



NOAA *Okeanos Explorer* Program

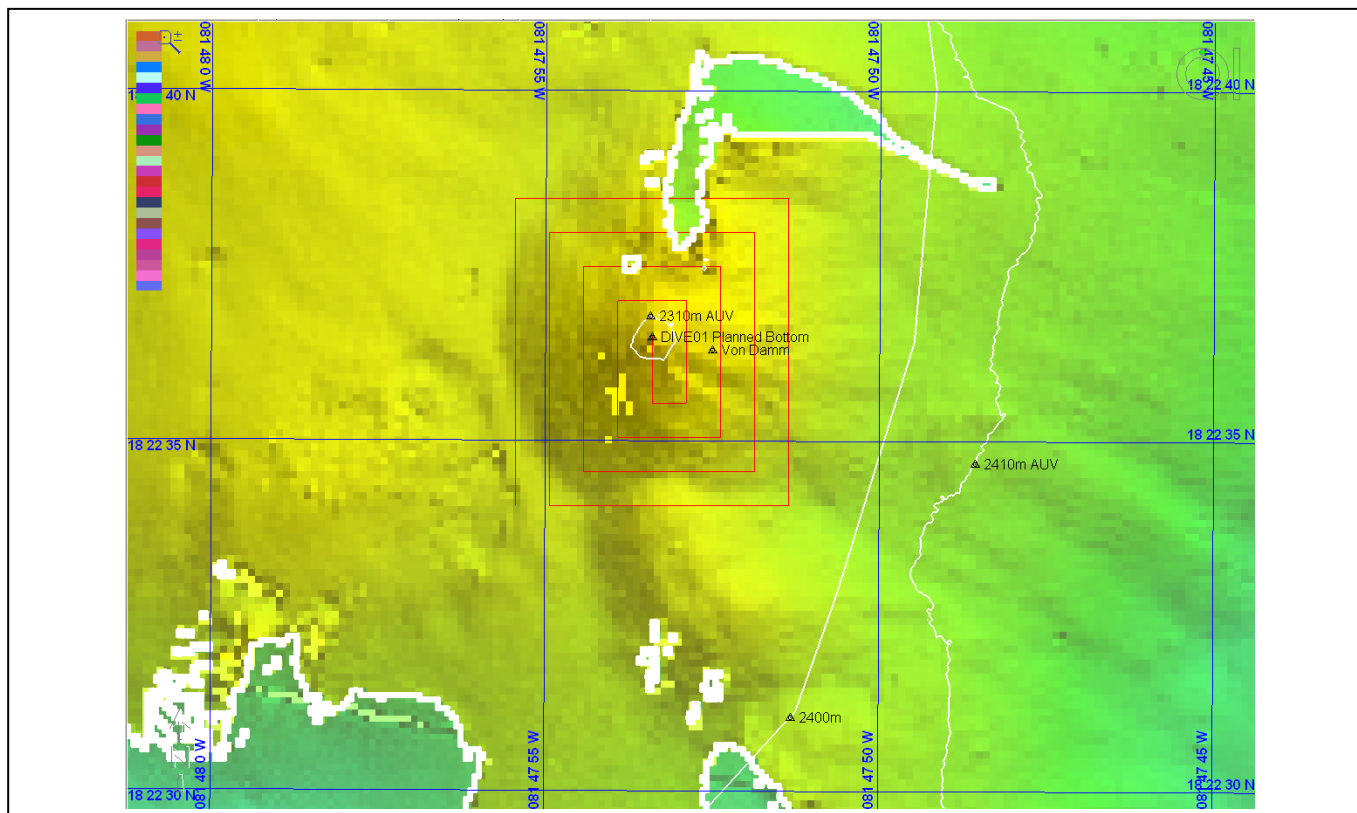
ROV Dive Planning Form

Science Team develops draft dive track two days before a planned dive. Expedition Leader responds overnight based on ship capabilities, programmatic considerations, and constraints. Plan is finalized the day before a dive

Site Name: Von Damm Hydrothermal Field

Approximate Location: 18° 22.65'N, 81° 47.875'W; 2300m

Dive Date (local): August 5th, 2011



UPDATED: August 4, 2011



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Brief Explanation of Exploration Objectives and Rational for the Desired Dive Track:

Science Rationale:

To locate and characterize the full extent of the Von Damm site in a systematic survey covering an area of ~150m on a side. Key objectives will be:-

- 1) To locate the center of the field using the sonars on the vehicles and confirm its precise location relative to the fixes currently provided from our UK colleagues.
- 2) To survey the surrounding area covering as much of the entire field as possible within this first dive to constrain its outer limits
- 3) To obtain an overview of the geologic features that determine the size/scale of the site
- 4) To identify biological (or other) "hotspots" by dropping way-points during this dive in anticipation of more detailed studies at each of those locations during one or more subsequent dives later in the program.

Operations Response/Rationale:

The ship plans to launch the ROV at 0800 over the peak of the mound. Time from launch to the bottom is approximately 2 hours. Once the ROV finds the peak of the mound, we will conduct a systematic survey in the shape of the spiral outlined in the image above, moving at 0.2knots, for a bottom time of 5.5 hours. The time to return to the surface and secure the ROV on deck is approximately 2 hours, and the ROV is expected to be secured on deck at 1830.

ROV Track Waypoints Table:

DESIRED WAYPOINTS TO EXPLORE - (COMPLETED BY SHORE-SIDE LEAD SCIENTIST) (not including launch)				ACTUAL WAYPOINTS TO EXPLORE- (COMPLETED BY SHIPBOARD EXPEDITION LEADER)			
WAYPOINT NAME	LATITUDE (N)	LONGITUDE (W)	APPROX DEPTH	WAYPOINT NAME/SEQUENCE	LATITUDE	LONGITUDE	APPROX DEPTH
Launch				Launch			
MCR001	18° 22.608'	81° 47.890'	2310m				
Conduct a counter-clockwise spiral with 15m spacing outward from the peak of the mound. Ship will maneuver in DP to have <i>Seirios</i> follow spiral. <i>Little Herc</i> will range ~10m to each side of <i>Seirios</i> ' path to cover all ground							

ANCILLARY INFORMATION:

COMPLETED BY SCIENCE TEAM LEAD



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Are there additions operations recommended in the target area prior to the ROV dive?

	LATITUDE	LONGITUDE	APPROX DEPTH
CTD CASTS			
1	None	None	
2			
3			
4			
MULTIBEAM BOUNDING COORDINATES			
1	None	None	
2			
3			
4			