# RVTEC 2021

# NSF WEST COAST WINCH POOL OPERATED BY SCRIPPS INSTITUTION OF OCEANOGRAPHY





## **OUR MISSION**

 TO PROVIDE AN INVENTORY OF OCEANOGRAPHIC WINCHES (ETC.) FOR SHARED USE.

• TO KEEP OUR INVENTORY IN GOOD REPAIR AND IN COMPLIANCE WITH APPLICABLE STANDARDS (CFR, RVSS).

TO MODIFY OUR INVENTORY TO BETTER SERVE OUR COMMUNITY.

TO PROVIDE TECHNICAL SUPPORT: CABLE/WIRE ROPE SPOOLING, TRAINING,
 MAINTENANCE, REPAIRS, ENGINEERING, FABRICATION, ADVICE...

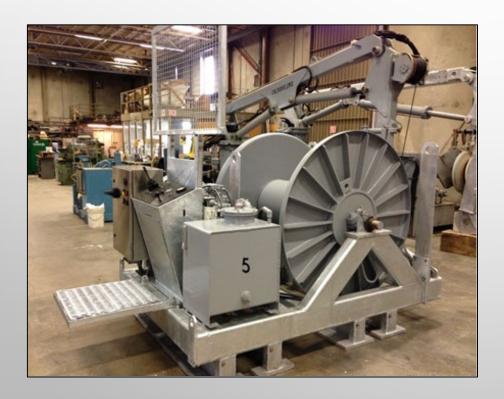
# HOW THE WINCH POOL WORKS

- FUNDED BY NSF
- CUSTOMERS (SCIENCE PARTIES AND OTHERS) COMMUNICATE THEIR NEEDS TO US.
- WE MATCH THEIR NEEDS TO AVAILABLE MACHINERY AND PERSONNEL.
- WE WORK WITH CUSTOMERS TO SEND MACHINERY AND PERSONNEL TO AND FROM THE VESSEL AND SCHEDULE WORK.
- THOSE CONDUCTING NSF-FUNDED RESEARCH GENERALLY INCUR NO COSTS TO USE MACHINERY.
- OTHERS GENERALLY PAY A "DAY RATE" AND THE COST OF FREIGHT.

# SPOOLERS → MOORING WINCHES

## **TSE Spooler**

- A hydraulic utility line spooler
- High maintenance & repair costs

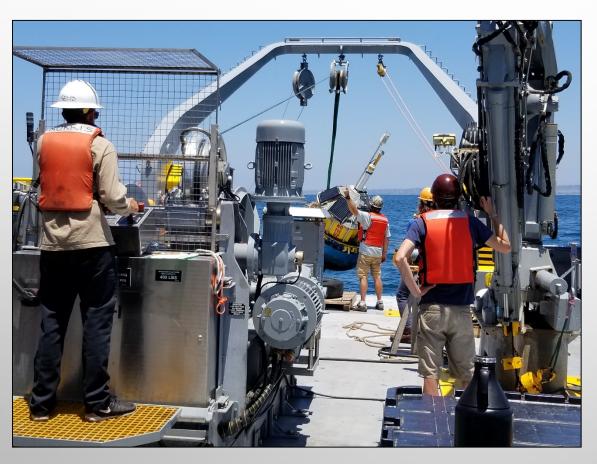


#### Hawboldt Mooring Winch

- An electric marine winch
- Easy to use
- Stronger, better pull



# HAWBOLDT MOORING WINCH



- In sea trials users found it rendered line when lifting suspended loads.
- Complaints that the control lever was broken.
- Complaints the winch wouldn't pay out/in on the first try.
- A fault in the main motor drive rendered the winch inoperable.
- The dynamic braking resistor isn't waterproof.

# DATED WINCHES -> MODERN WINCHES

#### SeaMac and Poseidon Winches

- Increasingly unreliable
- Not Appendix A/B compliant



## Hawboldt Light-Duty Winch

- Appendix A & B compliant
- Accommodates 1/4" 3/8" line
- Stronger, better pull



# HAWBOLDT LIGHT-DUTY WINCH



- Loud cooling fan.
- Fragile protruding things.
- Trace metals.

# 2020-2021

• 11 DIFFERENT ORGANIZATIONS: NSF, DARPA, NIWC, ONR, OOI, OSU, SAIC, SEA, UCSD, USGS, AND UW.

 DEPLOYED ABOARD 11 VESSELS: BOLD HORIZON, MARCUS G. LANGSETH, NEIL ARMSTRONG, OCEANUS, REUBEN LASKER, ROBERT GORDON SPROUL, ROGER REVELLE, SALLY RIDE, SIKULIAQ, THOMAS G. THOMPSON, TRESHNIKOV.

• SPOOLING SERVICES PROVIDED TO 7 VESSELS: OCEANUS, ROBERT C. SEAMANS, ROBERT GORDON SPROUL, ROGER REVELLE, SALLY RIDE, SIKULIAQ, THOMAS G. THOMPSON.

## **ENGINEERING PROJECTS 2020-2021**

- REPLACED THE MARKEY DEYSH-3 LEVELWIND ABOARD ROBERT GORDON SPROUL.
- CREATED HYDRAULIC DIAGRAMS FOR ROBERT GORDON SPROUL.
- CREATED A NEW FIRE PLAN FOR ROGER REVELLE.
- BEGAN DESIGNING A NEW TURNING SHEAVE FOR ROGER REVELLE'S STBD. CRANE (FOR CORING).
- HELPED THE SIO RESTECH GROUP DESIGN A NEW CTD CART.
- EVALUATED ROGER REVELLE'S DECK TO DETERMINE LIMITS FOR A PORTABLE CRANE.
- EVALUATED ROGER REVELLE'S DECK WITH THE GEOTRACES SYSTEM (PORT SIDE).
- MADE TEST PROCEDURES FOR HANDLING SYSTEMS ON R. REVELLE, R. G. SPROUL, AND S. RIDE.
- TESTED THE SIDE-HANDLING SYSTEMS ON ROGER REVELLE AND SALLY RIDE.
- DESIGNED A RADOME MOUNT FOR ROBERT GORDON SPROUL.

# **CONTACT US**

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**#NSF WINCH POOL** 

