

COOK INLET RISK ASSESSMENT PROJECT

Monthly Progress Report for Contract #HSCG84-12-C-B17024

**Submitted by Nuka Research and Planning Group, LLC (Nuka Research)
July 9, 2014**

This is a Monthly Progress Report submitted to the U.S. Coast Guard for the Cook Inlet Risk Assessment Project (#HSCG84-12-C-B17024). This report includes an account of the work completed from September 15, 2012 – Jun 30, 2014, as well as identification of any problems encountered or anticipated. Wherever necessary, we also discuss any budget or scheduling impacts and proposed remedies.

Overview

The U.S. Coast Guard contracted Nuka Research to provide procedural expertise and project management during the preparation of the Cook Inlet Risk Assessment. This project began on September 15, 2012. The final project deliverable will be a report presenting recommended risk reduction options for vessel traffic in Cook Inlet.

On September 5, 2013, the U.S. Coast Guard approved Nuka Research's request for a no-cost extension of the contract until September 30, 2014.

Task Details

This section provides an update on the status of the eight project tasks identified in the contract. The tasks are sequential and build directly on each other.

Task 1: Plan and Conduct Consequence Analysis Workshop

This task is now 100% complete.

Task 2: Develop Consequence Analysis Report

This task is now 100% complete.

Task 3: Solicit and Describe Risk Reduction Options

This task is now 100% complete.

Task 4: Estimate the Benefits of Risk Reduction Options

The Management Team met on August 13, 2013 and approved the proposed steps to evaluate the risk reduction options that were slated for additional analysis or consideration. The next steps essentially incorporate estimating the benefits of the proposed options (Task 4), costs (Task 5), and ease of implementation (Task 6) as appropriate for each proposed risk reduction option.

The risk reduction options are summarized below.

Towing Analysis

The Glosten Associates completed their analysis of the availability of tugs of opportunity and an assessment of the potential for a drifting vessel to self-arrest. At the direction of the Management Team, Nuka Research shared the extensive comments received on the studies from the Advisory Panel and a former Alaska Marine Pilot with The Glosten Associates. They have indicated that they will not revise the studies, but provided additional clarification by way of response to the comments. Nuka Research will contact The Glosten Associates to discuss the Management Team's concerns with the results to date.

Nuka Research has completed an analysis of the areas of Cook Inlet and how long it would take for a large vessel to drift into shoreline or another hazard based on winds and currents. This will be included in the final report.

Construct Cross-Inlet Pipeline from Drift River to Nikiski

The Glosten Associates estimated the reduced probability of an oil spill based on reducing the number of tanker transits across the Inlet based on input Nuka Research received from Capt. Jack Jensen of Tesoro (an Advisory Panel member).

Nuka Research has identified a method for developing a spill rate estimate from the proposed pipeline, but this requires additional information being sought from Cook Inlet Energy and relevant federal agencies. Pending receipt of this information, Northern Economics is on track to be complete their analysis by mid-August.

Enhance Situational Awareness by Transmitting Weather Information via AIS

Nuka Research prepared a preliminary list of interview/survey questions and summary materials for this task. However, the Marine Exchange of Alaska indicates that most vessels' AIS software does not support receipt of the broadcasts. The Management Team directed that this task should be concluded with a summary of the issue and potential opportunity, but no evaluation is possible at this time. This will be included in the final project report.

Improve Ice Monitoring Capability

Pearson Consulting met with representatives of the Canadian and U.S. Coast Guard at the Arctic Marine Oil Technical Seminar in June to discuss ice radar programs and systems currently being utilized and/or tested. The U.S. Coast Guard recently published a report on ice navigation with radar for vessels in the Great Lake region. The Canadian Coast Guard continues to test ice navigation radar technology for vessels. Neither organization has focused efforts on shore-based ice radar stations, as done in the University of Alaska-Fairbanks' Barrow Sea Ice Observing station. A literature review and draft scope of work will be provided to the Management Team in early August.

Encourage Third Party Inspections or Audits of Workboats

Nuka Research developed a summary of the responses received from five of seven companies queried about their use of voluntary safety management systems for workboats. This will be included in the final report.

In addition, the following tasks were identified from the risk reduction options slated for sustained or immediate implementation.

Launch Harbor Safety Committee for Cook Inlet

Pearson Consulting and Nuka Research developed a preliminary process for the establishing a Harbor Safety Committee, in coordination with Cook Inlet RCAC. A draft scoping document, including key questions related to the Committee's composition and relationship to other committees, was send to the Management Team for their review and input. The Management Team will convene to discuss the relationship of this potential Harbor Safety Committee to the Subarea Committee and next steps for the Committee. A meeting is planned for July 22 in Anchorage.

Convene Webinars to Update AWIOS and Coast Pilot

These items will be incorporated into a work plan for the planned Harbor Safety Committee, per the Management Team on July 9, 2014. Due to staff turnover at NOAA, they could not be organized in the spring before the busy summer season, and they represent tasks of an on-going nature that fit well with a sustained Harbor Safety Committee.

Task 5: Estimate the Costs of Risk Reduction Options and Develop Cost-Benefit Ratios

This task relates directly to the work described in Task 4, as noted above. Northern Economics, Inc. will conduct a cost-benefit analysis for the proposed cross-Inlet subsea pipeline by the middle of August. One additional piece of information needs to be found or calculated (an estimated spill rate for a subsea pipeline).

Task 6: Assess the Ease of Implementation of Risk Reduction Options

This task relates directly to the work described in Task 4, as noted above.

Task 7: Assess Unintended Consequences of Risk Reduction Options

This task relates directly to the work described in Task 4, as noted above. The Advisory Panel will also be asked to consider potential unintended consequences of the proposed risk reduction options.

Task 8: Prioritize Risk Reduction Options, Develop Recommendations, and Prepare Final Report

The risk reduction options have been organized into those slated for immediate or ongoing implementation and those that require further consideration (based on the research and analysis described above). The Advisory Panel and Management Team will further refine this prioritization at a meeting now scheduled for

September 4 in Kenai, Alaska. The final recommendations and report will be based on the outcome of Tasks 4-7. An outline of the final report has been developed.