ALASKA DEPT OF
ENVIRONMENTAL CONSERVATION

U.S. COAST GUARD
SECTOR ANCHORAGE

US EPA (REGION X)
ALASKA OPERATIONS OFFICE

Draft, 2015

LETTER OF PROMULGATION

The Aleutians Subarea Contingency Plan is the guideline for establishing operations in the event of a major response effort to an oil spill or hazardous material release. This volume supplements the *Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases* (Unified Plan).

Information contained herein will be disseminated to agencies and personnel involved in various response and cleanup activities.

The Aleutians Subarea Contingency Plan is the result of a joint planning effort. Members of the U.S. Environmental Protection Agency, U.S. Coast Guard, Alaska Department of Environmental Conservation, Alaska Department of Fish and Game, U.S. Department of the Interior, and numerous other federal, state, local, tribe, stakeholder and industry participants contributed to this document.

We solicit comments and recommendations to improve this plan. Please forward your comments to LT. Matt Mitchell (U.S. Coast Guard, Sector Anchorage, P.O. Box 5800, JBER, AK 99505), or Mr. Nicholas Knowles (U.S. EPA, Alaska Operations Office, 222 W 7th Avenue, Anchorage, AK 99501).

Robert Whittier
Federal On-Scene Coordinator, USEPA
Region X (Alaska Operations Office)

Paul Mehler III
Captain, USCG
Federal On-Scene Coordinator
Captain of the Port, Western Alaska

Steven Russell
State On-Scene Coordinator, ADEC
Central Alaska Response Team

ALEUTIANS SUBAREA CONTINGENCY PLAN

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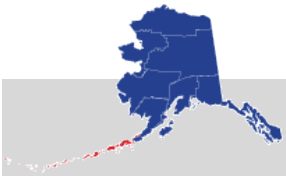

This plan is also available online at the State of Alaska ADEC website:
www.dec.alaska.gov/spar/perp/plans/scp_al.htm

UNIFIED PLAN AND SUBAREA CONTINGENCY PLANS

Congress passed the Oil Pollution Act (OPA) of 1990 in the wake of the Exxon Valdez oil spill, which occurred in March of 1989. The law requires oil storage facilities and vessels to submit to the federal government spill prevention and response plans detailing how they will respond to product discharges and to take responsibility to clean up any spills that may occur. OPA streamlined and strengthened the U.S. Coast Guard (USCG) and the U.S. Environmental Protection Agency's (EPA) ability to prevent and respond to catastrophic oil spills. OPA amended the Clean Water Act and, in conjunction with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), it mandates a "National Oil and Hazardous Substances Pollution Contingency Plan (NCP)" to provide the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants. OPA called for the establishment of Regional Response Teams to oversee spill response planning and protocols and Regional Citizens Advisory Councils to monitor the oil industry. Oil Pollution Act requires the USCG and the EPA to prepare oil spill response plans for the State of Alaska, which is designated as an entire planning "region" under federal guidelines.

Alaska statute, also passed as a result of the Exxon Valdez oil spill, requires the Alaska Department of Environmental Conservation (ADEC) to prepare a state-wide master plan addressing oil and hazardous substance discharges. In late 1993, the State Emergency Response Commission and the federally-led Alaska Regional Response Team (ARRT) approved the concept of combining state and federal planning requirements and developing joint plans. The *Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases*, more commonly known as the Unified Plan, meets these federal (NCP and OPA) requirements for regional and area planning, as well as state planning requirements. The Unified Plan, along with the supplementary Subarea Contingency Plans, represents a coordinated and cooperative effort by government agencies and was written jointly by the USCG, the EPA, and the ADEC.

Alaska statute divides the state into ten regions for oil and hazardous substance spill planning and preparedness. The USCG and the EPA joined with the ADEC to use these ten regions for area planning instead of the federal planning divisions since this would facilitate unified planning for the State of Alaska and prove more practical, as well. Because the State of Alaska is called a planning "region" under federal planning guidelines and to avoid confusion with the other federal term, "area contingency plans," these ten subordinate planning regions of the state are called "subareas" in the context of the Unified Plan.

The Unified Plan contains information applicable to pollution response within the entire State of Alaska and meets the pollution response contingency planning requirements applicable to the federal and state governments. The plan provides broad policy guidance and describes the strategy for a coordinated federal, state and local response to a discharge, or substantial threat of discharge, of oil and/or a release of a hazardous substance within the boundaries of Alaska and its surrounding waters.

Under both federal and state law, the responsible party for an oil or hazardous substance incident is required to report the incident and mount a response effort to contain and cleanup the release. The federal and state governments mandate response plans for oil tank vessels and facilities that have stringent spill response requirements. If the responsible party fails to respond adequately or if no responsible party can be identified, then the federal and state governments will mount a response and will rely upon the Unified Plan and the appropriate Subarea Contingency Plan (SCP) for response

protocols and guidance.

Whereas the Unified Plan contains general information for response efforts taking place anywhere in the State of Alaska, SCP concentrates on issues and provisions specific to its particular subarea. SCP provides information precise to the area, including emergency response contact information, available response equipment and other resources, specific response guidelines, and information on sensitive areas protection and hazardous substance presence.

Alaska state statute mandates a public review of all new plans, an annual ADEC review of these plans, and another public review whenever the plans are significantly revised. The federal government does not require public review for its plans, though the USCG and the EPA, as part of the Alaska unified planning process, do cooperate with the State of Alaska and participate in the public review process.

The Unified Plan and the SCPs are presented to the Alaska State Emergency Response Commission and the ARRT for review and comment. The Unified Plan approval process can be found in Annex D of the plan. For subarea contingency plans, the plan approval occurs with the signing of the plan's letter of promulgation by the three plan holders – USCG, EPA and the State of Alaska.

Brief synopses of the Unified Plan and the Subarea Contingency Plans follow:

UNIFIED PLAN SYNOPSIS

Annex A Provides the purpose and objectives; existing government contingency planning requirements; federal and state authorities; geographic planning and response boundaries; and the response systems and policies.

Annex B Explains the unified response organization and gives information on the Incident Command System, the federal and state's roles during oversight of an incident or when the government leads the response; and emergency declarations and spills of national significance.

Annex C Outlines the operational administration of federal and state laws and statutes, including permits required for oil spill responses.

Annex D Gives plan review/update procedures and schedule and addresses drills and exercises.

Annex E Offers a summary of area resources, including response equipment; tribal governments and Native organizations; environmental and volunteer groups; state term contracts; laboratories; communications; and waste management and disposal information.

Annex F Presents chemical countermeasures, dispersants, and other spill mitigating substances, devices and technology. Specific guidelines for dispersant use and *in situ* burning are included.

Annex G Contains the Wildlife Protection Guidelines for Alaska.

Annex H Provides a standard site safety plan and training guidelines.

Annex I Deals with public affairs and has general rules for community relations and media interaction, contacts and checklists.

Annex J Addresses radiological response procedures.

Annex K Contains the applicable Memoranda of Understanding/Agreement that have been entered into by federal, state, and local agencies.

Annex L Addresses hazardous materials by providing an overview of chemical hazards, a chemical profile of Alaska, the extremely hazardous substances at facilities, the chemical risks, and the response capability within Alaska.

Annex M Provides the historic properties protection guidelines for federal on-scene coordinators.

Annex N Gives a listing of available shoreline cleanup and assessment guidelines.

Annex O Presents the ARRT-approved Potential Places of Refuge Guidelines (PPOR). Several of the SCPs that address coastal areas now include a Potential Places of Refuge Section.

Annex P Offers guidelines for marine firefighting, salvage and lightering.

Annex V Addresses state and federal policy on volunteers. Definitive guidelines may be developed in the future.

Annex Z Provides definitions and a listing of the abbreviations and acronyms that appear in the plan.

Annexes Q, R. S, T, U, W, X & Y are reserved for future use.

The Unified Plan is available on the State of Alaska ADEC website at:
www.dec.alaska.gov/spar/perp/plan.htm

SUBAREA PLAN SYNOPSIS

Response Section lists the essential and most immediate federal and state emergency contact numbers on the first page. Emergency contact numbers for other federal and state agencies, plus those for communities within the subarea, follow. Additionally, information on the spill response command structure, procedures and protocols is included.

Resources Section provides two-page profiles on each of the communities in the subarea; a listing of commercially and non-commercially available equipment; an information directory, offering contact numbers to a variety of resources and companies; and an explanation of logistical considerations, assets, and other supplemental logistics information.

Hazardous Materials Section lists response protocols and the state and federal authorities, policies, responsibilities, and response capabilities. The section also provides a general risk assessment of hazardous substances found within the subarea.

Sensitive Areas Section gives profiles on the biological resources and human use resources that could be adversely affected by a spill. The section includes: graphs depicting the sensitivity of resources; priority ratings from "lesser" to "major" for areas of environmental concern; land management designations and maps; most environmentally sensitive areas maps; and areas of local concern. Attachments, such as those containing water intake/user lists or salmon escapement tables, may also be found in this section.

Background Section explains legal requirements and boundaries and provides a description of the plan, area of responsibility, the development process and players, and the physical attributes of the subarea, including maps and tidal current flow charts, when available. This section lists the state and federal response priorities, significant historical spills, and abbreviations contained in the plan, and includes the risk assessment maps (when applicable) developed for the places of refuge project.

Scenarios Section will usually offer, depending upon the subarea, scenarios for the worst case, maximum most probable case, and average most probable case for spills in coastal and inland habitats. These scenarios depict how a response to an incident might unfold. When appropriate, vessel and inland hazmat scenarios may also be presented.

Geographic Response Strategies Section provides site-specific spill response plans to protect priority sensitive areas identified for specific geographic locations within the subarea. *(Note: not developed for all subareas)*

Potential Places of Refuge Section identifies potential locations to a move a vessel needing assistance, where actions can be taken to stabilize and/or repair the vessel, in order to protect human life, reduce hazards to navigation, and/or protect natural resources and other uses of the area. In addition to the two-page PPOR documents, the risk maps used to assess and identify the PPOR locations may be available, as well, usually in the Background Section. *(Note: not developed for all subareas)*

Marine Firefighting Plan presents the marine firefighting guidelines as established, usually, by the local government(s) in conjunction with USCG. This is a stand-alone plan that can appear in conjunction with the subarea plan. *(Note: not developed for all subareas)*

All subarea plans are available on the State of Alaska ADEC website at:
www.dec.alaska.gov/spar/perp/plan.htm

RECORD OF CHANGES

CHANGE NUMBER	DATE OF CHANGE	DATE ENTERED	ENTERED BY *(Signature, Title)*
1	July 1999		Incorporated into Change 2
2	October 2005	November 2005	Subarea Committee Staff
3	October 2014		Aleutians Subarea Committee

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FEDERAL NATIONAL RESPONSE CENTER NOTIFICATION

STATE OIL AND HAZARDOUS SUBSTANCE SPILL NOTIFICATION PLACARD

IT'S THE LAW!

AS 46.03.755 and 18 AAC 75.300

REPORT OIL AND HAZARDOUS SUBSTANCE SPILLS

During Normal Business Hours

call the nearest response team office:

Central Alaska: Anchorage	(907) 269-3063 Fax: (907) 269-7648
Northern Alaska: Fairbanks	(907) 451-2121 Fax: (907) 451-2362
Southeast Alaska: Juneau	(907) 465-5340 Fax: (907) 465-2237

Outside Normal Business Hours

Toll Free	1-800-478-9300
International	1-907-428-7200

Alaska Department of Environmental Conservation
Division of Spill Prevention and Response
www.dec.alaska.gov/spar/spillreport.htm

Hazardous Substance

Any hazardous substance spill, other than oil, must be reported immediately.

Oil – Petroleum Products

To Water

- Any amount spilled to water must be reported immediately.

To Land

- Spills in ***excess of 55 gallons*** must be reported immediately.
- Spills in ***excess of 10 gallons, but 55 gallons or less,*** must be reported within 48 hours after the person has knowledge of the spill.
- Spills of ***1 to 10 gallons*** must be recorded in a spill reporting log submitted to ADEC each month.

To Impermeable Secondary Containment Areas

- Any spills in ***excess of 55 gallons*** must be reported within 48 hours.

Additional Requirements for Regulated Underground Storage Tank Facilities

Regulated Underground Storage Tank (UST) facilities are defined at 18 AAC 78.005 and do not include heating oil tanks.

If your release detection system indicates a possible discharge, or if you notice unusual operating conditions that might indicate a release, you must notify the ADEC UST Program within 7 days.

UST Program: (907) 269-3055 or 269-7679

rev. Feb/2013

USCG NATIONAL STRIKE FORCE

The National Strike Force (NSF) was created in 1973 as a Coast Guard "Special Team" under the National Oil and Hazardous Substances Pollution Control Plan (National Contingency Plan), designed to support the Coast Guard, Environmental Protection Agency (EPA), and Department of Defense (DoD) pre-designated Federal On-Scene Coordinators (FOSCs) in their preparedness and response duties including responding to potential and actual oil and hazardous material spills and weapons of mass destruction incidents as directed by the National Contingency Plan (NCP). The NSF is composed of four units: the National Strike Force Coordination Center (Elizabeth City, NC), the Atlantic Strike Team (Fort Dix, NJ), the Gulf Strike Team (Mobile, AL), and the Pacific Strike Team (Novato, CA). The USCG National Strike Force Coordination Center (NSFCC) coordinates the three Coast Guard Strike Teams and the Public Information Assist Team (PIAT). The NSFCC also carries out several national preparedness missions directly supporting FOSCs. Each FOSC has a specific Strike Team designated for initial contact and may contact that team directly for any assistance. A FOSC may directly request PIAT assistance by contacting the NSFCC or any Strike Team.

The National Strike Force is one of the deployable specialized forces (DSF) managed by the Deployable Operations Group (DOG). However, unlike the other DSFs requiring a request for forces, a Federal On-Scene Coordinators can request NSF assistance directly by contacting their servicing Strike Team or contacting the NSFCC.

Contact Numbers

National Strike Force	(252) 331-6000
Coordination Center	(252) 331-6012 FAX
1461 North Road St.	(252) 267-3458 CDO
Elizabeth City, NC 27909	
Atlantic Strike Team	(609) 724-0008
5614 Doughboy Loop	(609) 724-0232 FAX
Fort Dix, NJ 08640-0068	(609) 556-9376 OOD
Gulf Strike Team	(251) 441-6601
8501 Tanner Williams Rd.	(251) 441-6610 FAX
Mobile, AL 36608-9690	(251) 447-5545 OOD
Pacific Strike Team	(415) 883-3311
Hanger 2, Hamilton Field	(415) 883-7814 FAX
Novato, CA 94949-5082	(415) 559-9405 OOD

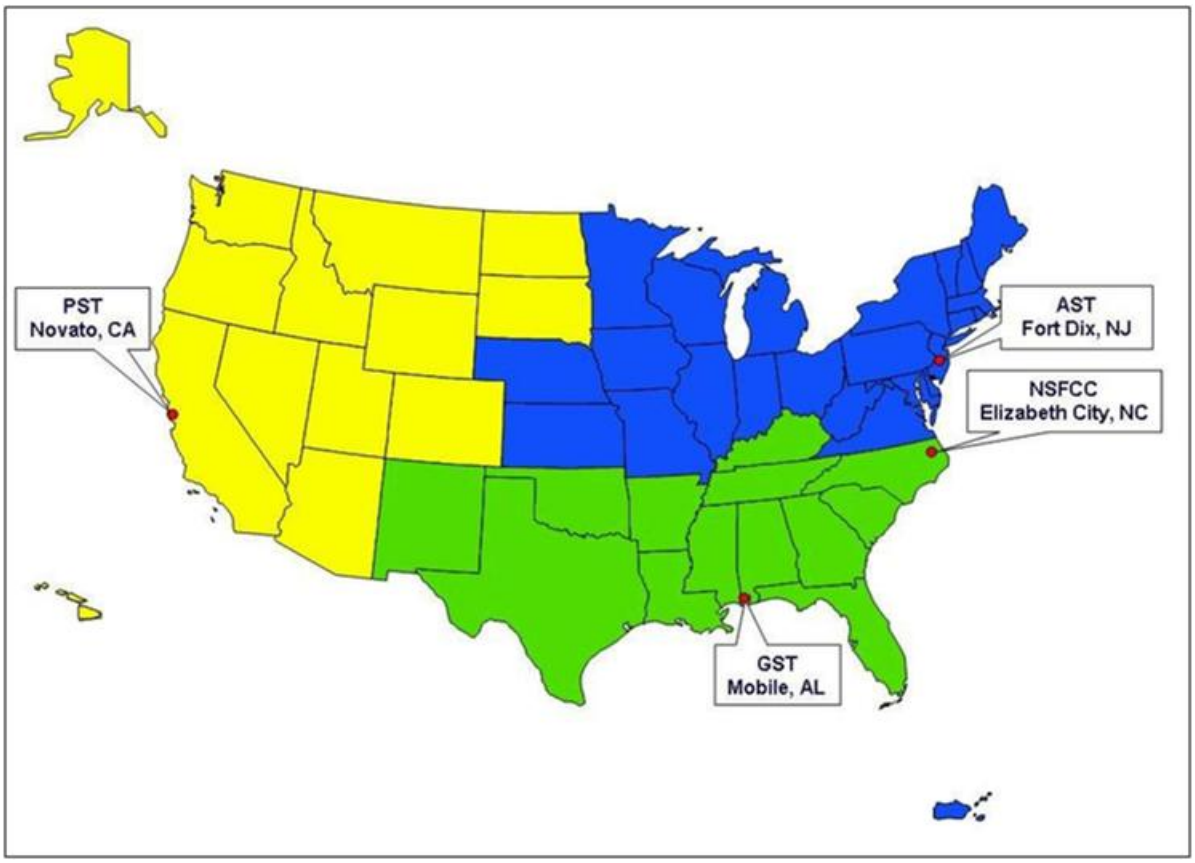
To request National Strike Force assistance, contact your servicing Strike Team at the number listed above; or the NSFCC at 252-331-6000 (after hours through the CDO at 252-267-3458); or the National Response Center at 800-424-8802.

NSF website: http://www.uscg.mil/hq/nsfweb
DOG website: http://www.uscg.mil/pacarea/dog/

NSF STRIKE TEAM AREAS OF RESPONSIBILITY

PACIFIC STRIKE TEAM	GULF STRIKE TEAM	ATLANTIC STRIKE TEAM	PUBLIC INFORMATION ASSIST TEAM
Sectors/MSU's	**Sectors/MSU's/MSD's**	**Sectors/MSU's**	**All Sectors, MSUs, & EPA Regions**
Sector Anchorage, AK • MSU Valdez, AK	Sector North Carolina • MSU Wilmington, NC	Sector Northern New England-Portland, ME	
Sector Juneau, AK	Sector Charleston, SC • MSU Savannah, GA	Sector Baltimore, MD	
Sector Puget Sound, WA	Sector Jacksonville, FL	Sector Boston, MA	
Sector Columbia River, OR MSU Portland	Sector St. Petersburg - Tampa, FL	Sector New York, NY	
Sector San Francisco, CA	Sector Miami, FL	Sector Long Island Sound – New Haven, CT	
Sector Los Angeles/Long Beach, CA	Sector Key West, FL	Sector Southern New England-Providence, RI	
Sector San Diego, CA	Sector Mobile, AL	Sector Delaware Bay-Philadelphia, PA	
Sector Honolulu, HI MSD American Samoa	Sector New Orleans, LA • MSU Baton Rouge, LA • MSU Morgan City, LA o MSU Houma, LA	Sector Hampton Roads, VA	
Sector Guam MSD Saipan		Sector San Juan, PR	
		Sector Sault Ste Marie, MI MSU Duluth, MI	
	Sector Houston-Galveston, TX • MSU Galveston, TX • MSU Port Arthur, TX o MSU Lake Charles, LA	Sector Michigan-Milwaukee, WI • MSU Chicago, IL	
		Sector Buffalo, NY • MSU Cleveland, OH	
	Sector Corpus Christi, TX	Sector Detroit, MI • MSU Toledo	
	Sector Ohio Valley - Louisville, KY • MSU Paducah, KY	Sector Upper Mississippi River, St. Louis, MO	
	Sector Lower Mississippi-Memphis, TN	Sector Ohio Valley, KY • MSU Pittsburgh, PA • MSU Paducah, KY • MSU Huntington, WV	
EPA Regions	**EPA Regions**	**EPA Regions**	
VIII	IV	I	
IX	VI	II	
X		III	
Oceania (Hawaii, Guam, Pacific Islands)		V	
		VII	

STRIKE TEAM AREAS OF RESPONSIBILITY



NATIONAL STRIKE FORCE CAPABILITIES

- Respond with trained personnel and specialized equipment to prevent, contain and/or remove spills of oil and releases of hazardous material;
- Provide spill management expertise;
- Provide guidance for preplanning and response to weapons of mass destruction incidents;
- Assist with response planning and consultation;
- Conduct operational training in oil and chemical spill response techniques and equipment usage;
- Participate with the response, coordination, control and evaluation of National Preparedness for Response Exercise Program (PREP) training and exercises;
- Technical assistance, equipment and personnel to augment the FOSC staff during incident response;
- Identify, locate, and assist in the transportation of specialized equipment needed for any type of response;
- Provide support from the Public Information Assist Team (PIAT) to FOSCs during incident responses or exercise training;
- Assist in coordinating the use of private and public resources in support of the FOSC during a response to or a threat of a worst case incident;
- Review Area Contingency Plans (ACP), including evaluation of equipment readiness and coordination among responsible public agencies and private organizations;

- Assist in location of spill response resources for both response and planning, using the DOG NSFCC's national and international computerized inventory of spill response resources in the Response Resource Inventory (RRI) data base which includes the OSRO/PAV programs;
- Inspection of district pre-positioned pollution response equipment.

REQUESTING STRIKE TEAM ASSISTANCE

- Requesting assistance from any one Strike Team, an FOSC immediately gains access to the entire NSF personnel roster and equipment inventory.
- FOSCs are encouraged to contact the NSF when:
- Control of the discharge requires the special knowledge or special equipment of the NSF;
- Response will require in excess of two days to complete removal operations and augmentation by NSF personnel will release local forces to return to normal operations;
- Responsible Party (RP) has not or will not assume control immediately of the incident and the FOSC needs an immediate response to protect the environment and or the public;
- In the judgment of the FOSC, NSF capabilities are necessary;
- Technical assistance, equipment and other resources to augment the FOSC staff during incident response or exercise training;
- Deployment of the district prepositioned pollution equipment (VOSS) or USCG SORS equipped vessel response is needed.

STRIKE TEAM DEPLOYMENT

Upon receiving a request, personnel and equipment will be deployed to the scene in the most expeditious manner possible. Each team maintains a state of readiness which enables them to rapidly mobilize personnel and response equipment. Strike Team response equipment is palletized, loaded, and ready for immediate deployment by truck or aircraft.
Each Strike Team is capable of dispatching responders by the fastest means possible adhering to the NSF's minimum response time criteria as the circumstances of the incident dictate:

- Mobilizing four members within 2 hours of notification
- Mobilizing eight members within 6 hours of notification
- Mobilizing heavy equipment loads within 6 hours of notification
- Additional Strike Team personnel and equipment can be mobilized within 24 hours of notification

STRIKE TEAM FUNDING

For responses, Strike Team personnel require travel orders or travel accounting information prior to deployment. Funding typically comes from the pollution response fund (FPN, CPN, DPN). If no pollution response fund has been accessed, the requesting unit must provide funding.

Requests for training and exercise support that are associated with PREP are generally funded through the Deployable Operations Group (exercises included in the MTEP process); however, under some circumstances, the requesting unit may be required to provide funding.

Non-PREP training and exercise support requests originating from a Federal agency, including the Coast Guard, shall be funded by the requesting agency or unit. Under most circumstances, State, County, and

Municipal level-agencies will not be expected to provide funding.

TRANSPORTATION

Mobilization of Strike Team equipment may involve over-the-road transport: all three Strike Teams have tractor-trailer rigs that give them rapid deployment capabilities.

Aviation support is often needed during an emergency response to rapidly transport Strike Team equipment and/or personnel to the incident. When a Strike Team is requested by a FOSC/Sector Commander for assistance, the need/requirements for aviation support should be discussed. Requests for aviation support are the responsibility of the FOSC/Sector Commander. If aviation support is needed for an emergency response, the Sector should request the appropriate aviation support to Area through the District. The Strike Team can engage directly with the applicable Sector/Air Station to coordinate the aviation support requirements while the request is being processed through the District and Area..

NOTE: Since response support is time critical, early notification of Strike Team assistance (or potential assistance) will allow the teams to begin logistics planning even before a formal request is made.

LOGISTIC CONSIDERATIONS

- Strike Teams make every effort to be logistically independent; however, assistance may be required from the FOSC in arranging the following support:
- Heavy lifting equipment, such as cranes and forklifts capable of handling a 16,000 lb. containment barrier box;
- Fork extensions for forklift;
- Small boats, vessels of opportunity;
- Tractor-Trailer rigs;
- Electrical power, land lines for telephones and computers,
- Local logistics @staging areas, docks, boat ramps, weather conditions, etc.
- Potable water supply and fuel supply for command posts.

Specific logistic needs will be clarified during the initial request for assistance; these needs vary, dependent upon the incident and location. Strike Teams attempt to minimize the effort by the FOSC's staff required to arrange support. However, the local knowledge of the FOSC's staff may be relied upon by the Strike Teams to make reasonable decisions regarding logistics.

PUBLIC INFORMATION ASSIST TEAM (PIAT)

The Public Information Assist Team (PIAT) is an element of the National Strike Force, co-located with the National Strike Force Coordination Center and is available to Federal On-Scene Coordinators. Four highly trained crisis communications professionals staff the team. The PIAT's primary function is to provide the gamut of emergency public information services during oil spills and hazardous material releases – the team also provides these services for natural disasters, domestic terrorism events and weapons of mass destruction events. Team members routinely act as the Public Information Officer for Coast Guard and Environmental Protection Agency officials responsible for mitigating oil and hazardous material incidents.

Team personnel also teach risk communication and media relations techniques, as well as ICS-based

Joint Information Center organization and Public Information Officer operations to response community personnel from the Coast Guard, other federal agencies, state and local agencies and industry. Additionally, the PIAT assists in the scenario development of Coast Guard pollution response exercises and participates as evaluators or controllers during federal- and industry-led exercises.

To request the Public Information Assist Team, contact the NSFCC at 252-331-6000, or after hours through the CDO at 252-267-3458, or the NRC at 800-424-8802.

PIAT website: http://www.uscg.mil/hq/nsfweb/piat/piatindex.html

PIAT DEPLOYMENT

Upon receiving a request, PIAT's goal is to deploy two (2) personnel and one (1) response kit within six hours of notification, and an additional two (2) personnel within 24 hours, if necessary. All NSF members, including PIAT, deploy for a maximum of 21 days at a time.

PIAT FUNDING

For responses, PIAT requires travel orders or travel accounting information prior to deployment. Funding typically comes from the pollution response fund. If no pollution response fund has been accessed, funding will come from the requesting unit.

Requests for training and exercise support that are associated with PREP are generally funded through the Deployable Operations Group; however, under some circumstances, the requesting unit may be required to provide funding.

Non-PREP training and exercise support requests originating from a Federal agency, including the Coast Guard, shall be funded by the requesting agency or unit. Under most circumstances, State, County, and Municipal level-agencies will not be expected to provide funding.

ALEUTIANS SUBAREA CONTINGENCY PLAN

RESPONSE SECTION

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RESPONSE: PART ONE - NOTIFICATION

A. EMERGENCY RESPONSE NOTIFICATION LIST

In the case of a *reportable* oil or hazardous substance spill (as defined in State and federal regulations), the Responsible Party (RP) or initial responder to the spill incident will immediately notify the following agencies. Once these initial notifications have been made, the Federal On-Scene Coordinator (FOSC), State On-Scene Coordinator (SOSC) and Local On-Scene Coordinator (LOSC) respectively, will be responsible for the notification of appropriate federal, state, and local agencies and organizations according to the contact lists contained on the following pages.

The area code for all phone and fax numbers is ***907***, unless otherwise indicated.

Initial Emergency Contact Checklist

Federal	
National Response Center (24 hr)	1-800-424-8802
FOSC for Coastal Zone – USCG – Sector Anchorage	428-4100 or 1-866-396-1361
FOSC for Inland Zone – EPA, Region X Alaska Operation – Anchorage Office	271-5083/271-3424 (fax)
EPA FOSC Carr (cell)	227-9936
EPA FOSC Whittier (cell)	830-7236
EPA Seattle Office (24 hr)	206-553-1263
State	
SOSC – ADEC, Centeral Alaska Response Team (business hours)	269-3063/269-7648 (fax)
After Hours Spill Number	1-800-478-9300

B. FEDERAL AGENCY CONTACTS

It is the responsibility of the FOSC to initiate contact, as appropriate, with the following agencies, organizations, and entities once emergency notifications have been made. This is not an exhaustive list of federal contacts, and the FOSC may notify additional parties. Phone numbers are not listed in order of importance, and contacts will be made at the discretion of the FOSC. Initial notifications will be made by telephone, with concurrent transmission of any available documents (e.g., POLREPs or other information) by fax or e-mail whenever possible. Additional federal agency contacts are listed in the *Resources Section* of this plan.

FOSC Historic Properties Specialists: The Sector Anchorage Response Department maintains a listing of BOA contractors approved to provide historical properties consultation to the FOSC.

Threatened and Endangered Species Consultation Contacts

Agency	Phone (business hour)	Emergency (24-hr) Contact	Fax
Department of Interior	271-5011	227-3783 / 227-3781	271-4102
Department of Commerce/NOAA	586-7235 / 271-5006	586-7639 / 248-4211	586-7012 / 271-3030

Agency	Phone	Alt. Phone	Fax
National Response Center	800-424-8802	202-267-2675	202-267-2165
National Pollution Funds Center	202-493-6700		202-493-4900
USCG District 17 Command Center	463-2000		463-2340
USCG – Sector Anchorage	428-4100		271-6751

USCG District 17 Public Affairs	463-2071		463-2072
USCG Pacific Strike Team	415-883-3311		415-883-7814
National Strike Force	252-331-6000		252-331-6012
Environmental Protection Agency – Anchorage	271-5083		271-3424
Seattle (24 hr)	206-553-1263		
U.S. Department of the Interior	271-5011	227-3783	271-4102
National Oceanic & Atmospheric Admin. SSC	271-3593		271-3139
U.S. Forest Service	586-7876	586-8806	586-7892
U.S. Army Corps of Engineers (Security Office)	753-2515		753-2513
U.S. Navy SUPSALV	384-2968		384-2969
Federal Aviation Administration (Ops Center)	271-5936		276-7261
National Marine Fisheries	271-5006		271-3030
National Weather Service	271-3886	271-5088	266-5105

Native Organizations and Federally-Recognized Tribes: See the *Resources Section, Part Three, Subsection N* for a complete listing and contact information.

C. ALASKA STATE AGENCY CONTACTS

It is the responsibility of the SOSC to initiate contact, as appropriate, with the following agencies and organizations once emergency notifications have been made. This is not an exhaustive list of State contacts, and the SOSC may notify additional parties. Phone numbers are not listed in order of importance and contacts will be made at the discretion of the SOSC. Initial notifications will be made by telephone, with concurrent transmission of any available documents (e.g., a sitrep or other information) by fax or e-mail whenever possible. Additional state agency contacts are listed in the Resources Section of this plan and in the *Unified Plan, Annex A*.

State Agency	Phone	Alt. Phone	Fax
Department of Environmental Conservation, Anchorage	269-3063		269-7648
After Hour Spill Number	1-800-478-9300		
Department of Fish and Game	267-2338		267-2461
Department of Military & Veteran Affairs	428-7000		428-7009
Division of Emergency Services (24 hr)	1-800-478-2337		
Department of Labor, Occupational Safety & Health	1-800-770-4940	269-4940	465-6012
Department of Law	269-5100	269-5274	276-3697
Department of Natural Resources	269-8815	269-5274	269-8913
Division of Oil and Gas	762-2580	269-8815	269-8938
Division of Mining, Land and Water	451-2740	451-2678	
State Historic Preservation Office	269-8721	269-8723	269-8908
Department of Public Safety – Dispatch	428-7200		428-7204
Department of Transportation & Public Facilities	269-0770		248-1573
Department of Health and Social Services	465-3027	561-4406	465-4101
University of Alaska	474-7330		

D. LOCAL CONTACTS

It is the responsibility of both the LOSC and SOSC to initiate contact with the appropriate local government agencies and organizations once initial emergency notifications have been made. Local plans may designate who will serve as the LOSC, who has responsibility for making any necessary contacts, and who should be contacted. Each distinct town, village, or community within larger jurisdictions, such as boroughs, may have their own emergency response plan, and all applicable local plans should be consulted during an emergency situation.

This list of local contacts is not exhaustive, and the LOSC may notify additional parties. Phone numbers are not listed in order of importance and contacts will be made at the discretion of the LOSC/SOSC. Initial notifications will be made by telephone, with concurrent transmission of any available documents (e.g., sitreps or other information) by fax or e-mail whenever possible. The *Resources Section, Part One* contains additional information and contacts for specific locales.

Local Emergency Planning Committees

Committee	Phone	Fax
Aleutians & Pribilof Islands	581-1233	581-5024

Boroughs

Borough	Organization	Phone	Fax
Aleutians East Borough	Borough Main Office - Anchorage	274-7555	276-7569
	Borough Sand Point Office	383-2699	383-3496
	Borough King Cove Office	497-2396	497-2386
	State Troopers (Cold Bay)	532-2440	532-2724
	State Troopers (Dutch Harbor)	581-1432	581-1407

Communities

Cities/Villages	Contacts	Phone
Adak	City Hall	592-4513
	State Troopers (Dutch Harbor)	581-1432
	Police (Unalaska Public Safety)	581-1233
	Fire/EMS	592-4145
	Clinic	592-8383
Akutan	City Hall	698-2228
	Village Council	698-2300
	State Troopers (Cold Bay)	532-2440
	Police	698-2227
	VPSO	698-2315
	Fire	698-2227
	EMS/Ambulance	698-2315
	Clinic	698-2208
Atka	City Hall	839-2233
	Village Council	839-2229
	State Troopers (Dutch Harbor)	581-1432
	VPSO	839-2214
	Fire/EMS (City of Atka VFD)	839-2214
	Clinic	839-2232
Belkofski	Village Council	497-3122
	State Troopers (Dutch Harbor)	581-1432
Cold Bay	City Hall	532-2401
	State Troopers (Cold Bay)	532-2440
	Police	383-3535
	Fire	532-2416
	EMS/Ambulance	532-2585 or 522-2772
	Clinic	532-2000
False Pass	City Hall	548-2319
	Village Council	548-2227
	State Troopers (Cold Bay)	532-2440
	VPSO	548-2345
	Fire	548-2319
	EMS/Ambulance	548-2241
	Clinic	548-2742

Cities/Villages	Contacts	Phone
King Cove	City Hall	497-2340
	Village Council	497-2648
	State Troopers (Cold Bay)	532-2440
	Police	497-2210
	VPSO	497-2555
	Fire/EMS	497-2553
	Clinic	497-3211
Nelson Lagoon	Village Council	989-2204
	State Troopers (Cold Bay)	532-2440
	Police	246-3464
	Fire/EMS	989-2202
	Clinic	989-2207
Nikolski	Village Council	576-2225
	State Troopers (Dutch Harbor)	581-1432
	Police	581-1432
	Fire/EMS	576-2223
	Clinic	576-2204
Pauloff Harbor	Village Council	383-6075
	State Troopers (Cold Bay Post)	532-2440
Sand Point	City Hall	383-2696
	Village Council	383-6075
	State Troopers (Cold Bay Post)	532-2440
	Police/EMS	383-3700
	Clinic	383-3151
St. George	City Hall	859-2263
	Village Council	859-2205
	State Troopers (Dillingham)	842-5641
	VPSO	859-2415
	Fire	859-2255
	Clinic	859-2254
St. Paul	City Hall	546-2331
	Village Council	546-2211
	State Troopers (Dillingham)	842-5641
	Police	546-3130
	Fire	546-2311 ext. 123
	EMS/Ambulance	546-3130
	Clinic	546-8300
Shemya	Eareckson Air Force Station (Command Post)	392-3505
	State Troopers (Dutch Harbor)	581-1432
Unalaska/ Dutch Harbor	City Hall	581-1251
	Village Council	581-2920
	State Troopers (Dutch Harbor)	581-1432
	Police	581-1233
	Fire/EMS	581-1233
	Clinic (Iliuliuk Family & Health Services)	581-1202
	Clinic (Oonalaska Clinic)	581-2742
Unga	Village Council	383-5215
	State Troopers (Cold Bay)	532-2440

E. OTHER POINTS OF CONTACT

Alaska Regional Response Team (ARRT)

Organization	Phone	Alt. Phone	Fax
U.S. Coast Guard, District 17	463-2226	463-2000	463-2216
Environmental Protection Agency, Region 10	553-1674	553-1263	553-0175
Alaska Department of Environmental Conservation	465-5255	262-5210	465-5262
Alaska Department of Defense, Alaskan Command	522-7235	552-3013	522-8136
General Services Administration	271-5028		271-3086
Department of the Interior	271-5011	227-3783	271-4102
Department of Commerce – NOAA	526-6949	271-3886	526-6329
Department of Homeland Security – FEMA	271-4301	271-4303	
Department of Health & Human Services	271-4073		271-4073
Department of Justice	271-3456		271-5827
Department of Agriculture – US Forest Service	586-8789	586-8882	586-7555
Department of Labor – OSHA	271-5152	271-3593	
Department of Energy	376-8519	376-8519	376-1272
Department of Transportation	271-5230	271-5149	271-5230

Federal and State Natural Resource Trustees Contacts: A complete listing of the Natural Resource Trustees contact information, including e-mail, is available through a link at the ARRT website: www.alaskarrt.org/, under "Members and Contacts." A listing of agency trustees appears in the *Resources Section, Part Three, Subsection T*.

Cultural Resources Advisors

Agency	Phone
State Historic Preservation Office (ADNR)	269-8721
FOSC Historic Properties Specialists	Contact the FOSC for appropriate BOA contractor
Regional Environmental Officer (USDOI)	271-5011

Hatcheries/Aquaculture Sites: Refer to the *Sensitive Areas Section* of this plan

Industry/Spill Response Organizations

Organization	Phone	Alt. Phone	Fax
Alaska Chadux Corporation	348-2365	1-888-831-3438	348-2330
Reslove Magone Marine Services	581-1400		

CHEMTREC: 1-800-424-9300 (24 hr) Hazardous substances information provided by the Chemical Manufacturers Association

RESPONSE: PART TWO – EMERGENCY RESPONSE

A. UNIFIED COMMAND STRUCTURE AND ICS

The oil and hazardous substance discharge response Incident Command System (ICS) as described in the *Unified Plan, Annex B* will be used during a spill response in the Aleutians Subarea. In the event of an actual or potential oil or hazardous materials release, an ICS response will be activated. The ICS is based on the National Incident Management System (NIMS), which was developed to coordinate multiple agency actions and provide a command structure for use during emergency response events. In the State of Alaska, the Unified Command (UC) application of the ICS is used for response to oil and hazardous material spills. This system of ICS differs somewhat from the standard NIMS ICS format.

ICS allows for federal, state, and local governments to participate in the spill response both in an oversight capacity and as participants in the containment, control, and cleanup of the spill. ICS is organized around five major functions: Command, Planning, Operations, Logistics, and Finance/Administration. The basic ICS structure remains the same in all incidents, but the magnitude and complexity of the spill emergency will dictate which functional areas will be activated and to what level. ICS can be expanded or contracted to suit the size and scale of the spill.

ICS is led by the UC, which directs all aspects of incident response (including oversight, monitoring, cleanup, etc.), and includes an Incident Commander (IC), who is in command of the control, containment, removal, and disposal of the spill. For the Aleutians Subarea, the UC is typically comprised of the FOSC and, the SOSC, the LOSC [when applicable], and the Responsible Party On-Scene Coordinator (RPOSC). The UC is implemented in situations where more than one agency has jurisdiction. When the RP is identified, the RPOSC, usually a senior representative of the RP, is the IC. When there is no RP, or the RP is unable to satisfactorily respond to a spill, the spill response will be directed by an IC designated by the agency with jurisdictional authority (federal, state, or local.)

Below the command level, positions within the ICS can be filled by employees of the RP or its independent contractors. The exact size and composition of an ICS will vary according to the needs of the response and the experience level of the personnel involved. Government agency personnel may supplement ICS staffing as necessary.

By integrating response management early in the response, consensus, and mobilization can be more quickly achieved and limited resources combined to reduce duplication of effort and enhance response effectiveness.

B. ROLES OF THE OSCS, RP, RAC/OSRO, AND RSC

Federal On-Scene Coordinator (FOSC): USCG is the lead agency for coastal oil and hazardous materials spill responses and shall serve as the FOSC in the UC. For oil spills on inland waters (more than 1000 yards inland from the tide line), the EPA will be the FOSC. The role of the USCG or EPA in the UC will vary according to spill type and size. The USCG has adopted the Incident Management Handbook (COMDTPUB P3120.17A) for use in guiding their major spill response efforts. The EPA has also developed their own Incident Management Handbook. The guides provides detailed guidance for each ICS position identified for emergency response operations.

State On-Scene Coordinator (SOSC): ADEC is the lead agency for the State of Alaska in oil and hazardous

materials spill response. ADEC serves as the SOSC in the UC. The Alaska Incident Management System Workgroup (consisting of ADEC, industry, spill cooperatives, and federal agencies) has published the Alaska Incident Management System (AIMS) for Oil & Hazardous Substance Response. The AIMS Guide provides ADEC personnel and other response personnel with the detailed guidance necessary to properly respond to a major spill incident.

Local On-Scene Coordinator (LOSC): In the event of an oil spill or hazardous substance release in the Aleutians Subarea, a senior member of the local community with jurisdiction, unless otherwise specified by local plans, may serve as the LOSC in the UC. For all spills in the Aleutians Subarea in which the ICS is implemented, the LOSC will sit in the UC with the FOSC, SOSC, and RPOSC, sharing decision-making and oversight responsibilities with the other OSCs. For spills that affect or threaten to affect multiple jurisdictions in the Aleutians Subarea, or outside of the subarea, appropriate officials from the affected communities will integrate into the command structure either through a LOSC liaison representing the affected communities or through a Regional Stakeholder Committee (see below).

As long as an immediate threat to public safety exists, the LOSC serves as the ultimate command authority for the public safety issue, while the FOSC, SOSC, and RPOSC work with the LOSC to ensure mitigation of the situation. So long as the threat to public safety remains, the LOSC will be guided by the applicable Local Emergency Response Plan developed by the local emergency services staff. If the FOSC, SOSC, or RPOSC does not assume the lead role for response, the LOSC may request higher authority to assume that responsibility. (See the *Unified Plan, Annex B*.)

Responsible Party (RP): Under federal and State law, the RP is responsible to contain, control, and clean up any oil or hazardous substance spilled. The RP must notify the federal, state, and local authorities of the spill incident and initiate an effective response. The RP is expected to respond to an incident using their own resources and securing additional contractual expertise and equipment when necessary. The FOSC and SOSC have the authority to oversee the RP's activities, and both are authorized to take over or supplement the RP's response activities if they determine those activities to be inadequate. During an RP-driven response, if the vessel or facility has a contingency plan (C-plan), it will serve as the primary guidance document for the spill response, and the RP will designate the IC. If there is no RP, or if the RP does not have a government-approved contingency plan, the *Unified Plan* and the Aleutians Subarea Contingency Plan will become the guiding documents during the spill response.

Primary Response Actions Contractors (RAC) and Oil Spill Response Organizations (OSRO): Primary Response Action Contractors (RAC) and Oil Spill Response Organizations (OSROs) may play an important role in a spill response. Primary RACs and OSROs are organizations that may enter into a contractual agreement with an RP (vessel or facility owner/operator), assisting the RP in spill cleanup operations. RACs/OSROs can provide equipment, trained personnel, and additional resources. The Operations/Technical Manuals maintained by the RACs/OSROs may be referenced in vessel or facility contingency plans and serve as supplementary reference documents during a response. OSROs generally have access to large inventories of spill equipment and personnel resources. The FOSC or SOSC may contract these assets for use. Select equipment located within the Aleutians Subarea is referenced in the Resources Section of this plan. Complete equipment inventories are listed in the respective Operations or Technical Manuals of the RACs and OSROs.

Regional Stakeholder Committee (RSC): A Regional Stakeholder Committee may be activated for significant incidents to advise the UC on incident objectives and community concerns. The RSC will not play a direct role in setting incident priorities or allocating resources, however the RSC can provide the

UC (usually through the Liaison Officer) with recommendations or comments on incident priorities, objectives, and the incident action plan. The RSC is not directly involved in tactical operations, though some of its members may be. Each RSC will be facilitated by a chairperson elected by the RSC members. RSC composition may vary from incident-to-incident and may include community emergency coordinators, local or tribal government representatives, local or private landowners and leaseholders, Native organizations, non-profit and volunteer organizations, and other stakeholder groups affected by the spill.

RESPONSE: PART THREE – RESPONSE PROCEDURES

This part identifies the initial response objectives and actions that shall be taken for an oil or hazardous substance spill in the Aleutians Subarea, including the "ramp up" procedures and processes necessary to address an emerging incident.

NOTE: ***"General Emergency Response Procedures,"*** *which are applicable throughout the State, are contained in the Introductory Section of the* ***Unified Plan****.*

A. RESPONSE OBJECTIVES

Regardless of the nature or location of a spill, the following objectives shall guide all response actions:

1. Ensure safety of responders and the public.
2. Stop the source of the spill.
3. Deploy equipment to contain and recover the spilled product.
4. Protect sensitive areas (environmental, historic properties, and human use).
5. Track the extent of the spill and identify affected areas.
6. Cleanup contaminated areas and properly dispose of wastes.
7. Notify and update the public. Provide avenues for community involvement where appropriate.

B. SCOPE OF ACTIVITIES

This list assists the IC, either government or RP, and staff in completing the initial response actions associated with a medium to large-sized oil spill. This list is not exhaustive and should be used at the discretion of the IC and the UC.

1. Define Nature of Incident
   a. Determine facts of spill.
      - Responsible Party (name and phone #)
      - Location and time of incident
      - Type of incident (explosion, grounding, operational, etc.)
      - Type of product
      - Movement of spilled product
      - Environmental resources, sensitive areas, and historic properties at risk
   b. Determine whether RP is willing/able to respond.
   c. Classify size of spill.
   d. Notify natural resource trustees
   e. The FOSC (or authorized representative) needs to perform the following:
      i. Consult with natural resource trustees on potential resources at risk, including (but not limited to) wildlife on rat-free islands;
      ii. Conduct Endangered Species Act consultation (contact DOI and DOC to determine the presence of, and potential impacts to, threatened and endangered species and their critical habitat); and
      iii. Determine whether incident is categorically excluded under the Programmatic

Agreement to protect historic properties and, if not, activate an FOSC Historic Properties Specialist.

2. Evaluate Hazards to Human Health/Safety
   a. Determine threat to public health.
   b. Assess fire/explosion hazard.
   c. Assess personnel safety based on potential/existing hazards.
   d. Determine appropriate level of personnel protective equipment for responders.
3. Evaluate Severity of Incident and the Need for Additional Resources
   a. Estimate amount of spilled product and total potential amount.
   b. Estimate duration of spill response efforts.
   c. Assess weather/sea conditions.
   d. Determine the presence (or suspected presence) of invasive species (e.g., rats).
4. Initiate Response Strategy
   a. Protect responders and the public.
   b. Secure or isolate the source of spill.
   c. Protect sensitive areas:
      i. Consult with natural resource trustees on the protection of sensitive areas (including rat-free islands) and resources and on potential response options to be taken;
      ii. Develop priorities consistent with environmental sensitivity and protection priorities identified in *Sensitive Areas Section* of this plan.
   d. Initiate containment and recovery of spilled product.
   e. Initiate spill tracking.
   f. If ballast water discharge is considered as an option for vessel stability or other concerns, the threat of invasive species needs to be addressed by responders.
5. Inform Local Residents, Communities, & Stakeholders
   a. Prepare Press Statement.
      - Report the extent that USCG, EPA, ADEC, RP and local emergency response personnel are responding to discharge event.
      - Give brief details of the discharge.
      - Describe actions taken by the UC.
      - Announce that formal press release will be issued as more information is received.
   b. Contact Local Media. (Local radio, newspaper and television contact information available in the *Resources Section, Part Three*, *Subsection M*)
   c. Be forthcoming, and provide as much information as quickly as possible. If no information is available, say so but ensure that information is provided to the media as soon as it is available.
   d. Conduct appropriate briefings via the ICS Liaison Officer.

C. RAMP UP PROCEDURES

A spill response progresses through a series of steps where the number of personnel and amount of equipment is increased (or decreased) as necessary to meet the demands of the situation. This increase of

resources to address response needs is called a "ramp up." USCG and EPA will rely on their respective agency's Incident Management Handbooks and State of Alaska personnel will employ the Alaska Incident Management System (AIMS) Guide and well as the Spill Tactics for Alaska Responders (STAR) to direct their staffing of emergency response teams.

The ramp up begins when the spill is first reported and progresses with the sequential and prioritized activation of the response resources of the RP and the local, state and federal responders. Each spill response will differ according to spill size and severity, location, season, and a variety of other factors. Personnel needs will vary accordingly.

The ramp up procedures and personnel requirements presented below are provided as guidance for the UC during the initial staffing of the ICS. The ICS can expand and contract to meet the needs of an emergency response without any loss of effectiveness or control. The goal for any major spill is to have the personnel in place to staff a complete ICS within the first 96 hours of a response. In addition to federal and state responders, various have significant numbers of trained personnel available to help staff an ICS. Contact the local emergency management organizations listed in Part One of this section to recruit local, trained personnel to assist in the response effort.

The ramp up to a full oil spill response generally moves through three staffing levels. The **Initial Response Team** (Hours 0-6) will consist primarily of first responders who will carry out initial response actions. The **Transitional Response Team** (Hours 6-96) will form as additional personnel arrive on-scene and ICS functions are added. The **Full Response Team** (by Hour 96) will be complete when full ICS staffing levels have been reached. Qualified personnel within the ICS will identify resources and equipment necessary for an effective response.

This ramp up guidance outlines the response of federal and State personnel. RP personnel will initiate a concurrent ramp up according to the procedures described in their contingency plan. In those incidents where there is imminent threat to life and property, the appropriate local Fire Chief, State Trooper, or Emergency Manager will be the IC. The LOSC will follow the guidance of their local emergency response plan.

Hour 0-6: Initial Response Team

The Initial Response Team will consist primarily of the FOSC and SOSC response officers, natural resource trustees (if available), and local emergency response and RP personnel. The Initial Response Team will carry out initial response efforts, which include notification and equipment mobilization. Depending on the size of the spill, a UC may begin to form as the Initial Response Team carries out these response actions.

Notifications: The RP is ultimately responsible for making notifications to local, state and federal agencies. Notifications will include local officials, police, and fire departments. USCG or EPA will notify the appropriate federal agencies listed as agency contacts on page A-2 and other points of contact, as necessary. The FOSC will notify appropriate natural resource trustees to begin the consultation process on resources at risk (including threatened and endangered species and their critical habitats), response actions that may affect trust resources, and response actions to protect or reduce the injury of trust resources, including (but not limited to) actions to ensure as appropriate (1) incident related vessels/aircraft are rat-free, and (2) a rat response plan is implemented for the stricken vessel. ADEC will notify the appropriate State agencies as noted on the contact list on page A-3. Each agency will activate appropriate staff and equipment to respond to an event in the Aleutians Subarea.

Initial Response Action**:** Following these notifications, the initial responders will assess the chemical characteristics of the spilled material and establish a safe level of Personnel Protective Equipment (PPE) prior to dispatching a response team to the scene. Upon arrival, the response team will conduct a site characterization to evaluate environmental hazards. Upon ensuring a safe operating environment, they will attempt to determine the source of the spill, identify the RP, secure the source of discharge, and begin to gather data for the ICS to use to formulate a response strategy or validate the RP's strategies. This initial response team will normally have no containment or product removal means with them at this time, unless provided by the RP. If local authorities or federal/state responders identify an immediate threat to public health and safety, appropriate action shall be initiated. If the situation warrants, an evacuation may be implemented according to the procedures described in the local emergency response plan.

The response team will contact the FOSC and/or SOSC, report the details of the spill, and initiate a preliminary investigation into the cause of the spill. The FOSC/SOSC or other response team personnel will advise the RP regarding the legal requirement to initiate containment and recovery actions. The FOSC will be advised of the severity of the spill and will activate the ICS. The FOSC and/or SOSC will brief the federal, state and local government agencies regarding the spill status and ramp up procedures. The FOSC will continue to consult with natural resource trustees on actions to be taken that may affect trust resources. The FOSC will activate an FOSC Historic Properties Specialist unless the FOSC determines that the incident is categorically excluded from the National Programmatic Agreement to protect historic properties.

ADEC will select any available State resource agency personnel to serve as a local contact until ADEC responders arrive on-scene. ADEC will request that ADNR and ADFG identify environmental priorities for protection. ADNR and ADFG will use the environmental sensitivities information in this plan as a primary source for this information. NOAA may also be contacted for initial environmental sensitivity and wildlife concentration information. ADEC will forward these priorities to the IC and the UC.

The RP is responsible for deploying appropriate privately-owned pollution response equipment as quickly as possible, regardless of whether federal/state equipment has been deployed in the interim. The FOSC/SOSC may assist the RP and arrange for initial delivery of pollution response gear via the most expedient mode of transportation.

Command Center Establishment: A field command post will be assembled to coordinate efforts until the FOSC, SOSC, LOSC and RP can establish the command center. The location of this field command post will depend upon the location and severity of spill, time of year, weather, and other considerations. Details on potential field command post locations, staging areas and potential command center locations throughout the Aleutians Subarea are included in the *Resources Section* of this plan.

State, federal, and local personnel arriving on-scene should realize that workspace, telephone lines, and other office resources may be quite limited during the initial response. Individuals are encouraged to bring cellular phones to communicate with their respective home offices (realizing that cellular phone capabilities also may be severely limited or non-existent at the incident location).

Staging Areas: In community profiles contained in the *Resources Section* of this plan, potential staging areas may be identified for a specific community.

Hour 6-96: Transitional Response Team

The Transitional Response Team forms as additional federal, state and local response personnel arrive on-scene. After the initial response, the scope and size of the spill can be gauged, and the UC will convene and

ICS staffing will increase. In a government-led spill response, the UC will designate an IC. In a RP-led response, the IC will be a representative of the RP. The IC will designate appropriately trained personnel as Section Chiefs for the Operations, Planning, Logistics, and Finance/Administration Sections of the ICS. As the response develops, appropriate ICS functions will be added until a full response team is in place.

Hour 96: Full Response Team
A full ICS response team should be assembled by Hour 96 of the spill response. Staffing-depths and positions-filled will vary with the response, as will the order in which these positions are filled. The Full Response Team will follow the command structure described in the Alaska Incident Management System (AIMS) Guide and/or the USCG Incident Management Handbook or EPA Incident Management Handbook. Response personnel may include federal, state and local agency personnel, employees of the RP, and independent contractors, or other organizations' personnel, as appropriate.

D. ADDITIONAL RESPONSE POLICIES

1. Health and Safety

For most spills, a Safety Officer will be designated by the IC. The Safety Officer will be responsible for ensuring that the spill site is properly characterized, the hazards identified, and personnel properly equipped and adequately briefed prior to allowing entry into the spill area. The Safety Officer will also be responsible for ensuring site security and establishing emergency procedures for decontamination and evacuation in the event of injury or change in conditions. The Safety Officer answers directly to the IC and will have the authority to suspend any operation deemed unsafe or in violation of safety regulations.

The *Unified Plan, Annex H, Appendix I* provides a Standard Site Safety Plan for Emergency/ Post-Emergency Phase Coastal Oil Spills developed by the USCG. The plan is generic in nature and must be expanded to provide specific safety procedures for each incident. The *Unified Plan, Annex H, Appendix II* provides the Training Guidelines for Local Emergency Planning Committees for Planners/Responders/Managers of Responses to Hazardous Materials Emergencies.

Once the emergency response is under way, the Safety Officer will develop a Site Specific Health and Safety Plan that will address all the required elements in OSHA's Hazardous Waste Operations and Emergency Response Regulations (29 CFR 1910.120), including but not limited to:

- Organizational Structure
- Training Requirements
- Risk and hazard analysis for each planned cleanup activity
- Personnel Protective Equipment (PPE)
- Site Security and Control
- Air Monitoring, Medical Surveillance
- Decontamination
- Emergency Response Plan
- Emergency Communications
- Sanitation and Lighting

2. In Situ Burning, Dispersants and Other Chemical Countermeasures

Decisions regarding the use of *in situ* burning and/or dispersants or any other chemical response tactic in the Aleutians Subarea will be made according to the guidelines presented in the *Unified Plan, Annex F*.

3. Waste Removal and Disposal

The ICS Planning Section Chief will be responsible for developing a waste removal and disposal plan that provides the necessary logistical and procedural information to ensure a fast and efficient transfer of wastes to disposal facilities. The disposal plan must be in compliance with existing laws and regulations.

Oversight of the waste disposal plan will normally be the responsibility of the State of Alaska. Alaska law (18 AAC 75.319 & 18 AAC 75.327) requires that cleanup and waste disposal plans for hazardous substances, including oil, be approved by ADEC. For information and guidelines on procedures for transporting, storage, and disposal of wastes and a listing of disposal related permits, refer to the *Unified Plan, Annex E, Appendix VI*.

Note: *Within the Aleutians Subarea there are limitations on the amount of temporary storage available for waste products and recovered product resulting from an oil spill.*

4. Cost Recovery/Documentation

Refer to the *Unified Plan, Annex C, Appendix I* (Federal Spill Funding Procedures), and *Appendix III* (State Administrative Guidelines).

5. Public Affairs

The IC/UC will direct all media inquiries to the Public Information Officer(s). The Public Information Officer position may be filled jointly by regulatory agency and RP representatives. A Joint Information Center (JIC) may be established. For local media contacts, consult the *Resources Section, Part Three* of this plan. Refer to *Unified Plan, Annex I* for statewide guidance on Public Affairs inquiries.

E. POTENTIAL PLACES OF REFUGE

Refer to the Potential Places of Refuge (PPOR) (Section H) in this plan for specific information on PPOR sites pre-identified for the Aleutians Subarea.

Leaking or disabled vessels may require a sheltered location with adequate water depth to lighter or repair the vessel. Leaking vessels need to be repaired to limit the amount of spilled product. If leaking vessels are not repaired, a spilled product, such as oil, can negatively affect downstream environmental resources and shoreline. Vessels need to be anchored or moored in protected waters to safely make repairs and stop the loss of oil or other hazardous products.

Each vessel incident presents unique circumstances that the UC must address. The goal is to safely repair or salvage a damaged vessel while avoiding or minimizing impacts to local resources. Prior to bringing a vessel into an anchoring or mooring location, the UC will need to consider:

- Status of the vessel
- Public safety
- Environmental resources at risk
- Strategies to protect sensitive areas
- Prevailing winds
- Navigational approach to the mooring site
- Anchoring ground
- Vessel traffic
- Available dock and support facilities

- Available skilled and spill response labor

The USCG Captain of the Port (COTP) – Western Alaska has jurisdiction over approving temporary mooring or anchoring locations for leaking or damaged vessels within this area. The COTP will consult with natural resource trustees and other appropriate stakeholders (e.g., tribal, State, and local government representatives) when deciding where and when to move a stricken vessel.

In October 2004, the Alaska RRT approved the *Guidelines for Places of Refuge Decision-Making*. These guidelines were developed by the ARRT Places of Refuge Subcommittee composed of representatives from the USCG, EPA, U.S. Department of the Interior, U.S. Department of Commerce, U.S. Department of Justice, ADEC, Alaska Department of Fish and Game, Alaska Department of Natural Resources, oil spill cooperatives, industry production and transportation interests, Alaska marine pilot representatives, salvage operators, and regional citizens advisory councils. Refer to *Unified Plan, Annex O* for the complete guidelines.

F. GEOGRAPHIC RESPONSE STRATEGIES

See Section G of this plan for Geographic Response Strategies (GRS) developed thus far for portions of the Aleutians Subarea

G. SEAFOOD PROCESSOR PROTECTION PLANS

See Section G of this plan for Seafood Processor Protection Plan (PPP) developed specifically for protecting seafood process water intakes at Dutch Harbor and Akutan.

H. ALASKA COMMERCIAL FISHERIES WATER QUALITY SAMPLING METHODS AND PROCEDURES

See the following website for detailed information on water quality sampling methods and procedures to determine the presence/absence of oil contamination that could potentially impact the commercial fisheries of Alaska. www.dec.state.ak.us/spar/perp/wq/wq_manual.htm

I. MARINE RESPONSE AND SALVAGE RECOVERY

1. BACKGROUND

This part of the SCP is intended to provide relevant findings from the Aleutian Islands Risk Assessment technical reports to support decisions for the prevention, planning and preparedness to oil and hazardous substance incidents within the region. References to each of the technical reports developed can be found in Annex 2 of this part of the SCP.

2. WEATHER CHARACTERIZATION IN THE ALEUTIAN ISLANDS

This section presents the data collected and collated from each airport shore station and buoy. The data is presented by parameter so that the conditions (for each parameter) at the different locations can be compared. The completeness of the data is also shown as percentage of total possible records that were available for each parameter and each station. Full datasets are available on request from Nuka Research.

Wind

Wind data are presented in terms of both wind speed and wind direction. The Beaufort Scale, used to describe wind speeds and their associated sea states is shown in Table 1.

Table 1. Beaufort Scale of wind speed, ocean conditions, and probable sea state (Environment Canada, 1996)

Beaufort Scale	Wind Speed (Knots)	Probable Sea State (Feet)	Effects of Sea
0	< 1	Calm	Sea is mirror- like
1	1 to 3	< .25	Scale –like ripples form. No crests
2	4 to 6	.5 to 1	Small wavelets: short but more pronounced. Crests are glassy and do not break
3	7 to 10	2 to 3	Large wavelets: crests begin to break. Foam is glassy, Scattered white horses possible.
4	11 to 16	3.5 to 5	Waves small but lengthening. More frequent white horses.
5	17 to 21	6 to 8.5	Moderate waves take longer form. Many white horses.
6	22 to 27	9.5 to 13	Large waves. White foam crests are more extensive and there is possible spray
7	28 to 33	13.5 to 19	Sea heaps up. White foam from breaking waves begins to be blown in streaks.
8	34 to 40	18 to 25	Moderately high waves. Breaking crests form spindrift. Streaks of foam appear
9	41 to 47	23 to 32	High waves. Dense streaks of foam along the direction of the wind. Crests unstable. Spray may affect visibility.
10	48 to 55	29 to 41	Very high waves with long over-hanging crests. Foam blown in dense, white streaks along the direction of the wind. Sea looks white. Sea tumbling becomes heavy and shock-like. Visibility affected.
11	55 to 63	37 to 52	Exceptionally high waves. Sea completely covered with long, white patches of foam lying along the direction of the wind. Edges of wave crests blown into froth. Visibility affected.

Wind Speed

Figure 1 summarizes this information, showing the median wind speed for each month and wind speeds that are 25%, 75%, 95%, and 98% of maximum. The figure also shows the maximum and minimum readings for each month.

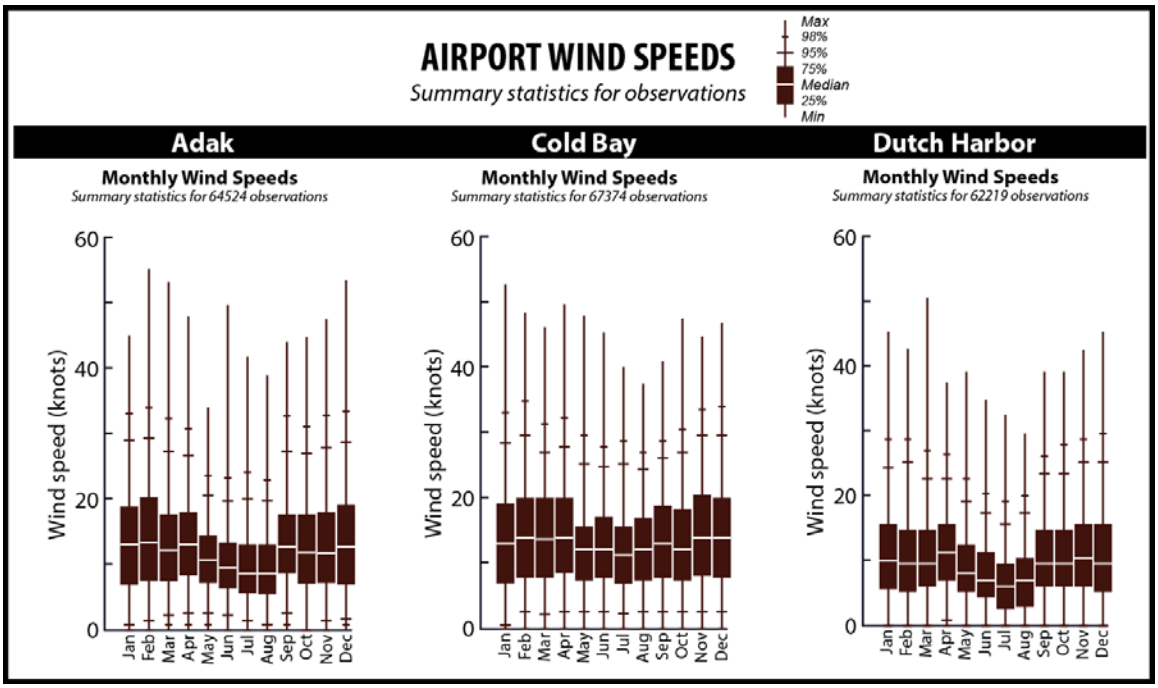


Figure 1. Wind speeds recorded at airport shore stations.

Figure 2 shows the monthly wind speeds and gusts for the buoy stations.

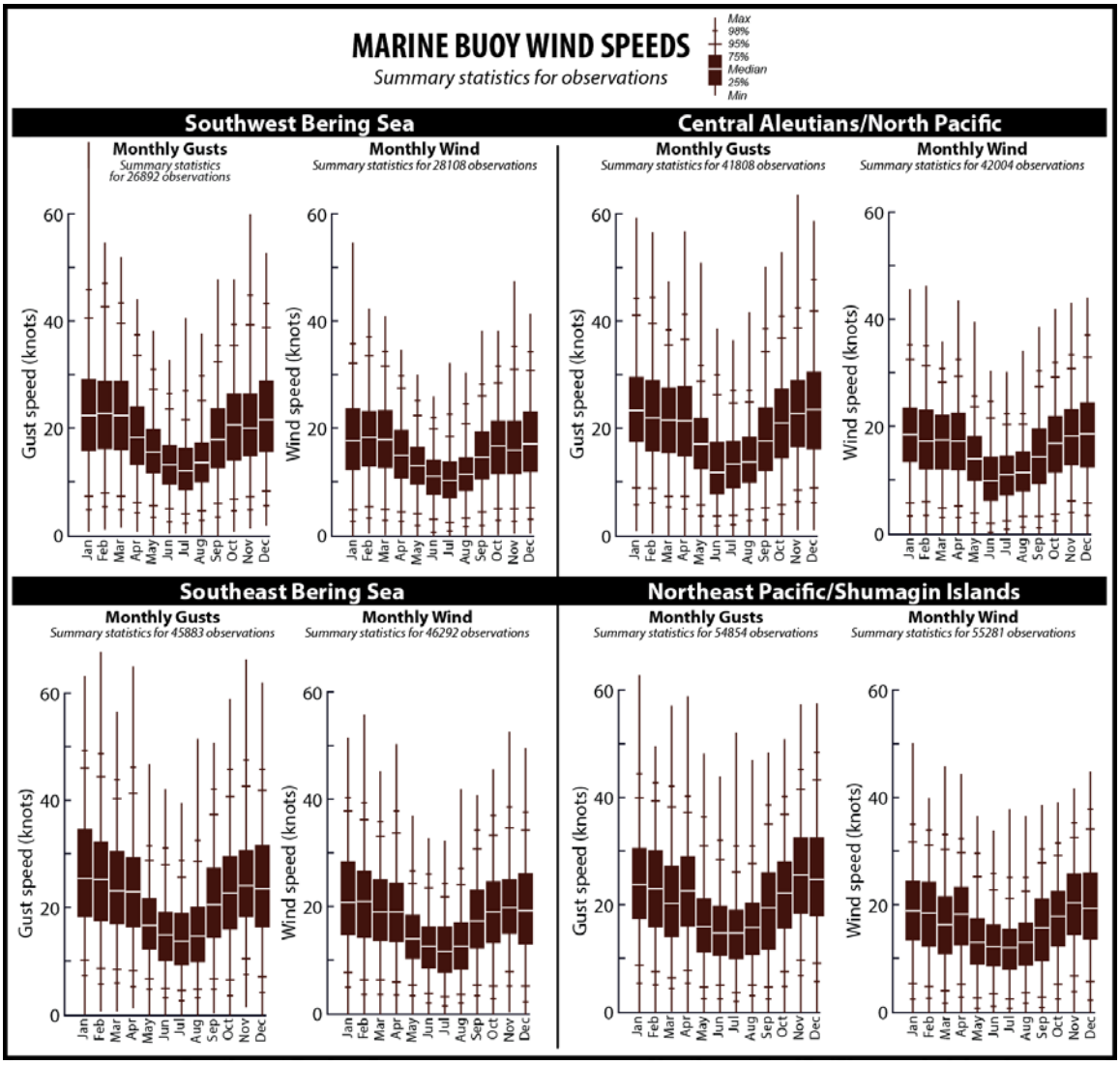


Figure 2 Wind speeds and gusts at buoy stations.

Wind Direction

Figures 3-9 present the wind directions recorded at each station, along with the associated wind speeds, (and gusts, for the buoy locations), which are presented to highlight the strong, gale force, and storm winds recorded there. The tables shown with each figure indicated the completeness of the records.

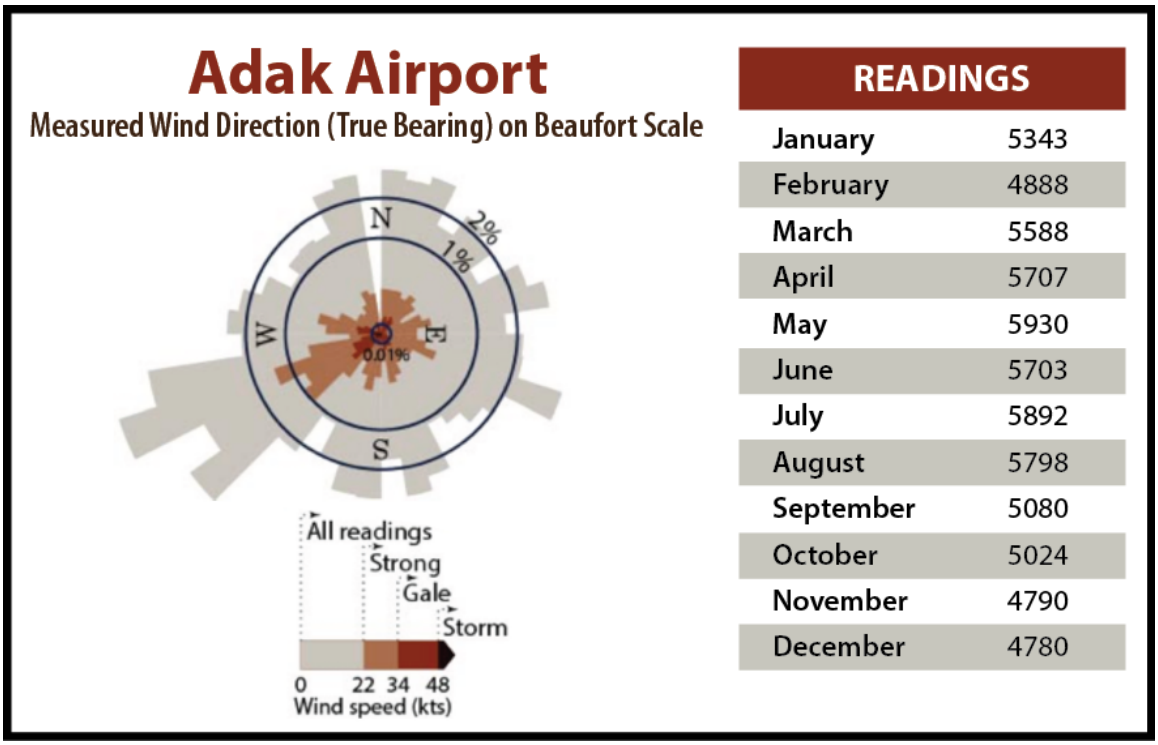


Figure 3. Wind direction, wind speed, and number of readings at Adak Airport.

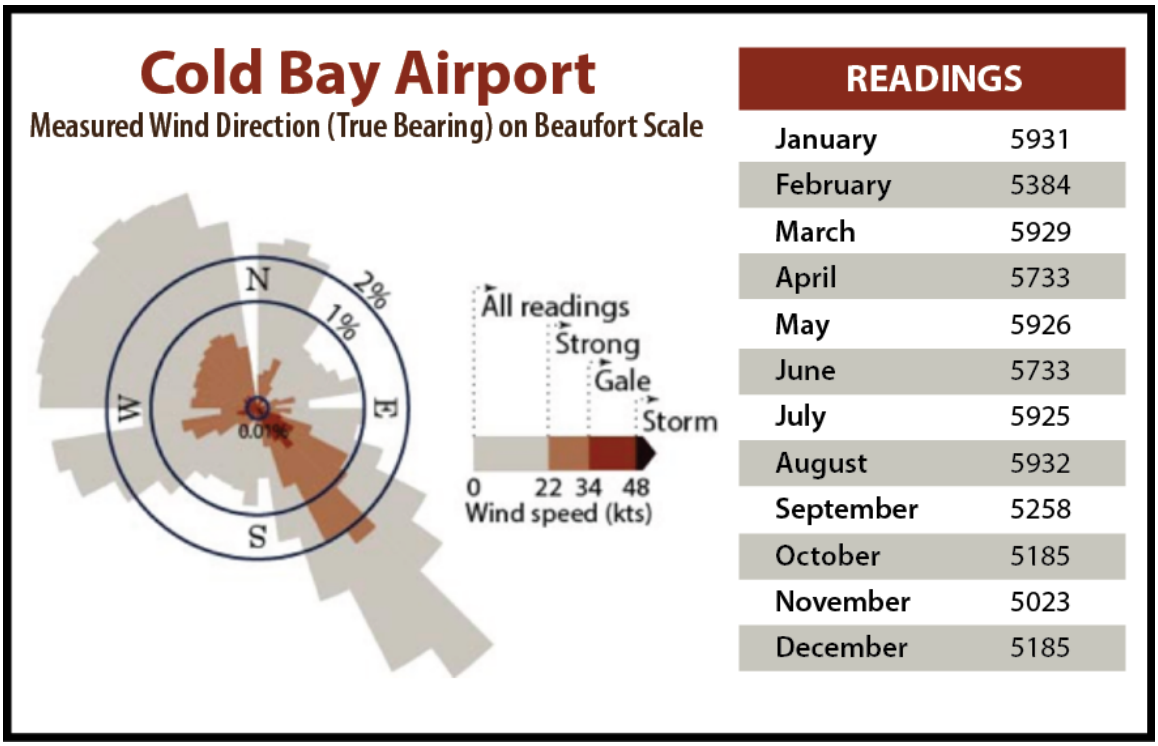


Figure 4. Wind direction, wind speed, and number of readings at Cold Bay Airport.

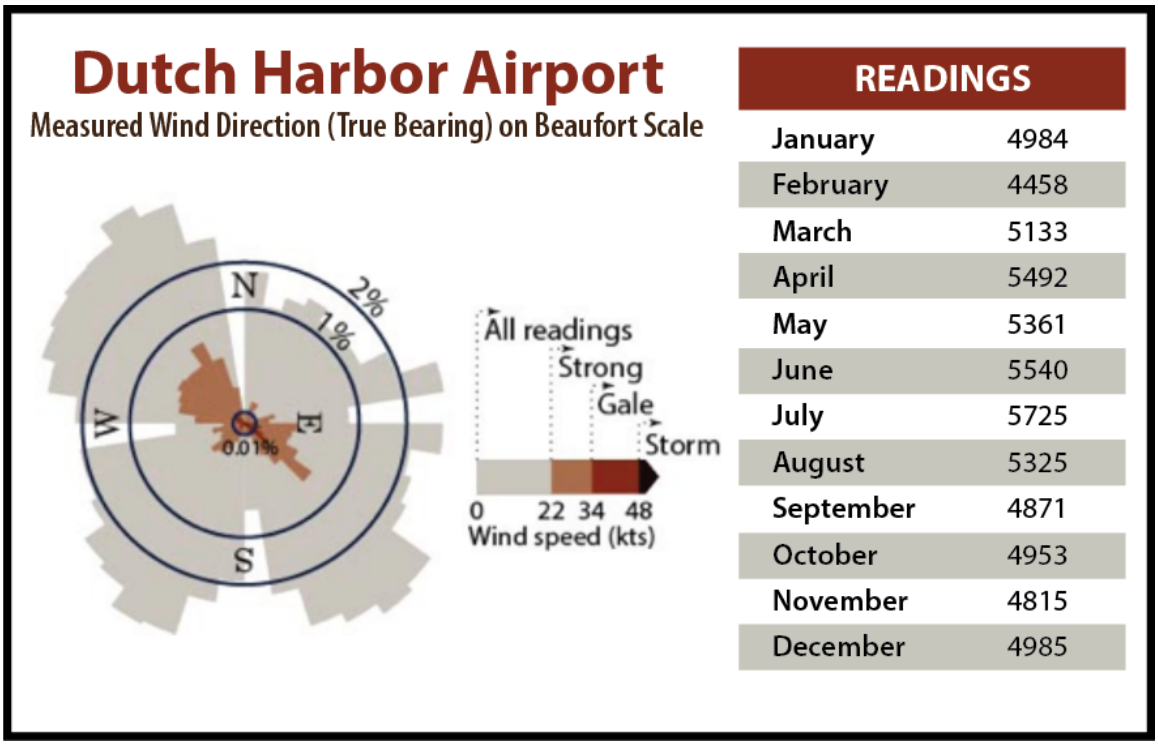


Figure 5. Wind direction, wind speed, and number of readings at Dutch Harbor Airport.

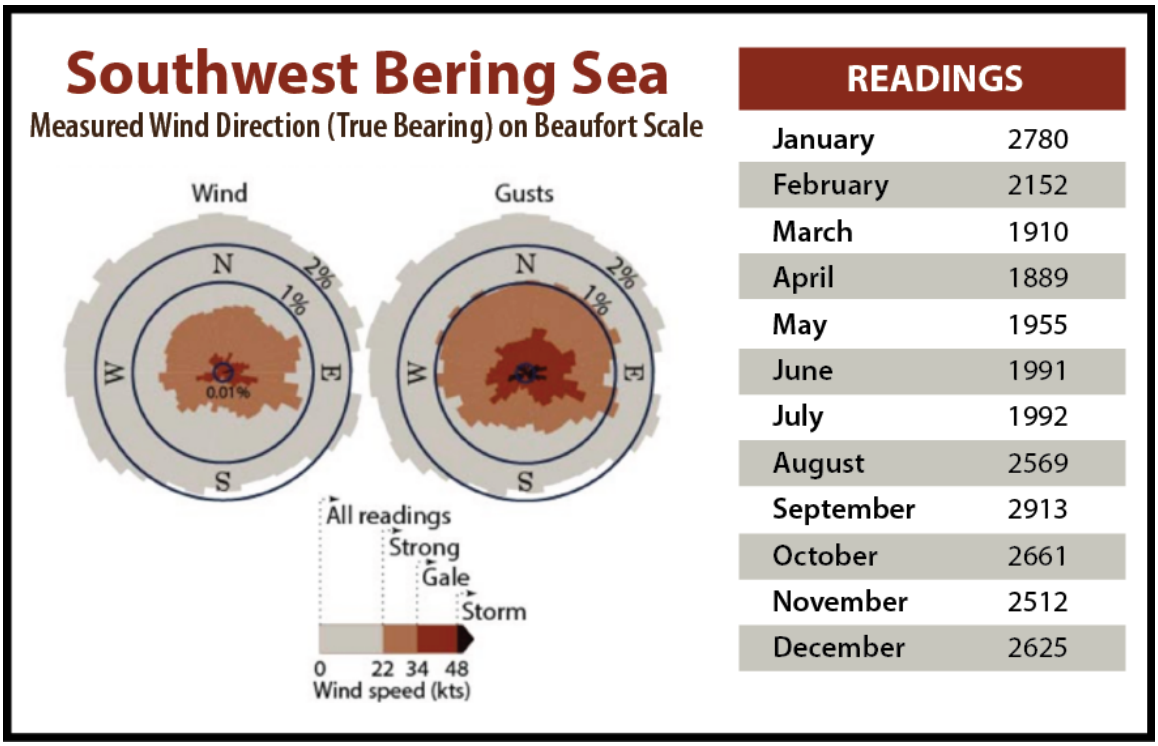


Figure 6. Wind direction, wind speed, and number of readings in the Southwest Bering Sea.

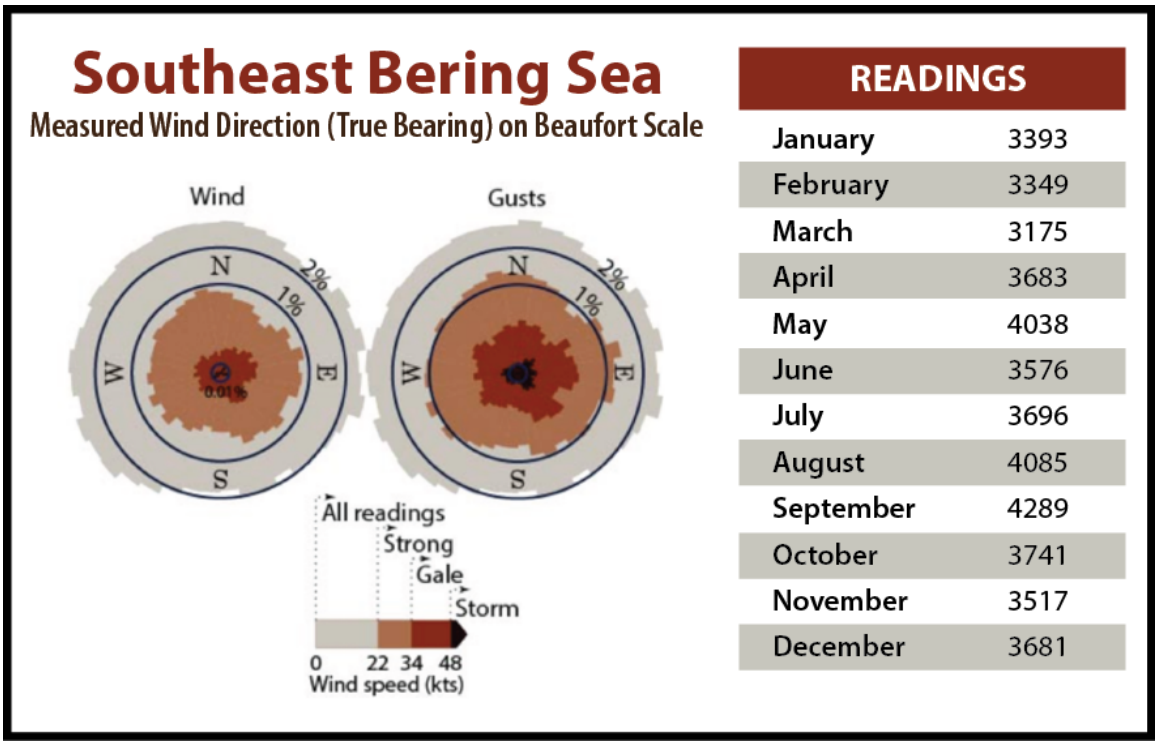


Figure 7. Wind direction, wind speed, and number of readings in the Southeast Bering Sea.

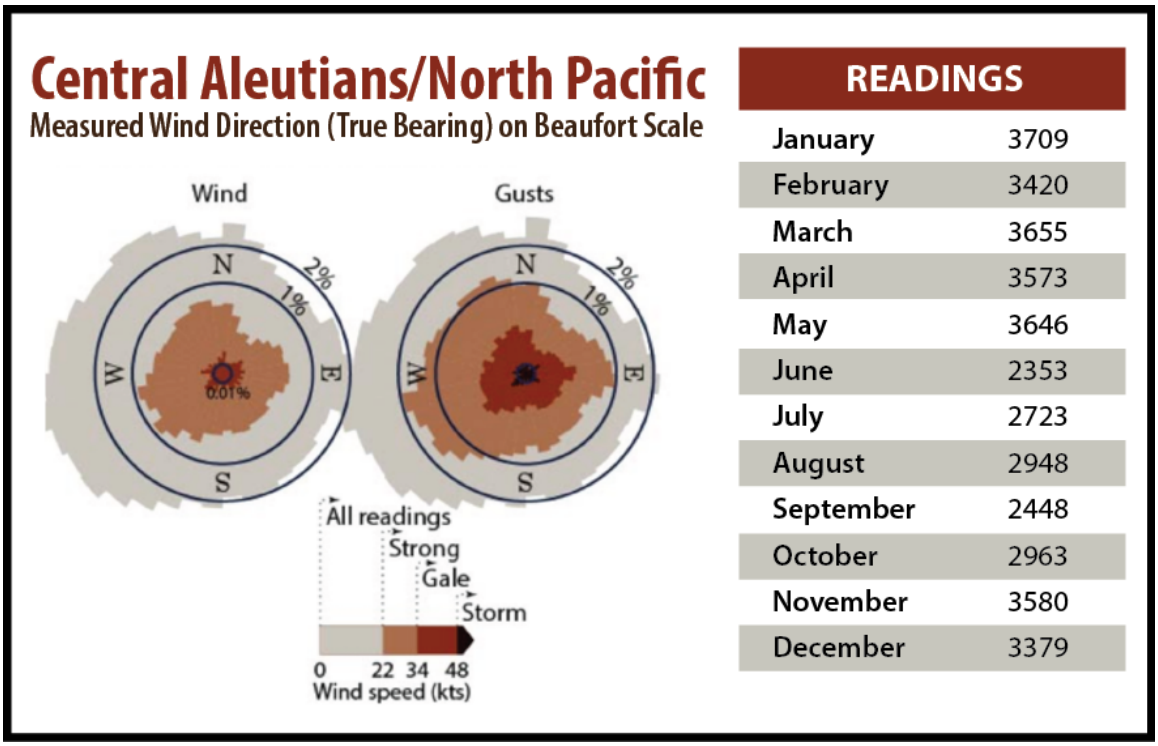


Figure 8. Wind direction, wind speed, and number of readings in the Central Aleutians/North Pacific

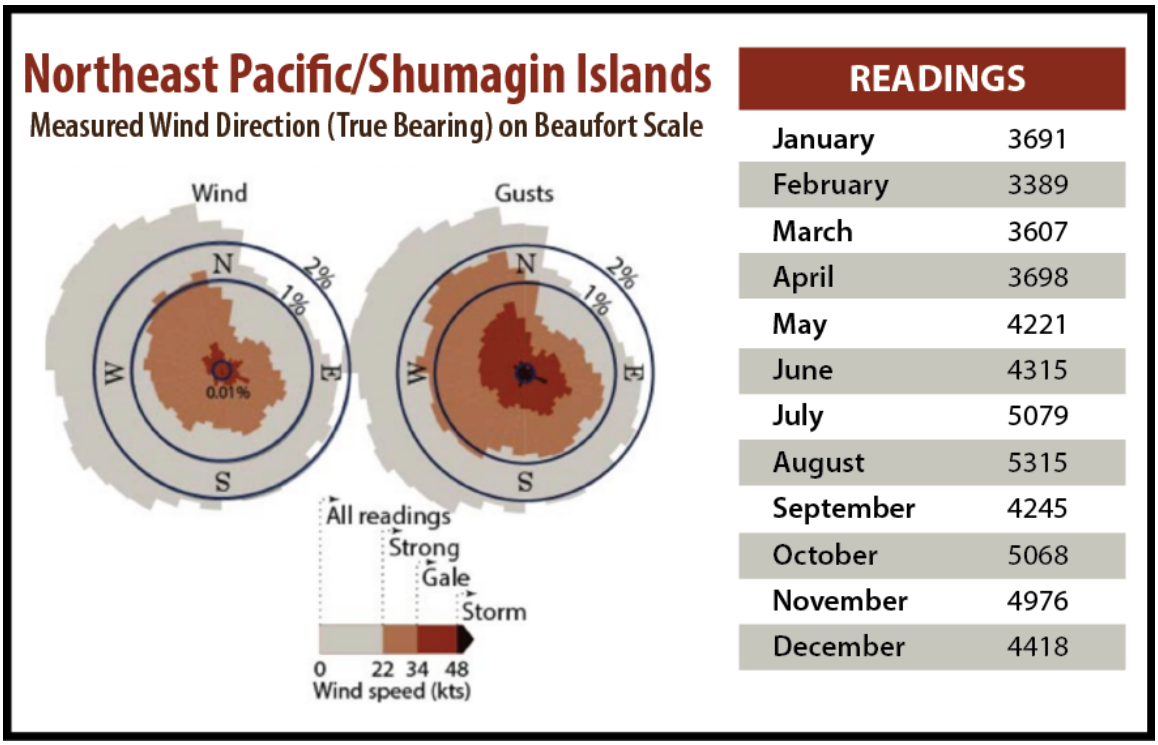


Figure 9. Wind direction, wind speed, and number of readings at Northeast Pacific/Shumagin Islands.

Sea State

As discussed above, the key parameters related to sea state are recorded at the four buoy stations. The data collected is summarized in Figure 10, which shows the distribution of wave height and wave period.

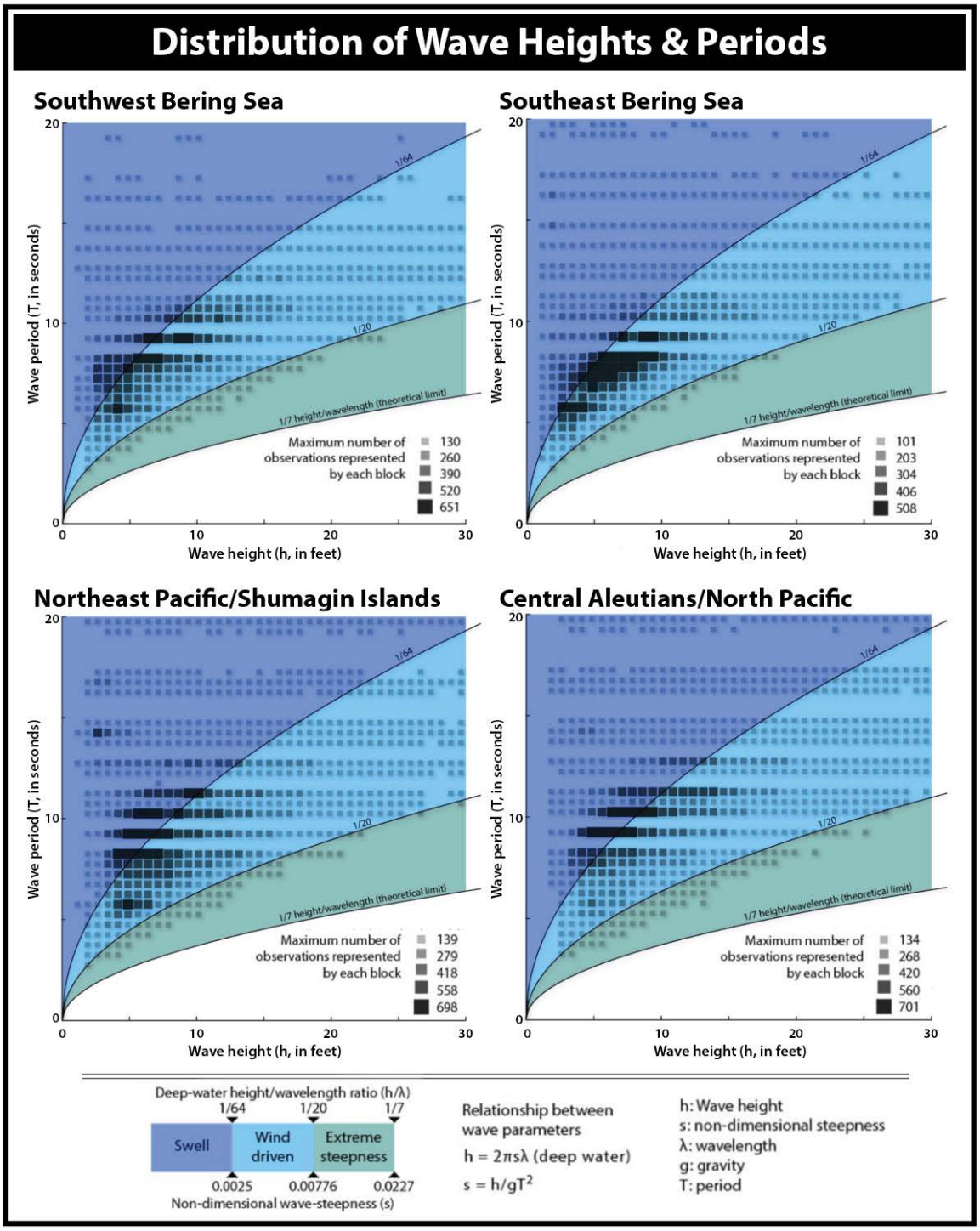


Figure 10 Distribution of wave heights and periods recorded at buoy stations. This figure omits very large, outlying wave heights above 30 feet (greater than 98th percentile for all buoys).

Temperature

Figure 11 shows the median, maximum, and minimum temperatures collated for each month at each location. It also shows the temperatures that represent 25% and 75% of the maximum.

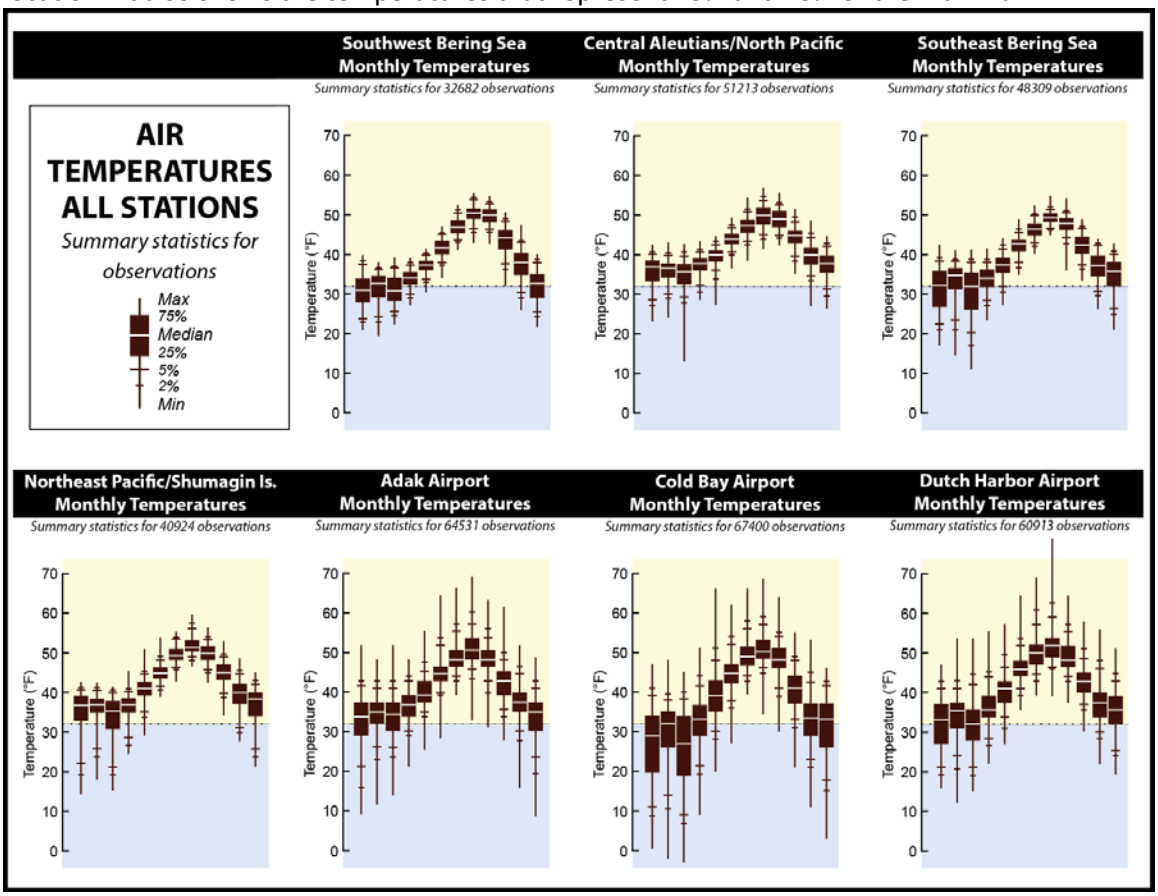


Figure11 Monthly temperature data for all seven stations

Visibility

Visibility is recorded at the airport stations based on the number of statute miles of horizontal visibility and height of cloud ceiling. Aside from weather conditions, the area experiences large seasonal variations in daylight, which will affect operations.

Prevailing Visibility at Airport Stations

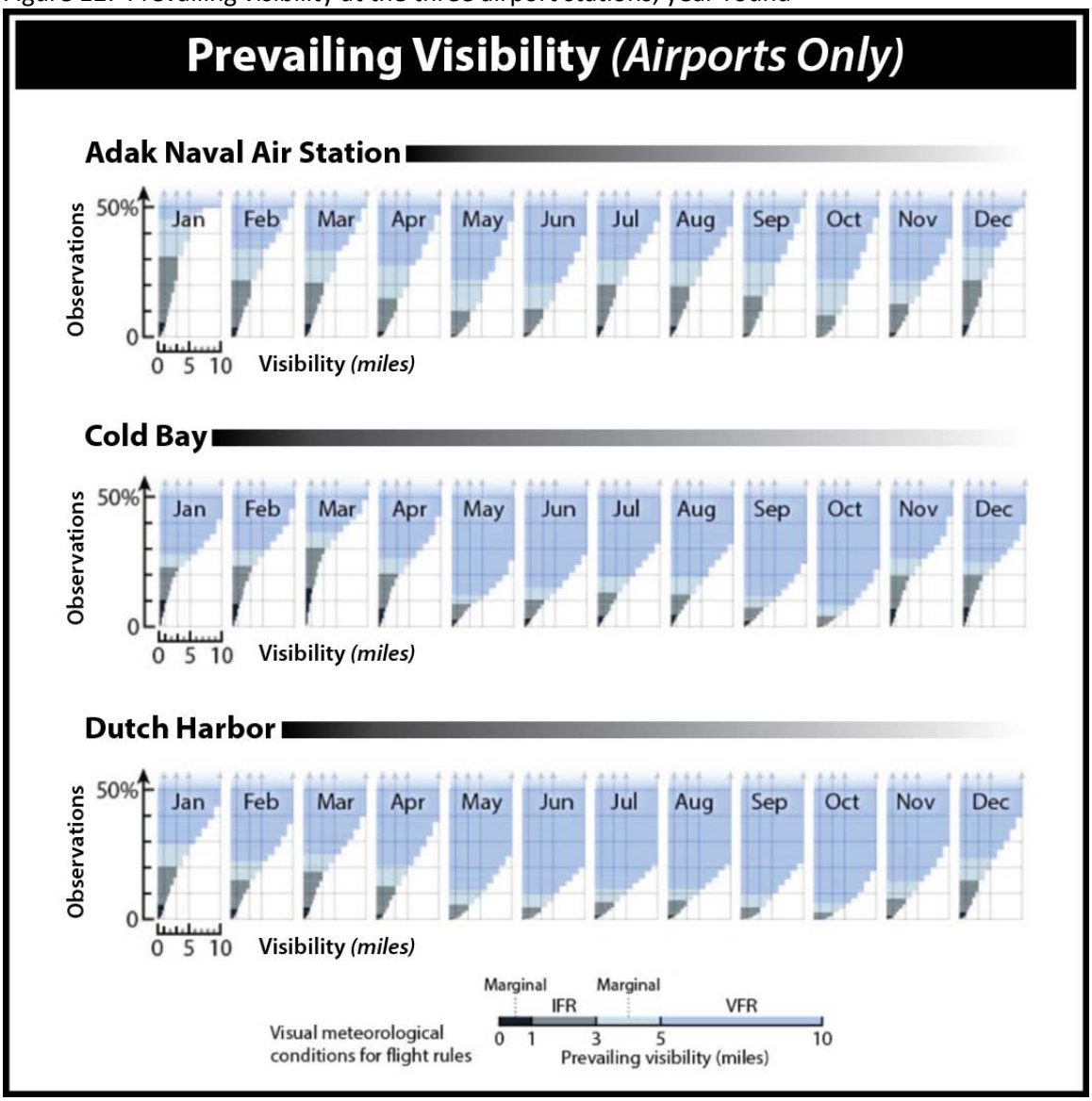
As Figure 12 shows, horizontal visibility varies among the three airports and throughout the year. This figure presents the horizontal visibility as it applies to Class E Airspace (general, unrestricted airspace) flight rules. In simplified form, Class E instrument flight rules (IFR) require a visibility of at least one mile, and visual flight rules (VFR) require a visibility of three miles or more (Federal Aviation Administration, 14 CFR 91)

FAA flight rules themselves are more complex; these simplified flight rules are used only to provide context for the visibility data, indicating the possible impact on operations. Marginal zones are identified at 3-5 miles of visibility (where VFR is possible by may be marginal), and at less than one-mile

visibility (where even instrument flight may no be recommended).

As discussed above, visibility at the airports may be different than visibility on the water. For instance, conditions that permit flight from airports might still preclude effective search, rescue, or surveillance of spilled oil on the water.

Figure 12. Prevailing visibility at the three airport stations, year-round



Observed Ceiling at Airport Stations

Airport stations also record the observed ceiling (height of cloud cover above ground level), which are summarized in Table 2.

Some ceiling records, primarily at Adak, are of uncertain quality due to the possible conflation of very low ceilings with no recording. Zero ceilings are recorded for a full range of visibility conditions,

including horizontal visibility of up to 10 miles (the maximum measured), suggesting that many such records actually correspond to clear sky or no ceiling recording being taken, rather than foggy conditions. Ceiling requirements for flight vary; there is not one universal limit.

Table 2. Observed ceiling at Adak, Cold Bay, and Dutch Harbor airports

	PERCENTAGE OF TOTAL OBSERVATIONS		
	Ceilings of 1000 ft. or lower	*Ceilings of 200 ft. or lower*	*Zero or unrecorded ceiling*
Adak Airport	8%	1%	53%
Cold Bay Airport	18%	3%	< 1%
Dutch Harbor Airport	11%	1%	1%

Daylight

Daylight in the study area varies slightly from north to south among the weather stations, and substantially throughout the year at all stations. Civil daylight along the northern margin of the study area last approximately 9 to 19 hours per day, depending on the time of year. This includes daytime hours, from sunrise to sunset, as well as the half-hours before sunrise and after sunset (civil twilight).

Dutch Harbor, the logistical hub of the region, sees a similar range (Figure 13). The area has an east-west span of over 1,100 miles between the Shumagin Islands and Attu Island. As a result, actual local time-of-day varies by more than two hours, at the approximate latitude of Unalaska (54°N). The chain is divided between Alaska Standard Time (UTC-9) east of 169° 30 W and Hawaii-Aleutian Standard Time (UTC-10) to the west.

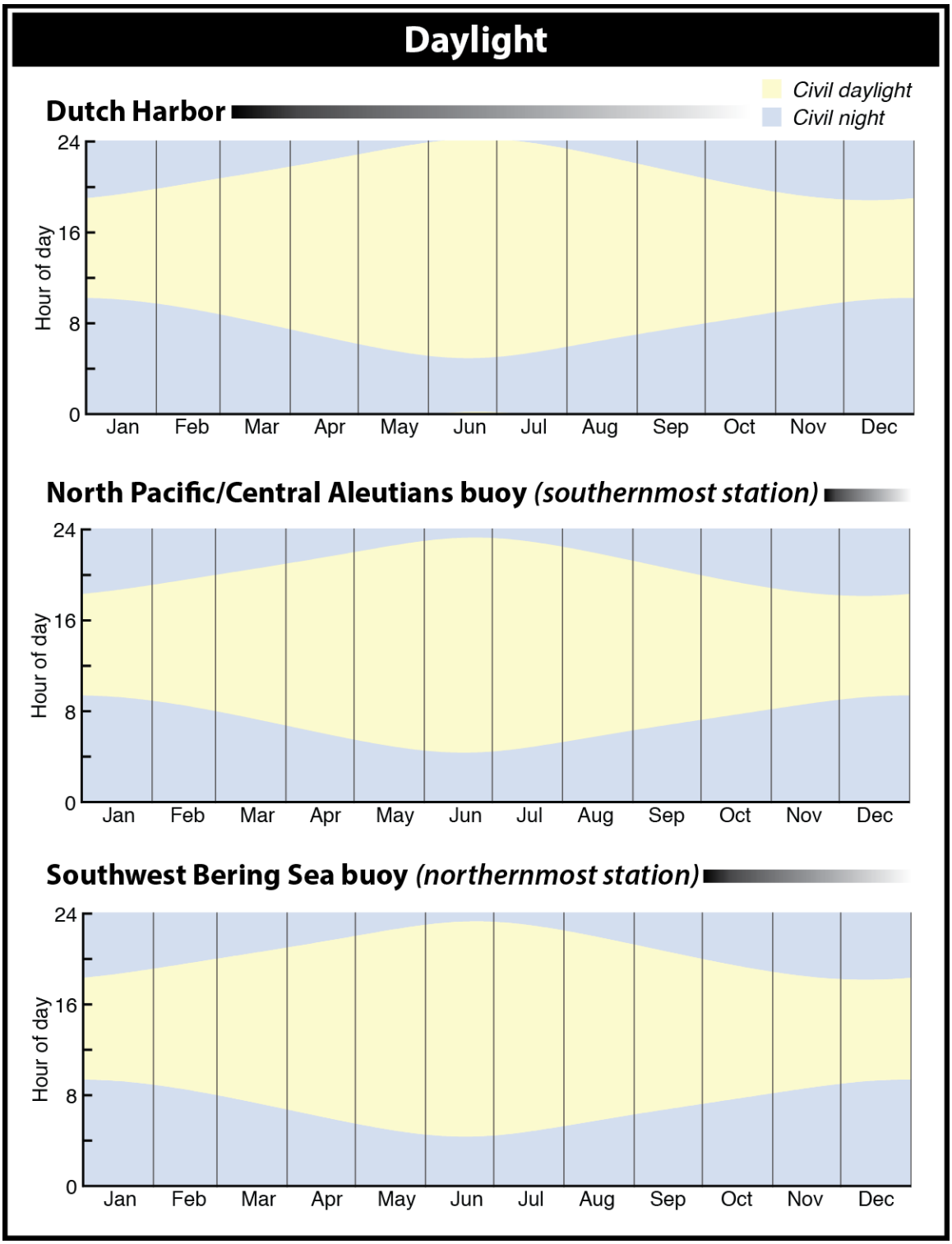


Figure 13. Annual daylight for Unalaska and the northernmost and southernmost weather stations.

3. 2012 VESSEL TRANSITS OF UNIMAK PASS

In 2012, a total of 1,961 deep-draft vessels made 4,615-recorded transits through Unimak Pass.

Transits by Direction

The data for Unimak Pass indicate that this route through the Pass is more commonly used for westbound voyages:

- 3,109 (67%) of the recorded transits through Unimak Pass were WESTBOUND
- 1,369 (30%) of recorded transits through Unimak Pass were EASTBOUND
- 137 (3%) transits were unknown

In addition to Unimak Pass, vessels may also use other passes or, more commonly, stay south of the islands. To provide a general illustration of the number of vessels that may be moving south of the Aleutian Islands, we assume that vessels identified as traveling twice in the same direction consecutively also made a trip in the opposite direction in between those recorded journeys through Unimak Pass. Based on this assumption, there were 963 eastbound voyages south of the Aleutian Islands and 87 westbound voyages in addition to the recorded transits reported above. This assumption may still miss some vessels, however, if they make a round trip between East Asia and Western North America without passing through Unimak Pass in either direction. It may also errantly include vessels that actually did travel elsewhere in the world before returning to North Pacific transit. It is therefore a rough estimate for illustrative purposes only. These vessels are not included in any estimate of the system costs developed for the project, as the numbers are rough estimates only.

Vessel Transits in Innocent Passage

For 2,462 (53%) of recorded transits through Unimak Pass, vessels were in innocent passage and would not be required to have a U.S. VRP or NTVRP plan that includes the Western Alaska Captain of the Port Zone. Another 2,016 transits would be subject to U.S. VRP or NTVRP (as of 2013) requirements for the area, because they traveling to or from a U.S. port (or were U.S. flagged vessels) for at least one recorded voyage through the region that year. Regulated status could not be determined for 137-recorded transits.

Unique Vessels in Innocent Passage

A total of 1,961 unique large vessels were recorded passing through Unimak Pass in 2012. Of these: 1,045 vessels would have been subject to VRP or NTVRP regulations for at least one transit during the year. (Vessels making multiple transits across the North Pacific may have different ports of departure and destinations.) There were 853 vessels that transited Unimak Pass only in innocent passage (i.e., never to or from a U.S. port when on this route). For 63 vessels, AIS data was not conclusive as whether they subject to VRP regulations or in innocent passage. This is summarized in Table 3.

Table 3. Summary of unique vessels transiting Unimak Pass in 2012

REGULATED STATUS	# of Unique Vessels
Vessels in U.S. trade only, subject to VRP regulations	684
Vessels in both U.S. trade and innocent passage, subject to VRP regulations for at least one voyage	361
Vessels that would be subject to U.S. regulations for at least one transit through Unimak Pass based on 2012 data	1045
Vessels in **innocent passage** only	853
Vessels for which regulated status is **unknown**	63
TOTAL unique vessels transiting Unimak Pass in 2012	1961

Vessel Type

Ninety-seven percent of the 1,961 vessels recorded were non-tank vessels (including bulkers, container ships, and others). There were also some tank vessels. The breakdown of vessels is summarized in Table 4.

Table 4. Summary of vessel types transiting Unimak Pass in 2012, both those that made at least one voyage where a U.S. VRP was required and those transiting ONLY in innocent passage that year.

Table 4: Summary of Vessel Types

REGULATED STATUS	TANK VESSELS	NON-TANK VESSELS		
		Bulker	Container	Other
Vessels in both U.S. trade and innocent passage, **subject to VRP regulation for at least one voyage**	15	1030	335	133
Vessels in **innocent passage only**	36	594	113	110
Vessels for which regulated status is **unknown**	1	26	31	5
TOTAL	52 (3%)	1182 (60%)	479 (28%)	248 (13%)

Table 5 shows the transits made by vessel type as reported in the AIS data, using a more detailed breakdown of the types of vessels that made 50 or more recorded transits through Unimak Pass in 2012.

Table 5. Vessel types making more than 50 transits through Unimak Pass in 2012.

Vessel Type	RECORDED TRANSITS
Bulk carrier	2,194
Container	1,780
Vehicle carrier	304
General cargo	164
Tankers	82
Other Vessels	94
TOTAL	**4,615**

Summary of 2012 Vessel Traffic Based on Unimak Pass Data

Figure 14 presents a summary of the vessel traffic recorded through Unimak Pass and traffic estimated to be traveling south of the inlands chain based on the Unimak Pass traffic.

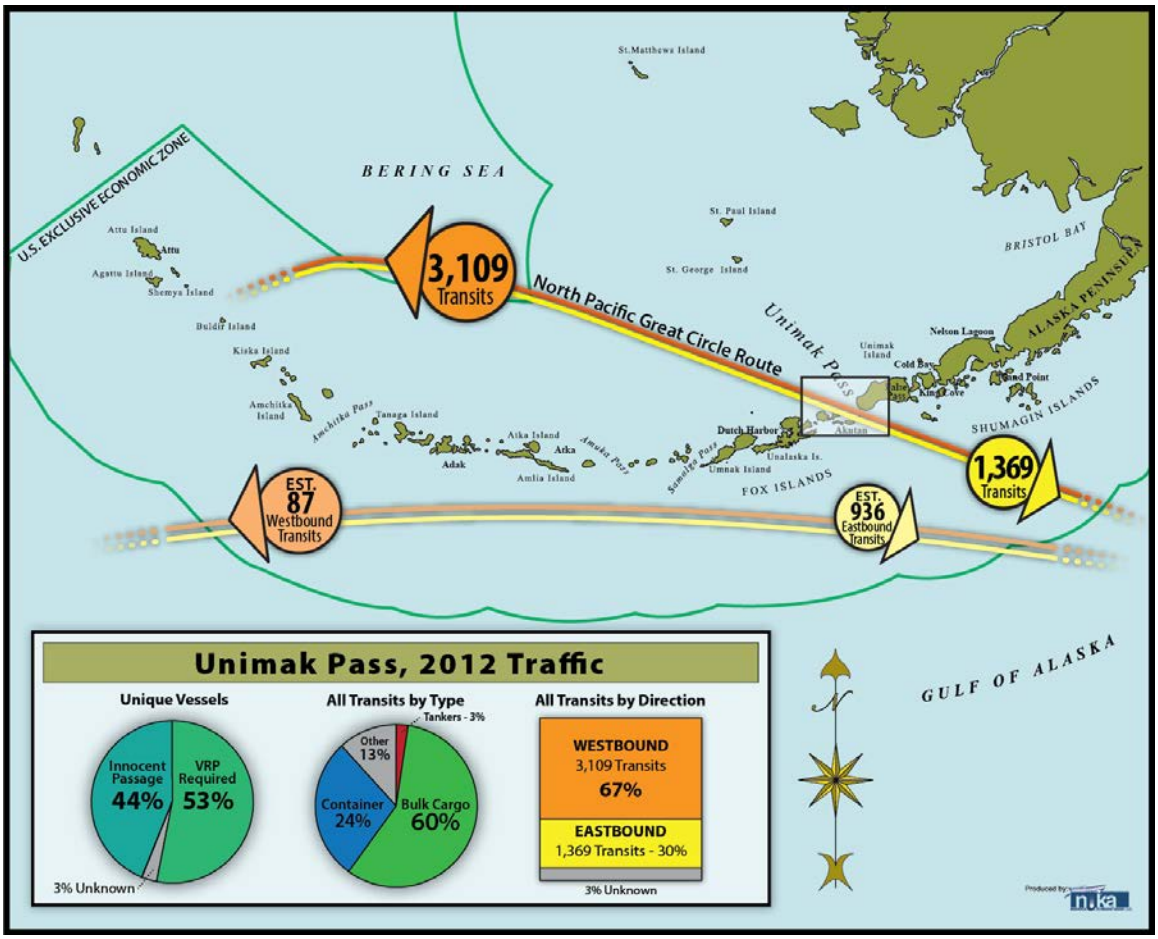


Figure 14. Summary of Unimak Pass traffic recorded in 2012, including percentage of vessels in innocent passage and the vessel type; also includes estimated transits south of the inland chain based on number of vessels going through Unimak Pass (routes are idealized; vessels may not follow these exact routes)

COMPARISON TO RECENT YEARS

There were more recorded transits through Unimak Pass in the calendar year of 2012 than those recorded in any of the fiscal years (October 1-September 30) 2006-2009 as reported in Phase A (DNV and ERM, 2010). Fiscal year 2007 came the closest to the current number of transits, indicating that traffic has returned to pre-recession levels, and continues to increase. Table 6 summarizes the recorded transits from that report and this update.

Table 6. Vessels recorded through Unimak Pass in 2006-2009 fiscal years (Oct 1-Sept 30) in DNV and ERM, 2010 and 2012 calendar year.

Table 6: Transits by Year

FISCAL YEAR, unless noted	**TRANSITS**		
	Westbound	Eastbound	Total
2006	2923	568	3491
2007	3851	890	4471
2008	3274	957	4231
2009	2886	1088	3974
2012(calendar year)1	3109	1369	4615

Almost 2,000 large commercial vessels made more than 4,000 trips through Unimak Pass in 2012, based on AIS data. Almost half of these vessels were in innocent passage because they were traveling between two foreign ports and were therefore exempt from U.S. Federal or State of Alaska requirements. Of the vessels using Unimak Pass, and therefore captured in that dataset, we estimate that more than 1,000 additional transits were made by vessels that stayed south of the islands, or possibly used an alternate pass to cross through the islands. The vessel traffic recorded in Unimak Pass represents an increase over traffic through the same area in recent years.

4. EMERGENCY TOWING

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 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.

Within the last decade, several distressed or stricken vessel incidents occurred in or near Alaska. In a few cases these have caused environmental and economic repercussions. In each situation, the vessel was large tramper or cargo type vessels, which generally carry fuel in bottom tanks, thus posing a significant pollution risk in grounding.

5. EMERGENCY TOWING SYSTEM (ETS) IN THE ALEUTIAN ISLANDS

The ETS program came into existence following the near grounding of the Salica Frigo on March 9, 2007 in Unalaska Bay. The Mayor of Unalaska convened a Disabled Vessel workgroup to address the possibility of future groundings and to discuss local emergency response solutions. This initial meeting prompted the Emergency Towing System (ETS) workgroup; whose goal was to develop emergency towing capabilities for disabled vessels in the Aleutian Subarea using locally available tugboats in conjunction with ETS equipment stationed in Unalaska.

The project continues with a mobilization and deployment exercise conducted annually in Unalaska. Currently, ETS packages are staged in the communities of Adak, Unalaska, Cold Bay and St. Paul Island. December of 2010 the ETS system was deployed from Unalaska in an emergency situation to assist the disable cargo vessel Golden Seas. This equipment, along with the availability of an appropriate sized

1 Vessel direction could not be determined for 137-recorded transits. This number included in the total number of transits for 2012, so the westbound and eastbound transit numbers do not sum correctly.

towing vessel helped avert a possible grounding.

More information on the ETS project is available at:
http://dec.alaska.gov/spar/perp/ets/index.htm

6. RESPONSE TIMES FOR TUGS OF OPPORTUNITY

Historically, there has not been a dedicated emergency tow vessel in the Aleutian Islands to assist a distressed ship. However, tugs of opportunity or tugs that are available in the region but not dedicated to rescue services may be able to aid a distressed ship if they were willing and able to diver their activities.

A study was conducted for the Aleutian Island Risk Assessment, which examined the amount of time it would take a potential tug of opportunity to reach six hypothetical incident locations and whether the tug would have sufficient bollard pull to control a large container ship once it reached the location (The Glosten Associates, 2013a and 2014). A supplemental study analyzed actual tug location data for a one-year time period and extrapolated the information to illustrate the availability and capability of towing vessels in service in the sub-area to arrive on-scene and assist disabled vessels at the six scenario locations. Travel time estimates were derived from actual towing vessel locations based on a weekly sampling of AIS data in 2012.

Eighty-six tugs were included in the analysis, plus two additional vessels, which were treated as special cases: the USCG cutter *Alex Haley* and the tug *Resolve Pioneer*. For all scenarios, the tug most likely to reach a distressed vessel in the Aleutian Islands are located in the eastern Aleutians (near Dutch Harbor), or even farther east, near Kodiak or in Bristol Bay. Of the 86 tugs identified in the AIS data, 23 of them were not useful in any scenario because for each incident site, sea state, and week it was present; a more capable tug would have arrived first. Of the remaining tugs, most of them were useful only a handful of weeks, with only one tug, the *James Dunlap* showing up as a potential responder in more than 12 weeks.

Tug availability was not consistent for the one-year period analyzed. A fully functional tug with greater than 80 MT bollard pull was present in about half the weeks of the analysis. More tugs were available in late-July and August 2012; tugs with bollard pull greater than 100 MT were most available in July-August and again in November-December, but were rare during the rest of the year.

Even in extreme weather, a tug of opportunity could usually be expected to reach a distressed vessel within 12 hours near Unimak Pass, but a distressed vessel in the western Aleutian Islands area would likely wait two or more days for a tug of opportunity rescue. Adequate emergency towing assistance could be delayed or impossible in very stormy weather, especially if relatively large tugs were not available.

7. CONSIDERATIONS FOR RESCUE TUGS

As part of the Aleutian Islands Risk Assessment, it was required to identify the towing performance capacity required of a tug to handle existing vessels in the prevailing weather conditions. Two vessels were identified as being the largest typically found on routes passing close to the Aleutians; a 600,000 bbl. crude oil tanker and a 68,000 DWT container ship. The evaluation was run for a range of conditions that might be found in the Aleutians. Winds from 20 to 60 knots with sea states to match were examined. A 40-knot wind speed and its associated sea state 6 were used for specifying the minimum required bollard pull.

At higher wind speeds the wind forces dominate the solution which makes the container ship the limiting case for turning and arresting drift. The three operations are:

- Arresting drift; the tug force required to prevent the vessel from drifting down wind when it is beam to the wind and waves
- Turning; the tug force required to turn a drifting vessel into the wind and waves without towing crosswind to develop forward speed
- Towing; the tug force required to tow the ship to windward at 1 knot.

Because the forces on the vessel are greatly reduced with the bow pointed into the weather, the strategy for this analysis was to turn the vessel while allowing drift to leeward. As such the required tug force would be the worst case of the turning or towing requirements. The simulations show less tug force required than the analysis. For scenario 1 this is due to using the worst case turning moments. These occur with the bow lying about 130-140 degrees off the wind. In the simulations the vessels start at about 100 degrees off the wind. The hydrodynamic hull forces due to the downwind drift are tending to turn the vessels more broadside than their worst-case positions. The analysis shows that the turning moment is very sensitive to the precise drift angle. Because the actual vessel will be unknown and because both the analysis and the simulation depend on a few representative parameters it was felt that the precise drift angle was unknown and therefore the worst case tuning moments were used for the tug requirements.

Similarly with scenario 2, the tug forces from simulation are even smaller than the analytic calculation. Starting the vessel moving allows its own hydrodynamic forces to generate a turning moment and is a good strategy for a smaller tug. The downwind drift allowed by the smaller tugs in the simulations while gaining control of the vessels ranged from 700 to 1100 meters.

The tug force required for turning either of the representative vessels in 40 knots of wind and sea state 6 is approximately 62 MT. The tug force required for towing either of the representative vessels against 40 knots of wind and sea state 6 at 1 knot is about 40 MT. A tug with a rated bollard pull of 81MT will be able to handle either of the representative vessels in these conditions.

An update to the study was conducted in 2014 to using updated vessel traffic data and environmental conditions data for the Aleutian Islands sub-area. There were two notable differences from the original study:

1. The container ship is larger than in the previous study. Since the wind forces tend to dominate the calculations and since the container ship has a very large windage area, the tug rating for the design conditions went from 81 MT to 108 MT.
2. The wave heights are larger in the Aleutians than the average conditions used in the original study. The increased wave heights affect both vessels but tend to be more noticeable for the tanker. The design condition for the tanker has almost doubled the tug rating from 24 MT to 41 MT.

Conclusion

The tug force required for turning either of the representative vessels in 41 knots of wind and 33 foot seas is approximately 80 MT. The tug force required for towing either of the representative vessels against 41 knots of wind and 33 foot seas at 1 knot is about 52 MT. A tug with a rated bollard pull of 109 MT will be able to produce these forces for either of the representative vessels in these conditions.

8. OIL SPILL RESPONSE AND SALVAGE

This section puts forth a quantitative analysis concerning various response and salvage operations under a wide range of environmental conditions. Safety is always the highest priority in any response and to the maximum extent possible we tried to include safety as the factor in response limitations.

Table 7 summarizes the Response Gap Index (RGI) for each tactic (averaged across all applicable locations), including both the percentage of time that the RGI is impossible and the corresponding amount of time when a response may be possible.

Table 7. Combined, average RGI for each tactic and percentage of time response may be possible.

RESPONSE TACTIC	RGI Year Round (Response Impossible)	Response may be possible
Emergency towing	2%	98%
Helicopter Lightering	20%	80%
Open-Water Mechanical Recovery	72%	28&
Near-shore Mechanical Recovery—Unalaska Bay (Daytime Only)	52%	48%
Aerial Application of Dispersants	72%	28%
Vessel Application of Dispersants	64%	36%
Air Observations—Fixed Wing (Daytime only)	18%	82%

Overall Observations

Overall, darkness and sea state appear to have the greatest effect on the ability to deploy the response operations.

While this analysis conveys overall that response in the Aleutian Islands region is likely to be precluded or significantly compromised by environmental conditions, the good news is the pollution prevention activities of emergency towing and lightering via helicopter are the most likely activities to be able to be implemented. The RGI for these operations is much lower than spill response activities, though mounting such operations requires that the necessary tow vessels, aircraft, and equipment be available (including adequate storage).

The RGI for aerial observations is also lower than for the response tactics. This at least means that in the event of an incident or accident, responders will be fairly likely to be able to get the information they need in order to plan for response activities when they can ensue, or understand and anticipate the spill trajectory and therefore the resources that may be affected.

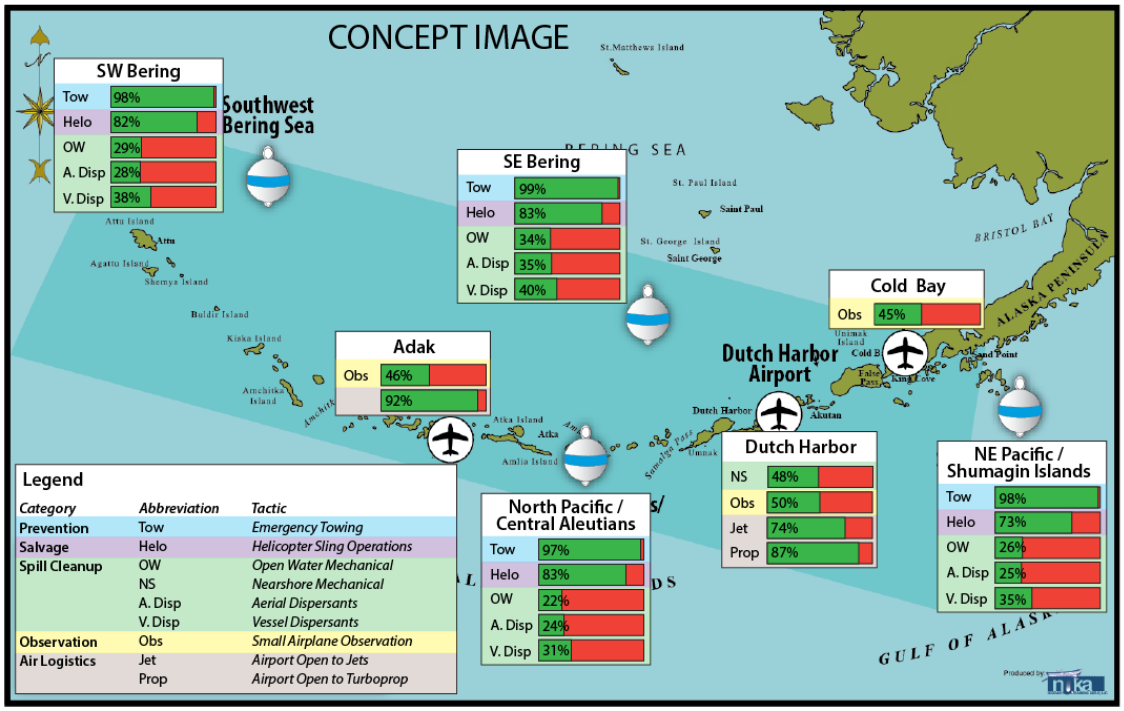
The average RGI are fairly similar for spill response operations, which can be expected to be very challenging if they can be implemented at all. All three open-water tactics have large seasonal variations in feasibility, with RGI's rising to 84% to 90% in the winter, meaning that any of these response operations would be, at best, possible less than 20% of the time. Of these, the application of vessel dispersant has the lowest RGI to a small degree.

For near-shore mechanical recovery, marine forecasts were used to represent sea state, which makes this number conservative when compared to the other RGI. At least some of the Aleutian Islands have

embayments that offer protection from the sea and these locations always have sensitive habitat and are used as a refuge for many sensitive species. Experience during the Selendang Ayu response proved that near-shore response, shoreline protection, and shoreline cleanup tactics could be successfully implemented, even through the winter months.

Figure 15 shows the results for different types of operations based on different locations within the Aleutian Islands sub-area. This figure also includes an indication of how often key airports are closed to jet and propeller planes based on weather. This provides one indication of the potential challenge to delivering equipment from other regions or moving it around within the region by air.

Figure 15



Current Marine Salvage Resources

Currently there are four companies certified for the Western Alaska Captain of the Port Zone as primary resource provider that can enable vessel operators to comply with the Salvage and Marine Firefighting regulations (33 CFR 155, Subpart 1).
These four companies are listed in the U.S. Coast Guard's Homeport page and are:

Marine Response Alliance
Donjon-Smit
Resolve Marine Group
T&T Salvage

There is also one resident salvage company based in Dutch Harbor. In 2013, the national Resolve Marine Group partnered with the 35 year-old Magone Marine Service, Inc.

Based on available subcontractor equipment and asset lists, the four primary resource providers draw from the same pool of subcontractors in Alaska and the Lower 48. For instance, the Dutch Harbor resident tugs operated by Dunlap Towing and Harley Marine Services are listed as subcontractors for towing service with both the Marine Response Alliance and Resolve Marine Group per those companies' websites. Although each company has their own salvage masters and some limited proprietary equipment in Alaska, a vast majority of their equipment is located in the continental United States. To provide the required capabilities in Alaska, the primary resource providers have established networks and contracts with other companies, as subcontractor support. This support ranges from a list of resident and transient tugs, fire suppression materials and pumps, commercial diving and other salvage equipment.

Storage Barge

Adequate oil storage (whether from cargo or bunkers) is necessary to support lightering operations as well as secondary storage for oil spill response. Resolve Marine has staged a 21,500 bbl. oil recovery barge in Dutch Harbor. This in-region barge represents a significant increase in storage for lightering and spill response and would be able to mobilize to support activities in different parts of the region.

Other in-region assets include tank trucks, vacuum trucks, drums and portable skid tanks, which are not will suited to lightering operations. There are two dedicated oil storage barges with a capacity of 249 bbl. each, which are owned by the Alaska Chadux. In addition, Alaska Chadux has two 59-bbl towable bladders and could cascade more oil storage devices if needed. There is also a heavy-lift barge based in Dutch Harbor2. Other dedicated response barges are based in Cook Inlet and Prince William Sound, and would take days to arrive even in Unalaska, or longer to reach the Western Aleutian Islands assuming that barges could be released from local obligations and the weather was conducive to transit:

Cook Inlet: CISPRI Barge 141 (operated by Ocean Marine Services) would take just over 3 days to travel at 9 knots3 the approximately 700 nm from Nikiski to Unalaska.4 It has a capacity of 69,411 bbl. (CISPRI, 2010)

Prince William Sound: SERVS keeps several barges, with capacities up to 104,791 bbl. in Valdez (APSC, 2013). A barge would take approximately 4 days to travel approximately 850 nm at 9 knots from Valdez to Unalaska.

2 http://www.resolvemarine.com/opa90/opa_90_coverage_table.php
3 An assumed speed of 9 knots is used as an assumed average speed for an empty barge traveling under calm conditions. This is a rough calculation for illustrative purposes only
4 The barge is located in Nikiski in the summer, and moved to the ice-free waters of Seldovia for the winter.

9. SPECIAL PROCEDURES

On June 1, 1998, in the wake of the November 1997 grounding of the Kuroshima at Summer Bay, the United States Coast Guard Captain of the Port for Western Alaska issued Severe Weather Guidelines for the Aleutian Islands enumerating operating rules for offloading and onloading procedures for vessels at anchor. These guidelines are triggered at the "gale force" level of wind strength.

In February of 1999, the freighter Hekifu, which was in the process of attempting to comply with the Severe Weather Guidelines and move away from a vulnerable anchorage, encountered a severe and unpredicted increase in wind force. Subsequently, the anchor broke free of the bottom and the ship grounded on Rocky Point, Iliuliuk Bay.

March and April of 1999 brought a series of hurricane force storms accompanied by unprecedented snowfall and low barometric pressures. In the week between March 17 and March 25, three such storms hit Unalaska Island.

The Hekifu grounding made it apparent that more guidelines were needed to proactively address Port safety, analyze the approaching weather systems and decide on an appropriate course of action before severe weather arrives. These guidelines are divided into four general practices: the severe weather plan, winter ground tackle standards, seasonal anchorage restrictions, and general anchoring guidelines.

10. MARINE CASUALTY PREVENTION

Port of Dutch Harbor Severe Storm Plan, Winter Rules and General Anchoring Guidelines.

Severe Weather Plan

Upon notification of a storm warning by NWS, the U.S. Coast Guard Marine Safety Detachment Unalaska (MSD Unalaska) will contact the Alaska Marine Pilots (AMP), and vessel agents or masters to apprise them of the approaching weather system. The storm system will be tracked by all means possible including satellite photographs available via the National Weather Service Alaska Region internet website http://pafc.arh.noaa.gov/marfcst.php. When MSD Unalaska, AMP, and vessel agents or masters agree that a severe storm is imminent, the Port of Dutch Harbor office will be notified by fax, and the following steps will be taken:

1. Taking into account the predicted storm strength and wind direction, an analysis will be done by MSD Unalaska and AMP assessing the number of large vessels in the Port, their location, and their vulnerability to the approaching weather.

2. Upon agreement that certain vessels are at risk from the approaching weather, or from sea states generated by the approaching weather, MSD Unalaska will issue a notice to the agent or master of the at-risk vessels. Any at risk vessel will be directed by MSD Unalaska to prepare for severe weather, weigh anchor and move to sea, or to move to a less vulnerable anchorage. **Notices will be faxed to the vessel agent, followed by a phone call to confirm receipt. Agents will relay the notice to the at-risk vessel's master immediately.** If the vessel agent cannot reach the vessel master, MSD Unalaska will be immediately apprised that notification to that vessel has not taken place. If a vessel agent cannot be reached, the notice will be relayed directly to the vessel master. The

Port of Dutch Harbor will be made aware of the notices by fax.

3. Upon notification to an at-risk vessel, AMP and the vessel agent or master will coordinate implementation of the notices issued by MSD Unalaska. When multiple vessel departures are necessary, AMP will decide the order of departures, with the most at-risk vessel first. A moored vessel will not normally be required to move unless the severity of the weather clearly poses an imminent danger if the vessel were to remain at the dock.

4. In the event of unpredicted and sudden weather, MSD Unalaska, AMP, and the vessel agent or master will agree on whether the vessel will be instructed to weigh anchor and put to sea, or be moved to another anchorage. The vessel(s) will make ready to depart before the wind increases to a point that would endanger the vessel, pilot vessel, or the pilot trying to embark or disembark the vessel. The Port of Dutch Harbor will be notified of the agreements by fax.

5. If the Port Director is not in Unalaska, or is otherwise unavailable, the Acting Port Director will make all decisions as pertains to this plan. The supervising officer, MSD Unalaska under the authority of the Captain of the Port, Western Alaska will issue Captain of the Port orders to enforce these provisions as necessary.

11. WINTER GROUND TACKLE STANDARDS FOR VESSELS ANCHORING IN THE PORT OF DUTCH HARBOR

Preface

The bathymetry of the Port limits the number of useable anchorages for single screw, non-bow thrusted, non-controllable pitch propeller (CPP) vessels of 85 meters and above. The problem of large vessels anchored in the Port and dragging anchor in severe weather is due to the depth of anchorage, bottom characteristics, the vessel's loaded condition, and insufficient length of useable anchor chain aboard. Vessels with insufficient anchor chain for their anchorage will, depending on wind direction, drag ashore or drag off the assigned anchorage usually into a greater depth of water, further reducing the scope of the anchor chain, suddenly and dramatically decreasing the anchors holding capability.

Given the magnitude of winter weather conditions in and around the Port of Dutch Harbor, vessels without certain equipment are at greater risk in severe weather. Bow thrusters capable of bi-directional thrust control greatly increases the ship's ability to hold position. Controllable pitch propellers (CPP) add a great deal of control by using a vessel's engines to help hold position in severe weather. Placing a second anchor will greatly reduce shear force against the vessel as wind forces the ship to yaw back and forth. The minimum vessel size reflects that larger vessels have greater wind sail area and are more subject to control problems in high winds.

The following ground tackle standards for the Port are strongly suggested. These standards are intended to ensure single screw, non-bow thrusted, non-CPP vessels meet or exceed the minimums to anchor in the area between the months of October 1st through April 30th.

1. A single screw, 85 meters and larger vessel(s) without a bow thruster, or controllable pitch propeller (CPP), will maintain 10 useable shackles/shots (275 meters) of chain to the waters edge for both port and starboard anchors

2. A single screw, 85 meters and larger vessel(s) without a bow thruster, or controllable pitch propeller (CPP) that is anchored in the Port that has less than the recommended lengths of anchor chain will make arrangements with a tug of sufficient horsepower and size to control the vessel at all times in all weather conditions for any weather prediction of 45 knots or greater by the NWS while that vessel is at anchor in the Port. A written request for a waiver may be submitted and agreed upon if AMP, the Port and MSD Unalaska agree that the vessel is unlikely to drag anchor in its present location, taking into account the quality and size of the vessel's ground tackle, known vessel characteristics, location of anchorage, water depth and holding characteristics of the bottom.

3. Vessels anchoring are to take great care in fixing the vessel's position by all means available. In selecting an anchor position, a vessel's loaded condition, depth of water, type of bottom, and the amount of shackle/shots in the water shall be considered. This information must be recorded in the ship's log book. An accurate swing and drag circle will be plotted on the vessels navigational chart. Those vessels equipped with a radar system capable of plotting this information should maintain a prudent and diligent plot at all times during severe weather conditions.

Seasonal Restrictions of Anchorages

Because of restricted maneuvering room and close lee shores in certain wind conditions, the South Iliuliuk anchorage described as south of a line from Rocky Point buoy east to the opposite shore on a bearing of 118 degrees true, and the Dutch Harbor anchorages, described as west of a line from Rocky Point buoy north to Dutch Harbor Spit Head light, will be utilized for anchorages between October 1st and April 30th by permission only. Permission **MUST** be obtained from MSD and the Port before anchoring any vessel in these restricted areas. Length of stay, reason for requesting anchorage in a restricted area, and present weather conditions and forecasts will be considered in granting permission to anchor in the restricted areas.

General Anchoring Guidelines

1. If a vessel at anchor intends to conduct any maintenance of their main propulsion systems that will affect in any way the vessel's ability to maneuver, the vessel agent or master **MUST** notify MSD Unalaska and the Port of Dutch Harbor and hire a standby tug "of suitable size and horsepower that can control the vessel in all weather conditions". Vessels that have become disabled through mechanical failure **MUST** notify MSD Unalaska and the Port of Dutch Harbor, and provide a detailed synopsis of the failure and an estimated time to affect repairs. A standby tug "of suitable size and horsepower that can control the vessel in all weather conditions" will be required for these vessels as well.

2. When a vessel has another vessel alongside while at anchor, and is planning to disable their Main Propulsion Systems for maintenance purposes, all of the vessels involved **MUST** notify

MSD Unalaska and the Port of Dutch Harbor prior to conducting any maintenance. The vessel with full maneuverability will assume full responsibility for the disabled vessel while alongside.

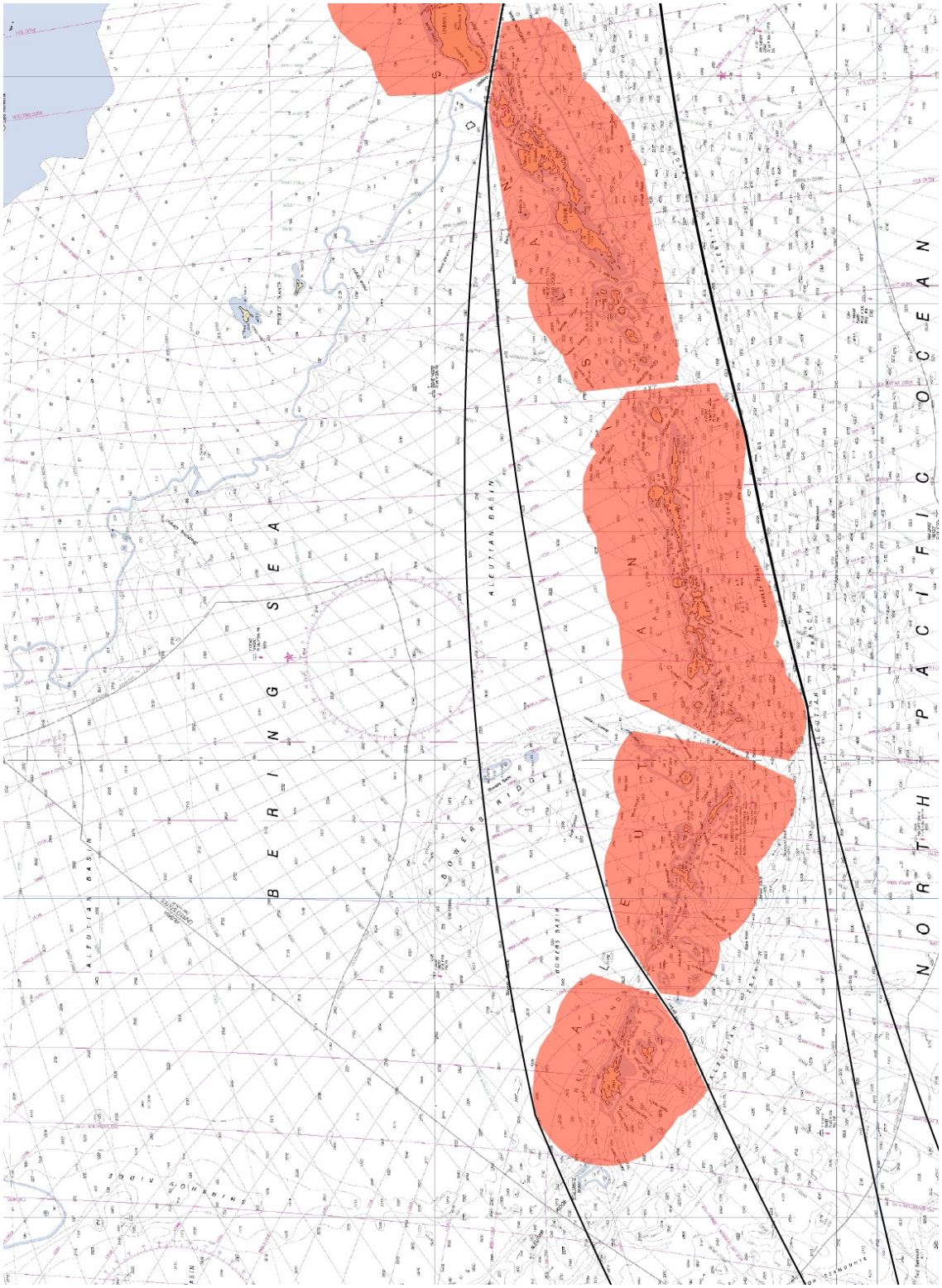
Summary

By documenting and enforcing prudent marine practices suitable for the geography and often-severe climate of the Port, marine casualties such as the Kuroshima and Hekifu can be avoided. These measures are not meant to cause unnecessary delays, or costs to ship owners and their agents. The intent of this plan is to ensure that vessels have the necessary equipment and knowledge suitable to anchor in the area, and to mitigate any potential hazardous weather conditions before the conditions deteriorate to the point that moving the vessel is no longer possible or the pilot is endangered trying to board. Ships will often delay departure, or will not call for a pilot until weather conditions force them to stop their current loading operations. By that time, attempting a departure has placed the vessel in extremis and will place the pilot in danger if he/she is needed to guide the vessel to safety. The Port of Dutch Harbor Severe Storm Plan is intended to safeguard the Port, City of Unalaska, vessel crews, and the environment from marine casualty and the potential pollution resulting from vessel groundings.

12. RECOMMENDED ROUTING MEASURES

Designating areas to be avoided near sensitive or hazardous shoreline and preferred passes for use in international transit assist to prevent a vessel that loses propulsion or steering from drifting onto shore before a rescue can take place. Vessel monitoring by Automated Identification System (AIS) will facilitate the prompt detection of a vessel deviating from these routes or seeming to drift or otherwise be in danger.

On December 4, 2014 the U.S. Coast Guard submitted a proposal to the International Maritime Organization Sub-Committee on Navigation, Communication and Search and Rescue. The proposal aims to establish five recommendatory areas to be avoided (ATBAs) in the region of the Alaska Aleutian Islands for vessels making transoceanic voyages through the Bering Sea and North Pacific Ocean adjacent to the islands. In most areas, the proposed ATBAs extend no further than 50 nautical miles from the shoreline of the islands, with a few areas of greater distance. 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 navigation. Course alternations due to the establishment of the ATBAs will be minimal. The proposed ATBAs will allow ships to follow existing traffic patterns. The establishment of an ATBA will add approximately ten (10) nautical miles to an average overall transoceanic voyage.


BERING SEA
NORTH PACIFIC OCEAN
ALEUTIAN BASIN
BOWERS RIDGE
BOWERS BASIN
ALEUTIAN ISLANDS

ANNEX 1: ALTERNATIVE PLANNING CRITERIA

The Alternate Planning Criteria for the Aleutians subarea is a standalone document. It can be found at [insert link here].

ALEUTIANS SUBAREA CONTINGENCY PLAN

APPENDIX 1
ALTERNATIVE PLANNING CRITERIA

APC OVERVIEW **2**

A. U.S. COAST GUARD COTP WESTERN ALASKA EXPECTATIONS FOR APC 2
B. APC COORDINATION WITH SUBAREA PLANNING COMMITTEES 3

APC OVERVIEW

Following the Exxon Valdez oil spill in Prince William Sound, Congress passed the Oil Pollution Act of 1990 (i.e. OPA-90), which applies throughout the nation and U.S. territories and extends to the Exclusive Economic Zone (EEZ), 200 nm offshore. OPA-90 prompted the U.S. Coast Guard to propagate several new maritime rules, including Oil or Hazardous Pollution Prevention Regulations for Vessels, in 33 CFR 155. Subpart D establishes oil spill response planning and equipment requirements for specific U.S. and foreign vessels transporting oil. Because of Alaska's sheer size and limited oil transportation in remote regions, it is not economically sustainable for tank vessels to maintain enough infrastructure to comply with OPA-90's response requirements. Therefore, only two subareas have current pre-positioned infrastructure to comply with OPA-90's requirements: Prince William Sound and Cook Inlet.

Since fiscal limitations prohibit compliance in remote areas, such as Alaska, Hawaii, and Guam, regulations allow industry to propose *Alternative Planning Criteria.* Moreover, vessels in innocent passage (i.e. not transiting to or from a U.S. port), are not subject to OPA-90's requirements. This includes nearly half the commercial vessel transits along the Great Circle route through Alaska's Aleutian Subarea. Likewise, 33 CFR 155.1065 states, "When the owner or operator of a vessel believes national planning criteria contained elsewhere in this part are inappropriate to the vessel for the areas in which it is intended to operate, the owner or operator may request acceptance of alternative planning criteria by the Coast Guard. Submission of a request must be made 90 days before the vessel intends to operate under the proposed alternative and must be forwarded to the COTP for the geographic area(s) affected." All remaining vessels must either meet full oil spill response planning requirements or submit *Alternative Planning Criteria* (APC) to the USCG.

The COTP for *Western Alaska* recognizes full compliance with federal oil spill response regulations is not sustainable for vessels operating in remote areas of *Western Alaska* due to extreme costs and lack of support infrastructure. Thus APCs are authorized to mitigate risk by enhancing oil spill prevention measures. Minimum requirements for APC content submissions are outlined in 33 CFR 155.5067. Consequently, the COTP, *Western Alaska*, established *APC Response Resource Expectations,* outlined below. These represent baseline expectations for APCs to gain endorsement, or re-endorsement, prior to approval by the USCG's Office of Commercial Vessel Compliance.

A. U.S. COAST GUARD COTP WESTERN ALASKA EXPECTATIONS FOR APC

1. Response Resource Expectations

- Identify maximum available resources in-region by contract or other approved means. This includes the utilization of the most capable and available Coast Guard classified OSRO in the covered region or an equivalent level of in-region resources and capability.

- Utilizing non-Coast Guard classified OSROs or resources requires APC administrators to identify trained personnel, and services necessary to operate in the COTP zone or specific geographic area. Additionally, the APC administrator must identify tests, inspections, and exercises that would be available to the Coast Guard to verify availability & readiness. The Coast Guard's Guidelines for OSRO Classification are recommended to establish criteria for these measures.

- The APC administrator should provide detailed descriptions of planning requirements that cannot be met. These typically include a gap analysis for response resources and response

times that differ between OPA-90 requirements and OSRO capabilities. These response gaps must be addressed by providing a reasonable cascade plan with the understanding that response gaps will remain.

2. Prevention Measures/ Risk Reduction Expectations

- APC proposals must identify acceptable prevention measures to mitigate spill risks, proportionate to response gaps in remote operating areas.

- APCs servicing other than inland areas, must establish vessel routing measures to mitigate oil spill risks, proportionate to response gaps in remote operating areas.

- APC administrators must have a means to actively monitor and verify compliance with proposed operating procedures, including procedures for communicating with participating vessels. This plan must be provided in the APC submittal. In most cases, it is expected that the APC administrator will have a 24/7 monitoring capability to verify compliance with procedures and intervene when necessary.

3. APC Administration & Response Resource Expansion

- The Coast Guard specifies in the Final Rule (78 FR 60111) that the intended purpose of an APC is to gradually build-up response capability in remote areas. APCs should address how this will occur. The build-up of response resources should be coordinated with regional planning groups such as the Regional Response Team and subarea planning committees.

- APC submittals should provide examples of participation agreements or certificates, and outline the procedure for the vessel to verify compliance in order to obtain an approved Western Alaska Geographic Specific Appendix from the Vessel Response Plan program at USCG Headquarters.

- All APCs are subject to relevant stakeholder review and Endangered Species Act (ESA) consultation prior to Interim Operating Authorizations being permitted. APCs will not undergo ESA consultation until the APC is considered acceptable to the COTP.

B. APC COORDINATION WITH SUBAREA PLANNING COMMITTEES

Response resource improvements are expected to be coordinated with stakeholders to ensure optimal placement of critical resources. To facilitate this process, APC administrators shall participate with applicable subarea committees and provide annual reports to describe their build-up activities. Since APCs may span multiple subareas, emphasis shall be placed on specific subareas when their contingency plans are being updated. Disseminating a written build-up report is sufficient when applicable subarea plans are not being revised.

ANNEX 2: REFERENCES

Baldwin & Butler, LLC and Pearson Consulting, LLC. (2014). *Considering options for the management & funding of an optimal response system in the Aleutian Islands*. Ed. Nuka Research and Planning Group. Aleutian Islands Risk Assessment Phase B.

Describes approach used to identify nonprofit model for recommended system.

http://www.aleutiansriskassessment.com/files/141125_AIRA_BD_MgmtFundStudy_FINAL.pdf

Northern Economics. (2014). *Benefit-cost analysis of risk-reduction options for the Aleutian Islands Risk Assessment*. Aleutian Islands Risk Assessment Phase B.

Analyzes predicted benefits and costs and concludes that predicted benefits or proposed system will exceed cost of system implementation.

http://www.aleutiansriskassessment.com/files/BCA_Write-up_Final.pdf

Nuka Research and Planning Group, LLC. (2014a). *Summary of large vessel transits of Unimak Pass in 2012.* Aleutian Islands Risk Assessment Phase B.

Updates Phase A vessel traffic study, estimates innocent passage vessel transits and informs per-vessel cost estimates.

http://www.aleutiansriskassessment.com/files/141125_AIRA_UnimakTransitsUpdate_FINAL.pdf

Nuka Research and Planning Group, LLC. (2014b). *Impact of environmental conditions on vessel incident response in the Aleutian Islands: A response gap analysis*. Aleutian Islands Risk Assessment Phase B.

Characterizes how often environmental conditions alone would preclude or significantly impede a range of emergency and oil spill response operations in the region.

http://www.aleutiansriskassessment.com/files/140205AIRA_ResponseGapAnalysis_vFpress(1).pdf

Nuka Research and Planning Group, LLC. (2014c). *Estimating response times for tugs of opportunity in the Aleutian Islands.* Aleutian Islands Risk Assessment Phase B.

Evaluates availability, capability, and response time for tugs of opportunity to assist 75th percentile containership at various scenario locations based on 2012 tug location data.

http://www.aleutiansriskassessment.com/files/141125_AIRA_TOO_FINAL.pdf

Nuka Research and Planning Group, LLC. (2013b). *Characterizing environmental conditions in the Aleutian Islands.* Aleutian Islands Risk Assessment Phase B.

Summarizes weather data used in Response Gap Analysis and Towing Analysis

http://www.aleutiansriskassessment.com/documents/130225AIWeatherCharacterizationFINAL.pdf

Nuka Research and Planning Group, LLC., Pearson Consulting, LLC., Moran Environmental Recovery, &

Moran Towing. (2014). *Considering options for salvage & oil spill response in an optimal response system*. Aleutian Islands Risk Assessment Phase B.

Describes approach used to identify spill response and salvage resources and system components for recommended system.

http://www.aleutiansriskassessment.com/files/141125_AIRA_SalvageSpillResponse_FINAL.pdf

Nuka Research and Planning Group, LLC., Pearson Consulting, LLC., Baldwin & Butler, LLC., Moran Environmental Recovery, Moran Towing, Northern Economics, Inc., & The Glosten Associates. (2013). *Regulatory resource study*. Aleutian Islands Risk Assessment Phase B.

Review of U.S. and Alaska regulations, and cost of compliance.

http://www.aleutiansriskassessment.com/documents/130502RegulatoryResourceStudy.pdf

Nuka Research and Planning Group, LLC. (2014a). AIRA Recommending an Optimal Response System for the Aleutian Islands: Summary Report. Aleutian Islands Risk Assessment.

Describes an Optimal Response System for the Aleutian Islands by recommending emergency towing, salvage, and spill response services to reduce maritime transportation risks through the region.

The Glosten Associates. (2014). *Minimum required tug for the Aleutian Islands.* Report No. 12127.03.01. Aleutian Islands Risk Assessment Phase B.

2013 study calculates minimum tug bollard pull needed to control representative vessel based on 2010 traffic data. 2014 study updates calculation for 75th percentile containership based on 2012 data.

http://www.aleutiansriskassessment.com/files/12127_Minimum_tug_-_RevA.pdf

The Glosten Associates. (2013a). *Tug of opportunity study.* Report No. 12127.01.12e. Nuka Research and Planning Group, LLC. Aleutian Islands Risk Assessment Phase B.

Calculates the ability of tugs of opportunity in the region to reach various scenario locations and rescue a large ship.

http://www.aleutiansriskassessment.com/files/Tug_of_Opportunity_Study.pdf

The Glosten Associates. (2013b). *Purpose designed towing vessel.* Report No. 12127.02.12c. Nuka Research and Planning Group. Aleutian Islands Risk Assessment Phase B.

Presents design and cost estimate for towing vessel intended to maximize features such as speed and sea keeping for Aleutian Islands operations.

http://www.aleutiansriskassessment.com/files/12127_Purpose_Designed_Towing_Vessel_Rev_-.pdf

The Glosten Associates. (2013c). *Best available technology.* Report No. 12127.02.12c. Nuka Research and Planning Group, LLC. Aleutian Islands Risk Assessment Phase B.

Identifies best available technology tugs based on review of existing vessels and set of criteria applicable to Aleutian Islands

http://www.aleutiansriskassessment.com/files/12127_Best_Available_Technology_Rev_-.pdf

The Glosten Associates. (2013d). *Tug location study.* Report No. 12127.02.12d. Nuka Research and Planning Group, LLC. Aleutian Islands Risk Assessment Phase B.

Presents geographic areas that can or cannot be reached by tugs based at different locations in the Aleutian Islands.

http://www.aleutiansriskassessment.com/files/141125_AIRA_TOO_FINAL.pdf

ALEUTIANS SUBAREA CONTINGENCY PLAN

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RESOURCES: PART ONE – COMMUNITY PROFILES

The following information was extracted from the Alaska Department of Commerce, Community and Economic Development Community Database Online, various public websites associated with each of the community, and community questionnaire feedbacks received. It is provided as a quick reference to some types of available services. For complete and current information on specific communities within the subarea, visit the Alaska Department of Commerce, Community and Economic Development, Community Database at:

http://commerce.alaska.gov/dnn/dcra/Home.aspx

The area code for all phone and fax numbers is ***907***, unless otherwise indicated.

A. REGIONAL ORGANIZATIONSA

The following presents regional organizational information for the Aleutians Subarea:

Boroughs

Organization	Address	Phone	Fax	Website/Email
Aleutians East Borough	3380 C Street, Suite 205 Anchorage, AK 99503	274-7555	276-7569	www.aleutianseast.org admin@aleutianseast.org

Regional Native Corporation

Organization	Address	Phone	Fax	Website/Email
Aleut Corporation	4000 Old Seward Hwy, #300 Anchorage, AK 99503	576-4300		www.aleutcorp.com receptionist@aleutcorp.com

School Districts

Organization	Address	Phone	Fax	Website/Email
Aleutian Region School District	PO Box 92230 Anchorage, AK 99509	277-2648	277-2649	www.aleutregion.org aleutreg@aleutregion.org
Aleutians East School District	PO Box 429 Sand Point, AK 99661	383-5222	383-3496	www.aebsd.org sgundersen@aebsd.org
Unalaska City School District	PO Box 570 Unalaska, AK 99685	581-3151	581-3152	www.ucsd.net dsanborn@ucsd.net

Regional Development

Organization	Address	Phone	Fax	Website/Email
Southwest Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380	562-0438	info@swamc.org

Housing Authority

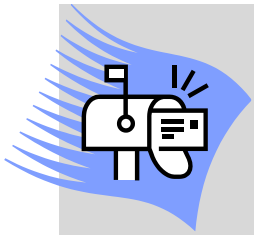
Organization	Address	Phone	Fax	Website/Email
Aleutian Housing Authority	4000 Old Seward Hwy #202 Anchorage, AK 99503	563-2146	563-3105	www.aleutian-housing.com dand@aleutian-housing.com

Regional Health Corporation

Organization	Address	Phone	Fax	Website/Email
Aleutian Pribilof Islands Association	201 East 3rd Avenue Anchorage, AK 99501	276-2700	279-4351	www.apiai.com apiai@apiai.org
Eastern Aleutian Tribes	3380 C Street, Suite 100 Anchorage, AK 99503	277-1440		www.easternaleutiantribes.com

B. COMMUNITY PROFILES

The information included in the following profiles is meant to assist responders by providing the most vital contacts and useful facts available for a community. Efforts have been made to provide the most current information, but things change. Also, information is still being sought for some categories, such as potential command posts and staging areas and, most particularly, a town or village's chosen priority locations for protection in case of a spill. The plan holders welcome any input that might make this a more useful and instructive document.



The Subarea Committee distributed to all of the communities in the subarea requesting pertinent information about the community, such as housing possibilities, spill response equipment and possible command center locations or staging area. Included was request for the community to list the top five priority locations or sensitive areas that the community deemed most important for protection if a spill should occur. All completed lists returned by the communities have been included in the respective village's community profile and in the *Sensitive Area Section*.

Be aware that most of the smaller villages have no organized fire department, volunteer or otherwise. Law enforcement varies from village to village. Some may have a city government-backed police department, though it may only consist of a chief and one officer. Most Native villages have a Village Public Safety Officer (VPSO), a position that generally receives funding through both a Native corporation and the state's Dept. of Public Safety, from which they also receive training. A few villages have a Village Police Officer (VPO) or a Tribal Police Officer (TPO), positions that are contracted directly by the local government or tribal council, respectively.

To update information in these community profiles, please submit your information to the following:

Alaska Department of Environmental Conservation
Prevention and Emergency Response Program
Attn: Preparedness Section
555 Cordova Street
Anchorage, AK 99501
Phone: 269-7682 or 7683 / Fax: 269-7648
Email: DEC.Areaplans@alaska.gov

U.S. Coast Guard
Sector Anchorage
P.O. Box 5800
JBER, AK 99505
Phone: 271-3414 Fax: 271-3424

Environmental Protection Agency, Region 10
Alaska Operations Office
222 W 7th Avenue, #19
Anchorage, AK 99513
Phone: 271-3414 Fax: 271-3424

Additional details, including historical and cultural information, are provided in the Community Profiles available on the internet at the Alaska Department of Commerce, Community and Economic Development website:
http://commerce.alaska.gov/dnn/dcra/Home.aspx

ALEUTIANS EAST BOROUGH COMMUNITY PROFILE

Population	2,643 (2005 State Demographer est.)
Borough Located In	Aleutians East Borough
Incorporation Type	2nd Class Borough
Native Entities	N/A

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Aleutians East Borough	3380 C Street, Suite 205 Anchorage, AK 99503	383-2699 276-7569 (fax)	www.aleutianseast.org admin@aleutianseast.org

GENERAL

Location and Climate	Based in Sand Point, the Borough comprises the westernmost portion of the Alaska Peninsula, and a number of Aleutian Islands. There are five incorporated cities and two unincorporated villages within the boundaries of the borough, which lies at approximately 57°N/162°W. The Aleutians East Borough is located in the Aleutian Islands Recording District. The area encompasses 6,988.1 sq. miles of land and 8,023.5 sq. miles of water. The Borough lies in the maritime climate zone. Temperatures range from -9° to 76°F. Annual precipitation is 33 inches and annual snowfall is 52 inches.
History, Culture, & Demographics	According to archaeological evidence, the area has been inhabited by the Unanga since the last ice age. Early contact was with Russian fur traders who sought sea otters in these islands. Whaling, fishing and cannery operations brought an influx of Scandinavian and European fishermen in the early 1900s. During World War II the area was a strategic military site for the Aleutian Campaign, and many locals were evacuated to Ketchikan. The area's rich resources have cultivated an extremely diverse population of non-Natives, Natives and Asians. The Unanga were called "Aleut" by Russian traders. "Unangas" speak the western dialect, and "Unangan" speak the eastern dialect.
Economy	The Borough's economy is cash-based. Commercial fishing and fish processing dominate and occur almost year-round. 222 borough residents hold commercial fishing permits. Sand Point is home to the largest fishing fleet in the Aleutian Chain. Salmon and pacific cod processing occur at Peter Pan Seafoods (Port Moller and King Cove), Trident Seafoods (Sand Point and Akutan), and Bering Pacific (False Pass). The Peter Pan cannery in King Cove is one of the largest operations under one roof in Alaska. Transportation and other services provide year-round employment.

ADAK COMMUNITY PROFILE

Population	326 (2010DCCED Certified Population)
Borough Located In	Unorganized
Incorporation Type	2nd Class City
Native Entities	**Regional:** Aleut Corporation

EMERGENCY SERVICES	
Police	City Police Department (593-3323)
State Troopers	Serviced through the King Salmon Post (592-3848)
Fire	Adak Fire Department (592-0680)
Medical	Adak Medical Clinic (592-8383)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
Aleutian Regional School District	PO Box 92230 Anchorage, AK 99509	277-2648 277-2649 (fax)	www.aleutregion.org jbeckford@aleutregion.org
City of Adak	PO Box 2011 Adak, AK 99546	592-4500 592-4262 (fax)	www.adak-ak.us clerk@adak-ak.gov
Eastern Aleutian Tribes, Incorporated	3380 C Street, Suite 100 Anchorage, AK 99503	277-1440 977-1446 (fax)	www.eatribes.org
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org
TDX Adak Generating LLC	1082 Hillside Blvd Adak, AK 99546	592-2490	

GENERAL

Location and Climate

Adak is located on Kuluk Bay on Adak Island in the Aleutian Island Chain, approximately 1,300 miles southwest of Anchorage and 350 miles west of Unalaska. Flight time to Anchorage is three hours. Adak is the southern-most community in Alaska, on the latitude of Vancouver Island in Canada, at approximately 51.872°N/176.628610°W. (Sec. 10, T096S, R195W, Seward Meridian) Adak lies in the maritime climate zone, characterized by persistently overcast skies, high winds, and frequent cyclonic storms. Winter squalls produce wind gusts in excess of 100 knots. During the summer, extensive fog forms over the Bering Sea and North Pacific. Average temperatures range from 20° to 60°F, but wind chill factors can be severe. Total precipitation is 64 inches annually, with an average accumulated snowfall of 100 inches, primarily in the mountains.

History, Culture, & Demographics

The Aleutian Islands were historically occupied by the Unangas. The once heavily-populated island was eventually abandoned in the early 1800s as the Aleutian Islands hunters followed the Russian fur trade eastward and famine set in on the Andreanof Island group. Yet, they continued to actively hunt and fish around the island over the years, until World War II broke out. Adak Army installations allowed U.S. forces to mount a successful offensive against the Japanese-held islands of Kiska and Attu. After the war, Adak was developed as a Naval Air Station, playing an important role during the Cold War as a submarine surveillance center. Large earthquakes rocked the Island in 1957, 1964 and 1977. At its peak, the station housed 6,000 naval personnel and their families. In 1994, severe military cut-backs occurred, closing family housing and schools. The station officially closed on March 31, 1997 and currently houses civilians. The Aleut Corporation acquired Adak's facilities under a land transfer agreement with the Department of the Interior and the U.S. Navy/Department of Defense. Properties are currently under lease. About 30 families with children relocated to Adak in September 1998, most of them Aleut Corp. shareholders, and the school has reopened. Aleut Corp. is currently developing Adak as a commercial and fishing center. The community formed a Second Class City government in April 2001.

The population of the community consists of 37% Alaska Native or part Native. Since World War II, the U.S. Navy developed outstanding facilities and recreation opportunities at Adak, including an $18-million hospital built in 1990, a movie theater, roller skating rink, swimming pools, ski lodge,

	bowling alleys, skeet range, auto hobby shop, photo lab, racquetball and tennis courts; the Aleut Corporation now owns the facilities, but all currently remain closed.
Economy	A land exchange between Aleut Corp., the U.S. Navy, and the Department of the Interior has transferred most of the naval facilities to the Aleut Corp. A portion of the island remains within the National Maritime National Wildlife Refuge, managed by U.S. Fish & Wildlife. Contractors are performing an environmental cleanup. Adak currently provides a fueling port and crew transfer facility for foreign fishing fleets -- an airport, docks, housing facilities, restaurant, grocery and ship supply store are available. Icicle Seafood's operates an onshore processing facility for Pacific cod, pollock, mackerel, halibut, albacore and brown king crab. Four residents hold commercial fishing permits, primarily for groundfish. Wildlife viewing (seals, otters, caribou), hunting, fishing, hiking, and WWII military installation facilities draws visitors.

TRANSPORTATION	
Accessibility	Located 1,200 miles southwest of Anchorage. There are approximately 16 miles of paved roads, and other gravel and dirt roads.
Airport Facilities	Adak Airport has a control tower (not used) and two asphalt paved runways, both at an elevation of 19': one measures 7,790' long by 200' wide; the other runway measures 7,605' by 200'wide. The city operates the airport terminal.
Airline Services	Alaska Airlines operates passenger service. Grant Aviation provides charter service as requested (from Unalaska).
Freight	Alaska Airlines operates cargo jet service.
Vessel Support:	There are three deep water docks and fueling facilities; Adak Marine Services, (subsidiary of Aleut Enterprises) operates the port, Adak Petroleum (subsidiary of Aleut Enterprises) runs the fuel pier. The city has expanded the Sweeper Cove small boat harbor, and seeks further dock expansion, new moorage floats and breakwaters.

FACILITIES & UTILITIES		
Telephone	**Adak Telephone Utility:** (1-888-328-4222):;**AT&T**:(1-800-288-2020); **GCI**: (1-800-880-4800 / www.gci.net)	**COMMUNICATIONS**
Wireless and Internet	**Windy City Broadband**: (1-888-328-4222)	
TV Stations	ARCS	
Radio Stations	None	
Cable Provider	Adak Cablevision	
Teleconferencing	Alaska Teleconferencing Network	
Electricity	TDX Adak Generating	
Fuel	Diesel, unleaded gasoline and Jet A	
Fuel Storage	Aleut Enterprises (22,000,000 gallons)	
Housing	Aleut Real Estate (592-2325), Little Michael Lodges (592-9864)	
Water & Sewage	Water is derived from Lake Bonnie Rose and Lake De Marie, stored in 4 water tanks throughout the community, and piped to facilities and housing units. The wastewater treatment system discharges through a marine outfall line to Kuluk Bay.	
Miscellaneous	One school is located in the community, attended by 20 students. There is a permitted landfill; Roberts Landfill is a Class 3.	

SPILL RESPONSE SUPPORT *(Contact local officials to determine possibility of using community facilities.)*	
Potential Command Posts	None identified
Potential Staging Areas	None identified
Local Spill Response Equipment	None identified

AKUTAN COMMUNITY PROFILE

Population	1027 (2010 U.S. Census)
Borough Located In	Aleutians East Borough
Incorporation Type	2nd Class City
Native Entities	**Regional:** Aleut Corporation
	Village Native Village of Akutan (Federally Recognized Tribe)
	Non-Profit Aleutian Pribilof Island Association, Incorporated
	Profit Akutan Corporation

EMERGENCY SERVICES	
Police	City Police Department (698-2227)
State Troopers	Serviced through the Dillingham Post (842-5641)
VPSO	State VPSO (698-2315)
Fire	Akutan Fire Department (698-2227); Akutan First Responders (698-2208 or 698-2315)
Medical	Anesia Kudrin Memorial Clinic (698-2208)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Akutan Corporation	PO Box 8 Akutan, AK 99553	698-2206 698-2207 (fax)	
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
Aleutian Housing Authority	520 E 32nd Ave Anchorage, AK 99503	563-2146 563-3104 (fax)	www.aleutian-housing.com
Aleutian Pribilof Island Association	1131 E International Airport Rd Anchorage, AK 99518	276-2700 276-4351 (fax)	www.apiai.org
City of Akutan	PO Box 109 Akutan, AK 99553	698-2228 698-2202 (fax)	
Eastern Aleutian Tribes, Incorporated	3380 C Street, Suite 100 Anchorage, AK 99503	277-1440 977-1446 (fax)	www.eatribes.org
Native Village of Akutan	PO Box 89 Akutan, AK 99553	698-2300 698-2301 (fax)	akutanaleuttribe@hotmail.com
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org

GENERAL

Location and Climate Akutan is located on Akutan Island in the eastern Aleutians, one of the Krenitzin Islands of the Fox Island group, approximately 35 miles east of Unalaska and 766 air miles southwest of Anchorage, at approximately 54.136°N/165.773°W. (Sec. 11, T070S, R112W, Seward Meridian.) Akutan lies in the maritime climate zone, with mild winters and cool summers. Mean temperatures range from 22° to 55°F. Precipitation averages 28 inches per year. High winds and storms are frequent in the winter, and fog is common in the summer.

History, Culture, & Demographics Akutan began in 1878 as a fur storage and trading port for the Western Fur & Trading Company; the company's agent established a commercial cod fishing and processing business that quickly attracted nearby Unangan to the community. In 1878, a Russian Orthodox Church and a school were built; the Alexander Nevsky Chapel replaced the original chapel in 1918. The Pacific Whaling Company built a whale processing station across the bay from Akutan in 1912; it was the only whaling station in the Aleutians and operated until 1939. After the Japanese attacked Unalaska in June 1942, the U.S. government evacuated Akutan residents to the Ketchikan area. The village was re-established in 1944, although many villagers chose not to return. This exposure to the outside world brought many changes to the traditional lifestyle and attitudes of the community. The city incorporated in 1979.

A federally-recognized tribe is located in the community -- the Native Village of Akutan. The population of the community consists of 16% Alaska Native or part Native. Akutan is a fishing community, and is the site of a traditional Unangan village. Approximately 75 persons are year-

	round residents; the majority of the population is transient fish processing workers that live in group quarters.
Economy	Commercial fish processing dominates Akutan's cash-based economy, and many locals are seasonally employed. Trident Seafoods operates a large processing plant west of the City for cod, crab, pollock and fish meal. The population of Akutan can double during processing months. Seven residents hold commercial fishing permits, primarily for halibut and other groundfish. Subsistence foods include seal, salmon, herring, halibut, clams, wild cattle, and game birds

TRANSPORTATION	
Accessibility	Boats and amphibious aircraft are the only means of transportation into Akutan. High waves may limit accessibility during winter months. The State Ferry arrives from Kodiak bi-monthly between May and October.
Airport Facilities	Akutan has no airstrip due to the steep terrain, however, a seaplane base is available and open to the public.
Airline Services	Daily air service is provided from nearby Unalaska.
Freight	Cargo is delivered weekly by freighter from Seattle; the city owns and operates a landing craft, the M/V Akutan.
Vessel Support:	A 200 ft. dock and a small boat mooring basin are available. A new boat harbor will open in 2015 and will provide moorage for 58 vessels ranging up to 165 feet in length.

FACILITIES & UTILITIES		
Telephone	**ACS**: (1-800-808-8083); **AT&T**:(1-800-288-2020); **GCI**: (1-800-880-4800 / www.gci.net)	**COMMUNICATIONS**
Wireless and Internet	**GCI:** (1-800-880-4800 / www.gci.net)	
TV Stations	ARCS	
Radio Stations	None	
Cable Provider	City of Akutan	
Teleconferencing	Alaska Teleconferencing Network	
Electricity	Akutan Electric Utility	
Fuel	Diesel, and unleaded gasoline	
Fuel Storage	Trident Seafood (1,786,590 gallons); City of Akutan (80,000 gallons); Aleutian East Schools (1,100 gallons)	
Housing	Bayview Plaza Hotel (698-2206); Salmon Berry Inn (698-2206)	
Water & Sewage	Water is supplied by a local stream and dam, originally constructed in 1927. Water is treated and piped into all homes. Funds have been requested to develop two new water catchment dams, and construct a new 125,000-gal. water storage tank and treatment plant. Sewage is piped to a community septic tank, with effluent discharge through an ocean outfall. Refuse is collected three times a week; a new landfill site and incinerator were recently completed. The city recycles aluminum. Trident Seafoods operates its own water, sewer and electric facilities.	
Miscellaneous		

SPILL RESPONSE SUPPORT *(Contact local officials to determine possibility of using community facilities.)*	
Potential Command Posts	Tribal Offices Capacity of 20, Internet service (698-2300); City of Akutan Office –Capacity of 15, Internet service (698-2228); Trident Seafood – Capacity of 100, Internet service (698-2211)
Potential Staging Areas	City Dock – Capacity of 10 (698-2228); Hovercraft Pad – Capacity of 20 (698-2228); Trident Seafood – Capacity of 100 (698-2211)
Local Spill Response Equipment	The City of Akutan (698-2228) maintains spill response equipment including: 500 feet of containment boom, 240 feet of sorbent boom, sorbent pads, a backhoe and skiff with outboard.

ATKA COMMUNITY PROFILE

Population	61 (DCCED Certified Population)
Borough Located In	Unorganized
Incorporation Type	2nd Class City
Native Entities	**Regional:** Aleut Corporation **Village** Native Village of Atka (Federally Recognized Tribe) **Non-Profit** Aleutian Pribilof Island Association, Incorporated; **Profit** Atxam Corporation

EMERGENCY SERVICES	
State Troopers	Serviced through the Dillingham Post (842-5641)
VPSO	State VPSO (839-2258)
Fire	City of Atka Volunteer Fire Department (839-2214)
Medical	Atka Village Clinic (839-2232)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
Aleutian Housing Authority	520 E 32nd Ave Anchorage, AK 99503	563-2146 563-3104 (fax)	www.aleutian-housing.com
Aleutian Pribilof Island Association	1131 E International Airport Rd Anchorage, AK 99518	276-2700 276-4351 (fax)	www.apiai.org
Atxam Corporation	PO Box 47001 Atka, AK 99547	839-2237 839-2217 (fax)	
City of Atka	PO Box 47070 Atka, AK 99547	839-2233 839-2234 (fax)	
Native Village of Atka	PO Box 47030 Atka, AK 99547	839-2229 839-2269 (fax)	atkaira@gci.net
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org

GENERAL

Location and Climate Atka is located on Atka Island, 1,200 air miles southwest from Anchorage and 350 miles west of Unalaska, at approximately 52.196°N/174.201°W. (Sec. 22, T092S, R176W, Seward Meridian.) Atka lies in the maritime climate zone. Temperatures range from 20° to 60°F. Precipitation averages 60 inches per year and snowfall averages 61 inches per year. There are frequent winds and severe storms in the winter and calm, foggy weather in summer.

History, Culture, & Demographics The island has been occupied by Unangas for at least 2,000 years. Unangas speak the western dialect, known since the Russian era as "Aleuts." Recent archaeological evidence indicates that the present village site may have had human use since prehistoric times. The first contact with Russians occurred in 1747, and Atka became an important trade site and safe harbor for Russians. In 1787 a number of hunters were enslaved and relocated to the Pribilofs to work in the fur seal harvest. The townsite was settled in the 1860s. After the end of the sea otter hunting era in the late 1800s, Atka had no viable cash economy. Reindeer were introduced to the island in 1914, and during the 1920s, Atka became relatively affluent due to fox farming. After the Japanese attacked Unalaska and seized Attu and Kiska in June 1942, the U.S. Government evacuated Atka residents to the Ketchikan area. Atka was burned to the ground to prevent Japanese forces from using it and advancing. The community was rebuilt by the U.S. Navy after the War and residents were allowed to return. Many Attu villagers, released from imprisonment in Japan in 1945, relocated to Atka. This exposure to the outside world brought many changes in the traditional culture and attitudes in the community. The city incorporated in 1988.

A federally-recognized tribe is located in the community -- the Native Village of Atka IRA. The population of the community consists of 91% Alaska Native or part Native. A traditional Unangas settlement, exposure to the outside world has brought changes to the traditional lifestyle, yet the

	Aleut language is still spoken in one-fourth of homes. The St. Nicholas Russian Orthodox Church is a central part of village life. Sea lions and other sea mammals are an important part of the subsistence lifestyle, and meat is shared village-wide on an informal basis.
Economy	The economy is based on subsistence living and wages earned from the halibut fishery. A small local fish processing plant, Atka Pride Seafoods, operates seasonally to serve the local fleet; they currently process halibut and black cod. Nine residents hold commercial fishing permits. A number of offshore fish processors carry out crew changes through Atka. Year-round income opportunities in the village are limited to education- and government-related work. A reindeer herd of over 2,500 head provides a source of meat.

TRANSPORTATION	
Accessibility	Accessible by air or sea
Airport Facilities	Atka has a State-owned 4,500' long by 100' wide asphalt, lighted runway.
Airline Services	Scheduled aircraft from Unalaska and chartered flights from Cold Bay or Unalaska.
Freight	Coastal Transportation provides freight service from May to October.
Vessel Support:	A new dock and port facility, operated by the City, were recently completed 5 miles from town.

FACILITIES & UTILITIES		
Telephone	**ACS**: (1-800-808-8083); **AT&T**:(1-800-288-2020)	**COMMUNICATIONS**
Wireless and Internet	**GCI:** (1-800-880-4800 / www.gci.net)	
TV Stations	ARCS	
Radio Stations	None	
Cable Provider	Atxam Village Corporation	
Teleconferencing	Alaska Teleconferencing Network	
Electricity	Andreanof Electric Corporation	
Fuel	Unknown	
Fuel Storage	City of Atka (200,000 gallons)	
Housing	The city of Atka has 2 rooms with kitchen facilities for rent. The Atka Village Council has a 3-bedroom bed & breakfast for rent with kitchen and laundry facilities. Nazan Bay Inn, owned by APICDA Joint Venture, has 4 bedrooms with kitchen, laundry facilities and sauna.	
Water & Sewage	The community system was constructed in 1978 and expanded in 1982 to a new housing area. A stream and wooden reservoir dam northwest of the city supplies water, which is stored in two 30,000-gallon water tanks before distribution. All 50 homes are plumbed and connected to the piped water and sewer system. Sewage is piped to a central septic system; wastewater flows untreated through outfall lines into Nazan Bay. Garbage is collected twice a week. In 2007/2008 major water and sanitation projects will be completed. The Hydroelectric plant at Chuniisax Creek generates Atka's electrical needs..	
Miscellaneous	The community has one school, attended by 25 students. Fishing/hunting licenses available, although there are no guide or repair services.	

SPILL RESPONSE SUPPORT *(Contact local officials to determine possibility of using community facilities.)*	
Potential Command Posts	None identified
Potential Staging Areas	None identified
Local Spill Response Equipment	None identified

COLD BAY COMMUNITY PROFILE

Population	108 (2010 DCCED Certified Population)
Borough Located In	Aleutians East Borough
Incorporation Type	2nd Class City
Native Entities	**Regional:** Aleut Corporation

EMERGENCY SERVICES	
State Troopers	Serviced through the Dillingham Post (842-5641)
EMS	City of Cold Bay (532-2585 or 522-2772)
Fire	City of Cold Bay Volunteer Fire Department (532-5000)
Medical	Livingston Memorial Clinic (532-2000); Peter Pan Seafoods' Port Moller Medical Clinic- seasonal (987-2207)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
City of Cold Bay	PO Box 10 Cold Bay , AK 99571	532-2401 532-2671 (fax)	coldbayak@arctic.net
Eastern Aleutian Tribes, Incorporated	3380 C Street, Suite 100 Anchorage, AK 99503	277-1440 977-1446 (fax)	www.eatribes.org
G&K, Incorporated	PO Box 117 Cold Bay, AK 99571	532-2407 532-2513 (fax)	
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org

GENERAL	
Location and Climate	Cold Bay is located in the Izembek National Wildlife Refuge at the western end of the Alaska Peninsula, 634 miles southwest of Anchorage and 180 miles northeast of Unalaska. It lies at approximately 55.185°N/162.721°W. (Sec. 01, T058S, R089W, Seward Meridian.) The city has a maritime climate, and temperatures generally range from 25° to 60°F. The average annual rainfall is 36 inches, and average annual snowfall is 55 inches. Wind speeds of 30 mph are common for Cold Bay.
History, Culture, & Demographics	Archaeological sites dating to the last ice age indicate the area around Cold Bay was once inhabited by a large Native population and was used by European hunters and trappers throughout the 19th century. Nearby Izembeck Lagoon was named in 1827 by Count Feodor Kutke, after Karl Izembeck, a surgeon aboard the sloop "Moller." During World War II, Cold Bay was the site of the strategic air base Fort Randall, and its newly constructed runway was the largest in the state, at that time and for many years. The city incorporated in 1982. The population of the community consists of 17% Alaska Native or part Native. Subsistence and recreational fishing and hunting are a part of the local culture. Up to 70,000 Canada geese migrate through Cold Bay in the fall. Izembeck Lagoon offers the world's largest eelgrass beds, feeding grounds for more than 100,000 brant during their spring and fall migrations.
Economy	Cold Bay services the fishing industry and houses a number of federal offices with services focused on Aleutian transportation and wildlife protection. State and federal government and airline support services provide the majority of local employment, and Cold Bay provides services and fuel for the fishing industry. Two residents hold commercial fishing permits. Because of its central location and modern airport with a 10,000' runway, Cold Bay serves as the regional center for air transportation on the Alaska Peninsula and as an international hub for private aircraft.

TRANSPORTATION	
Accessibility	Cold Bay is a regional transportation center and provides scheduled flights to surrounding communities.
Airport Facilities	A State-owned 10,415' long by 150' wide paved and lighted runway with a 5,126' long by 150' wide paved crosswind runway, an FAA Flight Service Station, and a seaplane base are available.

Airline Services	Scheduled and charter service from Anchorage and local area.
Freight	Marine cargo services are available monthly from Seattle, but not from Anchorage.
Vessel Support:	The community has a dock, but wants to develop a breakwater, boat harbor and boat launch. The State Ferry operates bi-monthly from Kodiak between May and October.

FACILITIES & UTILITIES		
Telephone	**Interior Telephone Co**: (1-800-478-3127); **AT&T**:(1-800-288-2020); **GCI:** (1-800-880-4800 / www.gci.net)	**COMMUNICATIONS**
Wireless and Internet	**GCI:** (1-800-880-4800 / www.gci.net)	
TV Stations	ARCS	
Radio Stations	KDLG-AM; KSDP-AM	
Cable Provider	None	
Teleconferencing	Alaska Teleconferencing Network; Dillingham Legislative Information Office	
Electricity	G&K, Incorporated	
Fuel	White gas, kerosene, diesel and unleaded gasoline.	
Fuel Storage	Aleut Enterprises Corp (557,800 gals.); G&K Electric (13,400); AK DOT (23,819); FAA (2,000); Aleutians East Schools (2,790); City (3,300); U.S. Fish & Wildlife (25,000); Peninsula Air (15,300); U.S. Air Force (4,800); AT&T Alascom (500) Frosty Fuel (553,728)	
Housing	Bear Foot Inn Alaska (532-2327), operates a hotel, restaurant, bar and store. Lodging is also available at Cold Bay Lodge (532-2767); Bay View Inn (532-2022) and R&R Guide Service (532-2797)	
Water & Sewage	Water is supplied by one well and stored in a 213,000-gallon tank. Most residents are connected to the piped water and sewer system; a few homes have individual wells and septic systems. The sewage treatment plant can process up to 45,000 gallons a day. In 1999, construction of two new wells, a water treatment building, new water distribution lines, and sewer collection lines was completed. A new city shop was also constructed. Residents transport their own refuse to the landfill, located 1.5 miles north of the City. A feasibility study will determine whether to clean up or replace the old landfill. The ADOT provides firefighting and rescue services.	
Miscellaneous	The community has one school, attended by 10 students. Cold Bay is used to visitors and welcomes tourists, fishermen and others coming through this isolated community.	

SPILL RESPONSE SUPPORT *(Contact local officials to determine possibility of using community facilities.)*	
Potential Command Posts	Community Center – Capacity of 150 (532-2401); Library – Capacity of 30, Internet Service (532-2401);ASI – Capacity of 100, Internet service(9532-2407); School Gym – Capacity of 200 (532-2409)
Potential Staging Areas	G&K ASI (532-2407)
Local Spill Response Equipment	Frosty Fuel (532-2467) maintains some local response equipment.

FALSE PASS COMMUNITY PROFILE

Population	108 (2010 DCCED Certified Population)
Borough Located In	Aleutians East Borough
Incorporation Type	2nd Class City
Native Entities	**Regional:** Aleut Corporation **Non-Profit** Aleutian Pribilof Island Association, Incorporated **Profit** Isanotski Corporation **Village** Native Village of False Pass (Federally Recognized Tribe)

EMERGENCY SERVICES	
State Troopers	Serviced through the Dillingham Post (842-5641)
VPSO	State VSPO (548-2223)
Fire	False Pass Volunteer Fire Department (548-2319)
Medical	Anne Hoblet Memorial Clinic (548-2241)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
Aleutian Housing Authority	520 E 32nd Ave Anchorage, AK 99503	563-2146 563-3104 (fax)	www.aleutian-housing.com
Aleutian Pribilof Island Association	1131 E International Airport Rd Anchorage, AK 99518	276-2700 276-4351 (fax)	www.apiai.org
City of False Pass	PO Box 50 False Pass, AK 99583	548-2214 548-2214 (fax)	
Isanotski Corporation	PO Box 9 False Pass, AK 99583	548-2217 548-2317 (fax)	www.isanotski.alaska.com
Native Village of False Pass	PO Box 29 False Pass, AK 99583	548-2227 548-2256 (fax)	falsepasstribe@gmail.com
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org

GENERAL	
Location and Climate	False Pass is located on the eastern shore of Unimak Island on a strait connecting the Pacific Gulf of Alaska to the Bering Sea, 646 air miles southwest of Anchorage. The city owns approximately 66 square miles of land and water. False Pass lies at approximately 54.853°N/163.408°W. (Sec. 34, T061S, R094W, Seward Meridian.) The town is in the maritime climate zone. Temperatures generally range from 11° to 55°F. Snowfall averages 56 inches, with total annual precipitation of 33 inches. Prevailing southeast winds are constant and often strong during winter. Fog is common during summer months.
History, Culture, & Demographics	The name False Pass is derived from the fact that what appears as a pass from the Pacific Ocean to the Bering Sea is not practical since the Bering side of the strait is extremely shallow and cannot accommodate large vessels. In the early 1900s, a homesteader originally settled the area, which grew with the establishment of a cannery in 1917. Natives emigrated from Morzhovoi, Sanak Island and Ikatan when the cannery was built. The cannery operated continuously, except for 1973 - 1976, when two hard winters depleted the fish resources; Peter Pan Seafoods subsequently purchased the cannery, but it was destroyed by fire in March 1981 and not rebuilt. A post office was established in 1921; the city incorporated in 1990. A federally recognized tribe is located in the community -- the False Pass Tribal Council. The population of the community consists of 66% Alaska Native or part Native. The community is primarily Unangan. Fishing, fish processing and subsistence activities are the mainstays of the lifestyle. The sale of alcohol is restricted to the package store.
Economy	Commercial salmon fishing and fishing services drive the local economy. False Pass is an important refueling stop for Bristol Bay and Bering Sea fishing fleets. Bering Pacific and Peter Pan Seafoods process the commercial catch. Eleven residents hold commercial fishing permits. Cash income is

supplemented by subsistence hunting and fishing; salmon, halibut, geese, caribou, seals and wild cattle on Sanak Island are utilized.

TRANSPORTATION	
Accessibility	Boats and aircraft provide the only means of transportation into False Pass.
Airport Facilities	A State-owned 2,150' long by 60' wide gravel airstrip and a seaplane base are available.
Airline Services	Mail and passenger flights arrive three times weekly.
Freight	Cargo barges are available from Seattle. No local taxi or delivery services exist in False Pass. The State Ferry operates once a month between May and October from Kodiak.
Vessel Support:	Construction of a new small boat harbor was completed in 2009.

FACILITIES & UTILITIES		
Telephone	**ACS**: (1-800-808-8083); **AT&T**:(1-800-288-2020); **GCI:** (1-800-880-4800 / www.gci.net)	**COMMUNICATIONS**
Wireless and Internet	**GCI:** (1-800-880-4800 / www.gci.net)	
TV Stations	ARCS	
Radio Stations	KDLG-AM	
Cable Provider	None	
Teleconferencing	Alaska Teleconferencing Network	
Electricity	False Pass Electric Association	
Fuel	Marine gas, diesel, propane, and unleaded gasoline.	
Fuel Storage	Peter Pan Seafoods (321,700 gallons); City of False Pass (34,000 gallons); Aleutians East Schools (968 gallons)	
Housing	Accommodations are limited: there is one bed and breakfast; bunkhouse rooms may be available seasonally at Bering Pacific or Peter Pan fish processors.	
Water & Sewage	Water is derived from a nearby spring and reservoir, treated and stored in a 60,000-gallon tank; most homes are connected to the piped water system. All homes are fully plumbed. Residents use individual septic tanks for sewage disposal; the city operates a septic sludge tanker and sludge disposal site. Wastewater from seafood processing flows directly into an outfall line. Recent water system improvements include an enlarged dam and a second 60,000-gallon water tank.	
Miscellaneous	The community has one school, attended by 5 students. The city collects refuse twice a week.	

SPILL RESPONSE SUPPORT *(Contact local officials to determine possibility of using community facilities.)*	
Potential Command Posts	None identified
Potential Staging Areas	None identified
Local Spill Response Equipment	None identified

KING COVE COMMUNITY PROFILE

Population	938 (2010 DCCED Certified Population)
Borough Located In	Aleutians East Borough
Incorporation Type	1st Class City
Native Entities	**Regional:** Aleut Corporation
	Non-Profit Aleutian Pribilof Island Association, Incorporated
	Profit The King Cove Corporation
	Village Agdaagux Tribe of King Cove (Federally Recognized Tribe)

EMERGENCY SERVICES	
State Troopers	Serviced through the Dillingham Post (842-5641)
VPSO	State VPSO (497-2555)
Police	City of King Cove Police (497-2210)
Fire	King Cove Volunteer Fire & Rescue (497-2210)
Medical	King Cove Medical Clinic (497-2311)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Agdaagux Tribe of King Cove	PO Box 249 King Cove, AK 99612	497-2648 497-2803	ettakuzakin@yahoo.com
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
Aleutian Pribilof Island Association	1131 E International Airport Rd Anchorage, AK 99518	276-2700 276-4351 (fax)	www.apiai.org
City of King Cove	PO Box 37 King Cove, AK 99612	497-2340 497-2594 (fax)	www.cityofkingcove.com kccityclerk@gmail.com
Eastern Aleutian Tribes, Incorporated	3380 C Street, Suite 100 Anchorage, AK 99503	277-1440 977-1446 (fax)	www.eatribes.org
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org
The King Cove Corporation	PO Box 38 King Cove, AK 99612	497-2312 497-2444 (fax)	www.kingcovecorporation.com

GENERAL	
Location and Climate	King Cove is located on the south side of the Alaska Peninsula, on a sand spit fronting Deer Passage and Deer Island. It is 18 miles southeast of Cold Bay, 625 miles southwest of Anchorage, and lies at approximately 55.061°N/162.310°W. (Sec. 22, T059S, R086W, Seward Meridian.) King Cove is in the maritime climate zone. Temperatures average 25° to 55°F, with extremes from -9° to 76°F. Snowfall averages 52 inches, and total annual precipitation is 33 inches. Fog during summer and high winds during winter can limit accessibility.
History, Culture, & Demographics	King Cove was founded in 1911 when Pacific American Fisheries built a salmon cannery. Early settlers were Scandinavian, European and Unangan fishermen. Of the first ten founding families, five consisted of a European father and an Aleut mother. The city incorporated in 1949. The cannery operated continuously between 1911and 1976, when it was partially destroyed by fire, but the adoption of the 200-mile fisheries limit spurred rebuilding. King Cove remains tied to fishing and fish processing. A federally-recognized tribe is located in the community -- the Agdaagux Tribe of King Cove. The population of the community consists of 48% Alaska Native or part Native. King Cove is a mixed non-Native and Unangan community. Scandinavians have historically had a large influence on the cultural, economic and social structures.
Economy	King Cove's economy depends almost completely on the year-round commercial fishing and seafood processing industries. The Peter Pan Seafoods facility is one of the largest cannery operations under one roof in Alaska. Up to 500 non-residents are brought in to work the cannery as needed. Sixty-two residents hold commercial fishing permits. Income is supplemented by subsistence activities; salmon, caribou, geese and ptarmigan provide food sources.

TRANSPORTATION	
Accessibility	King Cove is accessible only by air and sea.
Airport Facilities	A State-owned 3,500' long by 100' wide gravel runway is available, but unattended, no fuel, no airport facilities, and runway conditions not monitored – visual inspection recommended prior to using.
Airline Services	Scheduled or chartered aircraft from Cold Bay or Sand Point.
Freight	Air and marine cargo capabilities available.
Vessel Support:	The ferry and marine cargo services use one of three docks owned by Peter Pan Seafoods. The city operates a deep water dock. The North Harbor provides moorage for 90 boats and is ice-free all year. The Corps of Engineers and Aleutians East Borough constructed the new Babe Newman Harbor and breakwater; the harbor, operated by the city, provides additional moorage for 60' to 150' fishing vessels.

FACILITIES & UTILITIES		
Telephone	**Interior Telephone Co**: (1-800-478-3127); **AT&T**:(1-800-288-2020)	COMMUNICATIONS
Wireless and Internet	**GCI:** (1-800-880-4800 / www.gci.net); **Arctic Net/TelAlaska, Inc**. (www.arctic.net)	
TV Stations	ARCS	
Radio Stations	KSDP-AM	
Cable Provider	Dish	
Teleconferencing	Alaska Teleconferencing Network; Dillingham Legislative Information Office	
Electricity	A hydroelectric power project has recently been completed at Delta Creek. Peter Pan Seafoods operates its own electric system.	
Fuel	Unknown.	
Fuel Storage	City of King Cove (127,800 gallons); Aleutians East Schools (5,300 gallons); King Cove Corp. (5,000 gallons); Peter Pan Seafoods (707,448 gallons); Gould & Sons (2,800 gallons)	
Housing	Fleets Inn (497-2312)	
Water & Sewage	Water is supplied by Ram Creek with a sheetpile dam that stores about 980,000 gallons of unfiltered water. A well field and storage tank is located at Delta Creek. All residents are connected to the piped water system and homes are fully plumbed. A piped sewage collection system connects all homes and facilities to central septic tanks. Two lift stations and tanks provide primary (20,000 gallons) and secondary treatment (84,000 gallons) of waste, with discharge through an outfall line.	
Miscellaneous	The community has one school, attended by 110 students.	

SPILL RESPONSE SUPPORT *(Contact local officials to determine possibility of using community facilities.)*	
Potential Command Posts	None identified
Potential Staging Areas	None identified
Local Spill Response Equipment	None identified

NELSON LAGOON COMMUNITY PROFILE

Population	52 (2010 Estimated Population)
Borough Located In	Aleutians East Borough
Incorporation Type	Unincorporated
Native Entities	**Regional:** Aleut Corporation
	Non-Profit Aleutian Pribilof Island Association, Incorporated
	Profit Nelson Lagoon Corporation
	Village Native Village of Nelson Lagoon (Federally Recognized Tribe)

EMERGENCY SERVICES	
State Troopers	Serviced through the King Salmon Post (246-3464)
VPSO	State VPSO (989-2232)
Fire	Nelson Lagoon Volunteer Fire Department (989-2232)
Medical	Nelson Lagoon Clinic (989-2202); Nelson Lagoon First Responders (989-2202)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
Aleutian Housing Authority	520 E 32nd Ave Anchorage, AK 99503	563-2146 563-3104 (fax)	www.aleutian-housing.com
Aleutian Pribilof Island Association	1131 E International Airport Rd Anchorage, AK 99518	276-2700 276-4351 (fax)	www.apiai.org
Eastern Aleutian Tribes, Incorporated	3380 C Street, Suite 100 Anchorage, AK 99503	277-1440 977-1446 (fax)	www.eatribes.org
Native Village of Nelson Lagoon	PO Box 913 Nelson Lagoon, AK 99571	989-2204 989-2233 (fax)	jgunde1125@aol.com
Nelson Lagoon Corporation	PO Box 913 Nelson Lagoon, AK 99571	989-2204 989-2233 (fax)	
Nelson Lagoon Electrical Cooperative	PO Box 13 Nelson Lagoon, AK 99571	989-2204 989-2233 (fax)	
Nelson Lagoon Enterprises	PO Box 913 Nelson Lagoon, AK 99571		
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org

GENERAL	
Location and Climate	Nelson Lagoon is located on the northern coast of the Alaska Peninsula, on a narrow sand spit that separates the lagoon from the Bering Sea. It is 580 miles southwest of Anchorage and lies at approximately 56.001°N/161.202°W. (Sec. 25, T048S, R077W, Seward Meridian.) Nelson Lagoon is in the maritime climate zone, with a constant prevailing wind of 20 to 25 mph. Frequent and dramatic weather changes can occur. Temperatures average 25° to 50°F, with a range from -15° to 75°F. Snowfall averages 56 inches, with a total annual precipitation of 33 inches.
History, Culture, & Demographics	Nelson Lagoon has been used historically as a Unangan summer fish camp. The resources of the lagoon and nearby Bear River are excellent. The lagoon was named in 1882 for Edward William Nelson of the U.S. Signal Corps, an explorer in the Yukon Delta region between 1877 and 1920. A salmon saltery operated from 1906 to 1917, which attracted Scandinavian fishermen, but there has been no cannery since then. Year-round occupation of the community began in 1965 when a school was built. A federally recognized tribe is located in the community, the Native Village of Nelson Lagoon. The population of the community consists of 82% Alaska Native or part Native. The culture is focused on commercial fishing and subsistence activities. There is a strong community pride and loyalty among the residents, with a desire to maintain their lifestyle with slow, monitored growth and development that can be well managed by the residents.

Economy	Nelson Lagoon is situated in the middle of a rich and productive salmon fisheries area; 24 residents hold commercial fishing permits, primarily salmon gillnet. Subsistence activities balance the seasonal nature of the fishery. Some trapping occurs. Residents are interested in developing a small seafood processing and cold storage facility

TRANSPORTATION	
Accessibility	Nelson Lagoon is accessible only by air and sea.
Airport Facilities	A State-owned 4,000' long by 75' wide gravel runway serves regularly-scheduled flights. Large seabirds feed on the beach adjacent to runway.
Airline Services	Air charters from Cold Bay.
Freight	Freight arrives by ship or barge at the Peter Pan Seafoods dock, 30 miles away, at Port Moller.
Vessel Support:	Facilities include a dock, boat ramp, harbormaster's office and warehouse.

FACILITIES & UTILITIES		
Telephone	**ACS**: (1-800-808-8083); **AT&T**:(1-800-288-2020); **GCI:** (1-800-880-4800 / www.gci.net)	COMMUNICATIONS
Wireless and Internet	**GCI:** (1-800-880-4800 / www.gci.net)	
TV Stations	ARCS	
Radio Stations	KDLG-AM	
Cable Provider	None	
Teleconferencing	Alaska Teleconferencing Network	
Electricity	Nelson Lagoon Electric Cooperative.	
Fuel	None.	
Fuel Storage	Nelson Lagoon Fuel Enterprise (140,000 gallons.); Aleutians East Schools (1,500 gallons); Harold Thompson (3,000 gallons)	
Housing	Tides Inn & Cafe; The Bering Inn	
Water & Sewage	Water comes from a lake about 10 miles from Nelson Lagoon and is treated; water storage capacity is 600,000 gallons. All homes are connected to the piped water system. Individual septic systems enable households to have complete plumbing. The water system needs major improvements, including repair of the distribution system and a new storage tank.	
Miscellaneous	The community has one school, attended by 18 students. There are no garbage collection services, but a landfill is available.	

SPILL RESPONSE SUPPORT *(Contact local officials to determine possibility of using community facilities.)*	
Potential Command Posts	None identified
Potential Staging Areas	None identified
Local Spill Response Equipment	None identified

NIKOLSKI COMMUNITY PROFILE

Population	18 (2010 Estimated Population)
Borough Located In	Unorganized
Incorporation Type	Unincorporated
Native Entities	**Regional:** Aleut Corporation
	Non-Profit Aleutian Pribilof Island Association, Incorporated
	Profit Chaluka Corporation
	Village Native Village of Nikolski (Federally Recognized Tribe)

EMERGENCY SERVICES	
State Troopers	Serviced through the Dutch Harbor Post (581-1432)
Fire	Nikolski Volunteer Fire Department (576-2225)
Medical	Nikolski Health Clinic (576-2204)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
Aleutian Housing Authority	520 E 32nd Ave Anchorage, AK 99503	563-2146 563-3104 (fax)	www.aleutian-housing.com
Aleutian Pribilof Island Association	1131 E International Airport Rd Anchorage, AK 99518	276-2700 276-4351 (fax)	www.apiai.org
Chaluka Corporation	PO Box 104 Nikolski, AK 99638	576-2215	
Native Village of Nikolski	PO Box 105 Nikolski, AK 99638	576-2225 576-2205 (fax)	nvnikolski@hotmail.com
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org

GENERAL

Location and Climate Nikolski is located on Nikolski Bay, off the southwest end of Umnak Island, one of the Fox Islands. It lies 116 air miles west of Unalaska, 900 air miles from Anchorage, at approximately 52.938°N/168.867°W. (Sec. 04, T084S, R136W, Seward Meridian.) Nikolski is in a maritime climate zone. Temperatures generally range from 11° to 65°F. Snowfall averages 41 inches; total precipitation is 21 inches. Strong winds are frequent during the winter and fog during the summer, which limits accessibility.

History, Culture, & Demographics Nikolski is reputed by some to be the oldest continuously occupied community in the world. Archaeological evidence from Ananiuliak Island, on the north side of Nikolski Bay, dates as far back as 8,500 years ago. The Chaluka archaeological site in the village of Nikolski indicates 4,000 years of virtually continuous occupation. People were living in Nikolski before the pyramids were built, the Mayan calendar was invented, or the Chinese language was written. In 1834, it was the site of sea otter hunting, and was recorded by the Russians as "Recheshnoe," which means "river." In 1920, a boom in fox farming occurred. The local Unangan became affluent enough to purchase a relatively large boat, the "Umnak Native," though it met shipwreck in 1933. The Aleutian Livestock Company established a sheep ranch in 1926. In June 1942, after the Japanese attacked Unalaska and seized Attu and Kiska, residents were evacuated to the Ketchikan area. Locals were allowed to return in 1944, but the exposure to the outside world brought about many changes in the traditional lifestyle and community attitudes. In the 1950s, the Air Force constructed a White Alice radar communication site here, which provided some jobs, but it was abandoned in 1977.

A federally-recognized tribe is located in the community -- the Native Village of Nikolski. The population of the community consists of 69% Alaska Native or part Native. Residents are known as Unangan, and Aleut is spoken in three-quarters of all homes. Subsistence activities, sheep and cattle raising, and fishing-related employment sustain the community.

Economy Most residents support themselves by working outside the village at crab canneries and on processing ships. The lack of a harbor and dock has limited fisheries-related activities. The village is

interested in developing a small value-added fish processing plant and a sport-fishing lodge to attract new and former residents, who left Nikolski for economic reasons. The Aleutian Pribilof Island Community Development Association recently purchased a sport-fishing charter boat. Sheep, cattle and horses graze over much of the island. Income is supplemented by subsistence activities, which provide a substantial part of the villagers' diets; salmon, halibut, seals and ducks are utilized.

TRANSPORTATION	
Accessibility	By air or sea only.
Airport Facilities	Nikolski has a 3,500' unlighted gravel runway owned by Chaluka Corporation.
Airline Services	Passenger, mail and cargo service available thru scheduled or charter flights from Dutch Harbor. Rain and wind often close the gravel airstrip.
Freight	There are no landings, piers or port facilities for ships.
Vessel Support:	Barges deliver cargo once or twice a year; goods and passengers are lightered three miles to the beach.

FACILITIES & UTILITIES		
Telephone	**ACS**: (1-800-808-8083); **AT&T**:(1-800-288-2020)	COMMUNICATIONS
Wireless and Internet	**GCI:** (1-800-880-4800 / www.gci.net)	
TV Stations	ARCS	
Radio Stations	None	
Cable Provider	Nikolski IRA Council	
Teleconferencing	Alaska Teleconferencing Network	
Electricity	Umnak Power Company	
Fuel	May be available at the Nikolski Native Store.	
Fuel Storage	Nikolski Native Store (23,000 gallons); Umnak Power Co. (23,000 gallons); Aleutian Region Schools (9,500 gallons); Chaluka Corp. Ranch (6,300 gallons)	
Housing	Housing available through the Nikolski IRA Council (576-2225)	
Water & Sewage	The twelve occupied homes in Nikolski are connected to a piped water system and individual septic tanks. All homes are fully plumbed. The Council provides septic pumping services	
Miscellaneous	The community has one school, attended by 10 students.	

SPILL RESPONSE SUPPORT *(Contact local officials to determine possibility of using community facilities.)*	
Potential Command Posts	None identified
Potential Staging Areas	None identified
Local Spill Response Equipment	None identified

SAINT GEORGE COMMUNITY PROFILE

Population	102 (2010 DCCED Certified Population)
Borough Located In	Unorganized
Incorporation Type	2nd Class City
Native Entities	**Regional:** Aleut Corporation
	Non-Profit Aleutian Pribilof Island Association, Incorporated
	Profit Saint George Tanaq Corporation
	Village Saint George Island (Federally Recognized Tribe)

EMERGENCY SERVICES	
State Troopers	Serviced through the Dillingham Post (842-5641)
VPSO	State VSPO (859-2403)
Fire	Saint George EMS/First Responders (859-2225)
Medical	Saint George Clinic (859-2254)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
Aleutian Housing Authority	520 E 32nd Ave Anchorage, AK 99503	563-2146 563-3104 (fax)	www.aleutian-housing.com
Aleutian Pribilof Island Association	1131 E International Airport Rd Anchorage, AK 99518	276-2700 276-4351 (fax)	www.apiai.org
City of Saint George	PO Box 940 Saint George, AK 99591	859-2236 859-2242 (fax)	
Saint George Island	PO Box 940 Saint George, AK 99591	859-2205 859-2242 (fax)	chris_merculief@yahoo.com
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org
Saint George Tanaq Corporation	4141 B Street, Suite 301 Anchorage, AK 99503	272-9886 272-9855 (fax)	www.stgeorgetanaq.com

GENERAL

Location and Climate St. George is located on the northeast shore of St. George Island, the southern-most of five islands in the Pribilofs, 47 miles south of St. Paul Island, 750 air miles west of Anchorage and 250 miles northwest of Unalaska. It lies at approximately 56.600°N/169.542°W. (Sec. 29, T041S, R129W, Seward Meridian.) Over 210 species of birds nest on the cliffs of St. George Island. The climate of St. George is controlled by the cold waters of the Bering Sea. The maritime location results in cool weather year round and a narrow range of mean temperatures varying from 24° to 52°F. Average precipitation is 23 inches, with 57 inches of snowfall. Cloudy, foggy weather is common during summer months.

History, Culture, & Demographics St. George was discovered in 1786 by Gavrill Pribilof of the Russian Lebedov Lastochkin Co. while looking for the famed northern fur seal breeding grounds. The island was named Sveti Georgiy, and its larger neighbor to the north was originally called St. Peter and St. Paul Island. The Russian American Company enslaved Aleut hunters from Siberia, Unalaska and Atka and relocated them to St. George and St. Paul to harvest the fur seal. Between 1870 and 1910, the U.S. Government leased the Pribilof Islands to private companies, who provided housing, food and medical care to the Aleuts in exchange for work in the fur seal plant. In 1910, the U.S. Bureau of Fisheries took control of the islands, but poverty conditions ensued due to over-harvesting of the seals. During World War II, residents were moved to Funter Bay in Southeast Alaska as part of the area-wide evacuation; unlike Natives evacuated to other areas, they were confined to an abandoned cannery and mine camp. In 1979, the Pribilof Aleuts received $8.5 million in partial compensation for the unfair and unjust treatment they were subjected to under federal administration between 1870 and 1946. In 1983, with the end of the commercial seal harvest and ensuing withdrawal from the islands, the U.S. government provided $8 million for St. George and $12 million for St. Paul to help

	develop and diversify the local economy. Today, residents are working to develop commercial fisheries and tourism. The city incorporated in 1983. A federally recognized tribe is located in the community -- the St. George Island Traditional Council. Predominantly Aleut and Eskimo, the population of the community consists of 92% Alaska Native or part Native. The Pribilof Islands seal population and the community's dependence on it has been a major influence on the local culture; more than a million fur seals congregate on the islands every summer, though the numbers have been declining inexplicably in recent years.
Economy	Until terminated in 1983, the federally controlled fur seal industry dominated the economy of the Pribilof communities of St. Paul and St. George; the two communities remain closely tied today. Currently, government positions and commercial fishing provide most employment. Puffin Seafoods and Snopac Products operate in St. George. The St. George Aquaculture Assoc. has salmon and shellfish programs. Eleven residents hold commercial fishing permits. Villagers harvest 500 fur seals each year for subsistence purposes. Halibut, reindeer, marine invertebrates, plants and berries also contribute to the local diet.

TRANSPORTATION	
Accessibility	St. George is accessible only by air and sea
Airport Facilities	There are two airstrips, one owned by the city and a State-owned airport with a 4982' long by 150' wide gravel runway.
Airline Services	Scheduled flights are provided to St. Paul and the mainland.
Freight	Most freight and supplies are delivered by ship from Anchorage on a monthly or bimonthly schedule; cargo from Seattle arrives five or six times a year.
Vessel Support:	There are three docks; one operated by the village corporation, and an inner harbor and dock in Zapadni Bay, 5 miles from town.

FACILITIES & UTILITIES		
Telephone	**ACS**: (1-800-808-8083); **AT&T**:(1-800-288-2020)	**COMMUNICATIONS**
Wireless and Internet	None	
TV Stations	ARCS	
Radio Stations	KUHB-FM; KNOM-AM	
Cable Provider	Saint George Traditional Council	
Teleconferencing	Alaska Teleconferencing Network	
Electricity	Saint George Municipal Electric Utility	
Fuel	Marine gas, diesel, propane, and unleaded gasoline.	
Fuel Storage	Saint George Delta Fuel Co. (1,050,200 gallons); City of Saint George (4,000 gallons); Peninsula Airways (2,000 gallons); Pribilof Island Schools (1,000 gallons); St. George Tanaq Corp. (5,200 gallons)	
Housing	Saint George Hotel	
Water & Sewage	NOAA constructed a piped water and sewer system during the 1950s. Four wells provide water for the community and the harbor, with 250,000 gallons of storage. Funds have been requested to replace the failing 45-year-old water storage tank and distribution mains. All 60 residences are plumbed and connected to the system. Sewage outfall discharges into the harbor.	
Miscellaneous	The community has one school, attended by 23 students. The city provides refuse collection services. NOAA is completing a federal hazardous waste clean-up on the island and will close the existing landfill.	

SPILL RESPONSE SUPPORT *(Contact local officials to determine possibility of using community facilities.)*	
Potential Command Posts	None identified
Potential Staging Areas	None identified
Local Spill Response Equipment	None identified

SAINT PAUL COMMUNITY PROFILE

Population	479 (2010 DCCED Certified Population)
Borough Located In	Unorganized
Incorporation Type	2nd Class City
Native Entities	**Regional:** Aleut Corporation **Non-Profit** Aleutian Pribilof Island Association, Incorporated **Profit** Tanadgusix Corporation **Village** Saint Paul Island (Federally Recognized Tribe)

EMERGENCY SERVICES	
State Troopers	Serviced through the Dillingham Post (842-5641)
Police	Saint Paul Department of Public Safety (546-3130)
Fire	Saint Paul EMS Rescue Squad (546-2311 ext. 123); Saint Paul Volunteer Fire Department (VHF Channel 16)
Medical	Saint Paul Health Clinic (546-8300)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
Aleutian Housing Authority	520 E 32nd Ave Anchorage, AK 99503	563-2146 563-3104 (fax)	www.aleutian-housing.com
Aleutian Pribilof Island Association	1131 E International Airport Rd Anchorage, AK 99518	276-2700 276-4351 (fax)	www.apiai.org
Central Bering Sea Fishermen's Assoc.	PO Box 288 Saint Paul, AK 99660	546-2597 546-2450 (fax)	www.cbsfa.com
City of Saint Paul	PO Box 901 Saint Paul, AK 99660	546-2331	
Pribilof School District	PO Box 905 Saint Paul, AK 99660	546-3337 546-2327 (fax)	www.pribilofschools.org newmanc@psd-k12.org
Saint Paul Island	PO Box 86 Saint Paul, AK 99660	546-3200 546-3253 (fax)	president@aleut.com
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org
Tanadgusix Corporation	4300 B Street, Suite 209 Anchorage, AK 99503	272-2312 272-2350 (fax)	

GENERAL	
Location and Climate	St. Paul is located on a narrow peninsula on the southern tip of St. Paul Island, the largest of five islands in the Pribilof's. It lies 47 miles north of St. George Island, 240 miles north of the Aleutian Islands, and 750 air miles west of Anchorage, at approximately 57.122°N/170.275°W. (Sec. 25, T035S, R132W, Seward Meridian.) The climate of St. Paul is arctic maritime with cool weather year-round and a narrow range of mean temperatures, varying from 19° to 51°F. Average precipitation is 25 inches, with snowfall of 56 inches.
History, Culture, & Demographics	The Pribilof's were discovered in 1786 by Russian fur traders. They landed first on St. George, then named the larger island to the north St. Peter and St. Paul Island. In 1788, the Russian American Company enslaved and relocated Aleuts from Siberia, Atka and Unalaska to the Pribilof's to hunt fur seals; their descendants live on the two islands today. In 1870, the Alaska Commercial Company was awarded a 20-year sealing lease by the U.S. Government to provide housing, food and medical care to the Aleuts in exchange for seal harvesting. In 1890, a second 20-year lease was awarded to the North American Commercial Company, however, fur seals had been severely over-harvested and poverty ensued. The 1910 Fur Seal Act ended private leasing on the islands and placed the community and fur seals under the U.S. Bureau of Fisheries. Food and clothing were scarce, social and racial segregation were practiced, and working conditions were poor. During World War II, Pribilof Aleuts were moved to Funter Bay in Southeast Alaska as part of the area-wide evacuation; unlike Natives evacuated to other areas, they were confined to an abandoned cannery and mine camp. In 1979, the Aleut Islanders received $8.5 million in partial compensation for the unfair and

	unjust treatment they were subject to under federal administration between 1870 and 1946. In 1983, Congress passed the Fur Seal Act Amendments, which ended government control of the commercial seal harvest and the federal presence on the island. Responsibility for providing community services and management of the fur seals was left to local entities; the U.S. government provided $8 million for St. George and $12 million for St. Paul to help develop and diversify the local economy. Commercial harvesting on St. Paul ceased in 1985; ownership of fur seal pelts is now prohibited, except for subsistence purposes. A federally recognized tribe is located in the community -- the Aleut Community of St. Paul Island. The population consists of 87% Alaska Native or part Native, predominantly Aleut and Eskimo. Although subsistence has not historically been the focus of the local culture, today halibut and seal are shared and exchanged with relatives living in other communities for salmon and reindeer. The Russian Orthodox Church plays a strong role in community cohesiveness.
Economy	The federally controlled fur seal industry dominated the economy of the Pribilof's until 1983. St. Paul is a port for the Central Bering Sea fishing fleet, and major harbor improvements have fueled economic growth. Trident Seafoods and Icicle Seafoods process cod, crab, halibut and other seafood in St. Paul; the community is seeking funds to develop a halibut processing facility. Several offshore processors are serviced out of St. Paul. Thirty residents hold commercial fishing permit. Fur seal rookeries and more than 210 species of nesting sea birds attract almost 700 tourists annually. There is a reindeer herd on the island from a previous commercial venture. Residents subsist on halibut, fur seals (1,645 may be taken each year), reindeer, marine invertebrates, plants and berries.

TRANSPORTATION	
Accessibility	Saint Paul is accessible by sea and air.
Airport Facilities	The State-owned gravel runway is 6,500' long by 150' wide in length, and is undergoing major improvements.
Airline Services	Regularly scheduled flights are provided, under Visual Flight Rule conditions. Penn Air is the primary air service provider.
Freight	Most supplies and freight arrive by ship. ACE fly's freight on a charter basis.
Vessel Support:	There is a breakwater, 700' of dock space, and a barge off-loading area. Construction of a small boat harbor was completed in 2010.

FACILITIES & UTILITIES		
Telephone	**ACS**: (1-800-808-8083); **AT&T**:(1-800-288-2020); **GCI:** (1-800-880-4800 / www.gci.net)	**COMMUNICATIONS**
Wireless and Internet	**GCI:** (1-800-880-4800 / www.gci.net); **TDX Corp**.; **HughsNet**	
TV Stations	ARCS	
Radio Stations	KUHB-FM	
Cable Provider	TDX Corp.; Dish Network	
Teleconferencing	Alaska Teleconferencing Network; Dillingham Legislative Information Office	
Electricity	Saint Paul Municipal Electric Utility	
Fuel	Diesel, propane, and unleaded gasoline.	
Fuel Storage	TDX Corp. (1,573,200 gallons); City of Saint Paul (1,849,890 gallons); Pribilof Island Schools (3,000 gallons); Pribilof Island Processors (1,900 gallons); City Electric (12,100 gallons); Reeve Aleutian Airways (10,200 gallons); Trident Seafoods (12,300 gallons); USCG (300,800 gallons)	
Housing	King Eider Hotel (546-2477) with laundry and shower facilities for guests.	
Water & Sewage	Water is supplied by wells and an aquifer and is then treated; there are two new wooden tanks; one 500,000 gallon and one 300,000 gallon. All 167 homes and facilities are fully plumbed and connected to the piped water and sewer system. An ocean outfall line handles seafood processing waste.	
Miscellaneous	The community has one school, attended by 100 students. The city collects refuse; the village tribe operates a recycling program, which is currently on hold. A landfill, incinerator, sludge and oil disposal site has recently been completed. A $3 million power plant came online in 2000. A small wind turbine provides power and hot water to the village office, but it is not connected to the power grid; the village corporation has three turbines and more are planned. The community library has wireless.	

SPILL RESPONSE SUPPORT *(Contact local officials to determine possibility of using community facilities.)*	
Potential Command Posts	Saint Paul recreation hall holds approximately 250 people. POC: Phyllis @ 546-3152.
Potential Staging Areas	None identified
Local Spill Response Equipment	None identified

SAND POINT COMMUNITY PROFILE

Population	976 (2010 DCCED Certified Population)
Borough Located In	Aleutians East Borough
Incorporation Type	1st Class City
Native Entities	**Regional:** Aleut Corporation **Non-Profit** Aleutian Pribilof Island Association, Incorporated **Profit** Shumagin Corporation **Village** Native Village of Unga(Federally Recognized Tribe); Pauloff Harbor Village (Federally Recognized Tribe); Qagan Tayagungin Tribe of Sand Point Village (Federally Recognized Tribe)

EMERGENCY SERVICES	
State Troopers	Serviced through the Dutch Harbor (581-1432) and King Salmon Post (246-3464)
Police	Sand Point Police Department (383-3700)
Fire	Sand Point EMS (383-3700)
Medical	Sand Point Community Health Clinic (383-3151)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
Aleutian Housing Authority	520 E 32nd Ave Anchorage, AK 99503	563-2146 563-3104 (fax)	www.aleutian-housing.com
Aleutian Pribilof Island Association	1131 E International Airport Rd Anchorage, AK 99518	276-2700 276-4351 (fax)	www.apiai.org
Aleutians East Borough School District	PO Box 429 Sand Point, AK 99661	383-5222 383-3496 (fax)	www.aebsd.org
City of Sand Point	PO Box 249 Sand Point, AK 99661	383-2696 383-2698 (fax)	www.ci.sandpoint.ak.us sptcity@arctic.net
Native Village of Unga	PO Box 508 Sand Point, AK 99661	383-2415 383-5553 (fax)	www.ungatribe.org
Pauloff Harbor Village	PO Box 97 Sand Point, AK 99661	383-6075 383-6094 (fax)	www.pauloffharbortribe.org pauloff@arctic.net
Qagan Tayagungin Tribe of Sand Point	PO Box 447 Sand Point, AK 99661	383-5616 383-5814 (fax)	www.qttribe.org qttadmin@arctic.net
Shumagin Corporation	PO Box 189 Sand Point, AK 99661	383-3525 383-5356 (fax)	www.shumagin.com
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org

GENERAL	
Location and Climate	Sand Point is located on Humboldt Harbor on Popof Island, off the Alaska Peninsula, 570 air miles from Anchorage. It lies at approximately 55.340°N/160.497°W. (Sec. 08, T056S, R073W, Seward Meridian.) Sand Point is in the maritime climate zone. Temperatures range from -9° to 76°F. Snowfall averages 52 inches, with total annual precipitation at 33 inches.
History, Culture, & Demographics	A San Francisco fishing company founded Sand Point in 1898 as a trading post and cod fishing station. Aleuts from surrounding villages and Scandinavian fishermen were the first residents. Sand Point served as a repair and supply center for gold mining during the early 1900s, but fish processing became the dominant activity in the 1930s. The St. Nicholas Chapel, a Russian Orthodox church built in 1933, is now on the National Register of Historical Places. Aleutian Cold Storage built a halibut plant in 1946. The city incorporated in 1966. A federally recognized tribe is located in the community -- the Qagan Tayagungin Tribe. The population of the community consists of 44% Alaska Native or part Native, primarily of Aleut decent. Sand Point is characterized as self-sufficient and progressive, with commercial fishing activities at

	the heart of the local culture. There is a large transient population for fishing and cannery work. Many of the shareholders of Pauloff Harbor and Unga now live in Sand Point.
Economy	Sand Point is home to the largest fishing fleet in the Aleutian Chain. The State provides regional services through public safety, fish and game, and the court system. Trident Seafoods operates a major bottom fish, pollock, salmon and fish meal plant and provides fuel and other services. Peter Pan Seafoods owns a storage and transfer station. Locals participate in subsistence consumption, including fish and caribou, and 116 residents hold commercial fishing permits.

TRANSPORTATION	
Accessibility	Direct flights to Anchorage are available.
Airport Facilities	Sand Point offers a State-owned airport with a 5,213' long by 150' wide paved runway. Runway expansion and airport road paving is planned. CAUTION: an 80 – 120 ft. cliff on east side of runway.
Airline Services	PenAir
Freight	Regular barge services supply the community.
Vessel Support:	Marine facilities include a 25-acre boat harbor with four docks, 134 boat slips, a harbormaster office, barge off-loading area, and a 150-ton lift. The Robert E. Galovin small boat harbor encompasses 25 acres of waterfront with four docks and approximately 130 boat slips. The State Ferry operates bi-monthly between May and October.

FACILITIES & UTILITIES		
Telephone	**Interior Telephone Co**: (1-800-478-3127); **AT&T**:(1-800-288-2020); **GCI:** (1-800-880-4800 / www.gci.net)	**COMMUNICATIONS**
Wireless and Internet	**GCI:** (1-800-880-4800 / www.gci.net); **Arctic Net/TelAlaska, Inc:** (www.arctic.net)	
TV Stations	ARCS	
Radio Stations	KSDP-AM	
Cable Provider	None	
Teleconferencing	Alaska Teleconferencing Network	
Electricity	TDX Power	
Fuel	Diesel, and unleaded gasoline.	
Fuel Storage	Trident Seafoods (841,932 gallons); Shumagin Distributors (1,000 gallons); City of Sand Point (1,000 gallons); Peter Pan Seafoods (1,000 gallons); Reeve Aleutian Airways (1,500 gallons); Aleutian Commercial (2,350 gallons); Sand Point Electric (40,000 gallons)	
Housing	Anchor Inn Motel; Trident Seafoods Inc.; Hodges B&B.	
Water & Sewage	Water is derived from Humbolt Creek and treated. The city operates a piped water and sewer system serving 170 households and 22 businesses; all are fully plumbed. Trident Seafoods has first water rights; the city has requested funds to develop a new groundwater source.	
Miscellaneous	The community has one school, attended by 119 students. Trident Seafoods operates its own power generation facility.	

SPILL RESPONSE SUPPORT *(Contact local officials to determine possibility of using community facilities.)*	
Potential Command Posts	None identified
Potential Staging Areas	None identified
Local Spill Response Equipment	None identified

SHEMYA STATION COMMUNITY PROFILE

Population	27 (2007 DCCED Certified Population)
Borough Located In	Unorganized
Incorporation Type	Unincorporated
Native Entities	N/A

EMERGENCY SERVICES

Emergency services provided by the military.

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

There are not local organization or contacts for this community.

GENERAL

Location and Climate	Eareckson Air Force Station, or Shemya Station, is located on Shemya Island on the western end of the Aleutian Chain, at approximately 52.724°N/174.112°E. (Sec. 14, T086S, R257W, Seward Meridian.) Shemya Station is located in the Aleutian Islands Recording District. Shemya Station is in a maritime climate zone. Average temperatures range from 11° to 65°F. Snowfall averages 41 inches; total annual precipitation is 21 inches.
History, Culture, & Demographics	The entire group of islands was called Semichi by the Russians. Shemya Island is likely the same island called St. Abraham by Vitus Bering in 1741. The air station was developed during World War II as an Army Air base, and later became an Air Force intelligence site. At its peak, Shemya Station housed over 1,100 personnel; by 1980, the workforce had been reduced to 600. Shemya Station was closed in 1995; there is currently a small group of caretakers residing on the base
Economy	Eareckson Air Force Station is closed. Residents are employed under contract as caretakers of the facility.

TRANSPORTATION

Accessibility	Shemya Station is a military base with access strictly controlled by the U.S. Air Force and is restricted to military craft or emergency landings. Visitors must be on official military business to go to Shemya Station.
Airport Facilities	Military permitted only for runway use. Eareckson Air Force Station once maintained a seaplane landing facility; it is restricted to military craft or emergency landings.

FACILITIES & UTILITIES

No community wide facilities or utilities, except for electricity generation by USAF generator, which is operated by USAF and privately.

SPILL RESPONSE SUPPORT

(Contact local officials to determine possibility of using community facilities.)

Potential Command Posts	None identified
Potential Staging Areas	None identified
Local Spill Response Equipment	None identified

UNALASKA/DUTCH HARBOR COMMUNITY PROFILE

Population	4376 (2010 DCCED Certified Population)
Borough Located In	Unorganized
Incorporation Type	1st Class City
Native Entities	**Regional:** Aleut Corporation
	Non-Profit Aleutian Pribilof Island Association, Incorporated
	Profit Ounalashka Corporation
	Village Qawalangin Tribe of Unalaska (Federally Recognized Tribe)

EMERGENCY SERVICES	
State Troopers	Dutch Harbor Post (581-1432)
Police	Unalaska Police Department (581-1233)
Fire	Unalaska Volunteer Fire/EMS (581-1233); Unalaska Search & Rescue Divers (581-1233)
Medical	Iliuliuk Family & Health Services, Inc. (581-1202); Oonalashka Clinic (581-2742)

LOCAL CONTACTS & REGIONAL/STATE ORGANIZATIONS WITH LOCAL OFFICES

ORGANIZATION	ADDRESS	PHONE	WEBSITE/EMAIL
Aleut Corporation	4000 Old Seward Hwy, Suite 300 Anchorage, AK 99503	561-4300 276-3924 (fax)	www.aleutcorp.com receptionist@aleutcorp.com
Aleutian Housing Authority	520 E 32nd Ave Anchorage, AK 99503	563-2146 563-3104 (fax)	www.aleutian-housing.com
Aleutian Pribilof Island Association	1131 E International Airport Rd Anchorage, AK 99518	276-2700 276-4351 (fax)	www.apiai.org
City of Unalaska	PO Box 610 Unalaska, AK 99685	581-1251 581-1417 (fax)	www.ci.unalaska.ak.us cityclerk@ci.unalaska.ak.us
Dutch Harbor Fisherman	550 W International Airport Rd Anchorage, AK 99518	770-0820 770-0822 (fax)	www.thedutchharborfisherman.com
Oualashka Corporation	PO Box 149 Unalaska, AK 99685	581-1276 581-1496 (fax)	www.ounalashka.com
Qawalangin Tribe of Unalaska	PO Box 334 Unalaska, AK 99685	581-2920 581-3644 (fax)	robin.qawalangin@gmail.com
Southeast Alaska Municipal Conference	3300 Arctic Blvd, Suite 203 Anchorage, AK 99503	562-7380 356-1206 (fax)	www.swamc.org

GENERAL

Location and Climate Unalaska overlooks Iliuliuk Bay and Dutch Harbor on Unalaska Island in the Aleutian Chain. It lies 800 air miles from Anchorage, and 1,700 miles northwest of Seattle. The name Dutch Harbor is often applied to the portion of the city on Amaknak Island, which is connected to Unalaska Island by bridge; Dutch Harbor is actually within the boundaries of the City of Unalaska, which lies at approximately 53.874°N/166.537°W. (Sec. 11, T073S, R118W, Seward Meridian.) An arctic maritime climate dominates the area and generates strong winds throughout much of the year. Winter temperatures generally range from 15° to 35°F and summers from 43° to 63°F. Average snowfall is 89 inches, with total annual precipitation of 58 inches.

History, Culture, & Demographics More than 3,000 Unangan (known since the Russian era as "Aleuts") lived in 24 settlements on Unalaska and Amaknak Islands when first visited by the Russians in 1759. Unalaska became a Russian trading port for the fur seal industry in 1768. In 1787, many hunters and their families were enslaved and relocated by the Russian American Company to the Pribilof Islands to work in the fur seal harvest. In 1825, the Russian Orthodox Church of the Holy Ascension of Christ was constructed; the founding priest, Ivan Veniaminov, composed the first Aleut writing system with local assistance and translated scripture into Aleut. Since Aleuts were not forced to give up their language or culture by the Russian Orthodox priests, the church remained strong in the community. By this time, however, between 1830 and 1840, only 200 to 400 Aleuts lived in Unalaska. In 1880, the Methodist Church opened a school, clinic and the Jesse Lee Home for orphans. The City of Unalaska incorporated in March 1942. On June 3, 1942, Unalaska was attacked by the Japanese; in response the US government interned almost all of the Aleuts from the island in Southeast Alaska for the duration of World War II. The Russian Orthodox Church, nearly

	destroyed by evacuating U.S. Army troops, is the oldest Russian Orthodox cruciform-style church in North America. A federally-recognized tribe is located in the community -- the Qawalangin Tribe of Unalaska. The population of the community consists of 9.3% Alaska Native or part Native. Subsistence activities remain important to the Unangan community and many long-term non-Native residents as well. Unalaska has seen rapid growth over the past couple of decades and is now a very culturally-diverse community.
Economy	Unalaska's economy is based on commercial fishing, fish processing, and fleet services, such as fuel, repairs and maintenance, trade and transportation. The community enjoys a strategic position as the center of a rich fishing area and as a way-station for transshipment of cargo between Pacific Rim trading partners. The Great Circle shipping route from major west coast ports to the Pacific Rim passes within 50 miles of Unalaska, and Dutch Harbor provides natural protection for fishing vessels and others seeking refuge from foul weather. Onshore and offshore processors provide some local employment, but a significant number of non-resident workers are brought in during the peak season. Westward, UniSea, Alyeska, Icicle, Trident and Harbor Crown Seafoods process the commercial catch. Fifty residents hold commercial fishing permits. Unalaska has a budding tourist industry and a new convention and visitor's bureau. The city boasts two new and highly-praised facilities, the Museum of the Aleutians and the Aleutian WWII Visitors Center, which is part of the Aleutian World War II National Historical Park.

TRANSPORTATION	
Accessibility	Daily scheduled flights serve the community. The State Ferry operates bi-monthly from Kodiak between April and October.
Airport Facilities	State-owned 4100' long by 100' wide paved runway; a seaplane base is also available.
Airline Services	Scheduled and charter airline from Anchorage.
Freight	There are ten major docks in Unalaska; three are operated by the city.
Vessel Support:	A refurbished World War II submarine dock offers ship repair services. The International Port of Dutch Harbor serves fishing and shipping vessels, with 5,200 feet of moorage and 1,232 feet of floating dock. The small boat harbor provides 238 moorage slips. The Carl E. Moses Boat Harbor has 52 slips available for vessels up to 150 feet. .

FACILITIES & UTILITIES		
Telephone	**Interior Telephone Co**: (1-800-478-3127); **AT&T**:(1-800-288-2020); **GCI:** (1-800-880-4800 / www.gci.net)	**COMMUNICATIONS**
Wireless and Internet	**GCI:** (1-800-880-4800 /www.gci.net); **Arctic Net/TelAlaska, Inc:** (www.arctic.net)	
TV Stations	ARCS; KIAL; K081W-LPTV	
Radio Stations	KIAL-AM; KSKA-FM	
Cable Provider	Eyecom Inc./TelAlaska	
Teleconferencing	Alaska Teleconferencing Network	
Electricity	Unalaska Electric Utility	
Fuel	Diesel, propane, Jet A, and unleaded gasoline.	
Fuel Storage (Total Capacity)	Delta Western (6,462,492 gallons); North Pacific Fuel (2,445,492 gallons); Westward Seafood (1,023,876 gallons); Capt. Bay (2,520,000 gallons); Resoff (2,661,036 gallons); Offshore Systems 3,287 gallons)	
Housing	The Grand Aleutian and UniSea Inn (581-7307or 581-3844); Carl's Hotel (581-1230)	
Water & Sewage	A new reservoir at Icy Creek and a dam at Pyramid and Unalaska Creeks supply water, which is chlorinated and stored in a tank. The city seeks to construct a 2-million-gallon back-up storage tank above Ballyhoo Road. All homes and on-shore fish processors are served by the city's piped water system. Piped sewage receives primary treatment before discharge into Unalaska Bay. Nearly all households have plumbing; a few homes use septic tanks or privies.	
Miscellaneous	The community has two schools, attended by 389 students. The city has a new Class-1 lined 6-acre landfill and baler; recycling and hazardous waste disposal is provided. All on-shore processors generate their own electrical power.	

SPILL RESPONSE SUPPORT

(Contact local officials to determine possibility of using community facilities.)

Potential Command Posts	The **Grand Aleutian Hotel** has a large ballroom and several small conference spaces suitable for a type 2 incident command post. Communications to include telephone and wifi are minimal, external resources will need to be brought in for any major response. Contact the Grand Aleutian at (907) 581-3844. www.grandaleutian.com . The **City of Unalaska Public Safety Building** is serves as the city's emergency operations center and is another potential incident command post. This facility has eight dedicated laptops, four phone lines and both wired and wireless internet. For use, contact city manager Jamie Sunderland at (907) 581-1233.
Potential Staging Areas	None identified
Local Spill Response Equipment	None identified

RESOURCES: PART TWO – EQUIPMENT

This section highlights the major resources and quantities of response-related equipment that may be available for the Prince William Sound subarea. Summary information such as this will be valuable during spill response planning and especially during actual spill responses. The listing provides information on both local resources and those resources that may be available from outside the immediate area since a significant spill event would most likely require resources from other locations. For more detailed equipment inventories for the other regions of the state, consult the appropriate Subarea Contingency Plan (SCP) for the particular region. Also, see the *Unified Plan, Annex E, Appendix I: Equipment*, for general information on Alaska.

Actual availability of equipment will depend upon contractual arrangements and agreements between the party owning the equipment and the party desiring to purchase or use the equipment. No prior permission or arrangement for the use of this equipment is implied or granted by the inclusion of any organization's equipment, whether federal, state, local, or privately owned. Equipment listings are as follows:

COMMERCIALLY AVAILABLE EQUIPMENT

1. Vessels
2. Boom
3. Skimmers
4. Miscellaneous

NON-COMMERCIALLY AVAILABLE EQUIPMENT

INDUSTRY SPILL COOPERATIVE EQUIPMENT

A. COMMERCIALLY AVAILABLE EQUIPMENT

1. Vessels

The following table provides a list of towing companies within the subarea. Due to the relatively low number of in-region tug operators, it may be necessary to mobilize vessels from outside the subarea. There are numerous towing vessels that operate transiently in/out and around the Aleutians at any given time throughout the year. Subarea plans for other Alaskan regions may provide additional references.

Tug Inventory

Location	Name	Operator	Phone	Horsepower	L/B/D (FT)
Unalaska	James Dunlap (**Emergency Tow-gear stored on-board**)	Dunlap Towing www.dunlaptowing.com	581-2733	4300	101/36/19.5
Unalaska	Saratoga	Dunlap Towing www.dunlaptowing.com	581-2733	950	59.5/18/8
Unalaska	Undaunted	Dunlap Towing www.dunlaptowing.com	581-2733	730	51/14/6
Unalaska	UTB Redeemer (Stern Ramp & Crane)	Magone Marine Services www.magonemarine.com	581-1400	1550	132/30/12.7
Unalaska	Resolve Pioneer	Resolve Marine	581-1400	5750	207/40/17
Unalaska	Gyrfalcon	Pacific Coast Marine www.harleymarine.com	581-1664	4000	100.5/34/17
Aleutians Route	Noatak	Delta Western www.deltawestern.com	276-2688	900	76.4/21.2/8.8
Aleutians Route	Tug Chukchi Sea	Kirby Offshore Marine www.kirbycorp.com	206-443-9418	2250	96/26/8.6
Aleutians Route	Tug Paragon	Kirby Offshore Marine www.kirbycorp.com	206-443-9418	3000	105/32/15.3
Aleutians Route	Tug Pacific Raven	Kirby Offshore Marine www.kirbycorp.com	206-443-9418	3000	120/31/13.6
Aleutians Route	Tug Na Hoku	Kirby Offshore Marine www.kirbycorp.com	206-443-9418	4000	105/30/13.9
Aleutians Route	Tug Pacific Challenger	Kirby Offshore Marine www.kirbycorp.com	206-443-9418	3000	117.6/34.2/16.2

Barge Inventory

Location	Barge Name	Operator	Phone	Barge Type	L/B/D (FT)	Remarks
Unalaska	Kashega	Magone Marine Services www.magonemarine.com	581-1400	Ramp Barge	200/51.9/15	Non self-propelled – Excellent for shallow & close-quarter situations.
Unalaska	Small Barge	Magone Marine Services www.magonemarine.com	581-1400	Deck Barge	60/24/7	

Location	Barge Name	Operator	Phone	Barge Type	L/B/D (FT)	Remarks
Aleutians Route	OB-6	Delta Western www.deltawestern.com	276-2688	T/B	175.3/44/7.33	Capacity: 7600Bbls
Aleutians Route	SCT 180	Kirby Offshore Marine www.kirbycorp.com	206-443-9418	T/B	180/54/12.6	Capacity: 14,548Bbls (98%)
Aleutians Route	344	Kirby Offshore Marine www.kirbycorp.com	206-443-9418	T/B	330/86/20.9	Capacity: 73,700Bbls (98%)
Aleutians Route	340	Kirby Offshore Marine www.kirbycorp.com	206-443-9418	T/B	330/86/20.9	Capacity: 68,279Bbls (95%)
Aleutians Route	Noho Hele	Kirby Offshore Marine www.kirbycorp.com	206-443-9418	T/B	325/78/19	Capacity: 67,880Bbls (98%)
Aleutians Route	SCT 282	Kirby Offshore Marine www.kirbycorp.com	206-443-9418	T/B	282/78/18.3	Capacity: 49,209Bbls (98%)
Adak	8503	Aleut Enterprise Corp		T/B		Dedicated spill response/recovery

Workboat Inventory

Location	Vessel Name	Operator	Phone	Vessel Type	L/B/D (FT)	Remarks
Unalaska	Makushin	Magone Marine Services www.magonemarine.com	581-1400	Ex-F/V	130/33/9.5	1200hp – Open deck w/crane
Unalaska	Western Viking	Magone Marine Services www.magonemarine.com	581-1400	Ex-F/V – Similar to Makushin		????hp – Open deck w/crane.
Unalaska	Joshua	Magone Marine Services www.magonemarine.com	581-1400	Landing Craft (LCM)	68/20/5.5	780hp – No crane

2. Boom Equipment

Boom Inventory

Owner	Location	Type/Size	Length (Ft)
Trident Seafood	Sand Point		2240
Frosty Fuels	Cold Bay		1500
Peter Pan S-foods	Port Moller		320
Peter Pan S-foods	False Pass		300
Trident Seafood	Akutan		1000
Industry/AK/USCG	Unalaska	1000ft Harbor Boom 300ft Offshore Boom	14500
Aleut Corporation	Adak		12000
Delta Western/USCG	St. George		1150
Industry/USCG	St. Paul		4000

3. Skimmers

Skimmer Inventory

Owner	Location	Contact	Type	Qty
Trident Seafood	Sand Point			1
Frosty Fuels	Cold Bay			1
Industry/AK/USCG	Unalaska			5
Aleut Corporation	Adak			3
Delta Western/USCG	St, George			1
Industry/USCG	St. Paul			2

4. Miscellaneous

Specialty Equipment

Category	Vendor	Description	Location	Contact
*Aleutian Islands Emergency Towing System		1 Large (>50,000DWT) & 1 Small (<50,000DWT) Unitized Emergency Towing Systems available for rapid deployment via vessel or helicopter.	Dutch Harbor	Harbor Master 581-1251
Dry Dock/Haul-out Barge	Magone Marine Services www.magonemarine.com	Only dry haul-out available in Aleutians. Capacities:	Dutch Harbor	581-1400
Recovered Oil Storage	Industry/AK/USCG	Capacity: 14400 gals	Unalaska	
Recovered Oil Storage	Aleut Corporation	Capacity: 168000 gals	Adak	
Recovered Oil Storage	Industry/USCG	Capacity: 1140 gals	St. Paul	

*** Emergency Towing System (ETS):** Complete Procedures Manual: components inventory, storage locations, step by step activation and mobilization procedures, along with decon, maintenance and training requirements. Access Manual at: www.dec.alaska.gov/spar/perp/ets/index.htm

Following several incidents in the Unalaska Island vicinity, The Mayor of Unalaska, in cooperation with ADEC, USCG, the marine pilots association, and other organizations launched an initiative in 2007 to pre-position ETS at Dutch Harbor. The ETS consists of a towline capable of towing a distressed vessel, a messenger line to assist in deploying the towline, a line-launcher, a buoy, and chaffing gear. The ETS may be deployed to a disabled ship from the stern of a tugboat or airdropped to the deck of the ship via helicopter. Two ETS have been purchased to cover most vessels found in the Aleutian Islands. The City of Unalaska has purchased a system suitable for vessels up to 50,000 DWT and the ADEC has purchased a system capable of towing vessels greater than 50,000 DWT.

B. NON-COMMERCIALLY AVAILABLE EQUIPMENT

1. USCG Maintained Equipment

USCG owns and maintains several conex containers equipped with spill response equipment. Standard USCG equipment available for spill response are located in Anchorage, Homer, Dutch Harbor, as well as through other USCG Marine Safety Detachments. Equipment types and inventory at these locations are similar to the types and amount listed throughout the Resources Section. The equipment is intended as a “first-aid” emergency response measure, and is not intended to compete with commercial sources.

Request for use of USCG pre-positioned emergency response equipment should be made to the contact listed in the below table (primary) or the USCG Seventeenth District Response Advisory Team (DRAT) (secondary) at 463-2807. Current inventories can be found on D-17 DRAT website: www.uscg.mil/d17/D17%20Divisions/drm/DRAT/DRATpage.asp

Response Equipment Contacts

Organization	Address	Phone
Sector Anchorage	PO Box 5800 JBER, AK 99505	428-4200
MSD Homer	104 E Pioneer Ave #2 Homer, AK 99603	235-3292
MSD Kodiak	326 Center Ave, Suite 107 Kodiak, AK 99615	486-5918

The USCG Captain of the Port (COTP) is the pre-designated FOSC for the Coastal Zone which encompasses all navigable waters seaward of the mean high tide line and an area of shoreline 1,000 yards inland of the coastline. The Environmental Protection Agency is the predesignated FOSC for the Inland Zone which encompasses all lands, rivers, streams, and drainage inland of the 1,000-yard wide band which parallels the Alaskan coastline. These zones are clearly defined in the *Unified Plan*. It is possible that incidents may occur in locations that do not fall under federal jurisdiction and there will be no FOSC in these instances. The EPA and USCG have a Memoranda of Understanding (see Annex K of the *Unified Plan* for a copy of the MOU) that delineates agency and FOSC responsibilities. Either agency may request resources (personnel and equipment) from the other for spill response.

Standard USCG equipment that may be available for spill response includes:

- Anchoring Systems
- Generators
- Pumps
- Boom
- Sorbent Material
- Portable Storage containers
- Personal Protective Equipment (PPE)
- Vessels (Various design)

Contact the offices listed below for specific equipment available and mobilization options. Generally, government transport is not available, and commercial vendors will need to be contracted for equipment transport.

USCG Pre-Positioned Response Equipment in the Aleutians

Site	Location	Contents	Access Contact
King Cove	Harbormaster warehouse	PPE, containment boom, anchor, sorbents	Sector Anchorage 428-4200
Unalaska	USCG pier	PPE, containment boom, anchors, sorbents, generator, pumps, hoses, skimmers, temp storage	MSD Unalaska 581-3466
St George	Next to small boat harbor	PPE, sorbents	Sector Anchorage 428-4200
St Paul	Near harbormaster, next to NOAA boxes	PPE, containment boom, anchor, sorbents, pumps, skimmer, temporary storage	Sector Anchorage 428-4200

2. ADEC Maintained Equipment

Community Spill Response Agreements (CSRA)ADEC has entered into formal agreements with communities in Alaska whereby the community may be requested to take initial response actions for a spill in the local area (other than those caused by the community). ADEC will reimburse the community for costs incurred in responding to the spill and any containment and recovery actions involved. These local response agreements are intended to maximize the use of existing local resources, provide proper reimbursement, and, where appropriate, provide training in the use of response equipment.

CSRA Contacts

Community with CSRA	Community Contact	
	Title	Phone
King Cove	Mayor	497-2309
St. Paul	City Manager	546-3010 or 546-3113
Unalaska	Port Director	581-1251

Spill Response Containers: Many Alaskan communities are isolated from the larger population centers where spill response equipment is likely to be available. This is especially true in the Aleutian Islands where many communities are widely separated and reached only by vessel or airplane. To enhance the State's response capability and to assist these remote communities, ADEC has pre-staged packages of spill response materials and equipment. In the Aleutians Subarea, ADEC positioned a spill response container at King Cove and Unalaska. These local equipment response packages provide an immediate on-site response capability that can be accessed by trained personnel in a timely manner. Most of the packages are designed to assist in the initial response and cleanup of non-persistent oil spills in harbor areas.

ADEC Conex Contact Information

Conex Locations	Contact Title	Phone
King Cove	Mayor	497-2309
St. Paul	City Manager	546-3010 or 546-3113
Unalaska	Port Director	581-1251

ADEC Spill Response Container Inventory *(listed are the typical contents stored within a conex, but the inventory of each conex may vary)*	
Description	Quantity
Boom (with towing bridle assembly)	1 25-ft section ; 2-50ft sections
Boom Support Equipment (anchors, chains, rope, snap hooks)	assorted
85-gallon overpack drums	2
85 gallon drum liners	30
Standard drum plug wrench (min. 15" in length)	1
100' x 100' 20 mil plastic liner	1
Personal Protective Equipment (PPE)	assorted
Static resistant sorbent pads	2 bundles
Oil sorbent sheets (bundles)	10 bundles
Oil sorbent boom (bundles)	4 bundles
Loose absorbent material	2 bags
Sorbent pad hand wringer - rustproof, steel frame	1
500 gallon storage tank, polyethylene, skid mounted	1
Tools (shovels, sledge hammer, rebar)	assorted

C. INDUSTRY SPILL COOPERATIVE EQUIPMENT

Industry Equipment

There is a limited amount of industry equipment in the Aleutians Subarea. Vessels and facilities operating in the subarea are required to have a minimum amount of equipment to comply with the contingency or response plan required for their operation by the State or Federal government, However, in the event of a large spill, additional equipment from outside the subarea will be necessary.

Alaska Spill Cooperatives: In the event of a spill in these areas, the industry spill response cooperative, Alaska Chadux Corporation (ACC), would provide much of the required response equipment, but industry equipment may be available. Particularly when the company is the responsible party. However, not all facilities have arrangements with ACC for response support. Please visit ACC's website (www.chadux.com) for a summary of spill response assets.

Spill Response Cooperatives

Organization	Address	Phone	Website
Alaska Chadux Corporation (ACC)	2347 Azurite Court Anchorage, AK 99507	348-2365	www.chadux.com
Cook Inlet Spill Prevent and Response Inc. (CISPRI)	PO Box 7314 Nikiski, AK 99635	776-5129	www.cispri.org
Alyeska Pipeline Service Company/Ship Escort Response Vessel System (APSC/SERVS)	PO Box 109 Valdez, AK 99686	834-6902	www.alyeska-pipe.com
Alaska Clean Seas (ACS)	4720 Business Park Blvd #42 Anchorage, AK 99503	659-2405	www.alaskacleanseas.org
Southeast Alaska Petroleum Resource Organization (SEAPRO)	540 Water Street, Suite 201 Ketchikan, AK 99901	225-7002	www.seapro.org

U.S. Navy Supervisor of Salvage (NAVSUPSALV)

NAVSUPSALV has a large oil spill response and salvage cache located and geared at offshore response. Spill Response Equipment requests for NAVSUPSALV support should be made through the Alaska RRT at 384-2968. Refer to the *Unified Plan, Annex E, Appendix 1* for losing of NAVSUPSALV equipment. Website: http://www.supsalv.org/00C25_equipment.asp?destPage=00c25&pageId=25.1

Other Department of Defense (DOD) Spill Response Equipment

All request for DOD assets shall be made through the FOSC. The FOSC will forward the request to the USCG D17 Command Center, who will liaison with ALCOM. Funding for all DOD assets will be provided through the OSLTF. If DOD assets are employed in a response, representatives from DOD shall be included in the incident command structure. Actual availability of equipment will depend on contractual arrangements and agreements between the party owning the equipment and the party desiring to purchase or use the equipment. No prior permission or arrangement for the use of this equipment is implied or granted by the inclusion of any organization's equipment, whether federal, state, local, or privately owned.

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RESOURCES: PART THREE – INFORMATION DIRECTORY

A. AIRPORTS AND AIR SERVICES

The first table below provides brief information listing of airports and landing strips in the Aleutians Subarea. The websites listed below can offer a much wider array of information and airport details, including, in some cases, diagrams and aerial photos. The second table below offers a listing of aircraft companies operating in the Aleutians Subarea. For current runway status, refer to the latest edition of the AK Supplement to the NOAA flight information publication. Additional local information may be available by checking specific community information located in *Part One- Community Profiles* of this section.

Websites Providing Aviation/Airports Information: At the Air Line Data for the Well Informed website, by Data Base Products, information and links (often to www.airnav.com) are provided for airports, including seaplane landing spaces, throughout the State of Alaska: www.airlinedata.com

The airnav.com website offers information and useful details on various airport aspects and services availability: www.airnav.com/airports/

The *GCR & Associates, inc.* website provides unedited information with data derived from the National Flight Data Center FAA Airport Master Record (Form 5010): www.gcr1.com/5010web/

The Alaska DOT provides rural airport information, including a link to diagrams and aerial photos of selected airports: www.dot.alaska.gov/stwdav/

The Federal Aviation Administration Alaska Region website offers airport diagrams and aerial photographs: http://www.faa.gov/airports/alaskan/

Airports/Landing Strips within Aleutians Subarea

Location	Runway Length (feet)	Runway Composition; Lighting	Emergency Fuel	Attendance/Phone
Adak	7,790	Asphalt; Lights		Attended (0800-1600); 592-8026
Akutan	10,000	Water	None	Unattended
Atka	4,500	Asphalt; Lights	None	Unattended; 581-1786
Attu Station	5,998	Asphalt; Lights	None	Abandoned; No services
Cold Bay	10,180	Asphalt - Grooved; Lights	100 LL, Jet-A	Attended; 532-5000
False Pass	2,150	Gravel	None	Unattended; 532-5000
King Cove	3,500	Gravel; Lights	None	Unattended; 532-5000
Mitchell Field (Adak)	4,045	Gravel	None	Abandoned
Nelson Lagoon	4,003	Gravel; Lights	100LL	Unattended; 532-5000
Nikolski (Private)	3,512	Gravel	None	Unattended; (314)-263-8041
Pauloff Harbor	3,000	Water	None	Unattended
Saint George	4,980	Asphalt/Grooved; Lights	Jet A	Unattended; 859-2718
Saint Paul	6,500	Asphalt/Grooved; Lights	Jet A	Unattended; 546-5000
Sand Point	5,213	Asphalt/Grooved; Lights	Jet A	Unattended; 532-5000
Shemya, Eareckson AFB (Need permission to land)	10,000	Asphalt/Grooved; Lights	JP-8	Attended (Mon-Wed-Fri 2000-2359); 392-3606
Unalaska/Dutch Harbor	4,100	Asphalt; Lights	100LL Jet A	Attended (0800-1600); 581-1786

Air Service Companies Available For Transportation

A listing of air service companies providing services to specific communities is located in *Part One – Community Profiles* at the beginning of this section, under each community. This information is extracted from the Alaska Department of Commerce, Community and Economic Development's Community Database: www.commerce.alaska.gov/cra/DCRAExternal/

Air Service Companies

Airline	Phone	Website
Alaska Airlines	800-252-7522	www.alaskaair.com
PenAir	243-2323	www.penair.com/

B. BIRDS AND OTHER WILDLIFE

Guidance for determining how to deal with oiled or potentially-oiled wildlife is found in Annex G of the Unified Plan*, Wildlife Protection Guidelines for Alaska* (Guidelines). For example, the Guidelines include contact information for wildlife resource agencies by wildlife species (Appendix 26); information on factors that need to be considered when determining when to begin and end a wildlife capture and treatment program (Appendix 1); permits and/or authorization required for wildlife response activities (Appendix 16); entities in Alaska with equipment and materials stockpiled for wildlife response activities (Appendix 21); and checklists for requesting authorization to conduct wildlife deterrence and/or wildlife capture, stabilization, transportation and treatment (Appendices 24 & 25).

The Pribilofs Wildlife Protection Guidelines are also available and included as part of the *Sensitive Areas Section* of this plan.

Questions regarding oiled or potentially-oiled wildlife preparedness and response activities should be directed to:

U.S. Department of the Interior……271-5011
Office of Environmental Policy and Compliance

U.S. Department of Commerce…….271-5006
National Marine Fisheries Service

Alaska Department of Fish and Game……..267-2342
Habitat Division

C. CONTRACTORS: BOA AND TERM

Federal Basic Ordering Agreement (BOA) Contractors

The EPA and USCG maintain Basic Ordering Agreements (BOAs) with contractors for providing services, supplies, and equipment to contain, cleanup, and/or mitigate the harmful effects of spilled petroleum products and hazardous substances during emergencies. Only authorized Contracting Officers or the

FOSC may issue Delivery Orders under a BOA. Requests for information regarding BOAs should be made through the FOSC.

State Term Contractors

ADEC maintains "term" contracts with several companies and consulting firms for providing needed expertise and assistance during responses to oils spills and hazardous substance releases. These contracts can be activated by the issuance of a Notice To Proceed by the ADEC Contract Manager or the SOSC. Refer to *Unified Plan, Annex E, Appendix III, Tab X* for a listing of the companies holding a term contract with the State of Alaska.

D. HISTORIC PROPERTIES PROTECTION

Guidance for ensuring that preparedness and emergency response activities account for historic properties protection is provided in the *Alaska Implementation Guidelines for Federal On-Scene Coordinators for the Programmatic Agreement on Protection of Historic Properties during Emergency Response under the National Oil and Hazardous Substances Pollution Contingency Plan.* This document is available on the Alaska RRT website at www.alaskarrt.org/files/AK_Implementation_Guidelines.pdf. For example, Attachment 5 of the guidelines outlines the procedure for Federal On-Scene Coordinators (FOSCs) to determine when to activate a Historic Properties Specialist following an oil discharge or hazardous substance release.

Questions about historic properties preparedness and response activities should be directed to:

Alaska Department of Natural Resources……269-8721
State Historic Preservation Office (SHPO)

U.S. Department of the Interior……..271-5011
Office of Environmental Policy and Compliance

Refer to the *Unified Plan, Annex M* for historical and cultural resource information.

E. EMERGENCY SERVICES/MANAGERS

Emergency phone numbers for police, fire, and medical for each town and village in the Aleutians Subarea are listed together in the *Response Section* and individually by village/city at the beginning of this section in *Part One – Community Profiles.* A statewide listing of emergency managers is available in the *Unified Plan, Annex E, Appendix III, Tab T***.**

Borough Emergency Management
Aleutians East Borough, Community Development Director……276-7569

Alaska State Troopers
King Salmon Post……246-3464

Dillingham Post……842-5641

Unalaska/Dutch Harbor Post……581-1432

F. FISHING FLEETS AND ORGANIZATIONS

Organization	Address	Phone	Fax
Aleutian Pribilof Island Community Development Association	509 West 3rd Ave, Suite 101 Anchorage, AK 99501	929-5273 1-800-927-4232	929-5275
Central Bering Sea Fisherman's Association	PO Box 288 Saint Paul, AK 99660	546-2597	546-2450

G. GOVERNMENT CONTACTS AND INFORMATION

Federal:

All pertinent emergency response contact information for U.S. government offices is provided at the beginning of this plan in the *Response Section*. For questions specifically concerning this plan and federal involvement, contact the following:

Environmental Protection Agency — *Phone:* 271-3414, *Fax:* 271-1274

USCG Sector Anchorage — *Phone:* 428-4200, *Fax:* 428-4218

State:

All pertinent emergency response contact information for State of Alaska government offices is provided at the beginning of this plan in the *Response Section*. For questions specifically concerning this plan and State involvement, contact the following:

Alaska Department of Environmental Conservation — *Phone:* 269-7682, *Fax:* 269-7648

Local:

Local government information can be found by consulting *Part One – Community Profiles* of this section.

Information on Native organizations and Tribal governments can be found in the community profiles as well as in this part at *subpart N. Native Organizations and Federally-Recognized Tribes.*

For general information concerning the development of this plan and specific government involvement, please refer to the *Background Sectio*n of this plan.

H. HOSPITALS

Check individual towns and villages in *Part One - Community Profiles* to see what medical facilities may be available. For oil or chemically contaminated victims, check immediately with the hospital for any pre-decontamination requirements.

Clinics within the Aleutians Subarea

Location	Phone #
Adak - Adak Medical Clinic	592-8383
Akutan - Anesia Kudrin Memorial Clinic	698-2208
Atka - Atka Village Clinic	839-2232
Cold Bay - Livingston Memorial Clinic	532-2000
Cold Bay - Port Moller Medical Clinic (seasonal)	987-2207
False Pass – Anne Hoblet Memorial Clinic	548-2742
Nelson Lagoon - Nelson Lagoon Clinic	989-2202
Nikolski - Nikolski Health Clinic	576-2204
St. George - St. George Clinic	859-2254
St. Paul - St. Paul Health Clinic	546-8300
Sand Point - Sand Point Medical Clinic	383-3151
Dutch Harbor - Iliuliuk Family & Health Services, Inc.	581-1202
Unalaska - Oonalaska Clinic	581-2742

I. INTAKE WATER-USE FACILITIES

Refer to the *Sensitive Areas Section* of this plan for specific water intake and use facilities.

J. NOT USED

K. NOT USED

L. LABORATORIES

For a statewide listing of laboratories, refer to the *Unified Plan, Annex E, Appendix III, Tab K*.

M. MEDIA

Wire Services

Name	Address	Phone	Fax
Associated Press	750 W 2nd Ave, Suite 102 Anchorage, AK 99501	272-7549	274-8189
Reuters	3400 Purdue St Anchorage, AK 99508	349-4588	349-4589

Newspapers

Name	Address	Phone	Fax
Alaska Dispatch	300 W. 31st Ave Anchorage, AK 99501	257-4200	258-2157

Television

Name	**Address**	**Phone**	**Fax**
Adak Provider - Adak Cablevision	2918 Ambergate Dr. Anchorage, AK 99504	258-9952	
Akutan Provider-City of Akutan	P.O. Box 109 Akutan, AK 99553	698-2228	698-2202
Atka Provider - Atxam Village Corporation	P.O. Box 47001 Atka, AK 99547	839-2237	839-2234
King Cove-King Cove Corporation	P.O. Box 38 King Cove, AK 99612	497-2312	497-2224
Nikolski Provider - Nikolski IRA Council	P.O. Box 105 Nikolski, AK 99638	576-2225	576-2205
St. George Provider-St. George Traditional Council	1 Zapadni Rd. St. George, AK 99591	859-2205	
St. Paul Provider - TDX Corporation, Dish Network	P.O. Box 88 St. Paul, AK 99660	546-2312	546-2366
Dutch Harbor/Unalaska Provider - Eyecom Inc., TelAlaska	King Cove, AK 99612	497-8638	

Radio

Name	Address	Phone	Fax
KDLG (Cold Bay, False Pass, Nelson Lagoon, and King Cove)	Dillingham, AK 99576	842-5281	842-1670
KSDP (Cold Bay, King Cove, and Sand Point)	P.O. Box 328 Sand Point, AK 99661	383-5737	
KUHB (St. George and St. Paul)	P.O. Box 1 St. Paul, AK 99660	546-2254	
KNOM (St. Geroge)	Nome, AK 99762	443-5221	443-5757
KIAL (Unalaska/Dutch Harbor)	Unalaska, AK 99685	581-6770	

N. ALASKA NATIVE ORGANIZATIONS AND FEDERALLY-RECOGNIZED TRIBES

REGIONAL NATIVE CORPORATIONS

Regional Native Corporations

CORPORATIONS	ADDRESS	PHONE/FAX	EMAIL/WEBSITE
The Aleut Corporation	4000 Old Seward Highway Ste. 300, Anchorage, Alaska 99503	561-4300 Fax 563-4328	www.aleutcorp.com

Refer to the *Unified Plan, Annex E, Tab 1* for a complete listing of Native corporations in the state.

The Department of Commerce, Community and Economic Development located in Anchorage (563-1073) maintains a complete listing of villages and village corporations associated with the Municipal Lands Trustee (MLT) Program.

FEDERALLY RECOGNIZED TRIBES IN THE ALEUTIANS SUBAREA:

The following table provides the names and contact information for the Federally-Recognized Native Tribes in the Aleutians Subarea as listed in the U.S. Federal Register, July 12, 2002. A list of federally-recognized tribes is posted annually in the Federal Register, and may be viewed on line at: www.federalregister.gov

For additional tribal information, visit the following websites:

EPA Region 10 Tribal Program: www.yosemite.epa.gov/r10/tribal.NSF
Bureau of Indian Affairs: www.bia.gov/index.htm
Aleutian Pribilof Islands Association: www.apiai.com

Federally Recognized Tribes

Tribe	Address	Phone	Fax
Agdaagux Tribe of King Cove	P.O. Box 249 King Cove, AK 99612	497-2648	497-2803
Akutan Traditional Council	P.O. Box 89 Akutan, AK 99553	698-2300	698-2301
Native Village of Atka	P.O. Box 47030 Atka, AK 99547	839-2229	839-2269
Native Village of Belkofski	P.O. Box 57 King Cove, AK 99612	497-3122	497-3123
Native Village of False Pass	P.O. Box 29 False Pass, AK 99583	548-2227	548-2256
Native Village of Nelson Lagoon	P.O. Box 13-NLG Nelson Lagoon, AK 99571	989-2204	989-2233
Native Village of Nikolski	P.O. Box 105 Nikolski, AK 99638	576-2225	576-2205
Pauloff Harbor Village	P.O. Box 97 Sand Point, AK 99661	383-6075	383-6094
Qawalangin Tribe of Unalaska	P.O. Box 334 Unalaska, AK 99685	581-2920	581-3644
Saint George Traditional Council	P.O. Box 940 St. George, AK 99591	859-2205	859-2242
Pribilof Islands Aleut Community of St. Paul Tribal Government	P.O. Box 86 St. Paul Island, AK 99660	546-3200	546-3254

Qagan Tayagungin Tribe of Sand Point Village	100 Main St., Ste 3 Sand Point, AK 99661	383-6968	383-5814
Native Village of Unga	P.O. Box 508 Sand Point, AK 99661	383-2415	383-5553

Additional Information on Tribes and Native Organizations

Aleutian Pribilof Islands Association
1131 East International Airport Rd. Anchorage, Alaska 99518
Phone: 276-2700; Fax: 279-4351; E-mail: apiai@apiai.org

O. ORGANIZATIONS: ENVIRONMENTAL, HEALTH, AND VOLUNTEER

Environmental:

Refer to the environmental interest groups listing in the *Unified Plan, Annex E, Appendix III, Tab M* for a statewide listing of environmental organizations.

Health:

Refer to the environmental interest groups listing in the *Unified Plan, Annex E, Appendix III, Tab M* for a statewide listing of health organization.

Volunteer:

Refer to the volunteer organizations section in the *Unified Plan, Annex E, Annex E, Appendix III, Tab R* for a statewide listing of applicable organizations.

P. PORT AUTHORITIES, HARBOR MASTERS, AND MARINE PILOTS

Port Authorities & Harbor Masters

Name	Address	Phone	Fax
Port of Adak	P.O. Box 2071 Adak AK 99546	592-0185	592-0184
St. Paul	PO Box 901 St. Paul AK 99660	546-3140	546-3186
Atka	PO Box 47070 Atka AK 99547	839-2233	839-2234
Port of Cold Bay	P.O. Box 10 Cold Bay AK 99571	532-2684	532-2671
King Cove	PO Box 37 King Cove, AK 99612	497-2237	497-2649
Saint George	PO Box 929 St. George, AK 99591	859-2711	859-2212
Akutan	P.O. Box 109 Akutan, AK 99553	698-2265	

Marine Pilot Associations

Name	Contact Information	Phone
Alaska Marine Pilots Association	6709 Snow Goose Circle Anchorage, AK 99502	248-2436
Alaska Marine Pilots Service	176 Kashega Drive Dutch Harbor, AK 99692	581-1240

A statewide listing of marine pilot associations is available in the *Unified Plan, Annex E, Appendix III, Tab F.*

Q. NOT USED

R. RESPONSE AGREEMENTS

STATE AND LOCAL

- **Community Spill Response Agreements (CSRA):** ADEC has CSRAs with over forty boroughs and municipalities across Alaska. The CSRA allow ADEC to reimburse local governments for spill response activities undertaken at the request of the SOSC. (ADEC can activate a "generic" agreement in emergency response situations to allow for the reimbursement of communities that lack a signed CSRA.) In the Aleutians Subarea, ADEC has signed agreements with Dutch Harbor/Unalaska and King Cove.

- **Local Spill Response Equipment Containers:** ADEC has identified over forty strategic locations throughout Alaska for the pre-placement of spill response equipment caches and has worked with local communities to position them. In the Aleutians Subarea, ADEC has placed an equipment container at Dutch Harbor and King Cove. A listing of equipment contained in a typical conex is available in *Part Two – Equipment, B. Non-Commercially Available Equipment*.

- **Hazardous Materials Response:** Since few communities have the financial or personnel resources to maintain a Level A/Level B hazardous materials response team, ADEC has entered into agreements with the Municipality of Anchorage, Fairbanks North Star Borough, City of Kodiak, City of Ketchikan and City & Borough of Juneau to have their hazmat teams respond to incidents outside of their jurisdiction when practicable. Further information on these agreements in the *Hazmat Section* of this plan.

STATE AND FEDERAL

State and federal agencies have signed agreements supporting the cooperative efforts they will take with each other during an emergency response to an oil spill or hazmat release. These agreements can establish jurisdictional boundaries, outline responsibilities, clarify roles, and/or specify conditions of support. Copies of these Memoranda of Understanding and Memoranda of Agreement can be found in the *Unified Plan, Annex K*.

S. SALVAGE AND TOWING COMPANIES

The below table lists salvage and diving companies within the Aleutians Subarea. Companies may also be mobilized from other regions of the state to provide diving and salvage services.

Salvage Companies

Salvage & Diving Companies	Location	Phone Number	BOA?	Capabilities
Resolve-Magone Marine Services www.magonemarine.com	Dutch Harbor	581-1400	Yes	Diving, salvage, towing, support vessels

T. FEDERAL AND STATE NATURAL RESOURCE TRUSTEE EMERGENCY CONTACTS

A current list of State and Federal Natural Resource Trustees Is available on the Alaska Regional Response Team website:
www.alaskarrt.org/files/Trustee%20Emergency%20Contacts%20_Oct%202011_.pdf

U. NOT USED

V. VEHICLES

See the local Phone Book/Yellow Pages for up-to-date listings of companies that commercially rent or lease trucks and automobiles. Also refer to *Part One: Community Profiles* for additional information that may be available for a specific town or village, including the possibility of local heavy equipment availability.

Trucking Companies Operating in Aleutians Subarea

Company	Phone	Location	Equipment Capabilities
Island Services	581-1538	Unalaska/Dutch Harbor	School buses/passenger services
Williwaw Services	581-1538	Unalaska/Dutch Harbor	Waste Disposal services
Horizon Lines	581-7900	Unalaska/Dutch Harbor	Container movement
Sea Land	581-1283	Unalaska/Dutch Harbor	Container movement
Peterkin Distributors Inc	581-3525	Unalaska/Dutch Harbor	Wholesale Food Distributor

** The Alaska National Guard or Alaska Dept of Transportation and Public Facilities may also be available to provide trucking resources.

W. WEATHER SERVICE

The National Weather Service (NWS), which is part of NOAA, can provide current and forecast weather for the marine environment, as well as the inland/coastal zones. In addition, ice reports and forecasts are available.

National Weather Service Offices, Alaska

Office	Phone
Alaska Weather Line (Recorded Forecast)	800-472-0391 (Statewide); 458-3745
Alaska Region Headquarters	271-5088
General Forecasting	266-5105
Ice Forecast	266-5138
Transcribed Aviation Weather	276-8199

NOAA/National Weather Service Web Pages

Agency	Website
National Weather Service, Alaska Region	www.arh.noaa.gov
Weather Station List	www.arh.noaa.gov/obs.php
Alaska Aviation Weather Unit	www.aawu.arh.noaa.gov
Alaska-Pacific River Forecast Center	www.aprfc.arh.noaa.gov
National Ice Center	www.natice.noaa.gov

NOAA Weather Radio (NWR)

NOAA Weather Radio continuous voice broadcasts on 162.40 and 162.55 MHZ can usually be received 20-40 miles from the transmitting antenna site, depending on terrain and the quality of the receiver used. Where transmitting antennas are on high ground, the range is somewhat greater, reaching 60 miles or more. The VHF-FM frequencies used for these broadcasts require narrow-band FM receivers. The NWS recommends receivers having a sensitivity of one microvolt or less and a quieting factor of 20 decibels. Some receivers are equipped with a warning alert device that can be turned on by means of a tone signal controlled by the NWS office concerned. This signal is transmitted for 13 seconds preceding an announcement of a severe weather warning.

Aleutians Weather Stations

Location	Identifier	Frequency	Agency	Phone
Adak	PADK	134.5	FAA	592-8207
Atka	PAAK	135.55	FAA	839-2292
Dutch Harbor	PADU	125.80	FAA	581-2803
Eareckson AS	PASY	135.65	AF	392-3720
King Cove	PACV	118.325	FAA	497-4279
Nelson Lagoon	PAOU	119.025	FAA	989-2227
Sand Point	PASD	134.85	FAA	383-5387
Saint George	PAPB	135.45	FAA	859-2700
Saint Paul	PASN	135.75	NWS	546-2324

National Weather Service HF Voice Weather Broadcasts

Location	Frequency
HF	4125 kHz
HF	6215 kHz
HF	8291 kHz
HF	12290 kHz

See www.navcen.uscg.gov/?pageName=mtVhf for more information

USCG broadcasts National Weather Service highseas forecasts and storm warnings from six high seas communication stations. These broadcasts are prepared cooperatively by the Ocean Prediction Center, Tropical Prediction Center and Honolulu Forecast Office. Offshore and coastal forecasts are available in areas such as Alaska. See table below for station locations and schedules. Transmission range is dependent upon operating frequency, time of day and atmospheric conditions and can vary from only short distances to several thousand miles. Best reception can be achieved by proper selection of frequency and an adequate antenna system.
Visit the USCG Maritime Telecommunications Information webpage www.navcen.uscg.gov/?pageName=maritimeTelecomms for further information on USCG telecommunications.

A Listing of NWS Marine Products Broadcast via USCG HF Voice is available www.nws.noaa.gov/om/marine/hfvprod.htm.

X. USEFUL WEBSITES

Site Name & Description	Website
ADEC	www.dec.alaska.gov/
ADEC – PERP (spill updates, response links)	www.dec.alaska.gov/spar/perp/index.htm
ADF&G	www.adfg.alaska.gov
ADMVA – DHSEM	www.ak-prepared.com/
ADNR	www.dnr.alaska.gov/
ADNR – SHPO (archaeologists)	www.dnr.alaska.gov/parks/oha/index.htm
ADPS – State Trooper Posts	www.dps.alaska.gov/AST/detachments.aspx
Alaska Chadux Corp.	www.chadux.com/
Alaska Community Database (ADCED)	www.commerce.alaska.gov/cra/DCRAExternal/
Alaska State Legislature	www.w3.legis.state.ak.us/
Alaska Geographic Response Strategies (home)	www.dec.alaska.gov/spar/perp//grs/home.htm
Alaska Regional Response Team	www.alaskarrt.org/
Alaska Response Plans – Unified and Subarea	www.dec.alaska.gov/spar/perp/plan.htm
Alaska Response Maps – ESI, GRS, MESA	www.asgdc.alaska.gov/maps/cplans/subareas.html
Alaska Resource Library	www.arlis.org/
Alaska State Library	www.library.alaska.gov/
Alaska State Geo-spatial Data Clearinghouse	www.asgdc.alaska.gov/
Alaska State – home website	www.alaska.gov/
Alaska State Statutes	www.legis.state.ak.us/basis/folio.asp
Bureau of Land Management	www.blm.gov/ak/st/en.html
Bureau of Ocean Energy Management	www.boem.gov
Bureau of Safety and Environmental Enforcement	www.bsee.gov
Daylight hours - sunrise/sunset information	www.aa.usno.navy.mil/data/docs/RS_OneDay.php
EPA – Region 10	www2.epa.gov/aboutepa/epa-region-10-pacific-northwest
EPA – Solid Waste and Emergency Response	www2.epa.gov/aboutepa/about-office-solid-waste-and-emergency-response-oswer
National Response Center	www.cgmix.uscg.mil/NRC/
NMFS Alaska Region (NOAA Fisheries)	www.alaskafisheries.noaa.gov/
NMFS Essential Fish Habitat, Info & Maps	www.alaskafisheries.noaa.gov/habitat/efh.htm
NMFS Marine Mammal Info	www.alaskafisheries.noaa.gov/protectedresources/default.htm
NOAA	www.noaa.gov/
NOAA Office of Response & Restoration	www.response.restoration.noaa.gov
NOAA Weather (NWS Alaska Region)	www.arh.noaa.gov/
SERC & LEPCs	www.ak-prepared.com/serc/
State Regulations – Title 18 AAC Index	www.dec.alaska.gov/commish/regulations/index.htm
US DOT – Hazmat Safety	www.phmsa.dot.gov/hazmat
US DOT – Emergency Response Guidebook	www.phmsa.dot.gov/hazmat/library/erg
USCG, District 17	www.uscg.mil/d17/
USCG – Sector Anchorage	www.homeport.uscg.mil/mycg/portal/ep/portDirectory.do?tabId=1&cotpId=16
USCG – Marine Environmental Protection	www.uscg.mil/top/missions/marineenvironmentalprotection.asp
USCG – Certificate of Financial Responsibility	www.uscg.mil/ccs/npfc/COFRs/default.asp
USCG – Port State Information Exchange (PSIX)	www.cgmix.uscg.mil/psix/
USCG – Vessel Response Plans (VRP) & Shipboard Oil Pollution Emergency Plans (SOPEP)	www.homeport.uscg.mil/mycg/portal/ep/channelView.do?channelId=-30095&channelPage=%252Fep%252Fchannel%252Fdefault.jsp&pageTypeId=13489
US Code of Federal Regulations	www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR

RESOURCES: PART FOUR – LOGISTICS

Listings of logistical support facilities and services in communities within the region are included in the tables located at the end of this part. Additional useful information may be available by consulting *Part One: Community Profiles* and checking the appropriate individual communities. Generally, support facilities and services will be limited in nearly all locations. The deployment of these limited resources will be further dependent upon the season. For instance, the short open water periods for the Beaufort and Chukchi Seas (roughly a three-month period between the average breakup and freeze-up dates) place an additional demand on tactics and planning for responding to an on-water oil spill in this region.

Communities in the Aleutians Subarea are inaccessible by road. This limits the rapid transport and staging of equipment and personnel resources to certain areas. Depending upon the significance and location of the event, resources existing within the region will be moved to the staging location by air or marine vessel and then transferred to vessels for deployment to the specific spill location. Resources secured from locations outside of the Aleutians region can be expected to arrive initially by air or sea and then transferred to the staging locations by the most appropriate means available.

A. EQUIPMENT CONSIDERATIONS

1. Staging Areas and Command Post

Any significant response effort will require large areas for equipment delivery, inventory, repair, and temporary storage. Staging locations and feasible command posts will be limited. In the small towns and villages staging areas may be confined to the use existing docking facilities. Suitable locations for command post may be found at National Guard armories, local schools, or community halls. Specific sites that may be available are listed in *Part One, Community Profiles* of this section by community. In any case, contact local official to check on facility feasibility and availability.

2. Air Service and Landing Sites

The *Part Three, Information Directory, Subpart A* of this section contains information on airports within the region, as well as aircraft charter services operating within the subarea. Additional, and more specific, information regarding airport facilities and services is contained in the Alaska Supplement, Flight Information Publication (FLIP) or at one of the websites listed in the above mentioned directory. Consult the current FLIP document or the websites to ascertain the availability of services and suitability of the runway to the type of aircraft. Also, consult with FAA Flight Service in Fairbanks (474-0388, Hours: 8:00am-4:00pm). Since airport information is updated on a frequent basis, rather than list the airports and specific information on each airport, the following website is provided for specific information regarding airports that may be used to support an oil or hazardous substance spill response. www.dot.state.ak.us/stwdav/airports_public_central.shtml

Year-round scheduled service in the region is available from Alaska Airlines or Pen Air into Unalaska/Dutch Harbor, Adak, Atka, Cold Bay, False Pass, King Cove, Sand Point, and St. Paul and St. George Islands. Smaller communities are served by smaller aircraft and charter operators with provide both scheduled and charter air service. At all times of the year, but most predominantly in the winter, high winds and poor visibility may ground aircraft.

3. Fueling Sites

Fuel (automotive, marine and aircraft) is available in a few communities from the usual sources. In the smaller communities, fuel may be limited in quantity or not available. Aviation fuel is especially limited in the smaller communities. Therefore, response in the smaller communities and in remote areas will require a fuel dispensing barge or portable device (bladder, fuel trailer) on-scene to replenish vessels, equipment, and aircraft. Refer to *Part Three, Information Directory, Subpart A* of this for the availability of aviation fuel at airports. In order to assure maximum flight times and loads, remote fueling depots will be required and may be established at float plane landing areas and beaches with state and resource trustee approval. Charter air services operating within the region can provide valuable information relative to this requirement. For helicopters, deck barges can be outfitted for refueling.

4. Maintenance Facilities

Extensive maintenance and repair facilities do not exist in the Aleutians region. Extended operations not in the immediate vicinity of maintenance facilities will require that self-contained facilities be brought on scene. Limited maintenance facilities may be available locally. The responsible party will need to provide self-contained facilities aboard barges or other means.

5. Portable Restrooms

Portable restrooms (port-a-potties) for remote or extended operations must be provided since most locations within the subarea are undeveloped. Portable toilets may be located on-site for use by crews working on the response. Portable restrooms in remote communities may have to be brought in from Fairbanks or Anchorage. While in service, the units would need to be offloaded into a pump truck mounted on a barge, pumped into a sewage barge, or airlifted by helicopter to a receiving site. USCG approved marine sanitation devices aboard vessels or designated sewage barges are other options that may be used in remote sites. Land-based outhouses will need state and resource trustee approval. Approval from the property owner will be required if staged on private property.

6. Boat Ramps

Boat ramps are typically found in developed communities in the region. Contact the community coordinator for specific information and capabilities.

B. PERSONNEL

1. Lodging

Limited commercial lodging facilities are available in the major communities in the region. During the summer tourist season, most lodging facilities are booked at capacity and availability will be limited. Aside from the few major communities in the region, most communities have very limited lodging facilities or no facilities at all. Some possible alternatives to traditional lodging may be the use of RVs, mobile homes, portable work camps/shelters, National Guard Armories, school gyms, etc. On-water berthing facilities for response personnel may be required. Chartered passenger vessels, constructed “hotel” barges, or US Navy vessels might be utilized to provide berthing. All “berthing” type vessels must meet current USCG licensing requirements.

2. Transportation

The Aleutians Subarea's limited road, water and air transportation capability severely limits the ability to transport significant quantities of equipment and personnel to and from locations in the region. After transport to existing airports, equipment may need to be transferred to vessels for on-scene deployment. Small charter aircraft, both fixed wing and helicopters, will be the main method of rapidly transporting responders to the scene. If weather prevents flying or if a large number of personnel are involved, then in-region passenger vessels will be used. Workers brought in from outside the region will most likely arrive on scheduled Alaska Airlines, PenAir flights or via chartered aircraft. These workers can then be shuttled to the scene by a combination of aircraft and vessels.

Response equipment can be dispatched to the scene by a combination of USCG and private charter aircraft and vessel transport. A limited number of fishing vessels operate in the region and these vessels are extremely dependent on pack ice conditions.

For transportation via air and water, the following table provides distance from Anchorage to some of the Aleutians communities. Times assume favorable weather and do not take into account delays waiting for favorable tides. Distances are from tables found in the back of *U.S. Coast Pilot, Volume 9 - Pacific and Arctic coasts of Alaska from Cape Spencer to the Beaufort Sea.* (Available on the internet at chartmaker.ncd.noaa.gov/NSD/coastpilot.htm)

Approximate Distance & Transit Times to Aleutian Communities

Location	Distance	Travel Time (Estimated in Hours)	
		Vessel (~10 kts)	Air (C-130)
From City of Kodiak to:			
Unalaska/Dutch Harbor	800 miles	96	1.9
From Anchorage to:			
Adak	1300 miles	108	3.3
Akutan	766 miles	64	1.8
Atka	1200 miles	100	2.9
Cold Bay	634 miles	53	1.3
False Pass	646 miles	54	1.4
King Cove	625 miles	52	1.3
Nelson Lagoon	580 miles	48	1.1
Nikolski	900 miles	75	2.3
Saint George	750 miles	63	2.1
Saint Paul	750 miles	63	2.1
Sand Point	570 miles	48	1.1
Unalaska/Dutch Harbor	800 miles	67	1.9

3. Food

A major response will require significant quantities of food and the associated equipment necessary for properly handling, storing, preparing and disposal. These tasks would require contract support from the local area as long as the requirements did not exceed local capability. Out-of-region support can be provided in air transportable "packages". Food and other basic supplies will be purchased from stores

most immediate to the incident when possible. Larger responses will require purchases from vendors throughout the region. High-speed vessel transport or small aircraft can deliver food to on-scene personnel.

4. Clothing

Alaska's environmental conditions dictate that response personnel be equipped to operate in the harsh arctic environment. Personnel must arrive on-scene with adequate clothing to begin working immediately. This includes a complete set of heavy-duty rain gear, steel-toed rubber boots, gloves, hard-hat liner, and warm (preferably no cotton) under garments. Depending on the season, winter outerwear will also be required. Employers will be responsible for resupplying their employees with necessary clothing.

5. Training and Safety Equipment

All responders must report with the minimum required OSHA and State hazardous response training and all required personal protective equipment (PPE). This equipment includes hard hat, safety goggles, hearing protection, gloves, personal flotation device, respirator with cartridges, steel-toed boots. It will be the responsibility of the employer to provide and document the required training and to fully outfit and resupply their personnel with the necessary safety equipment. Availability of PPE will be confirmed by the Site Safety Officer. See the *Unified Plan, Annex H* for guidance on determining training and safety equipment requirements.

C. COMMUNICATIONS

Good, dependable communications between the command center and field operations is essential for an efficient spill response. For minor, short duration responses, a minimum of direct point to point communications will be needed and can normally be provided with two or more VHF marine portable radios or, possibly, with telephones. For large, extended responses covering a wide area, a communications "comm" set up as close to the incident as possible will be necessary. The communications center will require telephones, facsimile machines, and a single sideband/VHF-FM base station along with additional portable radios. Satellite communications may be added as required.

During prolonged spills, VHF repeaters, multi-frequency scanners, and continuous tape recorders may need to be installed. Portable repeaters can increase the communication range several fold depending upon where the repeaters are placed, by supplementing the coverage provided by permanently installed repeaters.

All responses will require either a simple communication schedule identifying when reports are to be transmitted and when field crews are to report, or a full-scale communications management plan that includes the assignment of frequencies, channels, and call signs for various operations.

Adequate communications equipment along with a well thought out communications plan are imperative to a coordinated response. For responses involving numerous vessels or operations distant from the command post, the communications center will have to be placed as close to the response location as feasible. The "comm" center will require telephones, facsimile machines, single side-band, and VHF-FM base station with additional portable radios. The distances involved may necessitate the installation of VHF repeater stations to allow communications at greater distances. Contingency

planners must seriously address their communications requirements in the event of a spill. Failure to properly command and control response resources will prove devastating to the response. The *Unified Plan, Annex E* contains information on State and federal communication assets.

1. Radios

VHF radio communications is the primary radio band used by the State of Alaska, EPA and USCG. However, many local emergency responders utilize the UHF band. During a Unified Command response, and in areas without ALMR coverage and ALMR compatible radios, multiple agency/ government radios may need to be utilized and monitored due to the range of frequencies used by the various parties.

ADEC Communications equipment is maintained by the logistics staff which can be reached at 465-5234 in Juneau or 344-7380 in Anchorage. Communications support is provided by the Department of Administration ETS branch at 296-5781 in Anchorage.

Response on water will generally utilize the VHF marine radio frequencies. The USCG primarily operates on these frequencies. Marine communications at the command post and aboard vessels will generally require 25 watt VHF marine radios with high gain antennas. Vessels usually monitor channel 16 and switch to other working frequencies. When aircraft are used in conjunction with on-water activities, such as directing vessel movements, VHF marine frequency radios will be required for use by the aircraft. Below is a table that provides the marine VHF frequencies available for use by local, government, and industry responders. Due to aircraft noise, these radios should be equipped with headsets and boom mikes. Communications with aircraft from the command post will require standard VHF frequency capability.

ADEC – Portable VHF Repeaters

Channel Designation	Location	Operating Frequencies		
		Transmit	PL	Receive
Zone 1, Channel 3	ADEC Portable Repeater 1 (out of region)	154.755	141.3	159.255
Zone 1, Channel 4	ADEC Portable Repeater 2 (out of region)	154.815	141.3	159.285
Zone 1, Channel 5	ADEC Portable Repeater 3 (out of region)	154.830	141.3	159.315

Marine VHF Radio Frequencies

Channel Number			Frequencies	
	Channel Designation/Usage	Signal Type	XMIT	RCV
MM06	INTERSHIP ON SCENE	Analog (Non-ASTRO)	156.3000	156.3000
MM09	BOATER CALLING	Analog (Non-ASTRO)	156.4500	156.4500
MM12	PORT OPERATIONS	Analog (Non-ASTRO)	156.6000	156.6000
MM13	BRIDGE 2 BRIDGE NAVIGATION	Analog (Non-ASTRO)	156.6500	156.6500
MM14	PORT OPERATIONS	Analog (Non-ASTRO)	156.7000	156.7000
MM16	DISTRESS SAFETY & CALLING	Analog (Non-ASTRO)	156.8000	156.8000
MM17	STATE CONTROLLED	Analog (Non-ASTRO)	156.8500	156.8500
MM21A	CG WORKING (S)	Analog (Non-ASTRO)	157.0500	157.0500
MM22A	USCG/NON-GOV LIAISON BCSTS	Analog (Non-ASTRO)	157.1000	157.1000
MM23A	CG WORKING (S)	Analog (Non-ASTRO)	157.1500	157.1500
MM81A	CG WORKING (S)	Analog (Non-ASTRO)	157.0750	157.0750
MM82A	US GOV WORKING	Analog (Non-ASTRO)	157.1250	157.1250

MM83A	CG WORKING (S)	Analog (Non-ASTRO)	157.1750	157.1750

2. Telephones

Telephone support will have to be coordinated through the local telephone utility. The requirements for telephone support may overload the capability of some of the remote locations resulting in delays in acquiring a suitable number of lines. Long distance service may also be severely limited.

Telephones and facsimile machines should be used to reduce radio traffic congestion. Direct “hot lines” to key officials may be required if normal landlines are continuously tied up. Long distance service is provided by AT&T ACS, GCI, and Interior Telephone/TelAlaska. A major response may surpass the local telephone system’s capability to handle a large volume of long distance calls. This is especially true for a command post located in a small village. Smaller communities would require the addition of new trunk lines for anything greater than a 50% increase in volume (several days delay).

3. Telefax

Dedicated incoming and outgoing fax machines should be commercially leased from local office supply companies. The number of dedicated lines and machines will depend on the size of the response.

4. Cellular and Satellite Communications

Presently, cellular telephone coverage is limited in the Aleutians region to small individual carriers that do not have roaming agreements with the larger carriers. Companies currently offering cell phone service include Alaska Wireless and Bristol Bay Cellular. Other cellular phones with “roam” capability may also work at certain locations. This capability is unpredictable and dependent on multiple factors that affect the capacity of cellular towers to handle additional carriers.

The ADEC has portable satellite phone systems (Iridium). These systems are capable of placing and receiving calls from anywhere in the world, including remote locations. The DOD/Alaska National Guard may also have available portable satellite communications packages available.

Cellular Companies

Company	Phone	Areas of Coverage
Alaska Wireless	581-5071	Unalaska/Dutch Harbor w/minimal roaming
Bristol Bay Cellular	581-4555	Roaming in Unalaska/Dutch Harbor

5. Portable Radios

Response teams, whether small boat crews or beach and land-based teams, will generally need portable VHF radios with 1 to 5 watts power; usually these radios have approximately 55 channels. Backup batteries, chargers, and extra radios will be required for extended responses. The responsible party/response contractor must provide adequate radios for their personnel. On the government side, ADEC has a number of portable VHF radios available for use throughout the state, and USCG Sector Anchorage has twelve handheld marine VHF radios, MSD Kenai has five, and MSD Kodiak has two. The USCG government vehicles (2) at Sector Anchorage also have VHF radios installed.

6. Portable Communications Trailers

Portable communications trailers are rare in Alaska. The major spill response coops have the capability to establish portable "comms" centers, either in fly away kits or road transportable units. The Department of Defense has extensive communications that could conceivably be made available in the event of a significant spill. See the *Unified Plan, Annex E, Appendix II* for specific procedures for accessing DOD equipment.

7. Copiers

Dependable, high volume copiers will be required in the command center. The size of the response will dictate the number of copiers required. Having more than one copier is advisable in the event that one machine breaks down from overuse.

8. Interpreters

With the growing influx of other cultures into Alaska, plus the possibility of foreign-flag vessels, language barriers may arise. Response staff may need the skills of an interpreter. Local hospitals and the State Troopers are the two most likely sources for the names of available interpreters.

D. COMMAND POSTS

1. Locations

Regardless of the spill volume, the USCG or EPA FOSC and State SOSC will initially operate from their normal offices. Likewise, the resource agency representatives will do the same, though they may join one of the OSCs at their offices if space is adequate. Fore significant spills, a joint command post will be required. To conduct a response to a major oil spill in the area, the responsible party will normally establish a command post of appropriate size. Spills extending over a large area may require the establishment of forward command post as well. For the Aleutians Subarea, a command post would likely be established in the closest community that has the services and support facilities to maintain a command center. Potential command posts are listed by community under *Part One – Community Profiles* of this section.

2. Procedures for Establishment

For a privately-funded response, the responsible party will contract for the commercial command post facilities. For a federally-funded response, GSA and FOSC will be responsible for locating and contracting for a long-term command post.

3. Equipment

The amount of equipment to outfit the command post will be determined by the size of the response. In general, the following will be necessary equipment for every command post (any items not already available will be leased or purchased locally):

- Telephones and phone books
- Copy and Facsimile machines
- Desktop and portable computers with printers and fax/modem capability

- Internet and email access
- Office furniture
- Portable radios and Marine communications base station
- Cameras and Video recording/playback capability
- Office supplies: (pens, pencils, paper, etc.)
- Chart paper with easels and Status boards (dry-write)
- Overhead and computer-compatible projectors
- Environmental Sensitivity Index (ESI) maps
- Most Environmentally Sensitive Area (MESA) maps
- Copies of any applicable industry contingency plans
- Copies of any appropriate local emergency response plans
- Copies of the *Unified Plan* and appropriate Subarea Contingency Plans
- Copies of the Alaska Incident Management System (AIMS) Guide
- Copies of the USCG Incident Management Handbook (COMDTPUB P3120.17)
- Copies of the EPA Incident Management Handbook
- Copies of the Spill Tactics for Alaska Responders (STAR) Manual

E. STORAGE/DISPOSAL

The responsible party will be responsible for developing a waste disposal plan to provide the necessary logistical and procedural information required to ensure fast and efficient transfer of wastes from the response operations personnel to disposal facilities in compliance with existing laws and regulations. Oversight of the waste disposal plan will normally be the responsibility of the State.

Currently, no approved hazardous waste disposal sites exist in Alaska. Municipal landfills in Alaska either no longer accept oily wastes, or accept only lightly oiled soils. Consult with ADEC on the landfill status. An ADEC solid waste permit is required. ADEC Anchorage can provide current information on the adequacy of landfills in the Aleutians Subarea.

Additionally, refer to the *Unified Plan, Annex E, Annex E, Appendix X* for basic guidance on waste management and disposal procedures.

ALEUTIANS SUBAREA CONTINGENCY PLAN

HAZARDOUS MATERIALS SECTION

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HAZMAT: PART ONE – HAZMAT RESPONSE

A. INITIAL NOTIFICATION OF RESPONSE AGENCIES

All hazardous material (hazmat) releases in excess of the reportable quantity must be reported by the responsible party to the National Response Center (NRC). Any release regardless of the amount is required to be reported to the Alaska Department of Environmental Conservation (ADEC). Upon notification of a release, the NRC shall promptly notify the appropriate Federal On-Scene Coordinator (FOSC). The FOSC shall contact the ADEC State On-Scene Coordinator (SOSC). If ADEC receives notification first, the SOSC shall notify the FOSC promptly. An emergency notification list is provided at the front of the *Response Section* to this plan. The FOSC and the SOSC will relay the notification to local communities, resource agencies, medical facilities, and others as necessary and begin coordination with a Local On-Scene Coordinator (LOSC) if the incident poses an immediate threat to public health and safety.

As long as there is an immediate threat to public safety, the LOSC serves as the ultimate command authority if the FOSC or SOSC does not assume the lead role for the response or the LOSC request a higher authority to assume that responsibility.

The LOSC can at any time request higher authority to assume command and control of an incident. Local emergency plans should be consulted for any specific directions or guidelines. The local fire department and/or the Local Emergency Planning Committee should have the most current records on local storage of hazardous materials that are in quantities that meet federal reporting requirements.

B. RECOGNITION

The recognition of chemical or physical hazards is essential to dealing with a release safely. Chemical and physical hazards may be confronted by emergency response personnel when responding to a hazardous material incident. Chemical hazards include biological, radioactive, toxic, flammable, and reactive hazards. Physical hazards include slips, trips and falls, compressed gases, materials handling, thermal, electrical and noise hazards, and confined spaces.

Once a hazardous material has been identified it is important to determine the hazards and properties. Thousands of substances exhibit one or more characteristics of flammability, radioactivity, corrosiveness, toxicity, or other properties which classify them as hazardous. For any particular hazardous category, the degree of hazard varies depending on the substance.

The degree of hazard is a relative measure of how hazardous a substance is. For example, the Immediately Dangerous to Life and Health (IDLH) concentration of butyl acetate in air is 10,000 parts per million (ppm); the IDLH for tetrachloroethane is 150 ppm. Tetrachloroethane is therefore far more toxic (has a higher degree of hazard) when inhaled in low concentration than butyl acetate. Vapors from butyl acetate, however, have a higher degree of explosive hazard than tetrachloroethane vapors which are not explosive.

Once the substance(s) has been identified, the hazardous properties and degree of hazard can be determined using reference materials. Chemical properties and the health hazards associated with the various materials transported in the Aleutians Subarea can be found in the USCG CHRIS Manual, the DOT

Emergency Response Guidebook (current edition), and CAMEO (Computer-Aided Management of Emergency Operations) computer programs. Industry experts can be consulted as well. An excellent resource is the CHEMTREC 24-hour information number, 1-800-424-9300, supported by the Chemical Manufacturers Association. Additional references are provided below.

Although appropriate references give information about a substance's environmental behavior, additional field data will likely be required. Most frequently, air monitoring and sampling are needed to verify and identify the presence of hazardous materials, to calculate concentrations, and to confirm dispersion patterns.

Available references (with several websites) for hazmat and response organization information:

- The *Unified Plan*, which addresses the Unified Command Structure in Annex B, Appendix II, and also provides statewide hazmat response guidance in Annex L. www.dec.alaska.gov/spar/perp/plans/uc.htm
- Commandant Instruction #16465.30
- National Contingency Plan (40 CFR part 300)
- The Alaska Incident Management System (AIMS) Guide (November 2002 Revision 1) www.dec.alaska.gov/spar/perp/docs/AIMS_Guide-Complete(Nov02).pdf
- Coastal Sensitivity Atlas
- USCG CHRIS Manual
- DOT Emergency Response Guidebook (current edition) www.phmsa.dot.gov/hazmat/library/erg
- CHEMTREC, Chemical/Hazardous Substance information, 1 800-424-9300
- Sax's Dangerous Properties of Industrial Materials
- International Maritime Dangerous Goods Codes
- Safety Data Sheets (SDS) www.hazard.com/msds/index.php
- NFPA Fire Protection Guide On Hazardous Materials
- NIOSH/OSHA/USCG/EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities. Also, the NIOSH/OSHA Pocket Guide Book www.cdc.gov/niosh/npg/
- HartCrowser, Inc., 1999. 1998 Statewide Hazardous Material Inventory. Prepared for ADEC, Division of Spill Prevention and Response.
- HartCrowser, Inc., 1999. Alaska Level A and B Hazardous Material Response Resources. Prepared for ADEC, Division of Spill Prevention and Response.
- HartCrowser, 2000. Evaluation of Chemical Threats to the Alaska Public. Prepared for ADEC, Division of Spill Prevention and Response.
- Statewide Hazardous Materials Commodity Flow Study, Nuka Research and Planning Group, 2010. Prepared for ADEC and the Alaska Department of Military and Veterans Affairs. The basic report is available at: www.dec.alaska.gov/spar/perp/hazmat/study.html
- Spill Tactics for Alaska Responders (STAR) Manual, April 2006. Describes the various levels of protection (Levels A, B, C, and D for hazardous materials response) www.dec.alaska.gov/spar/perp/star/docs.htm

Many of the publications/ programs listed here can also be found at ADEC offices and with the local fire departments.

C. EVALUATION

To properly evaluate a hazardous materials release, the incident must be characterized. Incident characterization is the process of positively identifying the substance(s) involved and evaluating the actual or potential public health and environmental impacts. Characterizing a hazardous substance incident is generally a two-phase process, an initial characterization followed by a more comprehensive characterization.

1. Initial Characterization: The initial characterization is based on information that is readily available or can be obtained fairly rapidly to determine what hazards exist and if immediate protective measures are necessary. During this initial phase, a number of key decisions must be made regarding:

- Imminent or potential threat to public health.
- Imminent or potential threat to the environment.
- Immediate need for protective actions to prevent or reduce the impact.
- Protection of the health and safety of response personnel.

If the incident is not immediately dangerous to human life or sensitive environments, more time is available to evaluate the hazards, to design plans for cleanup, and to establish safety requirements for response personnel. Information for characterizing the hazards can be obtained from on-scene intelligence (records, placards, eye witnesses, etc.), direct-reading of instruments, and sampling. Depending on the nature of the incident and the amount of time available, various combinations of this information gathering process are used. The following outline describes an approach to collecting data needed to evaluate the impact of a hazardous materials incident.

- An attempt should be made to gather as much information as possible, such as:
  - Description and exact location of the incident.
  - Date and time of occurrence.
  - Hazmats involved and their physical/chemical properties.
  - Present status of incident.
  - Potential pathways of dispersion.
  - Habitation - population at risk.
  - Environmentally sensitive areas - endangered species, delicate ecosystems.
  - Economically sensitive areas - industrial, agricultural.
  - Accessibility by air, roads and waterways.
  - Current weather and forecast (next 24 to 48 hours).
  - Aerial photographs/video when possible.
  - A general layout and mapping of the site.
  - Available communications.

- Off-site reconnaissance (that can be conducted in Level D) should be the primary inspection for initial site characterization when the hazards are largely unknown or there is no urgent need to go on-site. Off-site reconnaissance consists of visual observations and monitoring for

atmospheric hazards near the site. Collecting of off-site samples may identify substance migration or indicate on-site conditions. Off-site reconnaissance would include:

- Monitoring ambient air with direct-reading instruments for:
  - Organic and inorganic vapors, gases, and particulates
  - Oxygen deficiency
  - Specific materials, if known
  - Combustible gases and radiation
- Identifying placards, labels, or markings on containers or vehicles.
- Noting the configuration of containers and trailers.
- Noting the types and numbers of containers, trailers, buildings, and impoundments.
- Identifying any leachate or runoff.
- Looking for biological indicators - dead vegetation, animals, insects or fish.
- Noting any unusual odors or conditions.
- Observing any vapors, clouds, or suspicious substances.
- Taking off-site samples of air, surface water, ground water (wells), drinking water, site runoff, and soil.
- Reviewing the Dangerous Cargo Manifest.
- Conducting interviews with workers, witnesses, observers, or inhabitants.

- An on-site survey (conducted in a minimum of Level B protection until hazards can be determined) may be necessary if a more thorough evaluation of hazards is required. On-site surveys require personnel to enter the restricted or hot zone of the site. Prior to any personnel conducting an on-site survey, an entry plan addressing what will be initially accomplished and prescribing the procedures to protect the health and safety of response personnel will be developed. On-site inspection and information gathering would include:
  - Monitoring ambient air with direct-reading instruments for:
    - Organic and inorganic vapors, gases, and particulates
    - Oxygen deficiency
    - Specific materials, if known
    - Combustible gases and radiation
  - Observing containers, impoundments, or other storage systems and noting:
    - Numbers, types, and quantities of materials.
    - Condition of storage systems (state of repair, deterioration, etc.)
    - Container configuration
    - Labels, marking, identification tags, or other indicators of material
    - Leaks or discharges from containers, tanks, ponds, vehicles, etc.
  - Noting physical condition of material:
    - Solids, liquids, gases
    - Color
    - Behavior (foaming, vaporizing, corroding, etc.)

- Determining potential pathways of dispersion - air, surface water, ground water, land surface, biological routes
- Taking on-site samples of storage containers, air, surface water, ground water (wells), drinking water, site runoff, and soil.

2. Comprehensive Characterization: Comprehensive characterization is the second phase, a phase which may not be needed in all responses. It is a more methodical investigation to enhance, refine, and enlarge the information base obtained during the initial characterization. This phase provides more complete information for characterizing the hazards associated with an incident. As a continuously operating program, the second phase also reflects environmental changes resulting from any response activities.

Information obtained off-site and during the initial site entries can be sufficient to thoroughly identify and assess the human and environmental effects of an incident. But if it is not, an environmental surveillance program needs to be implemented. Most of the same type of information collected during the preliminary inspection is needed, but more detailed and extensive. Instead of one or two groundwater samples being collected, for instance, a broad and intensive groundwater survey may be needed over a long period of time.

Results from preliminary inspections provide a screening mechanism for a more complete environmental surveillance program to determine the full extent of contamination. Since mitigation and remedial measures may cause changes in the original conditions, a continual surveillance program can be used to identify and track fluctuations or ramifications.

D. EVACUATION

Neither USCG nor the EPA has the authority to order an evacuation of facilities or communities in the event of a release; this authority lies with local or state entities. However, evacuation should be strongly recommended to local civil authorities (police, fire departments, etc.) whenever a hazardous release poses a threat to surrounding personnel. With a release of hazardous materials, the area should be isolated for at least 100 meters in all directions until the material is identified. Only trained and properly equipped personnel should be allowed access.

Quick evacuation tables are located in the back of the DOT Emergency Response Guidebook. Evacuation should always begin with people in downwind and in low-lying areas. Continual reassessment is necessary to account for changes in weather wind, rate of release, etc. CAMEO should be used to provide an air plume trajectory model for downwind toxic plume distances. Again, constant reassessment will be required.

Issues concerning disaster assistance should be referred to Alaska DMVA's Division of Homeland Security and Emergency Management.

E. DIRECTION AND SITE/ENTRY CONTROL

The purpose of site control is to minimize potential contamination of emergency response personnel, protect the public from any hazards, and prevent unlawful entry onto the site which may result in an

additional release of material, destruction of evidence, or prolong the cleanup effort. The degree of site control necessary depends on site characteristics, site size, and the surrounding community.

Several site control procedures should be implemented to reduce potential exposure and to ensure that an effective, rapid cleanup is conducted:

- Secure site, and establish entry control points.
- Compile a site map.
- Prepare the site for subsequent activities.
- Establish work zones.
- Use the buddy system when entering.
- Establish and strictly enforce decontamination procedures.
- Establish site security measures.
- Set up communications networks.
- Enforce safe work practices.

For complete guidance on Direction and Site Entry/Control, refer to the NIOSH/OSHA/USCG/EPA Occupational Safety & Health Guidance Manual for Hazardous Waste Site Activities (Publication No. 85-115).

F. COMMAND AND CONTROL

As long as there is an immediate threat to public safety, the LOSC serves as the ultimate command authority if the FOSC or SOSC does not assume the lead role for the response or the LOSC request a higher authority to assume that responsibility.

The LOSC can at any time request higher authority to assume command and control of an incident. All applicable local emergency plans should be consulted. After the LOSC, together with the FOSC and SOSC, has determined that public safety is not at risk, then the Unified Command response organization will assume command and control of the incident.

Government response organization in the State of Alaska is based on the Unified Command structure of the Incident Command System (ICS), which is outlined in the Alaska Incident Management System (AIMS) Guide. The Unified Command brings together the FOSC, the SOSC, and the Responsible Party's Incident Commander (along with the LOSC if participation is warranted and available) into one governing unit. The ICS and Unified Command structure are discussed in further detail in the *Unified Plan, Annex B* and in the *AIMS Guide*. The organizational structure and hazmat team member duties and responsibilities for hazmat response are also described in the *AIMS Guide, Appendix B*.

G. COMMUNICATIONS

A communications plan for all sections of the ICS will be established by the Incident Commander.

At this time, a pre-established generic communications plan accounting for the various police, fire, federal, state, and local frequencies has not been established. State and federal communications resources are listed in the *Unified Plan, Annex E* and in the *Resources Section* of this plan.

H. WARNING SYSTEMS & EMERGENCY PUBLIC NOTIFICATION

Three separate systems for broadcast of emergency messages are available to the Alaska Regional Response Team, FOSC, and SOSC. These include the National Oceanic and Atmospheric Administration Weather Radio System, the State of Alaska Emergency Alert System, and the National Warning Systems. For details on how to access these systems are provide in the *Unified Plan, Annex E, Appendix III, Tab V***.** The LOSC or the local emergency services should activate any system they have available through their community (e.g. community alert system). To broadcast an emergency public notice to a specific Aleutian community refer to the *Resources Section* of this plan for radio, newspaper, and television contacts**.**

I. HEALTH AND MEDICAL SERVICES

For local hospital and clinic information refer to the *Resources Section, Community Profiles* of this plan.

HAZMAT: PART TWO – RESPONSIBLE PARTY HAZMAT ACTION

A. DISCOVERY AND NOTIFICATION

Any person in charge of a vessel or a facility shall report releases of hazardous materials in excess of the reportable quantity as defined in Table 1 of 49 CFR 172.101 to the NRC 24-hour telephone number, 1-800-424-8802, in accordance with the National Contingency Plan. Any release regardless of the amount is required to be reported to the State of Alaska. Notification to the state can be done by contacting ADEC either thru the Central Area Response Team at 269-3063 or through the 24-hour telephone number at 1-800-478-9300.

If direct reporting to the NRC is not immediately practicable, reports will be made to the Captain of the Port (COTP) Western Alaska (the USCG FOSC for the Aleutians Subarea at 24-hour telephone number 428-4200). The Environmental Protection Agency's pre-designated FOSC may also be contacted through the regional 24-hour response telephone number at 206-553-1263. All such reports shall be promptly relayed to the NRC.

In any event, the person in charge of the vessel, vehicle, or facility involved in a hazardous material release shall notify the NRC and the State of Alaska as soon as possible.

As much information as possible shall be reported. This will include, but is not limited to, the following:

- Location of the release
- Type(s) of material(s) released, including any pertinent SDS data
- An estimate of the quantity of material released
- Possible source of the release
- Date and time of the release
- Population and/or environment at risk.

Removal action

The responsible party shall, to the fullest extent possible, perform promptly the necessary removal action to the satisfaction of the pre-designated FOSC, SOSC and LOSC or local emergency services.

Regardless of whether or not a cleanup will be conducted, the responsible party shall cooperate fully with all federal, state, and local agencies to ensure that the incident is handled in a safe, proper manner.

HAZMAT: PART THREE – STATE HAZMAT ACTION

A. AUTHORITY

ADEC is mandated by statute to respond promptly to a discharge of oil or a hazardous substance (AS 46.80.130). Additionally, ADEC may contract with a professional emergency contractor or municipality in order to meet response requirements, and/or establish and maintain a containment and cleanup capability (i.e., personnel, equipment and supplies) (AS 46.09.040).

B. RESPONSE POLICY

ADEC is currently operating in accordance with an August 1992 policy decision which precludes ADEC personnel from responding to situations which require Level A/B protection. ADEC personnel are prohibited from responding with or using personal protective equipment beyond the Level C protection category (as defined in EPA standards).

For additional information regarding the State's general response policy, refer to the *Unified Plan, Annex A, Appendix VI, Tab C*.

C. STATE RESPONSE CAPABILITIES

ADEC has entered into local response agreements with the Fairbanks North Star Borough, the Municipality of Anchorage, the City of Kodiak, the City and Borough of Juneau, and the City of Ketchikan. These teams (along with the 103rd Civil Support Team (CST) and the U.S. EPA team) comprise the Statewide Hazmat Response Team. In the event of a hazmat release requiring immediate response, the ADEC pre-designated SOSC may request support from any of the hazmat response teams. These teams maintain a Level A entry capability and can respond beyond their jurisdictional boundaries at the request of the SOSC. The teams are to be used strictly for emergency response operations. Once the immediate hazard is dealt with, the teams will be released to return to their home station. Post-response recovery operations will be handled by the responsible party (if known) or through ADEC response term contractors or Federal contractors.

Another state asset is the 103rd CST, based at Kulis Alaska National Guard Base, Alaska. The 103rd CST can be requested through ADEC or DMVA's Division of Homeland Security and Emergency Management, State Emergency Operations Center (SEOC – 428-7100 or 1-888-462-7100). The primary focus of the team is weapons of mass destruction, including chemical and biological warfare agents and toxic industrial chemicals. The 103rd CST maintains Level A entry capability and a wide variety of detection instruments and support equipment. The team can be used in an advisory role for hazard modeling or medical assessment and in a primary or an assist mode to perform entries alone or in conjunction with other first responders.

D. RESPONSIBILITIES

State agency roles and responsibilities are clearly defined in the *Unified Plan, Annex A*. During a hazmat incident, the SOSC's anticipated and prioritized response objectives are as indicated below:

- Safety: Ensure the safety of persons involved, responding or exposed from the immediate effects of the incident.

- Public Health: Ensure protection of public health and welfare from the direct or indirect effects of contamination on drinking water, air and food.
- Source Mitigation: Ensure actions are taken to stop or reduce the release at the source to reduce/eliminate further danger to public health and the environment.
- Environment: Ensure protection of the environment, natural and cultural resources, and biota from the direct or indirect effects of contamination.
- Cleanup: Ensure adequate containment, control, cleanup and disposal by the responsible party or take over when cleanup is inadequate.
- Restoration: Ensure assessment of contamination and damage and restoration of property, natural resources and the environment.
- Cost Recovery: Ensure recovery of costs and penalties to the Oil and Hazardous Substance Release Prevention and Response Fund for response containment, removal, remedial actions, or damage.

HAZMAT: PART FOUR – FEDERAL HAZMAT ACTION

A. AUTHORITY

Section 311 of the Federal Water Pollution Control Act and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 are the principal authorities for federal response to discharges of oil and releases of hazardous substances. The procedures and standards for conducting responses are contained in the NCP (40 CFR 300). Under the NCP and the *Unified Plan*, each USCG COTP for coastal zones, or EPA representatives for inland zones, coordinates federal activities on-scene as either the pre-designated FOSC or as the first federal official in the absence of the pre-designated FOSC. The FOSC objective is to ensure rapid, efficient mitigation of actual or threatened pollution releases or discharges.

B. JURISDICTION

The NCP identifies USCG COTP for Western Alaska (Commanding Officer, Sector Anchorage) as the pre-designated FOSC for the Aleutians coastal zone, and the EPA (Region 10 Alaska Operations Office) as the pre-designated FOSC for the inland zone. The FOSC will respond to hazardous substance releases, or threats of release, occurring in the coastal or inland zones and not involving DOD vessels or facilities, which originate from:

- Vessels and vehicles (as well as other modes of transportation, e.g., railroad)
- Facilities, other than hazardous waste management facilities, when the release requires immediate action to prevent risk of harm to human life, health, or the environment.
- Hazardous waste management facilities, or illegal disposal areas, when the FOSC determines emergency containment or other immediate removal actions are necessary prior to the arrival of the EPA FOSC.

For all shore side incidents in the coastal zone, once the immediate threat to human life, health, or the environment has been abated and the character of the response changes to a long-term cleanup or site remediation, the FOSC responsibilities will be transferred from the USCG COTP to a designated EPA official.

As long as there is an immediate threat to public safety, the LOSC serves as the ultimate command authority if the FOSC or SOSC does not assume the lead role for the response or the LOSC request a higher authority to assume that responsibility.

C. RESPONSE POLICY

The USCG will follow the policy guidance contained in COMDTINST M16465.30, "Policy Guidance for Response to Hazardous Chemical Releases", and the Marine Safety Manual, Volume VI, Chapter 7 when responding to a hazardous chemical release. The USCG Incident Management Handbook also provides guidelines for responding to a hazardous substance release.

The USCG and other federal agencies in Alaska will maintain a "conservative" Level D response capability level. "Conservative" response consists of recommending evacuating the affected area and maintaining a safe perimeter while attempting to positively identify the pollutant and outlining a clear course of

action. Federal personnel, with the exception of specialized teams (e.g., the National Strike Force, the Pacific Strike Team, and the EPA START Team), will not enter a hazardous environment. This response posture is appropriate due to insufficient numbers of trained or equipped personnel to allow a safe and proper entry into a hazardous environment and the low risk of a chemical release in the area. Refer to the *Unified Plan* for a description of the National Strike Force and other special forces.

Level D protection is primarily work uniform/coveralls, safety boots, safety goggles and a hard hat. This provides minimal protection. Level D must not be worn for "entry" into any hazardous materials situation. It does NOT provide protection from chemicals. Level D protection strictly applies to non-hazardous environments (e.g. Command Post, Cold Zone, etc.).

In situations requiring an entry into a hazardous environment, federal agencies will rely on the capabilities of the USCG Pacific Strike Team, EPA Emergency Response Teams, state and local hazmat response teams, if available, and industry or commercial resources.

In implementing this conservative response posture, the COTP for Western Alaska will carry out all the FOSC functions not requiring entry of unit personnel into a hazardous environment. These functions include:

- Conducting preliminary assessment of the incident.
- Carrying out COTP measures such as restricting access to affected areas, controlling marine traffic (safety zones), notifying affected agencies, coordinating with state and local agencies, and assisting as resources permit.
- Conducting local contingency planning.
- Identifying responsible parties, and informing them of their liability for removal costs.
- Carrying out "first aid" mitigation if the situation warrants and capability exists.
- Monitoring cleanup activities.

CAMEO computer programs will be an important part of any chemical release incident. The CAMEO chemical database with Codebreaker and Response Information Data Sheets modules provide a rapid means of identifying chemicals and their associated hazards. ALOHA (areal Locations of Hazardous Atmospheres) air modeling program, part of CAMEO, provides a rapid means of developing a downwind hazard evaluation. The NOAA Scientific Support Coordinator will be the primary individual responsible for operating the CAMEO programs during a hazardous chemical release for the FOSC. Local fire departments and EPA also maintain CAMEO to assist in their response efforts. Programs for the ALOHA model need to be frequently updated to account for changing wind and weather conditions, source strength, and other variable conditions.

HAZMAT: PART FIVE – SUBAREA HAZMAT RISK ASSESSMENT

A. GENERAL

This part provides general information on the location of extremely hazardous substances and other hazardous substances within the Aleutians Subarea. The Aleutians Subarea includes the southern portion of the Alaska Peninsula and the Aleutian and Pribilof Islands to the west.

There have been several hazardous materials spills or releases in the Aleutians Subarea. As of June 2014, the most significant release in the Aleutians subarea occurred on July 6, 2012, when 20,000 pounds of anhydrous ammonia were released from the F/V *Excellence* while the vessel was at the dock in Dutch Harbor. The ADEC Spills Database also noted 19 other hazmat releases of 100-plus gallons/pounds, of which 15 involved anhydrous ammonia and three releases involved chlorine gas.

Under the requirements of Title III of the Superfund Reauthorization Act (SARA), the local fire department, as well as any Local Emergency Planning Committee, maintains records of reportable quantities of hazardous chemicals stored in the community, including their safety data sheets as reportable under the Tier II requirements of the SARA.

1. Chemical Inventory: Based on the 2011 Tier Two reports, the most prevalent extremely hazardous substances in the region are:

- anhydrous ammonia
- sulfuric acid

2. Chemical Risks: This subsection identifies the hazards associated with the most common extremely hazardous substances present within the subarea in amounts greater than the federally-mandated threshold planning quantities. The properties of each substance and how they affect humans are discussed below. Of the extremely hazardous substances known to be present, ammonia poses the greatest threat.

Anhydrous ammonia is a colorless gas with a characteristic odor. The term "anhydrous" is used to distinguish the pure form of the compound from solutions of ammonia in water. Like chlorine, anhydrous ammonia is neither explosive nor flammable, but will support combustion. It readily dissolves in water to form an aqua ammonia solution. Anhydrous ammonia is considerably lighter than air and will rise in absolutely dry air. As a practical matter, however, anhydrous ammonia immediately reacts with any humidity in the air and will often behave as a heavier gas. The chemical reacts with and corrodes copper, zinc and many alloys. Anhydrous ammonia affects the body in much the same way as chlorine gas. Like chlorine, anhydrous ammonia gas is primarily a respiratory toxicant. In sufficient concentrations, the gas affects the mucous membranes, the respiratory system and the skin. In high concentrations it can cause convulsive coughing, difficult and painful breathing, and death. Anhydrous ammonia will cause burns if it comes in contact with skin or eyes.

Sulfuric acid is a dense, colorless, oily liquid. It is highly reactive with a large number of other substances and is readily soluble in water with release of heat. Fumes are released from the liquid through evaporation, and heat as a result of fire or other chemical reaction can significantly increase emissions. Both the liquid and its solutions will cause burns if allowed to come in contact with skin or eyes. Fumes are highly toxic, and reaction of the acid with a variety of substances can produce other toxic gases.

3. Response Capability: There are no Level A hazmat response teams in the Aleutians Subarea. In the event of a hazardous substance release, ADEC should be contacted and they can take action to activate the Statewide Hazmat Response Team. This formally agreed arrangement allows ADEC to request a Level A hazmat team to respond to an event anywhere in the state, as long as the requested hazmat Team can spare the services of the equipment and trained personnel.

In addition, several of the larger industrial facilities within the subarea are required to have Risk Management Plans (RMPs) for chemicals exceeding threshold quantities under 40 CFR Part 68 regulations. The RMPs contain emergency response plans for mitigating facility releases. Large bulk fuel production and storage facilities within the subarea also are required to maintain Facility Response Plans and specific levels of response equipment to mitigate oil releases in accordance 40 CFR Part 112.20 regulations.

Several communities in the Aleutians Subarea have developed and maintain local emergency management plans, or all-hazard plans, to respond to a variety of emergencies including hazardous substance releases.

B. FACILITIES

The table below identifies the number of facilities that store and utilize hazardous substances. Local emergency responders receive copies of Tier Two inventory reports for local facilities annually. If other emergency responders are deployed to the area, they should contact the local fire department ti determine specific chemical hazards at a facility.

Number of Facilities with Hazardous Substances

Substance	Max Amount (lbs)	Number of Facilities
Extremely Hazardous Substances		
Ammonia, Anhydrous	448,767	12
Sulfuric Acid	50,145	8
Chlorine	15,854	3
Nitric Acid	4,185	3
Sodium Hypochlorite 12.5%	19,000	1
Hazardous Substances		
1,1,12-Tetrafluoroethane	35	1
Acetylene, Compressed Gas	3,550	1
Carbon Dioxide, Compressed Gas	9,000	1
Cast Boosters	5,400	1
Bromochlorofluoroiodomethane	22,000	1
Chlorodifluoromethane	24,054	3
Ethylene Glycol	25,060	3
Fish Oil	1,026,000	1
Helium, Compressed Gas	6,150	1
Hydrochloric Acid	4,500	2
Lead	36,842	2
Nitrogen	3,890	1
Oxygen, Compressed Gas	1,870	1
Pentafluoroethane	550	1
Potassium Acetate	417,000	1

Propane	47,908	4
Propylene Glycol	11,058	1
R407C Refrigerant Gas	370	1
Sodium Hydroxide	15,120	3
Urea	201,600	1
Vanguard Calcium Hypochlorite	10,000	1
Petroleum Products		
Diesel Fuel (Diesel #1 and #2)	12,182,856	12
Jet A Fuel	2,074,000	2
Gasoline	261,000	3
Heating Oil	66,000	1
Motor Oil	110,662	1
Transformer Oil	61,769	2
Used Oil	25,900	1

1. The Emergency Planning and Community Right-to-Know Act of 1986 categorizes certain dangerous chemicals as EHS.
2. The above table summarizes EHS present above the associated threshold quantities as reported by facilities in the Aleutians Subarea on 2011 Tier Two forms. Facilities in other communities within the subarea may have these and other extremely hazardous substances at quantities below the EHS threshold quantities.
3. The Emergency Planning and Community Right-to-Know Act of 1986 required facilities to report the presence of any chemical that has a Safety Data Sheet as administered by the Occupational Safety and Health Administration and is stored in amounts above certain threshold levels. In certain cases involving mining operations, facilities may be exempt from report under Mining Safety and Health Administration provisions.

C. TRANSPORTATION

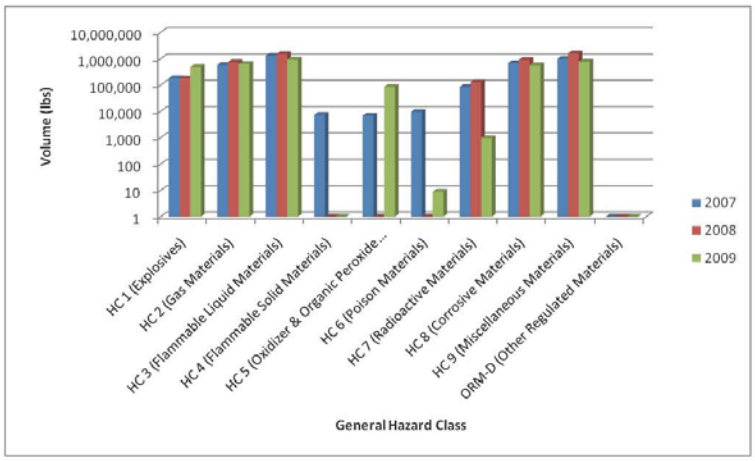
Hazardous substances are generally transported into the subarea via water and delivered either direct to facilities or transported to facilities by truck over local road systems. Some substances may be shipped by air or come into the area aboard fishing-industry vessels.

The following pages contain information from the Statewide Hazmat Commodity Flow Study conducted in 2010. The information provided is specific to the Aleutians subarea. The complete report is available on the ADEC website at: www.dec.alaska.gov/spar/perp/hazmat/study.html

5.5 Aleutians

The transportation of hazardous materials through the Aleutian Subarea (AI) includes two modes of transportation: air and marine. Many of the commodities listed as transiting this subarea are destined for other subarea locations. For example, hazardous materials shipments that are delivered via barge/vessel to any of the subareas north of the Aleutians Subarea (e.g. Western Alaska, Northwest Arctic, and North Slope) will be noted as transiting within the Aleutians Subarea. Additionally, while not captured in this dataset, the Aleutian Subarea sees significant volume of commodities destined for other foreign and domestic ports. According to a September 3, 2010 Aleutian Islands Risk Assessment[34], the Aleutian Islands are the ideal route of passage for international trade. Commodities identified in this report that transit the Aleutian Islands enroute to other foreign and domestic ports include primarily HC 3 (Flammable Liquid Materials) and HC 2 (Gas Materials). These specific commodities are not captured in this dataset. The breakdown of hazardous materials volumes from year to year by Hazard Class is depicted in Figure 5-21 below.

Figure 5-21. Volumes of Hazardous Materials Shipped into the Aleutians presented on a log scale



In general, HC 3 commodities (Flammable Liquid Materials), HC 8 commodities (Corrosive Materials), HC 9 (Miscellaneous Materials), and HC 2 (Gas Materials) consistently dominated the volume of hazardous materials commodities shipped within the Aleutians Subarea. Figures 5-22, 5-23, and 5-24 depict the comparison of commodities shipped as a percentage of the total Aleutians Subarea volume.

[34] Aleutian Islands Risk Assessment Phase A – Preliminary Risk Assessment Task 1: Semi-quantitative Traffic Study Report, Det Norske Veritas and ERM – West, INC., September 2010.

Figure 5-22. AI Hazardous Materials Percentage of Total Volume by Hazard Class for 2007

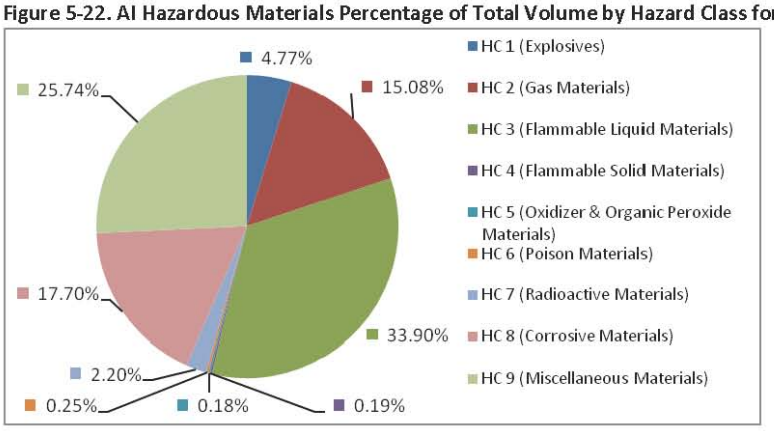


Figure 5-23. AI Hazardous Materials Percentage of Total Volume by Hazard Class for 2008

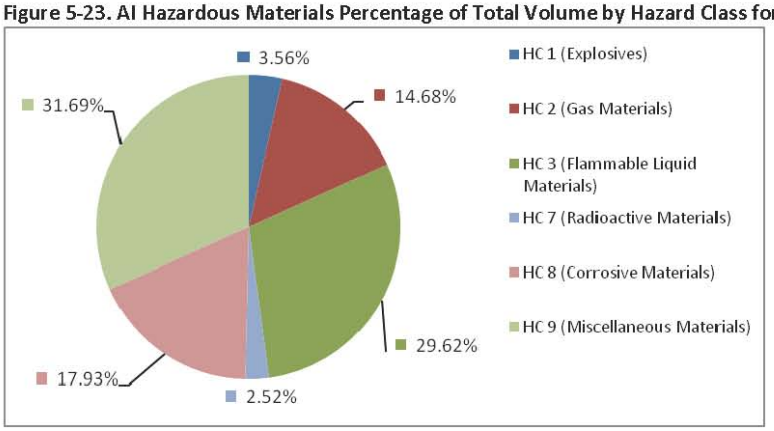


Figure 5-24. AI Hazardous Material percentage of total volume by Hazard Class for 2009

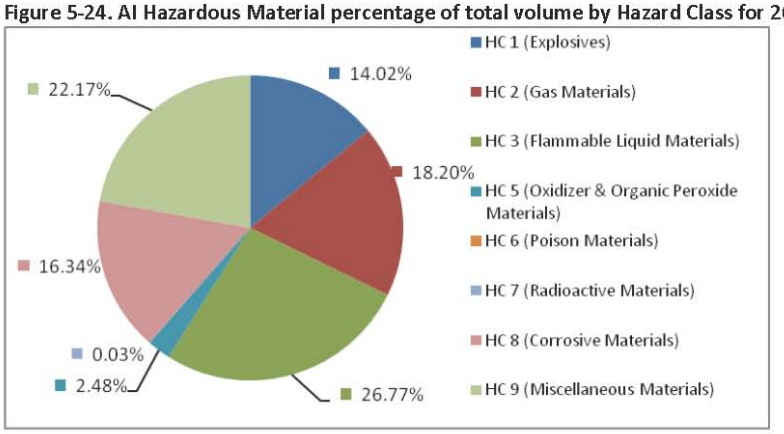


Table 5-34 lists the volumes of hazardous materials shipped within the Aleutians Subarea by hazard class for each calendar year evaluated for this study.

Table 5-34. Volumes of Hazard Class Transported within Al Subarea by Calendar Year

Hazard Class	2007 (Total Volume in lbs)	2008 (Total Volume in lbs)	2009 (Total Volume in lbs)
HC 1 (Explosives)	185,044	182,475	491,133
HC 2 (Gas Materials)	585,380	752,882	637,228
HC 3 (Flammable Liquid Materials)	1,316,011	1,519,413	937,361
HC 4 (Flammable Solid Materials)	7,358	-	-
HC 5 (Oxidizer & Organic Peroxide Materials)	6,884	-	86,754
HC 6 (Poison Materials)	9,583	-	9
HC 7 (Radioactive Materials)	85,512	129,487	975
HC 8 (Corrosive Materials)	687,092	919,493	572,083
HC 9 (Miscellaneous Materials)	999,266	1,625,431	776,443
ORM-D (Other Regulated Materials)	-	-	-

A more detailed evaluation of each hazard class is provided below. For the Aleutians Subarea, the volume shipped threshold was established at 10,000 lbs.

HC 1 Explosives: The primary explosives that were transported through the Aleutians Subarea were HC 1.0 and 1.4 in 2007, HC 1.0 in 2008, and HCs 1.0, 1.1, 1.3 and 1.4 in 2009. Table 5-35 lists the primary HC 1 commodities shipped within the Aleutians Subarea.

Table 5-35. Primary Hazard Class 1 Commodities Shipped within the Aleutians Subarea

Hazard Class	Hazardous Material Description (Greater than 10,000 lbs Shipped)	UN ID Number
1.0	Ammunition	0006
1.1	Boosters	0042
	Cord Detonating	0065
	Explosive, Blasting, Type A	0081
	Explosive, Blasting, Type E	0241
1.3	Rocket Motors	0186
1.4	Articles, Explosive, N.O.S.	0349

There were no HC 1.2 or 1.5 commodities shipped in a volume that exceeded the 10,000 lb threshold.

HC 2 Gas Materials: HCs 2.0 (unspecified hazard class), 2.1 and 2.2 were transported in the Kodiak Subarea. Volumes transported remained relatively consistent from year to year. Table 5-36 lists the primary HC 2 commodities shipped within the Aleutians Subarea.

Table 5-36. Primary Hazard Class 2 Commodities Shipped within the Aleutians Subarea

Hazard Class	Hazardous Material Description (Greater than 10,000 lbs Shipped)	UN ID Number
2.1	Acetylene, Dissolved	1001
2.2	Argon, Compressed	1006
	Carbon Dioxide	1013
	Dichlorodifluoromethane or Refrigerant Gas R12	1028
	Chlorodifluoromethane or Refrigerant Gas R22	1018
	Helium, Compressed	1046
	Nitrogen, Compressed	1066
	Oxygen, Compressed	1072
	Compressed Gas, N.O.S.	1956
	Carbon Dioxide Refrigerated Liquid	2187
	Liquefied Gas, N.O.S.	3163
	1,1,1,2-Tetrafluoroethane or Refrigerant Gas R134A	3159
	Fire Extinguishers	1044

HC 3 Flammable Liquid Materials: HC 3.0 materials were shipped to the Aleutians Subarea via aircraft and marine methods. No discernible trend was displayed from the data received and compiled. However, it has been stated in the Vessel Traffic in the Aleutians Subarea Report of 2005[35] that as much as 800 million gallons (approximately 5,800,000,000 lbs) per year of persistent and non-persistent oil cargo moves through the Aleutians Subarea in innocent passage in about 30 to 40 tank ship voyages. Table 5-37 lists the primary HC 3 commodities shipped within the Aleutians Subarea.

Table 5-37. Primary Hazard Class 3 Commodities Shipped within the Aleutians Subarea

Hazard Class	Hazardous Material Description (Greater than 10,000 lbs Shipped)	UN ID Number
3.0	Gasoline	1203
	Isopropanol or Isopropyl Alcohol	1219
	Paint	1263
	Butanols	1120
	Adhesives	1133
	Methanol	1230
	Kerosene	1223

[35] Vessel Traffic in the Aleutians Subarea, Report to Alaska Department of Environmental Conservation, Nuka Research and Planning Group, LLC and Cape International, Inc., April 29, 2005

Hazard Class	Hazardous Material Description (Greater than 10,000 lbs Shipped)	UN ID Number
	Flammable Liquids, N.O.S.	1993
	Flammable Liquids, Corrosive, N.O.S.	2924
	Fuel, Aviation, Turbine Engine	1863
	Petroleum Distillates, N.O.S. or Petroleum Products, N.O.S.	1268

HC 4 Flammable Solid Materials: Small volumes of HC 4.1 were transported through the Aleutians Subarea in 2007 that did not exceed 10,000 lbs. There were no other shipments noted for 2008 or 2009 based on the data evaluated for this study.

HC 5 Oxidizer and Organic Peroxide Materials: HC 5.1 and 5.2 were shipped within the Aleutians Subarea in 2007 and 2009. The volume of HC 5.1 increased by an order of magnitude between 2007 and 2009 while HC 5.2 shipments stopped. Table 5-38 lists the primary HC 5 commodities shipped within the Aleutians Subarea.

Table 5-38. Primary Hazard Class 5 Commodities Shipped within the Aleutians Subarea

Hazard Class	Hazardous Material Description (Greater than 10,000 lbs Shipped)	UN ID Number
5.1	Hydrogen Peroxide, Aqueous Solutions	2014

There were no shipments of HC 5.2 commodities that exceeded 10,000 lbs.

HC 6 Poisons: A relatively small volume of HC 6.1 was shipped in the Aleutians Subarea in 2007 and no shipments were reported in 2008 according to the data received and evaluated for this study. A very small volume of Mercuric Chloride was shipped in 2009. The small volume was retained for reporting purposes because it is classified as an EHS. These volumes did not exceed 10,000 lbs.

HC 7 Radioactive Materials: HC 7.0 was transported within the Aleutians Subarea in 2007, 2008 and 2009. Volumes shipped increased between 2007 and 2008, and then decreased sharply in 2009. Table 5-39 lists the primary HC 7 commodities shipped within the Aleutians Subarea.

Table 5-39. Primary Hazard Class 7 Commodities Shipped within the Aleutians Subarea

Hazard Class	Hazardous Material Description (Greater than 10,000 lbs Shipped)	UN ID Number
7.0	Radioactive Material, Type A Package	2915
	Radioactive Material, Excepted Package-Articles Manufactured From Natural or Depleted Uranium or Natural Thorium	2910
	Radioactive Material, Type A Package, Special Form	3332

HC 8 Corrosive Materials: The volume of HC 8.0 commodities shipped within the Aleutians Subarea increased by approximately 30% between 2007 and 2008 and then decreased by approximately 40% between 2008 and 2009. Table 5-40 lists the primary HC 8 commodities shipped within the Aleutians Subarea.

Table 5-40. Primary Hazard Class 8 Commodities Shipped within the Aleutians Subarea

Hazard Class	Hazardous Material Description (Greater than 10,000 lbs Shipped)	UN ID Number
8.0	Corrosive Cleaning Supplies	1760
	Batteries, Wet, Filled with Acid	2794
	Sulfuric Acid	2796
	Batteries, Wet, Non-Spillable	2800
	Corrosive, Liquid, Basic, Inorganic, N.O.S.	3266
	Formic Acid	1779
	Phosphoric Acid	1805
	Sodium Hydroxide Solution	1824
	Batteries, Wet, Filled with Alkali	2795

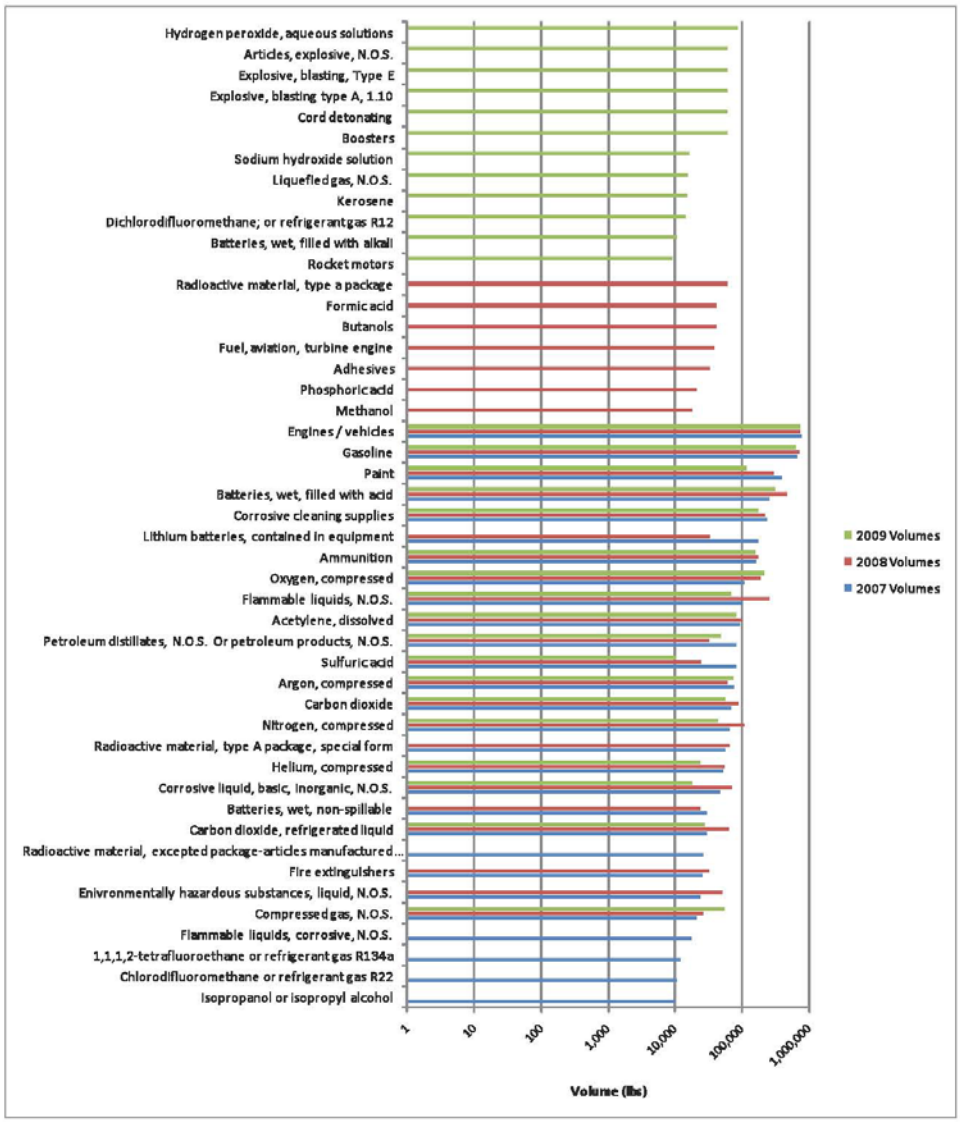
HC 9 Miscellaneous Materials: The volume of HC 9.0 commodities shipped within the Aleutians Subarea saw a dramatic increase between 2007 and 2008 and then dropped below the 2007 levels in 2009. The sharp increase in 2008 could be attributable to the increase in the Alaska Permanent Fund Dividend checks during this timeframe. Table 5-41 lists the primary HC 9 commodities shipped within the Aleutians Subarea.

Table 5-41. Primary Hazard Class 9 Commodities Shipped within the Aleutians Subarea

Hazard Class	Hazardous Material Description (Greater than 10,000 lbs Shipped)	UN ID Number
9.0	Engines / Vehicles	3166
	Environmentally Hazardous Substances, Liquid, N.O.S.	3082
	Lithium Batteries, Contained in Equipment	3091

Figure 5-25 depicts the volume of hazardous materials shipped each year within the Aleutians Subarea by Hazardous Material Name for volumes exceeding 10,000 pounds.

Figure 5-25. Hazardous Material Commodities by Hazardous Material Name (Greater than 10,000 lbs) for the Aleutians Subarea, for 2007 through 2009, presented on a log scale.



D. REFERENCES

Alaska Federal/State Preparedness Plan for Response to Oil & Hazardous Substance Discharges/Releases (Unified Plan) May 1994, Alaska Regional Response Team, 1994. (as amended).

1998 Statewide Hazardous Material Inventory, HartCrowser, 1999. Prepared for Alaska Department of Environmental Conservation, Division of Spill Prevention and Response.

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Alaska Statewide Oil and Hazardous Substance Inventory for Tier Two Reporting Year 2011, Ecology and Environment. Prepared for U.S. Environmental Protection Agency, Region 10.

Statewide Hazardous Materials Commodity Flow Study, Nuka Research and Planning Group, 2010. Prepared for the Alaska Department of Environmental Conservation and the Alaska Department of Military and Veterans Affairs. The basic report is available at: www.dec.alaska.gov/spar/perp/hazmat/study.html

"Vessel Traffic in the Aleutians Subarea" (May 2005). This report is available on the ADEC website at: www.dec.alaska.gov/spar/perp/index.htm.

HAZMAT: PART SIX – RADIOLOGICAL AND BIOLOGICAL ISSUES

Procedures for radiological response are included in the *Unified Plan, Annex J***.**

Presently, a biological response is not addressed and procedures are not under development for biological issues.

ALEUTIANS SUBAREA CONTINGENCY PLAN

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SENSITIVE AREAS: INTRODUCTION

This section is intended for use by the On-Scene Coordinators (OSC) during the initial phase of a spill event to assist in ascertaining the location and presence of spill-sensitive biological and cultural resources, services and users in this subarea. This information is specific to this subarea. No attempt has been made to duplicate information contained in easily accessible existing documents. This section, therefore, must be used in conjunction with the referenced materials and informational contacts identified herein. More detailed and current data should be available from on-scene resource experts when they become engaged in the response. This information is geared toward early response. If appropriate, natural resources trustees may be conducting natural resource damage assessment (NRDA) activities in conjunction with response activities. Information regarding NRDA activities should be directed to the natural resources trustees or to their appointed NRDA Liaison.

Often, the most detailed, up-to-date biological and resource use information will come from people who live and work in the impacted area. Residents from the local community are often knowledgeable sources for information related to local oceanographic or weather conditions that may be beneficial during a response.

The Alaska Regional Response Team (ARRT) has adopted several documents (see the *Alaska Federal/State Contingency Plan for Response to Oil & Hazardous Substance Discharges/Releases (Unified Plan))* that address decision making to help protect sensitive areas and resources. These documents (and their locations) include:

- *ARRT Oil Dispersant Guidelines for Alaska* (see *Unified Plan, Annex F, Appendix 1*)
- *In Situ Burning Guidelines for Alaska* (see *Unified Plan, Annex F, Appendix 2*)
- *Wildlife Protection Guidelines for Alaska* (see *Unified Plan, Annex G, Appendix 1)*
- *Alaska Implementation Guidelines for Federal OSCs for the Programmatic Agreement on Protection of Historic Properties during Emergency Response under the National Oil and Hazardous Substances Pollution Contingency Plan Protection of Historic Properties* (see *Unified Plan, Annex M*)

In addition, Federal OSCs in Alaska are working in cooperation with the U.S. Department of the Interior and the National Marine Fisheries Service (NMFS) to ensure response activities are conducted meet Endangered Species Act requirements, in accordance with the 2001 *Inter-Agency Memorandum of Agreement Regarding Oil Spill Planning and Response Activities Under the Federal Water Pollution Control Act National Oil and Hazardous Substances Pollution Contingency Plan* (see *Unified Plan, Annex K*).

In addition, Annex N of the *Unified Plan* includes *Shoreline Cleanup and Assessment Guidelines*, which provide helpful information on cleanup options by shoreline type.

Section G of this Subarea Contingency Plan contains site-specific Geographic Response Strategies (GRSs) for use by responders in protecting key sensitive areas.

This section and the guidelines in the *Unified Plan* are also intended for use by facility/vessel operators in developing industry oil spill prevention and contingency plans. For an operator's facility or area of operation, industry contingency plans describe: (a) environmentally sensitive areas and areas of public

concern; (b) how sensitive areas would be prioritized during a spill event; and (c) response strategies to protect sensitive areas at risk. The information in industry plans should be consistent with the subarea contingency plan.

The definition of sensitive resources and their geographic locations requires use of field observations and data available from published and non-published materials or through additional fieldwork. Identifying relative priorities among resources and resource uses takes considerable coordination and discussion among resource management agencies. With the limited time and funds available for subarea contingency plan development (there are ten such plans covering the state of Alaska), not all the detailed information about every possible resource at risk is included. Future updates to this document will continue to add information relevant to response activities.

Many of the maps presented in this section are available online at:
www.asgdc.alaska.gov/maps/cplans/subareas.html.

Suggestions, comments, and more current information are requested. Please contact either:

Scientific Support Coordinator
NOAA Emergency Response Division
49000 Army Guard Road
G Wind, Room 216
JBER, Alaska 99505
Phone: 428-4143

Alaska Department of Fish and Game
Division of Habitat
333 Raspberry Road
Anchorage, Alaska 99518
Phone: 267-2342
Fax: 267-2499

SENSITIVE AREAS: PART ONE – INFORMATION SOURCES

AGENCY	RESOURCES	POINT OF CONTACT
Fish and Wildlife and Habitat Resources		
Alaska Department of Fish and Game	Fish, shellfish, birds, terrestrial mammals, marine mammals	Division of Habitat Anchorage - 267-2342
U.S. Department of the Interior	Migratory birds, sea otters, polar bears, walrus, endangered species, anadromous fish in freshwater, bald eagles, wetlands	Office of Environmental Policy & Compliance Anchorage - 271-5011
U.S. Department of Commerce, National Marine Fisheries Service	Sea lions, seals, whales, endangered marine species and listed anadromous fish in marine waters	Protected Resources Division Juneau - 586-7235
U.S. Department of Commerce, National Marine Fisheries Service	Essential fish habitat	Habitat Conservation Division Juneau - 586-7636
U.S. Department of Commerce, National Marine Fisheries Service	Effects of oil on fisheries resources, hydrocarbon chemistry, dispersants	Alaska Fisheries Science Center Auke Bay Laboratory - 789-6000
University of Alaska	Rare and endangered plants	Alaska Natural Heritage Program Anchorage - 257-2785
Cultural and Archaeological Sites		
Alaska Department of Natural Resources	Historic sites, archaeological sites, national register sites	Alaska Office of History and Archaeology Anchorage - 269-8721
U.S. Department of the Interior	Archaeological/historical sites in park and wildlife refuge system units, public lands, Native allotments/trust lands; sunken vessels	Office of Environmental Policy & Compliance Anchorage - 271-5011
Shoreline Types		
U.S. Department of Commerce, National Oceanic & Atmospheric Administration	Shoreline types, environmental sensitivity index maps	Scientific Support Coordinator Anchorage - 428-4160 or 428-4131
Land Ownership and Classifications/Designations		
Alaska Department of Natural Resources	State lands, state parks and recreation areas, state forests, tidelands	Division of Mining, Land, and Water Anchorage - 269-8565
Alaska Department of Fish and Game	State game refuges, state critical habitats	Division of Habitat Anchorage - 267-2342
U.S. Department of the Interior	National parks and preserves, national historic sites, national monuments, national wildlife refuges, public lands, national recreation areas, wild and scenic rivers, wilderness areas, Native trust lands	Office of Environmental Policy & Compliance Anchorage - 271-5011
U.S. Department of Defense	Military installations and reservations	Alaska Command Anchorage - 552-3944
Local Governments: –Aleutians East Borough –Aleutians West Coastal Resource Service Area	Municipal and private lands, and rights-of-way Coastal program special areas, plans, policies	For the current local government and tribal contact information, go to *B. Resources Section, Part One Community Profiles*
Commercial Harvest		
Alaska Department of Fish and Game	Fishing permits, seasons	Division of Commercial Fisheries Kodiak - 486-1825

AGENCY	RESOURCES	POINT OF CONTACT
Alaska Department of Natural Resources	Tideland leases	Division of Mining, Land, and Water Anchorage - 269-8565
Alaska Department of Environmental Conservation	Seafood processing	Division of Environmental Health Anchorage - 269-7644
U.S. Department of Commerce National Marine Fisheries Service	Fishing permits, seasons	Protected Resources Division Anchorage - 271-5006
Subsistence, Personal, and Sport Uses		
Alaska Department of Fish and Game	Subsistence and personal uses statewide and navigable waters, sport hunting and fishing	Division of Sport Fish Kodiak - 486-1880
U.S. Department of the Interior	Subsistence uses on Federal lands and reserved waters; subsistence uses of: sea otters and migratory birds	Office of Environmental Policy & Compliance Anchorage - 271-5011
U.S. Department of Commerce	Subsistence use of: whales, porpoises, seals, sea lions	Protected Resources Division Anchorage - 271-5006
Recreation and Tourism Uses		
Alaska Department of Natural Resources	State parks and recreation areas, anchorages, boat launches, campgrounds, State public lands	Division of Parks and Outdoor Recreation Fairbanks - 451-2695
Alaska Department of Fish and Game	Sport hunting and fishing	Division of Wildlife Conservation Kodiak - 486-1880
Alaska Department of Commerce, Community & Economic Development	Seasonal events and activities, travel, outdoor activities, local visitor bureaus, tourism industries	Alaska Office of Tourism Development Juneau - 465-5478
U.S. Department of the Interior	Recreation uses in park and wildlife refuge system units and Federal public lands	Office of Environmental Policy & Compliance Anchorage - 271-5011
WATER INTAKE AND USE FACILITIES		
Alaska Department of Environmental Conservation	Public drinking water wells, treatment, and storage, fish processing facilities	Division of Water Anchorage - 269-7601
Alaska Department of Fish and Game	Hatcheries, ocean net pens and release sites, aquaculture	Division of Habitat Anchorage - 267-2342
Alaska Department of Natural Resources	Tidelands leases, aquaculture sites, private logging camps and log transfer facilities	Division of Mining, Land, and Water Juneau - 465-3400
U.S. Coast Guard	Marinas and docks, mooring buoys	Sector Anchorage 428-4200

SENSITIVE AREAS: PART TWO - AREAS OF ENVIRONMENTAL CONCERN

A. BACKGROUND/CRITERIA

The following relative priority listing was developed by the Sensitive Areas Work Group, with representatives from state and federal agencies and the private sector. The list prioritizes resources into designations of major, moderate, and lesser concern. Resources are not prioritized within each designation. These designations are for consideration in initial spill response activities, they are not applicable to extended cleanup activities. This prioritization scheme must be used in conjunction with spill-specific information (e.g., size and location of spill, type of product, trajectory) to determine the actual protection priorities for that discharge. Specific guidance to OSCs for protecting cultural resources is contained in *Unified Plan, Annex M.*

The following criteria were developed as a tool to establish levels of concern. These criteria are not listed in a priority order.

Criteria for Relative Priority Rating

- Human economic disruption -- economic/social value; human food source disruption
- Mortality -- wildlife, fish, other organisms (number potentially killed in relation to abundance)
- Animal displacement and sensitivity to displacement
- Aesthetic degradation
- Habitat availability and rarity
- Sub-lethal effects, including sensitivity to physical or toxic effects of oil or hazardous substances and long-term affects to habitat, species, or both
- Threatened and endangered species, and/or other legal designation
- Persistent concentration of oil or hazardous substances
- Reproduction rate or re-colonizing potential
- Relative importance to ecosystem
- Potential for physical contact with spill--pathway of oil or hazardous substances
- Resource sensitivity to response countermeasures

B. AREAS OF MAJOR CONCERN

- Threatened or Endangered Species Habitats:
  - Sea Otter Concentration Areas (> 20) and General Distribution
  - Steller Sea Lion Rookeries or Haul-outs
  - Steller's eiders overwintering sites
  - North Pacific Right Whale Critical Habitat
- Geomorphology - Coastal Habitat Types:
  - Marshes
  - Eelgrass Beds
  - Sheltered Tidal Flats
  - Sheltered Rocky Shores
- Geomorphology - Upland Habitat Types:
  - Streams and Lakes
  - Riparian Habitats
- Harbor Seal Haul-out Areas (> 10)

- Northern Fur Seal Rookeries
- Walrus Haul-out/Concentration Areas
- Caribou Calving and Insect Relief Areas
- Seabird Colonies (> 5,000)
- Waterfowl and Shorebird Spring, Fall, or Winter Concentration Areas
- Eagle Nest Sites
- Large Anadromous Fish Streams:
  - > 500 Chinook salmon
  - > 5,000 sockeye salmon
  - > 2,500 coho salmon
  - > 25,000 pink salmon
  - > 15,000 chum salmon
- Subsistence Harvest Areas
- High Commercial Use Areas
- High Recreational Use Areas
- Land Management Designations:
  - Federal:
    - Wilderness
    - Wild and Scenic Rivers
    - National Natural Landmarks
  - State:
    - Refuges (Izembek State Refuge)
    - Sanctuaries
    - Critical Habitat Areas (Port Moller and Port Heiden Critical Habitats)
- Cultural Resources/Archaeological Sites:
  - National Historic Landmarks
  - Burial Sites
  - National Register Eligible Village Sites
  - Intertidal Sites

C. AREAS OF MODERATE CONCERN

- Species of Concern Habitats (Potential Threatened or Endangered)
- Geomorphology - Coastal Habitat Types:
  - Gravel Beaches
  - Mixed Sand and Gravel Beaches
  - Exposed Tidal Flats
  - RIPRAP
  - Coarse Grained Sand Beaches
- Sea Otter General Distribution Areas (<20)
- Foraging/Transit Habitat for Minke Whales, Killer Whales, Dall's Porpoise, and Harbor Porpoise
- Harbor Seal Haul-out Areas (5-10)
- Northern Fur Seal Offshore Concentration Areas
- Seabird Colonies (1, 000 – 5,000)
- Waterfowl and Shorebird Nesting or Molting Concentration Areas
- Bear Concentration Areas
- Anadromous Fish Streams:

    - 100-500 Chinook salmon
    - 1,000-5,000 sockeye salmon
    - 500-2,500 coho salmon
    - 5,000-25,000 pink salmon
    - 5,000-15,000 chum salmon
- Moderately Sized Freshwater Fish Systems
- Clam Beds
- Caribou Migration Routes
- Other Subsistence Harvest Areas
- Other Commercial Harvest Areas
- Other Recreational Use Areas
- Land Management Designations:
    - Federal: National Wildlife Refuges (Izembek and Alaska Maritime)
    - State: State Parks
- Native Allotments
- Cultural Resources/Archaeological Sites:
    - National Register Eligible Sites (Other Than Village Sites)
    - Sites Adjacent To Shorelines

D. AREAS OF LESSER CONCERN

- Geomorphology - Coastal Habitat Types:
    - Fine-Grained Sand Beaches
    - Exposed Wave-Cut Platforms
    - Exposed Rocky Shores
- Harbor Seal Haulouts (< 5)
- Walrus General Distribution Areas
- Seabird Colonies (< 1,000)
- Waterfowl and Shorebird General Distribution Areas
- Anadromous Fish Streams:
    - < 100 Chinook salmon
    - < 1,000 sockeye salmon
    - < 500 coho salmon
    - < 5,000 pink salmon
    - < 5,000 chum salmon
- General Freshwater Fish Habitats
- Land Management Designations:
    - Federal: Public Lands
    - State: General Public Lands
- Other Cultural Resources

E. AREAS OF CONCERN FOR INVASIVE RATS

All islands within the scope of this plan were originally rat-free, but accidental introductions have had major adverse impacts to island wildlife, birds, and humans which can last much longer than the effects of a spill. Shipwrecks and the well-intentioned transport of spill response material can be a primary means of introducing cargo-riding rats to pristine settings which can forever alter islands. Responders

should be aware of this possibility and be prepared to take defensive measures to prevent accidental introductions. All of the islands within the Aleutians subarea are rat-free, with the exception of:

- Attu
- Shemya
- Kiska
- Amchitka
- Adak
- Great Sitkin
- Kagalaska
- Atka
- Unalaska
- Sedanka
- Amaknak
- Akutan

F. AREAS OF LOCAL CONCERN

The Aleutians East Borough, has identified several Special Use Areas based on unique, environmentally vulnerable, or commercially important fish and wildlife resources and habitats (see the following maps). Commercial fishing is a key use in many of these areas. These include:

Designation Area	Reason for Designation
Port Moller/Herendeen Bay and Bear River Special Use Area	Five species of salmon are found in this area; sockeye and chum are the most important. Large numbers of herring and other forage fish pass through the area, and this is a major herring spawning area. Red king and Dungeness crab are in the area, and this is an important nursery for halibut and sole. The area contains several seabird colonies. Shorebirds and waterfowl migrate through the area in spring and fall. Harbor seals haul-out in the area, as do walrus on Walrus Island. Sea otters are present. Gray whales migrate through the area.
Nelson Lagoon Special Use Area	Significant numbers of Chinook, coho, chum and sockeye salmon are found here. Dungeness and red king crab are here, and clams are harvested for subsistence use. A large seabird colony is on the Kudobin Island. This is a major staging area for fall shorebird migration, and for waterfowl migration staging and feeding. Harbor seals, sea otters and gray whales are found here.
Izembek Lagoon Special Use Area	This large estuarine system supports one of the largest eelgrass beds in the world. This is a major chum and sockeye salmon area and a rearing area for red king crab. This is a major staging, feeding, molting, nesting and wintering area for shorebirds and waterfowl. The world's population of black brant stage here, as do most of the emperor geese, cackling geese, and female Steller's eider. This is a key haul-out and breeding area for harbor seals. Sea otters frequent the area.
Bechevin Bay Special Use Area	The area contains king crab spawning grounds and sees substantial use by waterfowl and shorebirds for migration staging, feeding molting nesting and wintering. This is a key haul-out and breeding area for harbor seals. Sea otters frequent the area. The area is also important for spring feeding by brown bears.
Unimak Pass Special Use Area	This area sees large numbers of adult salmon pass through as they migrate to streams in Bristol Bay and Western Alaska. Juvenile salmon migrate through the area to the north Pacific. The area is also a major migration route for ducks,

Designation Area	Reason for Designation
	geese, seabirds and marine birds. Humpback, fin, and gray whales, as well as northern fur seals use the area in spring and fall.
Pavlof/Canoe Bay Special Use Area	This is a key salmon and herring spawning area. King, tanner, and Dungeness crabs are present, as are shrimp and groundfish. Seabirds nest here and waterfowl also use the area. Brown bears concentrate here.
Anadromous Fish Stream Special Use Area	Anadromous fish streams support spawning populations of fish, which are essential for the region's commercial fisheries. Associated lakes and tributaries are also important fish habitat. This area includes all streams identified in the Anadromous Waters Catalog produced by the Alaska Department of Fish and Game an interactive map is available on the Internet at www.adfg.alaska.gov/sf/SARR/AWC/index.cfm?ADFG=main.interactive.
Unalaska Bay	This is a traditional use area of the Aleuts and contains numerous archaeological and historic sites, including Amaknak Island, which is a National Historic Landmark for World War II military activities. The recent commercial growth in the area during recent years has put pressures on local recreational, subsistence and personal uses of resources in the area.
Chernofski Harbor	This is an important fish and wildlife habitat area, which contains archaeological and historic sites. The area has been studied for possible commercial development.

SENSITIVE AREAS: PART THREE - RESOURCE SENSITIVITY

The following sensitivity tables were developed by the State and Federal Natural Resources Trustees with legislative responsibility for management and protection of these resources. This includes the following agencies: NMFS, U.S. Fish and Wildlife Service (USFWS), National Park Service, Bureau of Land Management, Alaska Department of Fish and Game (ADF&G), and Alaska Department of Natural Resources. This information is a summary derived from recent field studies, research reports, long-term monitoring, stakeholder input, and local knowledge. Periods and/or conditions when resources are of varying levels of concern (low, medium, high) with respect to affects from an oil spill are noted in the following tables. Susceptibility for each group of animals is year round unless otherwise noted in the Seasonal Sensitivity row that is added for the appropriate animal group.

Geomorphology

Category	Low	Medium	High
Coastal Habitat Types	• Fine-Grained Sand • Exposed Wave-cut Platforms • Exposed Rocky Shores	• Gravel Beaches • Mixed Sand & Gravel Beaches • Exposed Tidal Flats • Coarse Grained Sand Beaches	• Marshes • Eelgrass Beds • Sheltered Tidal Flats • Sheltered Rocky Shores
Lake and River Habitat Types	• Exposed Rocky Cliffs & Banks • Bedrock Shores & Ledges, Rocky Shoals • Eroding Scarps/Banks in Unconsolidated Sediment • Exposed Man-Made Structures	• Sand Beaches & Bars • Mixed Sand & Gravel Beaches/Bars • Gravel Beaches/Bars • Gently Sloping Banks • Exposed Flats • Riprap	• Sheltered Scarps in Bedrock • Vegetated Steep Sloping Bluffs • Sheltered Man- Made Structures • Vegetated Low Banks • Sheltered Sand & Muddy Substrates • Marshes

Threatened or Endangered Species

Category	Low	Medium	High
Endangered Species			**Whales:** Fin, Blue, Sei, Humpback, Gray, Sperm, and North Pacific right **Pinnipeds**: Steller sea lion **Birds:** Short-tailed albatross, Eskimo curlew **Plant:** Aleutian shield fern
Threatened Species			**Marine mammals:** Northern sea otter **Birds:** Steller's eider, Spectacled eider
Species of Concern			**Birds**: Kittlitz's murrelet
Protected Species			Bald eagles, Golden eagles, All marine mammals and migratory birds

Steller's Eider Critical Life Periods

Winter Resident	Oct 1 – July 31

Spectacled Eider Critical Life Periods

Winter Resident	Nov 1 – June 30

Sea Otters

Category	Low	Medium	High
Abundance			> 20 and general distribution
Human Harvest	Year round		

Sea Otter Critical Life Periods

Present Nearshore	Year Round
Pupping	May 1 – June 30

Harbor Seals

Category	Low	Medium	High
Abundance	< 5	5 - 10	> 10
Human Harvest		May 1 - June 30	Jan 1 - Apr 30 July 1 - Dec 31

Harbor Seal Critical Life Periods

Pupping	May 15 – June 30
Molting	Aug 1 – Sept 15
On Haul-outs	Year Round

Steller Sea Lions

Category	Low	Medium	High
Abundance (on haul-out)	< 15	15 - 30	> 30
Human Harvest	June 1 - Aug 31	Apr 1 - May 31 Sept 1 - Sept 30	Oct 1 - Mar 31

Stellar Sea Lion Critical Life Periods

Pupping	May 15 – July 31
Molting	Aug 1 – Sept 30
On Rookeries	May 1 – Sept 30
On Haul-outs	Year Round

Northern Fur Seal

Category	Low	Medium	High
Human Harvest	Sept 1 - May 31		June 1 - Aug 31

Northern Fur Seal Critical Life Periods

Pupping	June 15 – July 31
On Rookeries	June 1 – Nov 30

Walrus

Category	Low	Medium	High
Human Harvest	No to little human use		

Walrus Critical Life Periods

Molting	**March-August**
Calving Period	**April-July**
On Haul-outs	**June-October**

Whales and Porpoises ask NMFS—susceptibility useful? Year round most species

Category	Low	Medium	High
Abundance	< 10	10 - 50	> 50
Seasonal Sensitivity	Oct 1-May 1	Aug 1-Sept 30	May 1-July 31
Human Harvest	Year around (salvage)		

Whale and Porpoises Critical Life Periods

Presents Nearshore	Year round
Calving	May 1 – July 31

Brown Bears

Category	Low	Medium	High
Seasonal Sensitivity	Nov 1 - Apr 30	May 1 - June 30 Sept 1 - Oct 31	July 1 - Aug 31
Human Harvest*	Closed except by limited permit only (See Annual ADF&G report for specific harvest information)		

* Open season fall of odd years and spring of even years (i.e., fall '95, spring '96). No known subsistence harvest.

Brown Bear Critical Life Periods

Denning	Jan 1 – March 31
Feeding in Coastal Area	April 15 – June 30
Feeding along Salmon Streams	Aug 1 – Oct 31

Caribou/Reindeer

Category	Low	Medium	High
Abundance[1]	Year round		
Seasonal Sensitivity	Sept 1 - May 15		May 16 - Aug 31
Human Harvest	Apr 1 - July 31 (Caribou)	Feb 1 - Mar 31 Oct 1 - Oct 31(Caribou) Mar 1 - Aug 31 Nov 1 - Dec 31(Reindeer)	Aug 1 - Sept 30 Nov 1 - Jan 31(Caribou) Jan 1 - Feb 28 Sep 1 - Oct 31 (Reindeer)

[1]There are three caribou herds (i.e., North Alaska Peninsula Herd, South Alaska Peninsula Herd, and the Adak Herd) that inhabit portions of this region, while reindeer are found on Atka, Unimak and the Pribilof islands. Depending on the herd abundance may vary widely. As a result, specific abundance figures have not been established for use in prioritizing protection sites.

Caribou and Reindeer Critical Life Periods

Calving	May 15 – June 30

Moose

Category	Low	Medium	High
Abundance	Very few, if any, moose are present in GMU 9D and 10, which represent this area. Therefore their abundance and susceptibility would be low.		
Human Harvest	No Open Season. No Subsistence Use.		

Moose Critical Life Periods

Calving	May 1 – June 30

Loons and Grebes

Category	Low	Medium	High
Abundance	< 10	10-100	> 10
Seasonal Sensitivity	May 16 – Aug 14	April 15 – May 15 Aug 15 – Oct 31	Nov 1 – April 14

Loon and Grebe Critical Life Periods

Spring Migration	April 15–May 15
Fall Migration	Aug 15– Oct 31
Winter Concentrations	Jan 1 – April 30 Oct 15 – Dec 31

Waterfowl (Ducks and Geese)

Category	Low	Medium	High
Abundance	Abundance figures are not available		
Seasonal Sensitivity	Nov 1 - Jan 31[5]	Feb 1 - April 14 May 16 - Aug 14	April 15 - May 15 Aug 15 - Oct 31
Species Diversity	1 – 3	4 – 6	> 6
Human Harvest	June 1 - Aug 31	Dec 1 - Dec 31	Jan 1 - May 31 Sept 1 - Nov 30

In Areas of Local Concern, (e.g. Izembeck lagoon) where waterfowl concentrate in the winter, their susceptibility would be high.

Waterfowl Critical Life Periods

Spring Migration	April 15 – May 15
Nesting/Rearing	April 15 –July 15
Fall Migration	Aug 15 – Oct 31
Winter Concentrations	Oct 15 – April 30

Migrating Shorebirds (Sandpipers, Surfbirds, Dunlins, and Plovers)

Category	Low	Medium	High
Abundance	Abundance figures are not available		
Seasonal Sensitivity	Nov 1 - Jan 31 May 16 - Aug 14	Feb 1 - April 14	April 15 - May 15 Aug 15 - Oct 31
++Species Diversity	1	2-4	> 4

Shorebirds Critical Life Periods

Spring Migration	Apr 15 – May 15
Fall Migration	Aug 15 – Oct 31

Colonial Seabirds (Cormorants, Murres, Auklets, Puffins, Kittiwakes, Gulls, and Terns)

Category	Low	Medium	High
Abundance	< 10,000	10,000 – 100,000	> 100,000
Seasonal Sensitivity	Oct 1 - Jan 31	Feb 1 - March 31	April 1 - Sept 30
Species Diversity	1 – 3	4 – 6	> 6
Human Harvest[7]	June 1 - April 19		April 20 - May 31

Some species such as the Common murre become more abundant in winter months. Seabird eggs utilized by Native communities.

Other Seabirds (Pigeon guillemots, Murrelets, and others)

Category	Low	Medium	High
Abundance	< 10	10-20	> 20
Seasonal Sensitivity	Nov 1 - Jan 31	Feb 1 - March 31	April 1 - Oct 31
Species Diversity	1	2-3	>3

Seabirds Critical Life Periods

On Colonies	May 1 – Sept 30
Feeding near Colonies	April 1 - Oct 31

Raptors (Generally Bald Eagles)

Category	Low	Medium	High
Abundance	< 1 nest/10 coastal miles	1 nest/5-10 coastal miles	> 1 nest/ 5 coastal mile

Raptors (Generally Eagles) Critical Life Periods

Nesting/Rearing	April 1 – Aug 31
Present near Coast	Year Round

Salmonids

Category	Low	Medium	High
Abundance	< 100 (Chinook) < 1,500 (Sockeye) < 500 (Coho) < 5,000 (Pinks) < 5,000 (Chum)	100-500 (Chinook) 1,500-5,000 (Sockeye) 500-2,500 (Coho) 5,000-25,000 (Pinks) 5,000-15,000 (Chum)	> 500 (Chinook) > 5,000 (Sockeye) > 2,500 (Coho) > 25,000 (Pinks) > 15,000 (Chum)
Seasonal Sensitivity	Dec 1 – Feb 28	Mar 1 - Apr 30 Oct 1 - Nov 30	May 1 - Sept 30
Human Harvest	Mar 1 – Apr 30	Oct 1 - Feb 28	May 1 - Sept 30

Salmon Critical Life Periods

Adults near Shore	May 15 – Sept 30
Spawning in Streams	July 1 – Dec 31
Spawning Inter tidally	June 15 – Sept 31
Eggs/Young Development	Year Round
Smolt Outmigration	April 15 – July 15
Adults Return	May 1 – Oct 31

Herring

Category	Low	Medium	High
Abundance	Abundance data not available		
Seasonal Sensitivity	Oct 1 – Feb 28	Mar 1 - Mar 31	April 1 - Sept 30
Human Harvest	Aug 1 – Feb 28	Mar 1 - Apr 30	May 1 - July 31

Herring Critical Life Periods

Spawning	April 1 – May 31
Present near Shore	April 1 – Oct 31

Clams and Other Marine Invertebrates (Chitons)

Category	Low	Medium	High
Seasonal Sensitivity		Jan 1 - May 19	May 20 - Dec 31
Human Harvest		May 1 - Aug 31	Sept 1 - Apr 30

Clams and Other Marine Invertebrates Critical Life Periods

Spawning	July 1- Sept 30
Planktonic Larvae	July 1 – Dec 31

Legislatively Designated Land Status

Category	Low	Medium	High
Federal Lands			National Parks Wildlife Refuges Public Lands Wilderness Areas Native Allotments and Town Sites[2]
State Lands	Public Lands[1]		• Izembek State Game Refuge • Port Moller Critical Habitat Area • Port Heiden Critical • Habitat Area

[1] Includes submerged lands out to 3 miles, and historic bays and inlets

[2] Allotments are privately owned, however access should be coordinated through the Department of the Interior, Bureau of Indian Affairs

Cultural Resources/Archeological Sites

Category	Low	Medium	High
Historic properties, cultural and archaeological sites	• Cultural resources that do not meet National Register criteria	• National Register-eligible sites (excluding villages sites) • Sites adjacent to shorelines	• National Historic Landmarks • National Natural Landmarks • Burial sites • National Register-eligible village sites • Intertidal sites

SENSITIVE AREAS: PART FOUR – BIOLOGICAL AND HUMAN USE RESOURCES

A. INTRODUCTION

The Aleutian Islands are a biologically diverse and productive ecosystem valuable for commercial and subsistence fishing as well as for supporting large seabird and marine mammal populations. The Aleutian Islands combined with the Bering Sea and Gulf of Alaska support the world's largest groundfish fisheries. Additional marine species such as salmon, halibut, scallop, king and tanner crab are important for commercial and subsistence fisheries. The Alaska Maritime National Wildlife Refuge, established by the Alaska National Interest Lands Conservation Act of 1980, includes most of the Aleutian Islands within its boundary. More than 10 million seabirds of 26 species breed in the Aleutian Archipelago (USFWS 2000). The Aleutian Islands provide residence or seasonal habitat for a variety of marine mammals including Steller sea lions, northern fur seals, harbor seals, sea otters, and various cetacean species (NPFMC 2007).

Human factors that have shaped the Aleutian Islands marine ecosystem include fishing, hunting of marine mammals and seabirds, shipping, and military activities. Changes in marine mammal populations include the extinction of the Steller's sea cow *(Hydrodamalis gigas),* near extirpation, recovery and recent declines of northern sea otters *(Enhydra lutris)* (Doroff et al. 2003), and substantial declines in the western distinct population segment of Steller sea lions *(Eumetopias jubatus)* (Braham et al. 1980, NMFS 2010). Changes in commercially fished species include the depletion of economically valuable species such as Pacific Ocean perch *(Sebastes alutus)* and red king crab *(Paralithodes camtschaticus)* (Schumacher and Kruse 2005, NPFMC 2007). Unangan (i.e., Aleut) people have inhabited the Aleutian Islands for over 9,000 years (Veltre and Smith 2010). Cultural influences on the Unangan people occurred in the mid-1700s with Russian occupation for fur trade purposes, and later with US military presence, beginning in World War II. Today, thirteen communities in the Aleutian Islands are inhabited, with a total population level of approximately 8,352 individuals. Communities are heavily dependent on commercial and subsistence fishing (Sepez et al. 2005).

There are many national and international protected areas within the Aleutian Islands subarea. These areas have been designated to protect the components of both the marine and terrestrial environment. The background information contained in this section is a mixture of references to readily available documents, knowledgeable contacts, and data not readily available elsewhere. Industry or local government-generated references that have had agency input and review are incorporated by reference.

References:

- United States Fish and Wildlife Service (USFWS). 2000. Beringian seabird colony catalog. U.S. Fish and Wildlife Service, Anchorage, Alaska.
- NPFMC (2007). Aleutian Islands Fishery Ecosystem Plan. December 2007.
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B. HABITAT TYPES

Shoreline habitats have been defined and ranked according to Environmental Sensitivity Index (ESI) standards produced by the National Oceanic and Atmospheric Administration (NOAA) in *Environmental Sensitivity Index Guidelines* (October 1997). Seasonal ESI maps in poster and atlas formats have been produced for the subarea, as shown on the following index map. These maps are available on the Internet at: www.asgdc.alaska.gov/maps/cplans/subareas.html. NOAA has an online ESI Data Viewer to access these maps at www.response.restoration.noaa.gov/maps-and-spatial-data/download-esi-maps-and-gis-data.html.

1. Benthic Habitats

Oil vulnerability is lower in benthic (near bottom) areas than in the intertidal zone since contamination by floating slicks is unlikely. Sensitivity is derived from the species, which use the habitat. Benthic habitats have not been traditionally classed by ESI ranks, but are treated more like living resources, which vary with season and location. Benthic habitats include: submerged aquatic vegetation beds, large beds of kelp, worm reefs and coral reefs.

2. Shoreline Habitat

Habitats (estuarine, large lacustrine and riverine) ranked from least to most sensitive (see the following table) are described below:

ESI #1--Exposed impermeable vertical substrates: exposure to high wave energy or tidal currents on a regular basis, strong wave-reflection patterns common, substrate is impermeable with no potential for subsurface penetration, slope of intertidal zone is 30 degrees or greater, attached organisms are hardy and accustomed to high hydraulic impacts.

ESI #2--Exposed impermeable substrates, non-vertical: exposure to high wave energy or tidal currents on a regular basis, strong wave-reflection patterns regular, substrate is impermeable with no potential for subsurface penetration over most of intertidal zone, slope of intertidal zone is less than 30 degrees, there can be accumulated but mobile sediments at the base of cliff, attached organisms are hardy and accustomed to high hydraulic impacts.

ESI #3--Semi-permeable substrate: substrate is semi-permeable with oil penetration less than 10 cm, sediments are sorted and compacted, slope is less than 5 degrees, sediment and potential for rapid burial mobility is low, surface sediments are subject to regular reworking by waves, there are relatively low densities of infauna.

ESI #4--Medium permeability substrate: substrate is permeable with oil penetration up to 25 cm, slope is between 5 and 15 degrees, rate of sediment mobility i high with accumulation of up to 20 cm of sediments in a single tidal cycle, sediments are soft with low trafficability, low densities of infauna.

ESI #5--Medium to high permeability substrate: substrate of medium to high permeability which allows oil penetration up to 50 cm, spatial variations in distribution of grain sizes with finer ones at high tide line and coarser ones in the storm berm and at toe of beach, 20 percent is gravel, slope between 8 and 15 degrees, sediment mobility is high during storms, sediments are soft with low trafficability, low populations infauna and epifauna except at lowest intertidal levels.

ESI #6--High permeability substrates: substrate is highly permeable with oil penetration up to 100 cm, slope is 10 to 20 degrees, rapid burial and erosion of shallow oil can occur during storms, high annual variability in degree of exposure and frequency of wave mobilization, sediments have lowest trafficability of all beaches, natural replenishment rate is the lowest of all beaches, low populations of infauna and epifauna except at lowest intertidal levels.

ESI #7--Exposed flat permeable substrate: flat (less than 3 degrees) accumulations of sediment, highly permeable substrate dominated by sand, sediments are well saturated so oil penetration is limited, exposure to wave or tidal-current energy is evidenced in ripples or scour marks or sand ridges, width can vary from a few meters to one kilometer, sediments are soft with low trafficability, high infaunal densities.

ESI #8--Sheltered impermeable substrate: sheltered from wave energy and strong tidal currents, substrate of bedrock or rocky rubble, variable in oil permeability, slope greater than 15 degrees with a narrow intertidal zone, high coverage of attached algae and organisms.

ESI #9--Sheltered flat semi-permeable substrate: sheltered from wave energy and strong tidal currents, substrate is flat (less than 3 degrees) and dominated by mud, sediments are water-saturated so permeability is low, width varies from a few meters to one kilometer, sediments are soft with low trafficability, infaunal densities are high.

ESI #10--Vegetated wetlands: marshes and swamps with various types of emergent herbaceous grasses and woody vegetation over the substrate.

ESI Habitat Ranking

ESI	Estuarine (Marine)	Lacustrine (Lake)	Riverine (Large Rivers)
1 A	Exposed rocky shores	Exposed rocky shores	Exposed rocky banks
1 B	Exposed, solid man-made structures	Exposed, solid man-made structures	Exposed, solid man-made structures
1C	Exposed rocky cliffs with boulder talus base	Exposed rocky cliffs with boulder talus base	Exposed rocky cliffs with boulder talus base
2A	Exposed wave-cut platforms in bedrock, mud, or clay	Shelving bedrock shores	Rock shoals; bedrock ledges
2B	Exposed scarps and steep slopes in clay		
3A	Fine to medium-grained sand beaches		
3B	Scarps and steep slopes in sand	Eroding scarps in unconsolidated sediments	Exposed, eroding banks in unconsolidated sediments

ESI	Estuarine (Marine)	Lacustrine (Lake)	Riverine (Large Rivers)
3C	Tundra cliffs		
4	Course-grained sand beaches	Sand beaches	Sandy bars and gently sloping banks
5	Mixed sand and gravel beaches	Mixed sand and gravel beaches	Mixed sand and gravel bars and gently sloping banks
6A	Gravel beaches	Gravel beaches	Gravel bars and gently sloping banks
6B	Riprap	Riprap	Riprap
7	Exposed tidal flats	Exposed flats	
8A	Sheltered scarps in bedrock, mud, or clay; Sheltered rocky shores (impermeable)*	Sheltered scarps in bedrock, mud, or clay	
8B	Sheltered, solid man-made structures; Sheltered rocky shores (permeable)*	Sheltered, solid man-made structures	Sheltered, solid man-made structures
8C	Sheltered riprap	Sheltered riprap	Sheltered riprap
8D	Sheltered rocky rubble shores		
8E	Peat shorelines		
8F			Vegetated, steeply-sloping bluffs
9A	Sheltered tidal flats	Sheltered sand/mud flats	
9B	Vegetated low banks	Vegetated low banks	Vegetated low banks
9	Hypersaline tidal flats		
10A	Salt- and brackish-water marshes		
10B	Freshwater marshes	Freshwater marshes	Freshwater marshes
10C	Swamps	Swamps	Swamps
10D	Scrub-shrub wetlands; Mangroves	Scrub-shrub wetlands	Scrub-shrub wetlands
10E	Inundated low-lying tundra		

* A category or definition that applies on in Southeast Alaska.
Table from www.response.restoration.noaa.gov/maps-and-spatial-data/shoreline-sensitivity-rankings-list.html.

Alaska ShoreZone Coastal Habitat Mapping**:** An on-going coastal habitat mapping effort is producing an on-line database, digital maps, and color aerial imagery and videos of the coastline in the subarea. This geo-referenced data set collected at low tide includes coastal geomorphology and biological habitat for some intertidal and shallow sub-tidal areas.

Responders have access to several useful tools through the ShoreZone web portal. Low altitude video and high-resolution still photos are available with longitude and latitude and presented spatially on base maps (basic maps, topos, and satellite images). Also, habitat maps can be generated online for attributes such as Oil Residency Index, ESI, and sensitive biota (e.g. eelgrass).

The NOAA, NMFS, Alaska Regional Office hosts the Alaska ShoreZone web portal at: www.alaskafisheries.noaa.gov/shorezone/.

3. Upland Habitat

At this time, no uplands or wetlands classifications directly related to sensitivity to oil spills has been identified. A general wetlands classification has been developed by the USFWS, National Wetlands Inventory, in Anchorage. Considerable mapping of wetlands has been completed, some of which are

available in a GIS database (see the following figure). Updated map data is being placed on the National Wetlands Inventory Internet web site at: www.fws.gov/wetlands/.

C. BIOLOGICAL RESOURCES

1. Threatened and Endangered Species

Federally listed threatened and endangered species are protected under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.). If response strategies are proposed in locations where migratory birds and/or marine mammals listed as threatened and/or endangered are (or may be) present, the Federal OSC will need to immediately consult with the USFWS and NMFS (as appropriate) regarding the proposed strategies, in accordance with the Endangered Species Act Memorandum of Understanding (see *Unified Plan, Annex K*). The northern right whale, humpback whale, blue whale and short-tailed albatross are also on the State of Alaska's endangered species list. The following species and critical habitat occur in this subarea:

Protected Species under Endangered Species Act of 1973 in the Aleutian Subarea

Listed Species	Latin Name	Status
Short-tailed albatross	*Diomedea albatrus*	Endangered
Steller's eider	*Polysticta stelleri*	Threatened
Spectacled eider	*Somateria fischeri*	Threatened
Blue whale	*Balaenoptera musculus*	Endangered
Humpback whale	*Megaptera novaeangliae*	Endangered
Fin whale	*Balaenoptera physalus*	Endangered
Sei whale	*Balaena borealis*	Endangered
Sperm whale	*Physeter macrocephalus*	Endangered
North Pacific right whale	*Eubalaena glacialis*	Endangered
Northern sea otter	*Enhydra lutris kenyoni*	Threatened
Steller sea lion (Western population)	*Eumetopius jubatus*	Endangered

Designated Critical Habitat

Species Group	General Reference Area
Whales	North Pacific right whale in Bering Sea waters north of False Pass (see map below)
Birds	Spectacled eider critical habitat has been designated at Nelson and Izembek Lagoons (see map below)
Sea otters	No critical habitat has been designate in the subarea
Sea Lions	20 miles seaward around each major haul-out (see map below)

NOTE: In its definition of species, the Endangered Species Act of 1973, as amended, includes the traditional biological species concept of the biological sciences and "any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature" (16 USC 1532). NMFS uses the term evolutionarily significant unit as synonymous with distinct population segment and lists Pacific salmon accordingly. For the purposes of Section 7 consultations, these are all "species."

The short-tailed albatross, northern sea otters, spectacled eider, Steller's eiders, Eskimo curlew and Aleutian Shield Fern are under the jurisdiction of USFWS. All salmon species are under the jurisdiction of NMFS, Northwest Regional Office in Seattle, Washington. Salmon species are not listed in table above because they are lower-48 populations that are ESA-listed and spend time in Alaska marine waters.

The Alaskan bald and golden eagles, though not on the endangered species list, are fully protected (including their nests and nest trees) under the Bald Eagle Protection Act of 1940 and the Migratory Bird Treaty Act. Spill response activities that could affect these species should be coordinated with the USFWS.

While NMFS has determined the gray whale is no longer a threatened or endangered species, monitoring of the species has continued since the 1994 delisting. All marine mammals, whether or not they are on the endangered species list, are protected by the Marine Mammal Protection Act of 1972. Any spill response activities, which could affect marine mammals, should be coordinated with USFWS and NMFS.

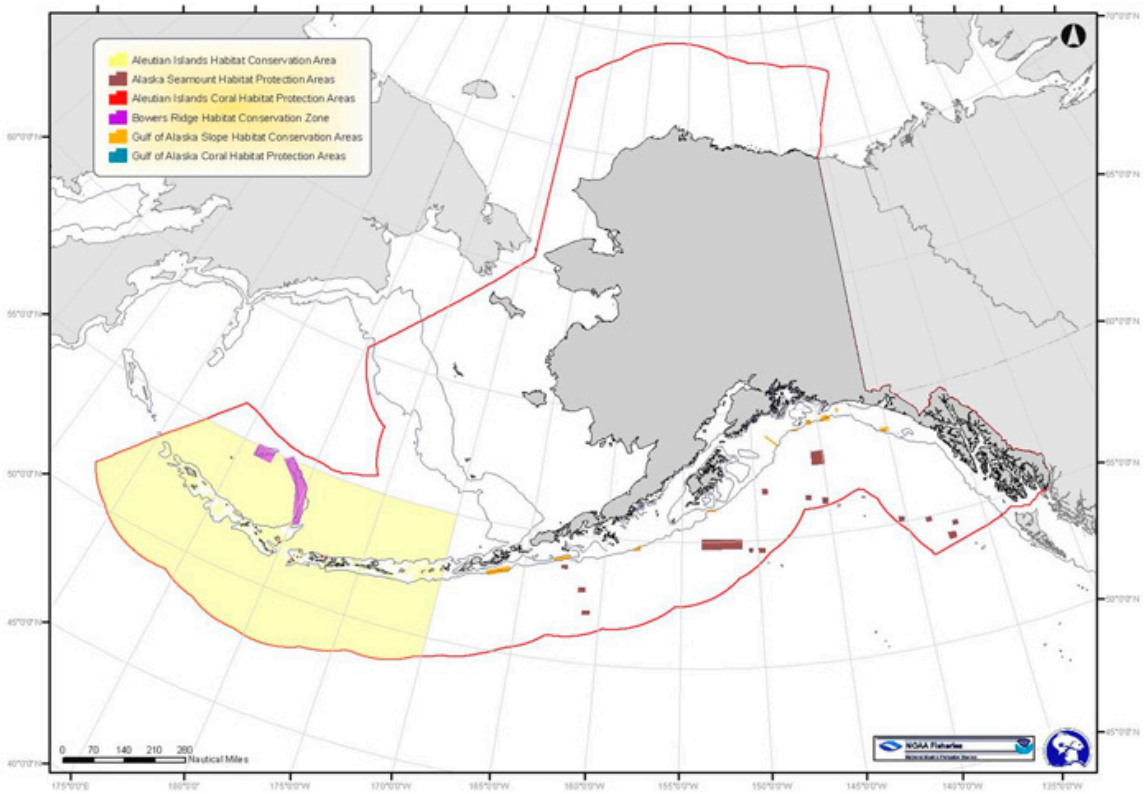
For updated information on the Internet:

USFWS National Threatened and Endangered Species web site: www.fws.gov/endangered/

USFWS Regional Threatened and Endangered Species web site:
www.fws.gov/alaska/fisheries/endangered/

ADF&G Threatened and Endangered Species web site:
www.adfg.alaska.gov/index.cfm?adfg=specialstatus.akendangered

The following figure illustrates locations for essential fish habitat areas within the Aleutian Island subarea.



Three species of seabirds found within the Aleutian Islands are listed as either endangered or threatened under the Endangered Species Act (ESA).
These include:

- Short-tailed albatross (*Phoebastria albatrus*) (endangered);
- Spectacled eider (*Somateria fischeri*) (threatened); and
- Steller's eider (*Polysticta stelleri*) (threatened).

The population of short-tailed albatross is estimated to be 1,200 worldwide and they are only known to breed in Japan; however, they forage on the outer shelf across the Aleutian Islands outside of their breeding season (Alaska Fish and Wildlife Service). Numerous spectacled eiders and Steller's eiders moult and over-winter primarily in the eastern Aleutian Islands.

Steller's eider critical habitat Map
Source: http://www.adfg.alaska.gov/index.cfm?adfg=stellerseider.rangemap

Short-tailed Albatross Range in Alaska
Source: http://www.adfg.alaska.gov/index.cfm?adfg=shorttailedalbatross.rangemap

The Steller Sea Lion Protection Areas, Gulf of Alaska – Groundfish, Pollock, and Pacific Cod Closures are Federal Threatened/Endangered Species Protected Area. This area was designated in 1990. Steller sea lion critical habitat includes a 20-nautical-mile buffer around all major haul-outs and rookeries, as well as associated terrestrial, air, and aquatic zones, and three large offshore foraging areas. There are 33 recognized rookery sites for this species across the Aleutian Islands and most of the islands are designated critical habitat for this species (NMFS 2010a).

Steller Sea Lion Critical Habitat Map
Source: www.alaskafisheries.noaa.gov/protectedresources/stellers/maps/criticalhabitat_map.pdf

Interactive mapping of essential fish habitat is provided by the NMFS. To do interactive mapping, go to the following website: http://alaskafisheries.noaa.gov/mapping/esa/

2. Fish and Wildlife

(a) FISH: The Aleutians Subarea is rich in biological resources. In addition to supporting a commercial fishing industry, the area is also utilized by subsistence users. Fish species most vulnerable to an oil spill are those with life stages that use intertidal habitat and more than 100 species of fish were identified in recent nearshore habitat surveys. Those species include: anadromous fish, such as salmon, trout, Dolly Varden char, and eulachon; groundfish such as walleye pollock, Pacific cod, rock sole, yellowfin sole, starry flounder, English sole, butter sole, and copper, dusky, brown, black, dark, and quillback rockfish; and forage fish such as Pacific herring, Pacific sandlance, capelin, eulachon, shiner perch, Pacific sandfish, and surf smelt.

Salmon produced in the Aleutians support important commercial fisheries ranging from stock specific nearshore fisheries to mixed stock fisheries offshore. Adult salmon are in freshwater from mid-April through early December, depending on the species of salmon and the stream system. Salmon eggs incubate in stream gravels over the winter. Juvenile salmon emerge from the gravel in spring and may rear in fresh water for up to four years before migrating to sea.

Pink and chum salmon fry have only a brief period of freshwater residence and enter salt water soon after emergence from the spawning beds. The fry reside in nearshore areas for several weeks before migrating offshore. Pink salmon spend one year at sea and chum salmon spend three or four years at sea before returning to spawn. They feed primarily on zooplankton. Sockeye salmon are most often present in stream systems with lakes that they can access from salt water. Juveniles usually spend one to three years rearing in lakes before migrating to sea in the spring as smolts. Sockeye salmon spend one to four years at sea before returning to their natal stream to spawn. Sockeye salmon feed primarily on zooplankton throughout their life history.

The Chinook salmon is Alaska's state fish and is the largest of all Pacific Salmon, with weights of individual fish commonly exceeding 30 pounds. Adult Chinook salmon enter fresh water from July to September and juveniles spend one year in fresh water before going to sea. Only a few spawning populations of Chinook salmon occur in the Aleutians, but many rear for two to five years in inshore marine waters of the subarea. In fresh water they feed on plankton and insects while at sea they eat relatively large prey such as fish and squid. Unlike other salmon species, they are available to commercial and sport fishers all year which also makes them vulnerable to inshore marine pollutants year round.

Coho salmon occur in nearly all-accessible bodies of fresh water, from large watersheds to small tributaries throughout the Aleutians. Coho salmon enter spawning streams from July to November, usually during periods of high run off. Juvenile coho salmon rear from one to four years in freshwater and may spend summers in estuaries. Coho salmon go to sea between March and June and spend eighteen months at sea before returning to natal streams to spawn. Coho feed primarily on insects in freshwater and on fish in marine areas.

Rainbow trout, Steelhead and Dolly Varden char have both resident and anadromous life history forms. Resident fish complete their entire life cycle in fresh water and anadromous fish return to freshwater spawning and wintering areas from April through December. Resident rainbow trout generally spawn during May and June. The anadromous form (steelhead) spawn from mid-April to June and adults that survive spawning return to the ocean in mid-May to June. Fry emerge several weeks to months later. Dolly Varden char spawn from September to October, fry emerge in April and May. All but the smallest streams provide habitat for resident and rearing Dolly Varden, which feed primarily on insects. After several years in fresh water Dolly Varden may become anadromous. Anadromous fish reside in nearshore marine areas during the summer feeding on small fish and invertebrates, but spend winter in lakes after spawning.

Forage Fish: Fish considered forage species are typically small schooling fish found in open waters. However, juveniles of many forage fish species spend part of their lives in the shallow vegetated nearshore areas and there would be more vulnerable to effects of an oil spill. Forage fish are critically important in the subarea food web as many seabirds, fish, and marine mammals rely on them as prey. These fish feed primarily on plankton and provide the trophic link between primary production (plankton) and the apex predator species (e.g., salmon and groundfish) that commercial fisheries rely on. Some of these species also support important commercial fisheries. *Eulachon* are among the most common forage fish in the Gulf of Alaska and are also anadromous, migrating to streams throughout the subarea to spawn in April or May. Spawning eulachon provide a spring feast for bears, eagles, killer whales, seals, sea lions, gulls, and humans.

Pacific Herring occur widely across the subarea in water depths from 50 to 100 meters. In Alaska, spawning is first observed in the Aleutians during mid-March. Spawning is confined to shallow, vegetated areas in the intertidal and subtidal zones. Juvenile herring hatch in about two weeks and may rear in nearshore areas for several months before moving offshore. Herring are an important food source for many marine mammals in the Aleutians. Steller sea lions, humpback whales, gray whales, and killer whales are all known to forage on herring. Steller sea lions, and probably harbor seals, aggregate at herring spawning areas to feed. *Capelin* are not as numerous in the Aleutians as other areas of the State, but are important forage for higher trophic predators such as seabirds and marine mammals because of their high oil content. They spawn on sandy to small gravel beaches, but the timing and location of spawning varies considerably from year to year.

Pacific Sand Lance is another forage species in the Aleutians. Sand lance generally spawn from mid-November to mid-December along sandy shorelines.

Other Forage Fish: Other species in nearshore areas that contribute to the forage base include Pacific sandfish and smelt. Adult Pacific sandfish generally occur at depths of 100 to 200 meters over sand or mud bottoms but enter nearshore areas to spawn among algae and may school in bays throughout the subarea. Smelt, including surf smelt and longfin smelt are common but not abundant throughout the subarea and enter nearshore areas to spawn along sandy shorelines at widely varying times and locations. Krill are a very important source of food for marine mammals and birds in the Aleutians, including Endangered Species Act-listed species. Krill are also an important source of food for other forage fish upon which marine mammals and birds rely.

Groundfish are defined for the purpose of management by the State of Alaska as any marine finfish except halibut, osmerids, herring, and salmonids. Several species in this group support important commercial sport and subsistence fisheries in the subarea and juveniles rearing in the Aleutians also contribute to offshore fisheries. Juvenile pollock, greenling, and sculpin make up a significant portion of the diet of species such as salmon and marine mammals.

Pacific Halibut are not considered groundfish because they are managed exclusively by the International Pacific Halibut Commission. For the purpose of this discussion, however, we include Pacific halibut with groundfish. Groundfish species common in the Aleutians include: Pacific halibut, arrowtooth flounder, flathead sole, yellowfin sole, flounder, rock sole, Pacific cod, Pacific tomcod, walleye pollock, copper rockfish, dusky rockfish, quillback rockfish, yelloweye rockfish, sablefish, kelp greenling, rock greenling, whitespotted greenling, lingcod, and sculpin.

Flatfish such as flounder, sole, and halibut live on low gradient bottoms throughout the subarea. Large species such as Pacific halibut and arrowtooth flounder generally inhabit deeper more open water areas while smaller flatfish species are more likely to inhabit shallow bays. Pacific halibut are found throughout the Aleutians and support important commercial, sport, and subsistence fisheries. They spawn in deep water from 180 to 460 meters from November to January. Older halibut spend winters in deep water along the continental shelf. In summer, adult halibut move to shallow coastal waters (depths of 30 to 300 meters) to forage on fish and invertebrates.

Yellowfin sole and starry flounder spawn and rear in shallow subtidal areas of bays and estuaries. Yellowfin sole juveniles stay in the nearshore area for 3 to 5 years. Starry flounder are resident in shallow flats, estuaries, and lagoons throughout their life. These fish feed intertidally on clam siphons,

small fish, and invertebrates. Rock sole and flathead sole inhabit deeper areas of bays; often move into nearshore areas to forage.

Pacific cod and walleye pollock are common in the subarea, primarily inhabiting straits, channels, and deep bays in the region. Adults are pelagic and are most abundant in water depths from 100 to 300 meters, but commonly occupy a much larger depth range. Juveniles are also pelagic and generally occupy the upper 60 meters of the water column. They feed primarily on pelagic invertebrates (e.g., euphasids) and small fish. These fish spawn in late winter or early spring and due to their abundance, they are extremely important to the ocean's food web. Rockfish in the subarea are most abundant along the outer Pacific coast, but also inhabit nearshore reefs and high current areas in inside waters. There are about 30 different species of rockfish in the subarea. Rockfish are long-lived, ovoviparous fish, which become sexually mature between 5 and 15 years of age. Copper rockfish commonly inhabit shallow bays and often feed and rear in eelgrass. Quillback, black, dark and dusky rockfish inhabit nearshore areas characterized by kelp beds, but may also be found with yelloweye rockfish on deeper reefs. The juveniles of many rockfish that as adults live in deep offshore waters are found on nearshore reefs. These fish feed on small fish and invertebrates.

Adult sablefish are demersal species that generally inhabit depths greater than 200 meters. Adult sablefish inhabit some of the deeper straits in the subarea. Sablefish spawn at depth in late winter and the pelagic larvae and juveniles migrate in shore over the next few months. Juvenile sablefish rear for 2 to 3 years in nearshore waters, including the bay and channels in the Aleutians. Adults feed opportunistically on live prey or as scavengers, while juveniles feed on pelagic invertebrates and small fish.

Greenlings are generally abundant in the subarea and the common species are generally separated by habitat. As you might expect, Kelp greenling are abundant in kelp and algae beds and rock greenling are most common adjacent to nearshore reefs. Whitespotted greenlings are most common in bays and estuaries. Juvenile greenlings are pelagic and are important as forage in some areas.

Lingcod typically inhabit nearshore rocky reefs and high current areas from 10 to 100 meters in depth. They migrate inshore to spawn in the fall and return to areas farther offshore in winters. Along the Pacific coast juvenile lingcod are common in shallow bays, but they rarely use such areas in inside waters.

Literally dozens of sculpin species are abundant in the Aleutians. Most are benthic, inhabiting bottoms ranging from vertical rock faces to mud bottom bays. Some, such as the crested sculpin, are pelagic. Nearly all feed on invertebrates and small fish. Their abundance makes them important as forage for some commercially harvested species.

Sharks and Skates: Species in the subarea include the spiny dogfish shark, Pacific sleeper shark, salmon shark, Alaska skate, big skate, and longnose skate. Spiny dogfish are common throughout the subarea and are locally abundant in water less than 150 meters deep over soft bottoms near current junctions. Spiny dogfish are opportunistic feeders and will scavenge or eat many kinds of live prey. The Pacific sleeper shark may grow to 10 meters in length and is one of the largest sharks in the world. Generally considered a scavenger, the sleeper is often one of the first animals to show up at sunken whale carcasses. Salmon sharks are often found near the surface and feed mostly on fish. Skates are common in bays and shallow flats where there is not too much current. Skates feed primarily on clams and other infauna.

Interactive mapping of essential fish habitat is provided by the NMFS. To do interactive mapping, go to the following website: http://alaskafisheries.noaa.gov/mapping/esa/

For further information, contact the NMFS at: www.alaskafisheries.noaa.gov/.

(b) SHELLFISH

Dungeness Crabs are found from the intertidal region to a depth of 230 meters in the Aleutians. Dungeness crabs are most common on sand or muddy-sand bottoms in the subtidal region, and are often found in or near eelgrass beds. However, they can also be found on a number of other substrata including various mixtures of silt, sand, pebble, cobble, and shell. Juvenile Dungeness crabs are found in similar habitats to adults, but they generally occupy shallower depths than adults. Juvenile crabs can be very abundant in the intertidal zone, but also occur in shallow subtidal areas. Survival of young crabs is greatest in habitats such as intertidal zones and eelgrass beds, where they can gain refuge from predators.

Three species of *King Crab* are currently harvested in the Aleutians: red, blue, and golden. Red king crab larvae generally exhibit a diel movement being most abundant in the upper water column during the day and deeper at night. Young of the year crab occur at a depth of 50 meters or less. They are solitary and need high relief habitat or coarse substrate such as boulders, cobble, shell hash, and living substances such as bryozoans and stalked ascidians. Between the ages of two and four years, there is a change in habitat needs and a tendency for the crab to form pods consisting of thousands of crabs. Podding generally continues until four years of age (about 6.5 centimeters), when the crabs move to deeper water and join adults in the spring migration to shallow water for spawning. Adult red king crabs occur to a depth of 365 meters; preferred habitat for reproduction is water less than 90 meters. Red and blue kings can occur from the intertidal zone to 180 meters or more. Golden king crabs live mostly between 180-730 meters, but can occur from 90-900 meters.

Tanner Crab larvae are strong swimmers and perform diel vertical migrations in the water column (down at night). They usually stay near the depth of the chlorophyll maximum during the days. The length of time larvae take to develop is unknown, although it has been estimated at only 12 to 14 days. After setting to the bottom, Tanner crabs are widely distributed at depths up to 473 meters. Females are known to form high density mating aggregations consisting of hundreds of crab per mound at depths less than 30 meters. The mounds likely form in the same general location each year, but the location of the mounds is largely undocumented. They form the basis of a thriving domestic fishery from Southeastern Alaska north through the Bering Sea. The peak hatching period for Tanner crabs is usually between April and June.

Pacific Weathervane Scallops are found on sand, gravel, and rock bottoms from 45-180 meters. Sexual maturity occurs at age 3 or 4 and scallops are of commercially harvestable size at 6 to 8 years. Scallops are found in beds (areas of abundant numbers). Scallops are dioecious and they spawn in June and July where the spermatozoa and ova are released into the water. Around one month later, hatching occurs and the larvae drift with the tides and currents. After two or three weeks the larvae will have gained shell weight, settled to the bottom, and attached to seaweed. Scallops may live to age 18 and they feed by filtering microscopic plankton from the water. They have been commercially harvested throughout Alaska on a sporadic basis due to overharvesting of scallop beds, more lucrative fisheries, and market conditions. Bay scallops occur shallower than weathervane scallops (15-60 meters). They are more easily

collected by divers and are frequently harvested in the summer. They are more vulnerable to oil exposure than weathervane scallops as adults.

Shrimp: Pandalid shrimp (northern pink shrimp, humpy/flexed shrimp, coonstripe shrimp, spot shrimp and sidestripe/grant red shrimp) are distributed throughout most major bays and certain nearshore and offshore areas in the Aleutians. Coonstripes and spot shrimp are generally associated with rock piles, coral, and debris-covered bottoms, whereas pink, sidestripes, and humpies typically occur over muddy bottom. Pink shrimp occur over the widest depth range (18 -1500 meters). Humpies and coonstripes usually inhabit shallower waters (5-370 meters). Spot shrimp seem to be caught in the greatest concentrations around 110 meters, but range from 3 to 460 meters. Sidestripes are typically found from 45 to 640 meters, but most concentrations occur in waters deeper than 73 meters. Most shrimp migrate seasonally from deep to shallow waters.

Razor Clams are filter feeders subsisting on plankton. They live in surf-swept and somewhat protected sand beaches of the open ocean. They are found from approximately 1 meter above the mean low water level down to depths of 55 meters.

Blue Mussels are found throughout the Aleutians and are found through the intertidal zone up to a depth of five meters densely packed around rock, wood, or other solid structures.

(c) BIRDS:
All migratory birds are protected under the Migratory Bird Treaty Act. Any spill response activities, which could affect migratory birds, should be coordinated with the USFWS. There are 39 Important Bird Areas (IBAs) designated across the Aleutian Islands. An IBA is an area designated as being globally important habitat for the conservation of bird populations developed by BirdLife International. To qualify as an IBA, a site must regularly support significant numbers of species of conservation concern; attract large numbers of breeding, wintering, or migrating birds; or support species characteristic of a unique habitat.

Important Bird Areas in Alaska
Source: www.ak.audubon.org/sites/default/files/documents/alaska_ibas_june2013.pdf

Extensive breeding colonies containing millions of seabirds occur on the Aleutian Islands, the Pribilof Islands, and along portions of the Alaskan Peninsula. A Berengian endemic species, the whiskered auklet, only occurs on the Aleutian Islands within Alaska. Least auklets, red-legged kittiwakes, Aleutian terns and red-faced cormorants live and breed only in the Bering Sea-North Pacific Ocean zone. The overwhelming majority of fork-tailed storm-petrels and horned and tufted puffins breed in Alaska in the northern Pacific islands. Millions of shearwaters do not breed here, but spend the summer feeding in the waters of the Aleutian Island passes. The Aleutian cackling goose, one of the few species to be removed successfully from the Endangered Species List, is endemic to the Aleutian Islands, breeding here in the summer.

The Alaskan Seabird Colony Catalog is an automated database that contains the distributions of breeding seabirds and the relative size of all the colonies in Alaska. The data reports indicating estimated species composition and numbers for seabird colonies of Norton and Kotzebue Sound are summarized from the catalog. The maps display colony locations. USFWS, Division of Migratory Bird Management, Marine and Coastal Bird Project, in Anchorage, maintain the Alaska Seabird Colony Catalog www.axiom.seabirds.net/maps/north-pacific-seabirds/. Questions or comments regarding the

information contained in the Alaska Seabird Colony Catalog should be directed to USFWS in Anchorage at 786-3444.

In addition, the Aleutians serve as a major spring and fall staging area for migrating waterfowl as well as a permanent residence for some species. Wintering and migrating birds concentrate in protected embayments and rocky, intertidal locations. Major staging areas include Izembek Lagoon, Port Heiden and Nelson Lagoon. The entire population of black brant (150,000 birds on average), Taverner's Canada geese (55,000), and emperor geese (6,000) stage at Izembek Lagoon and neighboring lagoons. Approximately 23,000 threatened Steller's eiders also molt, rest, and feed at Izembek each autumn.

A significant number of bald eagles nest on the many islands found in the Aleutians. Although bald eagles are not on the endangered species list, they are fully protected (including their nests and nest trees) under the Eagle Protection Act of 1940. Spill response activities that could affect bald eagles should be coordinated with USFWS.

Seabird Population-Aleutian Islands
Source: http://axiom.seabirds.net/maps/north-pacific-seabirds/

East Aleutians: http://www.asgdc.state.ak.us/maps/cplans/aleut/aie5seabird.pdf
West Aleutians: http://www.asgdc.state.ak.us/maps/cplans/aleut/aiw5seabird.pdf

(d) MARINE MAMMALS

Steller Sea Lions are listed as endangered in the Aleutian Island region west of 140° and northern sea otters are listed as threatened, harbor seals, spotted seals, killer whales, and porpoises are present throughout the year. Several species of endangered baleen whales migrate through the area in the spring and summer. Northern fur seals seasonally inhabit the Bering Sea and the Gulf of Alaska. Major northern fur seal rookeries and haul-outs occur on the Pribilof Islands and on Bogoslof Island. Rookeries and haul-outs used by sea lions are also located on the Pribilof Islands and throughout the Aleutian Islands and Alaskan Peninsula. Pacific Walrus occur seasonally in the area of the Pribilof Islands and the northern Alaska Peninsula. Haul-outs on the Alaska Peninsula at Cape Seniavin and Port Moller, and on Amak and Walrus Islands, are used by mature bulls during spring and summer. Dense concentrations of marine organisms occur throughout the Aleutian Islands, including all five species of Pacific salmon, numerous groundfish, herring, crab, shrimp, clams, and a variety of intertidal organisms.

Northern Sea Otters are distributed at very low densities around most of the islands in the Aleutian chain and the islands of the lower Alaska Peninsula. Otters generally range from 5 to 16 kilometers offshore and feed in nearshore waters less than 35 meters deep. Breeding occurs year-round, with a peak in September and October. Pupping occurs year-round, with a peak in July.

Harbor Seals are found year round in the Aleutian Islands in nearshore waters all the way out to the shelf break on the outer coast. Harbor seals tend to concentrate in estuaries, protected waters, and tidewater rocks and reefs. Harbor seals enter lakes and rivers on a seasonal basis. Harbor seal haul-outs are used for pupping, molting and resting, and may be used year round. Peak haul-out use occurs during June through early October. Pupping occurs between late May and early July; most pups are born during the first three weeks of June, and the pups nurse for about three weeks. Births of harbor seals are not restricted to a few major sites (as is the case for many other species of pinnipeds), but occur at many haul-outs. Some areas or particular haul-out sites have disproportionately high numbers of pups, which

may be especially vulnerable to the fouling effects of oil spills. The total Alaska harbor seal population is estimated at 150,000.

Fur Seals: There are more than one million northern fur seals in the Pacific Ocean. They range from Japan to Southern California and north throughout the Bering Sea. Fur seals will spend months at a time at sea. During breeding season, 3/4 of the total world population will be found on the Pribilof Islands. The bulls will normally stay for four months, the females for six months. The bulls vigorously protect their territory and can lose 1/4 of their body weight in doing so. A large bull Northern fur seal can weigh 600 pounds and a large female 110 pounds. The Northern fur seal can live for 25 years, but most females live to be 18-20 years old and the males to their low teens. Northern fur seals feed mainly at night and may dive to depths of 600 feet (180 m) in search of small schooling fish and squid and prey are typically eaten underwater. Larger fish are brought to the surface and eaten there. Northern fur seals are famous for the dense fur that that covers all but their flippers. That fur consists of approximately 46,500 hairs per square centimeter. Natural predators of the fur seals include sharks, foxes, killer whales and Steller sea lions.

Humpback Whales are the large whales most frequently observed swimming and feeding close to shore along the coast. 3,000 to 5,000 humpback whales can be found in the Aleutians, with higher numbers occurring between March to September. Although very few humpback whales skip annual winter migration, they are present in the Aleutians until early winter. The late season presence of humpback whales in the Aleutians is due to whales leaving late to migrate to the breeding grounds overlapping with whales returning early to Alaska from the breeding grounds. Winter aggregations of humpback whales in the Aleutians are related to the availability of krill and herring. Humpback whales feed primarily on krill. Fish such as herring, capelin, and sandlance are also important. To a lesser extent, other zooplankton, salmon fry, and juvenile Pollock are part of the diet.

Gray Whales feed predominately on infaunal invertebrates. They appear to feed by lying on their sides and suctioning sediment from the sea floor, which they then filter for invertebrates. The eastern North Pacific population of gray whale has been delisted, but the western North Pacific population is still listed as endangered under the Endangered Species Act.

(e) TERRESTRIAL MAMMALS

The majority of large terrestrial animals that occur in the Aleutian Islands are found on the Alaska Peninsula as well as on some of the larger islands. Brown bear are found throughout the Alaska Peninsula and on Unimak Island, and in the Pribilof Islands. Caribou occur on the Alaska Peninsula, Unimak Island, and Adak Island. Reindeer occur on Atka, Umnak Island, and in the Pribilof Islands. Moose generally occur on the Alaska Peninsula as far west as Cold Bay, although they have been sighted as far west as Unimak Island.

3. Vegetation

Threatened and endangered plants in the subarea are identified below, along with other rare plant species, as documented by the Alaska Natural Heritage Program. The map on the following page identifies the general locations of these rare plants.

Rare Plants Known in the Aleutians Subarea

Global Rank	State Rank	Scientific Name	Common Name	Federal Status
G1	S1	*Polysticum aleuticum*	Aleutian Shield Fern	Endangered
G1	S1	*Saxifraga aleutica*	Aleutian Saxifrage	
G1	S1	*Artemisia aleutica*	Aleutian Wormwood	
G4T1T2Q	S1S2	*Artemisia globularia var lutea*		
G2	S2	*Draba aleutica*	Aleutian Rockcress	
G2G3	S2S3	*Douglasia alaskana*	Alaska Rock Jasmine	
G3	S1	*Claytonia arctica*	Arctic Spring Beauty	
G5T3Q	S3	*4. Carex lenticularis var dolia*	Goose Grass Sedge	
G3G4	S2	*5. Eleocharis nitida*	Neat Spike Rush	

Global Rankings

G1: Critically imperiled globally. (Typically 5 or fewer occurrences)
G2: Imperiled globally. (6-20 occurrences)
G3: Rare or uncommon globally. (21-100 occurrences)
G4: Apparently secure globally, but cause for long-term concern. (Usually more than 100 occurrences)
G5: Demonstrably secure globally.
G#G#: Rank of species uncertain, best described as a range between the two ranks.
G#Q: Taxonomically questionable.
G#T#: Global rank of species and global rank of the described variety or subspecies of the species.

State Rankings

S1: Critically imperiled in state. (Usually 5 or fewer occurrences)
S2: Imperiled in state.(6-20 occurrences)
S3: Rare or uncommon in state. (21-100 occurrences)
S4: Apparently secure in state, but with cause for long-term concern (usually more than 100 occurrences)
S5: Demonstrably secure in state.
S#S#: State rank of species uncertain, best described as a range between the two ranks.

*The Aleutian shield-fern is a small, tufted fern, which grows to about 15 centimeters (6 inches) tall and may be confused with more common ferns occurring within its range. It is now known to exist only on Adak Island in the central Aleutian Islands. Three populations totaling approximately 130 "clumps" are located on a single mountain on east-facing slopes having steep cliffs, rock outcrops, and vegetated gullies and ledges. Historically, the Aleutian shield-fern also occurred on Atka Island, but has not been seen there since it was reported in 1932.

Rare Plants Locations in the Aleutian Subarea:
Source: http://www.asgdc.state.ak.us/maps/cplans/aleut/airplants.pdf

D. HUMAN RESOURCE USES

This sub-section includes an overview of the following socioeconomic resources within the subarea:

- Commercial and recreational fisheries;
- Subsistence;
- Historic preservation sites;
- Marine recreation and tourism; and
- Coastal development and coastal infrastructure.

The area includes western portions of the Aleutians East Borough (AEB) and extends through the Aleutian Chain, which is in the Aleutian West Coastal Resource Service Area (AWCRSA).

1. Fish Hatcheries and Associated Ocean Net Pens

There are no fish hatcheries or pens operating in the Aleutians Subarea.

2. Aquaculture Sites

At this time there are no aquaculture sites in the Aleutian Islands or the Pribilof Islands.

3. Cultural Heritage and Historic Properties

The people who settled along the Aleutian archipelago are often referred to as Aleuts. Russian fur traders gave this name to them, but they prefer to call themselves Unangan, or coastal people. It is believed that the Aleuts migrated across the Bering land bridge from Asia between 12,000 and 15,000 years ago.

The Unangan people lived underneath the earth in semi – subterranean houses called ulax and developed specialized skills to enable survival in the harsh climate. They hunted marine mammals from skin covered kayaks, or iqyax. The Unangan subsisted for centuries and thrived as a culture until the Russian fur traders discovered the Aleutian Islands around 1750. At this time, the Aleut population was estimated at 12,000 to 15,000.

The fur traders from Russia occupied the islands and their people in their quest to obtain sea otters and fur seals. The population of Unangan, or Aleut people was greatly reduced after Russian occupation due to disease, war and malnutrition.

The Aleut people also suffered tremendous loss during World War II (WW II) when the U.S. Government relocated most of the Aleutian Island residents to internment camps located in Southeast Alaska. Many Aleuts died in these camps further reducing their population. The U.S. Government eventually passed a Congressional Act in 1988 called the Aleut Restitution Act. The purpose of this act was to pay restitution to the victims of WWII internment.

Currently Aleut people still rely on the sea for their livelihood. Most live a subsistence lifestyle, which includes fishing and hunting. It is believed that today the population of Aleuts is approximately 2,000.

People had, and have, a maritime focused culture in the Aleutian Islands for 10,000 years. During this time every habitable stretch of the coastline was occupied. Sites here can be huge, covering hundreds of acres, or they may be isolated sea caves, dwellings, camps, or burials. The deposits may extend into the littoral zone. Sub-tidal cultural resources of the island chain have never been adequately inventoried but there are several hundred known shipwrecks along the archipelago. More recent historic properties, from the Russian period through World War II and Cold War are also numerous but barely inventoried. Although Historic Properties do not have to be formally listed on the National Register to merit consideration, the following list is limited to places on the National Register of Historic Places (NPS 2013). There are 15 places on the registry in the proposal area, most located in upland areas:

- Adak Army Base and Adak Naval Operating Station –Roughly bounded by Cape Adagdak, Scabbard Bay, and Shagak Bay, Adak Station;
- Anangula Archeological District – Underwater Restricted location at Nikolski;
- Ananiuliak Island Archeological District—Prehistoric site 8000-8499 BC, 7500-7999 BC
- Cape Field at Fort Glenn (Umnak Island)-Military air facility from 1925-1949
- Dutch Harbor Naval Operating Base and Fort Mears, US Army;
- Attu Battlefield and US Army and Navy Airfields on Attu;
- Japanese Occupation Site, Kiska Island; and
- S.S. NORTHWESTERN Shipwreck Site – Unalaska.
- Atka B-24D Liberator Site on Atka Island
- Chaluka Site, Nikolski—Prehistoric 1500-1999 BC
- Church of Holy Ascension, Unalaska—Architecture/Engineering, Religious Structure
- Holy Resurrection Church, Belofski—Architecture/Engineering, Religious Structure
- St. Alexander Nevsky Chapel, Akutan—Architecture/Engineering, Religious Structure
- St. Nicholas Church, Nikolski—Architecture/Engineering, Religious Structure

The Aleutians Subarea contains a multitude of known and unidentified archaeological and historic sites. Oil spills and hazardous substance releases may result in direct and/or indirect impacts to those cultural resources. OSCs are responsible for ensuring that response actions take the protection of cultural resources into account and that the statutory requirements for protecting cultural resources are met. Annex M of the *Unified Plan* outlines OSC responsibilities for protecting cultural resources and provides an expedited process for compliance with Section 106 of the National Historic Preservation Act during the emergency phase of a response. The ADNR State Historic Preservation Office should be contacted at 269-8721 for information on archeological and historic sites.

4. Subsistence and Personal Use Harvests

Subsistence-related uses of natural resources play an important role in the economy and culture of many communities in the Aleutians Subarea. A subsistence economy may be defined as follows:

...an economy in which the customary and traditional uses of fish, wildlife and plant resources contribute substantially to the social, cultural and economic welfare of families in the form of food, clothing, transportation and handicrafts. Sharing of resources, kinship-based production, small-scale technology and the dissemination of information about subsistence across generational lines are additional characteristics.

Before 1990, the State of Alaska made all decisions regarding the management of fish and wildlife resources and harvest opportunities. In 1990, however, Federal agencies became responsible for assuring a federal subsistence priority on Federal public lands, and in 1999 on Federal reserved waters. The Federal Subsistence Board adopts subsistence regulations that are administered by various Federal agencies on Federal public lands. State regulations still apply on all lands, and the State is still the manager of fish and wildlife on all lands and waters in Alaska. As a consequence, the number of agencies involved in regulating subsistence uses has increased. Therefore, in the event of a spill, more extensive coordination will be required in order to address subsistence resources. Regulations regarding subsistence harvest can also be expected to undergo regular modification. Current information on

harvest regulations can be obtained from ADF&G www.adfg.alaska.gov/index.cfm?adfg=subsistence.main or the USFWS Office of Subsistence Management (www.Alaska.fws.gov/asm/index.htm).

Subsistence uses in the area are extensive and vary by season, resource, and village. Some information about subsistence uses is community-sensitive. Contacts for potentially affected communities are identified in the *Response Section, Part One*.

Subsistence activities include harvesting, sharing, and consuming vegetative and terrestrial and aquatic animal resources. Nearly all the residents in each of the communities take part in subsistence activities (ADCED 2010; Sepez et al. 2005). The communities in the region depend heavily on subsistence resources such as (ADCED 2010):

- Salmon;
- Non-salmon fish species (e.g., cod, flounder, greenling, halibut, rockfish, sablefish, sculpin, sole, char, and trout);
- Shellfish;
- Marine mammals (e.g., seals);
- Land mammals (e.g., caribou, wild cattle, and reindeer);
- Birds and bird eggs (e.g., geese);
- Marine invertebrates; and
- Vegetation.

Federal subsistence fishery regulations require that a community be classified as rural "in order to harvest subsistence wildlife, fish, and shellfish on Federal lands" (Sepez et al. 2005, pg. 293). Designated subsistence use areas within the proposal area have been well documented (LaRoche and Associates 2005). In addition to the communities highlighted in Table 3-11, the following communities and areas are known subsistence harvest areas of importance in and adjacent to the study area: Port Moller, Nelson Lagoon, Sand Point, Squaw Harbor, Unga, Belkofski, King Cove, Cold Bay, Sanak Island, Pauloff Harbor, and Umiak Island. The extent of the subsistence use areas that have been documented include:

- Port Moller, Herendeen Bay, Bear River, Sandy River, Point Edward to Walrus Island and 3 miles offshore from Cape Kutuzof;
- Nelson Lagoon from Walrus Island to Spasuk River (and 3 miles offshore), including Kudobin Islands;
- Izembek Lagoon and Moffett Lagoon extending 3 miles offshore from the barrier islands;
- Pavlof Bay/Canoe Bay between Bluff Point and Cape Tolstoi;
- Bechevin Bay from the western boundary of Izembek Lagoon to the west of Swanson Lagoon including Cold Bay and offshore areas within a 3-mile limit including north of Bechevin Bay and Morzhovoi Bay;
- Unimak Pass from Seal Cape to Cape Sarichef and extending 3 miles offshore to the western boundary of the AEB and including the northern shore of Unimak Island and southern shore to False Pass and Deer Island;
- Sanak Islands and coastal waters;
- Krenitzin Islands including Hot Springs and Akutan Bays on Akutan Island, Lost Harbor, Surf Bay on Akun Island;
- Unalaska Island including Wide Bay, Broad Bay, Nateekin Bay, Captains Bay, Iliuliuk Bay, Summer Bay and Hog Island in Unalaska Bay to Cape Wislow and Reese Bay;
- Umnak Island coastal waters including the Pancake and Adugak Islands;

- Samalga, Amutka, and Seguam islands and coastal waters;
- Atka and Amlia islands and coastal waters; and
- Adak Island and coastal waters.

5. Commercial Fishing

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.*). The fisheries within the Bering Sea–Aleutian Islands (BSAI) ecosystem are managed under a sophisticated multispecies framework that is based on extensive monitoring by both fishers and managers.

The groundfish fishery in Alaska is the largest commercial fishery in the world. In addition to groundfish, other key species harvested include but are not limited to crab, salmon, and halibut. About 80 stocks of groundfish are recognized and managed in the BSAI ecosystem (NPFMC 2006); chief among these are stocks of walleye pollock, Pacific cod, and Atka mackerel. The federal groundfish fisheries extend southward in the Aleutian Islands west of 170ºW to the border of the EEZ. In addition, herring, crab, halibut and salmon are also fished. The 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 subarea, consist primarily of Pacific cod and black rockfish.

Commercial fleets operate out of most of the communities within the subarea. Much of the seafood processing labor force comes from outside the region, although individual communities vary as to what portion of labor comes from local sources. The epicenter of commercial fishing in the region is Unalaska/Dutch Harbor, with its large commercial fleet and processors, as well as offshore floating processors (Sepez et al. 2005).

Some of the larger fishing ports in the subarea include Akutan, King Cove, Sand Point and Unalaska. Adak is also a major fish processing community, particularly for Pacific cod. For communities within the AEB, revenue from the groundfish fisheries is distributed throughout borough communities due to the tax structure.

Employment in the Aleutian Islands communities is closely related to the commercial fishery, particularly the groundfish fishery. Communities with sizeable seafood processing operations (Akutan, King Cove, Unalaska and Sand Point) typically have very low official unemployment rates. Seafood processing dominates employment in the manufacturing sector of this region.

Taxes from the fisheries are an important source of income for the region. Local raw fish taxes are collected in Akutan, King Cove, Sand Point, and Unalaska, and all but Unalaska are also subject to a borough raw fish landing tax. Processing is a major component of the economy in the Aleutian Islands. The Fisheries Resource Landing tax is considerably more important in the Aleutian Islands region. Pollock comprises the majority of fish processed in the region (often approximately >90 percent), followed by Pacific cod, and other species such as Atka mackerel, rockfish, sablefish and other groundfish.

The Aleutian Islands region does more inshore processing of groundfish (674,000 metric tons in 2001) than any other region (NMFS 2005). Washington state-based individuals or firms own most of the shore processing facilities in the region; none of the shore processing plants is owned by resident entities (NMFS 2004).

The Bering Sea/Aleutian Islands (BSAI) crab fishery includes king (*Paralithodes* and *lithodes spp*.) and Tanner crab (*Chionoecetes spp*.). These species are most commonly found along the continental shelf and slope to depths of approximately 1,000 m (NMFS 2004). There are four species of king crab that support the BSAI fisheries including red king crab, blue king crab, golden king crab, and scarlet king crab. This application focuses on the following crab species due to their significance as a commercial species within the project area:

- Aleutian Islands red king crab – Red king crabs are taken in areas of all sediment types at depths of 20 to 100 fathoms (120 to 600 feet).
- Aleutian Islands golden king crab – Golden king crabs are taken in areas consisting of rough, uneven bottom and in compacted sand cobble sediments at depths of 100 to 400 fathoms (600 to 2,400 feet). Fishery effort is concentrated at the entrances to passes between the islands, particularly in the eastern district. In the western district, the fishery occurs in steep rocky terrain, near passes between islands, and on moderately sloping mud/sand sediments in basins.
- Aleutian Islands Tanner crab – Tanner crabs are taken in areas of soft sediment types (silt and mud) at depths of 30 to 110 fathoms (180 to 660 feet) (NMFS 2004).

In 2005, the crab fishery was conducted under the newly implemented Crab Rationalization Program, which established a quota share system for allocating the harvest, including for Eastern Aleutian Islands golden king crab, Western Aleutian Islands golden king crab, and Western Aleutian Islands red king crab fisheries (NMFS 2007). The program also includes geographic landing requirements and transfer restrictions linking Processor Quota Shares (PQS) and Individual Processor Quota (IPQ) to specific fishery-dependent coastal communities with a history of participation in these fisheries. There are nine total Eligible Crab Communities, six of which are located within the proposed area or immediately adjacent to it including Adak, Akutan, Unalaska/Dutch Harbor, False Pass, King Cove, and Port Moller. Every community but Adak has a “Right of First Refusal” on proposed sales of PQS for use outside of the community.

Dutch Harbor/Unalaska has been one of the nation’s top fishing ports since 1992 (NMFS 2004). Compared to other ports in the Aleutian Islands, Unalaska provides substantial support services for the Bering Sea 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.

According to EDAW, Inc. (2005), approximately 80 percent of the King Cove workforce is employed by the commercial fisheries. Several large processors are located in King Cove, with Peter Pan Seafoods being the only shore-based processor. Although King Cove once depended heavily on salmon, the community now processes groundfish, halibut, and crab from the Gulf of Alaska and BSAI. In addition, the community is home to several large crab vessels.

Akutan is a CDQ community, also heavily dependent on the commercial fisheries, that benefits from the allocation of BSAI groundfish and crab to the CDQ program. 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 also based in Akutan. Fishing vessels delivering to Akutan focus primarily on pollock, crab, and Pacific cod.

Atka is considered the westernmost fishing community in the Aleutian Islands chain (Sepez et al. 2005). Atka Pride Seafoods, a small on-shore processing plant, services the local fleet. In 2008, Atka Pride

Seafoods owned and operated by APICDA, accomplished 100 percent hire of local residents for the processing plant (Global Food Collaborative 2010). Despite its limited support services, a number of offshore fish processors carry out crew changes through Atka (Sepez et al. 2005).

False Pass is heavily dependent on commercial fishing as part of the local economy. In 2008, APICDA opened Bering Pacific Seafoods and produced headed and gutted fillets. As part of the CDQ program, the plant aims to benefit the region (Global Food Collaborative 2010).

All fishing seasons are subject, however, to emergency openings and closures and most seasons are only open for a portion of the time specified in the regulations. Fishing regulations and seasons can change from year to year. Information on which species are currently being harvested may be obtained from the ADF&G, Division of Commercial Fisheries in Kodiak.

During the Selendang Ayu oil spill incident, the Alaska Department of Environmental Conservation (ADEC) commissioned a study to describe the major commercial fisheries that could be impacted by the spill. The complete report can be found at the following link:
www/dec.alaska.gov/spar/perp/response/sum_fy05/041207201/fish/041207201_fisheries_rpt.pdf

Maps of key commercial fishing areas are available in ADF&G publications: *Alaska Habitat Management Guide Reference Maps, Southwestern Region, Vols. 1 and 2* and *Alaska Habitat Management Guide, Southwestern Region Map Atlas.* As fishing periods are adjusted yearly by emergency openings and closures, contact ADF&G for current fishing periods. Updated information may be found at their Commercial Fisheries web site: www.adfg.alaska.gov/index.cfm?adfg=fishingCommercial.main

The following groups may be contacted for information on location and timing of fishing and local current conditions. Although the primary function of these organizations is not to provide such information, the individual members will be quite knowledgeable about conditions and are often willing to share information.

Organization	Address	Phone Number
Alaska Crab Coalition	3901 Leary Way NW #6, Seattle, WA 98107	(206) 547-7560
Bering Sea Fisherman's Association	725 Christiansen Drive, Anchorage, AK 99501	279-6519
Alaska Draggers Association	P.O. Box 991, Kodiak, AK 99615	
Deep Sea Fisherman's Union/Pacific	5215 Ballard Ave NW, Seattle, WA 98107	(206) 783-2922
Alaska Marketing Association	Building C-3 Room 232 Fisherman's Terminal, Seattle, WA 98119	
Fishing Vessel Owner's Association	West Wall Bldg Room 232 Fisherman's Terminal, Seattle, WA 98119	(206) 285-3383
American Factory Trawler Assn.	4039 21st Ave West Suite 400, Seattle WA 98199	(206) 285-3739
Peninsula Marketing Association	P.O. Box 248, Sand Point, AK 99661	383-3600
American High Seas Fisheries Assn.	3040 W Commodore Way, Seattle, WA 98199	
United Fishermen of Alaska	211 Fourth Street Suite 112, Juneau, AK 99801	
United Fishermen's Marketing Assn.	P.O. Box 1035, Kodiak, AK 99615	

6. Sport Fishing and Hunting

Sport fishing is not as extensive in the Aleutians Subarea 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 2005, there were at least four charter boat companies operating out of Dutch Harbor/Unalaska and three registered freshwater

and six saltwater fishing guides. In 2000, there were 833 sport-fishing permits obtained for Unalaska (Sepez et al. 2005).

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 project area. In July and August, halibut is often taken in both the Bering Sea and Gulf of Alaska. Black and dusty rockfish are popular game species found in the Aleutians and are typically caught nearshore (ADF&G 2010f). In 2000, 42 sport-fishing permits were issued for Sand Point. As of 2000, there were five sport-fishing guides operating out of Sand Point, four of which focused on freshwater activities (Sepez et al. 2005).

Reference:
ADF&G (2010f). Alaska Peninsula Sport Fisheries. Available at: www.sf.adfg.state.ak.us/Management/Areas.cfm/FA/kodiakAKPenn.dutch .

Sepez, J.A, B.D. Tilt, C.L. Package, H.M. Lazus, and I. Vaccaro (2005). Community Profiles for North Pacific Fisheries - Alaska. U.S. Department of Commerce, National Oceanic Atmospheric Administration Technical Memorandum NMFS-AFSC-160, 552 pp.

Contact the ADF&G for current seasons within the area of the subarea. Updated information may be found at their Sport Fish web site: www.adfg.alaska.gov/index.cfm?adfg=fishingSport.main

This Subarea includes State Game Management Units 9D and 10.

7. Marine Recreational 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 subarea. Recreation and tourism is extremely limited in the communities in the subarea, primarily because they do not have the facilities or resources to support such an industry.

Smaller communities like Adak 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 and small tour boats also stop in Akutan, Sand Point, Cold Bay, and King Cove and to a limited extent, False Pass.
The subarea includes three national wildlife refuges:

- 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. (See also Part 4.A Land Management Designations)

Public Anchorages and Moorings include:

- Akutan Harbor, Akutan Island
- Dutch Harbor, Unalaska Island
- Nazan Bay, Atka Island
- Kuluk Bay, Adak Island
- Constantine Harbor, Amchitka Island-Dock area closed to general public
- Kiska Harbor, Kiska Island
- Massacre Bay, Attu Island

For recreational information, contact:

Izembek National Wildlife Refuge, Cold Bay, Alaska 532-2445

The following organizations can be contacted with requests for specific information on location and timing of recreation and tourism activities. Although the primary function of these organizations is not to provide such information, the individual members will be quite knowledgeable about environmental conditions and will often be willing to share information.

Alaska Office of Tourism Development…….465-2012
Alaska State Chamber of Commerce……..586-2323
Alaska Native Tourism Council……274-5400
Alaska Wilderness Recreation & Tourism Assoc…….463-3038

References:

Sepez, J.A, B.D. Tilt, C.L. Package, H.M. Lazus, and I. Vaccaro (2005). Community Profiles for North Pacific Fisheries - Alaska. U.S. Department of Commerce, National Oceanic Atmospheric Administration Technical Memorandum NMFS-AFSC-160, 552 pp.

8. Marinas and Ports

(See *Resources Section*)

9. Fish Processing

The companies listed below are canneries and major processors with permits issued by the State of Alaska.

Company	Location	Phone
Alyeska Seafoods, Inc.	Unalaska	581-1211
San Souci Seafoods	Dutch Harbor	581-1533
Garden Cove Seafoods, Inc.	Saint George	(206) 851-2700
Trident Seafoods Corp.	Sand Point	383-4848
Queen Fisheries Inc.	Dutch Harbor	581-1225
Trident Seafoods Corp.	Akutan	698-2211
Trident Seafoods Corp.	Saint Paul	546-2377
Westward Seafoods, Inc.	Dutch Harbor	581-1660
Unisea, Inc.	Dutch Harbor	581-1258

East Point Seafood Co.	Dutch Harbor	(206) 284-7571
Icicle Seafoods, Inc.	Dutch Harbor	(206) 282-0988
Peter Pan Seafoods, Inc.	King Cove	(206) 728-6000
Seatech Corp.	Akutan	(206) 782-6007
Snopac Products, Inc.	Saint George	(206) 764-9230
Unisea, Inc.	Saint Paul	546-2530
Icicle Seafoods, Inc.	Saint Paul	546-2405

10. Logging Facilities

There are no logging facilities in the Aleutians Subarea.

11. Water Intake/Use

The following list of public water intake/use permits was generated from a database maintained by ADEC.

Name of Facility	Location	State ID Number	Source
Adak Utilities	Adak	260595	Surface
Atka	Atka	260058	Surface
City of Akutan	Akutan	260252	Surface
City of Cold Bay	Cold Bay	260414	Ground
City of King Cove	King Cove	260244	Surface
False Pass Treatment Plant	False Pass	262199	Surface
Izembek Nat. Wildlife Refuge	Aleutian East	262076	Ground
Nelson Lagoon Water System	Nelson Lagoon	260804	Surface
Nikolski Village	Nikolski	260278	Ground
Offshore Systems	Unalaska	262505	Surface
Peter Pan Housing	False Pass	260317	Surface
Peter Pan Seafood	Port Moller	261216	Surface
Reeve Sand Point Terminal	Sand Point	263013	Ground
Saint George Water System	Saint George	260074	Ground
Saint George Island Hospital	Saint George	260707	Ground
Saint Paul Water System	Saint Paul	260286	Ground
Sand Point Water System	Sand Point	260294	Ground
Trident Seafood Corp.	Akutan	261193	Surface
Trident Seafood Inc.	Sand Point	262351	Surface
USAF Eareckson AFS	Shemya Island	260511	Ground
Unalaska Water System	Unalaska	260309	Surface
USAF Cold Bay	Cold Bay	260498	Ground
USCG Loran Station Attu	Attu Island	260943	Ground
USCG Saint Paul Loran	Saint Paul	261436	Ground
USN Lake Andy Rec Area	Adak	262050	Surface
USN Mitchell Creek	Adak	260943	Surface
USN NAD Moffet Hill	Adak	262092	
USN Zeto Point	Aleutian West	260951	
Zapadine Bay Water System	Aleutian West	261428	

SENSITIVE AREAS: PART FIVE – LAND MANAGEMENT

A. LAND MANAGEMENT DESIGNATIONS

1. Access to Lands: Land ownership must be determined and landowners contacted to evaluate incident-specific protection priorities, obtain land-use permitting requirements, and obtain permission to access lands. Native corporation lands, as well as local, State, and Federal government lands often require special use permits. If an incident affects private lands or Native Allotments, permission to enter lands should be sought from the landowner. The local Borough government is often the best source of private land ownership records.

2. State:
Port Moller State Critical Habitat Area was established in 1972 to protect habitat crucial to perpetuation of fish and wildlife, especially waterfowl. The area includes uplands, tidelands and submerged lands.

Izembek State Game Refuge was established in 1960 to protect natural habitat and game populations, especially waterfowl. The area includes tide and submerged lands.

Port Heiden Critical Habitat Area was established in 1972 to protect natural habitat crucial to the perpetuation of fish and wildlife, especially waterfowl.

3. Federal:
Izembek National Wildlife Refuge Covering 320,893 acres, the Refuge faces the Bering Sea on the tip of the Alaska Peninsula. Most of the refuge (300,000 acres) was designated as Wilderness in 1980 under the Alaska National Interest Lands Conservation Act. The landscape features volcanoes, glaciers, valleys, tundra and lagoons. Izembek Lagoon features one of the largest eelgrass beds in the world. The Lagoon provides a feeding area for migratory birds, particularly during fall migration, including the world's population of Pacific black brant (150,000 birds on average), Taverner's Canada geese (55,000), and emperor geese (6,000). Approximately 23,000 threatened Steller's eiders also molt, rest, and feed at Izembek each autumn. Most waterfowl arrive in August/September. A second wave of mostly sea ducks arrives in November to overwinter. Thousands of shorebirds, as well as brown bear, caribou, ptarmigan, and furbearers inhabit the Refuge. Waterfowl and other sport hunting are primary visitor activities.

Alaska Maritime National Wildlife Refuge The majority of this vast Refuge occurs within the Aleutians Subarea. The entire Refuge covers over 4.5 million acres and consists of over 2,400 islands, headlands, rocks, islets, spires, and reefs along the Alaskan coast, stretching from Southeast Alaska to Cape Lisburne on the Chukchi Sea. Of this, the Island groups within the Subarea include the Aleutian (Attu to Unimak), Pribilof, and Shumagin islands. About 75 percent of Alaska's marine birds (15 to 30 million individuals from 55 species) use the Refuge. In addition, it is also home to thousands of sea lions, seals, walrus, and sea otters. Wildlife viewing, photography and backpacking are primary uses of the Refuge.

Alaska Peninsula National Wildlife Refuge: The Refuge, established in 1980, lies on the Pacific side of the Alaska Peninsula and covers about 3,500,000 acres. The Pavlof Unit, which abuts the Izembek NWR, and the North Creek Unit, in the Port Moller area, of the Alaska Peninsula Refuge are within the Aleutian Islands Subarea. The landscape includes active volcanoes along the Aleutian Range, lakes, rivers, tundra, and rugged coastline. Moose, caribou, wolves, brown bears, and wolverines reside on the Refuge. Sea lions, seals, sea otters (about 30,000), and whales live in the marine environment. The cliffs, bays and poorly-drained lowlands provide abundant habitat for millions of birds, particularly seabirds, waterfowl,

and shorebirds that use the refuge primarily as a staging area during migration to and from nesting grounds in the Arctic. Seabirds also use the Refuge for breeding. All five species of Pacific salmon (Chinook, coho, sockeye, pink and chum) spawn in the streams and lakes on the Refuge. Brown bears forage heavily in coastal marshes and along shorelines and are particularly susceptible in the spring. Big game hunting and sport fishing are popular uses.

B. LAND MANAGEMENT MAPS

The ADNR maintains the following website for researching land records in Alaska: www.landrecords.info

The ADNR, under agreement with the ADEC, produced digital base and land management maps for each of the subareas using their ARC-INFO based GIS. The following land management maps provide an index to the Public Land Record and should not be viewed as legal documents. These maps are available on the internet at: www.asgdc.alaska.gov/maps/cplans/subareas.html

For more current detailed information on land status, go to the Bureau of Land Management's Spatial Data Management System web site at: www.sdms.ak.blm.gov/isdms/imf.jsp?site=sdms and click on the Generalized Land Status layer.

ATTACHMENT 1:WILDLIFE PROTECTION GUIDELINES – PRIBILOF ISLANDS

For the Pribilof Islands Wildlife Protection Guidelines, please visit the following website: www.dec.alaska.gov/spar/perp/plans/scp_al.htm

ALEUTIANS SUBAREA CONTINGENCY PLAN

BACKGROUND SECTION

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BACKGROUND: PART ONE – SUPPORT INFORMATION

A. SUBAREA PLAN

This Subarea Contingency Plan (SCP) supplements the *Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases* (*Unified Plan*). The SCP in conjunction with the *Unified Plan* describes the strategy for a coordinated federal, state and local response to a discharge or substantial threat of discharge of oil or a release of a hazardous substance from a vessel, offshore or onshore facility, or vehicle operating within the boundaries of the Aleutians Subarea. For its planning process, the federal government has designated the entire state of Alaska as a planning "region" and the western half of the state as a planning "area." The State of Alaska has divided the state into ten planning regions of which one is the Aleutians Region. As part of the *Unified Plan*, this SCP addresses this Aleutians Region or, to avoid confusion with federal terms, Subarea.

This plan shall be used as a framework for response mechanisms and as a pre-incident guide to identify weaknesses and to evaluate shortfalls in the response structure before an incident. The plan also offers parameters for vessel and facility response plans under the Oil Pollution Act of 1990. Any review for consistency between government and industry plans should address the recognition of economically and environmentally sensitive areas and the related protection strategies, as well as a look at the response personnel and equipment (quantity and type) available within the area (including federal, state, and local government and industry) in comparison to probable need during a response.

B. SUBAREA DESCRIPTION

As defined by Alaska regulations, the Aleutians Subarea encompasses the boundaries of the Aleutians East Borough, the Pribilof Islands, and the Aleutians West Coastal Resource Service Area, including adjacent shorelines and state waters, and having as its seaward boundary a line drawn in such a manner that each point on the line is 200 nautical miles from which the territorial sea is measured.

Physical Features: The Aleutian Islands and the Alaska Peninsula are characterized by rugged and fjord-like coastlines rising to volcanic mountainous areas up to 9000 feet in elevation. The population is distributed among predominantly isolated coastal communities. Major communities include the cities of Unalaska, Sand Point, and St. Paul. The region's maritime climate is comparatively mild with regard to general Alaskan temperatures; however, the islands are often fog-shrouded and frequently struck by storms. The weather in the region is the result of the interaction between major weather systems that move northward across the Gulf of Alaska or eastward across the Bering Sea and the land topography.

Socio-Economic: Commercial fishing and fish processing are the economic mainstays in the region. There are approximately 400 fishing vessels operating in the Aleutian Island chain. Unalaska/Dutch Harbor has developed as a seafood supply and processing center with some port development. Unalaska is consistently the top U.S. port in volume of fish and shellfish landings; in 2005, commercial fishermen unloaded 887.6 million pounds of fish and shellfish, worth $166 million.

Dutch Harbor is also used temporarily as an offshore oil/gas staging area for Bering Sea offshore exploration. There is some potential for offshore oil and gas development in the North Aleutian Basin.

A portion of the Great Circle Route, a major international shipping route, is located within the Aleutians Subarea. An estimated 3,000-3,500 vessels, approximately 30-40 of them tank ships, transit through Unimak Pass each year.

Oil Activities: In the Aleutians, Unalaska/Dutch Harbor serves as the major regional hub for the distribution of noncrude oils to the Aleutian villages, southern Bering Sea, and the offshore fishing fleet. Service in the southern part of the area is year round, but becomes ice dependent during late October to breakup. Unimak Pass and False Pass also witness heavy traffic both for transport servicing villages to the north and the Aleutian chain and for foreign-vessel transport between North America and the Far East.

Deliveries of noncrude oils into the Aleutians are from the south, primarily Puget Sound or from upper Cook Inlet. Noncrude oil originating from upper Cook Inlet and West Coast ports also passes through the area en route to the Far East, and transport in the reverse direction is also true.

General: There are 12 communities in the region, 10 Native and 2 non-Native.

C. AREA OF RESPONSIBILITY

This SCP covers the region outlined above. The USCG Captain of the Port (COTP) for Western Alaska is the pre-designated Federal On-Scene Coordinator (FOSC) for navigable water ways within the subarea (as agreed to and stipulated in a memorandum of understanding between EPA and USCG). EPA is the pre-designated FOSC for the Inland Zone which encompasses all lands, rivers, streams, and drainages inland of the 1000-yard wide band which parallels the Alaskan coastline. These zones are clearly defined in the *Unified Plan*. It is possible that incident may occur in locations that do not fall under federal jurisdiction and there will be no FOSC in these instances.

The State of Alaska places jurisdiction of spill response for the Aleutians Subarea under the Central Alaska Response Team (CART) of the Alaska Department of Environmental Conservation (ADEC). The State On-Scene Coordinator (SOSC) for the CART is the pre-designated SOSC for the entire Aleutians Subarea.

Memoranda of Understanding/Agreement (MOU/MOA) between the USCG/EPA and the EPA/State of Alaska further delineate the OSC responsibilities. The *Unified Plan, Annex K* includes copies of these MOUs/MOAs.

D. REGIONAL STAKEHOLDER COMMITTEE

A Regional Stakeholder Committee (RSC) will normally be activated for significant incidents. The RSC was previously referred to as the Multi-Agency Coordination Committee (MAC). Unlike the MAC defined in the ICS of the National Incident Management System, the RSC for a spill response does not play a direct role in setting incident priorities or allocating resources. The RSC can advise the Unified Command (under the guidance of the Liaison Officer) and provide comments and recommendations on incident priorities, objectives and action plans.

The figure below provides the general location of the RSC in relation to the Unified Command organizational structure and suggested/potential membership of the RSC. Membership on the RSC is dependent upon the location of the incident and the interests or jurisdiction of the affected communities, landowners, and special interest groups. Government agencies will not normally use the RSC to provide input to the Unified Command. Federal agency personnel will participate within the ICS structure under the leadership of the FOSC; state personnel will do so under the guidance of the SOSC. During an incident in which no FOSC is taking part, federal agencies with jurisdictional responsibilities for resources at risk could participate as a member of the RSC, thus retaining a channel for input on containment, oversight, and cleanup. The preferred approach is to include these agencies as part of the overall ICS structure.

* As long as there is an immediate threat to public safety, the Local On-Scene Coordinator (LOSC) will serve as the ultimate command authority if the FOSC or SOSC does not assume the lead role for response, or the LOSC requests a higher authority to assume that responsibility.

Suggested Membership:

- Representatives or Community Emergency Coordinators from affected communities. These may include:

Adak	Akutan	Atka	Cold Bay
False Pass	King Cove	Nelson Lagoon	Nikolski
Sand Point	St. George	St. Paul	Shemya
Unalaska/Dutch Harbor			

- Federal/state/local or private landowners and leaseholders (e.g., National Parks Service, Alaska Department of Natural Resources)
- Native corporations, organizations and communities
- Special interest groups affected by the incident

As indicated above, the RSC is not directly involved in tactical operations, though some of its members may be. The RSC's role is to convey to the Unified Command information relating to the authority, concerns and expertise of its members. RSC members recommend to the Unified Command overall objectives and priorities and review the Incident Action Plans developed by the Unified Command.

RSC activities will be coordinated by the Liaison Officer. RSC discussions will be documented, and recommendations or dissenting opinions expressed outside of the RSC meetings with the Unified Command will be communicated to the Unified Command through the Liaison Officer. The RSC will be chaired initially by the Liaison Officer. After convening, the RSC will then elect its own chair.

E. SUBAREA COMMITTEE

The primary role of the Subarea Committee is to act as a preparedness and planning body for the subarea. The pre-designated FOSC for the subarea and the pre-designated SOSC from ADEC compose the primary membership of the Subarea Committee. Each member is empowered by their own agency to make decisions on behalf of their organization and to commit the organization to carrying out roles and responsibilities as described in this plan and the *Unified Plan*.

The pre-designated FOSCs for the area (EPA & USCG), and the SOSC will serve as chairpersons of the committee. They will select work group members and provide general direction and guidance for the work groups and the Subarea Committee.

The Subarea Committee is encouraged to solicit advice, guidance or expertise from all appropriate sources and establish work groups as necessary to accomplish the prepared need and planning task. The FOSC should solicit the advice of the Alaska Regional Response Team to determine appropriate work group representatives from federal, state, and local agencies.

1. Subarea Committee Members

The Aleutians Subarea Committee is comprised of representatives from the following federal, state and local agencies:

- U.S. Coast Guard, COTP Western Alaska
- U.S. Environmental Protection Agency
- Alaska Department of Environmental Conservation
- Borough or local government, when applicable

The Aleutians Subarea Committee also seeks advice and expertise concerning environmental and economic issues from international, federal, state and local agencies, and private industries, such as:

- Local borough, city and tribal governments
- Federally-recognized tribes
- Regional/local businesses
- Local Emergency Planning Committees
- Alaska Department of Fish and Game
- Alaska Department of Natural Resources
- Alaska Department of Military and Veteran Affairs
- National Marine Fisheries Service
- National Oceanic and Atmospheric Administration

- U.S. Department of the Interior-Office of Environmental Policy and Compliance
  - U.S. Fish and Wildlife Service
  - National Park Service
  - Bureau of Land Management

2. Subarea Work Groups

The Subarea Committee seeks to solicit advice, guidance or expertise from all appropriate sources and establish work groups as necessary to accomplish the preparedness and planning tasks. The Subarea Committee selects the work group members and provides general direction and guidance for the work groups. In addition to federal, state and local agency representatives, work group participants may include facility owners/operators, shipping company representatives, cleanup contractors, emergency response officials, marine pilot associations, academia, environmental groups, consultants, response organizations and representatives from any applicable regional citizens' advisory councils.

The Aleutians Subarea Committee has formed the following work groups:

The Sensitive Areas Work Group is chaired by the Department of Interior-Office of Environmental Policy and Compliance representative. This work group coordinates the preparation of the necessary information for each separate subarea and ensures that the information is submitted in a common format. Participation by local community staff is vital to acquire local input and validate existing information. The Aleutians Subarea-specific sensitive areas information has been prepared and incorporated into the *Sensitive Areas Section* of this plan.

The Logistics Work Group is co-chaired by representatives from USCG, EPA, and ADEC. This work group is responsible for preparing the *Resources Section* of this plan.

The Operations Work Group is co-chaired by representatives from USCG, ADEC and EPA. This work group is responsible for scenario development and the refinement/expansion of the Emergency Notification Lists located in the *Response Section* of this plan.

BACKGROUND: PART TWO – RESPONSE POLICY & STRATEGIES

The strategy for responding to a specific spill or hazmat incident depends upon numerous factors. The strategy can change as the situation changes. As a general rule, the strategies listed below should be used as a guide in developing an effective response. Consider all factors that may affect the particular situation and revise/modify/expand these priorities as the situation dictates. The *Response Section* of this plan contains some specific information on response procedures and ramp-up timelines. Additional information can be found in the *Unified Plan*.

A. FEDERAL RESPONSE ACTION PRIORITIES/STRATEGIES

The following priorities are general guidelines for response to a pollution incident within the COTP Western Alaska zone. They are based in the premise that the safety of life is of paramount importance in any pollution incident, with the protection of property and the environment, although important, being secondary. Nothing in this part is meant to indicate that higher priority items must be completed before performing a lower priority task. They may be carried out simultaneously or in the most logical sequence for each individual incident.

- Priority One: Safety of Life – For all incident which may occur, the safety of personnel, including response personnel, must be given absolute priority. No personnel are to be sent into an affected area without first determining the hazards involved and that adequate precautions have been taken to protect personnel.
- Priority Two: Safety of Vessel/Facility and Cargo – The facility and/or vessel and its cargo shall become the second priority.
- Priority Three: Protection of the Environment by elimination of the pollution source – Containment and recovery of oil in the open water must be effected expeditiously to preclude involvement of the beaches and shorelines. Due to remote location and restricted accessibility, it is extremely difficult to protect the majority of coastline by diversion and exclusion methods. Therefore, securing the source and open water containment and recovery are especially critical and should normally be the first line of defense to protect the environment. Likewise, spills which occur on land or in upland water courses will be dammed, boomed, diked, etc., as feasible to prevent the spread of the pollutant downstream. Note: In situ burning (*Unified Plan, Annex F* for checklist) of a vessel and its pollutants may be an alternative considered by the OSCs; this strategy places environmental protection priorities above saving the vessel and its cargo.
- Priority Four: Protection of the Environment by diversion/exclusion, dispersion, or in situ burning – In the event of that the location of a spill or the weather conditions do not permit open water recovery, protection of the shoreline becomes paramount, especially areas of greatest sensitivity. It is not possible to protect some areas entirely or even in part. It may be necessary to sacrifice some area in order to achieve the best overall protection of the environment, The OSC may consider in situ burning as a response option. *Refer to the Unified Plan, Annex F, Appendix II* for an in situ burning checklist. The use of dispersant must be considered early in the response phase while the oil is in the open water and conditions are agreeable. The *NCP, Subpart J* and the *Unified Plan, Annex F, Appendix I* address in detail the responsibilities of the FOSC in the use of chemicals.
- Priority Five: Protection of the Environment by beach cleanup and the use of sacrificial areas – It may not be possible to protect the entire shoreline from oil; in fact, spilled product may be

allowed purposely to come ashore in some areas as an alternative to damaging other, more sensitive areas. Selection of the proper shore line cleanup technique depends on many different factors, including the following:

- Depth of oil in the sediment
- Type of oil (tar balls, pooled oil, viscous coating, etc.)
- Trafficability of equipment on the shoreline
- Environmental or cultural sensitivity of the oil shoreline
- Prevailing oceanographic and meteorological conditions

The best way to minimize debate over the most appropriate response is to involve all interceded government and private agencies and other stakeholders. The shoreline assessment groups shall attempt to agree on the amount and character of the oil that is on the shorelines, anticipate interactions between the stranded oil and the environment, and assess the geological and ecological environment of the involved shorelines. Once a consensus is met on these parameters, an approach must be developed to determine the proper treatment required.

Shoreline cleanup options may include the use of physical and/or chemical processes. Physical shoreline cleaning methods include techniques such as natural recovery, manual sorbent application, manual removal of oiled materials, local pressure flushing, manual scraping, mechanical tilling, and mechanical removal using heavy equipment. Chemical shoreline cleanup products may increase the efficiency of water-washing during the cleanup of contaminated shorelines. However, the product must be listed on the NCP Product Schedule, and authorization must be obtained from the ARRT and the OSC of the spill. Bioremediation is also considered as a shoreline cleaning method. Bioremediation is the application of nutrients to the shoreline to accelerate the natural biodegradation of oil. The OSCs shall request site-specific guidelines for source protection measures required during shoreline cleanup operation.

B. STATE OF ALASKA RESPONSE PRIORITIES

- Safety: Ensure the safety of persons involved, responding, or exposed to the immediate effects of the incident.
- Public Health**:** Ensure protection of public health and welfare from the direct or indirect effects of contamination of drinking water, air, and food.
- Environment: Ensure protection of the environment, natural and cultural resources, and biota from the direct or indirect effects of contamination.
- Cleanup**:** Ensure adequate containment, control, cleanup and disposal by the responsible party or supplement or take over when cleanup is inadequate.
- Restoration: Ensure assessment of contamination and damage and restoration of property, natural resources and the environment.
- Cost Recovery: Ensure recovery of costs and penalties to the Response Fund for response, containment, removal, remedial actions, or damage.

BACKGROUND: PART THREE - SUBAREA SPILL HISTORY & OIL FATE

A. NAVIGABLE WATERS SPILL HISTORY

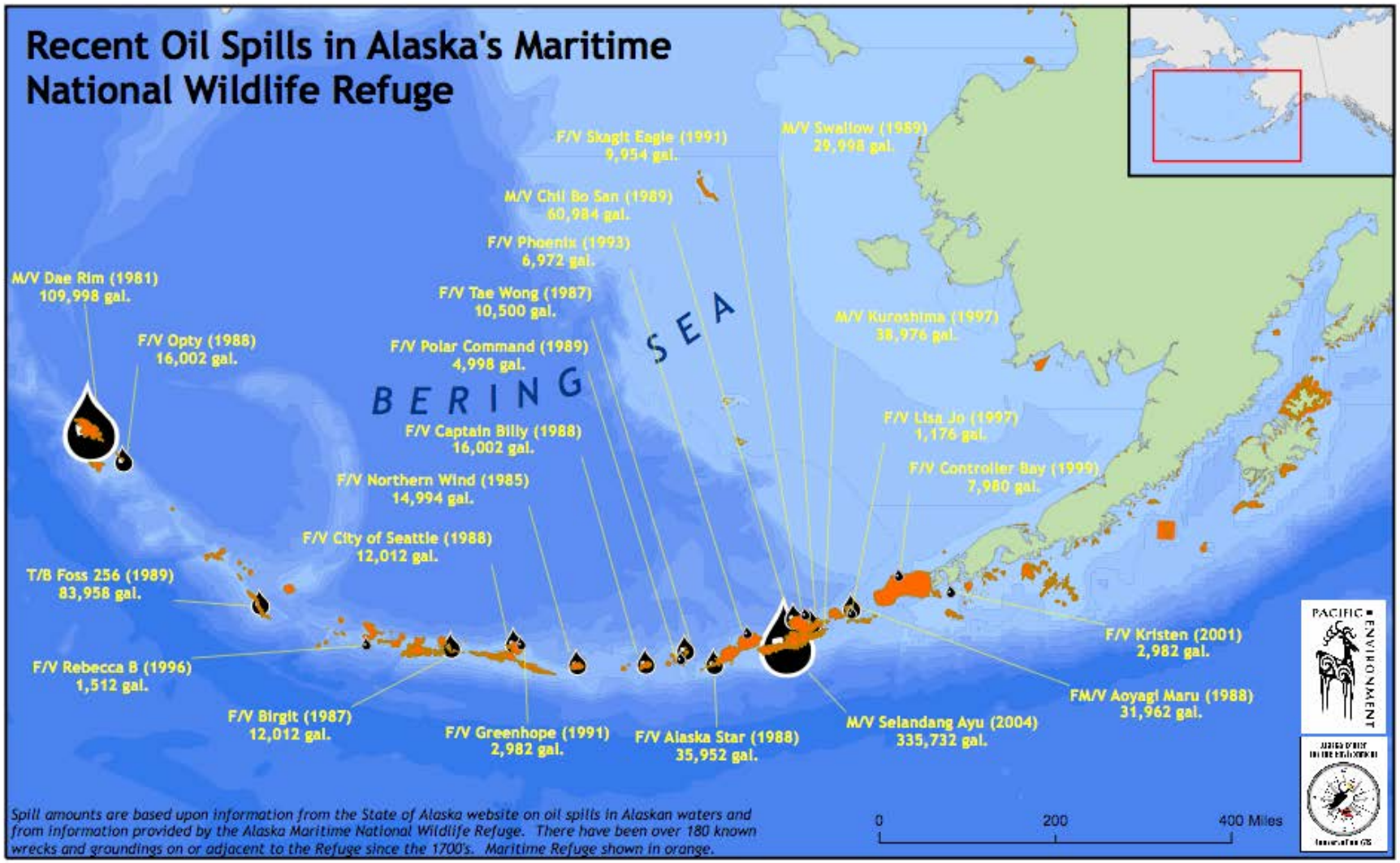
The following spill history was obtained from ADEC and USCG. This partial listing includes only the more significant spills (over 1000 gallons) or hazardous material releases (over 100 pounds), plus several potentially severe incidents. This partial and abbreviated spill history is provided to give an overall view of the vast array of facility and transportation-related accidents that can occur.

The Aleutians Subarea is transited by a wide variety of fishing vessels, tankships (light refined products) and tank barges (light refined products), foreign and domestic freight vessels (persistent heavy fuel oil and light refined products), and military vessels (heavy and light refined products). Dutch Harbor is the major refueling/resupply port in the region, making the possibility of a spill high.

Navigable Waters Spill History

Date	Incident	Location	Released (Gallons)	Product Released
3/5/1981	M/V *Dae Rim*	Attu Island	110,000	2 fuel oil
12/8/1986	F/V *Jamie Lynn*	Saint Paul Island	3,000	Diesel
12/10/1986	Aleutians Islands National Wildlife Refuge	Adak Island	27,000	JP-5
5/11/1987	T/V	North of Unimak Pass	2,674	Diesel
11/3/1988	F/V *City of Seattle*	Crescent Bay, Atka Island	10,000-12,000	Gasoline
12/3/1988	F/V *Opty*	Shemya Island	16,000 1,000 400	Diesel Hydraulic Oil Lube Oil
12/26/1988	Tank Barge 283	East of Shumagin Island	2,041,662	Diesel
1/17/1989	Tank Barge Foss 256	Amchitcka Island	84,000	Diesel
2/20/1989	M/V *Yard Arm Knot*	Saint Paul Island	3,500	Diesel
10/15/1989	F/V *Polar Command*	Islands of Four Mountains	5,000	Diesel
8/13/1991	F/V *Greenhope*	Atka Island	3,000	Diesel
7/22/1995	F/V *Northern Wind*	Nazan Bay near Seguam Island and Atka	15,000	Diesel
8/10/1995	Akutan Fish Oil Spill	Akutan Bay	1,000	Fish Oil
10/24/1996	F/V *Rebecca B*	Tanaga Island	1,500	Diesel
11/26/1997	M/V *Kuroshima*	Summer Bay, Unalaska	39,000	Bunker
5/8/1999	F/V *Controller Bay*	Unimak Island	8,000	Diesel
5/11/2001	F/V *Kristen*	Cold Bay	3,000	Diesel
8/26/2003	F/V *Decade*	King Cove	3,000	Diesel
12/8/2004	M/V *Selendang Ayu*	Unalaska	321,052 14,680	IFO 380 Diesel
1/13/2005	Tarball Mystery Spill	Attu	1,520	Bunker
2/23/2006	F/V *Northern Dawn*	Volcano Bay	1,000	Diesel
2/10/2007	F/V *Illusion*	Makushin Bay	1,000	Diesel
3/18/2007	F/V *Exodus Explorer*	Kuluk Bay – Gannet Rocks	3,000	Diesel
3/23/2008	F/V *Alaska Ranger*		145,000	Diesel
2/25/2009	F/V Icy Mist	Northwest Corner of Akutan Island	2,700 135,000	Diesel Other
10/30/2009	F/V Carley	Sedanka Island	2,000	Diesel
2/15/2011	F/V Aleutian Lady	Unalaska	1,100	Diesel
6/26/2011	Tug Aries	Saint Paul	1,000	Diesel
2/26/2012	F/V Neptune I	Unimak Island	1,670	Diesel
11/13/2012	Polar Wind Tug and Barge	Ukolnoi Island	6,000	Diesel

Date	Incident	Location	Released (Gallons)	Product Released
11/1/2013	F/V Arctic Hunter	Unalaska	6,500	Diesel


Recent Oil Spills in Alaska's Maritime National Wildlife Refuge
BERING SEA
M/V Dae Rim (1981) 109,998 gal.
F/V Opty (1988) 16,002 gal.
T/B Foss 256 (1989) 83,958 gal.
F/V Rebecca B (1996) 1,512 gal.
F/V Birgit (1987) 12,012 gal.
F/V City of Seattle (1988) 12,012 gal.
F/V Northern Wind (1985) 14,994 gal.
F/V Greenhope (1991) 2,982 gal.
F/V Captain Billy (1988) 16,002 gal.
F/V Polar Command (1989) 4,998 gal.
F/V Tae Wong (1987) 10,500 gal.
F/V Phoenix (1993) 6,972 gal.
M/V Chil Bo San (1989) 60,984 gal.
F/V Skagit Eagle (1991) 9,954 gal.
F/V Alaska Star (1988) 35,952 gal.
M/V Selandang Ayu (2004) 335,732 gal.
M/V Swallow (1989) 29,998 gal.
M/V Kuroshima (1997) 38,976 gal.
F/V Lisa Jo (1997) 1,176 gal.
F/V Controller Bay (1999) 7,980 gal.
F/V Kristen (2001) 2,982 gal.
FM/V Aoyagi Maru (1988) 31,962 gal.
PACIFIC ENVIRONMENT
Spill amounts are based upon information from the State of Alaska website on oil spills in Alaskan waters and from information provided by the Alaska Maritime National Wildlife Refuge. There have been over 180 known wrecks and groundings on or adjacent to the Refuge since the 1700's. Maritime Refuge shown in orange.
0
200
400 Miles

B. INLAND SPILL HISTORY

Date	Incident	Location	Released (Gallons)	Product Released
7/5/1995	Trident Seafood Cannery	Akutan	10,000	Diesel
7/2/1996	Eareckson Air Force Base	Shemya	4,000	Diesel
1/10/1998	Thermal Treatment Facility	Dutch Harbor	3,675	Diesel
3/12/1998	Adak Elementary School	Adak	3,400	Aviation Fuel
4/13/1998	USCG Station Attu Tank Farm	Attu	4,800	Gasoline
2/24/1999	Saint Paul City Tank Farm	Saint Paul Island	1,500	Diesel
4/29/2000	Ivanof Bay Power Plant	Ivanof Bay	1,529	Diesel
9/10/2000	Peter Pan Seafoods	False Pass	1,000	Diesel
12/26/2004	Nikolski Tank Farm	Nikolski	5,000	Diesel
6/28/2006	USCG C-130 Aircraft Spill	Saint Paul Island	1,000	Aviation Fuel
2/3/2007	Dutch Harbor Airport	Dutch Harbor	1,000	Diesel
2/15/2007	Old Rock Quarry	Sand Point	5,930	Used Oil
1/11/2010	Adak Petroleum	Adak	68,746	Diesel
12/30/2010	Unisea Power Plant	Dutch Harbor	1,700	Diesel
3/4/2012	Peter Pan Seafoods Tank Farm	False Pas	4,373	Diesel
1/3/2013	Unisea Inc	Unalaska	1,000	Diesel
7/13/2013	Peter Pan Seafoods	King Cove	3,500	Diesel

C. HAZMAT RELEASE HISTORY

Date	Incident	Location	Released (Pounds)	Product Released
12/3/1995	Trident Seafoods	Saint Paul Island	1,500	Anhydrous Ammonia
9/5/1996	Arctic Enterprise	Dutch Harbor	1,500	Anhydrous Ammonia
10/12/1996	M/V *Storfjord*	Dutch Harbor	4,000	Anhydrous Ammonia
5/6/1999	F/V *Ying Fa*	Adak	100	Anhydrous Ammonia
2/4/2000	Adak Naval Air Station	Adak	320	Chlorine
5/3/2000	Adak Seafoods	Adak	20,000	Freon
6/2/2000	Adak High School	Adak	480	Chlorine
9/23/200	Akutan Trident Seafoods	Akutan	685	Anhydrous Ammonia
2/18/2002	Trident Seafoods	Akutan	500	Anhydrous Ammonia
8/25/2003	Peter Pan Seafoods	King Cove	150	Chlorine
7/28/204	M/V *Arctic Enterprise*	Akutan	100	Anhydrous Ammonia
7/30/2004	Trident Seafoods	Sand Point	155	Anhydrous Ammonia
12/22/2007	Unisea Inc	Dutch Harbor	18,007	Anhydrous Ammonia
5/9/2008	Saint Paul	Saint Paul	150	Anhydrous Ammonia
7/13/2010	Trident Seafoods	Akutan	190	Anhydrous Ammonia
10/14/2011	Alyeska Seafoods	Unalaska	126	Anhydrous Ammonia
10/22/2011	Bering Fisheries	Dutch Harbor	300	Anhydrous Ammonia
2/9/2012	Trident Seafoods	Saint Paul	3,885	Sodium Hypochlorite
5/10/2012	Fishing Company of Alaska	Bering Sea	500	Anhydrous Ammonia
6/20/2012	Bering Fisheris	Dutch Harbor	700	Anhydrous Ammonia
7/6/2012	F/V *Excellence*	Dutch Harbor	20,000	Anhydrous Ammonia
9/13/2013	Trident Seafoods	Saint Paul	1,600	Anhydrous Ammonia

Aleutian Subarea

Total Spills:	683
Total Volume:	469,439
Average Spill Size:	687
Average Spills/Year:	68
Average Volume/Year:	46,944

Top 5 Causes

Cause	Spills	Gallons
Human Error	38	342,282
Grounding	16	65,095
Overfill	191	13,970
Tank Failure	4	10,080
Valve Failure	30	6,089

Top 5 Products

Product	Spills	Gallons
Bunker	4	360,432
Diesel	399	87,572
Aviation Fuel	31	7,046
Gasoline	16	5,539
Freon	1	2,000

Top 5 Facility Types

Facility Type	Spills	Gallons
Vessel	320	412,204
Cannery	57	16,128
Noncrude Terminal	28	13,735
Air Transportation	41	8,119
Other	63	7,353

NOTE: The data summary above excludes spills reported in pounds and potential spills.

Shoreline: 6,500 miles
Land Area: 7,300,000 acres or 11,400 square miles

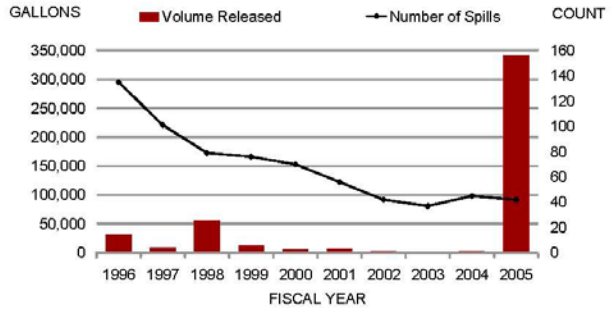
The Aleutian Subarea includes the southern portion of the Alaska Peninsula as well as the Aleutian archipelago. The major islands in the region include Unimak, Unalaska, Umnak, Atka, Adak, Attu, and the Pribilof Islands of St. George and St. Paul. The region includes two Local Emergency Planning Districts (LEPD): the Aleutians East Borough LEPD and the Aleutian and Pribilof Islands LEPD. Major communities include the cities of Unalaska, Sand Point, and St. Paul. Industrial activity is limited to seafood processing, although Unalaska is a major port for freight into the region and a waypoint for freight shipments to Asia.

Discernible Trends

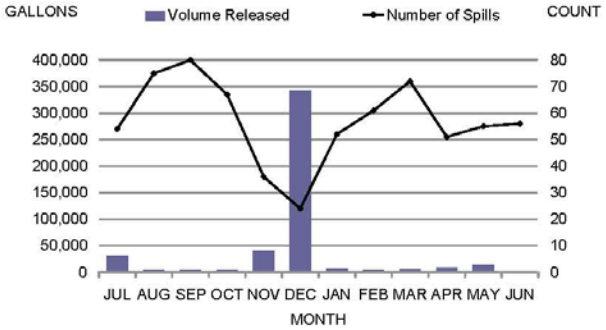
- The total number of spills in the Aleutian subarea appear to be on a general decline during this period.
- In terms of spill frequency related to the time of year, there appears to be a distinct period from October to January when a lesser number of spills occur. Further study may reveal that seasonal trends could be related to the fishery openers that occur along the Aleutian chain.
- Spills greater than 1,000 gallons in size were on a general decline following the November 1997 grounding of the M/V Kuroshima. However, the December 2004 grounding of the Selendang Ayu resulted in the huge spike in total volume spilled during that fiscal year.
- Spills from vessels were most common and accounted for 47% of the total number of spills, and 88% of the total volume spilled.
- Primary spill causes were relatively evenly distributed between Other causes (21%), Structural/Mechanical (33%), and Human Factors (42%). In terms of volume released, Human Factors causes resulted in 77% of the total volume released.
- Noncrude oil was the primary product spilled in 98% of the spills, and contributed to 99% of the total volume spilled.

M/V Kuroshima, aground at Summer Bay, Unalaska Island, November 1997.

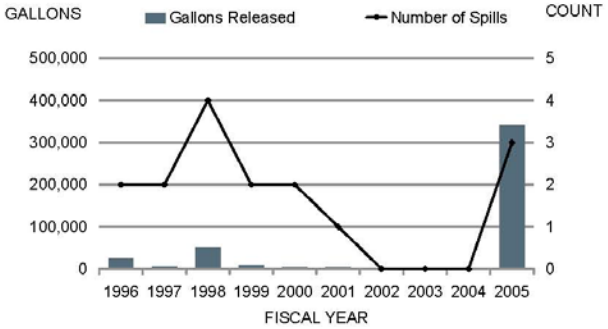
All Spills by Fiscal Year



All Spills by Month



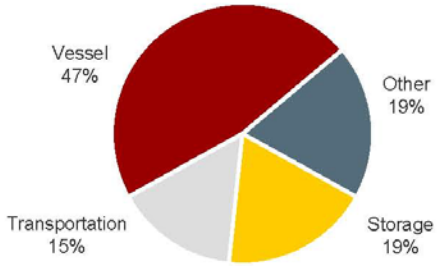
Spills >1,000 gallons



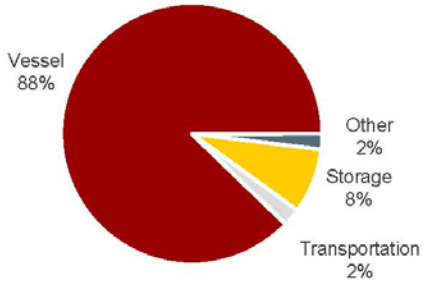
NOTE: Graphs do not include spills reported in pounds or potential spills.

Aleutian Subarea Spills by Facility Type

Number of Spills

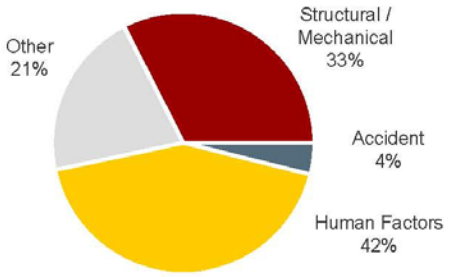


Gallons Released

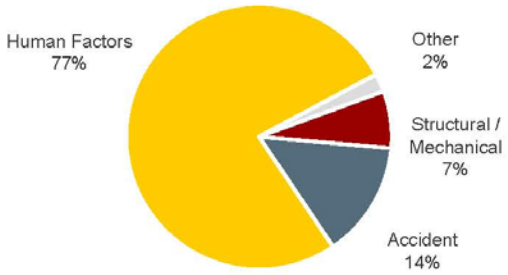


Aleutian Subarea Spills by Cause

Number of Spills



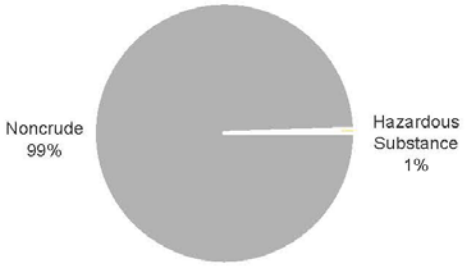
Gallons Released



Aleutian Subarea Spills by Product

Number of Spills

Gallons Released

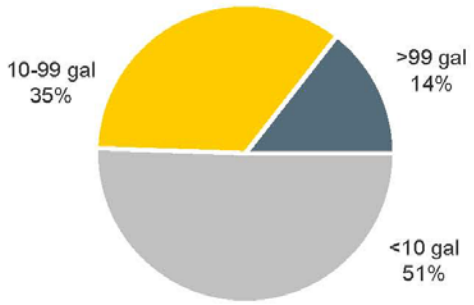


NOTE: Graphs do not include spills reported in pounds or potential spills.

Aleutian Subarea Spills by Size Class

- More than half of the spills reported during the 10-year period were less than 10 gallons in size.
- More than 98% of the total volume released was attributable to spills with a volume greater than 99 gallons.

Number of Spills



Gallons Released

NOTE: Graphs do not include spills reported in pounds or potential spills.

Aleutian Subarea Spills at Regulated vs. Unregulated Facilities

Numerous oil facilities and vessels operating in Alaska are subject to Alaska's spill response planning and financial responsibility statutes. This section summarizes spills from:

- facilities and vessels required by statute to have an approved oil discharge prevention and contingency plan; and,
- non-tank vessels which are required to have an approved certificate of financial responsibility are also included.

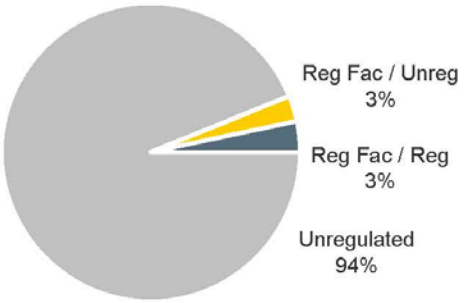
Spills from underground storage tanks are not included in this analysis.

Alaska's contingency planning requirements apply to specific aspects (components) of a facility's or vessel's operations. The analysis in this report distinguishes between spills from regulated versus unregulated components. Examples of spills from unregulated components include:

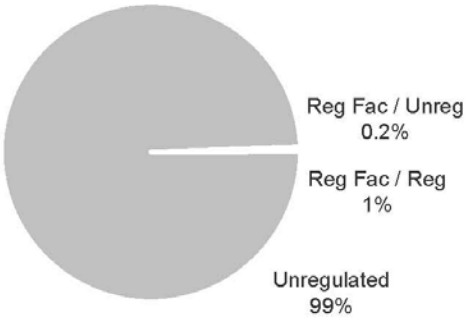
- a spill from a vehicle at a regulated facility;
- a spill from a fuel tank (below the regulatory threshold of 10,000 barrels) at a regulated facility

- More than 90% of the spills and nearly 100% of the total volume released during the 10-year period were from unregulated facilities, primarily Vessels.

Number of Spills

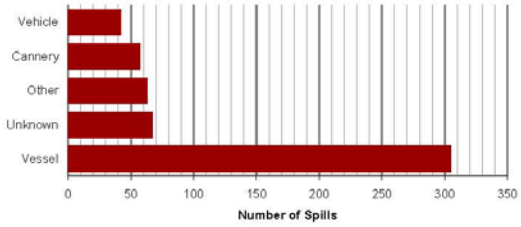


Gallons Released

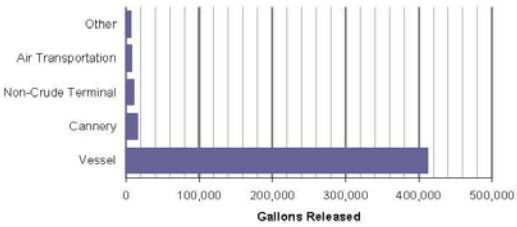


Top Unregulated Facilities

Number of Spills



Gallons Released



NOTE: Graphs do not include spills reported in pounds or potential spills.

Major Spills in the Aleutian Subarea

Spill Date	Location	Spill Name	Facility Type	Product	Gallons
12/26/1988	East of Shumagin Islands	Tank Barge 283	Vessel	Diesel	2,041,662
12/8/2004	Unalaska Island, Skan Bay	M/V Selendang Ayu	Vessel	IFO 380, Diesel	335,732
3/5/1981	Attu Island	M/V Dae Rim	Vessel	Diesel	109,998
1/17/1989	Amchitka Island	T/B Foss 256	Vessel	Diesel	83,958
1/11/1989	Unalaska Island	M/V Chil Bo San	Vessel	Diesel	60,984
11/26/1997	Unalaska, Summer Bay	M/V Kuroshima	Vessel	Bunker	38,976
2/1/1988	Nikolski	F/V Alaska Star	Vessel	Diesel	35,952
12/10/1988	Akun Island	M/V Aoyagi Maru	Vessel	Diesel	31,962
2/27/1989	Dutch Harbor	M/V Swallow	Vessel	Diesel	29,988
12/10/1986	Adak	Adak Tank	Tank	JP-5	27,006
2/17/1988	Yunalaska Island	F/V Captain Billy	Vessel	Diesel	16,002
12/3/1988	Shemya Island	F/V Opty	Vessel	Diesel	16,002
7/22/1995	Seguam Island	F/V Northern Wind	Vessel	Diesel	14,994
3/8/1987	Uluak Island	F/V Birgit	Vessel	Diesel	12,012
11/3/1988	Atka Island	F/V City of Seattle	Vessel	Diesel	12,012
5/6/1987	Uliaga Island	F/V Tae Woong	Vessel	Diesel	10,500
2/8/1991	Unalaska, Reese Bay	F/V Skagit Eagle	Vessel	Diesel	9,954
7/5/1995	Akutan	Trident Seafood	Cannery	Diesel	9,954
5/8/1999	Unamak Island	F/V Controller Bay	Vessel	Diesel	7,980
4/12/1993	Umnak Island	F/V Phoenix	Vessel	Diesel	6,972
10/15/1989	Chuginadak Island	F/V Polar Command	Vessel	Diesel	4,998
1/00/1990	Sand Point	Trident Seafood	Cannery	Diesel	4,998
2/20/1989	St. Paul Island	M/V Yard Arm Knot	Vessel	Diesel	3,500
3/00/1985	Akutan	Unknown	Unknown	Diesel	3,360
12/8/1986	St. Paul Island	F/V Jamie Lynn	Vessel	Diesel	3,000
8/13/1991	Atka Island	F/V Greenhope	Vessel	Diesel	2,982
5/11/2001	Cold Bay	F/V Kristen	Vessel	Diesel	2,982
5/11/1987	North of Unimak Pass	Tank Vessel	Vessel	Diesel	2,674
10/24/1996	Tanaga Island	F/V Rebecca B	Vessel	Diesel	1,512
2/19/1997	Akun Island	F/V Lisa Jo	Vessel	Diesel	1,176
8/10/1995	Akutan	Akutan	Cannery	Fish Oil	1,008
9/10/2000	False Pass	Peter Pan	Cannery	Diesel	1,008

Data Sources:
Department of Environmental Conservation
US Coast Guard
NOAA
Aleutian Subarea Contingency Plan for Oil and Hazardous Substance Discharges/Releases, September 1999

Contingency Plan Facilities in the Aleutian Subarea

Facility Name	Facility Type
Island Tug and Barge, Ltd. Barges (1)	Barge
Crowley Barges (1)	Barge
Sea Coast Transportation Barges (1)	Barge
Sirius Maritime Barges	Barge
Sause Brothers, Inc -- Klamath	Barge
Spot Charter - Adak Petroleum LLC	Tank Vessel
Fictitious Spot Charter Tanker - DW	Tank Vessel
Crowley Tanker Vessel	Tank Vessel
Chembulk New Orleans	Tank Vessel
Renda	Tank Vessel
Peter Pan Seafoods King Cove Shore Plant	Noncrude Terminal
Trident Akutan Bulk Fuel Storage Facility	Noncrude Terminal
Frosty Fuel Cold Bay Bulk Plant	Noncrude Terminal
City of St. Paul Bulk Fuel Storage	Noncrude Terminal
Delta Western - St. Paul Delta Fuel	Noncrude Terminal
USAF Eareckson Air Station	Noncrude Terminal
Offshore Systems, Inc - Dutch Harbor	Noncrude Terminal
Trident Seafood Sand Point Fuel Plant	Noncrude Terminal
Delta Western Dutch Harbor Tank Farm	Noncrude Terminal
North Pacific Fuel - Ballyhoo	Noncrude Terminal
North Pacific Fuel - Capt. Bay Tank Farm	Noncrude Terminal
North Pacific Fuel - Resoff Tank Farm	Noncrude Terminal
North Pacific Fuel - Westward Seafoods	Noncrude Terminal
Delta Western - St. George Delta Fuel	Noncrude Terminal
Adak Bulk Fuel Facility-Aleut Corp	Noncrude Terminal

NOTES:

(1) Authorized to operate statewide

Active Contaminated Sites in the Aleutian Subarea

This table summarizes the number of active contaminated site cleanup projects in the Aleutian subarea as of August 20, 2007.

Primary Contaminant	Sites	%
Petroleum	185	76%
Hazardous Substances	59	24%
Total	244	

Aleutian Subarea Spill Preparedness and Response Initiatives

Response Corps and Equipment Depots

Community	CRSA	Conex	Nearshore	Other Equipment
Dutch Harbor	■	●	▲	
King Cove	■	●		

Aleutian Island Risk Assessment

DEC, the U.S. Coast Guard, and the Transportation Research Board of the National Academies have executed a memorandum of agreement with the goal of establishing a study framework for conducting a large-scale comprehensive maritime transportation risk assessment.

Vessel Traffic Study

DEC (thru a contractor) produced the initial Vessel Traffic in the Aleutian Subarea report in April 2005. This vessel traffic study was subsequently updated in September 2006. The report is available on the DEC website at:

http://www.dec.state.ak.us/spar/perp/docs/060920vesselreport_s.pdf

Ports and Waterway Safety Assessment (PAWSA)

The initial PAWSA meeting for the Aleutians was held in July 2006. The PAWSA work group will focus primarily on vessel traffic through the Unimak Pass area as this is an area of high concentrations of vessel traffic and hence the location of greatest concern for the Coast Guard and the State of Alaska. Further details on the PAWSA are also available on the DEC website at:

http://www.dec.state.ak.us/spar/perp/ai_risk/ai_risk.htm

Arctic Marine Shipping Assessment (AMSA)

DEC staff is also assisting with the AMSA initiative which is led by the U.S. Arctic Research Council at the request of the eight Arctic member nations. This study will further research arctic vessel traffic including traffic through the Aleutian Islands.

Aleutian Potential Places of Refuge (PPOR) and Geographic Response Strategies (GRS) Development

DEC is sponsoring both of these initiatives which commenced in January 2007. The PPOR project will identify approximately 70 different locations where a vessel in distress could seek shelter along the Aleutian chain. The GRS project provides detailed, pre-planned spill response tactics for protecting extremely sensitive resources. Due to funding limitations, DEC is initially focusing its efforts on developing GRS for the Unalaska Island and vicinity. As funding becomes available, DEC will proceed with developing GRS for the remainder of the Aleutians. DEC website-http://www.dec.state.ak.us/spar/perp/aippor/home.htm

Unalaska/Dutch Harbor Disabled Vessel Workgroup

Following the near grounding of the Salica Frigo on March 9, 2007, the Mayor of Unalaska convened an ad-hoc workgroup to discuss ways to enhance the ability of local tug assets to respond to a distressed vessel in need of assistance due to engine failure, rudder failure, or any other failure which compromises the safe navigation of a vessel. DEC is a participating agency and has committed to purchasing an emergency towing system (ETS) for vessels greater than 50,000 DWT and the City of Unalaska is purchasing an ETS for vessels less than 50,000 DWT. The goal of the system design is to make the system deployable from a rescue vessel or deployable from a disabled vessel. The towing systems will be located in Unalaska. DEC project website: http://www.dec.state.ak.us/spar/perp/aiets/home.htm

Aleutian Subarea Contingency Plan for Oil and Hazardous Substance Spills and Releases

The current plan is dated September 1999, and is undergoing revision. The plan pre-dates the M/V Selendang Ayu incident, and the update will include improvements to the entire plan based on the information and lessons learned from that incident. Additionally, the GRS and PPOR currently under development, along with the vessel traffic study will be incorporated into the plan. The target date for publishing the revision to the plan is Spring 2008.

D. OIL FATE AND GENERAL RISK ASSESSMENT

1. Fate of Spilled Oil

Weathering is a combination of chemical and physical processes that change the physical properties and composition of spilled oil. These processes include evaporation, oxidation, biodegradation, emulsification, dispersion, dissolution, and sedimentation. Below are definitions of these processes and how they relate to oil spills.

- Evaporation occurs when substances are converted from liquid state to vapor. During an oil spill, lighter components can evaporate into the atmosphere, leaving behind heavier components. Evaporation rates depend on the composition of the oil and environmental factors like wind, waves, temperature, currents, etc. For example, lighter refined products, such as gasoline, tend to evaporate very quickly because they have a higher proportion of lighter compounds. Heavier oils, like bunker oil, contain relatively few light compounds and leave viscous residues, composed of heavier compounds.
- Oxidation is a chemical reaction between two substances, which results in loss of electrons from one of the substances. This chemical reaction can take place between spilled oil and oxygen in the air or water. This reaction can produce water soluble compounds that can dissolve or form persistent compounds call tars. Oxidation of oil is a very slow process but can be enhanced by sunlight.
- Biodegradation occurs when microorganisms, such as bacteria, fungi, and yeast, break down a substance by feeding on it. Seawater contains a range of microorganisms that can either partially or completely degrade oil. Nutrient levels, water temperature and oxygen availability can all affect biodegradation, which tends to be quicker in warmer environments.
- Emulsification is a process where small droplets of one liquid become suspended in another liquid. During a spill, emulsification takes place when strong currents or waves suspend water droplets in oil. Water-in-oil emulsions are frequently called "mousse" and are more persistent than the original oil.
- Dispersion is the break up and diffusion of substances from their original source. In an oil spill, turbulent seas can break oil into various sized droplets and mix them into the water column. Smaller droplets can stay suspended while larger droplets tend to resurface, creating a secondary slick. The amount of oil dispersed depends on the oil's chemical and physical properties and the sea state. For example, lower viscosity oils such as diesel, have higher dispersion rates in rough seas. Chemical dispersants may be used to enhance dispersion.
- Dissolution is the process of dissolving one substance in another. Many oils contain light aromatic hydrocarbons, like benzene and toluene, which are water soluble. During a spill, these compounds readily dissolve in water or evaporation into air, which is faster than dissolution.
- Sedimentation is a process where spilled oil chemically binds with, or adheres to, particulates in the water column, creating a density greater than the original oil. If the density of oil/particulate compounds becomes greater than water, particles will settle out of the water column. Sedimentation is much more common in shallow, nearshore areas because of the greater amount of suspended particulates.

2. General Risk Assessment and Climatological Date

The following information (graphs and illustrations) were extracted from a NOAA provided at the National Academy of Science Aleutian Islands Oil Spill Risk Assessment Scoping meeting held in

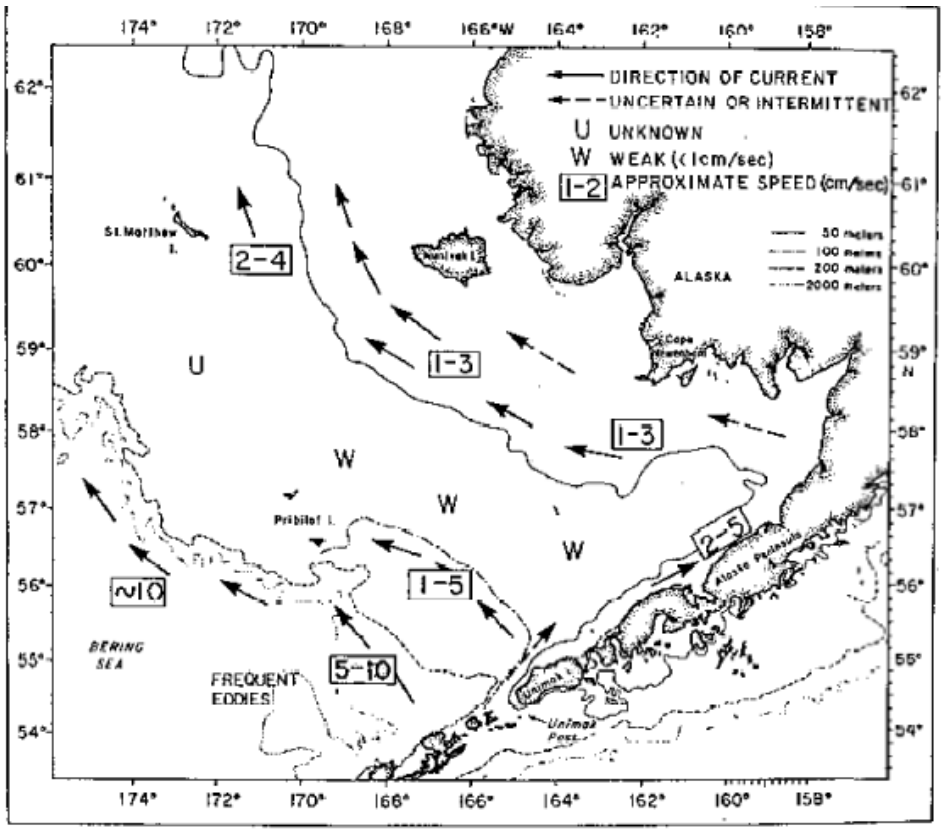
Anchorage on October 29-30, 2007.

3. Wind, Ice and Current Conditions

The following information gives an overview of wind, tide and current conditions in the southern Bering Sea. Much of the available data is general in nature and should be supplemented by area-specific updates and information from local residents. Included in this section are maps of net surface currents. In addition, if the user obtains a current edition of the NOAA tide current tables for the Pacific Coast of North America, it will be possible to predict the times of ebb and flood tides for several points within the Bering Sea.

a. Current Data:

North Aleutian Shelf: The primary flow of water into the Bering Sea originates at Unimak Pass. The source of this flow is the Alaskan Coastal Current, from south of the Aleutians. Typically, this current flows to the northeast into Bristol Bay in the direction of the prevailing wind. At times, the north Aleutian coastal current will undergo a reversal in direction due to changes in the large scale and mesoscale wind direction.



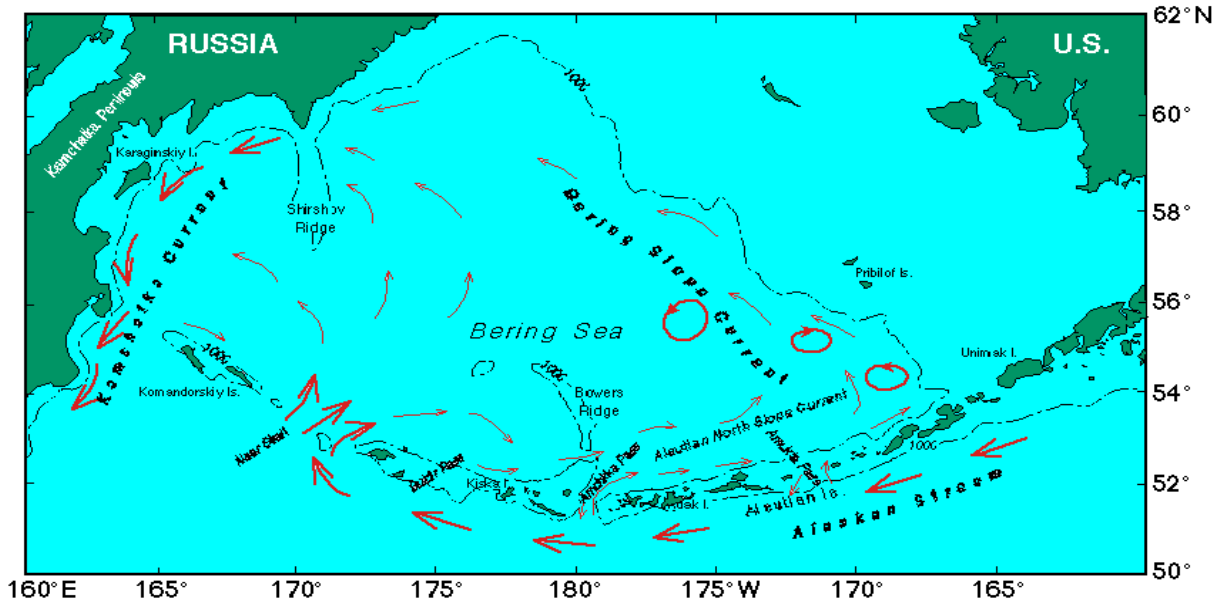
Estimated mean surface circulation for the summer in the eastern Bering Sea.

Schumacher, J.D. and T.H. Kinder; Low-Frequency Current Regimes over the Bering Sea Shelf, J. Physical Ocn, Vol. 13, No. 4, April 1983.

Central Bering: West and northwest of the North Aleutian Basin and Yukon Delta lies St. George Basin, the Central Bering Sea, and still further west, the Navarin Basin. Circulation in these regions is not as

well understood as in the coastal basins. Data is site-specific and sporadic over decades. No consistent flow patterns have emerged as representative of the regional circulation.

Aleutian Islands: The accompanying current diagram shows the Alaska coastal current which joins the Alaska stream in flowing west along the southern boundary of the Aleutian Islands. Most of the exchange of water through the Aleutian passes is from the North Pacific ocean to the Bering Sea during both summer and winter, although local reversals are known to occur.



b. Tidal Current: Although tidally induced currents are factors in determining net surface currents, tidal currents are not usually important in long distance transport since they are oscillatory in nature. Wind and freshwater runoff are additional variables which must be taken into account when estimating spill trajectories. In some cases, tidal currents will be counteracted by these variables and will not be the deciding factor in spill transport.

c. Spill Trajectory: The trajectory of a spill is the result of the interaction of these several forces. This interaction is often complex and difficult to predict. NOAA is capable of generating sophisticated spill trajectory models and has had considerable experience in this area. Requests for this service should be directed to:

Scientific Support Coordinator
NOAA Emergency Response Division
49000 Army Guard Road
G Wind, Room 216
JBER, Alaska 99505
Phone: 428-4143

d. Ice: In the Bering Sea, the sea ice generally begins as fast ice formation along the shores of the Seward and Chukotsk peninsulas in October. As the season progresses and waters in the more open portions of the Bering Sea cool, the pack ice generally begins its seasonal southward formation in November. An estimated 97% of the ice in the Bering Sea is formed within the Bering Sea; very little is

transported south through the Bering Strait. During periods of increasing ice and prevailing northerly winds, the ice apparently is generated and moves southward with the wind at as much as 1 knot before melting at its southern limit. During periods of southerly winds, ice coverage generally decreases in the Bering Sea, causing a wide variation in ice cover from month to month and from year to year. No seasonal ice develops along the Aleutian Islands, and there is a 25% probability that the Bering Sea ice edge may extend south to the Pribilof Islands during the months of February through April.

Structural icing of ships and port facilities due mostly to freezing ocean spray during the winter can cause problems.

e. Data Sources:

- Hood and Zimmerman (eds). Gulf of Alaska: Physical Environment and Biological Resource.
- LaBelle, J.C. and J.L. Wise. 1983. Alaska Marine Ice Atlas.
- National Climatic Data Center (NDC) and Arctic Environmental Information and Data Center (AEIDC). 1988. Climatic Atlas, Volume II: Bering Sea. (wind roses, tidal range data and map)
- U.S. Department of Commerce (NOAA). 1989. Tide Current Tables 1990: Pacific Coast of North America and Asia. (tidal current data and information).
- Alaska Oceanographic Circulation Diagrams and Graphics

BACKGROUND: PART FOUR - ABBREVIATIONS & ACRONYMS

AAC	Alaska Administrative Code
ACA	Area Command Authority
ACFT	Aircraft
ACP	Area Contingency Plan
ACS	Alaska Clean Seas (North Slope industry cooperative)
ADCCED	Alaska Department of Commerce, Community and Economic Development
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADMVA	Alaska Department of Military and Veterans Affairs
ADNR	Alaska Department of Natural Resources
ADOT&PF	Alaska Department of Transportation & Public Facilities, also as ADOTPF
AFB	Air Force Base
AIMS	Alaska Incident Management System Guide
AIR	Air Operations
AKNG	Alaska National Guard
ALCOM	Alaska Command
ALMR	Alaska Land Mobile Radio
AMHS	Alaska Marine Highway System (ADOT&PF)
ANCSA	Alaska Native Claims Settlement Act
ANS or ANSC	Alaska North Slope Crude oil
AOO	Alaska Operation Office (EPA)
AP	Associated Press
APSC	Alyeska Pipeline Service Company
ARRT	Alaska Regional Response Team
ATON	Aids to Navigation
AS	Alaska Statue, also Air Station (USAF)
ASAP	As soon as possible
AST	Alaska State TroopersBBLS Barrels
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BOA	Basic Ordering Agreement
BOEM	Bureau of Ocean Energy Management
BOPD	Barrels of Oil per Day
BSEE	Bureau of Safety and Environmental Enforcement
CAMEO	Computer-Aided Management of Emergency Operations
CART	Central Alaska Response Team (ADEC)
CCGD 17	Commander, Coast Guard District 17
CEC	Community Emergency Coordinator
CEMP	Comprehensive Emergency Management Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
CHEMTREC	Chemical Transportation Emergency Center
CISPRI	Cook Inlet Spill Prevention and Response Inc. (industry cooperative)
CMT	Crisis Management Team
COM	Communications equipment/capabilities
COMDTINST	Commandant Instruction (USCG)

COTP	Captain of the Port (USCG)
CP	Command Post
C-Plan	Contingency Plan
CTAG	Cultural Technical Advisory Group
CUL	Cultural Resources
CWA	Clean Water Act
DAA	Documentation/Administrative Assistance
DHS	United States Department of Homeland Security
DHSEM	Division of Homeland Security and Emergency Management (division under ADMVA)
DOC	United States Department of Commerce
DOD	United States Department of Defense
DOE	United States Department of Energy
DOI	United States Department of the Interior
DRAT	District Response Advisory Team (USCG)
DRG	District Response Group (USCG)
DWT	Dead weight tonnage
ECRT	Emergency Communications Response Team (ADMVA)
EEZ	Exclusive Economic Zone
EMS	Emergency Medical Services
ENV	Environmental Unit
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986
ESA	Environmentally Sensitive Area
ESI	Environmental Sensitivity Index
ETS	Emergency Towing System
F/V	Fishing Vessel
FAA	Federal Aviation Administration
FDA	Food and Drug Administration
FIN	Finance
FIR	Fire Protection/fire fighting
FLIP	Flight Information Publication
FOG	Field Operations Guide
FOSC	Federal On-Scene Coordinator
FPN	Federal Pollution Number
FRP	Facility Response Plan
FWPCA	Federal Water Pollution Control Act
GIS	Geographic Information System
GRS	Geographic Response Strategies
GSA	General Services Administration
HAZMAT	Hazardous Materials
HAZWOPER	Hazardous Waste Operations and Emergency Response
HQ	Headquarters
IAP	Incident Action Plan
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System

IDLH	Immediate Danger to Life and Health
IMH	Incident Management Handbook (USCG)
IMT	Incident Management Team
INMARSAT	International Maritime Satellite Organization
JPO	Joint Pipeline Office
LAT	Latitude
LEG	Legal
LEPC	Local Emergency Planning Committee
LEPD	Local Emergency Planning District
LERP	Local Emergency Response Plan
LNG	Liquefied Natural Gas
LO	Liaison Officer
LONG	Longitude
LOSC	Local On-Scene Coordinator
LRRS	Long Range Radar Station
M/V	Motor Vessel
MAC	Multiagency Coordination Committee
MAP	Mapping
MAR CH	Marine Channel
MED	Medical Support/Health Care
MESA	Most Environmentally Sensitive Area
MLC	Maintenance and Logistics Command (USCG Pacific Area)
MLT	Municipal Lands Trustee Program
MOA	Memoranda of Agreement
MOU	Memoranda of Understanding
MSD	Marine Safety Detachment (USCG)
MSO	Marine Safety Office (USCG)
MSRC	Marine Spill Response Corp. (national industry cooperative)
NART	Northern Alaska Response Team (ADEC)
NAVSUPSALV	U.S. Navy Superintendent of Salvage
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NIMS	National Incident Management System
NIIMS	National Interagency Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NIST	National Institute of Standards and Technology
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOTAMS	Notice to All Mariners; also, Notice to Airmen
NPDES	National Pollution Discharge Elimination System
NPFC	National Pollution Fund Center
NPS	National Park Service
NRC	National Response Center
NRT	National Response Team
NRDA	(Federal/State) Natural Resource Damage Assessment
NSF	National Strike Force
NSFCC	National Strike Force Coordinating Center
NWR	NOAA Weather Radio; also National Wildlife Refuge (USFWS)
NWS	National Weather Service

OHMSETT	Oil and Hazardous Material Simulated Environment Test Tank
OOD	Duty Officer or Officer On Duty
OPA 90	Oil Pollution Act of 1990
OPCEN	Operations Center
OPS	General Response Operations
OSC	On-Scene Coordinator
OSHA	Occupational Health and Safety Administration
OSLTF	Oil Spill Liability Trust Fund
OSRO	Oil Spill Response Office
O/S	On-Scene
PERP	Prevention and Emergency Response Program (ADEC)
PIAT	Public Information Assist Team
PIO	Public Information Officer
PLN	General Planning Operations
POLREP	Pollution Report (USCG)
PPE	Personal Protective Equipment
PPOR	Potential Places of Refuge
PPP	Seafood Processor Protection Plans
RAC	Response Action Contractor
RCC	Rescue Coordination Center
RCAC	Regional Citizens Advisory Council
RCRA	Resource Conservation and Recovery Act of 1978
RMAC	Regional Multi-Agency Coordination Committee
RP	Responsible Party
RPOSC	Responsible Party On-Scene Coordinator
RPD	Recovery, Protection and Decontamination
RQ	Reportable Quantity
RRT	Regional Response Team
RSC	Regional Stakeholder Committee
RV	Recreation Vehicle
SAR	Search and Rescue
SART	Southeast Alaska Response Team (ADEC)
SCAT	Shoreline Cleanup Assessment Teams
SCBA	Self-Contained Breathing Apparatus
SCP	Subarea Contingency Plan
SDS	Safety Data Sheet
SEAPRO	Southeast Alaska Petroleum Resource Organization Inc.
SEC	Security
SHPO	State Historic Preservation Officer (ADNR)
SERVS	Ship Escort Response Vessel Service (Alyeska)
SITREP	Situation Report (ADEC)
SONS	Spill of National Significance
SOSC	State-On Scene Coordinator
SPAR	Spill Prevention and Response Division
SSC	Scientific Support Coordinator (NOAA)
STORMS	Standard Oil Spill Response Management System
T/V	Tank Vessel
TA	Trajectory Analysis

TAPS	Trans Alaska Pipeline System
TPO	Tribal Police Officer
UC	Unified Command
USAF	United States Air Force
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
VIRS	Visual Information Response System
VOSS	Vessel of Opportunity Skimming System
VPO	Village Police Officer
VSPO	Village Public Safety Officer
VTS	Vessel Traffic Separation System/Scheme
WRR	Wildlife Protection/Care/Rehabilitation/Recovery
WX	Weather

ALEUTIANS SUBAREA CONTINGENCY PLAN

SCENARIOS
SECTION

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SCENARIOS: INTRODUCTION

In preparing the spill scenarios, the following topics were taken into consideration:

A. SPILL HISTORY

The spill history from the files of ADEC Spills Database and the NOAA Scientific Support Coordinator (SSC) provided the reference points for spill scenarios. The focus is only on significant and large spill events. This listing does not take into account the entire database of spills prepared by ADEC for the region, and small spills that had little or no anticipated environmental impact are not included in the SSC's files. (A brief synopsis of the Subarea spill history is provided in the Background Section, Part Three.)

B. HAZARD ASSESSMENT

The majority of vessel spills occur due to a combination of bad weather and equipment failure. Mariners operating in good weather and with properly-maintained equipment do not typically experience difficulties.

A portion of the Great Circle Route, a major international shipping route, is located within the Aleutians Subarea. An estimated 3,000-3,500 vessels, approximately 30-40 of them tank ships, transit through Unimak Pass each year. Approximately 65 bulk chemical tank vessels over 400 gross tons transit the area annually. Chemical cargos include ammonia, urea, liquefied natural gas, herbicides and pesticides, and chlorine. Foreign-flagged vessels transiting through this area may or may not have a federal tank or non-tank vessel response plan and Western Alaska geographic specific appendix, depending on whether they make US ports of call. See the report "Vessel Traffic in the Aleutians Subarea" for additional information. The report can be accessed at: www.dec.state.ak.us/spar/perp/docs/060920vesselreport_s.pdf

A joint ADEC-USCG study is currently underway that will address in detail risks posed by vessels transiting the Aleutians Subarea. The background and current status of this joint study can be found at the following website: www.dec.state.ak.us/spar/perp/ai_risk/ai_risk.htm

In 1991, the State of Alaska commissioned a Study of Non-crude Tank Vessels and Barges. This study (prepared by Arthur D. Little, Inc.) provides detailed summaries of the relative risks of spills, hazards, and fuel quantities transported.

C. VULNERABILITY ANALYSIS

The natural habitats of the Aleutians Subarea support extensive fish and wildlife populations that are extremely important to the social, economic, and cultural welfare of local residents. Offshore areas support a highly productive marine ecosystem, rich with intertidal, benthic, and pelagic plant and animal life that, in turn, provides nourishment for extensive populations of marine and anadromous finfish, shellfish, seabirds, and marine mammals. Rocky shorelines and cliffs provide pupping/haul-out areas for seals and sea lions and nesting areas for seabirds.

Commercial fishing and fish processing are the economic mainstays in the region. There are approximately 400 fishing vessels operating in the Aleutian Island chain. Unalaska/Dutch Harbor has developed as a seafood supply and processing center with some port development. Unalaska is

consistently the top U.S. port in volume of fish and shellfish landings; in 2005, commercial fishermen unloaded 887.6 million pounds of fish and shellfish, worth $166 million.

In the Aleutians, Unalaska/Dutch Harbor serves as the major regional hub for the distribution of non-crude oils to the Aleutian villages, southern Bering Sea, and the offshore fishing fleet. Service in the southern part of the area is year round, but becomes ice dependent during late October to breakup. Unimak Pass and False Pass also witness heavy traffic both for transport servicing villages to the north and the Aleutian chain and for foreign-vessel transport between North America and the Far East.

Historical properties and cultural sites important to the prehistory of the region could also be negatively affected by a spill. Potential effects of spills are not limited to the initial impact of oil, since the response methods used to mitigate a spill can be more detrimental to resources than the spill itself. Therefore, appropriate response techniques need to be considered in relation to sensitive resources.

D. SEASONAL CONSIDERATIONS

In the Bering Sea, the sea ice generally begins as fast ice formation along the shores of the Seward and Chukhotsk peninsulas in October. In November, as the cold weather continues and the waters in the open portions of the Bering Sea cool, the pack ice begins its seasonal southward formation. An estimated 97% of the ice in the Bering Sea is formed within the Bering Sea; very little is transported south from the Arctic Ocean through the Bering Strait. During periods of increasing ice and prevailing northerly winds, the ice moves southward with the wind before melting at its southern limit. During periods of southerly winds, ice coverage generally decreases in the Bering Sea, causing a wide variation in ice cover from month to month.

The region's maritime climate is comparatively mild with regard to general Alaskan temperatures; however, the islands are often fog-shrouded and frequently struck by storms. The weather in the region is the result of the interaction between major weather systems that move northward across the Gulf of Alaska or eastward across the Bering Sea and the land topography. The Aleutian Islands and the Alaska Peninsula are characterized by rugged and fjord-like coastlines rising to volcanic mountainous areas up to 9000 feet in elevation.

SCENARIOS: PART ONE - COASTAL OIL

A. WORST CASE SCENARIO

Size of the Discharge: A tank vessel's partial cargo of 200,000 barrels (of the 500,000 total capacity) of a heavy petroleum product (Vacuum Tower Bottom Blend, VTBB).

Event Description: The fictitious spot charter Tank Vessel (T/V) Attu experiences a boiler failure causing partial loss of power while enroute from Alaska to a Far East port. The vessel requests and is granted permission to divert to Dutch Harbor to undergo repairs. While attempting to navigate thru Unimak Pass, the vessel is struck by a fish processing vessel. Several tanks on the starboard side are compromised. Both vessels manage to proceed to Dutch Harbor where they will undergo repair.

Location: Approximate position- Latitude 54° 25'N; Longitude 165°05'W.

Spill: 200,000 barrels (8,400,000 gallons) of the total cargo load of 400,000 barrels of a heavy petroleum product (Vacuum Tower Bottom Blend, VTBB) are released during the first few hours of the collision.

Cargo Salvage: The vessel is not considered a total loss and plans are to initiate temporary repair of the damaged vessel in Dutch Harbor, and then proceed to a major shipyard for permanent repairs.

Time of Year: April

On-scene Weather: Winds: SW @ 40 kts, decreasing to 15 kts on second day; Sea State: 10-30ft; Temp: 40° F

Discussion: Specific information on resources at risk can be extracted from the Sensitive Areas Section in consultation with the resource trustees. From a general viewpoint, resources in the immediate area of the spill that are at risk include sea lions, otters, waterfowl concentrations, and seabird colonies. Unimak Pass is a major transportation route for vessels transiting the Great Circle Route between North America and the Far East. Any significant spill in this area would severely impact international trade as well as local and regional users of this location. The spill also occurs in the Alaska National Maritime Refuge area.

The shoreline geomorphology in the immediate vicinity of the spill is exposed rocky shores. Sand and gravel beaches, exposed wave-cut platforms and sheltered tidal flats can be expected to be impacted from this spill in the early stages due to their proximity to the spill event. The impacts of a spill of this volume are far reaching and would affect a large area. An extensive, coordinated effort between trustee agencies would be necessary to develop a comprehensive approach to environmental impact abatement. The Sensitive Areas Section provides a framework for accomplishing this task. Communities that would most likely be affected are Akutan and Unalaska. In addition, several downstream communities would be impacted by a spill of this magnitude.

Initial Action Description:

1. Notification: (Assume the responsible party has notified the required agencies in accordance with the vessel response plan)

FOSC will notify the following:

- ADEC (also notified by the responsible party)***
- ADNR*
- ADF&G*
- ADMVA, DHSEM*
- CGD17 OPCEN***, to activate support resources including:
  - District (m), District Office, Marine Safety Division
  - DRG, District Response Group
  - DRAT, District Response Advisory Team
  - PIAT, Public Information Assist Team
  - ARRT, Alaska Regional Response Team
- NRC, National Response Center**
- NOAA SSC, Scientific Support Coordinator***
- NSFCC, National Strike Force Coordinating Center**
- NPFC, National Pollution Fund Center**
- Local Emergency Managersof directly impacted communities***
- Federally –recognized tribes in impacted communities***
- City of Unalaska***

Key: * = Notification initiated by State
** = Message notification
*** = Notification by FOSC

2. <u>Response Activation:</u>

- Commence with notification of all involved parties per the Response Section, providing initial situation assessment. Be brief, concise and provide specific spill information including exact location, quantity spilled, potential threat, and whether product is still being released.
- Ensure the Responsible Party (RP) is notified and responding.
- Dispatch representatives to the scene at the earliest opportunity.
- Establish contact with the responsible party ("qualified individual") as soon as possible, and preferably with an individual on scene.
- Request immediate helicopter support through D17 OPCEN to conduct overflights of vessel. Also, helicopter support may be required if vessel must be evacuated. Request USCG cutter support through D17 OPCEN. Cutter can provide initial on scene platform.
- Commence activation/movement of in-house resources (State and Federal).
- Draft POLREP (USCG) and SITREP (ADEC) and distribute.
- Consult with DOI, DOC, and State of Alaska on potential resources at risk.
- Conduct Endangered Species Act consultation with DOI and DOC.
- Activate FOSC's Historic Properties Specialist.

3. <u>Initial On-Scene Investigation, Inspection, Evaluation & Recommendations:</u>

- Gather information from overflights, crew reports, video recordings and any other reliable source to document scene and develop initial response strategy.
- Have investigation team immediately conduct drug testing of the vessel's crew and conduct

interviews to determine cause of incident.

- Determine cargo and fuel capacities. Contact last port if immediate cargo amounts are unknown.
- Collect charts and log books for evidence.
- Determine cargo salvage options and lightering potential.
- Issue Notice of Federal Interest and Letter of State Interest.
- Evaluate slick size, direction of travel, weather, area of coverage, proximity to shore, wildlife areas and potential impacts, and other relevant information that might affect response decisions.
- Establish direct communication with the Unified Command Center if it is established in the field. If no Unified Command Center is established in the field, consider using USCG Sector Anchorage conference room as the initial Command Post while USCG/ADEC personnel are enroute to the field Command Center.

4. Initial Response Actions:

- Secure the source, if possible.
- Take actions to stabilize the vessel. Notify USCG Marine Safety Center of vessel information and situation. Request stability information.
- Develop containment/booming plan for implementation as weather abates. Prioritize areas for exclusion booming, protective booming, and shoreline cleanup. Review existing GRS developed for the Aleutians Subarea, especially for Aleutians East Zone B.
- Evacuate any injured personnel or unnecessary crew members.
- Using *Unified Plan, Annex B*, implement some or all of the Incident Command System (ISC) principals ; listed below:
    - Develop a Unified Command (UC) that includes RPOSC, SOSC, FOSC and LOSC (if available)
    - Evaluate RP's capability to carry out an appropriate response.
    - Determine incident name.
    - Determine goals and objectives.
    - Determine UC staff and size.
    - Establish ICP to support UC activities – Plan for remote command post location in Dutch Harbor.
    - Establish a Joint Information Center (JIC). Ensure joint website and/or appropriate local stakeholder communication plan is used to maximize information sharing.
- Utilize local knowledge, SSC and other NOAA hazmat resources as necessary to predict spill trajectory and potential impacts.
- Prepare initial press release jointly with the Unified Command.
- Complete notification procedures. Include up-channel notification to include the RRT, DRG, DRAT, PIAT, MLCPAC contracting team, NPFC, and NSFCC.
- Issue Notice to Mariners restricting vessel traffic in the immediate vicinity of the incident.
- Issue Notice to Airmen, through the FAA, restricting aircraft traffic in the immediate vicinity of the incident.
- Ensure preparation of Site Safety Plan.

- Consult with Natural Resource Trustees on the protection of sensitive areas and resources.
- Consult with the Historic Properties Specialist on the protection of historic properties.
- Receive recommendations from trustee agencies on wildlife response strategies. Make decisions on any recommendations (e.g. migratory bird deterrent and capture and treatment program)
- Determine any fisheries impacts, and take appropriate action.
- Consider alternatives to mechanical response: dispersant application, *in situ* burning, or destruction of entire vessel and cargo by burning.
- Schedule routine overflights of the impacted area. Request USCG support in developing an aviation operations plan for the spill to control air traffic in the area.
- Evacuate crew for drug testing if possible.
- Review seafood processor protection plans and implement specific plans to protect the water intakes from any spilled oil.
- Determine feasibility of removal actions based on:
    - Will removal actions cause more damage to the environment than allowing the pollutant to naturally dissipate?
    - Can cleanup be initiated before the pollutant disperses, making recovery impractical?
    - Can equipment be deployed without excessive risk to the life and health of personnel?

5. <u>Spill Response Organization:</u>
Establish command structure as prescribed in the *Unified Plan, Annex B*. The *Unified Plan* describes the Unified Command concept and provides organizational diagrams for several different situations. A spill of this magnitude could be declared a Spill of National Significance (SONS). The roles and responsibilities of the SONS structure are also identified in the *Unified Plan, Annex B*. The pre-designated FOSC for the region becomes the Area Operations Coordinator. The SONS incident continues as a Unified Command response. The fact that an incident is declared a SONS does not indicate that the response has been poorly managed or that anyone has performed poorly. The escalation of an incident into a SONS is intended to make more resources and personnel available for the response.

A Liaison Officer will be assigned to act as a sounding board for landowners, leaseholders, affected interest groups that have no jurisdictional authority, and other interested parties. The Regional Stakeholder Committee will be formed to serve as the official stakeholder and community representative voice to the Unified Command.

6. <u>Containment Countermeasures and Cleanup Strategies:</u>
- Secure the source, if possible.
- Stabilize the vessel through the best means available; fuel transfer, lightering, etc.
- Reduce the pollution potential by removing fuel from the vessel at the earliest opportunity.
- Boom the vessel at the earliest opportunity, pending favorable weather.
- If mechanical cleanup is not feasible or adequate, consider alternatives of *in situ* burning or dispersants.
- Organize Shoreline Cleanup Assessment Teams in preparation for shoreline surveys.
- Ensure the wildlife protection plan is in place and trustee agencies are working closely with RP to ensure minimum impact to resources in area.

- Ensure that trustee agencies with responsibility for determining the requirement for implementation of a Federal/State Natural Resource Damage Assessment (NRDA) are notified that wildlife may be affected. The lead trustee will then coordinate the NRDA separate from the response and with funds provided by the NPFC.
- Request NOAA provide spill tracking and trajectory modeling to determine present location and path of spill. Consider spill tracking/surveillance systems; the University of Alaska Fairbanks' Synthetic Aperture Radar facility, USCG Forward Looking Infrared Radar equipped aircraft, and USCG Side Looking Airborne Radar are potential resources.

7. Resource Requirements

a. Equipment: Quick deployment of high volume oil recovery vessels and other mechanical collection equipment is essential to ensure success of the response and to mitigate spill damage. A spill of this size will require all area response equipment as well as out-of-region response equipment in a joint coordinated cleanup effort.

b. Vessels, Skimmers, Boom, and other Spill Response Equipment: Given the volume of this spill scenario, it is anticipated that skimming systems will be immediately requested from the major spill cooperatives in Alaska, and deployed to the spill area. (Mutual Aid Agreements between the major spill response co-ops should allow for temporary, out-of-region deployments of major spill response equipment.) Releasing equipment designated for a regulatory response requirement in one area to be used in a response in a different area must be addressed by the Unified Command. The equipment and vessels should arrive on scene with all equipment prepared for immediate deployment. The major spill cooperatives in the State include: Cook Inlet Spill Prevention and Response Inc. (CISPRI); Alyeska Pipeline Service Company (APSC) Ship Escort Response Vessel System (SERVS); Alaska Clean Seas (ACS); Alaska Chadux Corporation (ACC); Southeast Alaska Petroleum Resource Organization (SEAPRO); and the U.S. Navy Supervisor of Salvage (NAVSUPSALV). Resources available include, but is not limited to the following:
   - Skimmers: Transrec 200, Desmi ocean, Foxtail, Lori side collection, Dynamic inclined plane, Vikoma SS50, Desmi 250 and Transrec 250
   - Boom: Alaska has one of the largest inventories of boom in the entire nation. Booms of all varieties and sizes can be found in nearby areas. Fire boom for *in situ* burning applications is also in local inventories. Exclusionary and deflection booms and associated mooring and anchoring equipment are also in local inventories.
   - Vessels of Opportunity: Both CISPRI and SERVS have a fleet of pre-identified and trained large vessels of opportunity. Vessels range in size and construction from landing craft (both large and small), fishing vessels (variety of sizes and horsepower), and numerous other vessels from charter boats for personnel transportation to skiffs for near shore response. CISPRI and SERVS fishing vessel fleets are experienced in boom deployment and have considerable local knowledge. A ready fleet of response vessels experienced in pollution operations meeting HAZWOPER requirements are located in Kodiak, English Bay, Port Graham, Homer, Kenai, and Seldovia all have sizable vessel of opportunity fleets. Seldovia SOS has a response structure to dispatch and support local vessel operations and maintains an immediate call out list of qualified vessels and personnel. An available armada of response vessels exists with great potential to benefit a spill response if properly supported and managed effectively. Logistical arrangements and support will be necessary to manage any large scale deployments of ocean-going vessels to the incident area in support of

cleanup operations.

c. Personnel: Initial personnel activation will require several hours to days. The Aleutians Subarea, unlike much of the state, does have a substantial cadre of HAZWOPER-trained individuals to man cleanup vessels and participate in other cleanup and response activities.

8. Resource Availability and Resource Procurement:
For the purposes of this scenario, it is assumed that agreements would be reached between all involved parties (USCG, State of Alaska, ACC, CISPRI, ACS, SERVS) that would allow the resources of the spill cooperatives to be brought into the response. This assumption does not imply that such agreements are currently in place or that such agreements would be reached. MSRC and NAVSUPSALV are potential resources that could be available for this scenario, if proper agreements could be reached that are acceptable to the involved parties. All these response Co-Ops have highly organized management teams knowledgeable in the ICS structure and routinely exercise their roles as responders. A communications network is already in place and available for immediate usage.

Procuring the resources identified in this spill response is the RP's responsibility. A spill of this magnitude would likely exceed $1 million each day during the initial stages of the response. Committing this volume of funds in a short time is essential. Failure, on the part of the RP, to quickly settle accounts payable can quickly force local businesses out of business. Experience acquired during past spills has shown that funds must be processed at a much higher than normal rate to maintain the response. The Oil Spill Liability Trust Fund is available to the FOSC in the event the RP is unable or unwilling to pay the costs of the spill response.

9. Shortfalls:

a. Equipment: A major shortfall in equipment could be expected if the response cooperatives, the State, and the USCG can't develop agreements that will allow all response resources of these groups to be brought to bear. The issues include, but are not limited to, liability, financial arrangements, release from regulatory requirements, and rules for operating facilities with less than the required response equipment. The lack of agreements in place could hinder a response effort that exceeds the capability of an individual response cooperative. No regulatory requirement exists that mandates such mutual aid agreements.

   Lighterage for skimmed product is always a consideration when determining the adequacy of a response. Lighterage capability has increased dramatically over the last four years. Part of the lighterage concerns can't be answered without a determination as to whether or not decanting will be allowed and can be planned as part of the response. Fire fighting capability for this scenario is extremely limited. Resources to fight a fire in this scenario would have to be brought from outside the region.

b. Personnel (logistical/training issues):
   1. Housing – Local hotels, seafood processing facility mancamps, on-water vessels and barges will be required to sustain the response. Several organizations in Alaska cater "field camp" setups which include housing and feeding facilities. These facilities are available in flyaway form and as floating hotels. Most of these field camps are idle during the winter months in of Alaska.
   2. Food - Catering services for field personnel would likely be procured coincidentally with the remote housing units. Catering for response personnel not deployed to the field could be

handled using resources within the region.

3. Fuel - Several fuel facilities are located in the immediate area. These facilities would be required to supply the numerous vessels operating in the area. Fuel may become a concern given the long term response anticipated for a spill of this magnitude.
4. Transportation: Dutch Harbor is the only major commercial airport located in the immediate vicinity of the spill area, and would serve as the primary logistics supply points. In most cases, equipment must be transported overwater or sling loaded via helicopter. Favorable weather conditions are also a major factor in hindering both air and water transportation for personnel and equipment.
5. Manpower and Training: Shoreline cleanup crews will require OSHA level Hazwoper training commensurate with the tasks they will be directed to perform. Volunteers will not be solicited, and individuals desiring to help will be directed to a central coordinator for hiring emergency response workers.

c. Funding: Funds availability and access should pose no problem regardless of the financial capabilities of the RP. If funding problems arise, the FOSC has access to the Oil Spill Liability Trust Fund and procedures are in place to make these funds available. The SOSC, in the event of a State funded response, has access to the 470 Fund and procedures are in place to make these funds available as well.

   If the spill is "federalized," problems have been identified regarding the payment of accounts due. The response organizations will likely be unable financially to expend the amounts of money anticipated if reimbursement occurs on a 30 day payout. Ten days, as a maximum, has been discussed as the period when receipts must be paid. Failure to pay in this time period could result in a collapse of the logistical supply line, and therefore the response. Federal contracting personnel must evaluate this requirement and determine a feasible solution.

d. Minimum Response Times: Estimates indicate that the RP could have response personnel and equipment on scene within six hours of the incident report, pending favorable weather. The response to this spill will depend heavily upon the sea state and weather in the incident area.

10. <u>Spill Cleanup Timetable:</u>
The on-water spill response will continue until all recoverable oil is collected or the fall/winter weather forces a halt in operations due to personnel safety. Operations may continue through September depending on weather, specifically the onset of winter storms. Shoreline cleanup will begin as soon as possible after beaches are oiled. The shoreline cleanup can then be expected to resume as soon as spring weather will allow. The number of years required to terminate cleanup operations depends heavily upon the efficiency of the initial on-water response.

11. <u>Disposal Options:</u>
Debris disposal is the responsibility of the RP. The volume of oil contaminated debris will exceed the disposal capability of the region, unless on-site disposal methods are approved by the appropriate agencies. The RP must present a disposal plan to appropriate agencies along with necessary permits for the requested disposal plan. Disposal options for debris are limited in Alaska.

Information on waste streams and typical waste products that will be generated during a response is contained in this Subarea plan in the Response Section, Part Two and in the *Unified Plan, Annex E, Appendix II*. This scenario will generate a very large volume of oil contaminated equipment and

recovered product. The remoteness of the region will complicate disposal and elevate the costs of handling and transportation. The availability of shipping and storage facilities make it difficult to comply with the time frames contained in hazardous waste handling regulations. The task of managing waste disposal must be approached aggressively and very early in the response. Facility/vessel owners must investigate and identify potential staging areas for contaminated debris and equipment as well as the potential for long-term storage capabilities due to severe weather preventing timely transportation disposal of accumulated waste. Also, areas designated for cleaning contaminated equipment must be able to handle the contaminated runoff.

12. Cleanup Termination:
Termination of cleanup should be a joint decision by the Unified Command based on the following criteria:

- There is no longer any detectable oil present on the water, on adjoining shorelines, or in places where it is likely to reach the water again; or
- Further removal operations would cause more environmental harm than the oil to be removed; or
- Cleanup measures would be excessively costly in view of their insignificant contribution to minimizing a threat to the public health or welfare, or the environment; and
- Activities required to repair unavoidable damage resulting from removal actions have been performed.

B. MAXIMUM MOST PROBABLE CASE SCENARIO

The maximum most probable case is determined by the largest recorded oil spill to date in the Aleutians Subarea. The largest to date was the M/V Selendang Ayu on December 8, 2004. During this event, a total of 321,052 gallons of IFO 380 and 14,680 gallons of diesel were released. Due to the large size of this spill, the response actions for the maximum most probable and the worst case scenarios will not differ very much.

C. AVERAGE MOST PROBABLE CASE SCENARIO

The average most probable case for this subarea would likely be a fishing vessel that either sinks, goes aground, or otherwise creates a pollution event through the release of non-crude oil (most likely diesel). Many of the response actions outlined in the worst case scenario would remain the same, although the need for out-of-region response equipment, activation of a Unified Command, Joint Information Center, and deployment of federal and state resources would not be at the same scale. Notifications would remain the same to keep all concerned stakeholders and resource agencies informed of the incident.

SCENARIOS: PART TWO – HAZMAT

Event Description: The incident occurred on May 5. Toward the end of night shift (at 8:45 AM), during an ammonia transfer operation a "liquid hammer" occurred in the high pressure (HP) receiver. As a result of the liquid hammer a Sight Glass on the level column began to leak at the bottom of the HP receiver. The refrigeration technician first attempted to isolate the leaking Sight Glass. The technician was quickly overcome by the ammonia and left the area because of discomfort even though he was using respiratory protection. When the anhydrous ammonia release occurred, a fixed ammonia air monitor sounded an audible alarm. The liquid ammonia release is ongoing. Refrigeration people ran into the fish processing area to report the leak and clear the area after they sounded the facility evacuation alarm. During the resulting evacuation of the building, several people were overcome by the ammonia. The anhydrous ammonia release occurs at a rate of 60 lbs/min over a period of approximately one hour, for a total of 3600 lbs.

Location: The incident occurred at a seafood processing facility in Dutch Harbor, approximately 1 mile east-northeast of the City of Unalaska.

Release Information: Over a period of approximately one hour, approximately 3,600 pounds of anhydrous ammonia is released into the atmosphere. The volume released begins to slow after an hour, as the entire contents of the receiver have either been emptied or emergency shutoff valves successfully isolated the release.

Time of Year: May

On-scene Weather: Winds: Westerly at 6 mph; Temperature: 50°F; Relative Humidity: 87%; Cloudy, overcast, with showers forecasted

Sensitive Areas at Risk: Intertidal spawning salmon (May thru Sept); waterfowl concentrations; eagle nesting; seals; employees at the seafood processing facility; Small Boat Harbor; City of Unalaska and local residents.

Initial Actions:

- Initial call taken by the Unalaska Fire Department, and up-channel reporting in initiated.
- Determine and confirm personnel safety hazards in the immediate area and downwind of the ammonia release.
- Ensure public health and safety by either evacuating populace at risk or directing them to shelter in place.
- Immediate notification of ADEC via the Spill Report Hotline. Captain of the Port, Western Alaska, also receives notification simultaneously from the Marine Safety Detachment in Dutch Harbor, followed by notification from the National Response Center. Follow-on federal/state/local agency notifications are made based on the Emergency Notification List in the Response Section.
- ADEC notifies the Statewide Hazmat Response Team of the situation and the need for possible deployment.
- ADEC also notifies Aware Consulting, and activates a term contract with them for technical advice on dealing with the ammonia release and post-incident investigation.
- Activate response structure including local responders and the Statewide Hazmat Response

Team.

- Contact FAA to restrict airspace.
- Prepare initial press release.
- Due to the threat to public health and safety, the initial Incident Commander or a representative from the City of Unalaska will continue to serve as a member of the Unified Command until the threat is abated.
- Commence mobilization of response personnel.
- Incident Command System activated, and Unified Command formed.
- COTP directs the MSD to establish a Safety Zone around the facility.
- USCG drafts POLREP One. ADEC drafts and releases initial SITREP.
- USCG issues Letter of Federal Interest. ADEC issues Notice of State Interest in a Pollution Incident.
- Issue Letter of Designation.
- State of Alaska alerts additional response action contractors for possible activation, and also alerts other members of the Statewide Hazmat Response Team for additional support, if required.
- Determine if the Hazmat response is categorically excluded under the national programmatic agreement to protect historic properties, and if not, activate an FOSC Historic Properties Specialist.

Initial On-Scene Investigation/Inspection Evaluation and Recommendations:

- Develop information from facility worker reports, release size, utilize video recording as much as possible to document scene and develop initial response strategy.
- Determine overall system capacities for anhydrous ammonia, and determine potential for additional releases, in consultation with the facility manager and refrigeration specialist.
- Collect charts and refrigeration system maintenance and resupply files for evidence.

Containment Countermeasures and Cleanup Strategies: The Unified Command will coordinate and develop an Incident Action Plan to:

- Conduct initial containment,
- Establish the initial on scene command post and staging area.
- Support local responders, and provide updated information to Federal, State, local, and tribal entities.

Resource Requirements: Due to the short nature of the release, the Statewide Hazmat Response Team will likely be stood down after determination that the ammonia release has stopped. The team will remain on standby pending any further releases that may be prolonged in nature. The Aware Consulting staff person will be mobilized to Dutch Harbor along with several ADEC responders to provide additional support to the local responders.

Response Requirements:

a. Equipment: Any action to contain, plug or prevent additional release will require the use of appropriate personal protective equipment (PPE).
b. Personnel: Personnel responding to this incident (local firefighters, and other responders) will

be required to be trained to at least the first responder awareness level. Those entering the scene to secure the leak source and initiate cleanup and containment will require training to the technician level.

Shortfalls:

a. Equipment: The City of Unalaska does not maintain a Level A entry capable Hazmat Team. Level A PPE is not available in Unalaska, aside from limited pieces of equipment maintained by the seafood processing facility.
b. Personnel: Due to the location of the accident and the localized hazard (i.e., anhydrous ammonia release over an hour's period), additional emergency response personnel are not deemed necessary, unless the release recurs over a prolonged period of time.
c. Funding: Funding of response and clean-up actions will be the responsibility of the Responsible Party.
d. Minimum Response Times: Response should be initiated immediately. Based on the location of the incident, the RP, local fire chief, and USCG will initially respond to the situation. The FOSC, SOSC, and Aware Consulting representative (all deploying from Anchorage) is expected to arrive at the scene by early afternoon.

Spill Cleanup Timetable: This response should last no more than several days. Cleanup of the immediate area will be required, and may simply consist of facility ventilation. The RP indicates that he/she will direct a complete inventory of the ammonia refrigeration system, and determine the potential for any potential releases. ADEC directs the Aware Consulting ammonia specialist to assist with the inventory and conduct a thorough inspection of the system to determine the cause of the release and potential for future ammonia releases.

Cleanup Termination: The FOSC and SOSC will determine the appropriate time to terminate operations based on the RP's ability and assurances that further releases will not occur. The investigation into the cause of the release will continue after response termination.

SCENARIOS: PART THREE - INLAND OIL

NOT USED

ALEUTIANS
SUBAREA CONTINGENCY PLAN

GEOGRAPHIC RESPONSE STRATEGIES
SECTION

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The following pages are available on the ADEC Website at http://dec.alaska.gov/spar/perp/grs/ai/home.htm. Any new GRS's will be added to the above website as they are approved and available.

GEOGRAPHIC RESPONSE STRATEGIES: PART ONE - INTRODUCTION

The GRS Introduction pages are available on the ADEC Website at http://dec.alaska.gov/spar/perp/grs/ai/home.htm.

A. PURPOSE AND SCOPE

These Geographic Response Strategies (GRS) are designed to be a supplement to the Aleutians (PWS) Subarea Contingency Plan for Oil and Hazardous Substances Spills and Releases, commonly referred to as the PWS Subarea Contingency Plan (SCP). GRS provide response strategies for the protection of selected sensitive areas to aid first responders to an oil spill. The strategies here serve as the federal and state on-scene coordinators' "orders" during an oil spill in the area covered by this GRS. As such, they have been approved by the U.S. Coast Guard Captain of the Port for Western Alaska and the Alaska Department of Environmental Conservation.

Implementation of these Geographic Response Strategies is the third phase of an oil spill response. The first and primary phase of the response is to contain and remove the oil at the scene of the spill or while it is still on the open water, thereby reducing or eliminating impact on shorelines or sensitive habitats. If some of the spilled oil escapes this tactic, the second phase, which is no less important, is to intercept, contain and remove the oil in the nearshore area. The intent of phase two is the same as phase one: remove the spilled oil before it impacts sensitive environments. If phases one and two are not fully successful, phase three is to protect sensitive areas in the path of the oil. The purpose of phase three is to protect the selected sensitive areas from the impacts of a spill or to minimize that impact to the maximum extent practical.

The sites selected for development of Geographic Response Strategies are not meant to be exclusive; other sensitive sites may require protection during any given spill. The fact that a GRS may not have been developed for a certain sensitive site does not mean that site should not be protected if it is threatened by an oil spill.

These strategies are intended to be flexible to allow the spill responders to modify them, as necessary, to fit the prevailing conditions at the time of a spill. Seasonal constraints, such as ice or weather, may preclude implementation of some of the strategies in the winter months. It is not intended that all the sites be automatically protected at the beginning of a spill, only those that are in the projected path of the spill. The strategies developed for the selected sites were completed with a focus on minimizing environmental damage, leaving as small a footprint as possible to support the response operations. Equipment deployment strategies were developed that will not cause more damage than the spilled oil. To test these GRS, each site will be visited and equipment may be deployed according to the strategy, to ensure that the strategy is the most effective in protecting the resources at risk at the site. Revisions will be made to the strategies, and this document, if changes are indicated by site visits, drills or actual use during spills.

B. HOW TO USE THESE GEOGRAPHIC RESPONSE STRATEGIES

The information provided here supplements information provided in the Aleutians SCP and the Alaska Federal/State Preparedness Plan for Response to Oil & Hazardous Substances Discharge/Releases (commonly referred to as the Unified Plan). Information provided in either of those plans is not duplicated herein. This document is intended for use by response professionals already familiar with spill response techniques.

The GRS contain basic protection and recovery strategies with directions for implementation in the field. Each description contains the strategy objective, deployment depictions, resource sets required to implement the strategy, and deployment considerations and limitations. These general strategies may be adapted to produce a protection scheme for any site in the Aleutian Subarea. The strategies are taken from the State of Alaska's oil spill response tactics guide, *Spill Tactics for Alaska Responders* (STAR Manual). Responders should use refer to the STAR Manual for more detailed information about the GRS tactics.
The STAR manual, published by ADEC, is available online at:
http://www.dec.state.ak.us/spar/perp/star/docs.htm.

Part 3 contains site-specific response strategies. An index at the beginning of each sub-section shows the location of the selected sites. Each GRS consists of two parts: 1) a graphic showing a map, deployment diagram, picture and implementation notes; and 2) a matrix giving the location description, response strategy, response resources, staging area, site access, natural resources being protected and special considerations.

C. WHO TO CONTACT FOR INPUT

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

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

United States Coast Guard
Captain of the Port, Western Alaska
PO Box 5800
JBER, AK 99505-0800

D. HOW THE DOCUMENT WAS DEVELOPED

These GRS were developed through a cooperative, workgroup process involving federal, state, and local spill response experts working with representatives from the oil production and transportation industry, citizens' groups, and natural resource agencies. Workgroups were (or will be) formed for each response zone in the subarea.

Workgroup participants identified all sensitive areas with potential to be classified as "Areas of Major

Concern" under the criteria established in the Aleutian Subarea Plan. These potential sites were evaluated by the additional criteria of 1) risk of being impacted from a water borne spill; and 2) feasibility of successfully protecting the site with existing technology. Using this process, the workgroup selected a preliminary list of sites that was released for public input. Feedback on site selection was solicited from tribal representatives, user groups, environmental organizations and the general public. Based on the feedback received, the workgroup made the final site selections for the zone. Additional sites may be selected in the future.

An Aleutian Tactics committee, composed of spill response professionals and personnel from natural resource agencies, was formed to develop draft strategies for each site selected. The draft strategies were reviewed and approved by the entire workgroup and the final draft was forwarded to the Aleutian Subarea Committee with the recommendation that it be adopted as part of the Aleutian SCP.

1. ALEUTIANS GRS WORKGROUP

The Aleutian Workgroup consisted of representatives from the following organizations:

Alaska Department of Environmental Conservation
Alaska Department of Fish and Game
Alaska Department of Natural Resources
Alaska Chadux Corporation
Alaska Marine Pilots
Aleutian East Borough
Aleut Marine Mammal Commission
The City of Akutan
The City of Unalaska
National Marine Fisheries Service
National Oceanic and Atmospheric Administration
National Park Service
United States Coast Guard
United States Department of the Interior
United States Fish and Wildlife Service

GEOGRAPHIC RESPONSE STRATEGIES: PART TWO - GENERAL PROTECTION/RECOVERY TACTICS

The GRS General Protection/Recovery Tactics are available on the ADEC Website at
http://www.dec.state.ak.us/spar/perp/star/docs.htm

GEOGRAPHIC RESPONSE STRATEGIES: PART THREE - SITE-SPECIFIC GEOGRAPHIC RESPONSE STRATEGIES

The GRS Site Specific Response Strategies Introductory Text and Index Maps are available on the ADEC Website at http://dec.alaska.gov/spar/perp/grs/ai/home.htm.

A. ALEUTIANS EAST A RESPONSE ZONE

Nelson Lagoon ..... Map AEA-01

Stepovak Bay.... ..... Map AEA-02
Orzinski Bay..... ..... Map AEA-03
Albatross Anchorage..... Map AEA-04
Lefthand Bay ... . Map AEA-05
Sand Point..... ..... Map AEA-06
Red Cove Stream ..... Map AEA-07
Baralof Bay .... Map AEA-08
Zachary Bay .... Map AEA-09
Belkofski Bay ... . Map AEA-10
Deer Island .... Map AEA-11
King Cove Lagoon ..... Map AEA-12
Thinpoint Cove ..... Map AEA-13
Mortensens & Old Man Lagoon..... Map AEA-14
Russell Creek ... . Map AEA-15
Kinzarof Lagoon ..... Map AEA-16
Big Lagoon-Morzhovoi Bay ..... Map AEA-17
Izembek Lagoon-West ..... Map AEA-18
Izembek Lagoon-East ..... Map AEA-19
Port Moller .... Map AEA-20
Bear River .... Map AEA-21
Cape Seniavin .. .. Map AEA-22

The Aleutians East A Response Zone GRS are available on the ADEC Website at http://dec.alaska.gov/spar/perp/grs/ai/zoneea.htm

B. ALEUTIANS EAST B RESPONSE ZONE

Ugamak & Aiktak Islands ..... Map AEB-01
Lost Harbor, Surf Bay-Akun Island ..... Map AEB-02
Akutan Island .. .. Map AEB-03
Hot Springs Bay/Open Bight ..... Map AEB-04
Unalga & Baby Islands..... Map AEB-05
Kashega Bay (Selendang Ayu Deployment) ..... Map AEB-06
Pumicestone Bay (Selendang Ayu Deployment) ..... Map AEB-07
Skan Bay (Selendang Ayu Deployment) ..... Map AEB-08
Mouth of Makushin Bay (Selendang Ayu Deployment) MapAEB-09
Head of Makushin Bay (Selendang Ayu Deployment) ..... Map AEB-10
Volcano Bay (Selendang Ayu Deployment) ..... Map AEB-11
Reese Bay/Cape Wislow ..... Map AEB-12
Broad Bay/Wide Bay ..... Map AEB-13
Nateekin Bay ... . Map AEB-14
Head of Captains Bay ..... Map AEB-15
Pyramid Creek & Obernoi Point ..... Map AEB-16
Iliuliuk River .... Map AEB-17
Hog Island .... Map AEB-18
Summer Bay .... Map AEB-19
Nikolski Bay .... Map AEB-20

The Aleutians East B Response Zone GRS are available on the ADEC Website at **http://dec.alaska.gov/spar/perp/grs/pws/zoneeb.htm**.

C. ALEUTIANS WEST A RESPONSE ZONE

Kagamil Island .. .. Map AWA-01
Amilia Island NW..... Map AWA-02
Amilia Island SW ..... Map AWA-03
Nazan Bay Atka ..... Map AWA-04
North Cape to Cape Korovin ..... Map AWA-05
Korovin Bay North..... Map AWA-06
Korovin Bay South..... Map AWA-07
Kagalaska Island North ..... Map AWA-08
North Kagalaska Strait ..... Map AWA-09
Bay of Islands ... . Map AWA-10
Shagak Bay .... Map AWA-11
Kuluk Bay Sweeper Cove ..... Map AWA-12
Finger Bay .... Map AWA-13
Scabbard Bay ... . Map AWA-14

The Aleutians West A Response Zone GRS are available on the ADEC Website at **http://dec.alaska.gov/spar/perp/grs/pws/zonewa.htm**.

D. ALEUTIANS WEST B RESPONSE ZONE

Kiska Harbor..... .....Map AWB-01
Sarana Bay..... .....Map AWB-02
Holtz Bay ....Map AWB-03
Abraham Bay.... .....Map AWB-04
Massacre Bay ... .Map AWB-05

The Aleutians West B Response Zone GRS are available on the ADEC Website at **http://dec.alaska.gov/spar/perp/grs/pws/zonewb.htm**.

E. PRIBILOF ISLAND ZONE

The Pribilof Island Zone GRS are under development. The candidate sites are available on the ADEC Website at http://dec.alaska.gov/spar/perp/grs/ai/zonepi.htm

F. ALEUTIANS SEAFOOD PROCESSOR PROTECTION PLANS

Dutch Harbor Processors ..... Map AK PPP-01
Iliuliuk Harbor, East Entrance ..... Map AK PPP-02
Iliuliuk Harbor, Southern Entrance ..... Map AK PPP-03
Westward Seafoods ..... Map AK PPP-04
Trident Seafoods, Akutan ..... Map AK-PPP-05

The Seafood Processor Protection Plans are available on the ADEC Website at http://dec.alaska.gov/spar/perp/grs/ai/ppp.htm

GEOGRAPHIC RESPONSE STRATEGIES: PART FOUR - REFERENCES

A. SENSITIVE AREAS

The Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases, Unified Plan Volume 1, May 1994 ..... ADEC, USCG, EPA
State of Alaska Game Refuges, Critical Habitat Areas and Game Sanctuaries, 1991 ..... ADF&G
Gulf of Alaska: Physical Environment and Biological Resources, 1986 ..... Hood and Zimmerman (eds)
Guidelines for Developing Digital Environmental Sensitivity Index Atlases and Databases, 1993 ..... NOAA
Climatic Atlas, Volume 1: Gulf of Alaska, 1988 ..... National Climatic Data Center (NCDC) and Arctic Environmental Information and Data Center (AEIDC)
Environmental Sensitivity Mapping for Developing and Evaluating Spill Response Plans a Working Paper for the Regional Workshop on Designing a Geographic Information System for Oil Spills, 1994 ..... NOAA, EPA
A Working Guide to the Sensitive Plants of the Alaska Region, 1994 ..... US Forest Service
Tidal Current Tables: Pacific Coast of North America and Asia (Current year's edition) ..... US Department of Commerce

B. LAND OWNERSHIP

Aleutians Area Plan for State lands at http://wwwdnrstateakus/mlw/planning/areaplans/prince/indexcfm ..... ADNR
Property maps at http://quadpicker.landrecords.info/ ..... Alaska Geospacial Data Center, Anchorage

C. EQUIPMENT & TECHNIQUES

Mechanical Protection Guidelines, June 1994 ..... NOAA, USCG
Field Guide for Oil Spill Response in Arctic Waters, 1998, at http://wwwarctic-councilorg/fldguide/ ..... Arctic Council
International Oil Spill Control Directory, 19th Edition, 1999-2000 ..... Cutter Information Corp
Oil Containment Boom: Design, Deployment, Use Recovery & Cleaning ..... Clean Sound Cooperative
Oil Spill Response in Fast Currents, A Field Guide, Coast Guard Report #CG-D-01-02, 2001 ..... US Coast Guard
USCG Commandant (G-M) Letter 16465, Revised Guidelines for Conducting the USCG's OSRO Program, December 28, 1995 ..... US Coast Guard
World Catalog of Oil Spill Response Products, 1998/1999 ..... Robert Schulze

D. GIS DATABASES

Alaska Department of Natural Resources ..... Alaska Geospacial Data Center, Anchorage
National Oceanic and Atmospheric Administration ..... John Whitney, Anchorage
National Park Service ..... George Dickison, Anchorage
US Fish and Wildlife Service ..... Catherine Berg, Anchorage
US Forest Service ..... Paula Smith or Karin Preston, Anchorage

ALEUTIANS
SUBAREA CONTINGENCY PLAN
POTENTIAL PLACES OF REFUGE
SECTION

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POTENTIAL PLACES OF REFUGE: PART THREE - REFERENCES H-9

A. USEFUL WEBSITES H-10

POTENTIAL PLACES OF REFUGE: PART ONE - INTRODUCTION

A. PURPOSE AND SCOPE

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

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

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

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

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

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

[1] Alaska Department of Natural Resources and Alaska Department of Fish and Game. June 1988.

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

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

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

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

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

B. HOW THE DOCUMENT WAS DEVELOPED

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

C. HOW TO USE THE POTENTIAL PLACES OF REFUGE SECTION

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

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

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

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

D. WHO TO CONTACT FOR INPUT

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

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

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

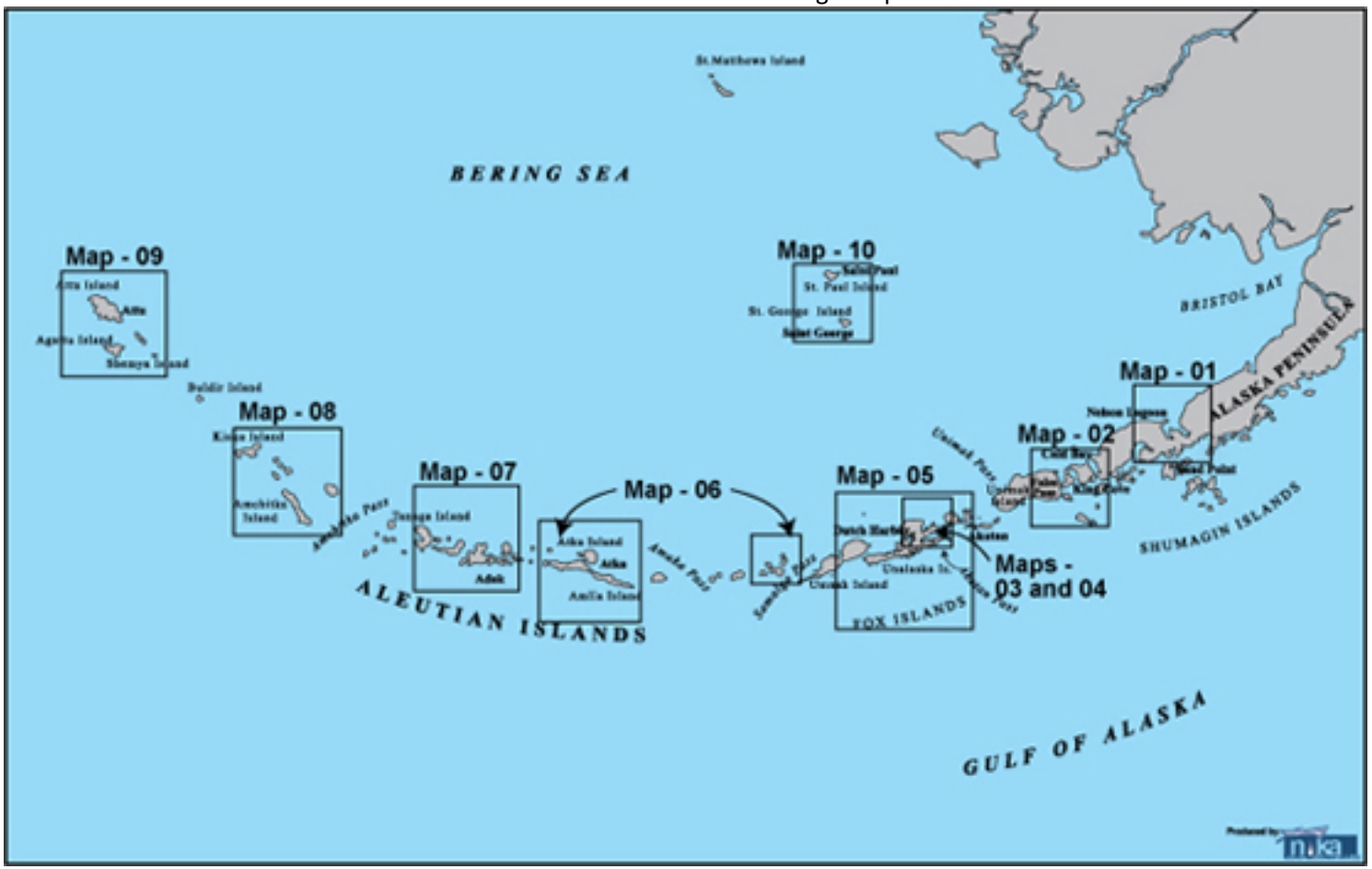
POTENTIAL PLACES OF REFUGE: PART TWO - PPOR MAPS

A. INDEX OF PPOR MAPS

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

Please visit the Aleutians PPOR website for copies of the PPOR Map Index
http://dec.alaska.gov/spar/perp/aippor/home.htm

Index of Potential Places of Refuge Maps



B. PPOR MAPS

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

Please visit the Aleutians PPOR website for copies of the PPOR Maps
http://dec.alaska.gov/spar/perp/aippor/home.htm

Site Assessment Matrix
http://www.dec.state.ak.us/spar/perp/aippor/aleutiansPPORsam.pdf

Site Assessment Matrix Key
http://www.dec.state.ak.us/spar/perp/aippor/aleutiansSAMKEY.pdf

Aleutian Subarea Risk Maps
http://www.dec.state.ak.us/spar/perp/aippor/airiskmap.pdf

Aleutians PPOR Index Map
http://www.dec.state.ak.us/spar/perp/aippor/070716AIpporindexmap.pdf

Individual PPOR Maps:

PPOR Map 1: http://www.dec.state.ak.us/spar/perp/aippor/aippormap01.pdf
PPOR Map 2: http://www.dec.state.ak.us/spar/perp/aippor/aippormap02.pdf
PPOR Map 3: http://www.dec.state.ak.us/spar/perp/aippor/aippormap03.pdf
PPOR Map 4: http://www.dec.state.ak.us/spar/perp/aippor/aippormap04.pdf
PPOR Map 5: http://www.dec.state.ak.us/spar/perp/aippor/aippormap05.pdf
PPOR Map 6: http://www.dec.state.ak.us/spar/perp/aippor/aippormap06.pdf
PPOR Map 7: http://www.dec.state.ak.us/spar/perp/aippor/aippormap07.pdf
PPOR Map 8: http://www.dec.state.ak.us/spar/perp/aippor/aippormap08.pdf
PPOR Map 9: http://www.dec.state.ak.us/spar/perp/aippor/aippormap09.pdf
PPOR Map 10: http://www.dec.state.ak.us/spar/perp/aippor/aippormap10.pdf

POTENTIAL PLACES OF REFUGE: PART THREE - REFERENCES

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

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

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

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

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

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

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

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

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

A. USEFUL WEBSITES

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

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

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

Alaska Regional Response Team
http://alaskarrt.org

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