Dear Colleagues,

This past quarter has been a remarkable period of activity and accomplishment for the Arctic Domain Awareness Center (ADAC). Research efforts in projects for modeling, sensors, community based observers, underwater platform, and fusion have been proceeding at a surge rate as we prepare to close ADAC Program Year 2. For the work accomplished by our project research leads and their teams, please accept my and the center leadership’s most profound and sincere thanks and deep appreciation. We are thankful and appreciative as well for the forward advancement of efforts in student professional development.

Over the course of this past quarter, we have worked our “Year 3” plan (that runs from 1 July 2016 to 30 June 2017) that has just been approved by U.S. Department of Homeland Security Office of University Programs and Headquarters U.S. Coast Guard. The “Year 3” plan is a comprehensive program of research activities, guided by a substantially revised management approach, along with a revitalized effort in education outreach and workforce development oriented to the DHS enterprise. In sum, the Year 3 plan is poised to substantially advance ADAC’s efforts in Arctic domain research and development in support of U.S. Coast Guard and other Arctic operators…and also to support the Public Good.

Our ADAC Fellows student researcher program has continued to gain energy, as we have two Fellows attending the Maritime Security Summer Seminar at Stevens Institute and we have been very appreciative of the work provided by ADAC Fellows in their comprehensive support of the Arctic-related Incidents of National Significance (Arctic IoNS) workshop. In fact, this workshop literally “hinged” on the research provided by the ADAC Fellows as they brought to bear relevant research and queued the center to the right researchers that we were able to bring to Anchorage for the recent (21-22 June) workshop that resulted in 67 in person and another 12 remote participating researchers and operators from across Canada and the U.S.

A few other highlights of this past quarter has been the opportunity to participate in the annual DHS Center of Excellence Director’s meeting in April and the DHS Science and Technology Showcase in May. These events in Washington DC allowed the Center to inform DHS program leadership better as well as connect ADAC efforts with the greater DHS enterprise.

Over the past several months, ADAC has been fortunate as well in hosting visits from the Interagency Arctic Research Policy Committee, US Coast Guard District 17 (including the new D-17 commander), along with several other research enterprises based in Anchorage and Washington DC.

As ADAC looks to this new quarter and this new academic year, we are fortunate to have a very promising plan of research. We have assembled a comprehensive team now coined as the “ADAC Research Network” and are advancing in forming enduring partnerships with U.S. Federal departments, with Canada Research organizations, and seeking yet more opportunities within the U.S. Department of Defense.

We have formed a new long-range calendar that will help inform our team, partners, and collaborators, and have outlined our approach to be ready to support DHS evaluation of our programs and research projects at the coming Biennial Review, slated for this coming winter. Particular highlights over the coming months will be the establishment of bi-monthly “Customs and Partners” Roundtables, Student presentations, and Quarterly ADAC Review Groups.

In closing, please know how much we in the ADAC leadership team, prize the hard work by our researchers, and seek to gain as much synergy as possible as we look to advance capabilities in support of U.S. Coast Guard and other Arctic-oriented operators.

Warmest wishes and v/r Church
Randy “Church” Kee, Maj Gen, USAF (Ret)
ADAC Executive Director
James Matthews and Kyle Alvarado are ADAC Fellows with glowing enthusiasm for Arctic domain awareness. Their contributions to ADAC include collecting Arctic maritime research and providing its information for practical use in operator-driven workshops lead by ADAC. They received an exclusive experience joining Executive Director Kee in the NORTHWEST PASSAGE Tabletop Exercise, concerning search and rescue operations, in April 2016.

James Matthews has completed three years of his Civil Engineering degree at UAA and is looking to specialize in Water Resources Engineering. He is working for ARCTEC and the Alaska Radar System over the summer. During the school year, James is a Resident Advisor for On-Campus living and the President of the Orthodox Christian Fellowship. In his free time, he likes to hike, play sports, explore, go on adventures, and attend church.

Kyle Alvarado spends his time studying Mechanical Engineering, aspiring to find a career in research & development as an Aerospace Engineer. Kyle enjoys Alaska’s many outdoor activities, including fishing out of a canoe with friends. An Arctic Engineering course has given him a unique insight into the challenges and solutions of cold regions’ engineering. Kyle is eager to gain experience looking at the international cooperation of Arctic domain awareness.

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The new Polar Code includes requirements for mariners to obtain training in basic and advanced ice navigation and ship operations in polar waters. Maine Maritime Academy, with the guidance of the US Coast Guard, has completed a course that meets the requirements for a Basic Polar Waters Certificate of Proficiency and has provided that course in a classroom setting to over 20 students. Blended and online versions of the class have also been developed. These classes are projected to be available to mariners needing this certificate by the time the new Polar Code becomes effective in 2017. A course is also in development for mariners needing the Advanced Polar Waters Certificate of Proficiency that will include more in-depth information aimed at the Master and First Mate of vessels operating in polar waters. This class will also be offered in two versions and will include bridge simulations for navigating ice-covered waters. Once the classes have been completed, the Academy will offer an ice navigation symposium in May 2017, to inform stakeholders and interested parties about the new courses as well as advances in ice navigation and changes under the new Polar Code.

ADAC’s first Arctic-related Incidents of National Significance (IoNS) workshop gathered select Arctic skilled experts from U.S. and Canada as operators and researchers to address the operational challenges faced in conducting an Arctic region major rescue operation (MRO). The two-day workshop was held at UAA in late June and is intended to be the first of many accomplished on an approximate annual event cycle. The focus of this workshop was confronting the potential rescue and recovery of an adventure class cruise ship experiencing an emergency in Arctic waters while in remote and austere conditions.

Day one of the workshop was comprised of five panel presentations on the current body of research aligned to areas identified by the Arctic IoNS operator workgroup. On day two, the team was divided into four work groups, varying in MRO themes, to advocate appropriate research questions. The IoNS workshop enabled groups to reinforce collaboration between the U.S. and Canada and determine gaps in research and technology concerning a major response event. It was brought up in discussion that the success of an MRO is founded on the partnership of nations and organizations. The workshops offer a chance to build relationships and, in the process, develop potential research opportunities to help first responders save lives.