Submission Date: February 13, 2008 **Priority:** 1 **of** 1

Ted Stevens

United States Senator for Alaska

Please Note:
- Fill out one request form for each request
- This form (and any attachments) can be returned via:
  - Fax - (202) 224-2354
  - Mail - The Honorable Ted Stevens
    United States Senate
    522 Hart Senate Office Bldg.
    Washington, D.C. 20510
- **Requests are due by February 15, 2008.**

FISCAL YEAR 2009 PROJECT REQUEST FORM

Project Name: Priority Places of Refuge - Cook Inlet RCAC

Project Location: Cook Inlet and Kodiak

Project Description (please attach additional pages as required):

This project will gather information pertinent to the use of priority Potential Place of Refuge (PPOR) sites for vessels in distress and to develop readily available databases and response tools specific to these sites. The ultimate goal is to improve decision-making capabilities by state and federal agencies and other organizations during pre-planning and when responding to actual stricken vessels needing safe refuge. The proposed project is a pilot project for the Cook Inlet and Kodiak/Alaska Peninsula Subareas of Alaska that could be used as a template for other areas of Alaska.
Specifically, this proposal outlines a pilot program for prioritizing potential places of refuge and providing detailed site-specific information and data for these sites. This will be accomplished through a combination of (1) gathering existing data into readily accessible formats for use during pre-planning and response operations and (2) filling data gaps by obtaining finer resolution background data and response tools for the highest priority PPOR sites (see attachments).

Related Appropriations Bill: Homeland Security orCommerce, Justice,State

Amount of federal funding requested for FY09: $1,000,000.00

Total funding to complete this project: $3,000,000.00

Number of years to fund this project: 3 years

Matching funds from the State of Alaska: not applicable

Matching funds from local and private entities:

Not applicable. This is a federally funded project for a federal mission of the Coast Guard.

If this project was funded in prior appropriations bills (within the last five years), list each bill and the amount funded:

Amount included in the President's FY09 Budget: No

Amount included in the State of Alaska FY09 Budget: Not applicable

☐ Check this box if state funding was sought but not provided.

List legislation that authorizes this project:

US Coast Guard Laws and Oil Pollution Act, section 5002 relating to studies by Regional Citizen Advisory C ouncils

Check all that apply:

☐ A change in the current law is necessary in order to proceed with the project. (If so, attach language and a list of laws that need to be amended)

☐ Bill or report language is needed. (If so, attach requested language)

Alaska Contact Information

Project Title: High Priority Places of Refuge: A Pilot Project to Improve Decision-Making Tools for Cook Inlet and Kodiak Sub-Areas with Statewide Applications

Project Goals

To gather information pertinent to the use of priority Potential Place of Refuge (PPOR) sites and to develop readily available databases and response tools specific to these sites. The ultimate goal is to improve decision-making capabilities during pre-planning and when responding to actual stricken vessels needing safe refuge.

Background and Need for Project:

Recent and historical instances have clearly identified the need for identifying and providing temporary places of refuge where stricken vessels can be anchored, moored, or grounded in protected waters while evaluation of longer term solutions or repairs of the vessel can take place and, thus, minimize the potential for a ship breaking up at sea. Taking these actions would help prevent or minimize potential adverse affects to the public, the environment, and resource users.

Efforts are underway to define and formalize the decision-making processes for selecting these potential places of refuge (PPOR) and are taking place at the international (*e.g.* International Maritime Organization Guidelines on Places of Refuge for Ships in Need of Assistance, Pacific States/British Columbia Oil Spill Task Force Area Plan Annex for Places of Refuge), national (*e.g.* USCG regulations 33 CFR 6.04), state (*e.g.* Alaska Regional Response Team Annex O - Guidelines for Places of Refuge Decision-Making), and regional (*e.g.* Places of Refuge Workgroup for Cook Inlet Subarea Plan) levels.

Guidelines for developing PPORs emphasize that there is no single place of refuge for all ships and all situations. Decisions relating to places of refuge encompass a wide range of environmental, social, economic, and operational issues that vary according to each situation, including the environmental sensitivity of the areas within or adjacent to a potential place of refuge. The initial decision to permit a ship to seek a place of refuge, as well as the decisions and actions implementing that decision, are inherently based upon an assessment of the risk factors involved and the exercise of sound judgment and discretion. Places of refuge are sites that could potentially be used for a disabled or damaged ship needing shelter for repairs. While information on potential sites may be pre-inventoried, this does not imply that any of these sites will be the location of choice in a future event.

Since 2004, the Alaska Regional Response Team (ARRT) has supported the pre-identification of potential places of refuge (PPOR) that would be evaluated on an incident-specific basis. Work has progressed such that guidelines have been developed for these various efforts and, for several subareas in Alaska, workgroups have already pre-identified lists of PPORs for various types of vessels. To compile these lists, matrices were created that included basic information that can be used by the decision-makers when responding to a stricken vessel. These matrices includes basic information

such as location (latitude and longitude), size of vessels that can safely moor at the site, the available swing room for a moored vessel, the general bottom type, the exposure direction of the site, the ability to deploy boom and the existence of Geographic Response Strategies (GRS), the presence of sensitive resources, the distance to population centers, and the distance to the nearest other PPOR. While these matrices provide some of the basic information that can help a decision-maker evaluate PPORs under specific scenarios, there are significant data gaps and. For the highest priority PPORs, additional information and tools will improve decision-making abilities regarding safety of navigation and reduce potential environmental impacts.

This proposed pilot program will prioritize the PPORs from these lists and obtain the additional detail required for safer navigation into these places of refuge, evaluating and responding to the incident on-site, and for providing the scientific and resource-specific information to better understand potential effects to resources. Further refinement of the list will save significant time in the event of a real event and must recognize that different types of vessels pose larger risks to the environment and larger challenges to responders when in distress. Moreover, some PPORs will be more likely selected under given scenarios based in part on their location relative to major shipping routes or navigational hazards and by their historical selection and use by the local US Coast Guard Captain of the Port (COTP) for vessels in distress.

The procedures and tools developed during this pilot project should be applicable to all areas of Alaska, and even nationally. The COTP for each unit has authority to order ships into and out of ports, harbors and embayments in order to protect the public, the environment and maritime commerce. In most scenarios, the COTP decision takes place in consultation with other agencies and stakeholders and will always take place on a case by case basis. In many instances the decisions will actually be made under an activated Unified Command under an Incident Command System. In this scenario, the Federal On-Scene Coordinator, the COTP, consults with the state and specific resource agencies to make decisions to direct a vessel to a specific PPOR based on best available information and best professional judgement. ***This proposed project seeks to provide those decision-makers with the best possible information and tools for priority PPORs. For the highest priority PPORs, detailed information will be gathered in one place, data gaps will be identified, and additional response tools will be identified and developed.***

Specifically, this proposal outlines a pilot program for prioritizing potential places of refuge and providing detailed site-specific information and data for these sites. This will be accomplished through a combination of (1) gathering existing data into ready accessible formats for use during pre-planning and response operations and (2) filling data gaps by obtaining finer resolution background data and response plans for the highest priority PPOR sites.

Proposed Scope of Work

Site Prioritization Selection

The first step will be to convene a workgroup representing the decision-makers. Starting from the list of PPORs that had been compiled and vetted through a public process for the Cook Inlet (including parts of the outer Kenai Peninsula) and Kodiak (including parts of the Alaska Peninsula) Subareas, the most likely PPORs that would be used for distressed vessels who pose the largest risks (*e.g.* deepwater ports that could be used for large, deep draft tank and non-tank vessels) will be identified and prioritized.

Refinement of the list will save significant time in the event of a real event and must recognize that different types of vessels pose larger risks to the environment and larger challenges to responders when in distress. In addition, some PPORs will be more likely selected under given scenarios based in part on their location relative to major shipping routes or navigational hazards and by their historical selection and use by COTPs for vessels in distress.

Site Literature Reviews and Identification of Data Gaps

For priority PPOR sites identified during the Site Prioritization Selection process, existing information will be identified and reviewed for data gaps. At a minimum, the data evaluated will include all information identified in the Pacific States-British Columbia Oil Spill Task Force Area Plan Annex for Places of Refuge) as ideal for making decisions for PPOR use. Decisions will be made on the need for finer resolution data for specific PPORs, such as winds, tides, currents, bathymetry, sensitive areas, or nearshore habitat.

A determination will be made as to whether existing tools are adequate for the highest priority PPORs. For example, the COTP requests specific scientific information from the NOAA Scientific Support Coordinator, such as possible trajectories of any spilled product or location and sources for any real-time tide/wind/wave/current information. This process will identify whether trajectory models are adequate in each area and what additional information or real-time data collection might be needed for a specific priority PPOR. As well, evaluations will be made as to the adequacy of existing information on sensitive habitats, existing biological assemblages, and background contaminant data. Finally, evaluations of existing sensitive area protection will be made, such as comparing the locations of site-specific Geographic Response Strategies (GRS) relative to PPORs.

Filling the Gaps

Sensitive Resources – Habitat Mapping, Background Contaminants

For the high priority PPORs, additional information will be gathered to fill data gaps and to develop databases that may be critical during response operation. At a minimum,

consideration will be given to sensitive habitat and habitat use data, important biological resources and species-assemblage data, and background contaminant information.

Obtaining detailed nearshore habitat data for particularly sensitive areas such as salt marshes or eelgrass beds may be identified as critical to improved decision-making. This information would be overlayed on broader, regional nearshore mapping data such as that provided by ShoreZone mapping conducted for most of the Gulf of Alaska.

Background chemical and biological information for a priority list of contaminants and biological resources will be compiled from existing sources or collected to fill data gaps. The lists of specific chemical analytes might be site-specific, but would most likely include aromatic and aliphatic hydrocarbons as well as trace metals. It is especially important to have this information in place to be able to evaluate any potential effects from using PPORs, especially in Alaska where we have no sediment quality criteria identified. Lack of information can compound problems of assessing impacts and can potentially over-estimate affects. For example, there are many coastal areas of Alaska where background metal concentrations are high based on the ores in the watersheds that contribute sediment to the nearshore environment. In many instances, these concentrations are naturally higher than national sediment quality guidelines. It is important to know these levels for the high priority PPORs so that realistic evaluation of post-event data can be made.

Vessel Safety, Physical Data, and Response Tools

For the high priority PPORs, additional information will be gathered to fill data gaps and to develop response tools that may be critical during a PPOR event. Some coastal regions of Alaska have poorly characterized bottom type, bathymetry, and hydorgaphic information – all critical to navigational decisions and for improving charts. The high priority PPOR site information will be evaluated to determine the adequacy of these types of information for making safe navigational decisions regarding specific vessel types. The information will also be evaluated as to whether it accurately reflects real physical conditions such as winds, tidal heights and currents, circulation, residence times or exchange coefficients. And, finally, evaluations will be made as to whether additional observational measurements must be taken to improve the availability of real-time physical data and improve the resolution and accuracy of oil spill trajectories.

Developing improved, finer-scale circulation models for priority PPORs may require improved data gathered for the "boundaries" of circulation models to initialize the models. Currently, GNOME modeling is provided by NOAA and the modelers' abilities to accurately portray the circulation in nearshore waters can be improved with observational data. There may be instances where additional trajectory modeling may be warranted, if it is determined that the parameters modeled through the GNOME algorithms are not effectively representing a given area.

During this process, assessments of the feasibility of and need for deploying real-time meteorological stations at each site, either permanently, or at a minimum during the

length of response. For example, finer-scale wind measurements and modeling might be needed to make decisions about whether a PPOR can be safely accessed under the specific conditions at that time. These decisions may also influence the placement of meteorological stations by other agencies or within the network of instruments identified for Gulf of Alaska Ocean Observing Systems and would require having very specific instruments and power supplies available to be placed at pre-identified strategic locations

Sensitive Area Protection - GRS selection, field survey, and development

Geographic Response Strategies (GRS) have been developed to protect sensitive coastal environments along Cook Inlet and Kodiak coastlines. GRS are oil spill response plans tailored to protect a specific sensitive area from impacts following a spill. These response plans are map-based strategies that can save time during the critical first few hours of an oil spill response. They show responders where sensitive areas are located and where to place oil spill protection resources. GRS are the current standard for site-specific oil spill response planning in Alaska.

From an original list of initial site locations that includes all sensitive areas that have the potential to be classified as "Areas of Major Concern" under the governing Subarea Plan. A workgroup of state, federal, and local agencies, oil spill responders, and stakeholders narrows the list based on a site's relative risk of being impacted from water borne spill and the feasibility of successfully protecting the site with existing technology. The refined list is then vetted through a public process. Once site selection is complete, a committee composed of spill response professionals develops draft strategies for each selected site which are then reviewed and approved by the entire workgroup. GRS are not considered final until they have been submitted to and approved by the appropriate Subarea Committee.

Through the above process, the original list of sensitive areas is winnowed down based, in part, on relative risks of being impacted by an oil spill. The GRS process did not necessarily take into consideration a potential GRS site's proximity to a high priority PPOR, which could increase its risk of being impacted by potential spills from a distressed vessel directed to the PPOR. This project will evaluate high priority PPORs for sensitive area locations that may not have site-specific oil spill response plans in place and the GRS process will be initiated for any specific high priority PPOR. This will include field evaluations and development and testing of strategies, if necessary.

Benefits for Fulfilling Agency Mandates and Enhancing Related Federal Initiatives

Although the U.S. Coast Guard's Captain of the Port (COTP) for a given unit has ultimate jurisdiction over directing a vessel in distress to a place of refuge, the decision is made in the context of existing information through the input by many other agencies and organizations. In Alaska's Cook Inlet and Kodiak Subareas, these decisions have previously been made, either in real events or pre-planning exercises, with the input by (at a minimum) the following agencies or organizations:

- Alaska Department of Environmental Conservation
- Alaska Department of Natural Resources
- Alaska Department of Fish and Game
- Cook Inlet Regional Citizens Advisory Council
- Environmental Protection Agency (EPA)
- National Oceanic and Atmospheric Administration (NOAA)
- Prince William Sound Regional Citizens' Advisory Council
- Southwest Alaska Pilots Association
- U.S. Coast Guard, District 17
- U.S. Department of the Interior
- City of Homer
- Cook InletKeeper
- Cook Inlet Spill Prevention and Response
- Seldovia Village Tribe
- Tesoro, Alaska
- USCG COTP Western Alaska
- USCG Kenai Marine Safety Detachment

Many of these agencies or organizations have their own mandates to fulfill during PPOR decision-making processes and response operations. The information provided by this proposed pilot project will improve each of these organizations' ability to do their job.

This proposed project may also be instrumental in prioritizing placement of instruments for an integrated ocean observing system for Alaska and may be able to rely on existing infrastructure for compiling and archiving the information and data gathered as part of the project. The Alaska Ocean Observing System (AOOS) was created as part of a national effort being led by the Ocean.US Office under the National Oceanographic Partnership Program and will be integrated with efforts to form a global network of observing systems. AOOS has identified numerous goals, several of which tie directly to issues relating to PPORs in Alaska. Related AOOS goals include:

- Improve the safety and efficiency of marine operations;
- More effectively mitigate the effects of natural hazards;

When fully developed, AOOS will:

- Serve as the Alaska regional node for a national network of observing systems;
- Systematically deliver both real-time information and long-term trends about Alaska's ocean conditions and marine life;
- Provide to the public Internet access to cost-free data and information on coastal conditions; and
- Supply tailored products to meet the needs of mariners, scientists, industry, resource managers, educators, and other users of marine resources.

AOOS will provide a centralized location for:

- Data and information products from platforms such as buoys, providing wind and current speed and direction, wave height, sea temperature and salinity, and more;
- Enhancements to existing NOAA weather buoy data for specialized local needs;
- Processed satellite data providing Alaska-wide information on sea-surface temperature, ocean color (chlorophyll) and wind;
- Geographically comprehensive surface current data from high frequency radar;
- Data about fish, birds and marine mammals, the environmental effects of human activities, and any other information that can be used with the physical data to predict future changes to the ocean ecosystem.

AOOS has called out to Alaskans to help prioritize the goals for the Alaska regional system and this project can help direct some of the resources to fulfill the needs of the agencies responsible for PPOR decisions while enhancing an overall network or backbone structure of observing instruments. This can be an instance where PPOR decision-makers can help AOOS fulfill their mission of providing "tailored products to meet the needs of mariners, scientists, industry, resource managers, educators, and other users of marine resources."