



# NOAA Okeanos Explorer Program

## ROV Dive Planning Form

Please use this as a template for documenting your recommendations for high-priority dive targets. Be sure to include a rationale for the dive as well as specific protocols (if applicable), and any known previous work or potential hazards at the site. Please include only generalized location information for any marine archaeology sites.

The form also includes fields for mapping targets and CTD cast locations as well.

Please send the completed form to [Kelley.Elliott@noaa.gov](mailto:Kelley.Elliott@noaa.gov) and [Brian.Kennedy@noaa.gov](mailto:Brian.Kennedy@noaa.gov).

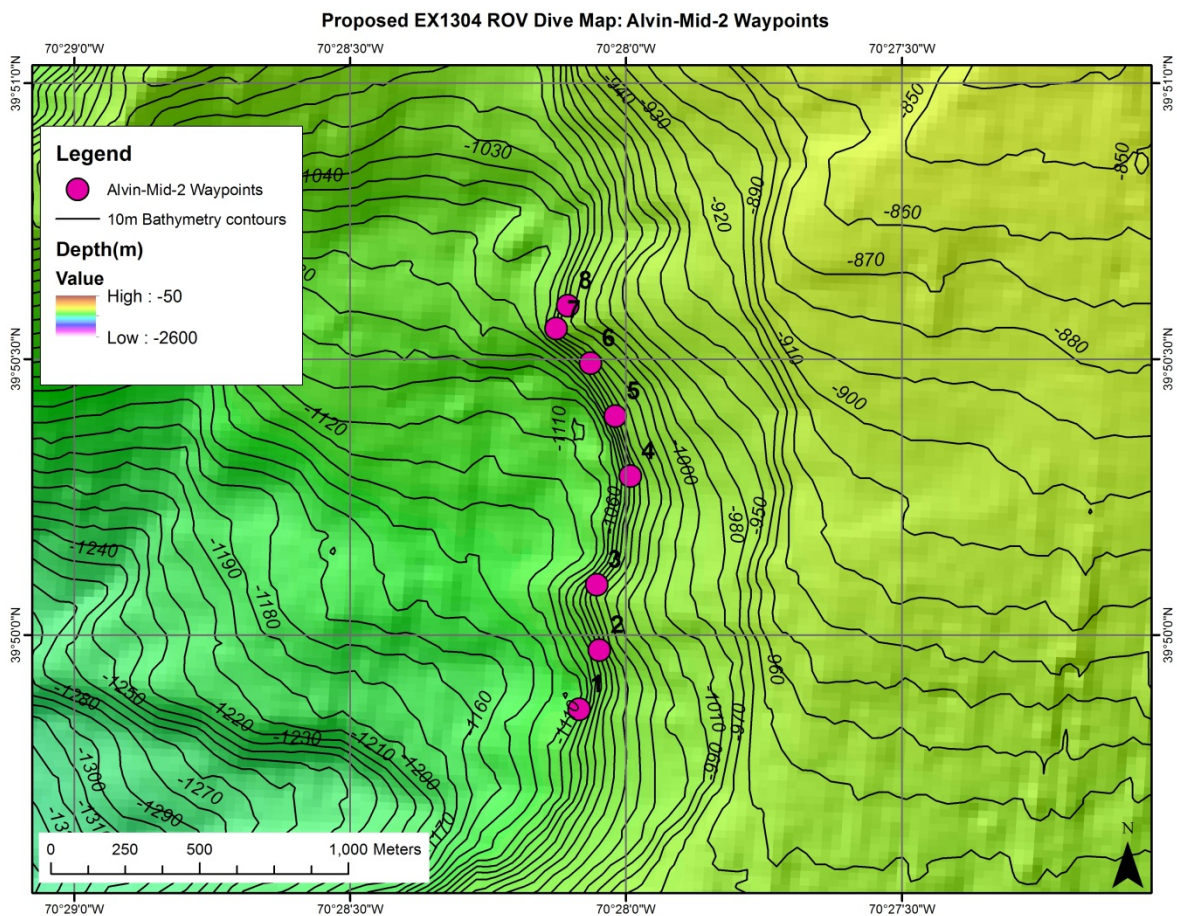
**Site Name:** ALVIN MID 2

**Approximate Location:** Longitude, Latitude, Depth = -70.4681, 39.8311, 1125m (Waypoint 1)

**Dive Date (local):** DATE (2013/07/18)

### Site map:

Waypoints (numbered pink dots) overlaid on hillshaded bathymetric relief (from 25m mosaic of EX Atlantic Canyons multibeam bathymetry), with contours showing depth at 10m intervals





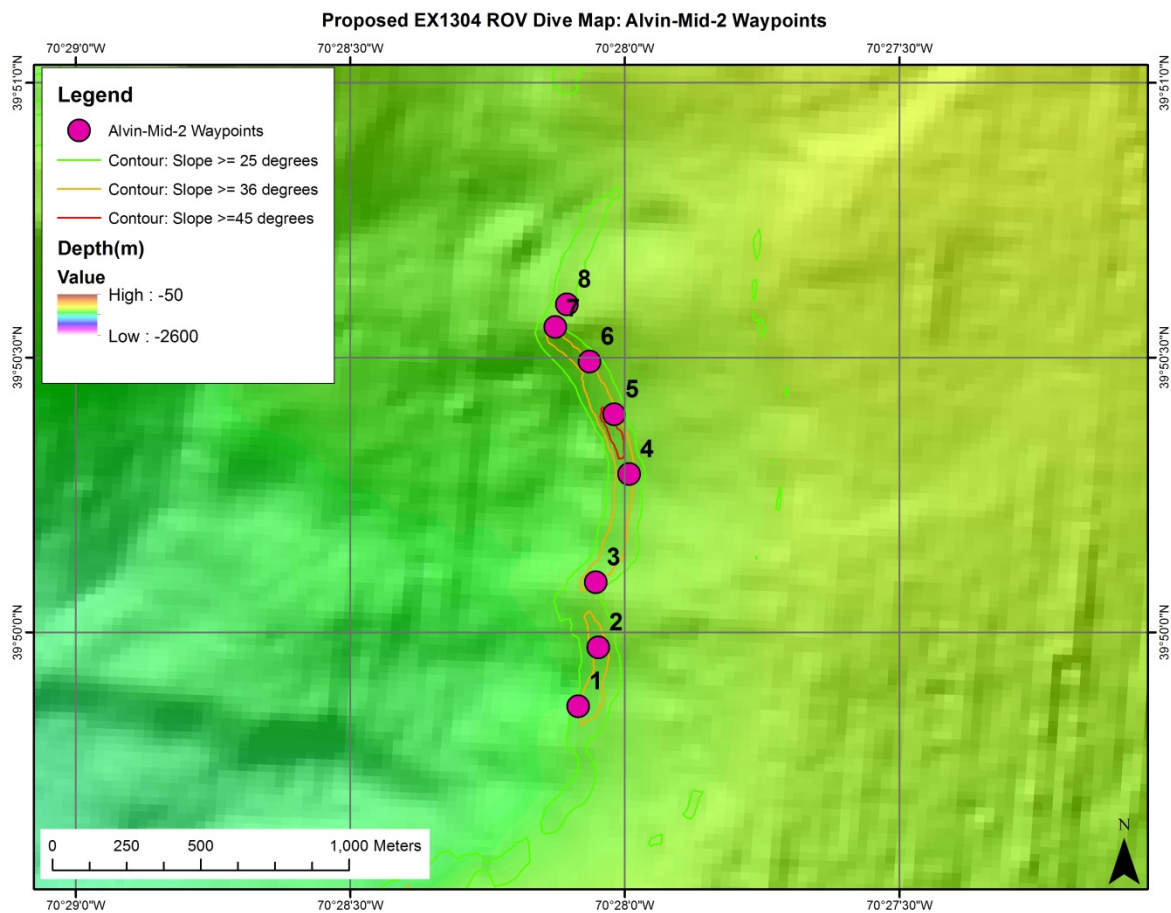
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### Additional site map showing areas of high SLOPE:

Waypoints (numbered pink dots) overlaid on hillshaded bathymetric relief (from 25m mosaic of EX Atlantic Canyons multibeam bathymetry), with contours showing slope in degrees

(past experience in Atlantic canyon systems indicates consolidated substrate is likely where slope exceeds 36° [orange contours] and almost certain where slope exceeds 45° [red contours])



UPDATED: July 17, 2013



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

The dive track was chosen based on habitat prediction models for corals, often found in the canyons in areas with slopes >36 degrees. Proposed by Brian Kinlan (NOAA NCCOS) and Tim Shank (WHOI).

Has previous work been conducted here? Are there potential hazards in the area?

### 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>			
<b>WAYPOINT NAME/SEQUENCE</b>	<b>LATITUDE</b>	<b>LONGITUDE</b>	<b>APPROX DEPTH</b>	<b>WAYPOINT NAME/SEQUENCE</b>	<b>LATITUDE</b>	<b>LONGITUDE</b>	<b>APPROX DEPTH</b>
Launch				Launch	39.83851068	-70.46754659	-1076
WP1	-70.46808828	39.83108762	-1124.71	WP1	39.83813176	-70.46654087	-1057.19
WP2	-70.46747455	39.83287515	-1077.01	WP2	39.83994612	-70.4669943	-1044.17
WP3	-70.4675547	39.83484981	-1061.21	WP3	39.84154718	-70.4677415	-1029.79
WP4	-70.46654087	39.83813176	-1057.19	WP4	39.84258783	-70.46878216	-1020.55
WP5	-70.4669943	39.83994612	-1044.17	WP5	39.84328139	-70.46843506	-1010.43
WP6	-70.4677415	39.84154718	-1029.79	BASE WPT	39.84185776	-70.47027921	-1098
WP7	-70.46878216	39.84258783	-1020.55	WP7			
WP8	-70.46843506	39.84328139	-1010.43	WP8			
WP9				WP9			
WP10				WP10			
WP11				WP11			
WP12				WP12			
WP13				WP13			
WP14				WP14			
WP15				WP15			
Recovery				Recovery			



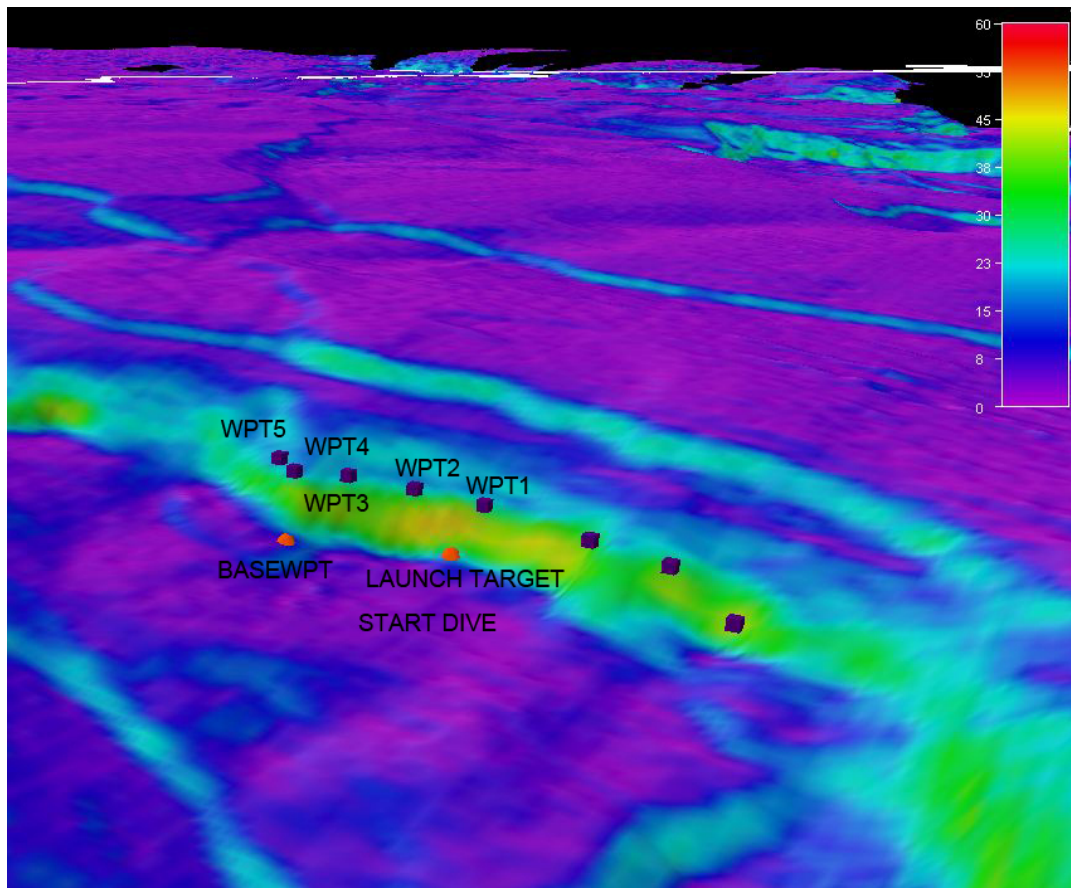
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### DIVE PLAN OVERVIEW

Because of the length of the dive plan proposed, we modified the dive track to start at the base of the wall at proposed waypoint 4 (see map above), now labeled waypoint 1. The plan is to move up slope to first survey the topography to the first waypoint. We will then move towards waypoint 2 at an appropriate contour with an abundance of benthic communities. The ROV will then possibly jump off slope to the Base WPT to move up the face of the prominent feature slope. The Dive track will be assessed throughout the day. We are targeting a depth range of 1100-1000 m during the dive.

### IMAGE: SLOPE TOPOGRAPHY WITH WAYPOINTS







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**ANCILLARY INFORMATION:**

A CTD CAST WILL BE CONDUCTED WITH WATER SAMPLING. MAPPING OPERATIONS WILL CONTINUE

**RECOMMENDED OPERATIONS IN THE TARGET AREA PRIOR TO OR AFTER ROV DIVE**

*Please include requests for in situ sensors (LSS, DO, ORP) to be added to the CTD cast here, and specifics on the type of mapping operation requested (multibeam, subbottom, single beam).*

	LATITUDE	LONGITUDE	APPROX DEPTH
<b>CTD CASTS</b>			
1			
2			
3			
4			
<b>MAPPING AREA BOUNDING COORDINATES</b>			
North			
East			
South			
West			