

C. Vertical and Horizontal Control

Additional information discussing the vertical or horizontal control for this survey can be found in the accompanying 2019 DAPR.

C.1 Vertical Control

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

ERS Datum Transformation

The following ellipsoid-to-chart vertical datum transformation was used:

Method	Ellipsoid to Chart Datum Separation File
ERS via VDATUM	s-g931_limits_NAD83-MLLW

Table 12: ERS method and SEP file

Sounding elevations relative to the ellipsoid were collected through Ellipsoidal Referenced Survey (ERS) with post-processing of the daily logged POSPac data to create a statistical best estimate of trajectory (SBET) file, as detailed in the DAPR, All of F00792 meets HSSD vertical accuracy requirements.

C.2 Horizontal Control

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 17.

The following PPK methods were used for horizontal control:

- RTX

Precise Positioning-Real Time Extended (PP-RTX) processing methods were used in Applanix POSPac MMS 8.4 software to produce SBETs for post-processing horizontal correction. All of F00792 meets HSSD horizontal accuracy requirements.

WAAS

The Wide Area Augmentation System (WAAS) was used for real-time horizontal control during data acquisition.