Ocean Class AGOR Program
Program Status
24 April 2014

Prepared For
RVOC

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

## 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:
FPF

## Contract Value:
$177.4M

## ROM Unit Cost:
- Lead: $74.1 M
- Follow: $71.0 M

## Key Events:

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Date</th>
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<tbody>
<tr>
<td>Phase I Contract Award</td>
<td>Jan 10</td>
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<td>Milestone B/C</td>
<td>Sep 11</td>
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<td>Phase II Contract Award</td>
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<tr>
<td>Follow Ship Award</td>
<td>Feb 12</td>
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<tr>
<td>Start Construction (Lead Ship)</td>
<td>Jun 12</td>
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<tr>
<td>Start Construction (Follow Ship)</td>
<td>Jul 12</td>
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<tr>
<td>Launch 1&lt;sup&gt;st&lt;/sup&gt; Ship</td>
<td>Feb 22, 2014</td>
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<td>Launch 2&lt;sup&gt;nd&lt;/sup&gt; Ship</td>
<td>~ Aug 2014</td>
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<tr>
<td>Delivery (Lead Ship)</td>
<td>Jan 15 **</td>
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<tr>
<td>Delivery (Follow Ship)</td>
<td>Apr 15</td>
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</tbody>
</table>

**Delivery delayed by 3 months**
Ocean Class AGOR
Acquisition Schedule

Key:
- Planned Event
- Completed Event
- Duration TBD

ACAT: Acquisition Category
ASR: Acquisition Strategy Report
AT: Acceptance Trials
BT: Builder's Trials
CDD: Capability Development Document
DPST: Dynamic Positioning Sea Trials
FCT: Final Contract Trials
FOC: Full Operational Capability
IOC: Initial Operational Capability
MT: Mission Trials
OF: Outfitting
PD: Post Delivery
PRR: Production Readiness Review
RFP: Request for Proposal
SOC: Start of Construction

FY07  FY08  FY09  FY10  FY11  FY12  FY13  FY14  FY15  FY16

*  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 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
• 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.
~ 6 months ago - Pilot House being installed on *Neil Armstrong*
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
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
Ocean Class AGOR

Questions?
**Program Organization**

**OC AGOR**

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**Mission Sponsor**
ONR, Code 32
Dr. F. Herr

**Resource Sponsor**
N2/N6E
RADM J. White

**PEO**
SEAS 05D
Mr. J. Stefany

**Program Mgmt**
N2/N6E
LCDR K. Wallace

**Logistics Mgmt**
PMS325
Leon Haskins

**Financial Mgmt**
PMS325P
Rich Stoffa

**Ship Design Mgmt**
SEA 05D4
Mr. C. Cable

**Contracting**
SEA 0222
John Kimener

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**On-Site**

**Mission Sponsor**
ONR, Code 32
Mr. T. Schnoor
Mike Prince

**Resource Sponsor**
N2/N6E
Mr. D. Greco
LCDR K. Wallace

**PIPT**

**Program Manager**
PMS325
Mr. F. MacCarty

**Logistics Mgmt**
PMS325L
Mr. M. Kosar

**Financial Mgmt**
PMS325P
Mr. C. Cable

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**Operator Rep.**
Gary McGrath *
(Proj Eng)
Paul Bueren *
(SIO)

**Chris MacDonald**
(On-site APM)
Caitlin Jarecki (PM)
Jason Minett (PM)
Eun Park (PM)

**Gayl Glascoe**
(On-site APM)

**Pam Clark**
Alion
(Mission Sys)

**Tim Gates**
ManTech
(Acoustics)

**Pete Kilroy**
Alion
(Program)

**Shadia Mansour**
CSC

**Phil O'Connor**
Tessada
(ILS)

**Dan Rolland**
Alion
(Naval Arch)

**Fully staffed- no plans for expanding**

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**Acronyms/Abbreviations**

APM  Assistant Program Manager
BFM  Business/Financial Manager
PIPT  Executive IPT
ILS  Integrated Logistics Support
MDA  Milestone Decision Authority
ONR  Office of Naval Research
POC  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

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**On-Site Operators**

Gary McGrath *
(Proj Eng)
Paul Bueren *
(SIO)

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