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BP's Deepwater Oil Spill - Continuing to Wait; Wave Glider - and Open Thread

Posted by Gail the Actuary on September 1, 2010 - 10:20am
Topic: Environment/Sustainability
Tags: deepwater horizon, oil spill, wave glider [list all tags]

Additional work near the Deepwater Horizon well site continues to be delayed by high waves. Once the current weather pattern clears, work can commence again.

We understand that today, Wednesday, BP is expect to submit a new report evaluating lessons learned in its response to the oil spill in the Gulf of Mexico to U.S. regulator the Bureau of Ocean Energy Management, Regulation and Enforcement. According to BP, "This report focuses in particular upon the key equipment, facilities and planning tools that were successfully deployed in responding to the spill." There will be another report released by BP later this month, which will examine the causes of the explosion.

Some new devices that we have not commented on are the new *Wave Gliders* that will monitor water quality. BP is deploying these in the Gulf of Mexico, near the Macondo well site. According to an August 25th press release:

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> As part of its long term monitoring and research program in the Gulf of Mexico, BP is deploying a new technology that will enable nearly constant monitoring by two satellite-controlled, unmanned vehicles.
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> The vehicles, known as Wave Gliders and developed by Liquid Robotics in Silicon Valley, California, get their propulsion power from wave action and use solar power for their electronics. They will be deployed beginning today and begin a months-long, ongoing research program in the Gulf of Mexico.

According to the press release, the types of monitoring performed will include

- water quality – detection of any emulsified, dissolved and dispersed oil in water; phytoplankton (chlorophyll); colored, dissolved oxygen matter (CDOM) and other scientifically useful variables
- marine mammal vocalizations
- weather and water temperature data

The first step in using the devices will be calibrating the optical sensors, according to Roger Hine, president and CEO of Liquid Robotics. "We look forward to working with BP on this extended

research program."

There is also a Wave Glider Fact Sheet available. It indicates

> Typically robotic systems have been challenged by limited battery power. The Wave Glider innovatively overcomes this challenge. It uses no fuel, has no motor, and no propeller - but it can swim in any direction at speeds up to two knots - for as long as necessary. It uses a unique, patented, system for converting even the tiniest amount of wave motion into thrust, in any direction. It uses solar panels to power electronics, and houses a sophisticated set of sensors, satellite communications, and microprocessors.

According to the fact sheet, the technology was invented, originally, to listen to humpback whale song. The Wave Glider fleet has been at sea for a combined total of 11.5 years and has covered over 100,000 miles.