

Inventory of Federal Communications Capabilities in the U.S. Arctic (by Federal Agency)

United States Coast Guard

- The USCG Joint Rescue Coordination Center (RCC) in Juneau receives and responds to maritime distress messages from the Cospas-Sarsat satellite system and the various components of the Global Marine Distress and Safety System (GMDSS) such as the MF/HF voice radio and INMARSAT C Digital Selective Calling (DCS) systems. The USCG RCC can also receive distress messages by other means such as cellular telephones and Iridium satellite messages. Iridium also became the second satellite provider for GMDSS services in 2020.
- Within the U.S., the GMDSS Sea Areas claimed by the U.S. are Sea Area 1 (VHF-FM), Sea Area 3 (INMARSAT and HF DSC) and Sea Area 4 Polar Region (HF-DSC). Sea Area 2 (MF) is not claimed within the U.S. Please see the U.S. Coast Guard NAVCEN website for further information: <https://www.navcen.uscg.gov/?pageName=gmdssArea>.
- The Marine Exchange of Alaska (MXAK) builds and operates the only terrestrial AIS network in Alaska that is serving as the primary component of the U.S. Coast Guard and State of Alaska maritime domain awareness network. The MXAK worked with the U.S. Coast Guard in a Cooperative Research and Development Agreement (CRADA) to develop the Arctic next generation navigational safety information system that utilizes AIS transmitters to send environmental and safety information to mariners to aid safe and environmentally sound maritime operations. This CRADA is now complete, and the USCG continues to investigate and pursue options based on the results of that work.

National Oceanic and Atmospheric Administration

- NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. There are several NWR stations throughout Alaska, including Arctic Alaska.
- The Alaskan Ocean Observing System (AOOS) has an ongoing project to transmit environmental information, such as real-time weather information, over AIS stations. Weather and environmental sensors are tied into the AIS network in five locations, with the northernmost one in Nome.
- For weather and environmental monitoring, NOAA has polar operational environmental satellites (POES) and geostationary operational environmental satellites (GOES), and they utilize Iridium's satellites to collect sea-ice and oceanographic data from buoys in the Arctic Ocean. A satellite earth station in Utqiagvik sends command signals to the POES satellites and collects data from the satellites, sensors, and monitoring devices in Alaska that communicate with the satellites.

Federal Aviation Administration

- FAA operates Flight Service Stations (FSS) at Utqiagvik, Deadhorse, and Kotzebue in the Arctic Region of Alaska. Aircraft in flight and planes at the smaller airfields in the Arctic Region can communicate with the FAA's Anchorage Air Route Traffic Control Center (ARTCC) and FSS through a system of unmanned transmitters/receivers operating in the VHF and UHF radio bands. The FAA FSS uses interconnected Remote Communication Outlets (RCOs), and the ARTCC uses Remote Communications Air/Ground (RCAGs) facilities for primary communications with aircraft. The ARTCC and FSS also communicate with each other using direct access lines via FAA and commercial C-band satellite links. About half of the airfields in the Arctic Region have an RCO, an RCAG, or both.

United States Army Corps of Engineers

- The U.S. Army Corps of Engineers – Alaska District has a radio tower on Joint Base Elmendorf- Richardson to enhance the high-frequency radio capabilities of the district's Emergency Management Office during a disaster.