

G. Vertical and Horizontal Control

The vertical datum for this project is Mean Lower Low Water. The vertical control method used was VDatum.

The vertical datum for the Fourchon survey area is MLLW while the vertical datum for the Houma area is MLG. Both areas were reduced to chart datum using ERS methods and the NOAA-supplied separation models. Real-time navigation for all MBES survey lines were overwritten with post-processed navigation solutions in SBET format. Post-processed solutions were generated using Applanix POSPac MMS using the Trimble CenterPoint RTX option, which relies on precise satellite orbit and timing information to create centimeter level positioning and elevation without the use of traditional local base stations.

The horizontal datum for this project is North American Datum of 1983 (NAD 83). The projection used for this project is Universal Transverse Mercator (UTM) Zone 15.

The POS MV was configured to receive real time corrections from the Federal Aviation Administration Wide Area Augmentation System (FAA WAAS) during data acquisition. All real-time navigation data were overwritten with the application of post-processed SBET files when processing multibeam data in CARIS Hydrographic Information Processing System (HIPS).