

**Sandia National Labs October 2020 update:  
Projects for Arctic Security and Infrastructure Resilience**

- **Alaska and Arctic Maritime Communications and Connectivity Analysis (AAMC&CA)**
  - o Sandia will be contributing to a gap analysis and round table discussions on terrestrial and maritime communications systems in the Arctic.
  - o This is an imminent project slated for FY21.
  - o Collaborative effort with the Arctic Domain Awareness Center (ADAC) and other public and private sector partners.
  
- **International Cooperative Exchange - Program for Polar Research (ICE-PPR)**
  - o Sandia is the only national lab on ICE-PPR team, joining with ADAC on the Situational Awareness Working Group (SAWG) which focuses on data Fusion, sensors, decision aids, remote sensing, surveillance and reconnaissance, etc.
  - o *Currently exploring*: opportunities for experimentation, demonstrations, exercises, and operations.
  
- **Energy resilience under dynamic infrastructure threats in Alaska Communities (white paper)**
  - o This white paper summarizes literature pertaining to existing power sources in Alaska and the dynamic drivers that threaten these systems and their communities
  - o Multiple opportunities to partner on new projects in this area were identified and discussed in this paper.
  - o Internally funded by the Sandia Resilient Energy Systems Strategic Initiative.
  
- **Combined Air and Space Tactical Layer (CASTL)**
  - o An airborne/space borne approach to resolving tactical mission Intelligence, surveillance, and reconnaissance (ISR) timelines in highly contested near-peer environments.
  - o Sandia recently completed analysis and simulation of CASTL enhancements to extend arctic capabilities.
  
- **Sandia cooperative R&D agreements with University of Alaska (UAF & UAA)**
  - o Research partnerships and collaboration between Sandia and the University of Alaska including the Arctic Domain Awareness Center (ADAC)

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