

NOAA SHIP OSCAR DYSON

A TUNNEL RADIO CASE STUDY



The National Oceanic and Atmospheric Administration's (NOAA) Office of Marine and Aviation Operations (OMAO) manages and operates a fleet of 15 research and survey ships, along with ten specialized environmental data-collecting aircraft.

Currently homeported in Kodiak, Alaska, NOAA Ship Oscar Dyson was commissioned on May 28, 2005, and operates primarily in the Bering Sea and Gulf of Alaska, in perilously cold and hazardous weather endemic to the frozen landscape and turbulent waters of the frigid northwest.



Constructed to meet the National Marine Fisheries Service's specific data collection requirements, this 208-ft. stern trawler is equipped with six onboard laboratories: a wet lab, dry lab, electronics/computer lab, bio lab, acoustics lab and hydrographics lab.

Beyond their specific mission requirements, Oscar Dyson, is also designed to respond to unpredictable events and perform a variety of emergency operations in harsh and threatening environments.

"Reliable communications are essential for work we undertake and the dangerous situations we sometimes encounter," says Dan Race, Oscar Dyson Chief Engineer. "When there's an issue with reception, even a routine mission can become a life and death situation."

MEETING THE HISTORIC COMMUNICATIONS CHALLENGE

From its initial launch, Oscar Dyson was equipped with two-way radios for her crew—but as with most ships her size, RF coverage in key areas near the engine room and the surrounding lower decks was poor to non-existent, presenting a critical communications gap—one that could prove disastrous in the event of a crisis situation, such as a fire or natural disaster.



According to Nathan S. Jones, NOAA FSV Product Line Manager, "We couldn't be happier. Tunnel Radio has made the Oscar Dyson a much safer place to work with a dramatically improved communication solution."

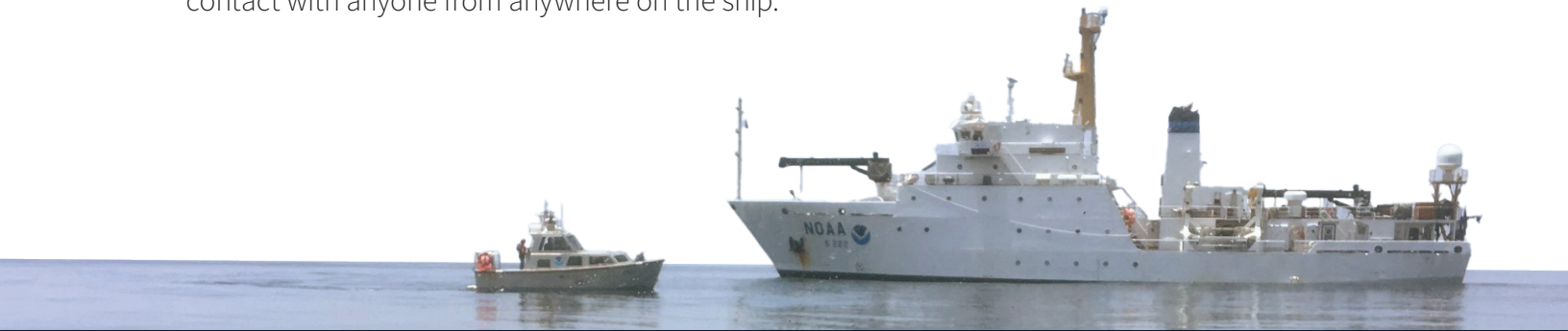
To solve this problem, they needed a trusted communications partner—a partner like Tunnel Radio of America. With nearly 40 years of leadership in the specialized field of confined space communications, Tunnel Radio serves an extensive list of customers in shipping, freight rail, mining and government infrastructure, including our nation's dams, water purification, and national defense sites—making them the right choice to address the communication system for NOAA's Oscar Dyson.

BRINGING DISTRIBUTED ANTENNA TECHNOLOGY ON BOARD

Tunnel Radio was called in to engineer a custom implementation of their Ultracomm® Leaky Feeder System. Accurately described as radiating cable, "leaky feeder" is so-called because it contains openings in its outer shielding that allow signals to leak in and out of the cable for the entire length of its application.

When coupled with additional specialized equipment, such as amplifiers, repeaters, and advanced noise-cancelling headsets to overcome ambient noise levels, the radiating cable solution was able to fully address the communication gaps throughout the lower deck areas of the Oscar Dyson, while also improving critical wireless communication across the board and enabling constant RF coverage to permeate throughout every corner of the vessel.

The Oscar Dyson crew finally had a reliable way to stay in contact with anyone from anywhere on the ship.



ABOUT TUNNEL RADIO

With nearly 40 years of expertise in confined space communications, Tunnel Radio of America knows firsthand that reliable connectivity and communication isn't just a matter of convenience—it's a critical component of worker safety. **Contact Tunnel Radio** today to learn more and get in touch with our team of communication experts.