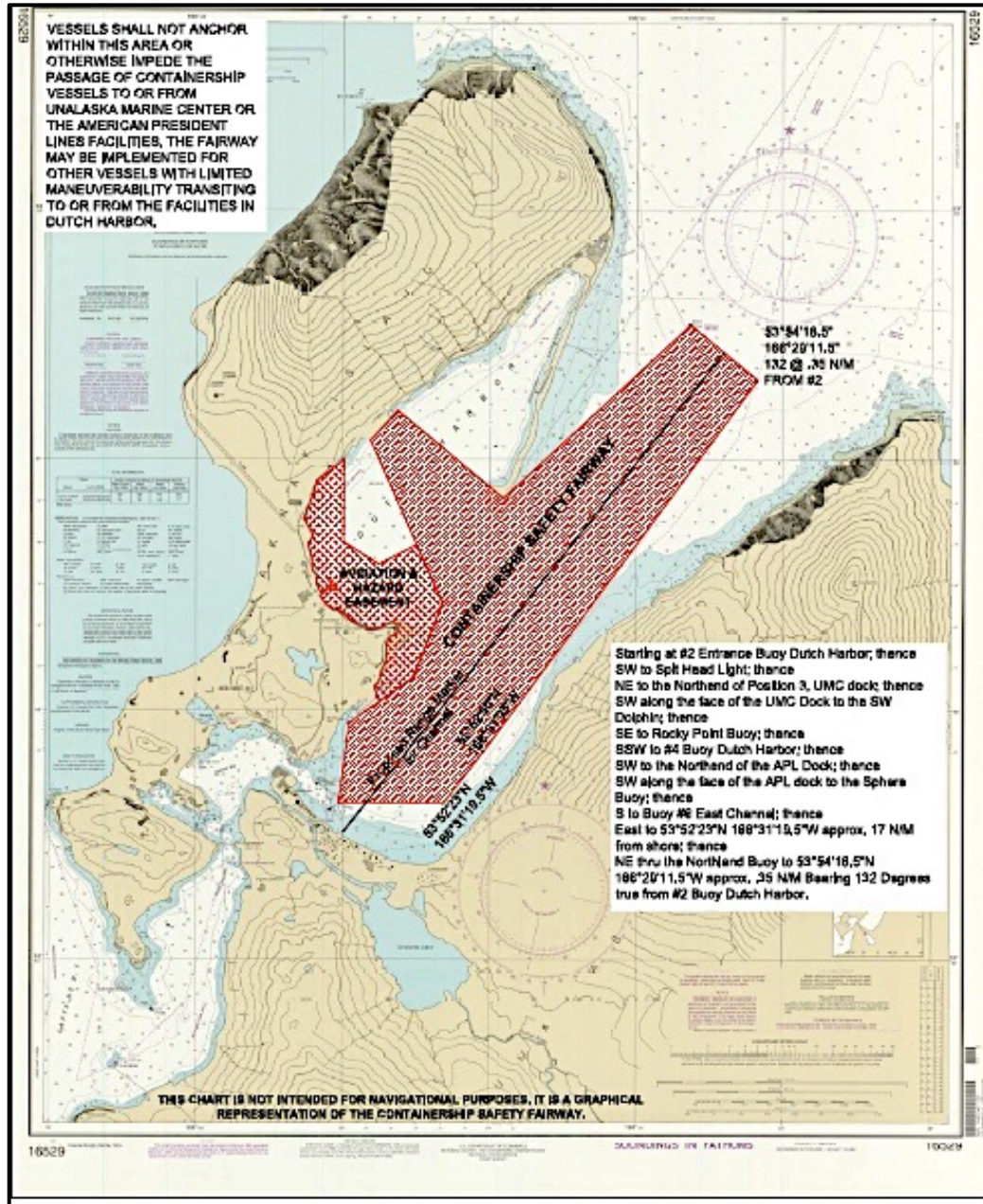


Figure B-2. Dutch Harbor Fairway boundaries.

## B.7. POTENTIAL PLACES OF REFUGE FOR STORM AVOIDANCE

The M/V SELENDANG AYU incident in December 2004 focused attention on international vessel traffic transiting the Aleutian Islands Geographic area and the need to identify Potential Places of Refuge (PPOR) for vessels experiencing distress or seeking shelter from severe weather. Understanding this guidance is an important prevention measure for vessels that have lost power or steering, are structurally damaged or leaking, and may need to be brought into a harbor or anchored to effect repairs. It is also intended to apply to vessels that are seeking to

avoid severe weather to prevent the loss of life or loss of the vessel, or to prevent or mitigate a release of oil or hazardous substances<sup>1</sup>.

Together the U.S. Coast Guard and Alaska Department of Environmental Conservation authored a joint Arctic and Western Alaska Area Contingency Plan (ACP) that contains a detailed listing of PPOR in the Aleutian Islands. This response plan meets the requirements of the National Contingency Plan (NCP) and the Alaska Regional Contingency Plan (RCP) applicable to the state and federal government.

The most recent version of the ACP was approved in September 2018 and is available on the ADEC website at: <https://dec.alaska.gov/spar/ppr/contingency-plans/response-plans/>

The ability of vessels to utilize PPOR is an important component to minimize the risk to life and negative effects to environmental and economic resources.

### **B.7.1. Potential Places of Refuge (PPOR)**

This guidance consists of two parts:

- 1) A flow chart that describes the process to make expedited decisions that ensure appropriate federal, state and local agency partners, federally-recognized tribes, stakeholders, and other experts (e.g., marine pilots) are consulted whenever possible and;
- 2) Maps that pre-identify locations for docking, anchoring, mooring and grounding that may be used as PPOR.

The flow chart and decision-making process are part of the Arctic and Western Alaska ACP and define Potential Places of Refuge as a location to which a vessel needing assistance can be temporarily moved, and where actions can then be taken to stabilize the vessel. The decision process provides guidance for an incident that requires immediate action as well as for a situation that allows time for consultation with Unified Command and partner agencies. This flow chart can be found on the ADEC webpage: <https://dec.alaska.gov/spar/ppr/response-resources/ppor/aleutians/>.

Maps of pre-identified sites for consideration as Potential Places of Refuge in the Aleutian Islands geographic area are divided into 10 zones. The maps contain pertinent geographic, bathometric, sensitive resources areas and operational considerations for each of the pre-identified areas to aid in the decision-making process.

It is important to note that the PPOR document is only guidance and does not require that the locations identified be used as the sole locations for PPOR.

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<sup>1</sup> For Severe Weather Guidelines, see Standards of Care Section C.2.



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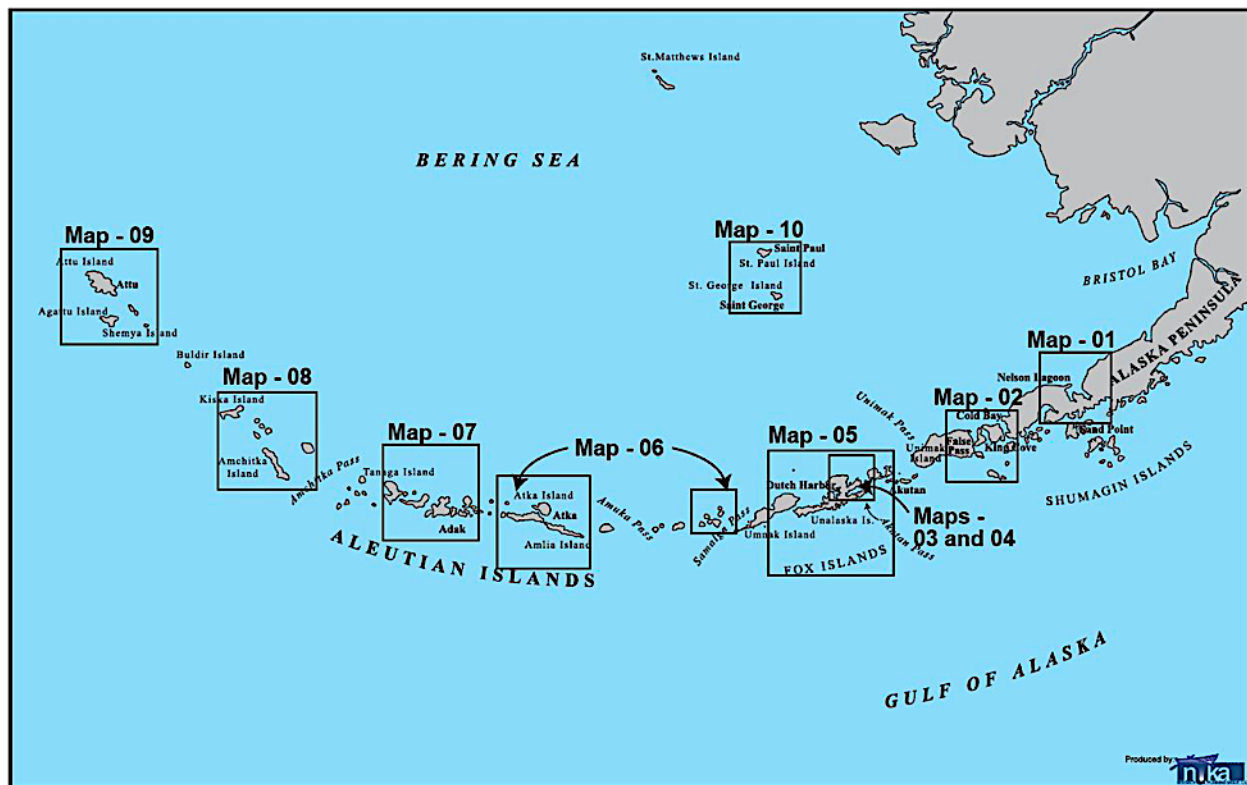


Figure B-3. Aleutian Islands PPOR Index Map (Source: Aleutians Subarea Contingency Plan, PPOR)

For the complete set of PPOR Maps, detailed information on the Aleutian Islands risk assessment matrices and PPOR, the Aleutians Subarea work groups, and status of PPOR development in the state, visit the following website: <http://dec.alaska.gov/spar/ppr/response-resources/ppor/aleutians/>

### B.7.2. Storm Avoidance & Emergency Anchorage

Vessels regularly seek refuge from storms throughout the Aleutians. The USCG Captain of the Port (COTP) – Western Alaska has jurisdiction over approving temporary mooring or anchoring locations for vessels seeking shelter within the Aleutian Islands. The COTP will consult with natural resource trustees and other appropriate stakeholders when authorizing storm avoidance requests and emergency anchoring locations.

The guidance for the incident-specific decision-making process for vessels in distress can be found at <https://dec.alaska.gov/spar/ppr/response-resources/ppor/aleutians/>.

The vessel master is ultimately responsible for the safe operation of their vessel at all times. It is always the master's responsibility to take all necessary steps to effectively mitigate risks in severe weather. If those steps include a deviation from a planned route or emergency anchorage, the vessel master should notify the U.S. Coast Guard as soon as practicable.

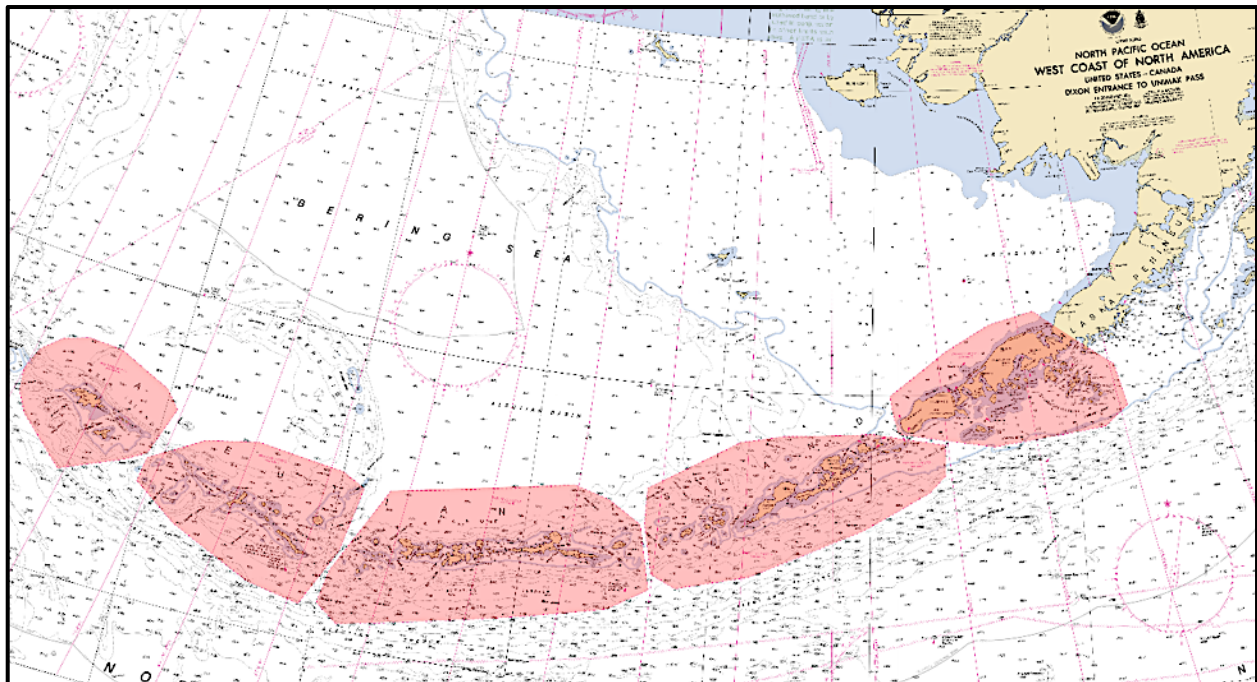
## ALEUTIAN ISLANDS WATERWAYS SAFETY PLAN

A detailed analysis of risk factors, including weather, for the Aleutian Island region can be found at: <http://dec.alaska.gov/spar/ppr/response-resources/ppor/aleutians/>

### B.8. AREAS TO BE AVOIDED (ATBA)

The remoteness, extreme weather conditions and substantial maritime activity by international trade and in the Aleutian Islands and neighboring waters has contributed to major marine casualties that have resulted in loss of life, property and environmental harm (Refer to Appendix D.1. for more information on the history of marine casualties in the region).

This section provides guidance to vessel masters transiting the Aleutian Islands geographic area and Western Alaska COTP Zone regarding sensitive natural or economic resource areas that are subject to prevention measures designed to reduce the risk of adverse impacts from ships. These areas, designated as Areas to be Avoided (ATBA), were established by the International Maritime Organization (IMO) effective January 2015 and apply to all vessels greater than 400 gross tons making innocent passage through Aleutian Island archipelago. For more information on the history of ATBA designation, see Appendix D.1.2. The ATBA extend 50 nautical miles from the shoreline of the U.S. Aleutian Islands and serve as a routing measure to restrict navigation by larger vessels. The ATBAs are not mandatory although vessels enrolled in an USCG approved Alternative Planning Criteria (APC) are required to transit outside of the ATBAs. The ATBAs do not apply to fishing industry vessels, tugs or vessels making domestic port calls.



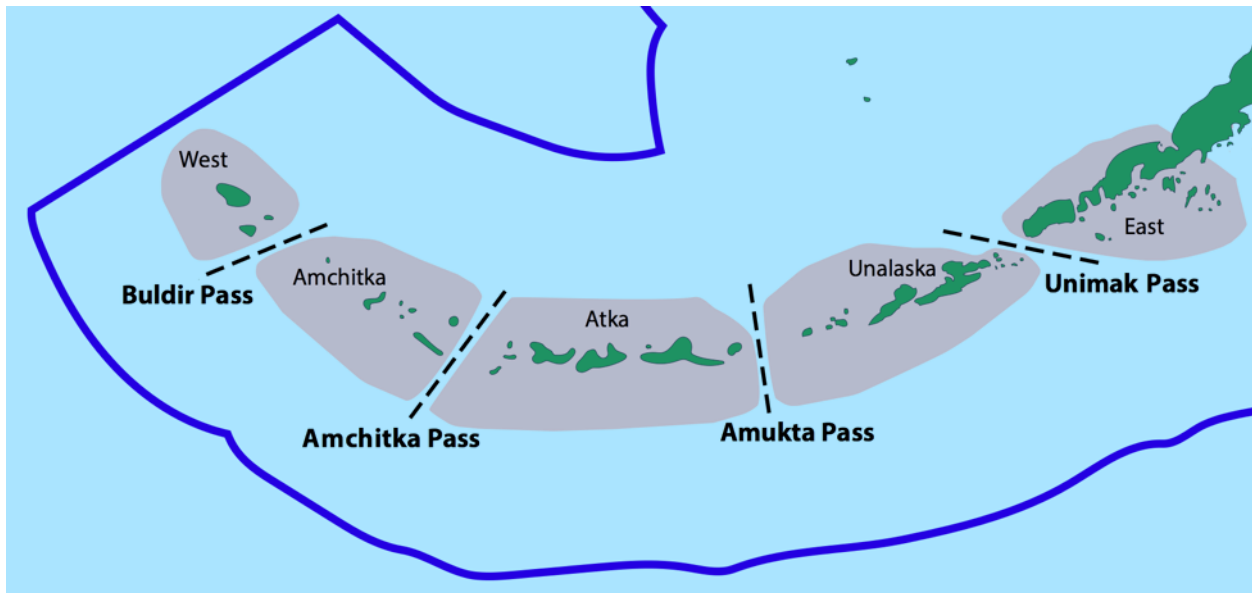
**Figure B-4. Aleutian Islands Areas To Be Avoided (ATBAs).**

Vessels greater than 400 gross tons making innocent passage through Aleutian Islands should utilize the designated passes and approaches shown in Figure B-5 to maintain position outside



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of the ATBAs. Vessels should only approach within 50 NM of land when transiting through one of the designated passes or approaches or calling on a port in the area.



*Figure B-5. Designated passes in the Aleutian Islands region.*

### **B.8.1. Requests to Enter an Area to Be Avoided**

Vessels subject to the ATBA measures must request permission from the USCG COTP Western Alaska prior to entry into an ATBA using the procedure described in guidance developed by their APC Provider. Prior to entering an ATBA a vessel master must contact their APC Provider and request approval to enter the ATBA.

The APC provider will provide the vessel master with a Storm Weather Avoidance Form that is to be completed and returned to the APC Provider. The APC Provider will forward the form to the USCG Sector for review and approval. The APC Provider will serve as the Point of Contact between the vessel and the USCG.

If the vessel is requesting to enter an ATBA seeking a Place of Refuge additional information is required to be provided to the USCG. Refer to Section B.7.1. Potential Places of Refuge for further information on this procedure.

### **B.9. AUTOMATIC IDENTIFICATION SYSTEM (AIS)**

The **Automatic Identification System (AIS)** is an internationally adopted vessel tracking and communications system implemented to enhance safe, secure, efficient and environmentally sound maritime operations. The IMO's International Convention for the Safety of Life at Sea (SOLAS) requires AIS to be fitted aboard international voyaging ships of 300 or more gross tonnage, and all passenger ships regardless of size.

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The U.S. Coast Guard also requires AIS be installed and operational on self-propelled vessels of 65 feet or more in length and passenger vessels certificated to carry more than 150 passengers-for-hire, in commercial service, as well as all towing vessels of 26 feet or more in length and more than 600 horsepower, in commercial service. [33 CFR 164.46](#).

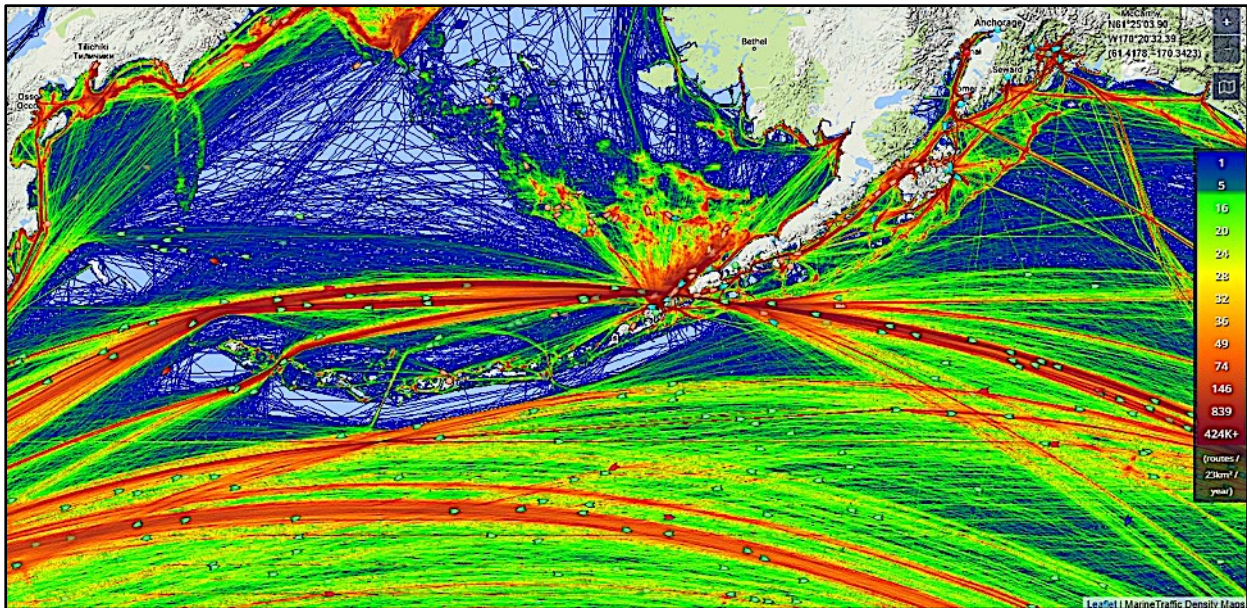
“Properly installed” refers to an installation using the guidelines set forth in IMO SN/Circ.227 (incorporated by reference, [33 CFR 164.03](#)). Not all AIS units are able to broadcast position, course, and speed without the input of an external positioning device (e.g. DGPS); the use of other external devices (e.g. transmitting heading device, gyro, rate of turn indicator) is highly recommended, however, not required except as stated in 33 CFR 164.46(a)(2).

The Coast Guard has noticed many AIS users are not updating their unit to accurately reflect voyage related information, e.g., navigation status, static draft, destination, estimated time of arrival, etc. These issues require the due diligence of the users to ensure the AIS unit is always providing proper identification information so that the AIS serves the intended purpose.

AIS messages transmitted by vessels are received and processed by other vessels, AIS shore receiving stations and satellites. AIS also has the capability to transmit digital messages into data including but not limited to safety messages, environmental data and virtual aids to navigation.

The Coast Guard and the Marine Exchange of Alaska are positioning what is referred to as AIS ATONS (Aids to Navigation) in various locations in the Aleutian Islands. Current listing of weather stations can be obtained on the Marine Exchange’s website at [www.mxak.org](http://www.mxak.org). AIS historical information is also used to evaluate maritime operations in the Aleutians, conduct risk assessments and aid compliance with ATBAs.

Figure B-6 provides a visual representation of vessel activity in 2017 and illustrates the extent and location of maritime traffic in the region encompassed by the AIWSC. The legend shows the number of vessels via colors with the red regions the most heavily trafficked. This graphic was developed from Automatic Identification System (AIS) data after the Aleutian Islands’ ATBA were implemented and reveals how most vessels are staying well offshore in compliance with the ATBA, and that vessels are closest to shore when transiting Unimak Pass. Of note, the ATBA is not a mandatory routing measure and most fishing industry vessels and tugs do not adhere to the ATBA due to the nature of their operations that require them to sail closer to shore.



*Figure B-6. Graphic showing the density of maritime traffic activity obtained by AIS (Automatic Identification System) in the Aleutian Islands region in 2017.*

## B.10. NOTICE TO MARINERS

The 17th Coast Guard District publishes a weekly Local Notice to Mariners (LNM) which includes updates to the Light List and applicable NOAA charts. Mariners should use this LNM to maintain awareness over ongoing maritime activity in the Aleutian Islands. The LNM covers aids to navigation, charts, channel depths, marine construction, military operations, bridge repair/construction, significant marine events and other information of interest to mariners. The web address to receive and/or view the LNM and the yearly Special Local Notice to Mariners (SLNM) is:

<http://www.navcen.uscg.gov/?pageName=lnmDistrict&region=17>

Mariners can submit information to be published into the LNM by contacting the 17<sup>th</sup> Coast Guard District at: [D17-PF-D17-LNM@uscg.mil](mailto:D17-PF-D17-LNM@uscg.mil)

Mariners are urged to take advantage of automatic chart distribution as a quick and easy way to ensure the most up to date charts are on board.

Note: NOAA Electronic Navigational Chart (ENC) numbers are listed for vessels navigating using Electronic Chart Display and Information Systems (ECDIS) that comply with International Maritime Organization (IMO) requirements for Safety of Life at Sea (SOLAS) classed vessels.

## **B.11. OIL SPILL RESPONSE AND PREPAREDNESS**

Certain vessel owners are required, under federal and state law, to hold approved vessel response plans for discharges of oil and hazardous substances. Federal and Alaska laws also require vessel owners to demonstrate financial responsibility to respond to a discharge from their vessels. Vessel owners can arrange to obtain vessel response plans and certificates of financial responsibility through their qualified individuals. The failure of a vessel to comply with state and/or federal requirements may result in the imposition of civil penalties or criminal fines.

The federal and state governments will designate on-scene coordinators to oversee the vessel owner's response to an oil spill. The designated federal and state on scene coordinators will ensure that an owner's response complies with national and area contingency plans covering the area of the discharge.

### **B.11.1. Vessel Response Plan Requirements and Applicability**

Certain vessels, while operating in federal or state waters off the coastline of Alaska, are required to hold vessel response plans to respond to a discharge of oil or hazardous substances from the vessel.

#### **Federal VRP**

Tank vessels and non-tank vessels of over 400 gross tons, bound for or departing from a U.S. port, while navigating within the U.S. Exclusive Economic Zone (out to 200 miles from the U.S. coastline), are required by federal law to hold a USCG-approved vessel response plan (VRP).

The USCG has determined that the available response resources in all areas within the Aleutian Islands are inadequate to allow a vessel owner to meet federal response planning standards for discharges of oil in those areas. In order to satisfy federal VRP requirements, vessel owners must demonstrate that they have implemented approved alternative planning criteria (APC).

#### **State Oil Discharge Prevention & Contingency Plan**

Tank vessels and non-tank vessels of over 400 gross tons, while operating within Alaska state waters (out to 3 miles from the Alaska coastline), are required by Alaska law to have an Alaska State contingency plan, approved by the Alaska Department of Environmental Conservation.

#### **Innocent Passage/Emergency Exceptions**

The federal VRP requirements do not apply to vessels that are in innocent passage, on a voyage in which the vessel is not bound for a U.S. port or place. The State of Alaska planning requirements do not apply to a vessel that is transiting through state waters, or to vessels entering an Alaska port due to a force majeure event such as a medical emergency.

### **B.11.2. Certificate of Financial Responsibility (COFR) Requirements and Applicability**

#### **Federal COFR**

All vessels greater than 300 gross tons using the navigable waters of the United States, or any vessel, regardless of tonnage, that is lightering or transshipping oil within 200 miles of the U.S. coastline, are required to carry a federal certificate of responsibility.

#### **Alaska COFR**

All tank vessels, and non-tank vessels greater than 400 gross tons, are required to have an Alaska state certificate of responsibility, when operating in Alaska state waters. Alaska state COFR requirements do not apply to vessels in innocent passage or those calling at an Alaska port due to a force majeure event.

### **B.11.3. Notification of Discharge or Substantial Threat of a Discharge**

The master or person in charge of a vessel from which oil is discharged, or from which there is a substantial threat of a discharge of oil, must immediately notify the USCG National Response Center of the discharge or the substantial threat of a discharge. For vessels operating under a federal VRP, the master or person in charge should also follow all reporting requirements specified in the VRP.

The master or person in charge of a vessel operating in waters of the State of Alaska must immediately notify the State of Alaska Department of Environmental Conservation (ADEC) of a discharge of oil into state waters from the vessel.

#### **OIL DISCHARGE NOTIFICATION NUMBERS**

USCG National Response Center: 1-800-424-8802

ADEC: (907) 269-3063; Outside normal business hours call 1-800-478-9300 (International: 1-907-269-0667)

### **B.12. FISHING VESSEL-SHIPPING CONFLICTS**

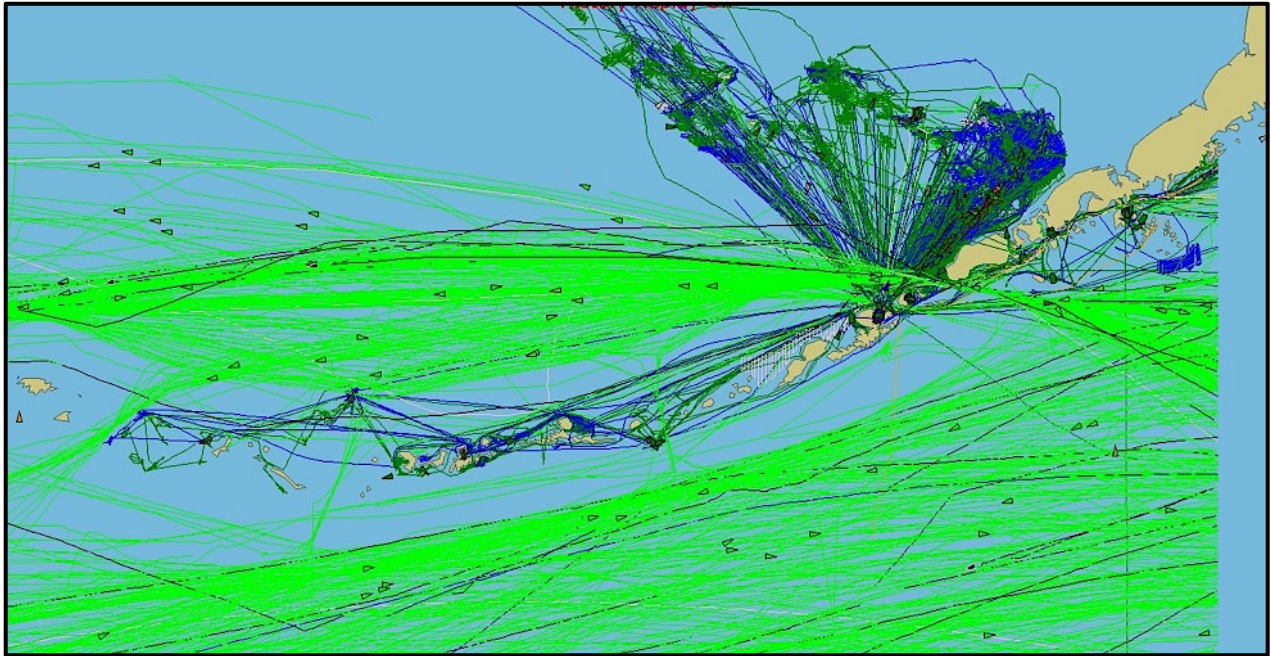
The combination of a projected increase in international shipping activity, high environmental sensitivity, and the economic reliance of local communities on what is one of the largest fisheries in the United States, makes the Aleutian Island archipelago and Pribilof Islands a high-risk region for hazards resulting from international shipping. Historically, commercial fishing vessel activity has dominated vessel traffic within the Eastern Bering Sea and Aleutian Islands region. Statistics systematically collected by the Alaska Marine Exchange have determined that fishing vessel traffic account for nearly 60% of the vessel transits within the region.

Figure B-7 shows the type of vessels operating in the Aleutians captured as a one-month summary of maritime activity in early 2018. The light green lines are cargo vessels (bulk, container ships and reefer ships), the dark green is fishing vessels and blue are government



## ALEUTIAN ISLANDS WATERWAYS SAFETY PLAN

vessels. AIS data has been and will continue to be a valuable source of information for assessing and managing risk in the region.



*Figure B-7. One-month summary of marine activity in early 2018.*

Fishing vessel traffic consists both of vessels transiting to and from port (largely Unalaska and Akutan) to the fishing grounds, as well as fishing vessels engaged in fishing while on the fishing grounds. Fishing vessels typically seen in the region run from small catcher vessels (58' pot fishers, seiners or longliners) that operate in near coastal waters to 300' trawl catcher processors (CP) that operate offshore, year-round, hundreds of miles from the nearest port. Different kinds of fishing vessels are on the grounds, transiting to / from port at different times of the year. The presence of the vessels on the grounds and navigating across the Great Circle Route both create hazards for deep draft vessels transiting the area.

*Table B-1. Fishing Vessels in the Aleutian Islands Region.*

Vessel Type	Operating Season	Fleet Vessel Total	Gear Type	Typical Vessel Size	Navigation Risk Factors
<b>Longline CP</b>	Jan – Dec	28	Longline	135 – 150'	Gear not always tended
<b>Trawl CP (AFA)</b>	Jan – Apr Jun – Oct	16	Trawl	270 – 365'	Maneuverability restricted when trawling

## ALEUTIAN ISLANDS WATERWAYS SAFETY PLAN

<b>Trawl CP (A80)</b>	Jan – Dec	19	Trawl	135 – 260'	Maneuverability restricted when trawling
<b>Trawl CV</b>	Jan – Apr Jun – Oct	100	Trawl	100 – 165'	Maneuverability restricted when trawling
<b>Pot CV</b>	Jan – Apr Oct – Dec	60	Pot	100 – 135'	Gear not always tended
<b>Longline CV</b>	Apr – Oct	35	Longline	50 – 60'	Gear not always tended
<b>Pot CV</b>	Oct – Dec	35	Pot	<60'	Gear not always tended

Vessels in the fleets described above are typically constructed of steel and equipped with VHF radios, AIS, satellite phones. Larger vessels are occasionally equipped with GMDSS equipment. It should be noted that in addition to the vessels themselves, fixed gear fishing vessels (pot and longline), can also create additional navigation hazards when fishing their pot gear and longline gear on the grounds. While this gear is marked with visual buoys, the buoys are not equipped with any kind of transmitter and could be susceptible to being struck by a passing deep draft vessel.

Increased fishing vessel traffic congestion can occur at certain times of the year and coincides with the start of certain fishing seasons. Most major fisheries (cod, pollock, flatfish, and crab) begin during the month of January. While the start of those fisheries is spread throughout the month, they all persist well into March, resulting in a high level of vessel traffic around Dutch Harbor for the first part of the year. On the grounds, trawl C/Vs are heavily concentrated in late January – mid February while they are fishing for cod near Unimak Island. Similarly, C/Vs using pot gear to fish for cod are concentrated at the same time of year in the same locations. In contrast, longline C/P are typically widely dispersed, with each vessel typically fishing a 20 x 20 NM box. Other fisheries tend to be more temporally dispersed across larger areas.

While there are existing vessel traffic management practices in place, specifically the Unimak Pass Safety Fairway (established in 1986) and the Two-Way Routes and Precautionary Areas in the Bering Sea and the Bering Strait (established in 2018), they are designed to facilitate (west – east) and (north – south) traffic of deep draft vessels transiting the area. The two traffic management schemes are not integrated at this time and overlay the traffic patterns used by fishing vessels operating out of Unalaska and Akutan.

Note: There have been a limited number of collisions at-sea between fishing vessels and much larger deep draft vessels on transit via the Great Circle Route.

### B.13. MARINE MAMMAL CONFLICT AVOIDANCE

## ALEUTIAN ISLANDS WATERWAYS SAFETY PLAN

**Marine Mammals of the US North Pacific & Arctic**

0 10 METERS

**Blue Whale**  
*Balaenoptera musculus*

**Fin Whale**  
*Balaenoptera physalus*

**Humpback Whale**  
*Megaptera novaeangliae*

**Gray Whale**  
*Eschschius robustus*

**Minke Whale**  
*Balaenoptera acutorostrata*

**North Pacific Right Whale**  
*Eubalaena japonica*

**Sei Whale**  
*Balaenoptera borealis*

**Sperm Whale**  
*Physeter macrocephalus*

**Killer Whales**  
*Orcinus orca*  
Resident  
Transient  
Big's

**Beluga or White Whale**  
*Delphinapterus leucas*

**Bowhead Whale**  
*Balaena mysticetus*

**Cuvier's Beaked Whale**  
*Ziphius cavirostris*

**Steller's Sea Lion**  
*Eumetopias jubatus*

adult male  
adult female  
calf

**Map:** ARCTIC OCEAN, NORTH PACIFIC, BERING SEA, CHUKOTSK SEA, KAMCHATKA, JAPAN, PACIFIC OCEAN.

**Marine Mammal Protection Act (MMPA)**

In 1972, Congress enacted the MMPA, establishing a national policy to help prevent the extinction or depletion of marine mammal populations from human activities.

NOAA Fisheries and the U.S. Fish and Wildlife Service are the lead federal agencies for enforcing this law to protect marine mammals. The MMPA protects all whales, dolphins, seals, sea lions, porpoises, manatees, polar bears, otters and walrus from human-induced harm. In the United States, NOAA Fisheries works with scientists, industry, and conservation groups to develop measures that help to protect marine mammals from entanglement, ship strike, and other activities that might cause these animals harm.

Design and Illustrations: Lisa Carter (www.alaskapix.com)

NOAA Fisheries  
Alaska Region  
907-586-7221  
Alaska Fisheries Science Center  
206-526-4000

NOAA FISHERIES

U.S. FISH AND WILDLIFE SERVICE

TO REPORT STRANDED, ENTANGLED, INJURED, OR DEAD MARINE MAMMALS, CALL: NOAA FISHERIES 1-877-925-7773; ALASKA SEA LIFE CENTER 1-888-774-7325 (SEAL); U.S. FISH AND WILDLIFE 1-800-362-5148





**Figure B-8b. Marine Mammals of the U.S. North Pacific and Arctic.**

## B.13.1. General Guidance for Interacting with Marine Mammals

- Where possible, do not approach observed marine mammals and avoid interacting with them by giving them a wide berth.
- In the event marine mammals cannot be given a wide berth, maintain a minimum distance of 500 yards from the animal and stay downwind if possible.
- Vessels should be slowed to 10 knots or less when whales are sighted, allowing both the vessel captain and the whale an opportunity to change direction and avoid impact.
- Actions that disrupt or alter the animal's behavior are considered harassment under the MMPA (see table below for full definition).
- Document, and photograph if possible, any abnormal marine mammal behavior or entanglements and share the information with NOAA Fisheries.
- If a marine mammal is observed to be entangled, injured, or is otherwise in distress contact the **NOAA 24-hr Stranding Hotline: (877) 925-7773**

**Table B-2. Definition of Harassment under the Marine Mammal Protection Act**

Definition of Harassment under the Marine Mammal Protection Act	
<b>Level A harassment</b>	Any act of pursuit, torment, or annoyance that has the potential to injure a marine mammal or marine mammal stock in the wild.
<b>Level B harassment</b>	Acts that have the potential to disturb (but not injure) a marine mammal or marine mammal stock in the wild by disrupting behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.
<b>Report marine mammal harassment!</b> <b>NOAA Fisheries Enforcement Hotline: (800) 853-1964</b>	

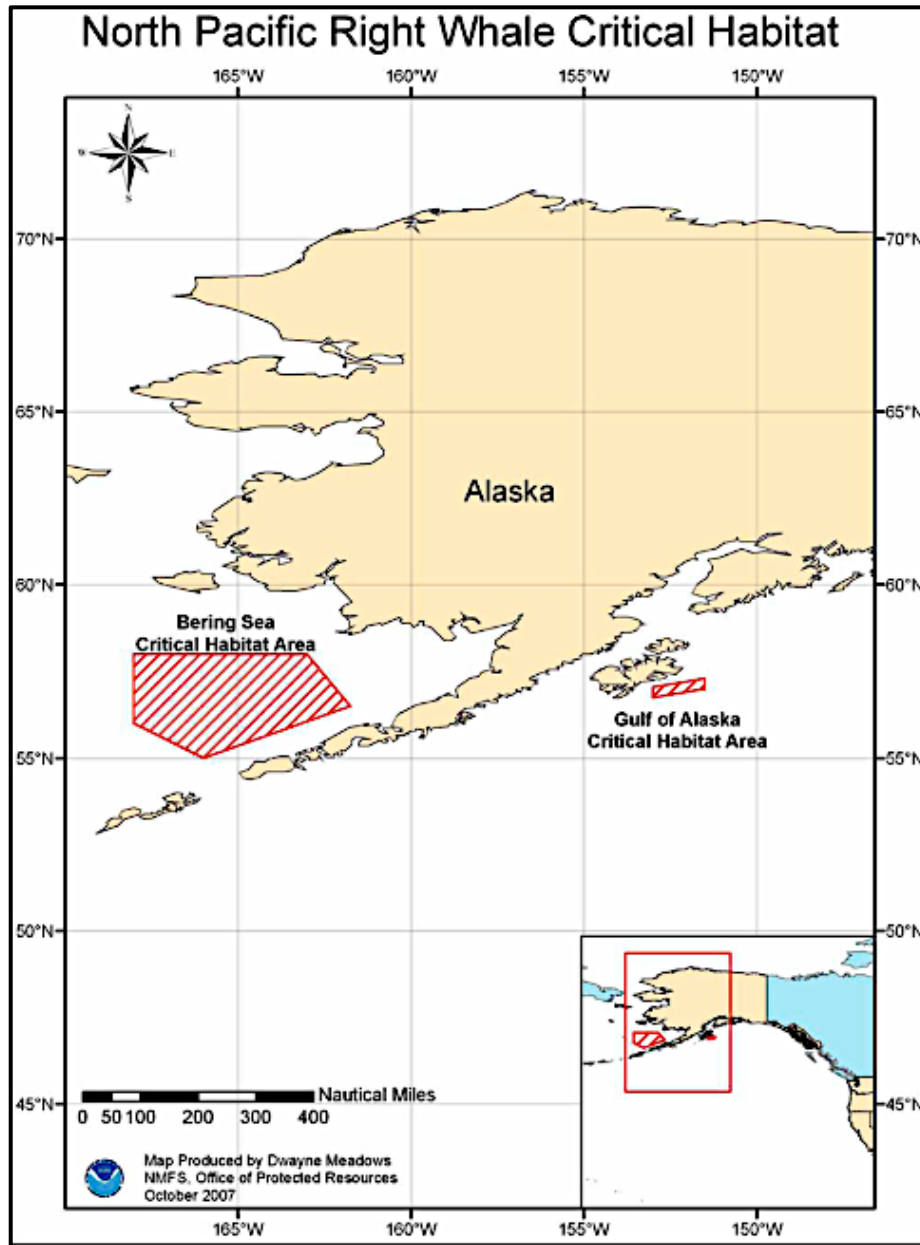
### **B.13.2. Restricted Areas for Vessel Traffic**

There are areas within the Aleutian and Pribilof Islands that have legal protections restricting vessels from entry. It is prohibited to adversely modify designated critical habitat. Designated no-entry zones for Steller sea lion critical habitat can be found in 50 CFR 224.103(d) at <https://www.law.cornell.edu/cfr/text/50/224.103>.

*Note: Vessels may enter these areas in cases of emergency or with written authorization from the appropriate government entity.*

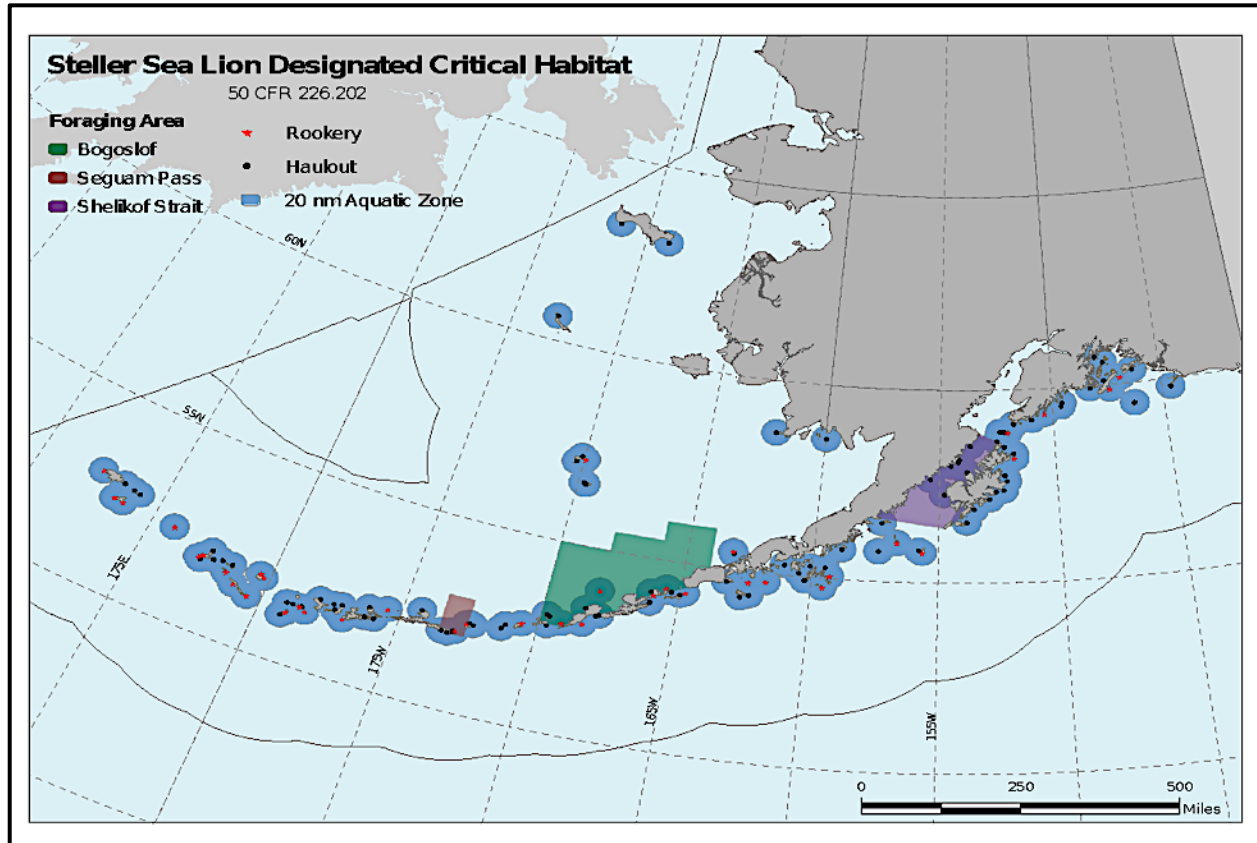
### **B.13.3. Awareness Areas for Vessel Traffic**

Marine mammals can be found throughout the Aleutian and Pribilof Islands. Humpback whales and killer whales are present year-round. Other species, such as fin whales, gray whales and North Pacific right whales – the rarest of all large whale species - are present seasonally (early spring to late fall) and are concentrated in Aleutian marine passes during their migration. Other areas to be aware of are the North Pacific Right Whale critical habitat areas. Vessels should minimize operations in these areas as practical and maintain a vigilant watch while operating within them. For more information on North Pacific right whales, see Figure B.9 or click on the following link: <https://www.fisheries.noaa.gov/species/north-pacific-right-whale>



**Figure B-9. North Pacific Right Whale critical habitat**

Steller sea lions are designated as endangered under the Marine Mammal Protection Act and congregate near rookeries and haulouts during the spring/summer breeding season. They disperse widely outside of the breeding season, without clearly defined migratory routes. Their distribution and movements are most likely affected by seasonal prey availability and can vary significantly between years. Designated critical habitat for Steller sea lions includes a 20 nautical mile buffer around all major haulouts and rookeries (50 CFR 226.202).



**Figure B-10. Critical habitat designated for the Steller sea lion in western Alaska.**

Northern sea otters are distributed within 3 miles around many of the islands in the Aleutian chain and the islands of the lower Alaska Peninsula at very low densities and are designated as threatened under the Marine Mammal Protection Act.

Northern fur seals are designated as a depleted species under the Marine Mammal Protection Act. They range from Japan to Southern California and north through the Bering Sea, and seasonally inhabit the Bering Sea and the Gulf of Alaska. Fur seals will spend months at a time at sea. Major northern fur seal rookeries and haulouts in Alaska occur on the Pribilof Islands and on Bogoslof Island. During the breeding season,  $\frac{3}{4}$  of the total world population will be found in the Pribilof Islands.

#### **B.13.4. General Species Information**

Marine Mammal identification tools for mariners

<https://www.fisheries.noaa.gov/resource/outreach-and-education/marine-mammals-us-north-pacific-arctic>

#### **Information regarding Endangered Species in the Aleutian and Pribilof Islands**

As defined in the Endangered Species Act (ESA), endangered species are any species in danger of extinction throughout all or a significant portion of its range. Within the Aleutian and Pribilof Islands region this includes the following species:

## ALEUTIAN ISLANDS WATERWAYS SAFETY PLAN

Listed Species	Scientific Name	Status
Short-tailed albatross	<i>Diomedea albatrus</i>	Endangered
Blue whale	<i>Balaenoptera musculus</i>	Endangered
Humpback whale	<i>Megaptera novaeangliae</i>	Endangered
Fin whale	<i>Balaenoptera physalus</i>	Endangered
Sei whale	<i>Balaena borealis</i>	Endangered
Sperm whale	<i>Physeter macrocephalus</i>	Endangered
North Pacific right whale	<i>Eubalaena japonica</i>	Endangered
Steller sea lion (Western population)	<i>Eumetopias jubatus</i>	Endangered

### ***Information regarding Threatened Species in the Aleutian and Pribilof Islands***

Threatened species are any species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Within the Aleutian and Pribilof Islands region this includes the following species:

Listed Species	Scientific Name	Status
Steller's eider	<i>Polysticta stelleri</i>	Threatened
Spectacled eider	<i>Somateria fischeri</i>	Threatened
Northern sea otter	<i>Enhydra lutris kenyoni</i>	Threatened

### ***Additional Information & Other Resources***

The following organizations provide additional information regarding the protected marine mammal resources within the Aleutian and Pribilof Islands:

1. **National Marine Fisheries Service (NMFS)** provides additional information regarding marine mammals in Alaska on their website: <https://www.fisheries.noaa.gov/alaska>
2. **US Fish and Wildlife Service (USFWS)**
3. **World Wildlife Fund (WWF)**
4. **Whale Alert** is an online and phone-based app, which can be at: <http://www.whalealert.org/> and used to identify and report all marine mammal sightings.

## **B.14. PRIORITY AREAS FOR BOTTOM SURVEY**

The National Oceanic and Atmospheric Administration (NOAA) has a statutory mandate to collect hydrographic data in support of nautical chart compilation for safe navigation and to provide background data for engineers, scientific, and other commercial and industrial activities. Hydrographic survey data primarily consist of water depths, but may also include features such as rocks, wrecks, navigation aids, shoreline identification, and bottom type information. NOAA is responsible for archiving and distributing the source data as described in this metadata record. The National Ocean Service (NOS) has 2.1 million bathymetric soundings



extending 1,900 km along the Aleutian Islands from Unimak Island in the east to the Russian border in the west and ranging approximately 500 km north of the central Aleutians to Petrel and Bowers Banks, and also the surrounding deep waters of the southeastern Bering Sea.

These bathymetry data are available from the National Center for Environmental Information (NCEI): <http://www.ngdc.noaa.gov>, which archives and distributes data that were originally collected by the NOS and others.

The development of a list of priority areas for new hydrographic surveys is an on-going process as areas are identified by local pilots, mariners, NOAA, the USCG and other users of the Aleutian Islands waters. A Navigation Workgroup will be the point of contact for the gathering and prioritization of areas identified for new bottom surveys before presenting AIWSC recommendations to NOAA.

### **B.15. SHIP-TO-SHIP TRANSFERS (Lightering)**

During the Aleutian Islands Risk Assessment (AIRA), offshore and nearshore ship-to-ship transfer of non-persistent petroleum products from tank vessels to barges or smaller vessels was rare and not identified as an activity of concern. However, since the conclusion of the AIRA, ship-to-ship transfers in the Aleutian Islands have increased and reflect a shift in the fuel delivery model to remote villages in Western Alaska. Although this operational activity in the Aleutian Islands has not resulted in a known oil spill, the potential for a spill into nearshore waters adjacent to highly sensitive environmental and economic resources is of concern.

Vessel operators conducting ship-to-ship transfers, commonly referred to as “lightering,” must adhere to U.S. Coast Guard and ADEC regulatory requirements. These requirements include approved vessel response plans (VRP), oil spill prevention and response plans, and ship-to-ship (STS) operations plans.

Vessel operators conducting ship-to-ship transfers must submit a lightering plan to the USCG Captain of the Port (COTP) – Western Alaska, complete a Declaration of Inspection prior to conducting the transfer, and provide information associated with on-scene oil spill response capabilities. The lightering operation must ensure a vessel/barge meeting the Western Alaska Alternative Planning Criteria for tank vessel and secondary cargo carriers has a valid Vessel Response Plan and certain equipment for on board response resources.<sup>2</sup>

Coast Guard Marine Safety Information Bulletin 07-13 and a sample lightering notification form can be found on the U.S. Coast Guard Homeport webpage:

[https://homeport.uscg.mil/port-directory/western-alaska-\(anchorage\)](https://homeport.uscg.mil/port-directory/western-alaska-(anchorage))

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<sup>2</sup> The vessel/barge may also be a signatory to the Alaska Petroleum Distributors and Transporters (APD&T) APC Agreement for compliance.

Lightering notification forms should be submitted to the USCG Sector Anchorage Waterways Management Division: [Anchorage.Waterways@uscg.mil](mailto:Anchorage.Waterways@uscg.mil)

### **B.16. ABANDONED & DERELICT VESSELS**

Derelict vessels in navigable waters may pose hazards to the marine environment or to the safe navigation of vessels. A federal response (Coast Guard or Corps of Engineers) may be undertaken to address a derelict vessel blocking a navigational channel or with oil or chemicals on board and in threat of sinking and causing environmental harm. Response to derelict vessels not meeting these criteria may be addressed by local, state, and federal partners as resources permit or by private parties. In cases where oil and/or chemicals are present on the vessel and the vessel presents a threat of sinking or otherwise causing a release of oil or chemicals into the marine environment the Oil Spill Liability Trust Fund (Fund) may be accessed to fund a response that prevents or mitigates the environmental threat. A private party that takes action to prevent the threat of environmental harm may seek reimbursement from the Fund for costs incurred.

The State of Alaska has established a Joint Agency Vessel of Concern Reporting Form that can be used to initiate an assessment and determination on the actions that may be taken for a derelict vessel not presenting an immediate threat. A copy of this form is available from Coast Guard Sector Western Alaska and the Alaska Department of Environmental Conservation via the following link: [ADEC-ak-voc-reporting-form](#)

If the situation presented by a derelict vessel requires immediate attention to prevent a hazard to other vessels or environmental harm, contact the Coast Guard's 24-hour watch center at (907) 428-4100.

State legislation was passed in 2018 (SB92) that elevates the capabilities of the State to take action to address derelict and abandoned vessels, including required funding. This provides another avenue to pursue when there is no oil, chemicals or hazardous materials on an abandoned vessel.

### **B.17. MEDICAL TRANSFERS**

There are few medical facilities in the Aleutian Islands, and facilities that exist provide primary care and emergency services. Patients with serious medical problems requiring hospital services are transported to Anchorage or Seattle, Washington for treatment.

#### **B.17.1. Transport of Sick or Injured Crew Member to Shore**

When a crew member becomes ill or is injured, and requires shore-based medical attention, transportation from the vessel to shore can take place by helicopter or by vessel. An accident or

injury may qualify as a hazardous condition or a marine casualty that should be reported immediately to the nearest USCG office.

### **B.17.2. Helicopter Evacuations**

In cases involving serious medical conditions, the USCG may dispatch a helicopter to transfer the affected crew member from the vessel to shore. The Coast Guard determines whether to dispatch a helicopter based on its evaluation of several factors, including the seriousness of the medical emergency, weather, location of the vessel, and availability of helicopters. The Coast Guard monitors VHF FM Channel 16 and can be reached by telephone at (907) 463-2000.

When the USCG decides to deploy a helicopter to evacuate a crew member to shore, the Coast Guard will ordinarily only transfer the crew member to the nearest suitable airport. When the community to which the Coast Guard is evacuating the crew member does not have adequate medical facilities, the vessel owner may need to arrange for the further transportation of the crew member onward to Anchorage or Seattle for medical treatment. This may require the owner to arrange for the services of a medical evacuation jet.

When a foreign crew member is transported ashore, the vessel owner will need to retain the services of local maritime agents to deal with U.S. customs and immigration requirements, and to oversee the crew member's medical care and repatriation.

In urgent cases, local Emergency Management Service (EMS) should be advised and involved to assist in the transfers and to advise the receiving medical facility of an inbound patient.

### **B.17.3. Ship to Shore Evacuations**

In cases where a helicopter evacuation is not available, the vessel may need to divert to a port to evacuate the crew member. Non-U.S. flag vessels will need to retain the services of a local maritime agent to arrange for entry in port, to deal with U.S. Customs and Immigration requirements, and to oversee the crew member's medical care and repatriation.

Because medical facilities at local ports are limited, the owner may need to arrange for the further transportation of the crew member from the port to which the transporting vessel delivers the crew member onward to Anchorage or Seattle for medical treatment. This may require the owner to arrange for the services of a medical evacuation jet.

In urgent cases, local EMS should be advised and involved to assist in the transfers and to advise the receiving medical facility of an inbound patient.



## **SECTION 3**

### **STANDARDS OF CARE**

## C.1. WHAT ARE STANDARDS OF CARE?

Standards of Care are the procedures and practices, beyond regulatory requirements, that experienced and prudent maritime professionals follow to ensure safe, secure, efficient and environmentally responsible maritime operations.

Formalized Standards of Care are “good marine practices” that are developed and published to provide a guide for maritime professionals to consider and incorporate into their decision-making process. Standards of Care are not regulations and thus not enforceable. In some circumstances, they may not be the best course of action to take and based on the mariner’s assessment of the situation at hand, alternative procedures may be more appropriate. Mariners should be mindful that if they are involved in a maritime incident and were not adhering to relevant “Standards of Care” they could be subject to legal action based on a presumption of negligence.

The Standards of Care in this Plan are clearly not all inclusive. They complement laws, regulations and guidance in the Coast Pilot and other documents. If they appear to conflict with law or regulation, the law or regulation should be adhered to.

## C.2. SEVERE WEATHER GUIDELINES

Severe weather has several implications for vessels transiting the Aleutian Islands. It is extremely common for low pressure systems to form over the Bering Sea and create sea conditions that adversely affect a vessel’s safety. Severe weather can cause vessels to drag anchor; have a loss of propulsion, steering, or other machinery casualty; and cause crew injuries. The U.S. Coast Guard, through consultation with marine pilots, vessel operators, and port authorities, has developed a set of operating procedures for severe weather in the Aleutian and Pribilof Islands. These procedures help the mariner to establish risk factors in severe weather and mitigate them under certain conditions.

The USCG Captain of the Port – Western Alaska may order a vessel to operate or anchor in a manner directed in the interest of safety under 33 Code of Federal Regulations (CFR) 160.11. Severe weather poses an inherent risk to vessel safety, and thus the Coast Guard plays an active role in monitoring vessel behavior during the frequent storms in the Aleutian Islands.

### C.2.1. Severe Weather Advisories and Best Practices

The U.S. Coast Guard Navigation Advisory containing the Operating Procedures for Severe Weather in the Aleutian Islands and Pribilof Islands can be accessed on the USCG Homepage webpage: [https://homeport.uscg.mil/port-directory/western-alaska-\(anchorage\)](https://homeport.uscg.mil/port-directory/western-alaska-(anchorage))

### C.2.2. Severe Weather Communication Procedures

The severe weather operating procedures automatically go into effect whenever the National Weather Service marine forecast predicts sustained winds in excess of 45 knots for specific

marine zones. This message will be disseminated via email to all ship agents and port and harbor facilities in the Aleutian Islands.

Vessel agents should monitor VHF channel 16 to facilitate rapid communication in the event their vessel is adversely impacted by severe weather.

The U.S. Coast Guard's 24-hour operations center can be reached at (907) 428-4100, and by email at [Sector.Anchorage@uscg.mil](mailto:Sector.Anchorage@uscg.mil).

### **C.3. COMMUNICATION: EMERGENCY & RESPONSE**

#### **C.3.1. Tsunami Warnings**

Tsunamis are typically triggered by earthquakes and will cause sudden water level and current changes for many hours after their first arrival. The location of the earthquake plays an important role in determining the tsunami travel time to the coastal community. Distant earthquakes far away from the eastern Aleutian Islands may produce tsunami that strike approximately 4 hours or more after the earthquake, whereas locally occurring earthquakes near Dutch Harbor or other Aleutian ports may generate waves that hit the shore within minutes.

This document provides response guidance in the event of tsunamis for smaller vessels (vessels under 300 gross tons) such as recreational sailing and motor vessels, tugs, launches and commercial fishing vessels.

Tsunami wave impacts are greatest in and around ocean beaches, low-lying coastal areas, and bounded water bodies such as harbors and estuaries. These areas should always be avoided during tsunamis. Any tsunami event can threaten harbors, facilities, and vessels.

#### **Tsunami Hazards that can directly affect vessels include:**

- Sudden water-level fluctuations
- Grounding of vessels as water level suddenly drops
- Strong and unpredictable currents that can change direction quickly
- Eddies/whirlpools causing boats to lose control
- Drag on large-keeled/deep draft vessels
- Collision with other vessels, docks, and debris
- Capsizing from incoming surges (bores), complex coastal waves, and surges hitting grounded boats

**Real-time response mitigation measures to prevent or mitigate the damage caused by tsunamis may include:**

## ALEUTIAN ISLANDS WATERWAYS SAFETY PLAN

- Move vessels out of harbor;
- Reposition vessels within harbor;
- Move large, deep keeled ships from harbor/port entrances;
- Shut down infrastructure before tsunami arrives;
- Restrict vessel movements in the port area during tsunami event;
- Avoid entering harbor during tsunami event;
- Secure vessel moorings;
- Vessels at anchor when manned, should have engines on immediate standby, set navigation watch and take measures to increase anchor holding, i.e. increase scope.

Note: If a vessel master plans to take his/her boat offshore during a tsunami, only do so if you have the experience, supplies, and fuel to stay offshore or travel long distances to other harbors because dangerous tsunami activity could last for more than 24 hours within harbors and damage within harbors might prevent reentry.

### Actionable Tsunami Alert Levels

Tsunami Advisories and Warnings are the two actionable alert levels for maritime communities. For both Advisory and Warning level events, it is important that clear and consistent directions are provided to the entire maritime community.

Notifications are available from the National Tsunami Warning Center in Palmer, Alaska at <http://wcatwc.arh.noaa.gov>. The Center issues two types of bulletins that require action by Alaska mariners as described below.

- 1. Peak tsunami wave heights of 1 to 3 feet are expected, indicating strong and dangerous currents can be produced in harbors near the open coast. SIGNIFICANT tsunami currents or damage are possible near harbor entrances or narrow constrictions.**

#### Take the following actions before the tsunami arrives:

- Evacuate from all structures and vessels in the water. Public access along waterfront areas will be limited by local authorities.
- All personnel working on or near the water should wear personal flotation devices.
- Port authorities will shut off fuel-to-fuel docks, and all electrical and water services to all docks.
- Secure and strengthen all mooring lines throughout harbor, specifically areas near the entrance or narrow constrictions.
- After the event: Port authorities will not allow public to re-enter structures and vessels in the water until Advisory is cancelled and conditions are safe.

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- 2. Tsunami wave heights could exceed 3 feet in harbors near the open coast, indicating very strong, dangerous currents and inundation of dryland is anticipated. SIGNIFICANT tsunami currents or damage are possible. Depending on the tidal conditions, docks may overtop the pilings.**

### **Actions during the event:**

- Access of public along waterfront areas should be limited by local authorities.
- Port authorities and facility operators should shut off fuel-to-fuel docks, and all electrical and water services to all docks.
- If on the water, mariners should prepare for heavy seas and current and maintain extra vigilance.
- Monitor VHF Channel 16 for possible Urgent Marine Information Broadcast from the U.S. Coast Guard.
- Monitor VHF FM Channel 16 and the marine WX channels for periodic updates of tsunami and general weather conditions; additional information will be available from NOAA Weather Radio.
- It is not recommended that captains take their vessels offshore during a tsunami because they could put themselves at greater risk to injury. However, if they do decide to go offshore, they should proceed to a staging area greater than 30 fathoms deep & at least ½ mile from shore and have the experience, fuel, and supplies to stay offshore for more than 24 hours or possibly have the resources to travel to a different port if extensive damage occurs to their home port.
- If conditions do not permit to get underway, moor the vessel and get out of the Tsunami Evacuation Zone.

### **VESSELS leaving the harbor and heading to sea, should consider the following:**

- Check tide, bar, and ocean conditions.
- Check the weather forecast for the next couple of days.
- Ensure vessel has enough fuel, food and water to last a couple of days.
- Have someone drive you to the marina so your vehicle is not left in the tsunami zone.

Note: There may also be vessel congestion in the harbor as vessels attempt to depart at the same time. All vessels should monitor VHF Channel 16 and use extreme caution.

Vessels that stay in port should check with local port authorities for guidance on what is practical or necessary with respect to vessel removal or mooring options, given the latest information on the distant tsunami event; then go outside the Tsunami Evacuation Zone.

### **After the tsunami:**

- Mariners at sea should monitor VHF Channel 16 for possible U.S. Coast Guard Safety Marine Information Broadcasts regarding the conditions and/or potential restrictions placed on navigation channels and the entrances to harbors.
- Check with your docking facility to determine its ability to receive vessels. Adverse tsunami surge impacts may preclude safe use of the harbor. Vessels may be forced to anchor offshore or to travel to a safe harbor. An extended stay at sea is a possibility if the Harbor is impacted by debris or shoaling.

### **C.4. EMERGENCY TOWING SYSTEMS**

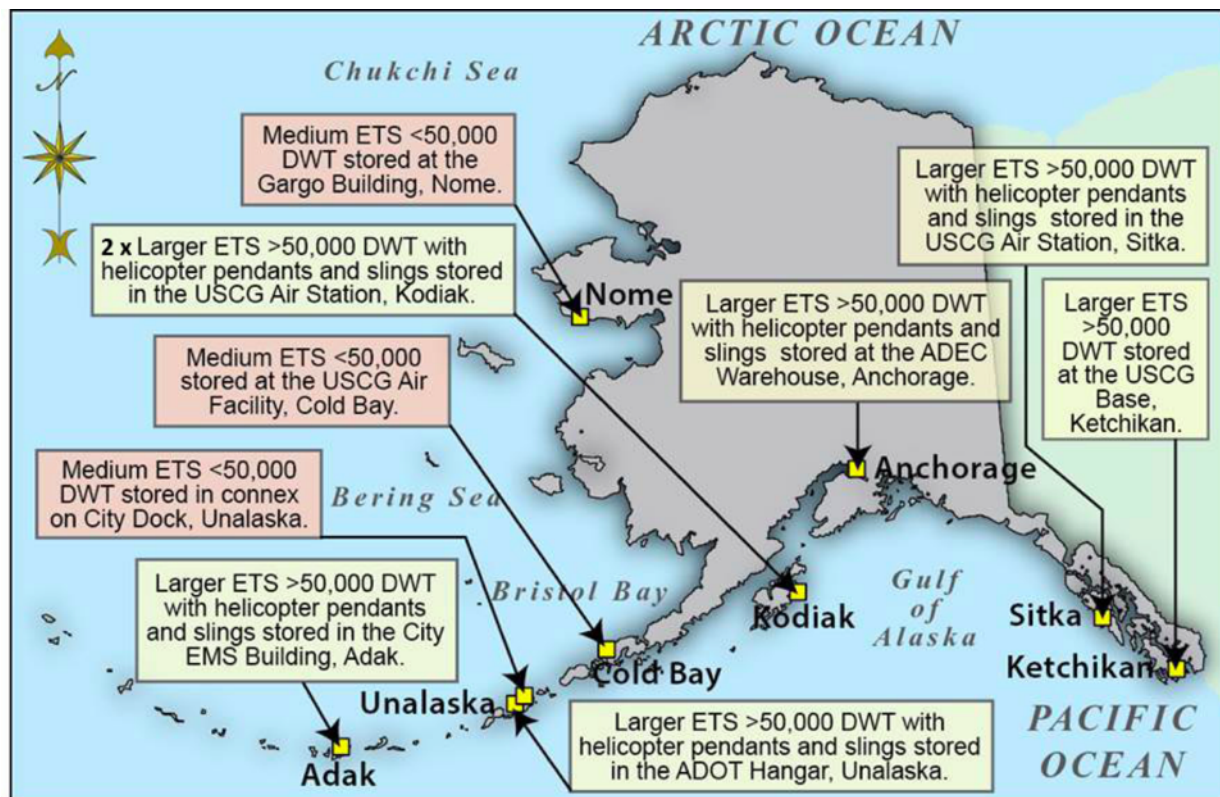
Because of the history of distressed and stricken vessel incidents in Alaskan waters, Emergency Towing Systems (ETS) have been stationed permanently at strategic locations in the state. The systems are intended to improve safety and environmental protection by facilitating prompt and effective assistance to distressed vessels.

#### **C.4.1. Alaska Department of Environmental Conservation and City of Unalaska– Emergency Towing Systems**

An Emergency Towing System (ETS) is a pre-staged package of equipment that may be deployed in the event a disabled vessel requires assistance in accessing a place of refuge. A manual that instructs responders on the operations of the system as well as procedures for deployment accompanies the system. The system is designed to use vessels of opportunity to assist disabled vessels that are in Alaskan waters. It consists of a lightweight high-performance towline, a messenger line used in deploying the towline, a lighted buoy, and chafing gear. These components may be configured to deploy to a disabled ship from the stern of a tugboat or airdropped to the ship's deck via helicopter.

There are currently two sizes of ETS utilized in Alaska. The larger size is capable of towing vessels greater than 50,000 Deadweight Tonnage (DWT). The smaller system can tow vessels less than 50,000 DWT. Additionally the messenger line is capable of towing vessels under 2000 DWT. The ETS may be deployed from the stern of a rescue tug or lowered to the ship's deck via helicopter.

Since the program's origin, it has expanded statewide. The Alaska Department of Environmental Conservation has purchased and stored 10-inch Emergency Towing Systems at the USCG Air Stations in Kodiak, Ketchikan and Sitka, the ADEC Response Warehouse in Anchorage, and the Emergency Response warehouse in Adak. There are also 7-inch Emergency Towing Systems at the Cargo Building in Nome, at the USCG Facility in Cold Bay and at the city dock in Unalaska.



**Figure C-1. Emergency Towing Systems (ETS) Locations and Capacities.**

The ETS Manual and Training video can be downloaded or viewed at the following website:  
<https://dec.alaska.gov/spar/ppr/prevention-preparedness/ets/>

## C.4.2. Alaska Maritime Prevention & Response Network Ship Arrestor

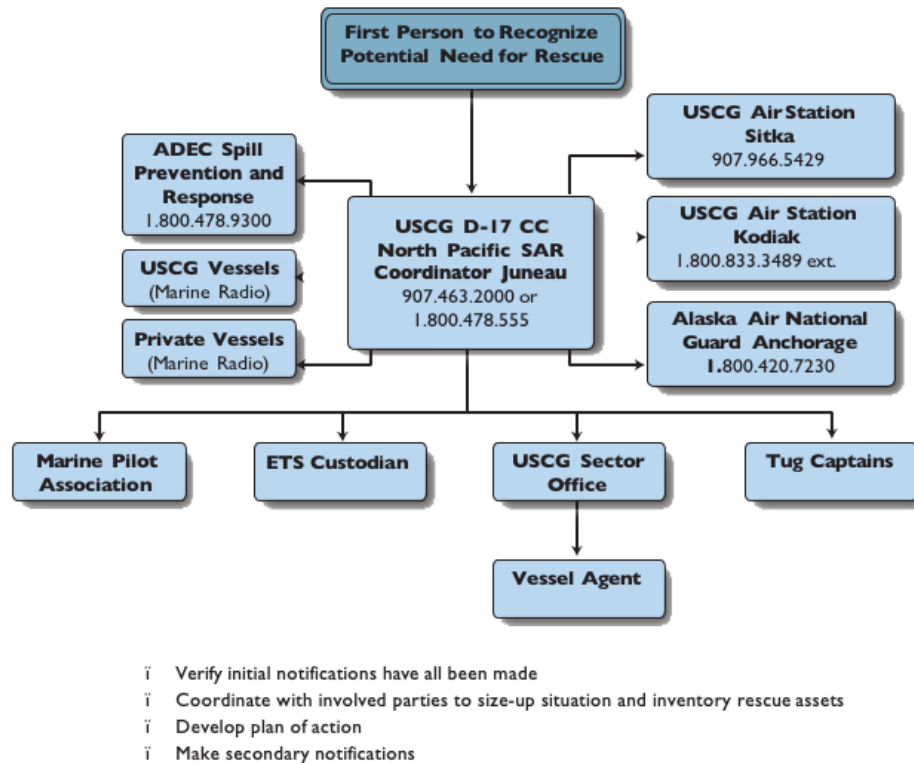
The Network's large-scale para-sea anchor is available for deployment on large ocean-going vessels that lose power or become otherwise disabled and adrift while underway. The intent of the sea arrestor system is to increase the window of opportunity for a successful vessel repair or casualty response, and to improve the probability of a successful recovery when responding vessels arrive on scene. The ship arrestor system is designed to dramatically slow the drift rate by half of a disabled ship, stabilize the ship by anchoring the bow into the wind and seas, and provide a means to attach a tow line to the ship should towing be necessary. The arrestor is designed for deployment by aircraft or tug. Currently, one para-sea anchor system is available in Anchorage, Alaska for deployment to help close the response time gap by reducing the drift rate of disabled and adrift vessels.

A component of the sea arrestor system is the Emergency Ship Arrest System and Emergency Vessel Attachment & Towing System EVATS™, which is also considered a standalone system that can be used independently to improve the safety, reliability, and versatility of securing a towline between a disabled vessel and a towing vessel. It is designed for rapid deployment and

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recoverability in heavy weathers and low-light conditions, establishing a safer distance between the disabled vessel and the responding towing vessel. The Network has staged an EVATS™ in Dutch Harbor, Alaska in the event this towing system is needed to render assistance to a vessel disabled and adrift, preventing the vessel from running aground as another capability to reduce risk and close the time response gap.

### C.4.2. Activation of the Emergency Towing System and Ship Arrestor EVAT System



*Figure C-2. Initial activation and call-out of the ETS.*



## SECTION D

## APPENDIX

## D.1. HISTORICAL INFORMATION

The foundering of the M/V SELENDANG AYU in December 2004 contributed to the Coast Guard expanding the scope of the Pollution Prevention Regulations to include non-tank vessels and the formation of the Aleutian Island Risk Assessment. It also contributed to IMO's adoption of five (5) Areas to Be Avoided (ATBA), formally institutionalizing the risk mitigating measures established by the Alaska Maritime Prevention and Response Network (AMPRN) in 2012. Figure D-1 shows where many of the significant marine casualties in the Aleutian Islands have occurred from 1982-2019.

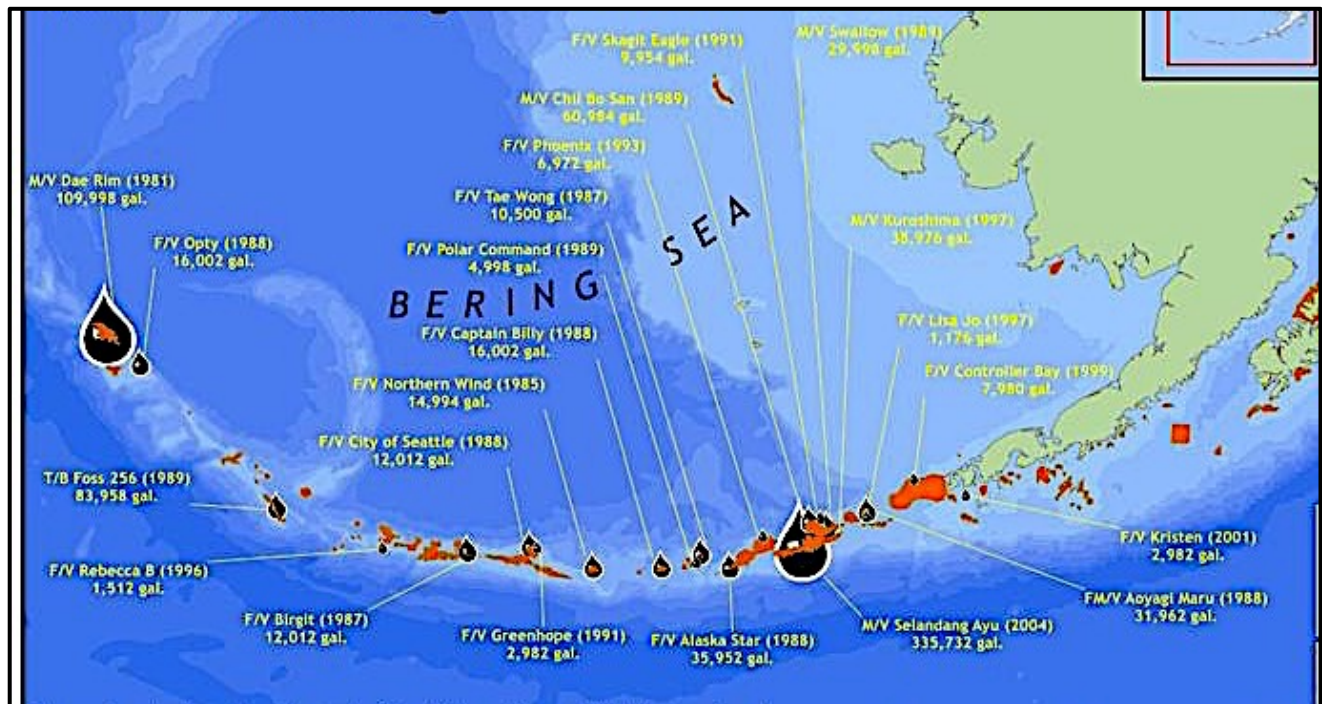


Figure D-1. Marine Casualty Locations from 1982-2019.

### D.1.1. Aleutian Islands Risk Assessment Risk Reduction Measures Implementation Status

A multi-phased maritime risk assessment was conducted for the Aleutian Islands from 2010-2015 (see Aleutian Island Risk Assessment (AIRA) website for project history and documents <http://www.aleutianriskassessment.com/>). The AIRA utilized a combination of peer-reviewed technical analysis and expert knowledge from a diverse group of stakeholders to evaluate the risks of marine accidents and oil spills in the Aleutian Islands and make a series of recommendations in both prevention and response measures to improve safety. Some of these recommendations have been implemented, while policymakers are still considering others.

Figure D-2 lists the recommendations from Phase A and their status upon completion of Phase B (reference AIRA Phase B Final Program Report, March 2016).

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RECOMMENDATION @ End of AIRA Phase A	STATUS (Items in bold were part of Phase B workplan) @ End of AIRA Phase B
<b>ENHANCED VESSEL MONITORING AND REPORTING</b> <ul style="list-style-type: none"> <li>Monitor all vessels in region to detect anomalous activity &amp; ID vessels to support rescue</li> <li>Monitor compliance with routing measures</li> <li>Expand AIS coverage in region</li> </ul>	<ul style="list-style-type: none"> <li>Vessels subject to US VRP regulations currently monitored via USCG-approved alternative compliance</li> <li>AIS sites added at Nikolski and Adak</li> <li>Vessels in innocent passage not monitored unless voluntarily</li> </ul>
<b>EMERGENCY TOWING SYSTEMS (ETS)</b> <ul style="list-style-type: none"> <li>Stage additional ETS in Aleutians</li> <li>Continue annual training &amp; exercises</li> </ul>	<ul style="list-style-type: none"> <li>ETS added in 3 locations (2013)</li> <li><b>Training exercises conducted in 2012 and 2014</b></li> </ul>
<b>ENHANCE TOWING CAPABILITIES ON USCG CUTTERS</b> <ul style="list-style-type: none"> <li>Replace Acushnet (decommissioned in 2011) with vessel with towing capability</li> <li>Increase cutter presence</li> <li>Ensure all cutters in AK have best available ETS</li> </ul>	<ul style="list-style-type: none"> <li>Not completed due to lack of funding; also not deemed to be in accordance with current USCG mission and priorities</li> </ul>
<b>INCREASE SALVAGE &amp; SPILL RESPONSE CAPABILITY</b> <ul style="list-style-type: none"> <li>USCG promulgate Non-tank VRP rules</li> <li>Conduct response gap analysis</li> <li>Recommend additional resources needed in SCP for salvage, spill response for largest vessels transiting in innocent passage</li> </ul>	<ul style="list-style-type: none"> <li>USCG promulgated Non-tank Vessel Response Plan rules (2013)</li> <li><b>Response gap analysis completed</b></li> <li><b>Salvage, spill response needs identified (focus on nearshore)</b></li> </ul>
<b>INCREASE RESCUE TUG CAPABILITY</b> <ul style="list-style-type: none"> <li>Consider options to add rescue tug capability (dedicated, non-dedicated, seasonal, tug of opportunity)</li> <li>Determine necessary capabilities</li> <li>Determine management &amp; funding</li> </ul>	<ul style="list-style-type: none"> <li>Tug capability analyzed for 75th percentile tanker/non-tank vessel spill</li> <li><b>Recommendation developed for optimal response system, including rescue tug, salvage, spill response, management / funding, and vessel monitoring (intended as alternative compliance)</b></li> </ul>
<b>STRENGTHEN ALEUTIANS SUBAREA CONTINGENCY PLAN (SCP)</b> <ul style="list-style-type: none"> <li>Emphasize prevention measures and systems</li> <li>ID spill response &amp; salvage resources needed</li> <li>Develop additional GRS</li> <li>Conduct additional PPOR planning</li> <li>USCG ensure vessels required to have VRP maintain resources in SCP</li> <li>Seek OSLTF funds to support planning and prevention</li> </ul>	<ul style="list-style-type: none"> <li>Updated SCP finalized in 2015</li> <li>20 new GRS developed; deployment exercise in Adak</li> <li>PPOR updated</li> <li>Equipment added to Unalaska and Adak</li> <li>OSLTF funds intended for response</li> <li>Current USCG-approved alternate compliance systems do not include all elements of recommended optimal response system</li> </ul>
<b>INITIATE PROCESS TO ESTABLISH IMO PARTICULARLY SENSITIVE SEA AREA</b> <ul style="list-style-type: none"> <li>Determine boundaries</li> <li>Recommend protective measures, considering areas to be avoided, ship routing, ship reporting, recommended tracks, and traffic separation in Unimak Pass</li> </ul>	<ul style="list-style-type: none"> <li>Areas to be avoided &amp; preferred routes adopted by IMO in 2015 (modified from PSSA)</li> <li>Additional protective measures such as routing, reporting, etc. can still be considered</li> </ul>

Figure D-2. Recommendations from Phase A and their status upon completion of Phase B (reference AIRA Phase B Final Program Report, March 2016).

The AIRA Management Team met following the conclusion of Phase B and added a subsequent recommendation to establish a Waterways Safety Committee using the remaining project funds.

### D.1.2. History of Establishing the Areas to Be Avoided (ATBA)

An ATBA is a routing measure that places a particular area of the ocean off-limits to some or all types of vessel traffic. Both IMO and the U.S. Coast Guard define an ATBA as “a routing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships, or certain classes of ship.”<sup>3</sup> IMO will not adopt an ATBA “if it would impede the passage of ships through an international strait.”<sup>4</sup>

An overarching theme of the Aleutian Islands Risk Assessment (AIRA) was that prevention measures take priority over response measures, and all risk mitigation measures be realistic and practical. Through a collaborative effort whereby the Aleutian Bering Sea Landscape Conservation Cooperative analyzed and presented<sup>5</sup> to the AIRA Advisory Panel vessel data for the region, and the vetting of the Alaska Maritime Prevention and Response Network’s offshore routing measures it was recommended that ATBAs be established in the Aleutian Island archipelago.

In June 2015, the IMO’s Maritime Safety Committee adopted five recommendatory ATBAs<sup>6</sup> in the region of the Alaska Aleutian Islands.<sup>7</sup> Mariners should consult appropriate resources to identify the official boundaries of the Aleutian Island ATBAs. In general, however, the Aleutian

Figure D-3 shows the Aleutian Islands ATBAs implemented by IMO in 2015.

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<sup>3</sup> IMO, General Provisions on Ships’ Routing, § 2.13. *See also* 33 C.F.R. § 167.5(a).

<sup>4</sup> General Provisions on Ships’ Routing, § 3.7.

<sup>5</sup> <https://absilcc.org/science/sitepages/FY2013-02.aspx>

<sup>6</sup> <http://www.ak-mprn.org/wp-content/uploads/2017/03/Aleutian-ATBA-Coords-w-diagram-14.pdf>

<sup>7</sup> See, e.g., IMO, Meeting Summary, Maritime Safety Committee (MSC), 95<sup>th</sup> Session, 3-12 June 2015 (Dec. 6, 2015) (noting adoption of five recommendatory ATBAs in the region of the Alaska Aleutian Islands).



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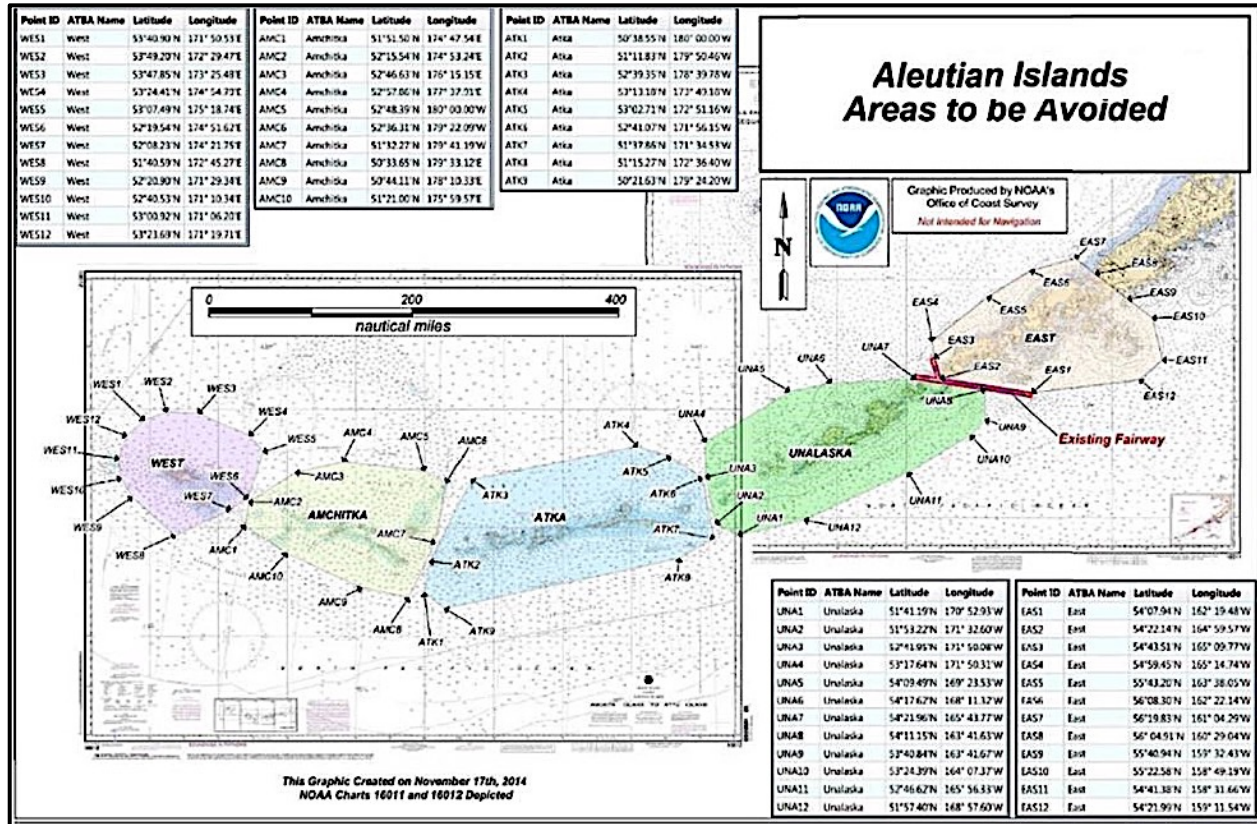


Figure D-3. Aleutian Islands ATBAs implemented by IMO in 2015.

Island ATBAs extend no more than 50 nautical miles from the shoreline of the U.S. Aleutian Islands.<sup>8</sup>

The IMO adopted the Aleutian Island ATBAs “[i]n order to reduce the risk of marine casualty and resulting pollution and damage to the environment.”<sup>9</sup> As explained in the U.S. submission to IMO, “the 50 nautical mile buffer allows time for repair or time to launch an emergency response effort to a foundering vessel before it runs aground and damages sensitive resources. It will also reduce the possibility of ships grounding on the shoreline due to negligent

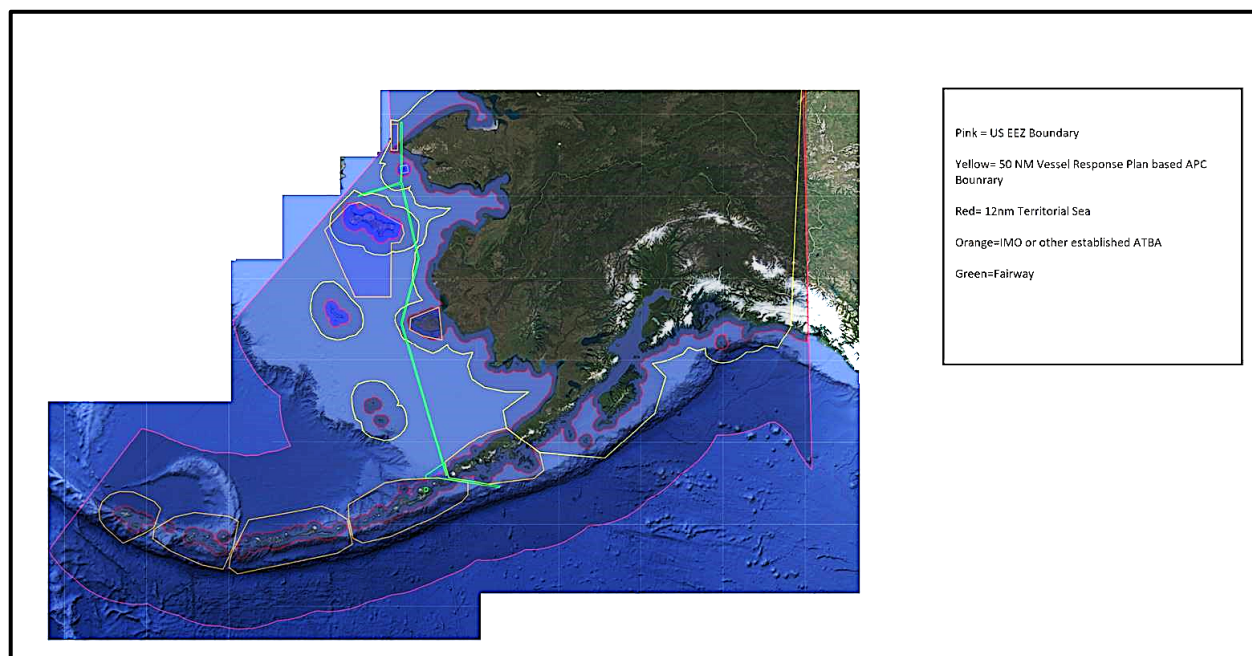
<sup>8</sup> IMO, Sub-Committee on Navigation, Communications and Search and Rescue, 2<sup>nd</sup> Session, Agenda Item 3, Routing Measures and Mandatory Ship Reporting Systems, “Establishment of five areas to be avoided in the region of the Aleutian Islands, Submitted by the United States” p. 2, § 3 (Dec. 5, 2014).

<sup>9</sup> IMO, Sub-Committee on Navigation, Communications and Search and Rescue, 2<sup>nd</sup> Session, Agenda Items 3 and 6, Routing Measures and Mandatory Ship Reporting Systems, E-Navigation Strategy Implementation Plan, Report of the Navigation Working Group, Annex 3, p.1 (March 11, 2015).

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navigation.”<sup>10</sup> In addition, the ATBAs are designed to “protect national and international recognized habitat and species from ship source pollution.”<sup>11</sup>

The ATBAs, which went into effect January 1, 2016,<sup>12</sup> apply to all ships 400 gross tonnage and greater.<sup>13</sup> The ATBAs are recommendatory in nature;<sup>14</sup> they are not mandatory routing measures.



**Figure D-4. U.S. EEZ Boundary, 50 NM Vessel Response Plan, 12 NM Territorial Boundary, IMO or other ATBAs, and Fairways.**

<sup>10</sup> IMO, Sub-Committee on Navigation, Communications and Search and Rescue, 2<sup>nd</sup> Session, Agenda Item 3, Routing Measures and Mandatory Ship Reporting Systems, “Establishment of five areas to be avoided in the region of the Aleutian Islands, Submitted by the United States” p. 2, § 3 (Dec. 5, 2014).

<sup>11</sup> *Id.* p.2, § 7.4.

<sup>12</sup> See, e.g., IMO, Meeting Summary, Maritime Safety Committee (MSC), 95<sup>th</sup> Session, 3-12 June 2015 (Dec. 6, 2015) (noting effective date of newly established ATBAs).

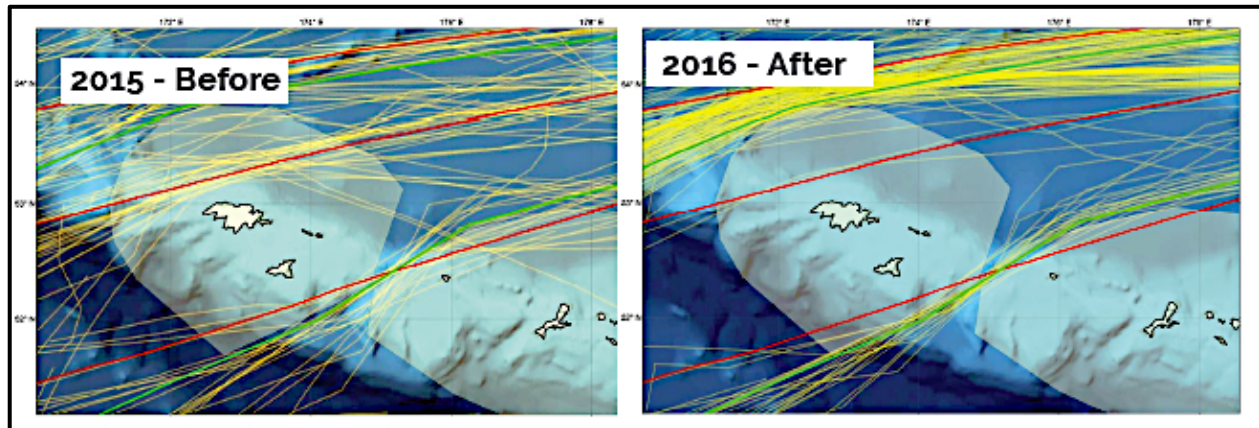
<sup>13</sup> IMO, Sub-Committee on Navigation, Communications and Search and Rescue, 2<sup>nd</sup> Session, Agenda Items 3 and 6, Routing Measures and Mandatory Ship Reporting Systems, E-Navigation Strategy Implementation Plan, Report of the Navigation Working Group, Annex 3, p.1 (March 11, 2015).

<sup>14</sup> IMO, Sub-Committee on Navigation, Communications and Search and Rescue, 2<sup>nd</sup> Session, Agenda Item 3, Routing Measures and Mandatory Ship Reporting Systems, “Establishment of five areas to be avoided in the region of the Aleutian Islands, Submitted by the United States” p. 1, § 1 (Dec. 5, 2014).



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Fishing vessels, tugs, research and cruise vessels often travel within the boundaries of the ATBAs due to the nature of their operations. Cargo vessels under control or direction of local pilots can also operate within the ATBA. An evaluation of Automatic Identification System (AIS) data from the first four months of implementation showed increasing levels of compliance over time.



**Figure D-5.** Vessel transits in yellow show that following the implementation of the ATBAs the majority of traffic is now following safer routes greater than 50 nautical miles from land (in green) as compared to previous riskier routes (in red).

### D.2. ECOLOGICAL ISSUES OF CONCERN

Stretching more than 1,000 miles, the Aleutian Islands form the longest archipelago in the world and dominate the region of this Safety Plan. These islands and the tip of the Alaska Peninsula are the gateway between the Bering Sea, the Pribilof Islands and the rest of the North Pacific. Cold and nutrient-rich currents flow through the passes between the islands, supporting an abundance of life including deep-sea corals, fish and shellfish, marine mammals, and migratory birds. As a result of this abundance, the waters surrounding the Aleutian Islands host rich and productive commercial fisheries. The islands themselves form part of the Alaska Maritime National Wildlife Refuge and are managed for their biological diversity and cultural significance to the indigenous people of the region and as an important, historic battlefield during World War II.

#### D.2.1. Alaska Native Culture

Indigenous Unangan, or Aleut people, have inhabited this region for thousands of years and continue to live in 14 communities across the Aleutians, Pribilofs and western tip of the Alaska Peninsula. These communities continue to depend on marine resources. For example, 90% of the households in Atka, Akutan, and Nikolski rely upon marine mammals, birds and fishery resources for subsistence. Thirteen individual Alaska Native Tribes are located in the region in association with every community except Cold bay and Adak. These tribes have government-to-government relationships with the United States giving them important, sovereign rights and

most also operate Alaska Native Corporations that own extensive private land holdings in the region as well.

In addition to the present-day communities, the region is home to thousands of culturally significant areas that are of critical importance to the Aleut people as harvesting areas for fish and wildlife. Many of these sites are also important spiritually and are protected by federal and state laws (see Section D.2.4. Land Ownership and Regulations).

### D.2.2. Invasive Species

At present, there are relatively few non-native species in the Bering Sea. However, it is predicted that Arctic regions – including the Bering Sea – will become more susceptible to invasions because of changes in climate and shipping traffic.<sup>15</sup>

Rats, a non-native species, introduced by vessels are one of the biggest threats to nesting seabirds in the Aleutians. By preying on eggs and chicks, they have decimated seabird nesting colonies on several islands. Rat eradication and prevention programs are helping keep some of the remaining islands rat-free.

[StopRats.org](http://StopRats.org) is a good source for more information and includes helpful information on preventing rodent infestations on vessels and preventing their spread to and from ports.

#### **State and federal laws have been developed to address this issue and key components include:**

- Prohibiting intentional or negligent feeding (e.g., unsecured garbage, improperly-stored food) of invasive rodents;
- It is unlawful for the owner or operator of a vessel, vehicle, aircraft, structure being moved, or other means of conveyance to knowingly or unknowingly harbor live rats or mice, or to enter Alaska (including Alaska waters) while knowingly or unknowingly harboring these animals; and
- Requiring that the owner or operator of a harbor, port, airport, or food processing facility in which live rats or mice have been found develop and implement an ongoing rodent response and eradication or control plan.

### D.2.3. Ecological Values

The interplay of a broad continental shelf, seasonal ice cover, ocean currents and active volcanic islands in this region fosters remarkable biological diversity and creates a variety of marine habitats. The long-term sustainability of these habitats is uncertain given a trend of warming oceans around the globe and a recent series of marine ‘heat waves’ in the North

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<sup>15</sup> Assessing the Risk of Non-Native Marine Species in the Bering Sea  
Jesika Reimer, Amanda Droghini, Anthony Fischbach, Jordan Watson<sup>3</sup> Bonnie Bernard, and Aaron Poe 2017

Pacific. Further, dramatic decreases in seasonal sea ice in the northern Bering Sea are expected to impact this region in profound ways—including ‘marine regime changes’ that result in different species dominating the food web thus affecting the species available for harvest.

**Marine mammals:** The Aleutian and Pribilof Islands support a diversity of marine mammals. At least 26 species of marine mammals spend some portion of the year in the seas around the Aleutian Islands. Passes between the islands are critical pathways for migratory marine mammals traveling between the North Pacific and the Bering Sea. Fifteen kinds of whales can be found in the region, including humpback whales and gray whales. Harbor and Dall’s porpoises also swim in these waters. The Aleutian and Pribilof Islands host Steller sea lions and several seal species including sea otters, northern fur seals, harbor seals, and occasionally ribbon, bearded and hooded seals.

Populations of otters, seals, sea lions, and whales are carefully monitored by the NMFS and U.S. Fish and Wildlife Service. Currently several populations of these species have been listed as threatened or endangered under the Endangered Species Act that have implications for navigation. For example, avoidance buffers have been established around Steller sea lion haulouts in a couple dozen areas in the Aleutian Islands. **For more details see Section B.13.**

### **Marine Mammal Conflict Avoidance.**

Marine mammals are also critical to the social and economic wellbeing of the indigenous people (D.2.1.) of the Aleutian and Pribilof Islands. Not only do they represent thousands of pounds of healthy, traditional food for these remote communities but more importantly the harvest, processing and sharing sustains the cultural identity of the region’s first people. Though these species are taken by Alaska Natives under careful regulation they are not harvestable by anyone else and even possession of skeletal remains or body parts can be illegal. A free guide produced by Alaska Sea Grant entitled: “Collecting Dead Marine Mammals While Beach Combing” is a helpful document that answers questions about possession.

<https://seagrant.uaf.edu/bookstore/pubs/M-212.html>

**Birds:** The Aleutian and Bering Sea Islands host birds from all seven continents. Ancient lava flows created rock formations that are replete with nooks and hollows, which provide protection for nesting birds. More than 38 million seabirds—including puffins, kittiwakes, gulls, cormorants, storm-petrels, murre, auklets, and terns—nest on the islands. The Aleutian and Bering Sea Islands host several bird species, including the whiskered auklet and the red-legged kittiwake. In all, there are hundreds of seabird colonies in the Aleutian Islands, including one with at least 2 million nesting auklets and several with more than a million birds each. There are more than 30 globally significant Important Bird Areas (IBAs) in the Aleutians, including Alaska’s most abundant bird area which hosts millions of foraging shearwaters at Unimak Pass. The profusion of birds found in this region accounts for over 80% of the seabirds nesting in the U.S. and ranks the Aleutian and Bering Sea Islands among the most valuable bird habitat areas on

Earth. Rats introduced by vessels are one of the biggest threats to nesting seabirds in the Aleutians.<sup>16</sup>

**Fish and fisheries:** The ocean currents and bathymetry of the region foster powerful flows and rich waters that support a wide abundance of commercially important fish species (including groundfish, salmon, halibut, rockfish, cod, and crab) as well as numerous species of biologically important forage fish such as herring, sand lance, capelin and smelt. Commercial fishery resources in the region are enormous and generate significant economic value and employment within the region.

**Cold water corals:** The Aleutians host unique aggregations of cold water corals. At least 97 species or subspecies of corals have been reported from the Aleutian Islands, 25 of which are likely endemic. Corals, sponges and similar organisms create seafloor habitat that many marine species use for spawning, feeding and sheltering, and as nurseries. Species supported by deep sea coral garden habitat include rockfish, Pacific Ocean perch, flatfish, Atka mackerel, golden king crab, shrimp, Pacific cod, pollock, greenling, Greenland turbot, halibut, sablefish, and other important epifauna.

#### D.2.4. Land Ownership and Regulations

Most of the lands above mean high tide in the region covered by the Safety Plan are designated as the Alaska Maritime National Wildlife Refuge and administered by the U.S. Fish & Wildlife Service with a headquarters office in Homer, Alaska. The Refuge was established, among other purposes, to conserve habitat for marine mammals, birds and marine resources; fulfill international treaty obligations relating to fish and wildlife; provide continued opportunities for subsistence uses by local peoples; conduct scientific research on marine resources; and to ensure water quality. Although the U.S. Fish and Wildlife Service's management authority ends at mean high tide, the agency is required to conserve the marine resources upon which seabirds and marine mammals rely.

As described above in D.2.1. the area covered in this Safety Plan has been home to the Aleut people for thousands of years. It is also a region of significant World War II battlegrounds. The excavation, disturbance, collection, or purchase of historical or archaeological specimens or artifacts on Federal refuge lands is prohibited under the Archaeological Resources Protection Act ([16 U.S.C. 470ee](#)) and on State of Alaska lands by the Alaska Historic Preservation Act ([AS 41.35](#)). Additionally, the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001 et seq., 104 Stat. 3048), is a federal law that makes it a criminal offense disturb Native American burial sites.

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<sup>16</sup> See Section D.2.2. for more information on rat infestations.

Beyond historical areas, numerous locations are privately-owned and subject to Alaska Native Regional Corporation or tribal regulations. Respect private lands and contact the appropriate entity.

The Alaska Department of Fish and Game is also an important management authority for fisheries and wildlife in the region. Though hunting and fishing may be permitted it is closely regulated and anyone considering these activities should ensure they are following the annual regulations published by the agency.

### D.3. ECONOMIC ISSUES OF CONCERN

#### D.3.1. Commercial Fisheries

The U.S. has exclusive fishery management authority over all marine fishery resources in the Exclusive Economic Zone (EEZ), the area extending between 3 and 200 miles offshore as established under the Magnuson-Stevens Act (US Code Title 16, Section 1801 *et seq.*).

**Volume and Value:** In 2016, 1.95 million metric tons of groundfish was caught commercially, generating approximately \$683 million ex-vessel value and \$1.92 billion first wholesale value. The value of the shellfish fishery amounted to \$246 million ex-vessel value and \$349 million first wholesale value. These fisheries employ approximately 13,500 workers.

**Management:** Fisheries within the Bering Sea / Aleutian Island (BSAI) are managed at the federal, state, and international level (for halibut only). The fisheries within the BSAI ecosystem are managed under a sophisticated multispecies framework that is based on extensive monitoring by both fishers and managers. Federal fishery managers acknowledge the importance of the marine ecosystem and endeavor to take a holistic approach to management that will sustain the fisheries and the underlying ecology.

- **Federal Management:** The federal groundfish fisheries of the BSAI are the largest commercial fishery in the United States. The National Marine Fisheries Service (NMFS) manages these fisheries in the region, with guidance from the North Pacific Fishery Management Council (NPFMC). Jurisdiction for the federal groundfish fisheries extend southward in the Aleutian Islands west of 170°W to the border of the EEZ. Key commercial species managed by NMFS include; walleye pollock, Pacific cod, yellowfin sole, rock sole, flathead sole, sablefish, Pacific Ocean perch, Atka mackerel and various other rockfish / flatfish species.
- **State Management:** The Alaska Department of Fish and Game (ADF&G) manages commercial fisheries near to shore, inside the 3-mile zone. Compared to the federal fisheries, the State-managed groundfish fisheries account for a small portion of the total and, in the project area, consist primarily of crab, Pacific cod, sablefish, herring, crab, and salmon. With the exception of the crab fisheries in the BSAI, most commercial fishing vessels managed by ADF&G are less than 58' in length.

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- **International Management:** Pacific halibut is managed by the International Pacific Halibut Commission.

**Communities:** While small commercial fleets operate out of most of the communities in the Aleutian Island region, the largest commercial fishing ports in the region are Unalaska/Dutch Harbor followed by Akutan. Other larger fishing ports in the region include King Cove, Sand Point and Adak. Employment in the Aleutian Islands communities is closely related to the commercial fishery, particularly the groundfish fishery. Seafood processing dominates employment in the manufacturing sector of this region with sizeable seafood processing operations (Unalaska, Akutan, King Cove, Sand Point, and Adak).

- **Dutch Harbor / Unalaska:** Dutch Harbor/Unalaska has been one of the nation's top fishing ports since 1992. There are four large shore-based fishing processing companies located here. Compared to other ports in the Aleutian Islands, Unalaska provides substantial maritime support services for the BSAI fisheries Unalaska can support all range of services for any vessel class in the pollock, crab, and other groundfish fisheries and, for this reason, the support services are heavily dependent upon the success of the groundfish and crab fisheries. Furthermore, Unalaska is a critical fuel and cargo hub for the region. Large domestic (Matson) and international cargo carriers (APL) ship containers to and from this port.
- **Akutan:** Akutan is also heavily dependent on the commercial fisheries. The largest shore-based processing plant in North America, operated by Trident Seafoods, is located in Akutan. The facility is self-sufficient (e.g., generates its own power) and can house as many as 825 Trident employees (Trident 2010). A floating processor is seasonally based in Akutan. Fishing vessels delivering to Akutan focus primarily on pollock, crab, and Pacific cod.

Table D-1 depicts the remaining communities using State of Alaska Community Database Info:

**Table D-1. Aleutian Islands Communities Data.**

Community	Population	Processing Plants	Cargo Service	Commercial Flight
<b>Adak</b>	308	1	Barge	2X Weekly from ANC
<b>Atka</b>	54	1	Monthly barge and freighter	3X Weekly from Unalaska
<b>Sand Point</b>	1,076	1	Weekly barge and freighter	4X Weekly from Anch and Cold Bay
<b>King Cove</b>	1,014	1	Weekly barge and	6X Weekly from Cold



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			freighter	Bay
<b>False Pass</b>	44	1	Weekly barge	3X Weekly from Cold Bay

### D.3.2. Sport Fisheries

Sport fishing is not as extensive in the Aleutian Island region as it is in the Alaska Peninsula and other parts of Alaska. Coho and sockeye are the two salmon species most frequently targeted in Dutch Harbor/Unalaska's freshwater and saltwater sport fisheries (ADF&G 2010f). In 2013, there were two charter boat companies operating out of Dutch Harbor/Unalaska and only one fishing guide.

The small charter boat fleet in Dutch Harbor/Unalaska provides non-local anglers access to the area's best-known sport fishery targeting halibut that travel in or through waters in the northwestern portion of the region. In July and August, halibut is often taken in both the Bering Sea and Gulf of Alaska. Black and dusky rockfish are popular game species found in the Aleutians and are typically caught nearshore.

### D.3.3. Marine Recreation and Tourism

The Shumagin Islands and Dutch Harbor/Unalaska are the two main areas of importance to tourism in the Aleutians. Typically, these areas are rich in biodiversity, are relatively accessible and pristine. Caribou hunting, birding, beach combing, fishing, skiing and kayaking are popular tourist activities in the more established and accessible tourist areas. The tourism industry as a whole is largely dependent on the marine environment. Sport fishing, marine and terrestrial sightseeing, and boating are recreation and tourism activities that residents and visitors enjoy in the region. Recreation and tourism are extremely limited in the communities in the region, primarily because they do not have the facilities or resources to support such an industry.

Smaller communities have tourism activities on a much smaller scale such as visitors for sightseeing on cruise vessels or the Alaska Marine Highway System Ferry. The ferry stops in Akutan, Sand Point, Cold Bay, and King Cove and to a limited extent, False Pass.

The region includes three national wildlife refuges within the region including: Alaska Maritime National Wildlife Refuge, which includes the Aleutian Islands from approximately Unimak Island to Attu; Alaska Peninsula National Wildlife Refuge, which extends from False Pass along the southern portion of the peninsula to just east of Ugashik; and Izembek National Wildlife Refuge, which includes Umiak Wilderness Area and encompasses the area around the Izembek Lagoon from Morzhovoi Bay to areas north of Cold Bay on the Alaska Peninsula.

Although these large expanses of public lands are surrounding communities like False Pass and others, they do not add much to the local economies and accessibility is limited. Access to

public and tribal lands is by cruise, tour, ferry, or chartered vessels and air and boat taxis from primarily Dutch Harbor.

**D.4. GLOSSARY OF TERMS**

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## D.5. ACRONYMS AND ABBREVIATIONS

<b>ACP</b>	Area Contingency Plan
<b>ADEC</b>	Alaska Department of Environmental Conservation
<b>ADF&amp;G</b>	Alaska Department of Fish and Game
<b>AIRA</b>	Aleutian Islands Risk Assessment
<b>AIS</b>	Automatic Identification System
<b>AIWSC</b>	Aleutian Islands Waterways Safety Committee
<b>AMPRN</b>	Alaska Maritime Prevention & Response Network
<b>APC</b>	Alternative Planning Criteria
<b>APD&amp;T</b>	Alaska Petroleum Distributors and Transporters
<b>ARP</b>	Alaska Regional Contingency Plan
<b>ATBA</b>	Areas to be Avoided
<b>ATON</b>	Aids to Navigation
<b>BSAI</b>	Bering Sea / Aleutian Island
<b>CFR</b>	Code of Federal Regulations
<b>COFR</b>	Certificate of Financial Responsibility
<b>COTP</b>	Captain of the Port
<b>C/P</b>	Catcher Processor
<b>C/V</b>	Catcher Vessel
<b>DGPS</b>	Differential Global Positioning System
<b>DWT</b>	Deadweight Tonnage
<b>ECDIS</b>	Electronic Chart Display and Information Systems
<b>EEZ</b>	Exclusive Economic Zone
<b>EMS</b>	Emergency Management Service
<b>ENC</b>	Electronic Navigational Chart
<b>ESA</b>	Endangered Species Act
<b>ETS</b>	Emergency Towing System
<b>EVATS</b>	Emergency Vessel Attachment & Towing System
<b>FMSC</b>	Federal Maritime Security Coordinator
<b>FOSC</b>	Federal on Scene Coordinator
<b>GMDSS</b>	Global Maritime Distress and Safety System
<b>GRS</b>	Geographic Response Strategies
<b>IBA</b>	Important Bird Area
<b>IMO</b>	International Maritime Organization
<b>LNM</b>	Local Notice to Mariners
<b>MMPA</b>	Marine Mammal Protection Act
<b>MSC</b>	Maritime Safety Committee
<b>NCEI</b>	National Center for Environmental Information
<b>NCP</b>	National Contingency Plan

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<b>NMFS</b>	National Marine Fisheries Service
<b>NOAA</b>	National Oceanic & Atmospheric Administration
<b>NOS</b>	National Ocean Service
<b>NPFMC</b>	North Pacific Fishery Management Council
<b>NPRW</b>	North Pacific Right Whale
<b>NVIC</b>	Navigation Vessel Inspection Circular
<b>OCMI</b>	Officer in Charge Marine Inspection
<b>OSLTF</b>	Oil Spill Liability Trust Fund
<b>P&amp;I</b>	Protection and Indemnity
<b>PPOR</b>	Potential Places of Refuge
<b>PSSA</b>	Particularly Sensitive Sea Area
<b>RCP</b>	Regional Contingency Plan
<b>SCP</b>	Subarea Contingency Plan
<b>SLNM</b>	Special Local Notice to Mariners
<b>SMC</b>	Search and Rescue Mission Coordinator
<b>SOLAS</b>	Safety of Life at Sea
<b>SPAR</b>	Spill Prevention and Response
<b>STS</b>	Ship-To-Ship
<b>USFWS</b>	United States Fish & Wildlife Service
<b>USCG</b>	United States Coast Guard
<b>VHF</b>	Very High Frequency
<b>VRP</b>	Vessel Response Plan
<b>WSC</b>	Waterways Safety Committee
<b>WSP</b>	Waterways Safety Plan
<b>WWF</b>	World Wildlife Fund