

Long Term Disposition of Seafloor Cables

Technology Description

The Navy has a vast number of seafloor cables (estimates of installed cables exceed 40,000 nautical miles) providing numerous functions such as communications, at-sea training, and surveillance. These seafloor cables sometimes need to be repaired, replaced, upgraded and new cables need to be installed to meet the changing requirements of the Navy.



Current Navy practice is to leave out-of-service cables in place. The potential environmental, financial and operational impact of removing these seafloor cables can be significant. It is vital that decisions to remove cables are based on substantial scientific evidence.

This project is focused on providing the Navy and regulatory community with pertinent information to make scientifically-based decisions on the disposition of out-of-service seafloor cables, as well as the siting and installation of new seafloor project cables.

Value to the Warfighter

Having validated ecologic data during consultation with regulatory agencies aids the Navy Seafloor Cable Protection Office (NSCPO) in reducing permit requirements, which in turn reduces cable project costs.

Status of products:

- Interim Report Complete
- 1-Year Post Inspection Completed, September 2012
- 2-Year Post Inspection Completed, September 2013
- Final report Completed, December 2013

Economics of the Technology: ROI or Payback

Total RDT&E investment cost of \$260K to obtain scientifically valid data showing interrelationships between cable placement, sea floor ecological effects, and sea state conditions (e.g., wind, waves, current).

Savings: At a typical site, savings are potentially over \$1M for not having to remove a cable, but rather abandon it in place.

Technology Transition Documentation

This is a Technology Transition Category 4 by providing technology improvements for internal use by the Navy. The final product of this project is a report with hard scientific data to be used by stakeholders and end-users—such as the NSCPO assistant director and SPAWARSYSCEN PACIFIC—in negotiations with the various regulatory agencies involved in overseeing and permitting seafloor cable operations.

Site Implementation

Numerous regulations and regulatory organizations at the federal, state, and local level can potentially be involved in Navy seafloor cable installations, repairs, upgrades, and determination of final deposition. Depending upon the particular location of seafloor cable project, some of the pertinent regulations and associated regulatory bodies may include the National Environmental Policy Act, Marine Protection Research & Sanctuaries Act, Marine Mammal Protection Act, Endangered Species Act, coastal consistency determination, water quality certification dredge and fill projects, state lands department, tribes, local mariners, fishing groups, and environmental organizations.

Specific Applications

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