



NOAA *Okeanos Explorer* Program

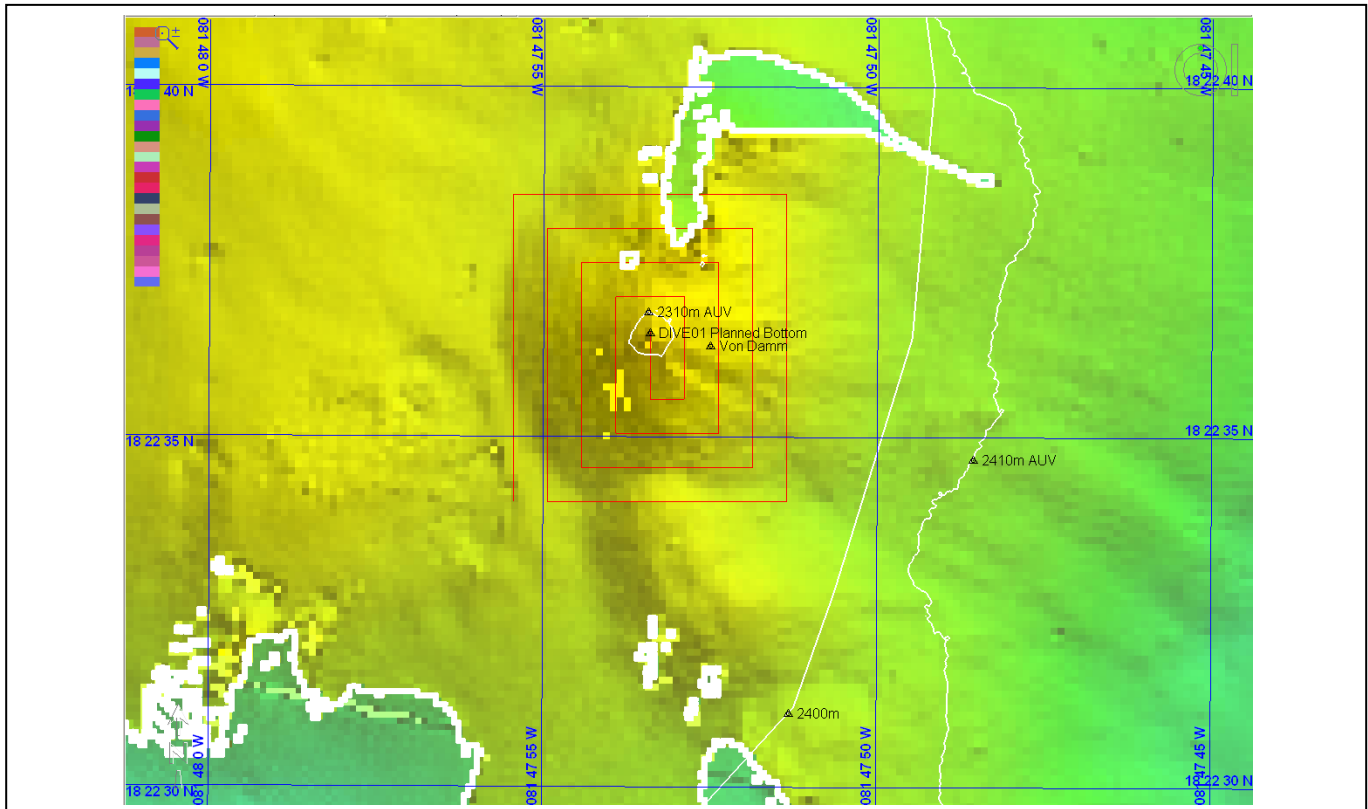
ROV Dive Planning Form

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 Field

Approximate Location: 18° 22.608'N, 81° 47.890'W; 2300m

Dive Date (local): August 6th, 2011



UPDATED: July 14, 2010 1100



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

Science Rationale:

The plans for Dive 02 are, if possible, to complete characterization of the Von Damm vent-site and then, as time permits, commence off-site reconnaissance. To that end the dive plan should include:-

- 1) Dive to central pinnacle for navigation orientation and ensure internal consistency from Dive 01;
- 2) Proceed south to outermost line that has not yet been completed from Dive 01 plan.
- 3) Proceed, counterclockwise around entire site to complete all 4 lines remaining from Dive 01 and ending due south of the Spire.
- 4) If, under (3) there were still hydrothermal systems/communities encountered (particularly to South and East of Spire), add in additional survey lines a further 15m out from those already planned for Dive 01.
- 5) Once outermost survey lines have been completed, proceed to detailed studies within the Von Damm "box".
- 6) Head north, to East of Spire, to vestimentiferan sites (to understand their setting and seek for live animals).
- 7) Study outer "patches" of shrimp on way north, look for suitable sites for flow study (Jill McDermott request).
- 8) Head to main spire for detailed biological study.
- 9) If time permits, conduct single transect South and East away from Central Spire along SE trending ridge in Connelly et al map.
- 10) Reserve right to modify all the above upon discovery of trilobites (or live T-rex)

Operations Response/Rationale:

The ship plans to launch the ROV at approximately 0800. Time from the start of launch to the bottom is approximately 1 hour 50 minutes. Completion of the remaining four sides of the box will take approximately 1h 40min, with approximately 4h 40min bottom time remaining during the dive. The time to return to the surface and secure the ROV on deck is approximately 1h 50 minutes.

ROV Track Waypoints Table:

<i>DESIRED WAYPOINTS TO EXPLORE - (COMPLETED BY SHORE-SIDE LEAD SCIENTIST) (not including launch)</i>				<i>ACTUAL WAYPOINTS TO EXPLORE- (COMPLETED BY SHIPBOARD EXPEDITION LEADER)</i>			
WAYPOINT NAME	LATITUDE	LONGITUDE	APPROX DEPTH	WAYPOINT NAME/SEQUENCE	LATITUDE	LONGITUDE	APPROX DEPTH
Launch				Launch			
MCR001	18° 22.608'	81° 47.890'	2310m				



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