SIO Shipyard Representative Bi-Weekly Progress Report		
Project: AGOR 28	**Contract No.: N00014-12-C-0305**	**Shipyard: Dakota Creek Industries**
Prepared by: Paul D. Bueren Scripps Institution of Oceanography (SIO) 297 Rosecrans St. San Diego, CA 98106	**Date:** 20 November 2015	**Program Officer:** Robert (Tim) Schnoor Office of Naval Research 875 Randolph St ONR 321 Arlington, VA 22203-1995
Distribution Statement A: Approved for public release; distribution unlimited.		**Report No. A002.089**

1. Meetings:
    - Attended weekly conference call

2. The following Shipyard Question Submittals were reviewed and commented on:

No questions this reporting period

3. Logistics:
    - Continuing to work on initial outfitting lists for Sally Ride.
    - Working on NS5 Hierarchy

4. Operator Concerns:

    - Main Deck Noise Levels – This week NCE was on site testing the noise levels various exhaust pipe configurations. For each test all four engines were running and shore power was secured. The configurations were as follows:
        - As-built
        - Baffle in incinerator exhaust pipe only – (preliminary result- noise level decreased)
        - Baffles added to all four engine exhaust pipes (preliminary result – no change from previous)
        - Engine exhaust pipes removed so that exhaust was vertical and below the coaming of the stack. (preliminary result – noise levels increased)
        - Engine exhaust pipes rotated near 90-degrees outboard vice the 45-degrees done on Armstrong. (preliminary result – no significant improvement when compared to Armstrong's current arrangement)

      These are my observations. A full report will be provided by NCE. The take-away is that the expected result of a 6-db drop when the exhaust pipes were cut off below the stacks coaming was not achieved.

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
20 NOV 2015		**00-00-2015 to 00-00-2015**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
AGOR 28	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Scripps Institution of Oceanography (SIO),,297 Rosecrans St.,,San Diego,,CA, 98106**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**Same as Report (SAR)**	**10**	

Exhaust Baffles

- December Dry Docking Canceled – The floating dry dock is not certified so the docking has been canceled. Divers should do hull and prop cleaning prior to builders trials.
- Steering Hydraulics – Reports from Armstrong indicate that the system hydraulics over heat during DP operations. There are also reports that while in tropical conditions and while in auto pilot, the hydraulic oil temps are warmer than expected. The OEM recommends a normal maximum operating temperature of 125-degrees F. A cooler may be necessary to correct this issue.
- Uncontaminated Sea Chest – Reports from Armstrong indicate that the Uncontaminated/Incubator sea water systems lose suction when the sea chest opening comes out of the water. Sea chest may require relocation to a position aft and/or further below the waterline.
- CTD Handling Device – Cylinder to be reinstalled and commissioning to resume after the Thanksgiving Holiday.
- Test & Trials – The pace has slowed again. By my count, the completion numbers are as follows:
    - Vendor Commissioning – 33 total procedures with 15 @100%. Plus 1 since last report.
    - DCI Test & Trials – 125 total procedures with 69 @ 100%. Plus 0 (Corrected per latest T&T Schedule. 4- tests were completed this period but not on the latest schedule.)
    - Dock Trials, Builders Sea Trial and Acceptance Trials – 12 @ 0%
      Looking forward to next report T&T report from DCI.
- Acoustic Tiles & MLV –No additional information on what materials are to be used for the Traction Winch Room or MMR bilge tops, if any. The yard is currently painting the trawl winch room deck and adding some non-skid along the walk-ways. The Engine Room Bilge is fully coated as well.
- Anchor Windlass – The test of Armstrong's port side anchor windlass failed while the third shot was being paid out under power. When the chain slipped six links, the test was called for safety. The government is working on various options for a fix. Since Ride will not be docked over the Christmas Holiday, it is not yet known if the chain will be measured prior to builder's trials.
- Crew Fam – DCI has submitted a proposed Crew Fam schedule to the vendors for their acceptance of the dates.
- Sanitary Construction Cert – DCI was not able to obtain the FDA Certificate of Sanitation for Armstrong because the sewage discharge is ahead of the water maker suction.
- Ride Anti-Fouling Paint – The anti-fouling paint has failed due to an application error. The yard will correct this issue during a planned docking prior to Builder's Trials. With the dry docking cancelled the paint repairs will most likely be during Phase III if it is occurs at DCI.

5. Sally Ride Progress:
    - Accommodation Spaces – DCI continues with the cleaning and prepping of staterooms for close-outs. The floors are complete in the ADA and Hospital.
    - Galley & Mess – Overheads and lighting are being installed in both spaces.
      The galley exhaust hood washdown system has arrived and the yard is working the installation. The control cabinet is a bit big so some modifications will be necessary.

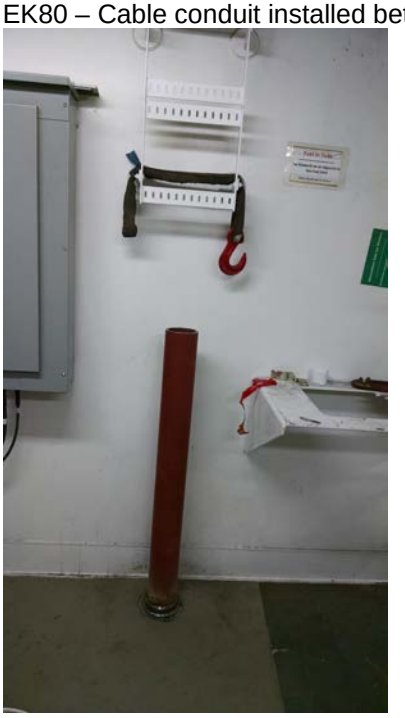
Galley Hood Washdown System Control Cabinet

- Laboratories – The Wet Lab floor has been completed and the flexible material has been poured in the Main Lab, with the final color and sealing coats to be applied next week. Lab overheads, paneling and lighting installation to commence shortly after.

Wet Lab Deck

- 3.5kHz Transducer Array- Vent, stuffing tubes and fill line installed.

- EK80 – Cable conduit installed between transducer and transceiver rooms.



- HVAC- Vendor conducted operational checks of all fans, fan controls, heaters etc. Vendor is currently balancing system.
- Engine Room – FW Cooling system balancing is ongoing.
- Electrical – DCI/Siemens is working on the DC ground fault issue(s). The focus appears to be on how the Cummins 24-volt system is grounded to the vessel.

6. Call-outs
   - 320-001-2 MCCS Design Verification Test w/USCG in attendance
   - 512-001-3 Ventilation and Fan Control Test
   - 541-002-3 Fuel Quick Closing Valves
   - 555-001-3 Fixed Fire Extinguishing Galley Ducts
   - 555-007-3 Blowdown & Operational Test of CO2 System – Hazmat Lockers and Tunnel Thruster Motor w/ USCG in attendance

7. Captain Desjardins Report:
   Weekly Report 16 November 2015

   Good

Flow rate readings for various systems being measured. This is yielding real numbers for procedures and systems training for crew observing/assisting yard personnel taking measurements. Mackay has two technicians aboard working on set up of installed bridge systems. Overheads with the exception of the lab spaces is mostly complete.

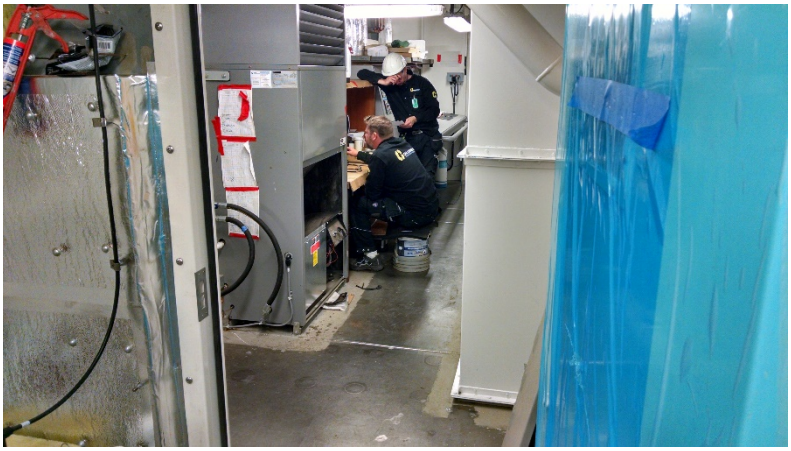
Hospital Head deck.

Wet Lab deck

.

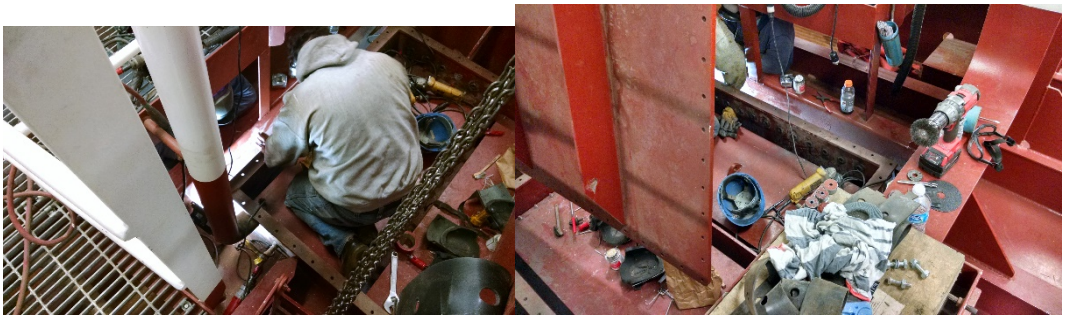
Bridge Shade question answered, Dakota says port shades were installed on stbd side, stbd shades installed on port. Dakota called vendor to come back and make the swap

AUX Machinery Room bilge cleaned and paint touched up.



Callenberg continues work balancing HVAC system.

Refrigeration Contractor aboard pressure testing piping between ships refer plants and compressors in BT space. Science Refer piping pressure testing scheduled for tomorrow.



Stuffing tubes being welded in on 3.5 khz sub-bottom profiler. Cable penetrations in side of enclosure will allow lifting the lid off to service individual transducers.

Upgraded cable installed to connection box in transducer room for bridge speed log. Replacing this cable seemed to remedy speed log issues on Armstrong.

Signature Plaque installed on main vertical frame in Transducer room.

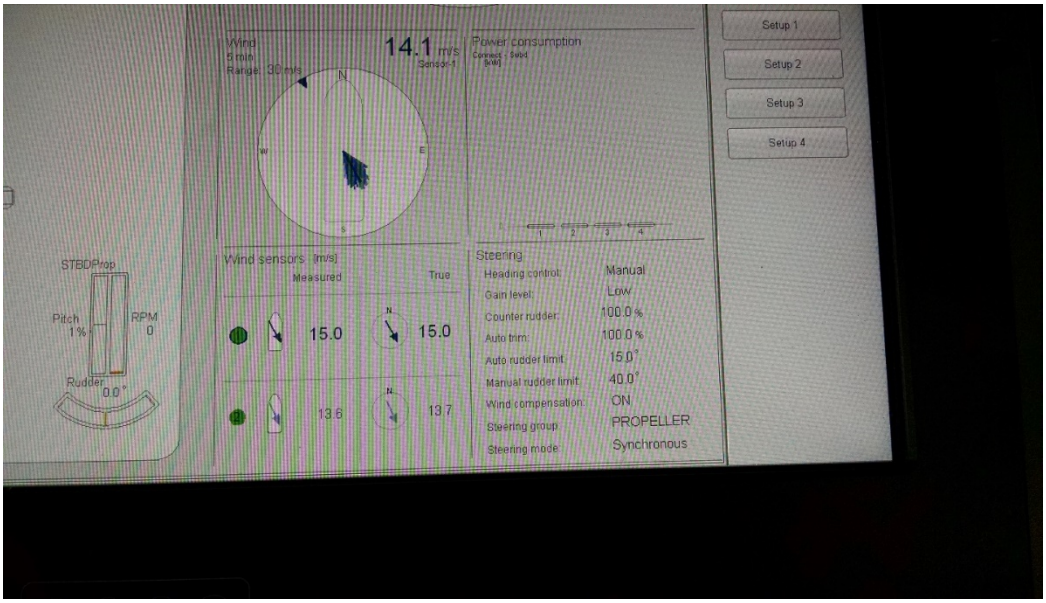
Layout done on stack for sequenced yard noise abatement testing. First a new round of sound measurements will be collected. Then baffles will be installed at the incinerator exhaust outlet. Noise measurements repeated then exhaust tips cut off square, measurements repeated, then tips welded back in place but turned approx. 45 degrees outboard, measurements to be taken again. All 4 engines are to be run for this test. Cummins tech attended Saturday, #1 ME now fully operational. 4 engines available for noise testing.

Bad

During checks when Cummins was aboard noted some issues between engine shut downs and generator circuit breaker opening. Same issue was noted on Armstrong and corrected. This will require coordination between DCI, Cummins, and Siemens to get correct.

UGLY Nothing to report

WTD .



There is a pull down menu on the DP with values for “Steering”. It would seem that these parameters should be user adjustable. If these factors can be adjusted, then potentially at least, rudder action could be reduced by operator as necessary. Once I see the Kongsberg tech will ask.

Still think addition of coolers for the rudder hydraulics should be investigated.

8. DRL’s

1st App Hull No	DRL No	Document Title	Occur No/Rev No