

G. Vertical and Horizontal Control

The vertical datum for this project is Mean Lower Low Water. Heights for these data were obtained by Real Time Kinematic Global Positioning System (RTK-GPS) and were referenced to the USGS Marine Operations Facility (MOF) in Falmouth, Mass. Revisions were communicated over a cellular modem and high frequency radio between the ship and base station. The USGS applied their own tidal model and referenced the following tidal benchmarks:

Station Name	Station ID
Chappaquoit	8447685
Monument Beach	8447355
Piney Point Wings Cove	8447416
Round Hill	8447842

To maintain consistency between the USGS interferometric and NOAA surveys, the USGS tidal model was removed upon arrival at the IOCM center. The NOAA 2015 TCARI model was applied to the CARIS HDSC data through PYDRO (E.1).

The horizontal datum for this project is World Geodetic System 1984 (WGS84) and is projected to Universal Transverse Mercator (UTM) Zone 19N. USGS horizontal positioning was acquired using a differential GPS.

For more information, please reference the USGS Open-File Report 2012-1002 (Ackerman et al).

H. Approval/Recommendations

Following IOCM processing, the survey data do not fully meet the requirements as set forth in the NOS Hydrographic Surveys and Specifications Deliverables Manual, Field Procedures Manual, Standing and Letter Instructions, and all HSD Technical Directives. However, these data are adequate to supersede charted general sounding data in their common areas. This survey