### 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 and Brian. Kennedy@noaa.gov.

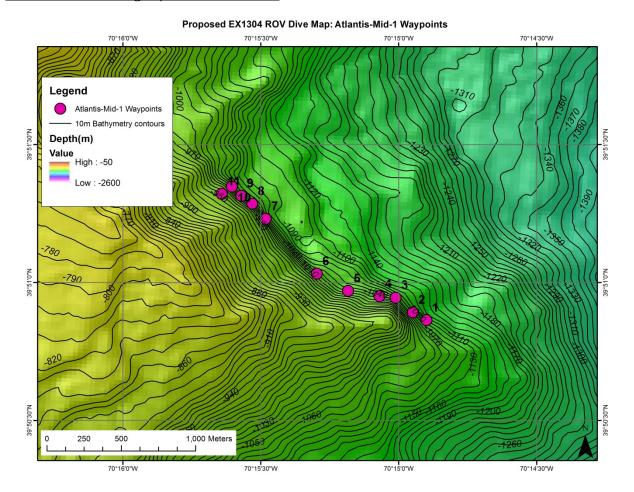
Site Name: ATLANTIS MID 1

Approximate Location: Longitude, Latitude, Depth = -70.2483, 39.8477, 1120.76m (Waypoint 1)

**Dive Date (local):** DATE (2013/07/15)

#### 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

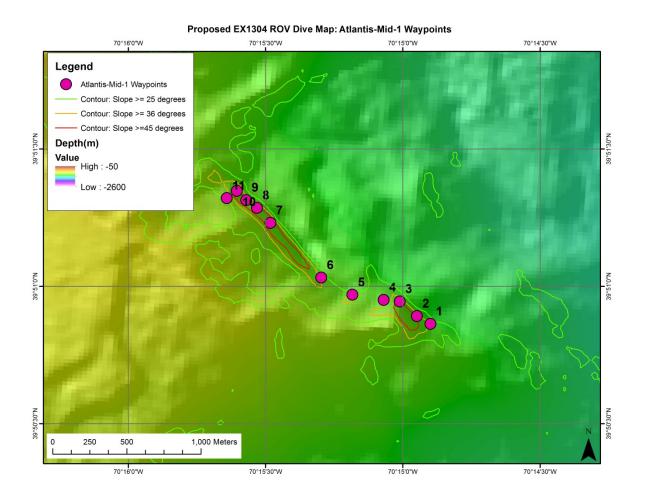


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### Additional site map showing areas of high SLOPE:

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])



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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 and Tim Shank.

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

### **ROV Track Waypoints Table:**

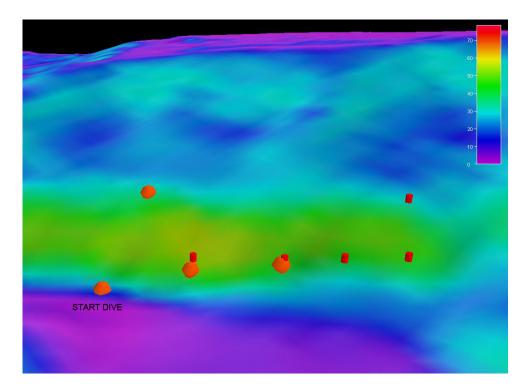
DESIRED WAYPOINTS TO EXPLORE - (COMPLETED BY SHORE-SIDE LEAD SCIENTIST) (not including launch)				ACTUAL WAYPOINTS TO EXPLORE- (COMPLETED BY SHIPBOARD EXPEDITION LEADER)			
Launch				Launch			
WP1	- 70.24832887	39.84772228	-1120.76	WP1	39.85315474	-70.25699894	-1100.63
WP2	- 70.24914976	39.84819607	-1101.31	WP2	39.85262294	-70.2581869	-986.4
WP3	-70.2501917	39.84907998	-1086.4	WP3	39.8538312	-70.25802559	-1071.75
WP4	70.25117031	39.84917467	-1067.09	WP4	39.85472985	-70.2588441	-1050.79
WP5	70.25306482	39.84949042	-1056.73	WP5	-70.25804284	39.85385342	-1049.42
WP6	70.25495901	39.85053237	-1050.96	WP6	-70.25885953	39.85476383	-1040.49
WP7	70.25804284	39.85385342	-1049.42	WP7	-70.25951559	39.85523245	-1040.02
WP8	70.25885953	39.85476383	-1040.49	WP8	-70.26009119	39.85579512	-1032.64
WP9	70.25951559	39.85523245	-1040.02	WP9	-70.26069393	39.855353	-970.44
WP10	70.26009119	39.85579512	-1032.64	WP10			
WP11	70.26069393	39.855353	-970.44	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 in between proposed waypoints 6 and 7 (see map above). The plan is to move up slope to first survey the topography. We will then come back down and start sliding along the slope, assessing our time and location to determine where we will make our final turn up slope, planned now for the end of the dive track. We plan to target a depth range of 1100-900 m during the dive.

### **IMAGE: SLOPE TOPOGRAPHY WITH POTENTIAL WAYPOINTS**



### **ANCILLARY INFORMATION:**

A CTD CAST WILL BE CONDUCTED AND WATER SAMPLES COLLECTED AT THE DEEPEST POINT OF THIS DIVE.

### 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				
CTD CASTS							
1							

UPDATED: July 14, 2013