C.2 Horizontal Control

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

The following PPK methods were used for horizontal control:

Smart Base

PPK is the primary method of horizontal positioning of MBES soundings on H12280. Resultant data from SmartBase processing were used for post processing all vessel-day POSMV files. Smooth Best Estimate of Trajectory (SBET) files were applied to all MBES data in CARIS HIPS. For further details see the SBET and SMRMSG (error) processing logs for the particular days located with the SBET GNSS data submitted.

All data from H12280 can be referenced to ellipsoid except for lines 2011M_031825A, 2011M_0901648A, and 2011M_0901756A. A 1m ellipsoidally referenced surface is included.

The following CORS Stations were used for horizontal control:

HVCR Site ID	Base Station ID
Seattle	SEAT
Robinson Point 6	RPT6
Tumwater	TWHL
Pacific Beach	PABH
Neah Bay	NEAH
Whidbey Island	WHD6

Table 11: CORS Base Stations

DGPS was used during H12280 for real-time acquisition of MBES data. All positioning of detached positions (DP) and bottom samples were collected and submitted in DGPS mode as there is currently no functionality for applying SBET or base station files to these types of data.

The following DGPS Stations were used for horizontal control:

DGPS Stations
Robinson Point, WA - 323 kHz

Table 12: USCG DGPS Stations