

C. HORIZONTAL AND VERTICAL CONTROL

A summary of horizontal and vertical control for this survey is as follows. No additional reports for horizontal and vertical control have been formulated.

C1. Horizontal Control

The horizontal datum for this project is the World Geodetic System of 1984 (WGS84). No Differential Global Positioning System (DGPS) was used for positioning. The resulting horizontal positioning of the survey vessel is relatively poor (10 m at 2σ), so the relative maximum difference of 2 meters between WGS84 and the standard survey datum, NAD83, is not considered significant.

C2. Vertical Control

The vertical datum for this project is Mean Lower Low Water (MLLW). The operating National Water Level Observation Network (NWLON) primary tide station at Sand Point, AK (945-9450) served as control for datum determination and as the primary source for water level correctors for the surveyed area.

Tides were applied through Pydro using Final Tides and a TCARI surface originally intended for NOAA survey H12072. This TCARI grid, P183FA2009-Final, originally used a temporary water level gauge 945-9163, which was installed by the field party on Herendeen Island. As the temporary gauge data was not available during this survey, TCARI only uses the Final Tides from the Sand Point gauge to model and reduce water levels for this survey.

No further attempt was made to improve the vertical control for this survey.