NSF Wire Pool

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UNOLS
UNIVERSITY-NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

WOODS HOLE OCEANOGRAPHIC INSTITUTION

Introduction

- Over the past year I have transitioned to the Manager of the Wire Pool.
- I have worked at WHOI (Mooring Lab, Physical Oceanography) since 2014.
- Rick Trask officially stepped down in January of 2025.

Maintain An Inventory of Wire Rope, Cable, and Synthetic

One Wire Pool, two storage facilities

- East Coast - Woods Hole Oceanographic Institution (WHOI)
- West Coast - Scripps Institution of Oceanography (SIO)

Inventory of Commonly Used tension members

- Wire Ropes: ¼”, ½”, 9/16”
- Cables: .322 EM, .680” Coax, .681” power optic

Other tension members

- Synthetics: 9/16” Plamsma HiCo

Requesting New Wire

- Wire Pool fields all requests for new and used tension members
- Determine availability of requested item (inventory)
- Wire Pool prepares package for NSF consideration
- If approved, arrange for shipping to nearest domestic port

Long Lead Times

.681: 8 Month lead time
3x19: 4 Month lead time

Database and Break Testing

- Wire Pool launched a new database January 2025
- Marine Superintendents have access to tension members assigned to vessel
  - Update wire status
  - Manage SWL information
  - Report Events
    - Lubrication, cutbacks, splits, document upload
  - Submit break test request
    - Testing mandated by Appendix A of RVSS and funded by NSF (no cost to vessel)

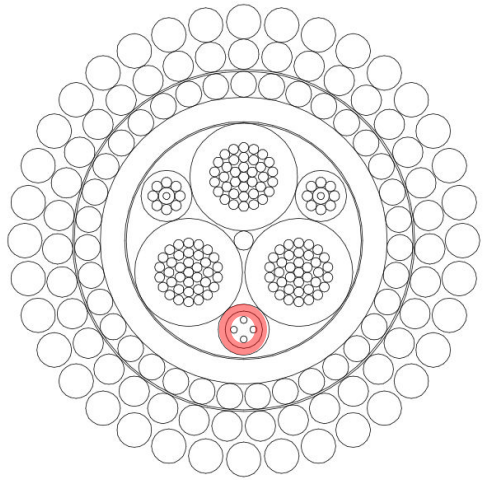
Fibron RM0049

First Time in field

- Behaved well electrically and optically
- Need to condition before use
  - This helps avoid twisting and damage to cable
- Added ship time to condition new cable

Problems

- .681
  - A309063: (2) cables in fleet both failed
    - K-tube causing fault with conductor
    - Rochester acknowledged problem and warrantied one cable
    - Replaced with A310114 good track record (no K-tube)
- ¼”3x19
  - Manufacturer metallic problem causing low breaks



Questions?