

## C. VERTICAL AND HORIZONTAL CONTROL *See also HCell Report*

### C.1 Vertical Control

The vertical datum for this project is Mean Lower Low Water (MLLW). The operating National Water Level Observation Network (NWLON) station at Panama City, FL (872-9108) serves as datum control for Survey H12236.

The survey area is located within Zone CGM8 as provided in the preliminary tidal zoning scheme included with the project SOW CD. Based on the results of cross line analysis, it appears that the time and range factors, as provided in the preliminary zoning scheme, are adequate.

### C.2 Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83). All data products are referenced to Latitude/Longitude or Universal Transverse Mercator (UTM) Zone 16, meters. *Concur*

All mainscheme line and item investigation position data were acquired using an Applanix POS MV operating in Differential GPS (DGPS) mode. This primary navigation system was supplied with USCG Differential beacon correctors from the Eglin Air Force Base, FL station. Differential beacon correctors from the U.S. Coast Guard station in Mobile Point, AL, were used by the secondary navigation system to facilitate real-time horizontal control

confidence checks. Due to degradation in the USCG Eglin AFB signal, the primary navigation system was temporarily supplied with correctors from the Mobile Point station. Degradation of the Eglin AFB signal occurred between 23:00 UTC on May 18 (DN 138) and 04:45 UTC on May 19 (DN 139). Initial dynamic draft and patch test calibration data were acquired with the POS MV operating in RTK GPS mode.

Prior to and during the course of the survey the accuracy of the primary positioning system was verified by means of a physical measurement to a project horizontal control point established at the vessel's berth. Position confidence checks were accomplished during fuel or weather stops for the *R/V Ferrel*. Refer to the DAPR\* and Horizontal and Vertical Control Report (HVCR) \* for additional details. ***\*Submitted with HCell Deliverable***

## Abstract of Times of Hydrography

The following table, "Abstract of Times of Hydrography," summarizes the days in which data were collected that contribute to the final accepted data set.

<b>Date</b>	<b>Day Number</b>	<b>Min. Time UTC</b>	<b>Max. Time UTC</b>
5/12/2010	132	05:50:00	23:05:42
5/13/2010	133	01:22:02	23:35:14
5/14/2010	134	00:27:30	06:26:59
5/15/2010	135	00:34:12	23:41:48
5/16/2010	136	00:24:13	23:37:45
5/17/2010	137	00:26:51	23:37:52
5/18/2010	138	00:49:33	23:34:53
5/19/2010	139	00:23:09	05:00:45
5/25/2010	145	04:35:47	23:44:04
5/26/2010	146	00:26:32	07:42:29
5/27/2010	147	12:50:47	16:15:24

The COTR was notified via e-mail and telephone communications that the OSI field team was ready to commence survey operations. The COTR subsequently instructed CO-OPS to begin providing OSI with verified tides. Email correspondence concerning the tide gauge follows.