



# Ocean Class AGOR Program Program Status 24 April 2014

*Prepared For  
RVOC*

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

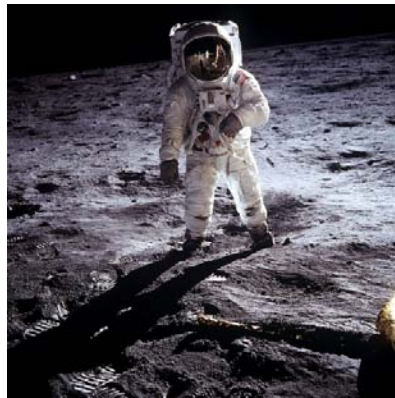


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## R/V Neil Armstrong (AGOR 27)



## 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."**



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# R/V Neil Armstrong Christened – 29 March 2014







## 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:

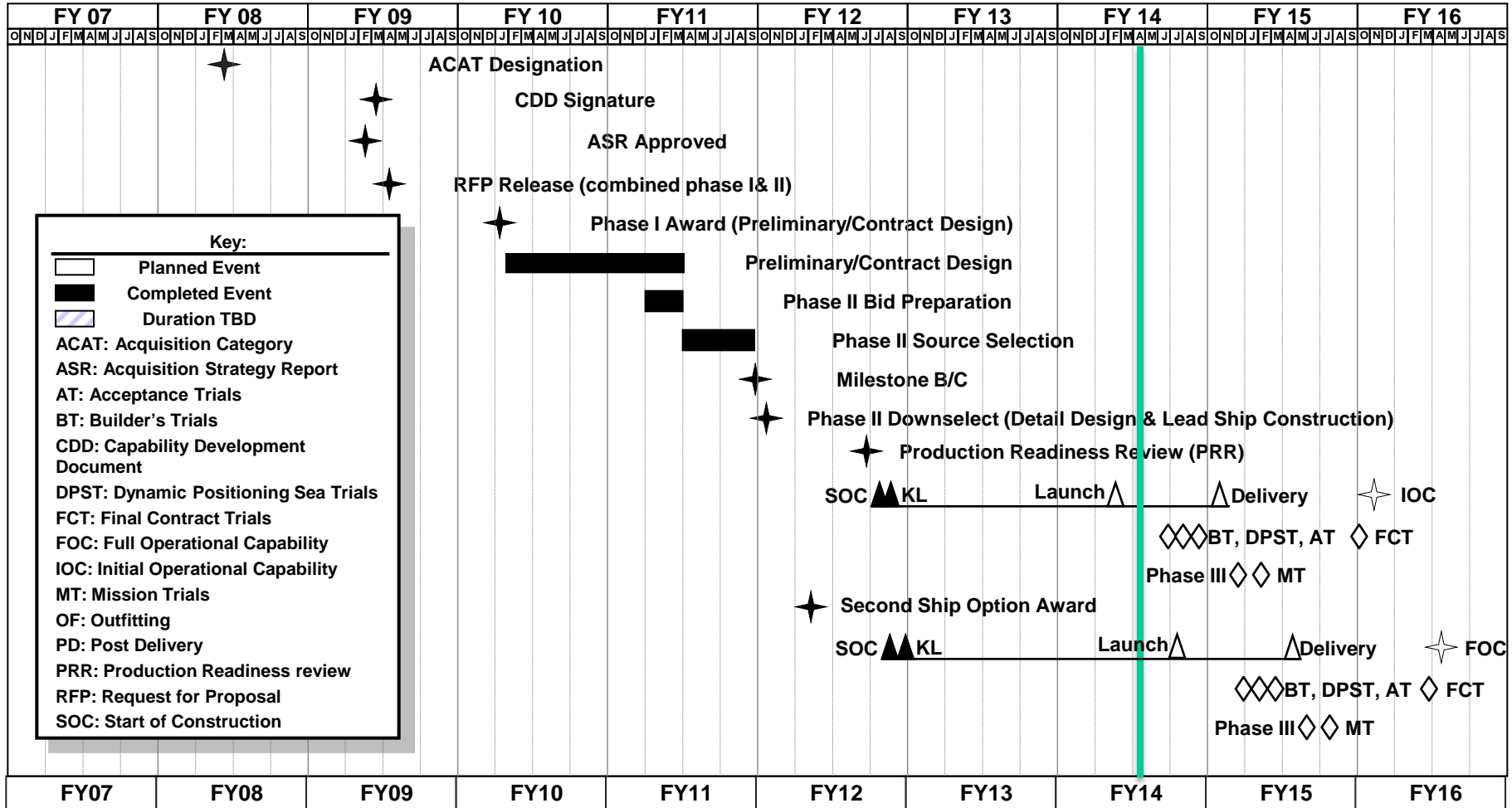
## Date:

- 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 1<sup>st</sup> Ship                                Feb 22, 2014
- Launch 2<sup>nd</sup> 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



- R/V *Neil Armstrong* successfully launched early on Feb. 22, 2014
  - Christened by Mrs. Carol Armstrong on Saturday March 29, 2014
- R/V *Sally Ride* moved to rails for completion prior to August 1<sup>st</sup> 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



- 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 1° x 2°
  - 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 one 12 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.





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



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





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

**R/V NEIL ARMSTRONG**  
**Launch – Feb 2014**



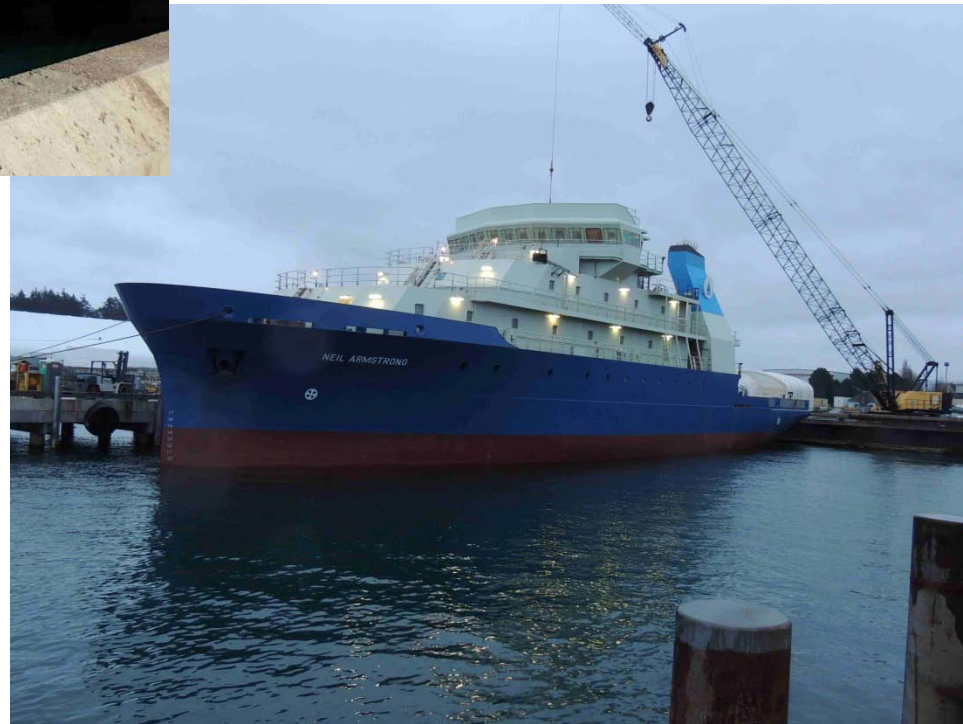


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# AGOR 27 (R/V *Neil Armstrong*) Production



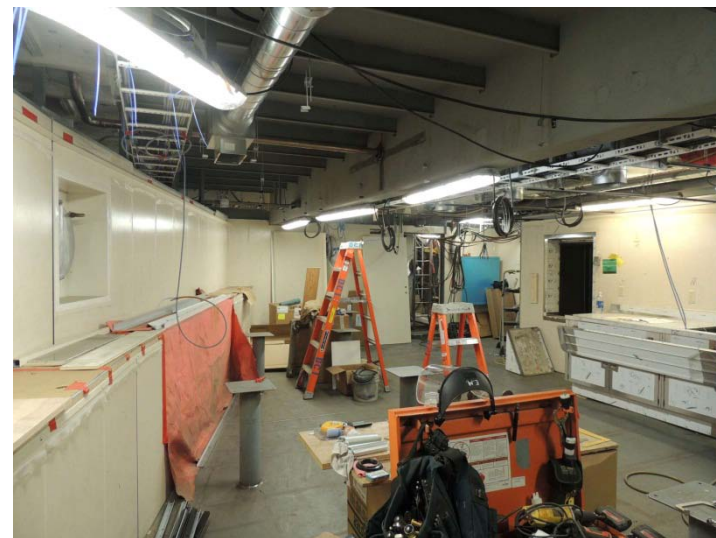
**R/V NEIL ARMSTRONG  
Afloat alongside at DCI**







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







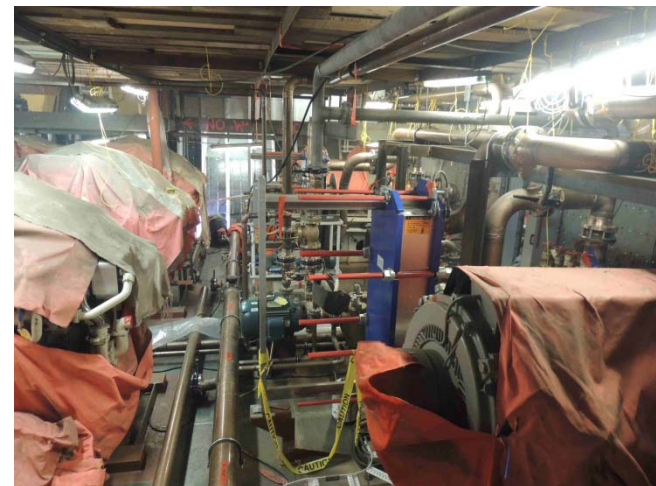
WHOI Logo placed on stack



Paint, Zincs, Ready to Float



Bridge Consoles being installed



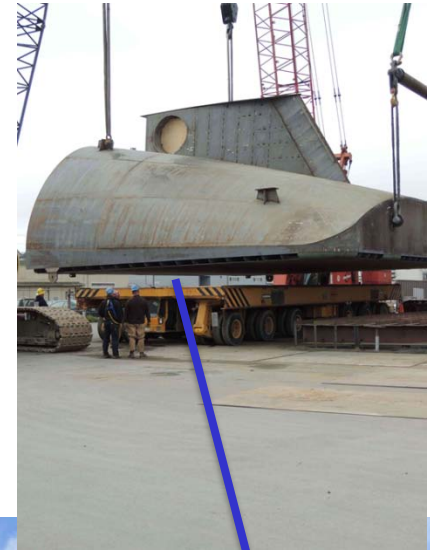
Engine Room filling up with equipment





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

Sally Ride –  
6 months ago,  
modules coming  
together





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





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



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

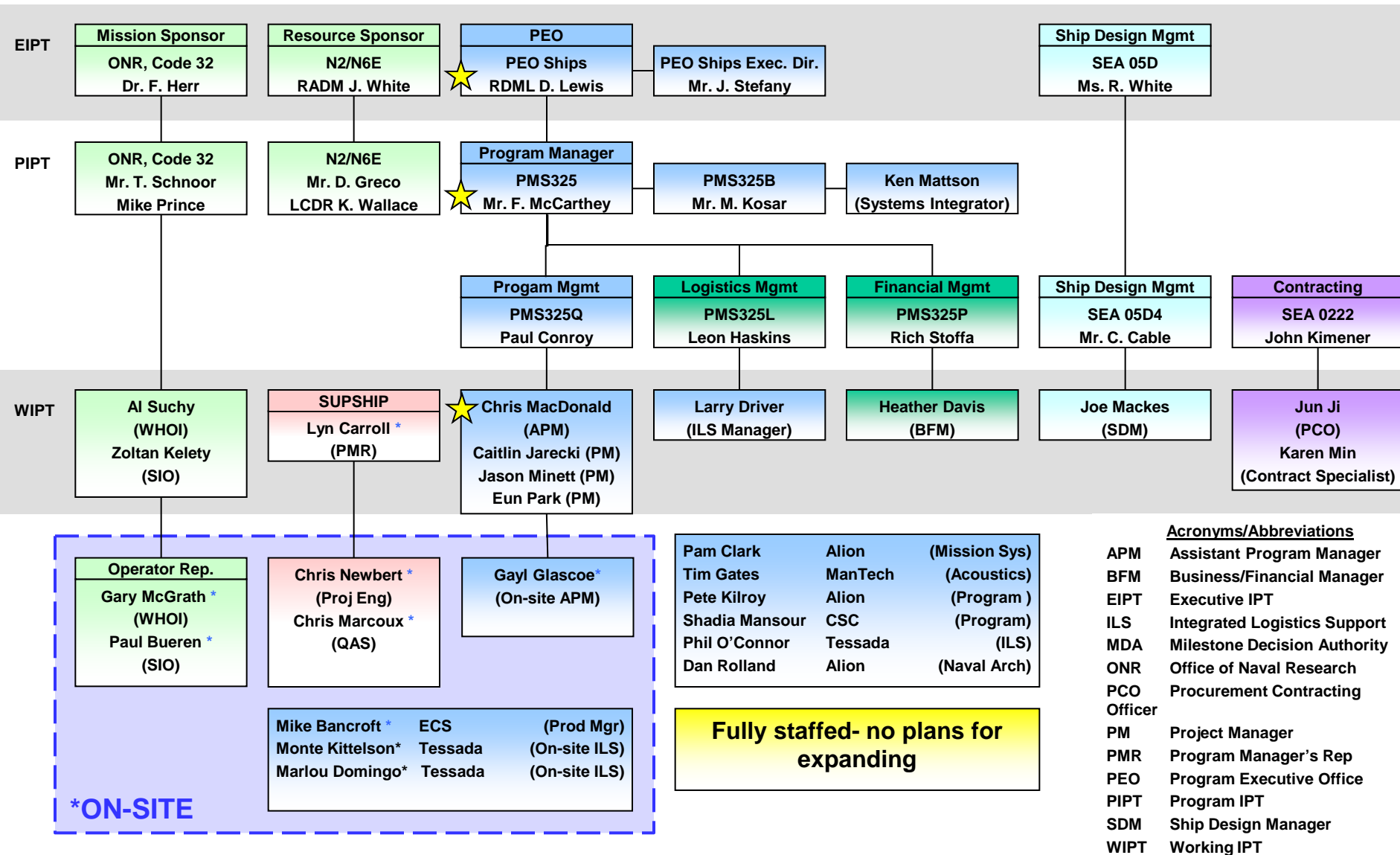




NEIL ARMSTRONG

## Questions?

 Dakota Creek Industries, Inc.  
Christening Ceremony  
**NEIL ARMSTRONG**  
AGOR 27 Hull 58  
Sponsor: Carol Armstrong  
Builder: Dakota Creek Industries, Inc.  
Anacortes, Washington



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 Procurement Contracting Officer
- PM Project Manager
- PMR Program Manager's Rep
- PEO Program Executive Office
- PIPT Program IPT
- SDM Ship Design Manager
- WIPT Working IPT

**\*ON-SITE**