

Case Study



Extending Radio Communications for Shipboard Communications Using Transportable DVRS



Customer Profile

Users

Naval Ship board Operations including security and maintenance.

Customs and Border Protection

Coast Guard

Applications

Public safety radio coverage throughout naval ships, submarines and cargo ships.

A common issue that shipboard teams face is the ability to communicate from inside the vessel to their land mobile radio system. Portable radios attempting to communicate are challenged by an environment including heavy steel and high noise. Whether it's a security detail, maintenance teams or a boarding party, radio communications are vital.

There have been two approaches used to extend portable radio coverage aboard these vessels.

The first is to simply use one antenna inside the ship, past the bulkhead(s) to communicate with portables and another antenna on the deck, to get back to the network. On many ships, this is sufficient. For larger ones, or those with an extensive interior structure, it may be necessary to extend the one antenna down below deck by means of a longer antenna cable.

The second approach, used most often when the ship is docked for an extended period such as a maintenance refitting, is the use of a leaky feeder or radiating cable installed through the center of the vessel. The Transportable DVRS is then connected to this cable and to another (network) antenna topside. The Transportable DVR repeats locally (extending coverage between users in the ship) and also relays the communications back to the land based network. With P25 networks most network features can also be extended including portable ID, emergency and private call.

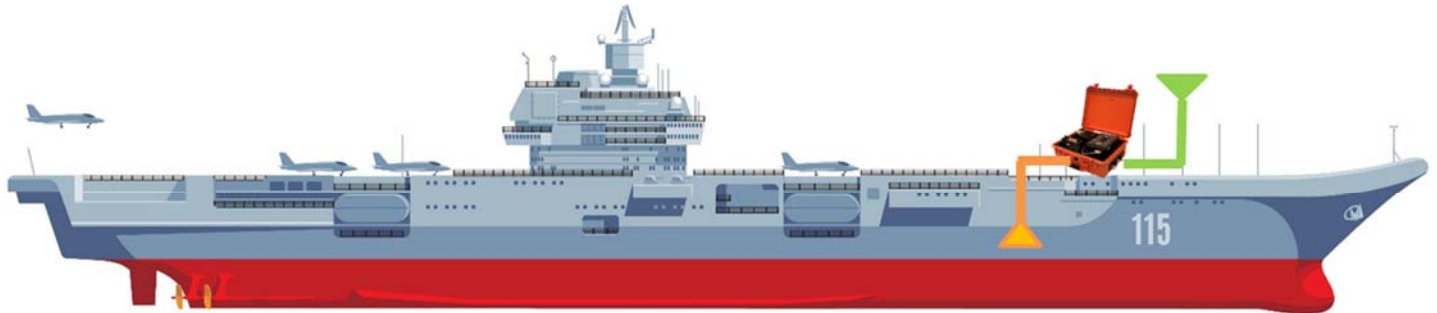


Diagram 1 – Antenna Installed below deck

Should the ship be outside of network communication, as a repeater, the DVRS can still be used to extend coverage between team members below deck, as well as linking to others on deck or on the bridge (by putting the DVRS attached mobile on a simplex channel)

To learn more about the Futurecom P25 DVRS product line please visit www.futurecom.com

