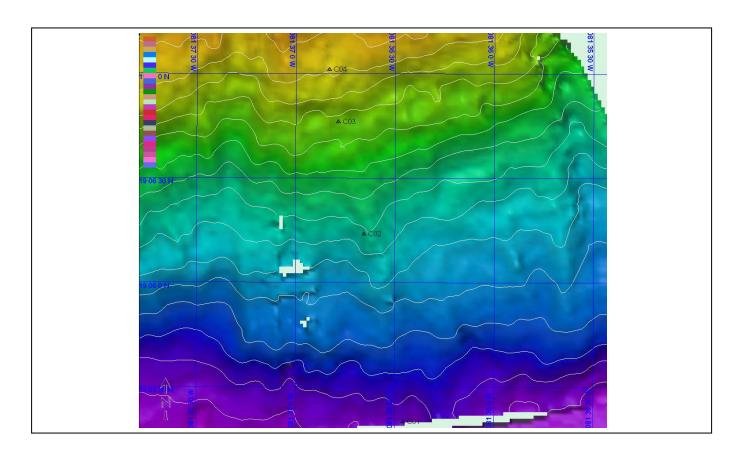


Science Team develops draft dive track two days before a planned dive. Expedition Leader responds overnight based on ship capabilities, programmatic considerations, and constraints. Plan is finalized the day before a dive

Site Name: North Cayman Trough

**Approximate Location:** <u>19° 5.334′ N, 81° 36.458′ W</u>

Dive Date (local): August 15, 2011





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

## Science Rationale:

Conduct a geological and biological transect from South to North up the interior (south-facing) wall of the North Cayman Fracture Zone. We know of no similar study in this, or perhaps any other, Fracture Zone even though, along with ridges and trenches, they represent one of the three major types of Plate Tectonic Boundary.

## Operations Response/Rationale:

The ship plans to launch the ROV at approximately 0800. The time from the start of launch to the start of the dive on the seafloor at waypoint CO1 (3250m) is approximately 2 hours 30 minutes. The approximate time to go from waypoint CO1 to CO3 (2700m) at an average of 0.24kts is approximately 6 hours 10 minutes. We may not make it waypoint CO3. The time from the bottom at 2000m to 50m is 1 hour 20 minutes, and the time for ROV recovery is 30 minutes, with the ROV secured on deck at 1830 ship time.

## **ROV Track Waypoints Table:**

DESIRED WAYPOINTS TO EXPLORE -				ACTUAL WAYPOINTS TO EXPLORE-			
(COMPLETED BY SHORE-SIDE LEAD SCIENTIST)				(COMPLETED BY SHIPBOARD EXPEDITION LEADER)			
(not including launch)							
WAYPOINT	LATITUDE	LONGITUDE	APPROX	WAYPOINT	LATITUDE	LONGITUDE	APPROX
NAME			DEPTH	NAME/SEQUENCE			DEPTH
Launch				Launch			
C01	19° 5.334′	81° 36.458′	3500m				



C01	19° 5.334′	81° 36.458′	3500m		

## **ANCILLARY INFORMATION:**

COMPLETED BY SHORE-SIDE LEAD SCIENTIST

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						