



Arctic Incidents of National Significance (IONS) Workshops

Summary

The Department of Homeland Security (DHS) is interested in pursuing research that will enable the United States Coast Guard (USCG) to achieve greater situational awareness and be prepared to respond with ready R&D solutions to incidents of national significance in the Arctic maritime domain.¹

The Arctic Domain Awareness Center (ADAC), a DHS Center of Excellence, at UAA, proposes a series of workshops, over its period of performance. Each workshop, approximately 2 per year, will address a specific Arctic incident of national significance (IONS) scenario formulated by the USCG. Our plan is to develop and execute the first workshop during yr2.

The objectives of each workshop are to identify research and technology gaps and define research questions for merit competitions conducted by issuing requests for proposals (RFPs). These competitions will be conducted by ADAC.

The output of each workshop will be workshop proceedings, relevant research questions, and request for proposals (RFPs) solicitation addressing specific research relevant to USCG mission needs leading to solutions related to identified gaps.

Baseline

During IONS an Incident Command System (ICS)---based response organization (similar to that set up during the Deepwater Horizon Response) will be activated. For example, the USCG anticipates again being called upon to initiate an Inter---Agency Technology Assessment Program (IATAP)---type effort, in order to assist the Federal On--- Scene Coordinator (FOSC) with the systematic assessment of technology---based support solutions proposed by/offered from the general public (including academia).

¹The Arctic Region is all United States and foreign territory north of the Arctic Circle and all United States territory north and west of the boundary formed by the Porcupine, Yukon and Kuskokwim Rivers; all contiguous seas and straits north of and adjacent to the Arctic Circle, including the Arctic Ocean; the Bering, Chukchi, Beaufort, Greenland, Norwegian, Barents, Karak, Laptev, Lincoln, Wandel and East Siberian seas; the Bering, Davis, Fram and Denmark straits; the Canadian archipelago and Baffin Bay; and the Aleutian Islands chain. (USCG Arctic Strategy, p. 5)

During a national incident, often technology solutions are offered by the general public (including academia) to the incident commanders to assist in the response. There are various tools and mechanisms to vet these requests.

The proposed workshops will identify R&D gaps and research questions aimed at closing the gaps with relevant research to support the USCG mission well before an IONS has occurred.

Methodology

ADAC will work closely with USCG, who will formulate an Arctic IONS scenario. ADAC will

1. Research and identify leading experts (i.e., university academics, government officials, domestic/international, researchers) engaged in activities related to the scenario
2. After carefully researching the landscape of activities and expertise, ADCA will invite experts to identify the challenges for USCG posed by the scenario and invite subject matter experts to speak to activities (i.e., research) underway that are addressing the challenges.
3. Invited guests will assess and document the state of the art in research and technologies related to the scenario and identify research and technology gaps.
4. As key themes emerge from the discussion, break out groups will be formed to develop research questions that may address the knowledge gaps. Those questions will be provided to DHS for consideration and determination for the ADAC managed RFPs competition(s) to follow.

The output of each workshop will be the research questions that will lead to a request for proposals (RFPs) addressing specific USCG operational challenges and leading to solutions of the identified gaps. A collateral outcome is to provide USCG with the range of SMEs likely to understand the scope of challenges posed by IONS and range of current ongoing research and expertise so they can develop support plans in the future to draw upon state-of-the-art technology and knowledge, if needed.

Workshop format:

Day 1:

Meeting Product / Agenda / Logistics / Introductions

Presentation and discussion of the IONS scenario by USCG

Presentations by SMEs on current research underway related to the challenges posed by the scenario including description and analysis of the state-of-the-art.

Based on the above presentations, the workshop participants will identify and discuss research gaps related to the scenario

The day will conclude with the formation of break out groups of experts for each research theme gap related to the scenario and discussions.

Day 2:

1. During the morning period, break out groups will discuss the gaps and formulate research questions to close those gaps

2. During the afternoon, breakout groups will convene as a general plenary session to discuss each group's findings. Research questions will be formalized and provided to OHS for final review.
3. Upon review by OHS, research questions will form the basis for an RFP issued by ADAC.

Milestones and Outcomes:

1. Working closely with USCG on the IONS scenario.
2. Conducting research to identify the universe of SMEs (international, domestic, in/out government, etc.); conduct research to determine what research is underway to address the likely challenges posed by the scenario and those challenges most relevant to USCG.
3. Organize workshop (securing facility, inviting participants, developing agenda etc.)
 - a. Completed workshop participants' selection.
 - b. Completed workshop participants' invitations.
 - c. Completed logistics arrangements.
 - d. Completed workshop announcement.
 - e. Completed workshop program.
4. Making a determination to identify appropriate SME speakers to discuss relevant research activities across disciplines that likely address USCG challenges relevant to the scenario.
5. Completed panel selection and invitations.
6. Completed workshop -Research Questions developed and provided to OHS
7. Completed report/proceedings and slides deck representing the workshop discussions and submitted to DHS for review
8. Published rapporteurs report/proceedings, including list of participants, and slides deck will be publically posted (website) with the ADAC RFP
9. Prepare RFP ²

² ADAC will manage a request for proposal and establish a scientific merit review committee to review proposals. Evaluation criteria will be noted, including the weighting of each criterion on the final score, on the RFP and clearly inform how each proposal will be judged.