

# KODIAK SUBAREA CONTINGENCY PLAN

## POTENTIAL PLACES OF REFUGE

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# POTENTIAL PLACES OF REFUGE: PART ONE – INTRODUCTION

## A. PURPOSE AND SCOPE

This Potential Places of Refuge (PPOR) section supplements information found elsewhere in the Kodiak Subarea Contingency Plan for Oil and Hazardous Substances Spills and Releases, commonly referred to as the Kodiak Subarea Contingency Plan (SCP).

A “place of refuge” is defined as a location where a vessel needing assistance can be temporarily 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 Kodiak Subarea. Actual designation of a place of refuge will always be an incident-specific decision made ultimately by the U.S. Coast Guard Captain of the Port for Western Alaska.

The Kodiak Subarea has many miles of environmentally sensitive coastline. In addition to sensitive shoreline habitats such as marshes, sheltered tidal flats, and exposed tidal flats, Kodiak supports a number of sensitive biological resources including birds, fish and shellfish, and marine mammals. Information concerning identification of sensitive areas and resources associated with a PPOR location may be found in the *Sensitive Areas Section* 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* of the SCP.

The Kodiak Subarea lands are managed under a variety of land use management plans including;

- Revised Comprehensive Conservation Plan and Environmental Impact Statement, Kodiak National Wildlife Refuge, October, 2004.
- Land Protection Plan, Option for the Protection of Fish and wildlife Habitats, Alaska Peninsula and Becherof National Wildlife Refuges, December 2002.
- Kodiak Island Borough Coastal Management Plan, March, 2006.
- Kodiak Area Plan, Alaska Department of Natural Resources, January, 2005

The Kodiak Subarea is also widely used for marine commerce. Oil tanker vessels, log transport ships, fuel barges, freighters, container ships, ferries, and cruise ships make routine stops at Kodiak ports. 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. But shallow-draft vessels, such as fishing vessels and charter vessels, may be able to use 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 container ships and tank vessels are the predominant deep draft vessels operating in the Kodiak Subarea.

**Light-draft II Vessels** are vessels of 10,000 to 19,999 Gross Tons. These vessels have drafts of up to 25 feet and range in size from 350 to 450 feet in length. Freighters, ferries, small cruise ships are the most common light-draft vessels operating in the Kodiak Subarea.

**Light-draft I Vessels** are vessels of 300 to 9,999 Gross Tons. These vessels have drafts of up to 25 feet and range in size from 200 to 350 feet in length. Catcher-processors, fishing vessels, local freighters, ferries, are the most common light draft vessels operating in the Kodiak Subarea.

**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 the Kodiak Subarea.

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 the Kodiak Subarea.

## **B. HOW THE PPOR DOCUMENTS WERE DEVELOPED**

A workgroup of interested and knowledgeable stakeholders developed this section over the course of several years, guided by the Alaska Regional Response Team's "*Guidelines for Places of Refuge Decision-Making*," (additional information available in the Alaska **Unified Plan, Annex O**). The workgroup arrived at a consensus on potential places of refuge and submitted this document to the Kodiak Subarea Committee for approval and inclusion in the Kodiak Subarea Contingency Plan. The workgroup participants represented the following organizations:

- Alaska Department of Environmental Conservation
- Alaska Department of Fish and Game
- Alaska Department of Natural Resources
- City of Kodiak
- Cook Inlet Regional Citizens' Advisory Council
- Kodiak Area Native Association
- Kodiak Island Borough
- Native Village of Ouzinkie
- Prince William Sound Regional Citizens' Advisory Council
- Prince William Sound Response Planning Group
- Southwest Alaska Pilots Association
- U.S. Coast Guard, Kodiak Marine Safety Division
- U.S. Department of the Interior – Office of Environmental Policy and Compliance,  
Fish and Wildlife Service , and National Park Service

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

Locations of bulk fuel facilities (Figure H-1);

Primary traffic routes for State ferries and cruise ships (Figure H-2);  
Primary traffic routes for commercial vessels (Figure H-3);  
Locations of frequent fishing vessel/tramper offload activities (Figure H-4);  
Locations of key nearshore fishing grounds, hatcheries and remote release sites (Figure H-5);  
Locations of previous major marine spill events (Figure H-6); and  
Locations of spill response hubs and equipment depots (Figure H-7); and  
All risk factors combined (Figure H-8).

The second step, identifying all of the feasible places of refuge within the Kodiak Subarea, resulted in a total of 80 PPOR. 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:

PPOR 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, and  
Distance to alternate PPOR.

PPOR identification method consists of a number which is a unique site identifier with no importance attached to the magnitude of the number. The letter which follows indicates the appropriate size vessel for the site. “D” will correspond to deep draft vessels, “LII” is for larger light draft, “LI” is for smaller light draft and “S” is shallow draft vessels.

The site assessment matrix contains potentially suitable emergency anchorage and docking 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 the Kodiak Subarea for the shallow draft vessel category (less than 300 gross tons).

Step three 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, mariculture sites, 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 Strategy (GRS) sites; and
- The distance from the closest alternative PPOR.

For more information on the Kodiak Subarea Potential Places of Refuge, please visit the following website: <http://www.dec.state.ak.us/spar/perp/kppor/index.htm>

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

As outlined in the "*Guidelines for Places of Refuge Decision-Making*" (Annex O of the **Unified Plan**), 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 Kodiak 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,
8. Stakeholders provide ranking of places of refuge options,
9. COTP/Unified Command selects places of refuge, and
10. COTP/Unified Command prepares documentation of decision.

The information provided in the Places Of Refuge Section can 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 Kodiak Subarea. An index map (Figure H-9) 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. All geographic data was collected using Mercator Projection, North American Datum 1983.

**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  
510 L Street, #100  
Anchorage, Alaska, 99501

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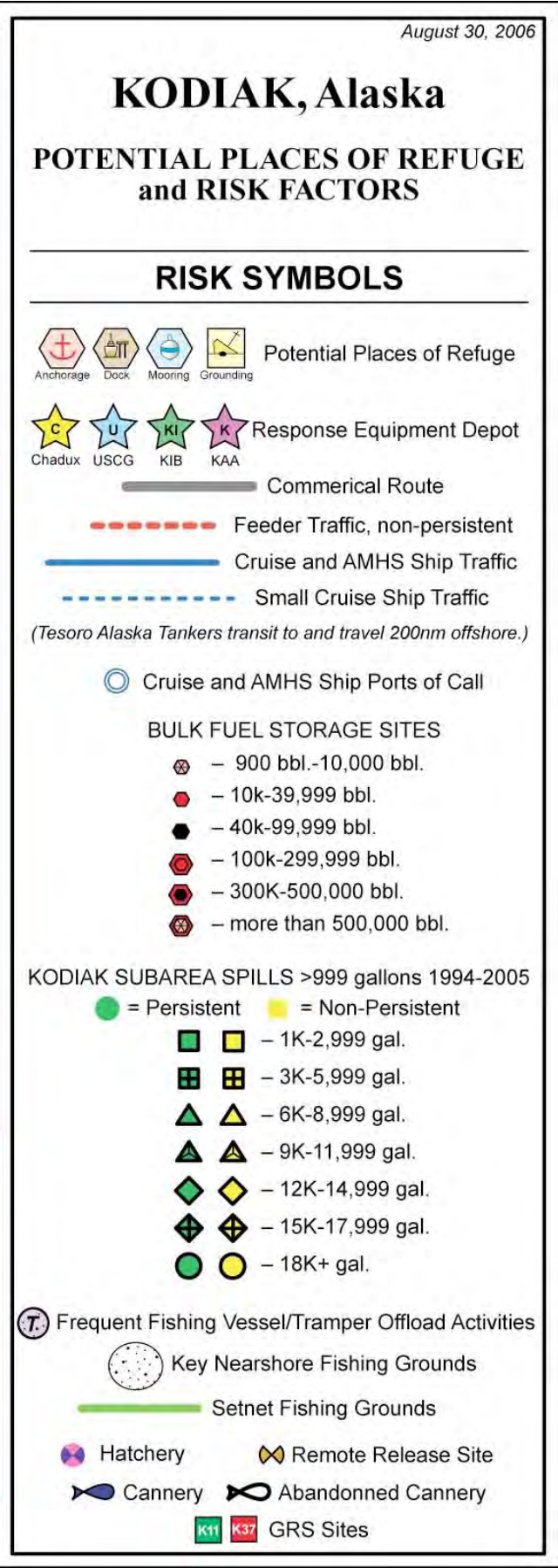




Produced by: **nuka** P.O. Box 175  
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DRAFT: This map is a draft work product of the Kodiak Places of Refuge Workgroup. The information represented here has not been approved by the Workgroup and should not be considered final. If you have questions or comments please contact us by email at [contact@nukaresearch.com](mailto:contact@nukaresearch.com).

Figure H-1. Locations of Bulk Fuel Storage.





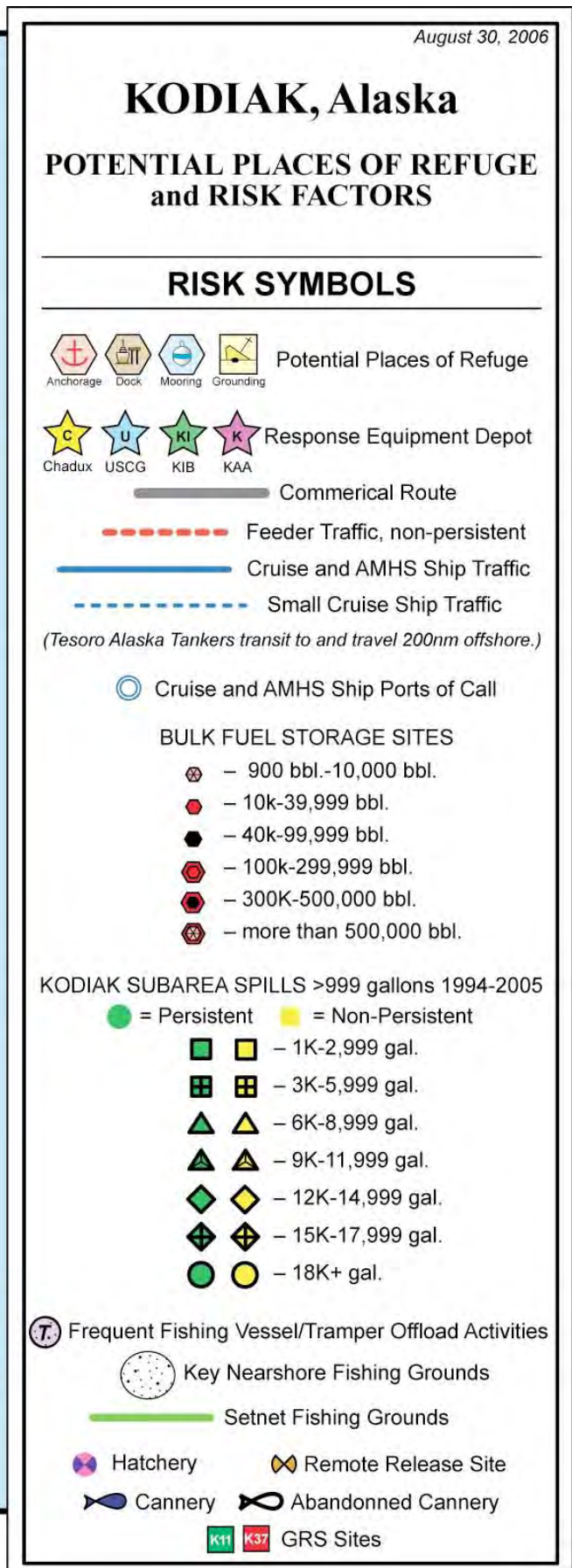
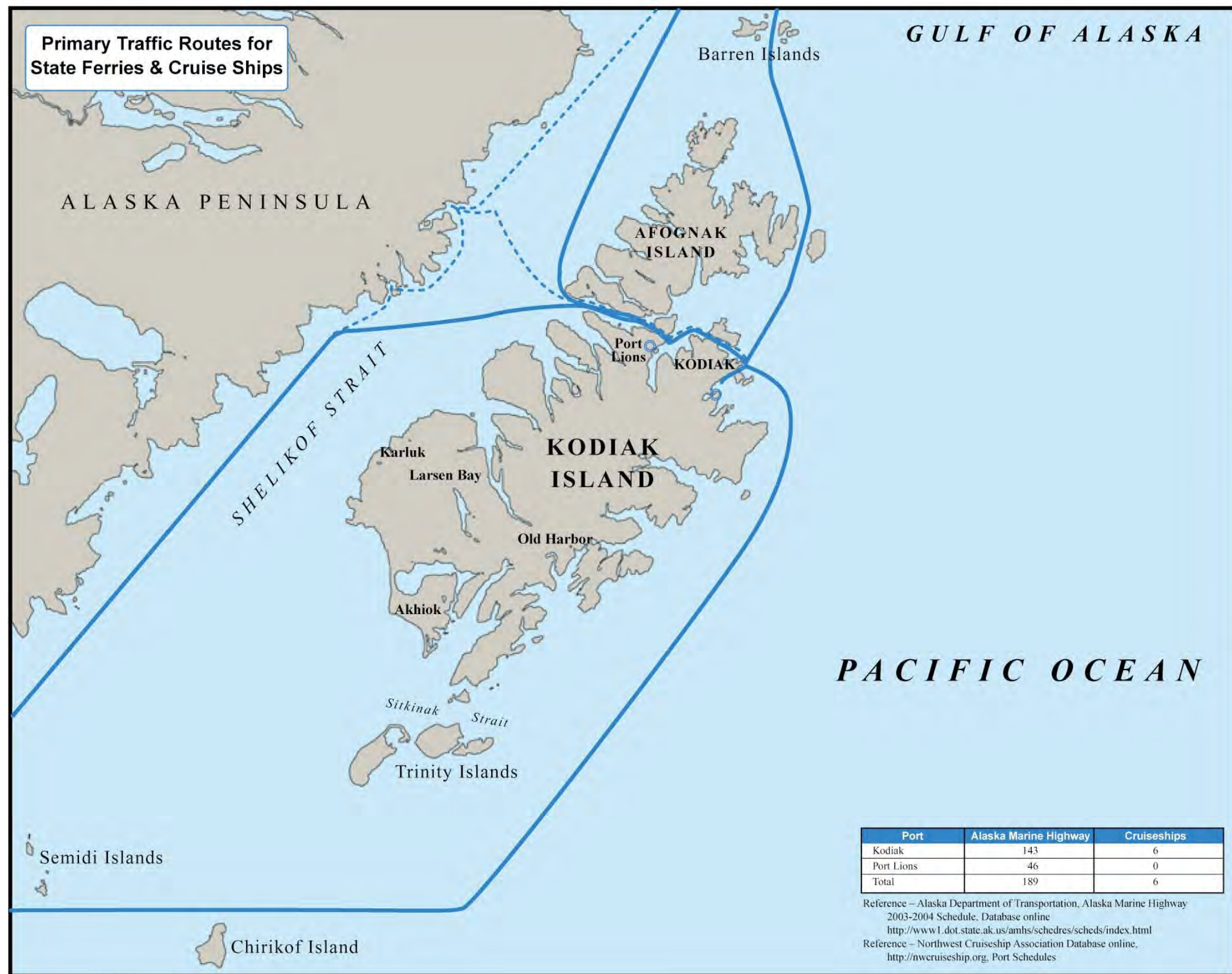
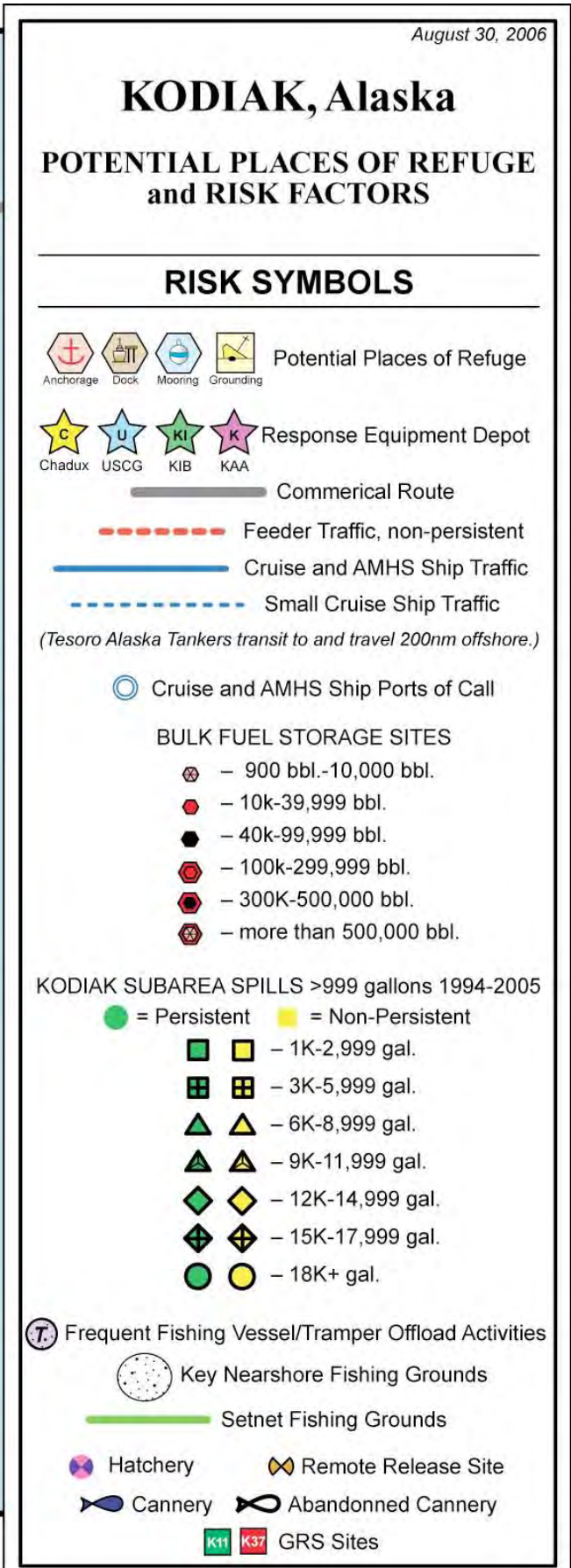
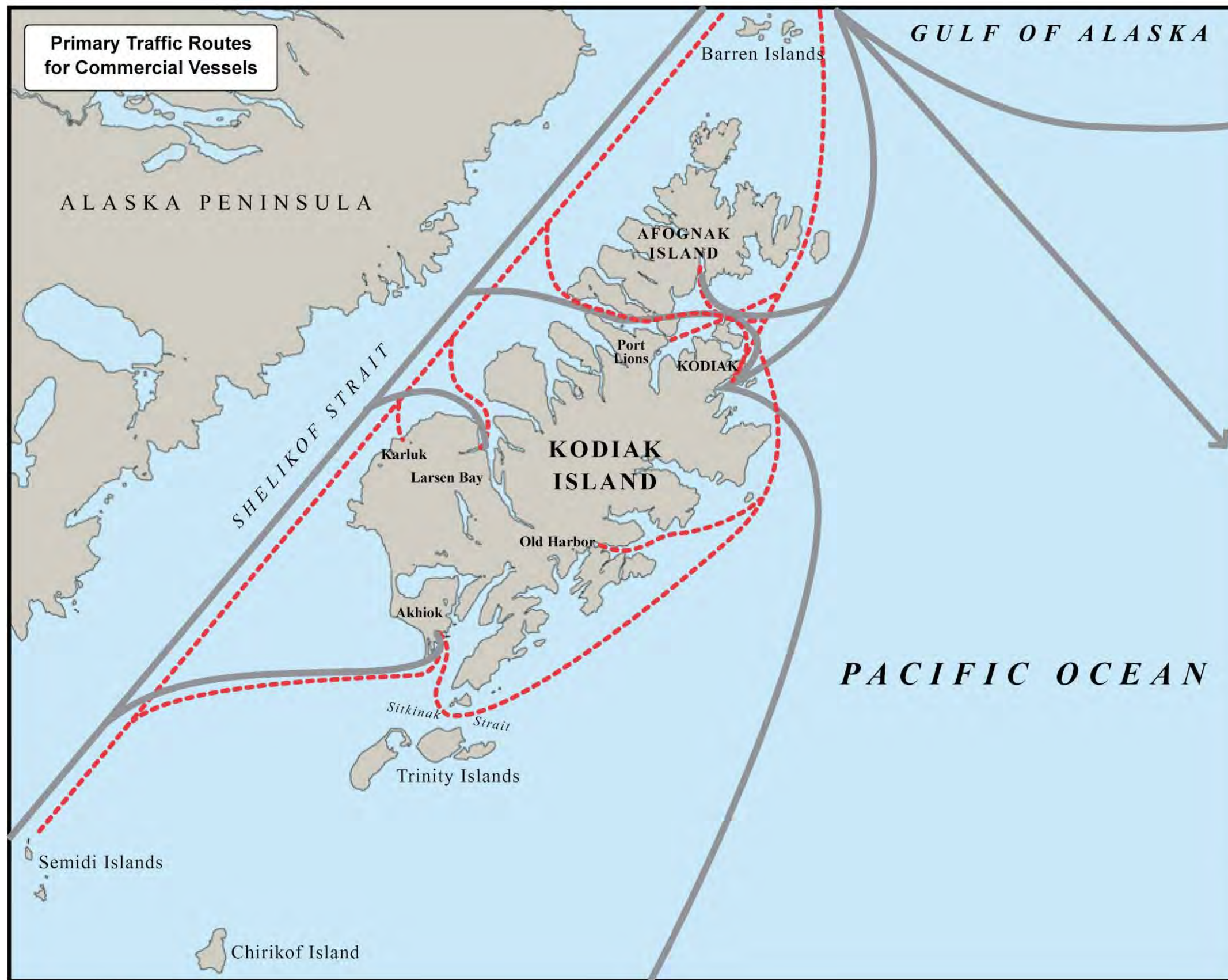


Figure H-2. Primary Traffic Routes for State Ferries and Cruise Ships.





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Figure H-3. Primary Traffic Routes for Commercial Vessels.





August 30, 2006

# KODIAK, Alaska

## POTENTIAL PLACES OF REFUGE and RISK FACTORS

### RISK SYMBOLS

Potential Places of Refuge

Response Equipment Depot

Commerical Route

Feeder Traffic, non-persistent

Cruise and AMHS Ship Traffic

Small Cruise Ship Traffic

Cruise and AMHS Ship Ports of Call

BULK FUEL STORAGE SITES

KODIAK SUBAREA SPILLS >999 gallons 1994-2005

Frequent Fishing Vessel/Tramper Offload Activities

Key Nearshore Fishing Grounds

Setnet Fishing Grounds

Hatchery

Remote Release Site

Cannery

Abandoned Cannery

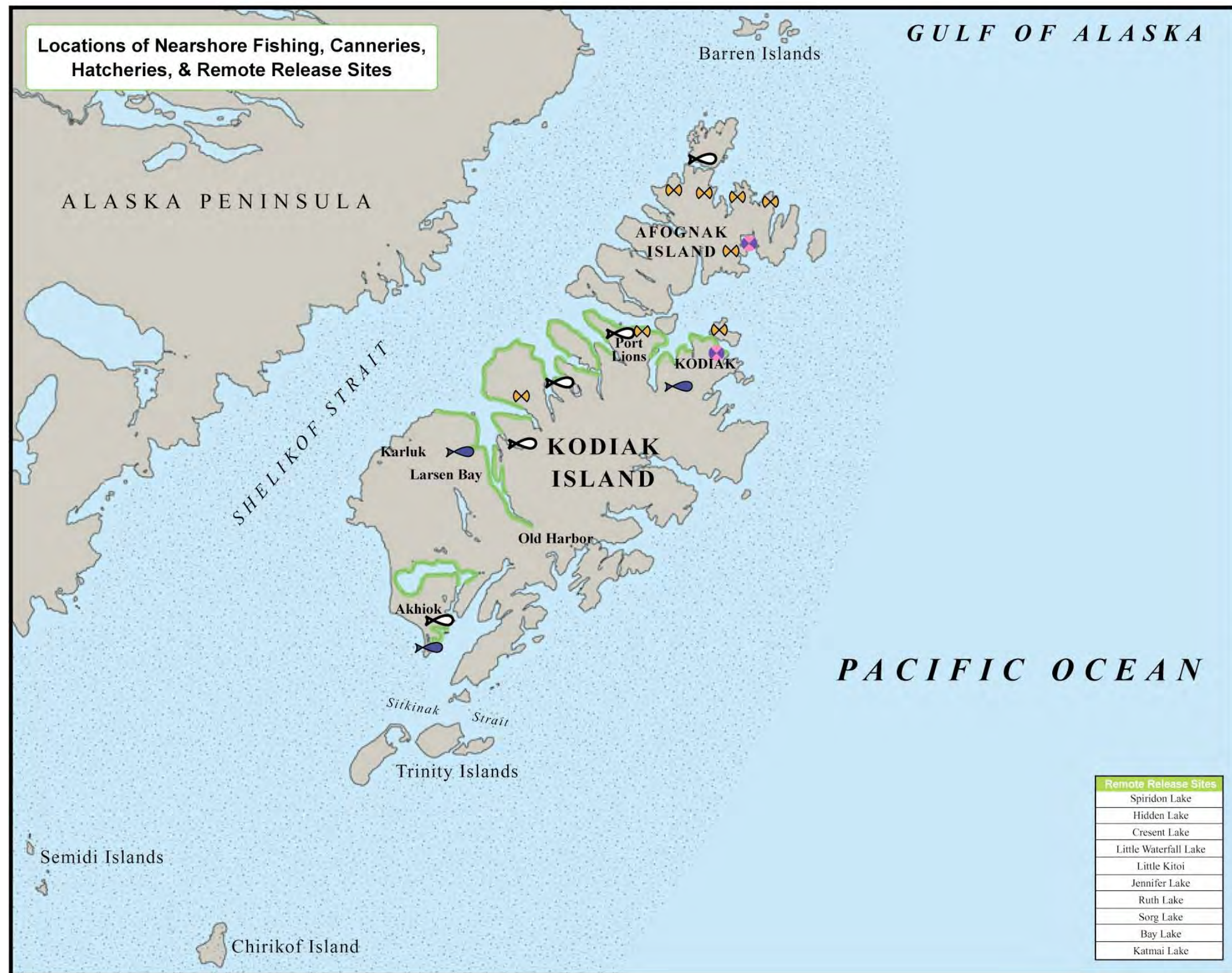
GRS Sites

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Figure H-4. Locations of Frequent Fishing Vessel/Tramper Offload Activities.





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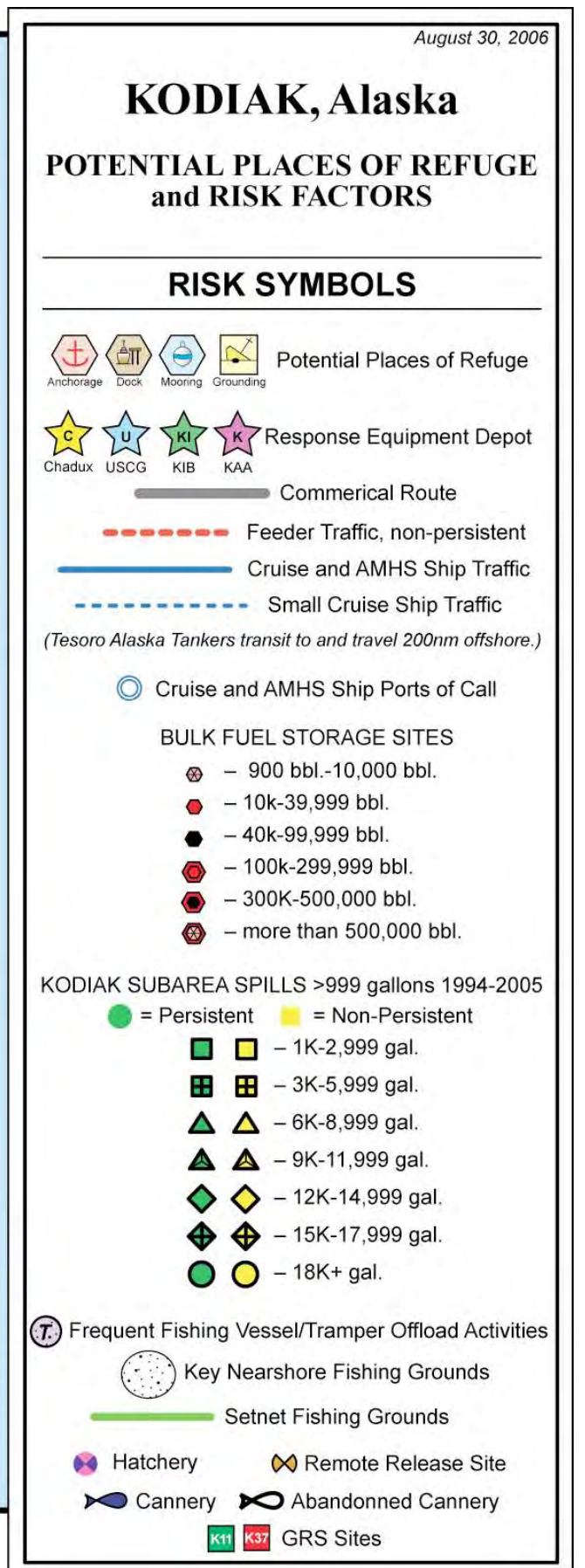


Figure H-5. Locations of Key Nearshore Fishing, Canneries, Hatcheries, and Remote Release Sites.



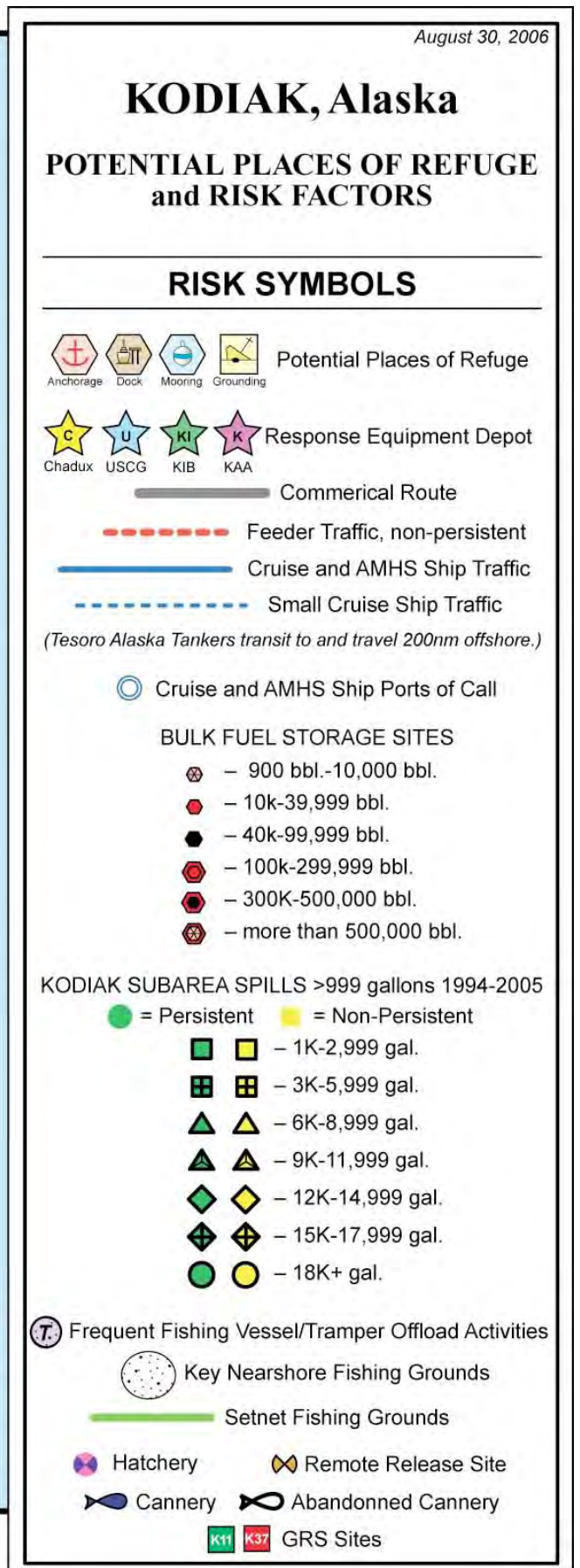
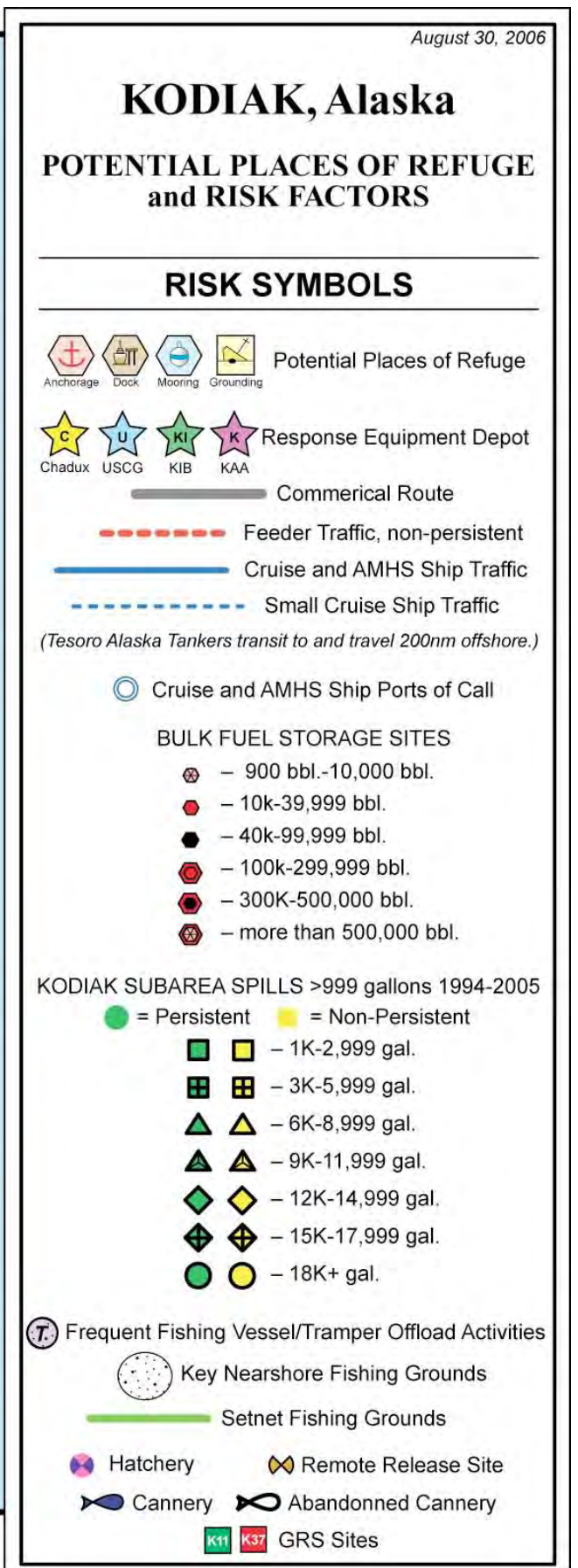
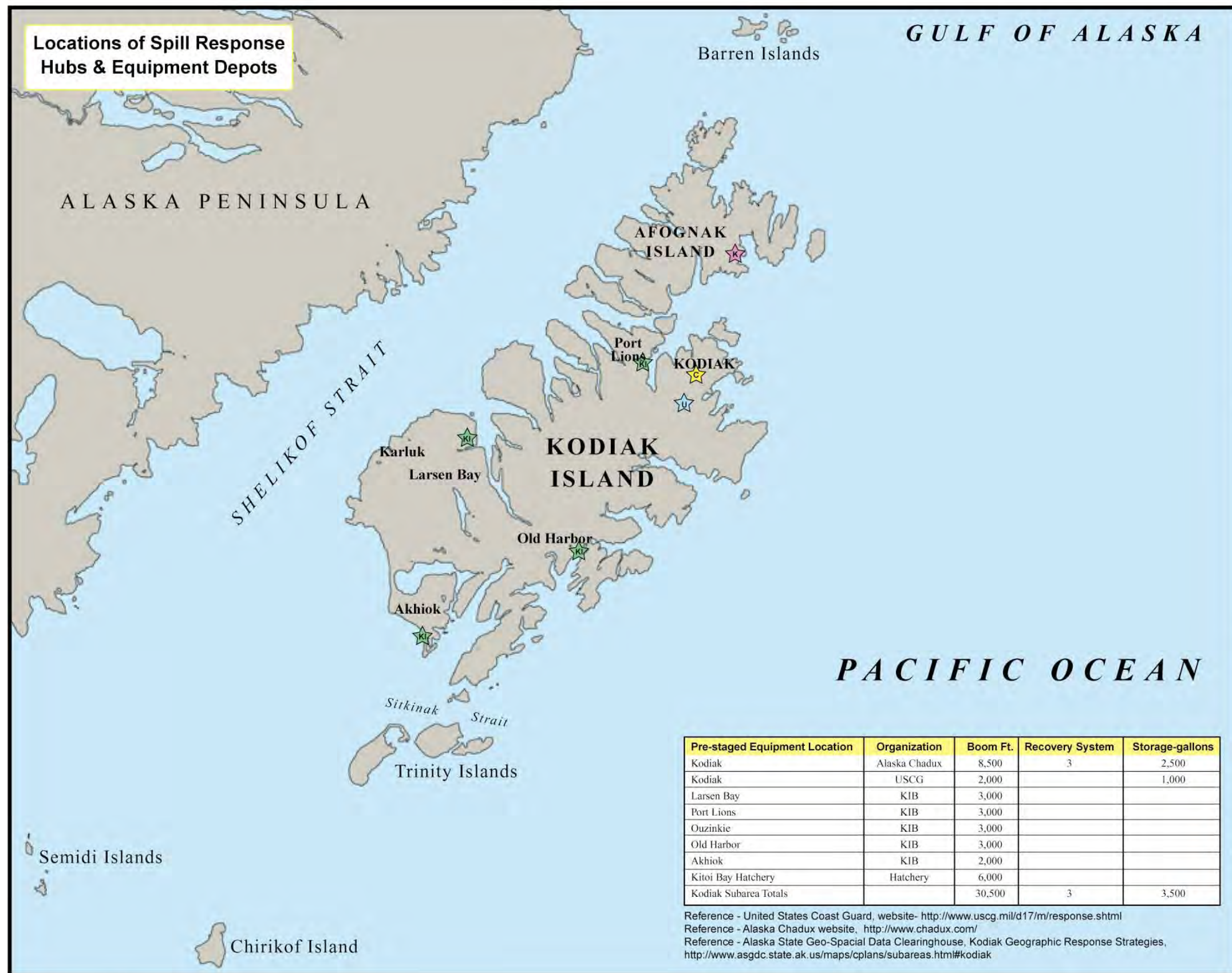


Figure H-6. Locations of Previous Major Marine Spill Events.



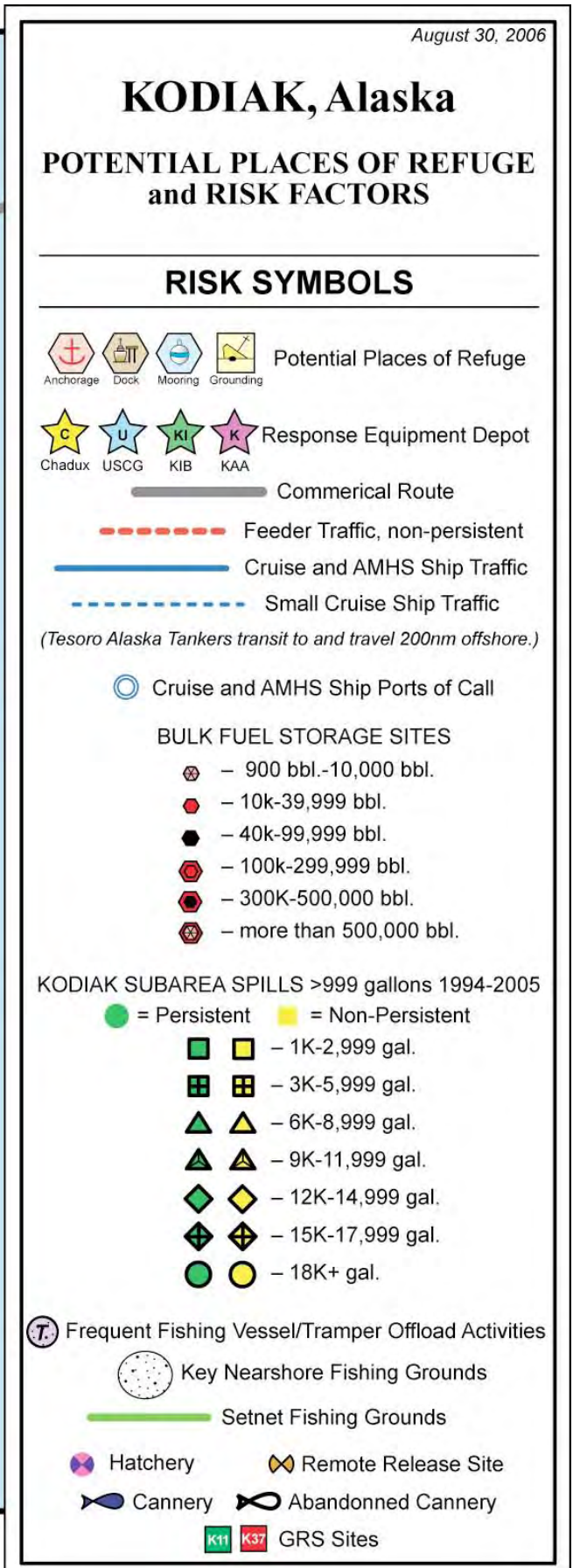
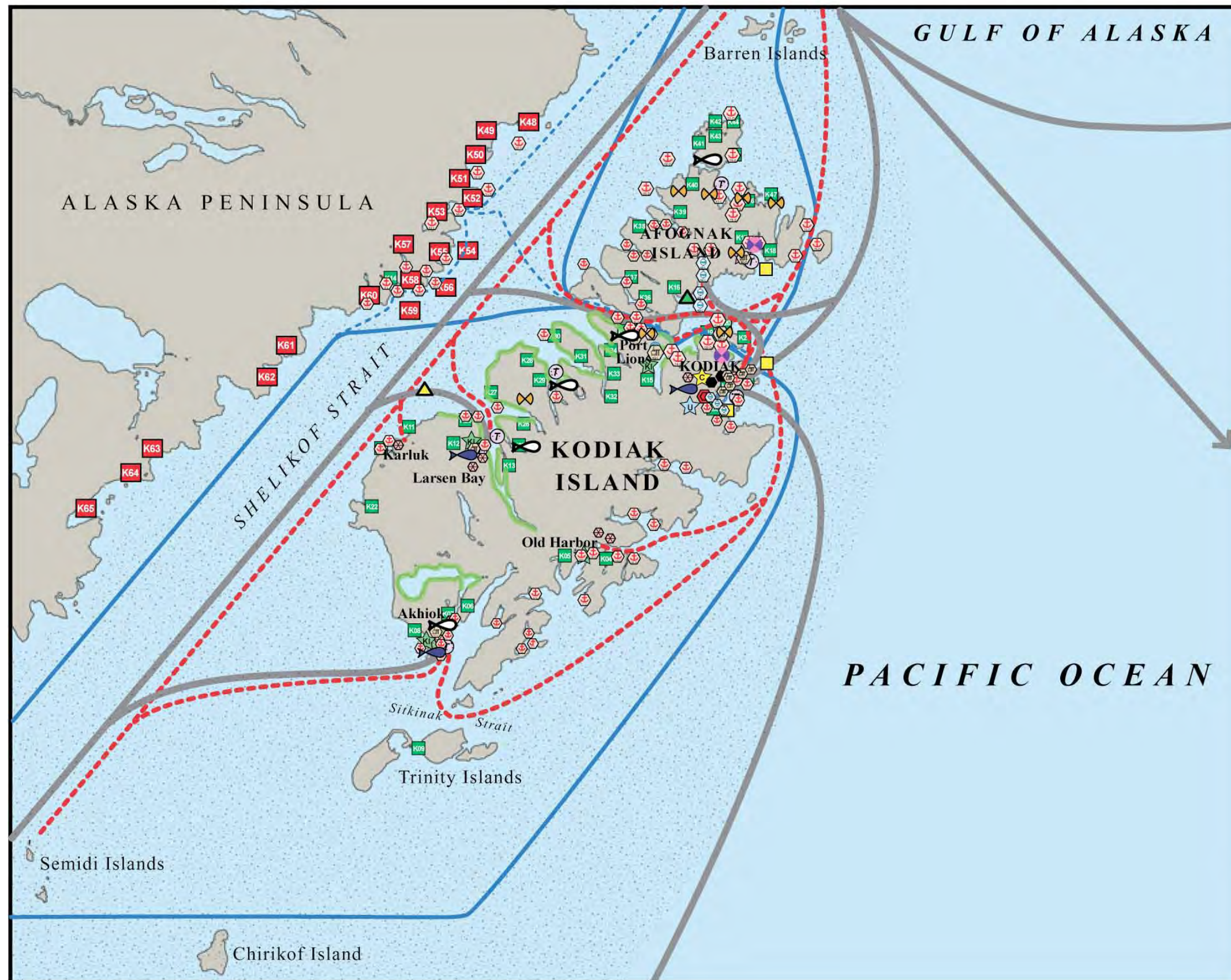


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Figure H-7. Locations of Spill Response Hubs and Equipment Depots.



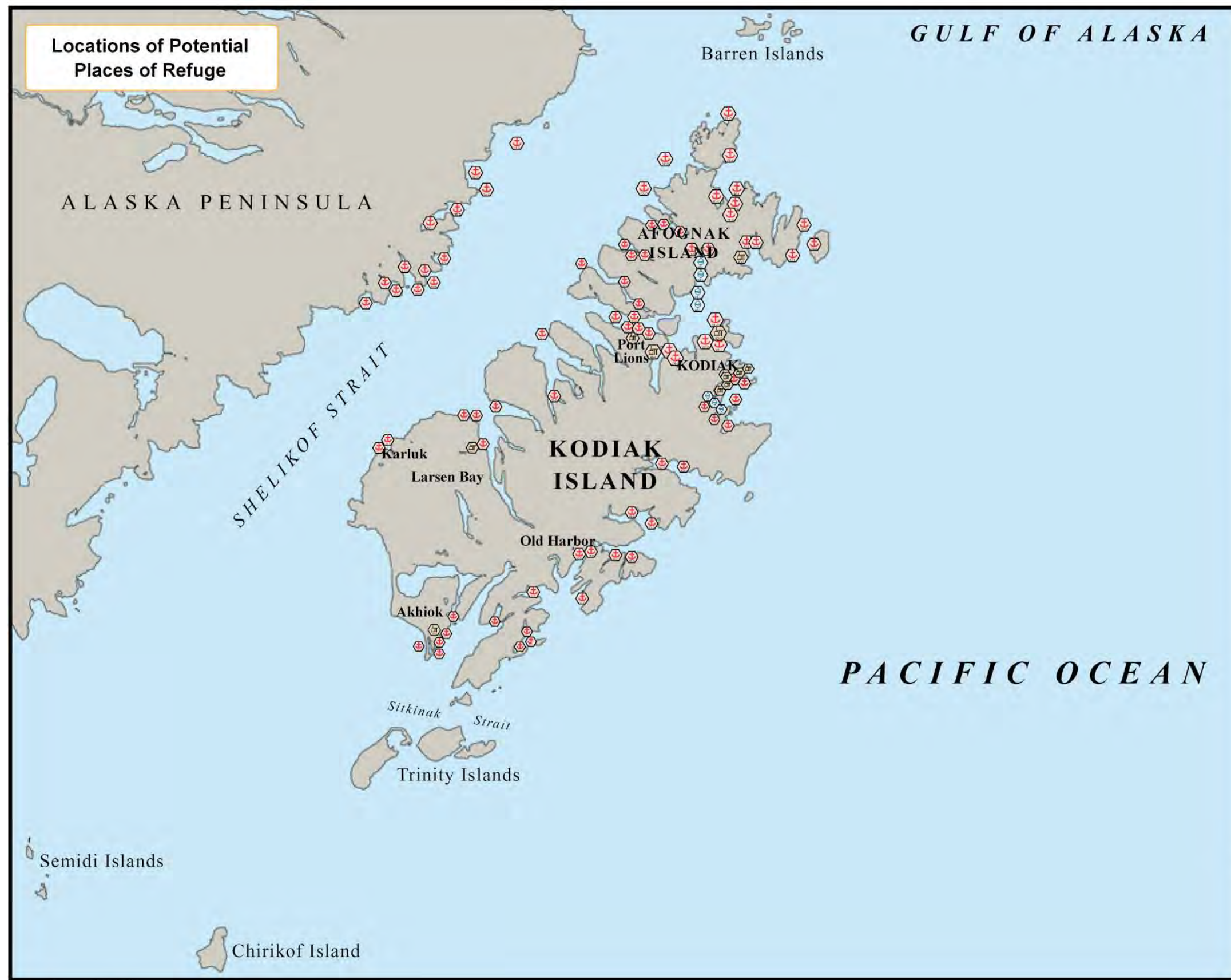


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Figure H-8. All Risk Factors Combined.

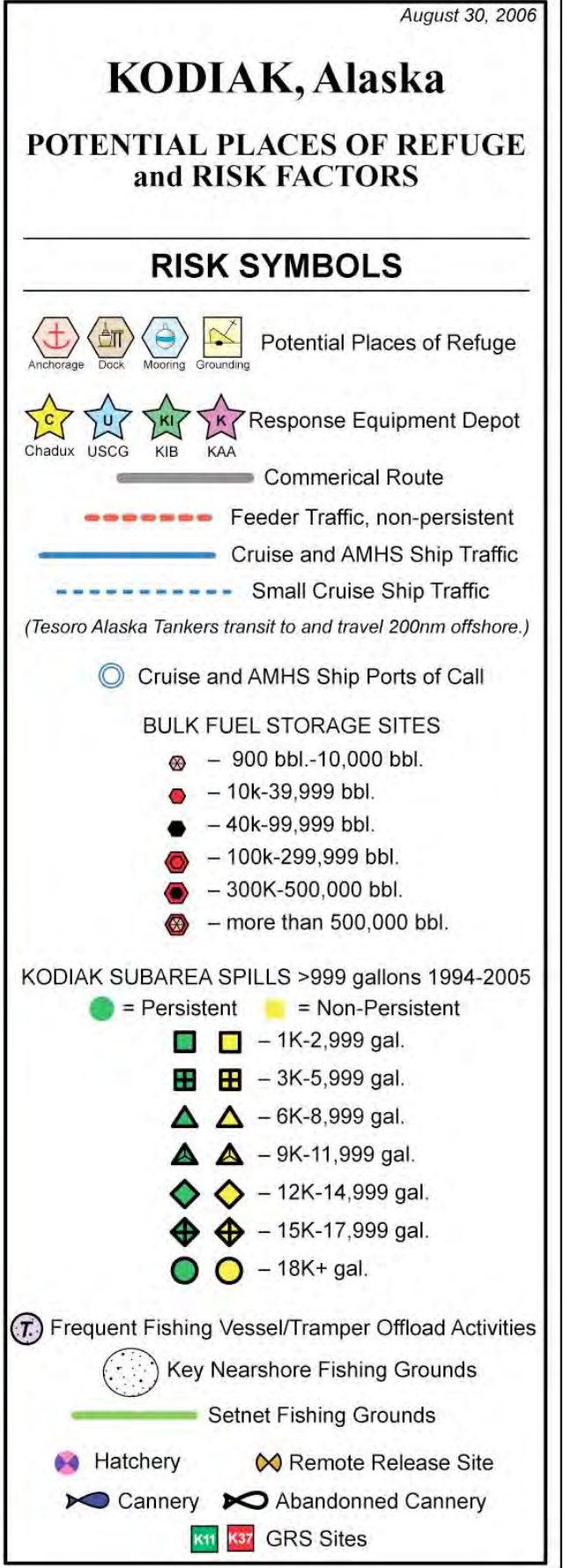




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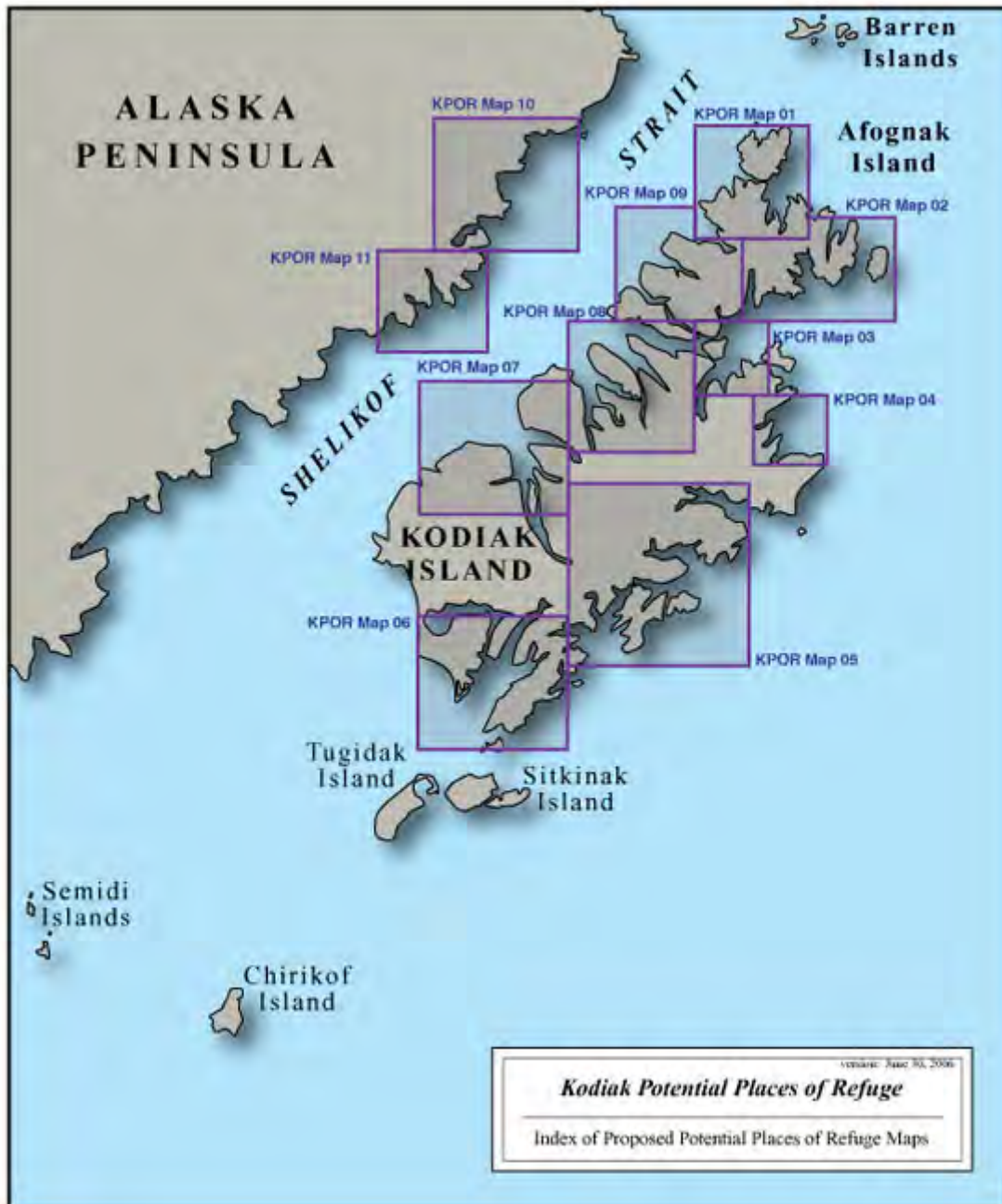
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Figure H-9. Locations of Potential Places of Refuge.



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## POTENTIAL PLACES OF REFUGE: PART TWO – INDEX & MAPS



Please refer to the Folder “Kodiak SCP H-PPOR Maps” for the following figures:

PPOR Map 1  
PPOR Map 2  
PPOR Map 3  
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