# **RVOC 2022**

# 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

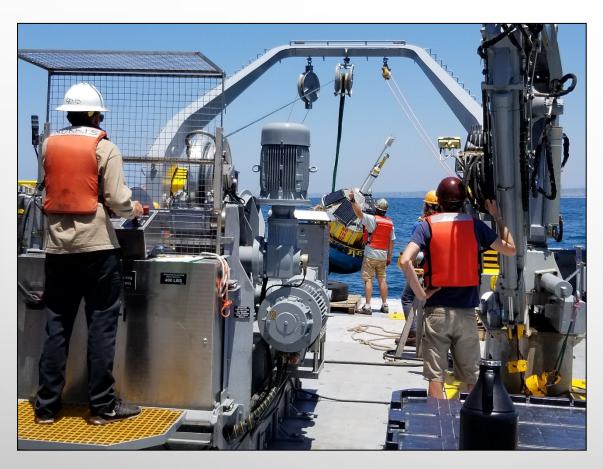


#### Hawboldt Mooring Winch

- An electric marine winch
- Easy to use
- Stronger, more pull
- Less maintenance



## HAWBOLDT MOORING WINCH



- In sea trials users found it rendered line when lifting suspended loads.
- Complaints that the control lever was malfunctioning.
- A fault with the main motor's power cable rendered the winch inoperable.
- The dynamic braking resistor wasn't waterproof.

## DATED WINCHES -> MODERN ONES

#### 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.



#### 2021-2022

SUPPORTED SCIENCE FUNDED BY 9 DIFFERENT INSTITUTIONS/AGENCIES:
 NSF, DARPA, NIWC, NOAA, ONR, OOI, UCSD, USGS, AND UW.

 DEPLOYED ABOARD 11 VESSELS: BOLD HORIZON, OCEANUS, ROBERT GORDON SPROUL, ROGER REVELLE, SALLY RIDE, SIKULIAQ, THOMAS G. THOMPSON, IB AK 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**

- CREATED A NEW FIRE PLAN FOR ROGER REVELLE.
- DESIGNED A NEW TURNING SHEAVE FOR ROGER REVELLE'S STBD.
   CRANE (FOR CORING).
- 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 THEM.
- DESIGNED A RADOME MOUNT FOR ROBERT GORDON SPROUL.
- DESIGNED A SILENCER FOR THE HAWBOLDT LIGHT-DUTY WINCH.
- HELPED FSU DESIGN A WATER-SAMPLING BOOM FOR USE ON REVELLE'S PORT SIDE.

## **CONTACT US**

CAPT. WES HILL, MANAGER \*\*NEW!\*\*

(858) 534-5568

WHILL@UCSD.EDU

AARON E. DAVIS, PE, ENGINEER

(619) 251-6368

AED001@UCSD.EDU

**#NSF WINCH POOL** 

