

NOAA SHIP OKEANOS EXPLORER R-337

“America’s Ship for Ocean Exploration”

NOAA OCEAN EXPLORATION AND RESEARCH SITUATION REPORT FOR April 01, 2012

CRUISE: EX1202L2 Gulf Of Mexico
Exploration

DATE/TIME FILED: 04/01/12 2330 EDT

FILED BY: Jeremy Potter

VESSEL: NOAA Ship *Okeanos Explorer*
(EX)

GEOGRAPHIC AREA:

Vicinity of Deepwater Horizon

MISSION PERSONNEL ON BOARD:

NOAA / OER:

Dave Lovalvo (NOAA OER)

Meme Lobecker (NOAA OER)

Webb Pinner (NOAA OER)

Jeremy Potter (NOAA OER)

LTJG Brian Kennedy (NOAA OER)

OTHERS:

Tim Shank (WHOI/UCAR)

Pen-Yuan Hsing (Penn State/UCAR)

Dave Wright (OER/UCAR)

Roland Brian (OER/UCAR)

Art Howard (OER/UCAR)

Ed McNichol (OER/UCAR)

Thomas Kok (OER/UCAR)

Gregg Diffendale (OER/UCAR)

Bobby Mohr (OER/UCAR)

Karl McLetchie (OER/UCAR)

Jeff Williams (OER/UCAR)

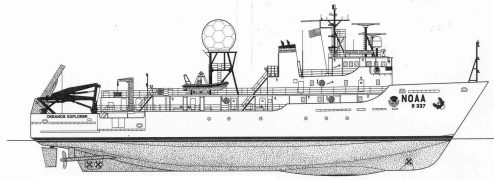
Tara Smithee (Stanford/UCAR)

Christopher Pinero (OER/UCAR)

SUMMARY:

The NOAA Ship *Okeanos Explorer* (EX) conducted overnight mapping operations to extend coverage beyond EX mapping efforts in 2011. At approximately 0830, ship and mission crew launched *Little Herc* and *Seirios* for the twelfth dive of the 2012 field season. This was the second ROV dive in the vicinity of Deepwater Horizon. Unlike the ‘standard’ EX model, the purpose was to continue time-series imagery of a deep coral community observed to have suffered significant impact around the time of the spill. The ROV and Camera Platform were safely recovered by 1700. Mapping operations





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continued following recovery. Ability to extend mapping coverage into new areas is difficult due to existing coverage and location of dive targets.

SURVEY:

Multibeam sonar EM 302 and Single Beam sonar EK 60 data were collected. Water column data was collected over known seep areas in preparation for deep dive target location during Leg III. The data will be sent to shore for UNH scientists to analyze. Fledermaus 7 is being used to create daily bathymetry products. Cumulative geotiffs and kmz are being created despite known offsets. Fledermaus scene files created during the ROV dive planning process are being provided to shore in the multibeam folder under /OkeanosCruises/EX1202L2/Multibeam/EX1202L2_MB_HIRES. The scene files typically include the following layers: 1) backscatter mosaics draped over bathymetry; 2) bathymetry; and 3) start / end points of dive.

Due to extensive EX mapping coverage in the vicinity of the current operating area, ability to extend overnight survey operations into new areas is very limited. Survey is doing the best they can based on priority for ship to be at dive location in early morning. Due to heavy ship traffic in the area, we are trying to arrive at the dive site earlier than usual. Fortunately, ability to collect time-series water column data over previously mapped seeps has significant interest for key shore-side scientists at UNH.

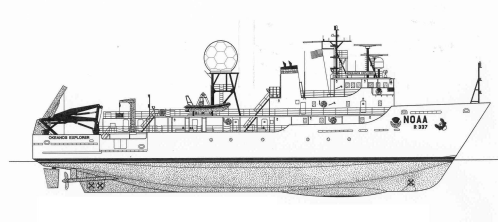
SCIENCE:

In the wake of the Deepwater Horizon oil spill, determining the types and extents of damage to the ecosystems of the Gulf of Mexico has been – and continues to be - a high priority. This has been especially difficult with regard to deep water habitats. Though the expedition is not a NRDA cruise, it does provides a good opportunity to assist with this NOAA and national priority.

Today’s dive in Mississippi Canyon (MC) lease block 297 was the second in an area that has been a focus of significant effort since DWH. The purpose of revisiting these critical locations was to determine change over time. Given the timing of the EX cruise, OER determined that it is a high priority for us to continue the periodic assessments to begin to understand the longer-term impacts to these corals.

Combined use of a telecom (limited), I2, URI Internet 1 links, and the eventlogger continued.





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TELEPRESENCE:

Telepresence Team continued assisting shore-side participants and trouble-shooting various systems. Practically all shore-side participants reported very high quality internet feeds. Telepresence Team will continue to monitor video quality.

The ISC continues to trouble-shoot RTS. EX Team continues to work to identify the best mechanism to enable two-way audio discussion with shore-side scientists at non-ECC locations.

VSAT:

VOIP has been down since 3/30 due to OMOA shore-side changes. This impacted the ROV telecon and forced the Science Team to rely primarily on the eventlog. CET and Mission Team have unsuccessfully attempted to correct the issue. Ship offered Fleet 77 as a workaround for the VOIP problem.

DATA MANAGEMENT:

None.

ROV:

ROV personnel completed a twelfth successful dive. Regular standard operating procedures were slightly modified to best accommodate the need for time-series imagery. Impacts to the videoengineers were the most significant, but less than yesterday. Shipboard personnel will not create highlight videos of dive 11 and 12.

BOW/STERN THRUSTER:

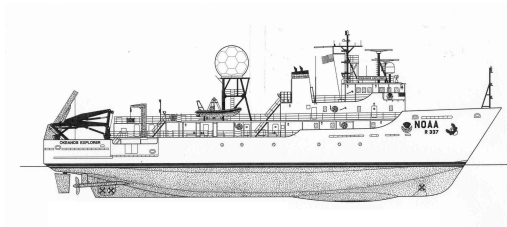
Ship personnel continue to monitor the bowthruster HPU temperature.

OTHER:

During small boat inspection of the designated rescue boat - Fast Rescue Boat (FRB EX02) – the power/battery charging connection was found to be scorched. The battery charger for the boat appears to have failed, and the boat is showing a low voltage warning. The boat is fully operational.

Engineers are troubleshooting the issue, but until resolved EX02 will be used only for urgent/emergency situations.





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EX01 is not operational and was CASREP'd during the Tampa, FL inport. A manufacturer's service rep visit is being coordinated for Pascagoula, MS.

- PLAN OF THE DAY -

Monday April 2nd, 2012

0000	Underway as before Mapping Operations
~0730	Arrive at Dive Location #13
0745	Safety Brief (Bridge)
~0800	Commence ROV deployment
1500	Ops Brief (Forward Lounge)
~1700	ROV on deck/ start overnight mapping
TBD	Resume Overboard Discharge

- Conduct ROV dive in DP
- Continue multibeam operations
- XBTs conducted as necessary

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 END OF SITUATION REPORT
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