# Ocean Class AGOR Program

## Program Status

### 11 March 2014

*Prepared For*
*UNOLS FIC & Council*


*Mike Prince (CTR)*
*Research Facilities (321RF)*
*Office of Naval Research*

*Chris MacDonald*
*Assistant Program Manager*
*PMS325 (PEOShips)*

# Ocean Class AGOR Names Armstrong Class R/Vs

ONR
Office of Naval Research

***R/V Neil Armstrong (AGOR 27)***

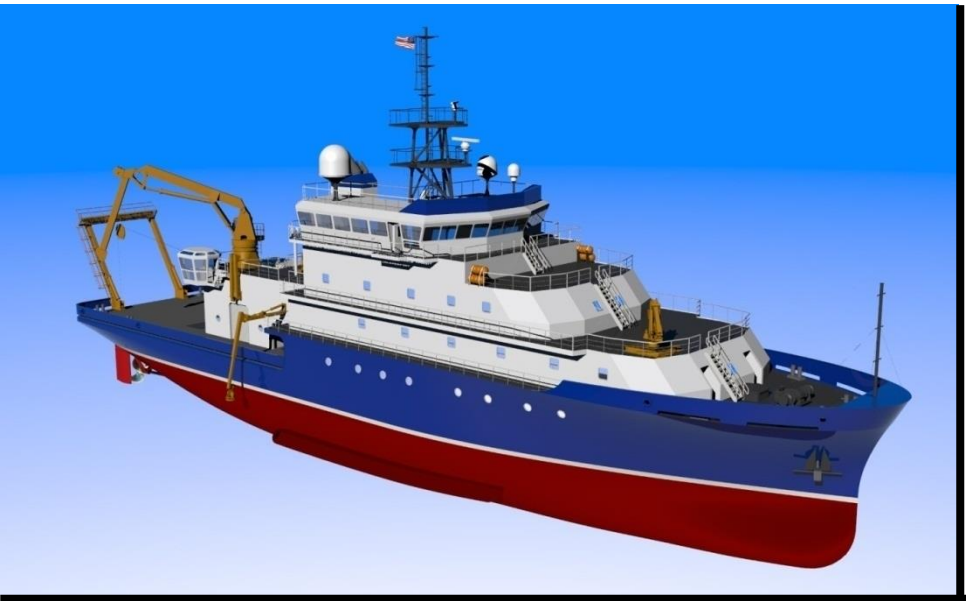
***R/V Sally Ride (AGOR 28)***

**Tuesday, September 25, 2012 - Secretary of the Navy Ray Mabus announced today that the first Armstrong-class Auxiliary General Oceanographic Research (AGOR) ship will be named Neil Armstrong, after the first man to walk on the moon during the 1969 Apollo 11 mission who died in August 2012 at age 82. Armstrong's widow, Carol, will serve as the ship's sponsor.**

**On April 12, 2013 Secretary Mabus announced that AGOR 28 will be named in honor of the first woman in space and former Scripps/UCSD Professor, Dr. Sally Ride. "Sally Ride's career was one of firsts and will inspire generations to come," Mabus said. "I named R/V *Sally Ride* to honor a great researcher, but also to encourage generations of students to continue exploring, discovering and reaching for the stars."**

# Ocean Class AGOR Quad Chart

ONR Office of Naval Research



## Key Characteristics:

- Hull Material: Steel; Aluminum pilothouse
- Length: 238 ft
- Beam (Max): 50 ft
- Draft: 15 ft
- Displacement: 3043 LT (Full Load)
- Sustained Speed: 12 kts
- Range: 10,545 nm
- Endurance: 40 days
- Propulsion: 4 x 1044 kW Diesels, 2 x 879 kW Electric Propulsion Motors, 2 x Controllable Pitch Propellers, Bow & Stern Thrusters
- Accommodations: 20 crew, 24 science berths
- ABS Classed/ABS Designed to ABS ✠A1 Circle E, ✠AMS and ✠ACCU, NIBS, Ice Class D0, USCG COI

**Mission: Integrated, interdisciplinary, general purpose oceanographic research in coastal and deep ocean areas. Oceanographic sampling and data collection of surface, mid-water, sea floor, and sub-bottom parameters.**

**Quantity: Two (2)**

**User: Woods Hole Oceanographic Institution (AGOR 27), Scripps Institution of Oceanography (AGOR 28)**

**Ship Names: R/V *Neil Armstrong* (AGOR 27)**
**R/V *Sally Ride* (AGOR 28)**

**Builder: Dakota Creek Industries, Inc.**

**Contract: FFP**

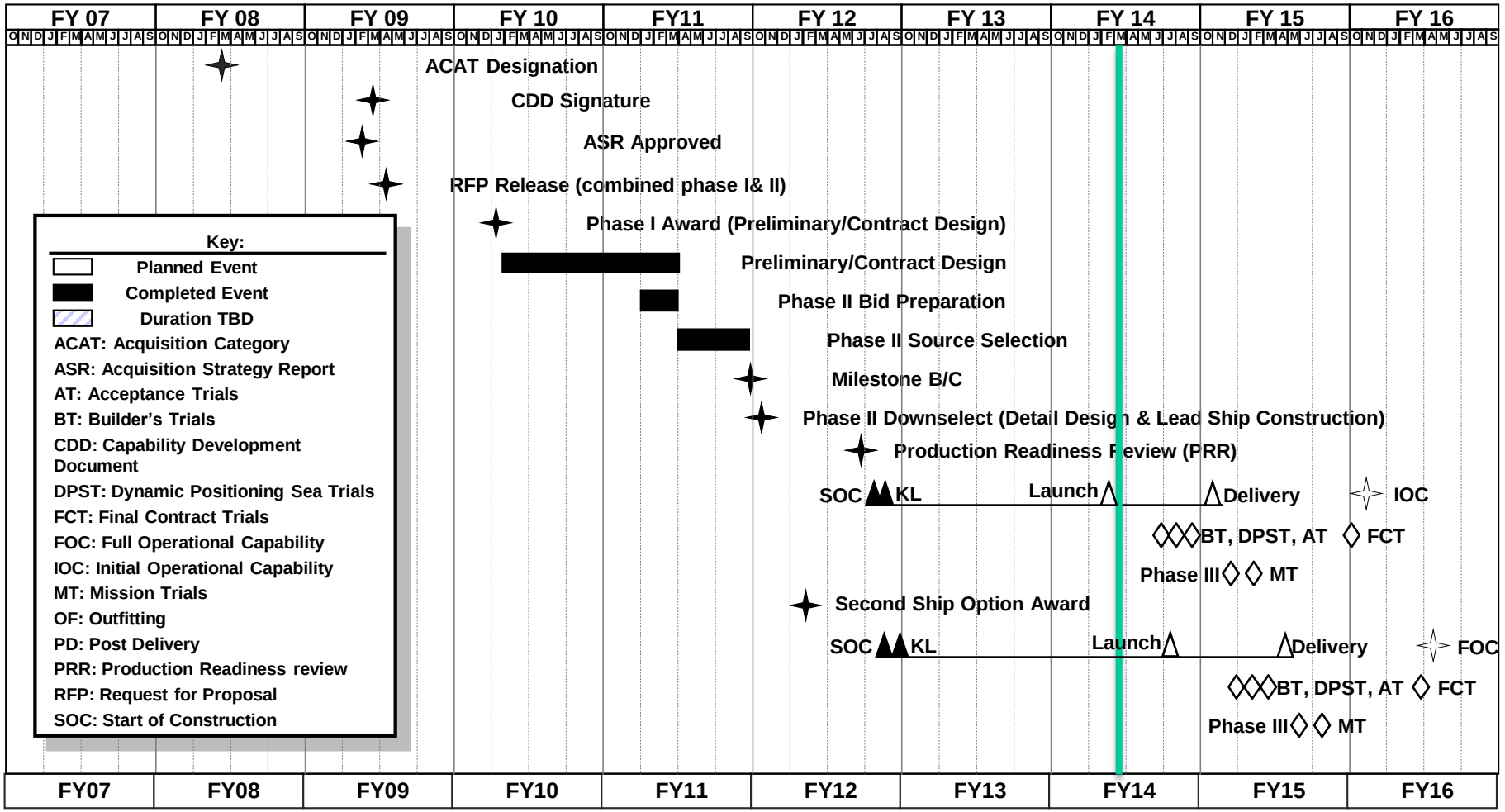
**Contract Value: $177.4M**

**ROM Unit Cost: $74.1 M (lead), $71.0M (follow)**

| Key Events: | Date: |
|---|---|
| Phase I Contract Award | Jan 10 |
| Milestone B/C | Sep 11 |
| Phase II Contract Award | Oct 11 |
| Follow Ship Award | Feb 12 |
| Start Construction (Lead Ship) | Jun 12 |
| Start Construction (Follow Ship) | Jul 12 |
| Launch 1st Ship | Feb 22, 2014 |
| Launch 2nd Ship | ~ Aug 2014 |
| Delivery (Lead Ship) | Jan 15 ** |
| Delivery (Follow Ship) | Apr 15 |

** Delivery delayed by 3 months

# Ocean Class AGOR Acquisition Schedule




* July 2002 – started work on Science Mission Requirements with workshop in Salt Lake City

# Ocean Class AGOR Production Progress

- R/V *Neil Armstrong* successfully launched early on Feb. 22, 2014
  - Christening by Mrs. Carol Armstrong on Saturday March 29, 2014
- R/V *Sally Ride* moved to rails for completion prior to August 1st launch
  - Christening tentatively scheduled for Aug 9 – pending SECNAV approval
- Outfitting continues on *Armstrong* with most major equipment installed with the exception of Cranes. Hydro winches and A-Frame are being installed now.
  - Late Delivery (Aug) of Main Crane results in 3 month delivery delay
- Major equipment is being landed on Ride (HVAC, UPS, Transformers). It is expected that the pace of outfitting will (should) accelerate on *Ride*.
- Logistics – Spare Parts, Tech Manuals, Training are all on track and far ahead of other comparable projects – excellent quality.
- Planning for test and trials well under way and some tests have been completed.
  - Test procedures being released for government comment.
  - DCI has hired a new Test and Trials Manager

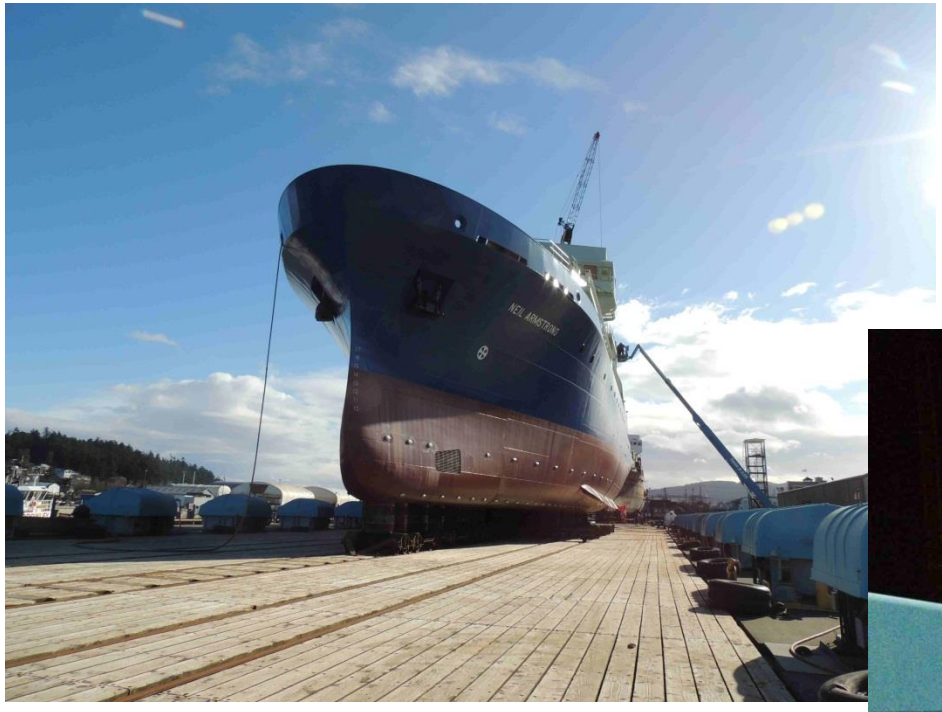
# Ocean Class AGOR
# Science Mission Equipment

- Shortly after Delivery the following mission equipment systems will be installed at Dakota Creek under the supervision of WHOI and SIO
  - Multi-Beam Swath Mapping System: Deep Water - Kongsberg EM-122 12 kHz 1º x 2º
  - Multi-Beam Swath Mapping System: Mid Water – Kongsberg EM-710 0.5° x 1°
  - Acoustic Doppler Current Profilers: 38 kHz, 75 kHz (WHOI), 150 kHz (SIO), 300 kHz
  - Sub Bottom and Single Beam Profiler: Knudsen Chirp 3260, 16 Massa TR-1075 3.5 kHz transducer array; and one12 kHz Single beam transducer
  - Attitude, Heading, Reference System (AHRS): Applanix PosMV 320, or IXSEA HYDRIN (or equal)
  - Sea Surface Sound Velocity System: Kongsberg SSVS, Seabird Thermosalinograph (or equal)
  - Flow Thru Seawater Instrumentation (piping and pumps by shipyard)
  - Broadband Satellite Communications System – TBD – Fleet Broadband, HiSeas Net, (C and Ku Band)
  - Acoustic Navigation and Tracking system – Kongsberg HiPap or Sonardyne
  - Fisheries Echosounder System – Kongsberg EK60 (frequencies tbd)
  - Local Area Network servers, printers, plotters, etc.

# AGOR 27 (R/V *Neil Armstrong*) Production

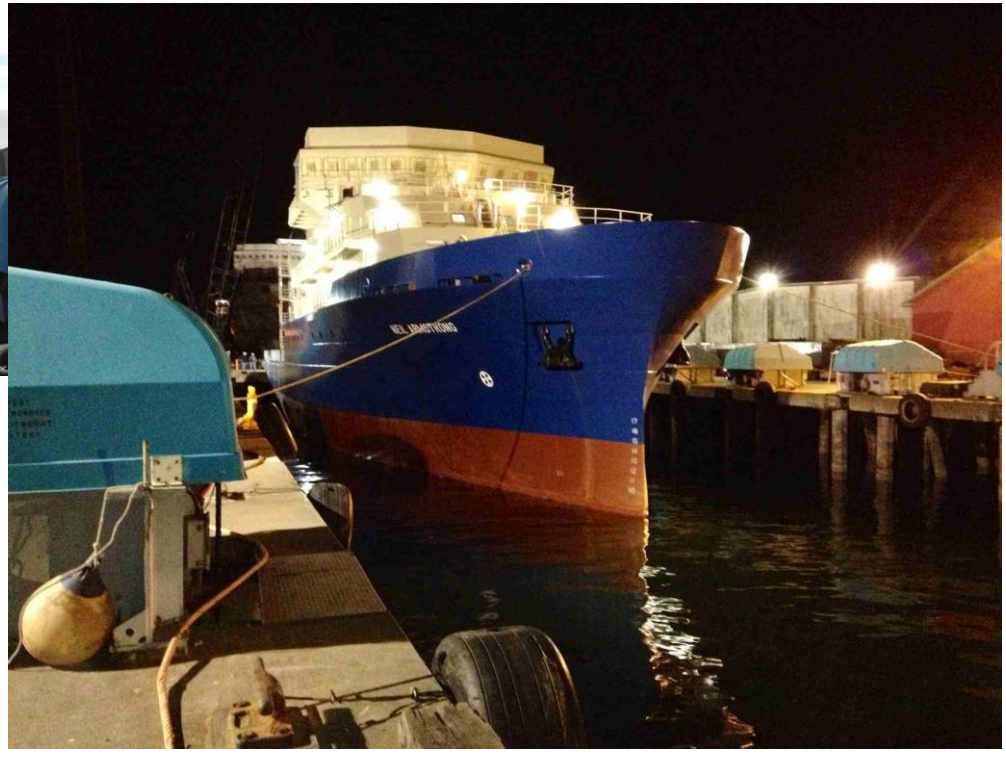
**~ 6 months ago - Pilot House being installed on *Neil Armstrong***

# AGOR 27 (R/V *Neil Armstrong*) Production



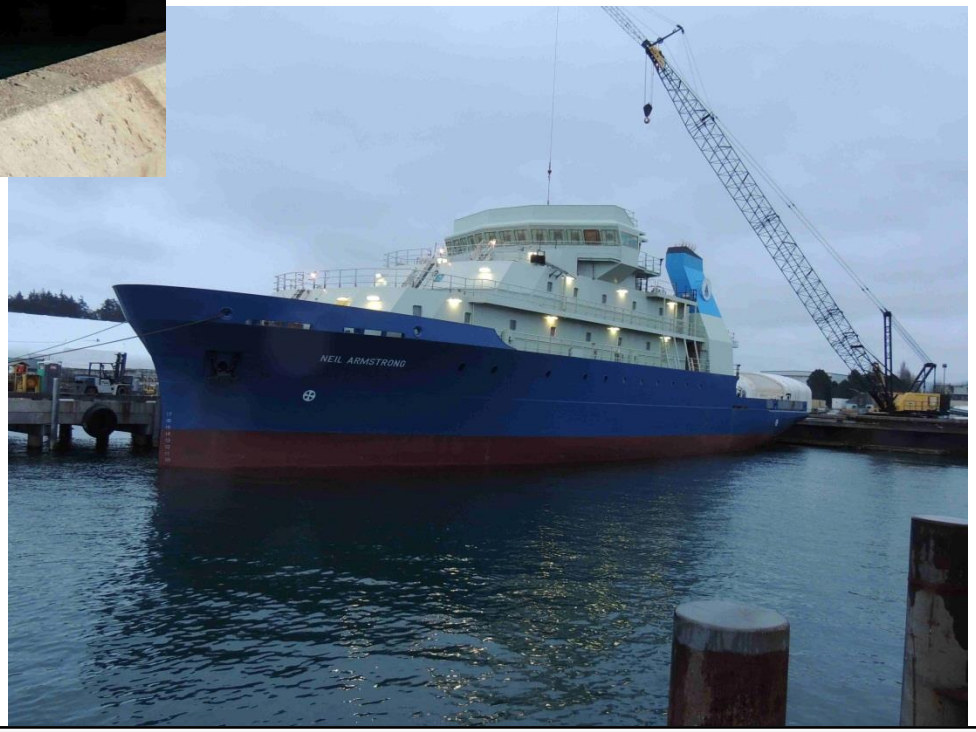
**R/V NEIL ARMSTRONG**

**Launch – Feb 2014**



# AGOR 27 (R/V *Neil Armstrong*) Production

**R/V NEIL ARMSTRONG**
**Afloat alongside at DCI**



# AGOR 27 (R/V *Neil Armstrong*) Production

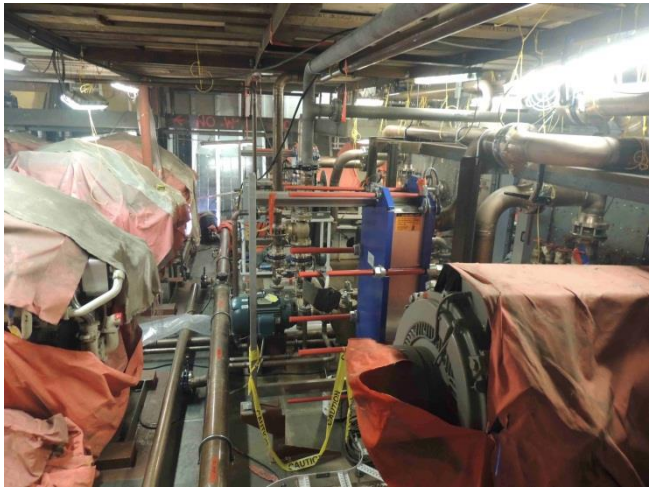
**R/V NEIL ARMSTRONG Galley, Mess Deck and Staterooms Taking Shape**

# AGOR 27 (R/V *Neil Armstrong*) Production

WHOI Logo placed on stack


Paint, Zincs, Ready to Float

Bridge Consoles being installed

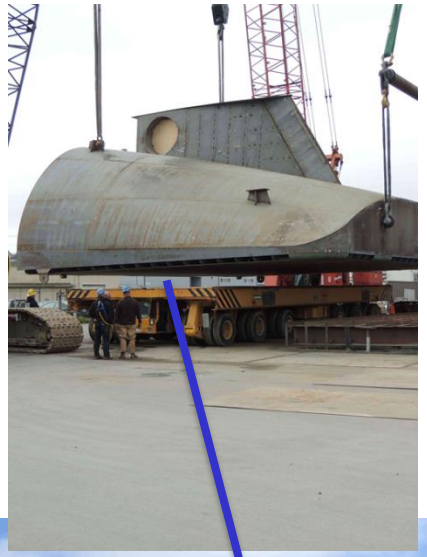


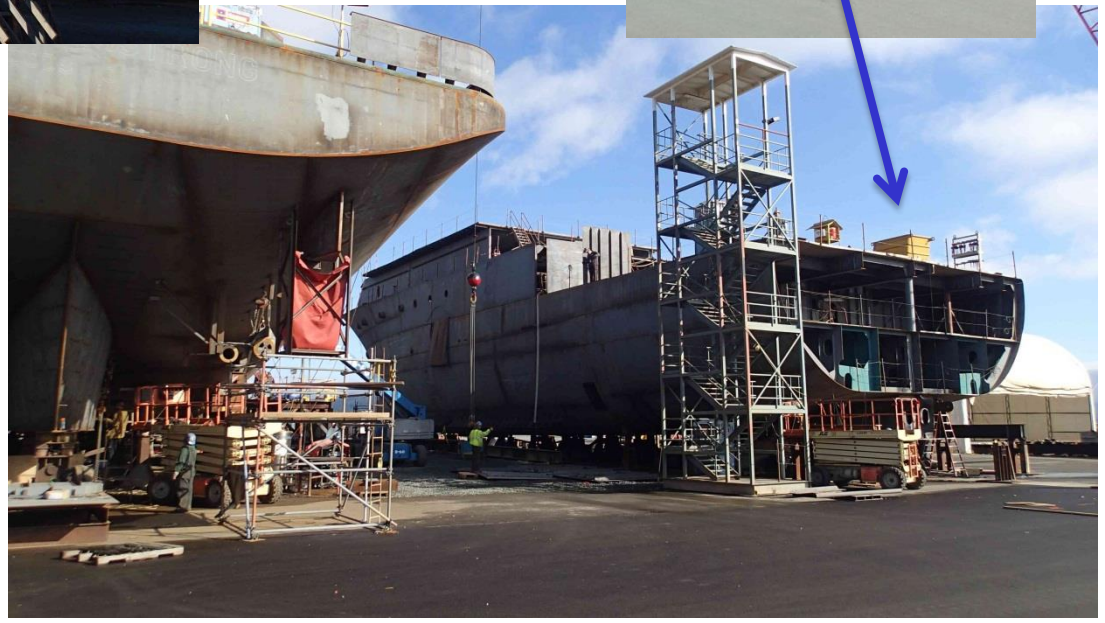
Engine Room filling up with equipment

# AGOR 28 (R/V *Sally Ride*) Production

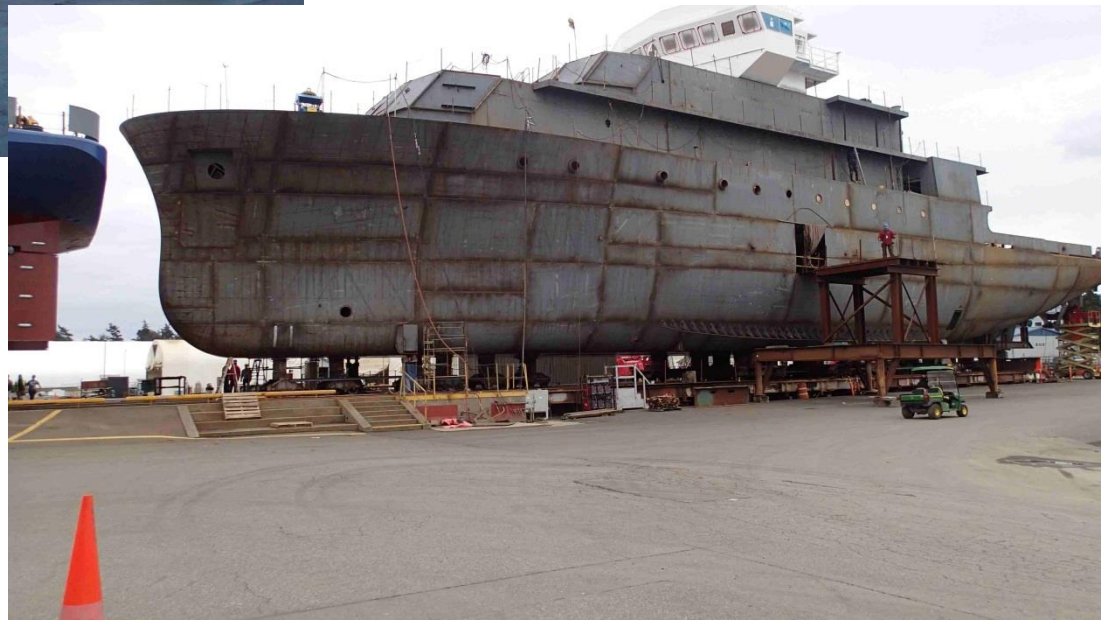
Office of Naval Research

Sally Ride –
6 months ago,
modules coming
together





# AGOR 28 (R/V *Sally Ride*) Production



**SALLY RIDE Now – Moved to the Rails - ready for launch in a few months**

# AGOR 28 *Sally Ride* Production

**Pilot house being landed on *Sally Ride***

# AGOR
# Production Pictures


Work Boat

Controllable Pitch Props being assembled

Handling System FAT - Allied

Mast Under Construction

# Photos courtesy of Operator's On Site Reps and Lyn Carroll (SUPSHIP Bath)

Gary McGrath
Chief Engineer
Woods Hole Oceanographic Institution

Paul Bueren
Chief Engineer
Scripps Institution of Oceanography


Questions?

# Program Organization
## OC AGOR

ONR
Office of Naval Research

| | | | | | | |
|---|---|---|---|---|---|---|
| EIPT | Mission Sponsor<br>ONR, Code 32<br>Dr. F. Herr | Resource Sponsor<br>N2/N6E<br>RADM J. White | PEO<br>PEO Ships<br>RDML D. Lewis | PEO Ships Exec. Dir.<br>Mr. J. Stefany | | Ship Design Mgmt<br>SEA 05D<br>Ms. R. White |
| PIPT | ONR, Code 32<br>Mr. T. Schnoor<br>Mike Prince | N2/N6E<br>Mr. D. Greco<br>LCDR K. Wallace | Program Manager<br>PMS325<br>Mr. F. McCarthey | PMS325B<br>Mr. M. Kosar | Ken Mattson<br>(Systems Integrator) | |
| | | | Progam Mgmt<br>PMS325Q<br>Paul Conroy | Logistics Mgmt<br>PMS325L<br>Leon Haskins | Financial Mgmt<br>PMS325P<br>Rich Stoffa | Ship Design Mgmt<br>SEA 05D4<br>Mr. C. Cable |
| WIPT | Al Suchy<br>(WHOI)<br>Zoltan Kelety<br>(SIO) | SUPSHIP<br>Lyn Carroll *<br>(PMR) | Chris MacDonald<br>(APM)<br>Caitlin Jarecki (PM)<br>Jason Minett (PM)<br>Eun Park (PM) | Larry Driver<br>(ILS Manager) | Heather Davis<br>(BFM) | Joe Mackes<br>(SDM) |

Contracting
SEA 0222
John Kimener

Jun Ji
(PCO)
Karen Min
(Contract Specialist)

| | | |
|---|---|---|
| Operator Rep. | Chris Newbert * | Gayl Glascoe* |
| Gary McGrath * | (Proj Eng) | (On-site APM) |
| (WHOI) | Chris Marcoux * | |
| Paul Bueren * | (QAS) | |
| (SIO) | | |

| | | |
|---|---|---|
| Mike Bancroft * | ECS | (Prod Mgr) |
| Monte Kittelson* | Tessada | (On-site ILS) |
| Marlou Domingo* | Tessada | (On-site ILS) |

*ON-SITE

| | | |
|---|---|---|
| Pam Clark | Alion | (Mission Sys) |
| Tim Gates | ManTech | (Acoustics) |
| Pete Kilroy | Alion | (Program ) |
| Shadia Mansour | CSC | (Program) |
| Phil O'Connor | Tessada | (ILS) |
| Dan Rolland | Alion | (Naval Arch) |

**Fully staffed- no plans for expanding**

Acronyms/Abbreviations

| | |
|---|---|
| APM | Assistant Program Manager |
| BFM | Business/Financial Manager |
| EIPT | Executive IPT |
| ILS | Integrated Logistics Support |
| MDA | Milestone Decision Authority |
| ONR | Office of Naval Research |
| PCO Officer | Procurement Contracting |
| PM | Project Manager |
| PMR | Program Manager's Rep |
| PEO | Program Executive Office |
| PIPT | Program IPT |
| SDM | Ship Design Manager |
| WIPT | Working IPT |