ANICS uses satellite earth stations to provide a backbone interfacility communications system within the Alaskan region. The network consists of hub earth stations located at the Anchorage ARTCC and three Airways Facilities Service Sites (AFSS) in Juneau, Kenai, and Fairbanks, Alaska. Remote sites will communicate with the ARTCC hub and one of three AFSS hubs. Air-to-ground voice and radar data are examples of the operational traffic to be routed by the ANICS network. Because of the critical nature of these traffic communications, information will be routed over two satellites, providing path diversity and guaranteeing high circuit availability. Two antennas and separate electronics installed at each site will ensure full diversity for each path.

Connectivity from the ANICS earth station demark point to FAA facilities will be provided by microwave links, fiber-optic links, or copper cabling, depending on the distance between the two locations.

Overview
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ANICS is a satellite communications network designed specifically for high-reliability ATC applications. This system links the Alaskan Air Route Traffic Control Center (ARTCC) with remote Federal Aviation Administration (FAA) facilities throughout the region. The first major U.S. satellite communications-based air traffic control program, ANICS provides voice and data communications to 53 initial sites, and may eventually connect more than 160 sites. Harris is leading a team to engineer, install, test, operate, and maintain the satellite communications network. Team members are Alascom, Inc., and Linder Construction, Inc., both headquartered in Alaska.
Due to the harsh and rugged Alaskan terrain, network installation offers a logistics challenge. Transporting materials, equipment, and personnel across remote territory frequently requires aircraft, helicopters, and barges. Specially-designed buildings or radomes, to protect equipment from the harsh arctic environment, are transported to sites and are easily assembled. Foundations developed to accommodate antennas and buildings can withstand winds of 125 miles per hour, and were designed to protect Alaska’s environment.

The ANICS network is managed from a Network Control Center (NCC) located in Anchorage, using Harris’ Air Traffic Network Manager (ATNM). ATNM provides remote maintenance monitoring of the ANICS system and allows the entire network configuration and current status to be examined from a single NCC workstation. Displays provide full graphical presentation of the network status beginning with a top-level network map superimposed onto a map of Alaska.

Harris manages the ANICS program from its field office in Eagle River, Alaska.

Features
- Satellite communications system using two C-band satellites
- Path diversity and alternate routing within thirty seconds
- High-quality digital data and voice
- Commercial Off-the-Shelf (COTS) equipment
- High availability 0.9999 Phase I and 0.999 Phase II
- Remote monitoring of unmanned sites from a Network Control Center in Anchorage
- Network reconfiguration via satellite links
- Site preparation, arctic and subarctic installations
- Network cutover and transition
- Turnkey operations and maintenance
- Site installation and cutover