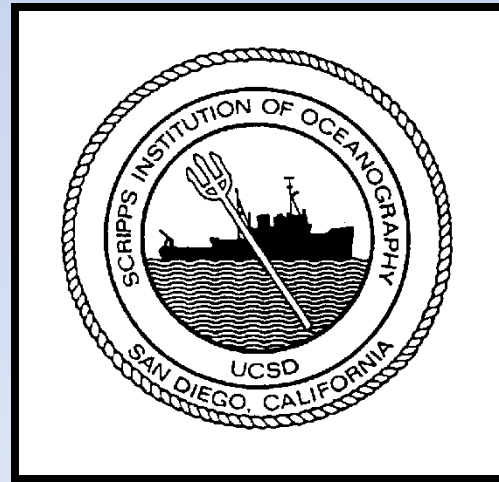


RVOC 2018

NSF West Coast Winch Pool
operated by
Scripps Institution of Oceanography



Winch Pool Mission

- To provide an inventory of oceanographic winches (etc.) for shared use.
- To keep the inventory in good repair, in compliance with applicable standards (CFR, RVSS).
- To modify the composition of the inventory to reflect the needs of end-users.
- To provide technical support: maintenance, repairs, design, engineering, fabrication, Q&A.

How the Winch Pool Works

- Science parties communicate their needs to us.
- We match their needs to available machinery.
- Those conducting NSF-funded research generally incur no costs (freight included) to use machinery.
- Others *generally* pay a “day rate” and the cost of freight.

Funding



- Routine Maintenance
 - Covered by the day rate for each winch
- Logistics—shipping, etc.
 - Estimated annually, included in our annual proposal
- Engineering Services—design, analysis, etc.
 - NSF-funded projects included in our annual proposal
 - Others pay an hourly rate
- Major Repairs, Capital Equipment Purchases –big ticket items
 - Requested in separate proposals

Funding



- Spooling Services



- Projects for NSF-funded vessels *can be* included in our annual proposal (i.e. operators can incur no charge for spooling if we're given sufficient advance notice).
- The Markey tensioning spooler has reduced the duration (cost) of spooling projects.
- Some projects remain time consuming, expensive. We can't generally absorb their cost.
 - Lubricate 4 cables → a five-day project (minimum)
 - Freight, equipment rental, transportation, labor, lodging, per diem...

Personnel

- Management and Quality Control
 - Pool Manager: Capt. Eric Buck (part time, 20 %)
 - Winch/Wire Engineer: A. Davis, PE (full time)
- Mechanical
 - WP Technician: Lorenzo McCoy (as required)
 - Attends vessels for mob/de-mob of Dynacon deep sea traction winch
 - Occasional travel supporting other winches
 - Spooling services

Inventory

- 3 light-duty winches (Hawboldt, Poseidon, SeaMac)
- 4 TSE mooring spoolers
- 1 Dynacon spooling winch (DSW)
- 1 Lebus mooring capstan
- 1 Dynacon traction winch (DTW)
- 1 Markey tensioning spooler
- 3 line tensioners
- 3 sets fiber optic slip rings

Light-Duty Winches



SeaMac, Poseidon

Up to 2,600 lbs pull.

Holds 3,000 m of .322" cable.

Light-Duty Winches



Hawboldt SPR-2036/S

Up to 3,500 lbs pull.
Holds 3,000 m of .322 cable.



Mooring Tools



TSE SD-70 / SDP-70 Mooring *Spoolers* (not winches)

Up to 7,500 lbs pull.
Holds 2,500 m of 1" cable.

Mooring Tools



Dynacon Mooring Spooler

Up to 7,500 lbs pull.
Holds 5,300 m of 1" cable.

(Remote operating station, HPU not shown)

Mooring Tools



Dynacon Mooring Spooler

Mooring Tools



Lebus Mooring Capstan

Also for spooling moorings.

Up to 7,000 lbs pull. Unlimited cable-holding capacity.
(Remote operating station, wireless remote not shown)

Heavy-Duty Winch



Dynacon Traction Winch

Up to 25,000 lbs pull.
Holds 10,000 m of .681 cable.

(Remote operating station not shown.)



Spooling Tools



Markey Tensioning Spooler

Ø.250 " to Ø.681"
cable /wire rope/line
Spools up to 66" wide,
Ø90", and 25,000 lb.

Spooling Tools

Line Tensioners



Blue

$\frac{1}{4}$ "
.322"



Pengo

$\frac{9}{16}$ "
.680"
.681"
.842"



Gearhart

$\frac{1}{4}$ "
.322"

Projects 2017-2018

- FAT, receipt, shakedown of new Hawboldt winch.
- Shakedown of Markey tensioning spooler.
- Training programs, maintenance records (NS5) for new equipment.
- Starboard net-towing attachment for R/V Sally Ride.
- Adopted ASME Y14.100 documentation and archival practices.
- WCWP 2018-2022 proposal.
- UNOLS RVSS Appendix B (review/feedback).

Projects 2017-2018

Spooling: USCGC Healy



Projects 2017-2018

Spooling: R/V Sikuliaq



Projects 2017-2018

Spooling: R/V Oceanus



Challenges 2017-2018

- Gaining community acceptance for newly acquired equipment.
- Providing critical on-the-job training remotely (email, satellite phone, VOIP) when equipment operators have at-sea equipment knowledge deficiencies.

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#NSF winch pool

