The Regional Class Research Vessel (RCRV) Project:

Presented to the UNOLS RVOC
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Solomon’s Island, MD
Demian Bailey

4/23/2013
New Design Specifications

Length – 175’-180’
Beam- 40’- 42’
Draft- 12’-14’
Berths-16 Sci, 12 Crew

Proposal concept drawing: Glosten Associates
Project Team and Oversight

RCRV Project Organization OSU-LI

GEO/OCE Leadership

NSF Program Officer Matthew Hawkins

RCRV Scientific Oversight Committee

OSU Project Support Office

Project Support Office Scientist Clare Reimers/co-PI

Administrative Assistant

Scheduler Control Specialist

OSU Contracting Officer

EVM Specialist

Accounting Specialist

OSU Oversight

R. Spinrad VP Research

R. Holdren Director ORI

M. Abbott Dean CEOAS

K. Kozisek PaCS Manager

P. Hawk Res. Accounting

RCRV 1, 2, 3 Operators Committee

Systems Engineering SAIC

Naval Architecture and Engineering Glosten Associates

Marine Science Technical Advisor Fred Jones (Phase I) Marc Willis

Transition to Operations Coordinator Daryl Swensen

West East Gulf Superintendents

Ship Crews

West East Gulf Marine Technicians

OSU Shipyard Representative Fred Jones (Phase I) John Comar

OSU Shipyard Staff Contract Officer QA Inspectors

Deputy Shipyard Representative (RCRV 2 and 3)
Key Dates

- CDR: December '13
- PDR: July '14
- MREFC: March '15
- Shipyard: May '16
- FDR: Oct-Dec '16
- OI Selection: October '17
- Hull 1 Dlv’d: December '19
Program Schedule

RCRV Class Acquisition Timeline

- RCRV Class Acquisition
- RCRV Class Projected Operational Lifecycle

Phase I:
- Design Refresh
  - CDR
  - PDR
- IA
- IB
- Post-PDR
- Phase II Shipyard Selection
- Phase II A
- Post-FDR
- Phase III Construction
- RCRV Hull #1
- RCRV Hull #2
- RCRV Hull #3
- Phase IV Transition to Operations

NSF Off Ramps/Stage Gates:
- #1 Determination to Award Phase I (Dec 2012)
- #2A Approval of CDR (Dec 2013)
- #2B Approval of Post-CDR Funding (Dec 2013)
- #3 Funding for PDR Appropriated (Oct 2012 to Dec 2013)
- #4A Approval of PDR (July 2014)
- #4B Approval for Inclusion in MREFC Budget (Mar 2015)
- #5A Approval of SY Selection (May 2016)
- #5B Approval of FDR (Sep 2016)
- #6A Determination of Adequate Funding (Oct 2016 to Apr 2017)
- #6B Approval of Post-FDR Funding (Jul 2016 to Oct 2016)
- #7 Determination of Adequate Out-year Funding (Jan 2017)
Follow-on Vessels

• Operator Institution Solicitation to be released in Q1 CY 2017,
  – Selection Panel in Q3 CY 2017

• This will follow a clear understanding of number of hulls to be constructed based on available funding.
Class Management (if)

- Cost advantages can be realized where there are common processes. Beyond those, inefficiencies are imposed.
- Regional Operating Institutions maintain autonomy but reduce cost and effort by externalizing certain common functions.
  - Class Coordination
  - Spares Management
  - Configuration Management
Class Management

- Hull
- Structural modifications
- Propulsion plant
- Electrical plant (propulsion and electrical systems may be combined)
- Major over the side handling systems
- Global Maritime Distress and Safety System (GMDSS) suite
- Primary navigation
- Specialized science equipment (e.g., multibeam & ADCP data acquisition systems)
Design Highlights

• DP1+ for placement and servicing of benthic instrumentation and sample collection.
• Integrated shallow water acoustic multibeam bottom mapping and sub-bottom profiling systems.
• Large aft deck for operational flexibility: two 20' laboratory vans, plus adequate remaining deck space for multidisciplinary operations.
Further Features

• State-of-the-art handling systems (frames and winches) to improve efficiency and safety when deploying a wide array of science packages in various sea states.
• Full-time, high speed satellite connectivity for communications, internet access and data transfer.
• Low Underwater Radiated Noise (URN) signature for fisheries, acoustics, and marine mammal research and improved habitability.
• Compliance with latest Academic Fleet standards relating to the Americans with Disabilities Act (ADA) to improve access to the sea.
• To the maximum extent practicable, incorporation of commercially available and economically viable "Green Ship" technologies.
Establishing Scope:
RCRV Over Time
Most Recent Gen’l Arngt