

**Cook Inlet Risk Assessment  
Advisory Panel and Management Team Meeting Summary  
September 4, 2014  
Kenai, AK**

**Participants**

*Advisory Panel*

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**Meeting Summary**

The purpose of this meeting was to ensure that Advisory Panel members all understood the risk reduction options being considered, everyone had an opportunity to discuss the issues, and risk reduction options were recommended with the broadest possible consensus.

This meeting summary focuses on the recommendations from the group, with key information or caveats noted. Extensive information was presented during the meeting, which is included in the draft Discussion Document distributed prior to the meeting and will be included in the Final Report. The Final Report will be distributed for public comment prior to completion at the end of September.

The risk reduction options are discussed here in the order they will appear in the report. This order relates to their placement as interventions on the incident chain, and does not necessarily reflect the order in which they were discussed.

Cook Inlet benefits from an experienced maritime community with both a proven commitment to working together to improve safety and relatively ready access to response resources and infrastructure. Large, deep draft vessels operating on the Inlet are subject to both federal and state spill prevention and response requirements and are typically smaller than those vessels passing through U.S. waters off Alaska's shores

to and from Asia. Cook Inlet also has two resident oil spill response organizations. Finally, Cook Inlet benefits from risk reduction measures that are already in place, including many of the items recommended by the Advisory Panel to continue or expand.

At the same time, there is widespread acknowledgement of the challenges that maritime operations in the Inlet can face, such as strong tidal currents and quickly changing sea ice coverage and thickness during winter. While there are many vessels and crew familiar with the Inlet, there is also a diverse array of vessel types and operations and occasional visits from vessels unfamiliar with local condition. Although less remote than other parts of Alaska, Cook Inlet has many areas that are inaccessible by road and hours or days from assistance or response services especially in unfavorable conditions. Cook Inlet also has valuable commercial, recreational, and subsistence fisheries and other harvests and other ecological and wildlife resources that warrant protection.

The CIRA Advisory Panel recommends the following risk reduction options to maintain and enhance the level of risk mitigation already achieved on Cook Inlet's waters. Where these efforts are already underway, they should be sustained and, in some cases, enhanced or expanded within the Inlet.

#### **Construct a Cross-Inlet Pipeline from Drift River to Nikiski**

The Advisory Panel recommends that the subsea pipeline should be developed to reduce the potential for large spills from cross-Inlet tanker traffic between Drift River and Nikiski. The pipeline will have the ancillary benefit of reducing the need for storage of oil at the Drift River facility, though this benefit is not quantified here.

This recommendation is based on the Advisory Panel's charge to develop and recommend oil spill risk reduction options related to marine transport, and the Panel's consideration of analysis related to spill risks and a benefit-cost analysis focused on the same. The Panel acknowledges that there are economic factors and other considerations that fall outside its scope but warrant careful consideration by decision-makers in approving and developing this significant new infrastructure.

#### **Establish a Harbor Safety Committee for Cook Inlet**

The Advisory Panel recommends that a Harbor Safety Committee (HSC) be established for Cook Inlet. A Cook Inlet HSC would provide a continuum started by the CIRA by gathering a group of individuals with diverse perspectives to identify potential problems, develop or recommend non-regulatory mitigation measures, and evaluate the success or areas of improvement. The Cook Inlet HSC would provide a means of prioritizing the consideration of relevant topics and mitigation measures. HSCs can also provide collective input on issues at both the Captain of the Port level and related regulations. While HSC participation will be determined as the group forms, the

Advisory Panel recommends that participants should at minimum include representatives of maritime industry and Cook Inlet operators, tribes, and local communities.

The HSC should consider the following activities as part of its initial and ongoing efforts:

- Enhancing ice monitoring to inform vessel operations in Cook Inlet
- Participate in updating the winter ice guidelines as needed
- Updating NOAA's Coast Pilot and Automated Wreck and Obstruction Information System (AWOIS)
- Additional study related to vessel self-arrest and emergency towing, as described under that risk reduction option, below

### **Training for Pilots, Captains, and Crew**

The Advisory Panel recommends that recommends that Cook Inlet Pilots, Vessel Officers and Shore side vessel management engage in simulator training above and beyond normal qualifications specifically focused on the Cook Inlet operations and Ice Navigation. This recommendation does not imply a change in the necessary qualifications for vessel operators.

### **Harbormasters Notify USCG of Unsafe Vessels**

The Advisory Panel recommends that Harbormasters and Port Directors in Cook Inlet establish procedures to help them identify unsafe and unseaworthy vessels, and to contact the U.S. Coast Guard when they turn such vessel away. This procedure should be included in port/harbor Standard Operating Procedures and/or included in the certification criteria for the Alaska Clean Harbors Program.

This recommendation does not involve additional regulations or costs, but simply encourages improved communications between harbormasters or port directors and the U.S. Coast Guard. This recommendation seeks to reduce accidents associated with vessels of concern by facilitating action from the U.S. Coast Guard based on harbormaster observations.

### **Dredging Knik Arm Shoal**

The Advisory Panel recommends that Knik Arm shoal be dredged as needed to maintain project depth, thereby reducing the potential for vessel grounding in this area.

### **Expand Cellular and VHF Coverage on Cook Inlet Waters**

The Advisory Panel recommends that communications infrastructure should be enhanced to fill gaps in cellular and VHF coverage for vessels operating on Cook Inlet waters.

While policies prohibiting the use of email or text messages for personal reasons are critical and must remain in place, having access to information (including visual information) via cellular coverage will help to enhance mariners' situational awareness and facilitate communications. All vessels using VHF should be able to communicate readily with both shore and other vessels to facilitate prompt assistance when needed.

### **Enhance Situational Awareness through Transmittal of Weather or Other Information via AIS**

The Advisory Panel recommends that AIS software companies should upgrade software to allow vessel operators to receive information transmitted via AIS on board when requested. This upgrade should be widely disseminated to current users and included in new software sales.

Information transmitted from shore to vessels using AIS should relate to conditions in the immediate area only, so as to avoid providing irrelevant or distracting information. The AIS transmittals can also be used to contact individual vessels identified as being in the area in order to engage their assistance to another vessel and/or alert them of known or anticipated hazards.

### **Third Party Inspections of Workboats**

Both local and occasional workboat operators in Cook Inlet should continue to use third party audits/inspections of their vessels and procedures to promote safe operations. The workboat community should be represented in the HSC to facilitate identifying and addressing any future safety issues associated with workboat operations on Cook Inlet waters. **New vessels working in Cook Inlet for the first time should have a way to check in with HSC to facilitate the identification of vessels with less experience operating in Cook Inlet conditions.**

### **Ports and Harbors should have a Clear Understanding and Communication of Limits Associated with Safe Operations at their Facilities**

Vessels casualties can occur when a vessel is at or approaching/departing a mooring or dock. Ports and harbors throughout the Inlet should have a clear understanding of the potential hazards that vessels may face in terms of water depth, current, sea ice, high winds, or underwater facilities (pipelines, communication facilities, etc). These hazards can be translated into an understanding of the limits on vessel size, approach speed, mooring line requirements, and/or other equipment limitations. These limits, and desired or required procedures to be implemented if these limits are approached or exceeded, should be clearly communicated to vessels by port and harbor personnel.

Many ports and harbors in Cook Inlet already have achieved a strong understanding and communications plan regarding the limits of their equipment and facilities. Where these do not exist, they should be developed through a mooring study or other analysis

and incorporated into the communications practices used by port and harbor personnel in their verbal and written interactions with vessels calling at their docks or moorings.

### **Self-arrest and Emergency Towing**

*The Advisory Panel identified several concerns with studies conducted related to self-arrest and emergency towing for this project. These concerns were expressed through a set of written comments provided in response to the studies in spring of 2014, and will be presented as appendices in the Final Report along with the studies themselves. These recommendations build off of a combination of these studies and the expertise of the Advisory Panel. While the Panel would prefer to offer clear and conclusive recommendations in this area, in some cases additional questions still linger.*

The Advisory Panel recommends that continued study is warranted in two areas related to self-arrest and emergency towing, and that the proposed Harbor Safety Committee could coordinate the implementation of the following:

- (1) Demonstrate or otherwise qualitatively study the ability to arrest and control a large, deep-draft vessel in upper Cook Inlet sea ice conditions, with input from large vessel mariners and local marine pilots, and, as needed, experts in materials, engineering, simulations, and ship dynamics.
- (2) Demonstrate or otherwise qualitatively study the ability of a large, deep-draft vessel to self-arrest in different parts of Cook Inlet, including identifying areas where this practice is more or less likely to be successful; identifying areas where this should *not* be conducted due to pipe, power, or communication lines located on the seabed floor; identifying best practices for implementation, and estimating the amount of time – and therefore associated vessel drift – that this would take. This effort should also involve large vessel mariners and local pilots, as well as experts in sea ice, ship and ice dynamics, and simulations.

While further information is needed to build a shared understanding related to the above topics, the Advisory Panel has identified the critical role that local, resident tugs can play in assisting a distressed vessel. Due to the number of tugs and the fact that many are believed to have sufficient power to be able to assist ships of the size typically traveling through Cook Inlet, while the estimated response times vary among different parts of the Inlet, a tug of opportunity (TOO) is likely to be available to assist in some way. To maximize the effectiveness of these potential tugs of opportunity, which include docking and assist tugs, tugs transporting barges, and oil spill response vessels, a program should be created that:

- (1) Identifies and works with the owners and operators of likely TOO to address procedures, potential obstacles, and legal arrangements associated with that vessel engaging on short notice in a rescue effort.

- (2) Monitors the availability and location of TOO and contacts them quickly when a rescue is needed. (This could be conducted in coordination with the monitoring of some deep draft, non-tank vessels already in place.)
- (3) Conducts training exercises or otherwise coordinates with potential TOO operators to ensure that tug/towing vessel crews are prepared to implement a vessel arrest mission if called upon to do so. This may include practicing the deployment of an Emergency Towing System as described below, and should include training specific to the tow packages likely to be on vessels transiting the Inlet.

Finally, large, deep-draft vessels operating in Lower Cook Inlet outside the pilotage area require special attention as these vessels will not have the same level of local mariner experience on board and are operating in the most exposed waters and likely those with the longest response time before a TOO or other support can arrive. The Harbor Safety Committee should document best practices and standards of care that should be implemented in this area in particular, and this should be communicated to vessel captains. In addition, an Emergency Towing System should be located in Homer to further facilitate rescue in this area, especially as the initial deployment of the ETS by aircraft could start the process and save time until a TOO arrives on scene.

### **Updating the Cook Inlet Subarea Contingency Plan**

The Advisory Panel recommends that the Cook Inlet Subarea Contingency Plan be reviewed and updated as needed. This will enhance response preparedness for the region, and is on track to begin in 2015. An update to the Subarea Contingency Plan provides the opportunity to ensure that the information in it regarding sensitive resources is widely shared and accessed by those operating port, docking, and other facilities whose localized planning could incorporate information about spill potential impacts and targeted mitigation measures.

### **Continuous Improvement of Oil Spill Response Resources**

The Advisory Panel recommends that response resources in Cook Inlet be continually tested and assessed to validate and improve on its effectiveness and to ensure that the best available, proven technology is being utilized in the Cook Inlet operating environment.