## C. Vertical and Horizontal Control

All data for survey H12979 have been reduced to Mean Lower Low Water (MLLW) using documented VDatum techniques documented in the DAPR. The 'Ferdinand R. Hassler' is equipped with Applanix POS/ MV position and orientation systems on the port and starboard hulls. Correctors are derived using a Precise Point Positioning (PPP) approach. The POS/MV data was post-processed in Applanix POSPac MMS using the Applanix RTX service to produce Smoothed Best Estimates of Trajectory (SBETs) and RMS uncertainty files using the method of Post Processed Precise Point Positioning (5P). Additional information discussing the vertical or horizontal control for this survey can be found in the accompanying DAPR.

## **C.1 Vertical Control**

The vertical datum for this project is Mean Lower Low Water.

ERS Methods Used:

ERS via VDATUM

Ellipsoid to Chart Datum Separation File:

VDatum\_Sep-shapefile\_xyNAD83-MLLW\_geoid12b.csar

## **C.2** Horizontal Control

The horizontal datum for this project is North American Datum 1983 (NAD83).

The projection used for this project is Projected UTM 17N.