3 Vessel Build under NSF MREFC Funding

R/V Taani

R/V Narragansett Dawn

R/V Gilbert R Mason

Oregon State University

East Coast Oceanographic Consortium

Caribbean Oceanographic Consortium
Design – Glosten Associates and OSU team
**RCRV PARTICULARS**

- Length overall ...............199 ft
- Beam .......................... 41 ft
- Draft @ amidships ..........12.5 ft
- Regulatory Tonnage ...1549 GT
- Cruise speed .................11 kt
- Max speed .....................13 kt
- Range ..................5400 nm @ 12 kt
- Endurance ....................21 days min.
- Dynamic Positioning......ABS DP-1
- Science/Tech Berths ..........16
- Crew Berths .....................13
- Retractable Centerboard (drop keel)
- A-frame dimensions ....25’H x 20’W
- Multibeam SONAR....EM304, 2040
- Number winches ................3
- Ice Class ........................ABS C0

"Phenomenal cosmic powers ... Itty bitty living space."
Major Challenges since start of Construction

• **Engineering & Modeling**: Original engineering firm left early in project
• **Shipyard Capacity / Performance**: Original shipyard (Gulf Island) had little experience with gov’t contract requirements
• **7 Hurricanes in 2020**: multiple small force majeure events
• **COVID 19**: High absentee rates and engineering inefficiencies
• **SY Acquisition by Bollinger in early 2021**: progress delayed before during & after
• **Hurricane Ida in 2021**: led to 6 months with no progress on the critical path and latest change order for cost and schedule extension
3-Ship Schedule with Ida Delays

**Transition to Operations**
- 18 mo. plans tied to delivery dates
- Crew hiring, training and familiarization
- Builder’s trails (ship crewed by SY)
- Post delivery: full OI crew and technicians at SY for outfitting & start of science trials (40 days)
- Transit to home port for local outfitting, ceremonies, further science trials (86 at sea days)
- Warranty haul out at local SY
- NSF Inspection and Acceptance as UNOLS vessel
Bollinger Houma Shipyard – Post IDA

- Have improved storage, added painting facility, building crew office and shop
- Made upgrades to drainage and flood protection - more in progress
- Labor force has grown with BHS recruiting (with project pay incentives)
Shipyard Tour November 16, 2022

UNOLS and agency partners view progress
Aluminum superstructure erected onto hull Super Module 10/31/22.
**R/V Narragansett Dawn Progress**

**Steel and Piping Construction Status:**

- Super Module (Mods 21, 22, and 31): 84% Complete
- Module 32: 73% Complete
- Module 91: 50% Complete
- Module 111/112: 59% Complete
- Module 113: 60% Complete
- Module 114: 27% Complete
- Sonar Flat Boxes: Finishing Fabrication, then to machining
N. Dawn: Aluminum superstructure

Mod 121 Bow: Amelia Yard
R/V Gilbert R. Mason – first modules

Module 21 adding shell plate

Module 22 inner bottom
Other Phase III and IV Activities

- Science sensors and systems development (Datapresence)
- Testing programs and documentation-manuals etc
- Complete outfitting
- RFPs for special items
  - Custom CTD frames
  - Accommodation Vans
  - Piston Coring Deployment and Recovery System
  - Hazmat Locker
- populating a Computerized Maintenance Management System (CMMS) for the vessels
- Science trials planning
- Education and Outreach programs
For RCRV outreach videos visit: https://www.youtube.com/watch?v=bgiAU_b4RfY
Webcams: https://webcam.oregonstate.edu/rcrv7