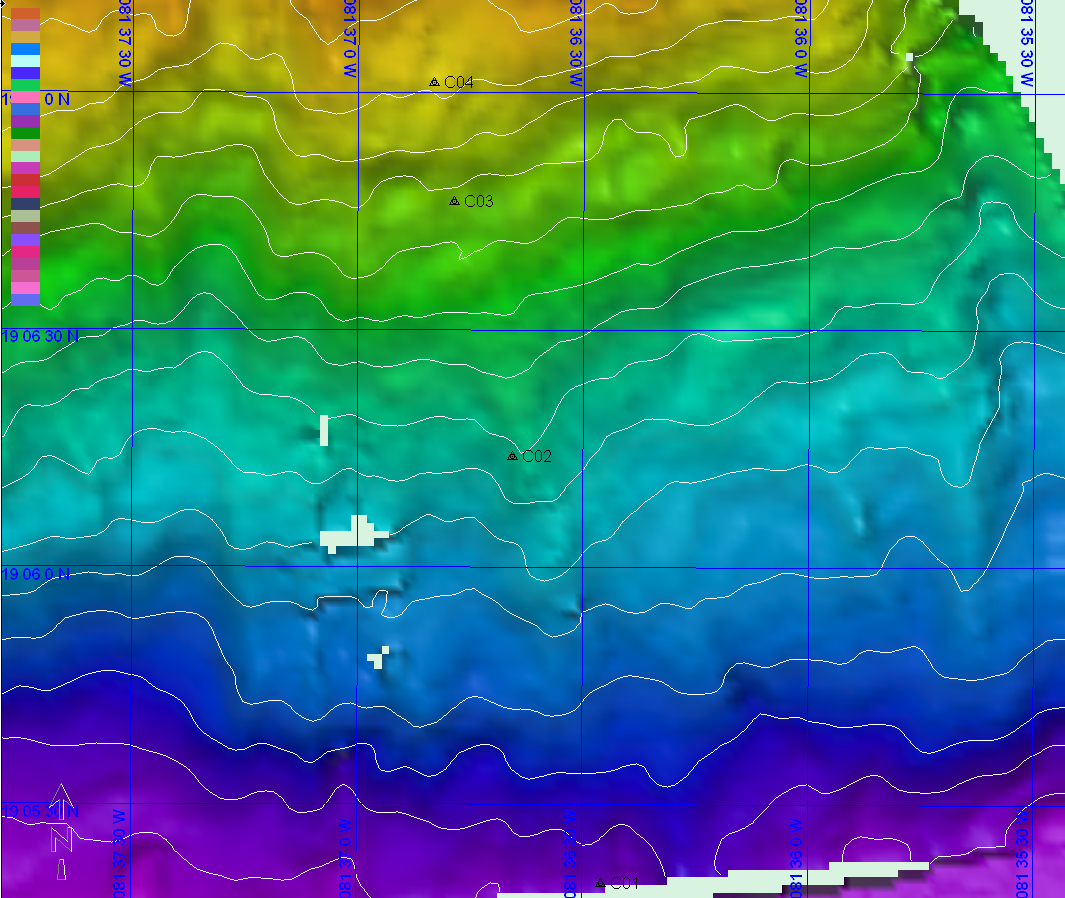
*Science Team develops draft dive track two days before a planned dive. Expedition Leader responds overnight based on ship capabilities, programmatic considerations, and constraints. Plan is finalized the day before a dive*

**Site Name:** North Cayman Trough

**Approximate Location:** 19° 5.334´ N, 81° 36.458´ W

**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 C01 (3250m) is approximately 2 hours 30 minutes. The approximate time to go from waypoint C01 to C03 (2700m) at an average of 0.24kts is approximately 6 hours 10 minutes. We may not make it waypoint C03. 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 -*  *(COMPLETED BY SHORE-SIDE LEAD SCIENTIST)*  *(not including launch)* | | | | *ACTUAL WAYPOINTS TO EXPLORE-*  *(COMPLETED BY SHIPBOARD EXPEDITION LEADER)* | | | |
| **WAYPOINT NAME** | **LATITUDE** | **LONGITUDE** | **APPROX DEPTH** | **WAYPOINT NAME/SEQUENCE** | **LATITUDE** | **LONGITUDE** | **APPROX**  **DEPTH** |
| Launch |  |  |  | Launch |  |  |  |
| C01 | 19° 5.334´ | 81° 36.458´ | 3500m |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| C01 | 19° 5.334´ | 81° 36.458´ | 3500m |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |

**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 |  |  |  |