

**NOAA SHIP OKEANOS EXPLORER R-337**  
“America’s Ship for Ocean Exploration”

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NOAA OCEAN EXPLORATION AND RESEARCH SITUATION REPORT FOR April 02, 2012

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CRUISE: EX1202L2 Gulf Of Mexico  
Exploration

DATE/TIME FILED: 04/04/12 1100 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)

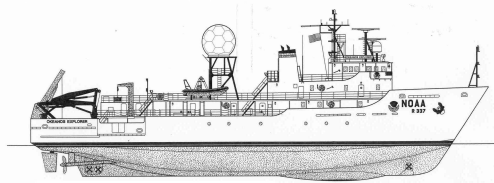
OTHERS:  
Tim Shank (WHOI/UCAR)  
Pen-Yuan Hsing (Penn State/UCAR)  
Dave Wright (OER/UCAR)  
Roland Brian (OER/UCAR)  
Art Howard (OER/UCAR)  
Ed McNichol (OER/UCAR)  
Thomas Kok (OER/UCAR)  
Gregg Diffendale (OER/UCAR)  
Bobby Mohr (OER/UCAR)  
Karl McLetchie (OER/UCAR)  
Jeff Williams (OER/UCAR)  
Tara Smithee (Stanford/UCAR)  
Christopher Pinero (OER/UCAR)

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**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 thirteenth dive of the 2012 field season. This was the third ROV dive in the vicinity of Deepwater Horizon. The ROV and Camera Platform were safely recovered by 1700. Mapping operations continued following recovery. Ability to extend mapping coverage into new areas is difficult due to existing coverage and location of dive targets.





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**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.

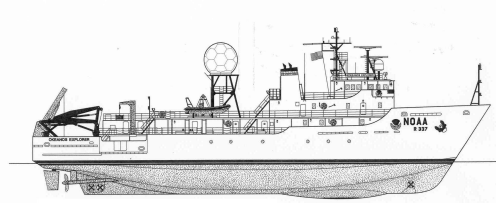
Today’s dive in Mississippi Canyon (MC) lease block 388 was the third of five expected dives in the vicinity of DWH this leg. Two scientists, Chuck Fisher and Miles Saunders, participated from the Stennis ECC.

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

**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.





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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.

Combined VOIP/RTS issues impacted ship-to-shore audio capabilities.

### **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 thirteenth successful dive.

### **BOW/STERN THRUSTER:**

Ship personnel continue to monitor the bowthruster HPU temperature.

### **OTHER:**

- No update on the designated rescue boat - Fast Rescue Boat (FRB EX02). The boat is fully operational.
- 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 -**

Tuesday April 3<sup>rd</sup>, 2012

0000	Underway as before Mapping Operations
~0730	Arrive at Dive Location #14
0745	Safety Brief (Bridge)
~0800	Commence ROV deployment
1500	Ops Brief (Forward Lounge)
~1700	ROV on deck/ start overnight mapping



<b>TBD</b>	<b>Resume Overboard Discharge</b>
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- Conduct ROV dive in DP
- Continue multibeam operations
- XBTs conducted as necessary

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END OF SITUATION REPORT

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