

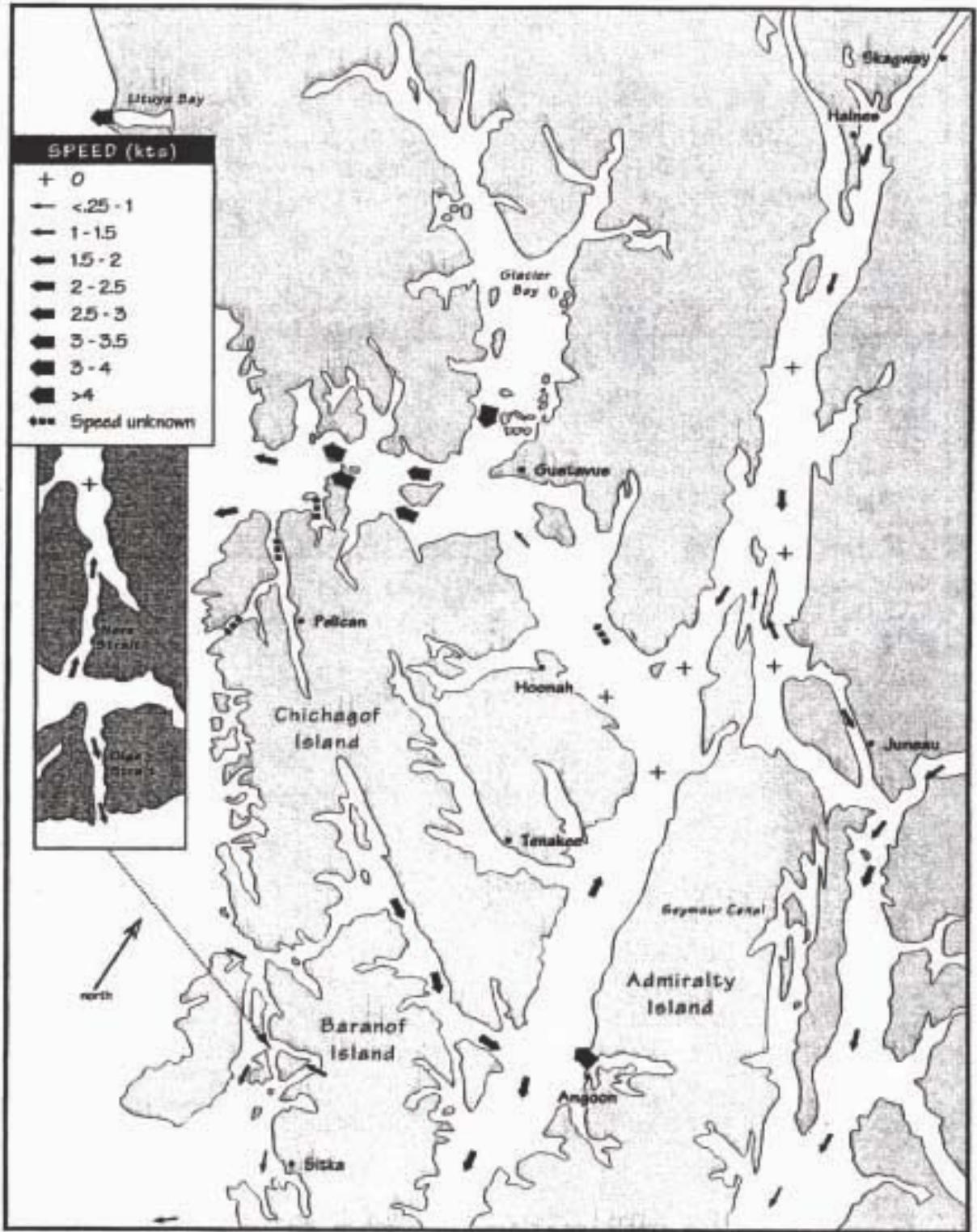
Figure E-14: Flood Tide Currents for southern Southeast Alaska



Typical maximum flood tidal currents - southern SE AK

me, R., 1989, Southeast Alaska Current Atlas, Weatherly Press, Bellevue, WA., 206-881.

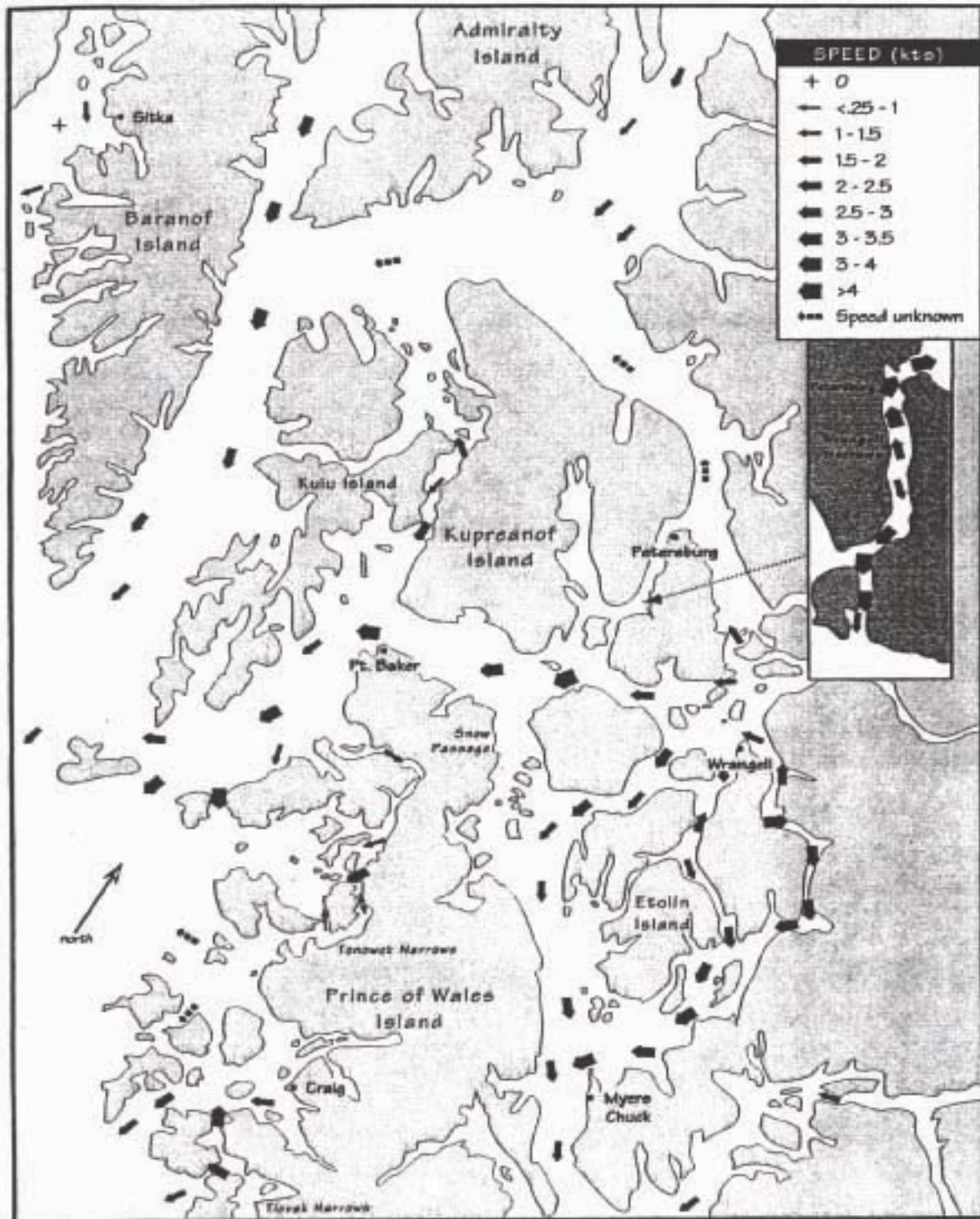
Figure E-15: Ebb Tide Currents for northern Southeast Alaska



Typical maximum ebb tidal currents - northern SE AK

Washburne, R., 1989, Southeast Alaska Current Atlas, Weatherly Press, Bellevue, WA., 206-881-5212.

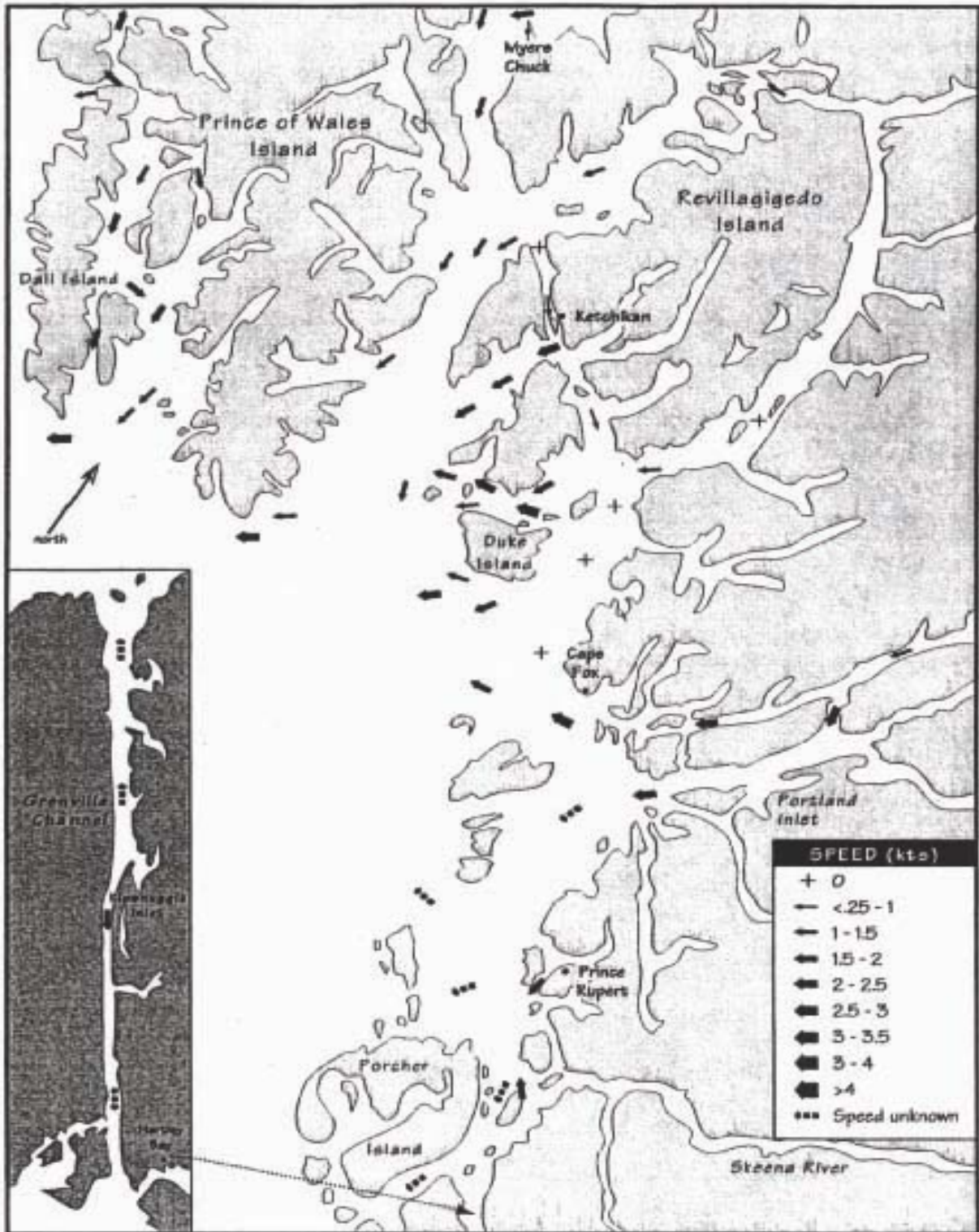
Figure E-16: Ebb Tide Currents for central Southeast Alaska



Typical maximum ebb tidal currents - central SE AK

Washburne, R., 1989, Southeast Alaska Current Atlas, Weatherly Press, Bellevue, WA., 206-881-5212.

Figure E-17: Ebb Tide Currents for southern Southeast Alaska



Typical maximum ebb tidal currents - southern SE AK

Washburne, R., 1989, Southeast Alaska Current Atlas, Weatherly Press, Bellevue, WA., 206-881-5212.

C. AREA OF RESPONSIBILITY

This Subarea Contingency Plan covers the region outlined above in subpart B. The USCG Captain of the Port (COTP) is the predesignated 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 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 incidents 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 Southeast Subarea under the Southeast Alaska Response Team (SART) of the Department of Environmental Conservation. The SOSC for the SART is the predesignated SOSC for the entire Southeast Subarea.

Memoranda of Understanding/Agreement (MOU/MOA) between the USCG/USEPA and the USEPA/State of Alaska further delineate the OSC responsibilities. **Annex K of the Unified Plan** includes copies of these MOUs/MOAs.

D. REGIONAL STAKEHOLDER COMMITTEE

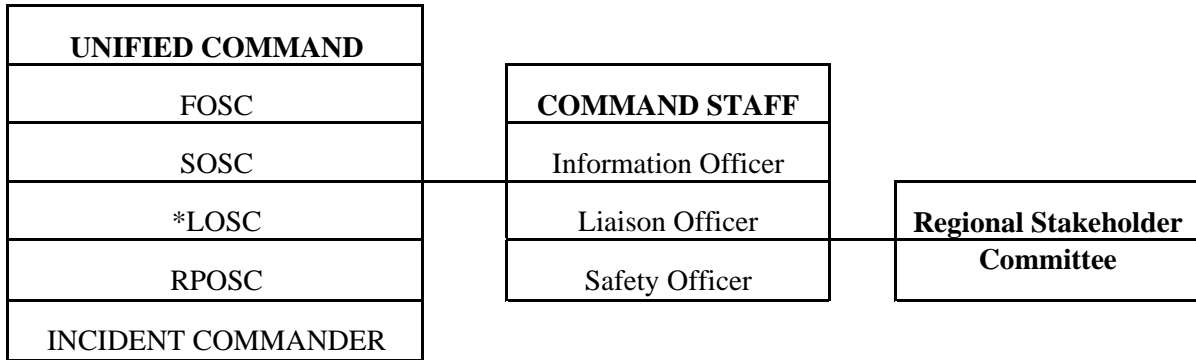
A Regional Stakeholder Committee (RSC) will normally be activated for significant incidents that involve resources under the jurisdiction of several agencies. The RSC was previously referred to as the Multi-Agency Coordination Committee (MAC). Unlike the MAC defined in the ICS of the National Interagency 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 Community Liaison Officer) and provide comments and recommendations on incident priorities, objectives and action plans.

Figure 5: Southeast Regional Stakeholder Committee provides the general location of the regional RSC in relation to the Unified Command organizational structure. Additionally, the suggested/potential membership of the RSC is provided in Figure 5. 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. During incidents where there is no FOSC, federal agencies with jurisdictional responsibilities for resources at risk could participate as a member of the RSC, thus retaining their input on containment, oversight, and cleanup.

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.

RSC activities will be coordinated by the Community Liaison Officer. RSC discussions will be documented and recommendations or dissenting opinions that occur outside of the RSC meeting with the Unified Command will be communicated to the Unified Command through the Liaison Officer. The RSC will be chaired initially by the Community Liaison Officer. After convening, the RSC will then elect its own chair.

**Figure 18: Southeast Subarea Regional Stakeholder Committee
ICS Organizational Position and Membership**



Suggested Membership:

Representatives or Community Emergency Coordinators from affected communities, which may include:

- | | |
|------------|--------------|
| Angoon | Ketchikan |
| Craig | Klawock |
| Elfin Cove | Metlakatla |
| Gustavus | Meyers Chuck |
| Haines | Pelican |
| Hoonah | Petersburg |
| Hydaburg | Saxman |
| Hyder | Sitka |
| Juneau | Thorne Bay |
| Kake | Yakutat |
| Kasaan | Wrangell |

State, federal, local or private landowners and leaseholders (e.g., National Parks Service, Alaska Dept of Natural Resources)

Federally-recognized tribes, Native corporations, organizations and communities

Special interest groups affected by the incident

* As long as there is an immediate threat to life, health or safety, the Local On-Scene Coordinator serves as the Incident Commander and is part of the Unified Command.

E. SUBAREA COMMITTEE

The primary role of the Subarea Committee is to act as a preparedness and planning body for the subarea. The Subarea Committee consists of the predesignated FOSCs and SOSCs for the subarea and, depending upon the event or the issues to be addressed, local government representatives. Each member is empowered by their own agency to make decisions on behalf of the agency and to commit the agency to carrying out roles and responsibilities as described in this plan and the Unified Plan. The predesignated Federal On-Scene Coordinators for the area (EPA & USCG) will serve as chairpersons of the 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 preparedness and planning tasks. 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 regional citizens' advisory councils.

Subarea Committee Members

The Southeast Subarea Committee is comprised of the following:

- U.S. Coast Guard, COTP Juneau
- U.S. Environmental Protection Agency
- Alaska Department of Environmental Conservation
- and local government where applicable

The Southeast Subarea Committee also seeks advice and expertise concerning environmental, resource, and economic issues from local agencies and private industries, such as the following:

- Local borough, city and tribal governments
- SEAPRO spill response cooperative
- Regional and local businesses, especially petroleum-related
- 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
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Park Service

Subarea Work Groups

The Southeast Subarea Committee relies on the input from the three work groups listed below. The Subarea Committee welcomes interested participants to serve on work groups in accordance with each individual's area of expertise and the particular needs of the work groups.

- The Sensitive Areas Work Group is chaired by a representative from the U.S. Department of Interior. The primary purpose of the Sensitive Areas Work Group is to develop and maintain the Sensitive Areas Section of the plan.

- The Logistics Work Group is chaired by a representative from the Alaska Department of Environmental Conservation. The primary purpose of the Logistics Work Group is to develop and maintain the Resources Section of the plan.
- The Operations Work Group is chaired by representatives from the U.S. Coast Guard and EPA. The primary purpose of the Operations Work Group is to develop and maintain the Response Section, the Hazmat Section, and the Scenarios Section of the plan.

Each of the above work groups is also involved in reviewing and providing comments on the other sections of the plan (including the Geographic Response Strategies Section.)

Membership on the work groups can vary and fluctuate but the list below provides some of the past participants:

- City & Borough of Juneau
- Haines Borough
- Ketchikan Gateway Borough
- City of Petersburg
- City and Borough of Sitka
- City of Wrangell
- representatives from other local governments
- Local Emergency Planning Committees
- SEAPRO spill response cooperative.
- Petro Marine Corporation
- representatives from other industrial and commercial concerns
- Alaska Department of Environmental Conservation
- 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. Environmental Protection Agency
- U.S. Department of the Interior
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Park Service
- U.S. Coast Guard, COTP, MSO Juneau
- U.S. Coast Guard, 17th District

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 strategies are further delineated in the procedures contained in the Response Section. 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 Southeast Alaska zone. They are based on 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 incidents 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 locations and restricted accessibility, it is extremely difficult to protect the majority of the coastline by diversion or exclusion methods. Therefore, securing the source and open water containment and recovery is 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 pollutant 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 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 areas 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** for an *in situ* burning checklist. The use of dispersants must be considered early in the response phase while the oil is in the open water. Subpart J of the NCP and the **Unified Plan (Annex F)** address in detail the responsibilities of the OSC 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, it may be allowed purposely to come ashore in some areas as an alternative to damaging others. Selection of the proper shoreline

cleanup technique depends on many different factors, including the following:

- Type of substrate
- Amount of oil on the shoreline
- 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 interested government and private agencies. 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 the geological and ecological environment of the involved shorelines. Once a consensus is met, a process is necessary to determine the proper treatment required.

Shoreline cleanup options may include the use of physical and/or chemical processes. 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 EPA National Contingency Plan Product Schedule and authorization must be obtained from the ARRT and the government on-scene coordinator at the spill.

Physical shoreline cleaning methods include techniques such as: natural recovery, manual sorbent application, manual removal of oiled materials, low pressure flushing (ambient temperature), vacuum trucks, warm water washing, high pressure flushing, manual scraping, mechanical removal using heavy equipment. 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 OSC shall request the RRT to provide site-specific guidelines for source protection measures required during shoreline cleanup operations.

B. STATE OF ALASKA RESPONSE PRIORITIES

1. **Safety:** Ensure the safety of persons involved, responding, or exposed to the immediate effects of the incident.
2. **Public Health:** Ensure protection of public health and welfare from the direct or indirect effects of contamination of drinking water, air, and food.
3. **Environment:** Ensure protection of the environment, natural and cultural resources, and biota from the direct or indirect effects of contamination.
4. **Cleanup:** Ensure adequate containment, control, cleanup and disposal by the responsible party or supplement or take over when cleanup is inadequate.
5. **Restoration:** Ensure assessment of contamination and damage and restoration of property, natural resources and the environment.
6. **Cost Recovery:** Ensure recovery of costs and penalties to the Response Fund for response, containment, removal, remedial actions, or damage.

BACKGROUND: PART THREE – AREA SPILL HISTORY

Southeast Alaska supports a wide variety of vessel traffic, everything from small recreational boats up to medium-sized tank ships and large cruise ships. Numerous opportunities exist for spills to occur due to the high volume of vessel traffic, the pervasive natural navigational hazards, and the large volume of oil products transported in the region. Because of the limited road system in Southeast Alaska, spills related to road vehicles are relatively rare. Most inland spills occur from home heating oil tanks or at fuel depots.

The majority of oil-related spills in SE Alaska consist of refined products - diesel, kerosene, aviation and automotive fuel. These products are carried primarily aboard tank barges originating in Seattle and destined to a variety of commercial users in the cities, towns, camps, mills, and mines in the region. These carriers use the Inside Passage for most all deliveries. On the majority of spills, little if any product is recovered due to the rapid dissipation and evaporation of the product, the sea and weather conditions, and the often remote locations of the incidents. When response equipment is deployed, it usually involves the deployment of boom to prevent oil from entering sensitive areas or to encircle the source to prevent the spread of oil and the use of sorbent materials to collect the fuel. Spill responders generally prefer skimmers for collecting spilled products, but they are not always available in a timely manner when responding to spills in remote locations.

The most persistent oil transported in the region is #6 bunker fuel oil, which is carried as fuel aboard many cruise ships and some transiting freighters. Crude oil is not transported in Southeast Alaska. However, Trans Alaska Pipeline Service tankers regularly transit between 175-200 miles off the outer coast of the region. On two separate occasions between 1984 and 1990, major spills have occurred as the result of small hull fractures that slowly released North Slope Crude oil over long distances before the problem was discovered. No environmental damage or shoreline impact was ever recorded.

The largest persistent oil spill in the Southeast Subarea occurred on Christmas Day, 1979 when the M/V *Lee Wang Zin* capsized in Dixon Entrance, drifted into Alaska waters, and discharged over 100,000 gallons of #6 bunker fuel. The oil traveled with the prevailing winds and currents at about one mile per hour. Maximum extent of the oil reached Port Alexander on the southern tip of Baranof Island. Response personnel estimated 350 miles of shoreline were oiled, and cleanup activity lasted until April 25, 1980. Salvage and cleanup crews recovered approximately 25,000 gallons of oil and burned over 2,600 cords of oil-soaked wood.

The next largest spill of persistent bunker fuel occurred in 1984 when approximately 1000 gallons discharged from a ruptured fuel line at the Mt. Edgecumbe facility in Sitka Harbor. Boom was deployed to contain the spill, and a large portion of the oil was recovered with skimmers.

On average, 300-500 non-persistent oil spills are reported annually in SE Alaska to the USCG or the ADEC. Fishing vessels account for the majority of spills, especially those in the 50-500 gallon range.

Many of these releases result from vessels sinking in remote locations. Sitka, Ketchikan, and Petersburg have the largest fishing fleets in the region. Most spills are less than 15 gallons and generally result from illegal bilge pumping operations, fuel tank overflows, or mystery spills. Cleanup is often not possible due to a combination of rapid natural dispersion and travel time to scene.

Spills larger than 500 gallons have occurred as a result of tank barge or tank ship groundings, fish processor sinkings, cruise ship discharges, and pipeline ruptures at land storage facilities. Southeast Alaska has had over 10 spills of greater than 1000 gallons from tank barge or ship groundings, due primarily to the navigation hazards associated with narrow channels and bedrock shoals. Response operations have generally proven ineffective in removing oil from the water due to adverse weather and ocean current conditions, the often lengthy travel time to the incident location, and the lack of product concentration as a result of rapid natural dispersion and evaporation.

Some of the larger examples of products spilled include the following:

Date	Location	Source	Gallons-Fuel Type	Cause
12/05/73	Sitka Sound	Tank Barge	4,500 Diesel	Grounding
08/05/79	Sitka Sound	Tank Barge	2,800 Diesel	Grounding
12/25/79	Dixon Entrance	Vessel	100,000+ Bunker	Sinking
11/15/82	Wrangell Narrows	Tank Barge	32,631 Diesel	Grounding
11/18/82	Frederick Sound	Tank Barge	29,000 Diesel	Grounding
04/01/83	Skagway	Facility	50,000 Diesel	Pipeline Rupture
04/08/84	Hydaburg	Tank Barge	40,000 Diesel	Grounding
05/15/84	Hoonah	Tank Barge	7,000 Diesel	Grounding
10/25/85	Tongass Narrows	Tank Barge	1,500 Diesel	Unknown
04/08/86	Wrangell Narrows	Tank Barge	77,280 Diesel	Grounding
02/25/87	Hydaburg	Tank Barge	9,000 Diesel	Grounding
10/27/87	Wrangell Narrows	Tank Barge	16,597 Diesel	Grounding
01/26/88	Wrangell Narrows	Tank Ship	4,494 Diesel	Grounding
09/00/88	Dora Bay	Freight Ship	30,000 Diesel	Grounding
09/15/89	Tongass Narrows	Fish Processor	20,000 Diesel	Sinking
01/14/94	Juneau	Tank Farm	100,000 Noncrude	Collapse
10/05/94	Skagway	Pipeline	2,000 Diesel	Landslide
05/01/95	Douglas	Heating Tank	5,000 Diesel	Rupture
12/01/95	Lynn Canal	Tug	15,000 Diesel	Sinking
04/09/96	Ketchikan, Ward Cove	KPC Pulp Mill	125,000 Acid	Line Failure
04/18/96	Hoonah	Cargo Barge	7,000 Diesel	Grounding
09/05/96	Ketchikan, Ward Cove	KPC Pulp Mill	3,000 Diesel	Leak
10/21/96	Ketchikan, Ward Cove	KPC Pulp Mill	3,500 Diesel	Overfill
08/24/01	Sitka Area	Fishing Vessel	2500 Diesel	Sinking
07/26/02	Prince of Wales I.	Fishing Vessel	6000	Sinking
02/10/04	Haines	D-W Tank Farm	3400 Aviation Fuel	Leak

In July 1991, a private report conducted by Arthur D. Little, Inc. assessed the threat of non-crude oil spills from tank vessels in Alaska. The study was commissioned by the State of Alaska Department of Environmental Conservation. Key findings from that report concerning SE Alaska include the following:

- Southeast Alaska is the most spill-prone region in Alaska, but the average spill size is less than 15 gallons.
- Wrangell Narrows is the single area in all of Alaska that has had the most incidents and stands out as a high risk area. Except for Wrangell Narrows, all other spills are widely distributed without correlation to specific routes.
- The Southeast region received the highest hazard ranking in the state due to the highest number of spills, relatively large volume of non-crude oils transported, physical hazards (narrow channels, high currents, bedrock-dominated waters), and the proximity of numerous sensitive resources to the main transport routes.
- Of all the regions in the state, non-crude oil transport in Southeast Alaska poses the greatest threat. Because of the nearness of the shipping lanes to coastal areas, spills can be expected to impact the coastal area, particularly the wetlands and sheltered coves, with great rapidity. The spilled oil is also extremely difficult to control due to strong currents and the rapid natural dispersion of the oil.

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BACKGROUND: PART FOUR – ABBREVIATIONS AND ACRONYMS

ACP	Area Contingency Plan
ACS	Alaska Clean Seas (North Slope industry cooperative)
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game, also as ADFG
ADNR	Alaska Department of Natural Resources
ADOT&PF	Alaska Department of Transportation and Public Facilities, also as ADOTPF
AFB	Air Force Base
ANSC	Alaska North Slope Crude oil
ARRT	Alaska Regional Response Team
BBLs	Barrels
BLM	Bureau of Land Management
BOA	Basic Ordering Agreement
CART	Central Area Response Team (ADEC)
CCGD 17	Commander, Coast Guard District 17
CISPRI	Cook Inlet Spill Prevention and Response Inc. (industry cooperative)
COTP	Captain of the Port (USCG)
CTAG	Cultural Technical Advisory Group
DOD	Department of Defense
DOI	Department of the Interior
DRAT	District Response Advisory Team
DRG	District Response Group
EOC	Emergency Operations Center
EPA	Environmental Protection Agency, also as USEPA
ESI	(Alaskan) Environmental Sensitivity Index
F/V	Fishing Vessel
FAA	Federal Aviation Administration
FOSC	Federal On-Scene Coordinator
GIS	Geographic Information System
GSA	General Services Administration
HAZMAT	Hazardous Materials, also as hazmat
HAZWOPER	Hazardous Waste Operations and Emergency Response
ICS	Incident Command System
IDLH	Immediate Danger to Life and Health
INMARSAT	International Maritime Satellite Organization
JPO	Joint Pipeline Office (gov t agencies involved with managing/regulating TAPS)
LEPC	Local Emergency Planning Committee
LEPD	Local Emergency Planning District
LNG	Liquefied Natural Gas
MAC	Multiagency Committee
M/V	Motor Vessel
MLT	Municipal Lands Trustee Program
MOA	Memoranda of Agreement
MOU	Memoranda of Understanding
MSO	Marine Safety Office (USCG)
MSRC	Marine Spill Response Corp. (national industry cooperative)
NART	Northern Area Response Team (ADEC)
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
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
OHMSETT	Oil and Hazardous Material Simulated Environment Test Tank
OPA 90	Oil Pollution Act of 1990
OPCEN	Operations Center
OSC	On-Scene Coordinator
OSRO	Oil Spill Response Office
PIAT	Public Information Assist Team
PIO	Public Information Officer
POLREP	Pollution Report (USCG)
PWS	Prince William Sound
RCAC	Regional Citizens Advisory Council
RCRA	Resource Conservation and Recovery Act of 1978
RP	Responsible Party
RRT	Regional Response Team
SART	Southeast Area Response Team (ADEC)
SCBA	Self-Contained Breathing Apparatus
SCP	Subarea Contingency Plan
SERVS	Ship Escort Response Vessel Service (for Alyeska terminal in Valdez)
SHPO	State Historic Preservation Officer (ADNR)
SITREP	Situation Report (ADEC)
SONS	Spill of National Significance
SOSC	State On-Scene Coordinator
SSC	Scientific Support Coordinator (NOAA)
SUPSALV	U.S. Navy Superintendent of Salvage, also as NAVSUPSALV
TAPS	Trans Alaska Pipeline System
T/V	Tank Vessel
USCG	United States Coast Guard
VIRS	Visual Information Response System
VTS	Vessel Traffic Separation System/Scheme