

The benchmark runs were reduced to MLLW using Alitak final tides and zoning, and compared against the gridded benchmark surfaces in the GS. Statistics are generated which include the number of points compared, the mean depth difference (MDD) and the standard deviation (SD) between the data sets.

C.2 ZONING

NOAA initially supplied tide zoning with time and range correctors relative to Kodiak and Alitak in the Statement of Work (SOW) dated March 15, 2007. During data collection and preliminary tide reduction, a tide step was identified between adjacent tide zones, SWA141A (time and range correctors from Kodiak) and SS85 (time and range correctors from Alitak). A request for rezoning was submitted to the COTR. Final vertical control and zoning was based on revised information received from CO-OPS via an email received on August 15, 2007. The final time and range correctors were based off Alitak, AK (9457804) only. These supplemental instructions are provided at Appendix V.

The final tide zones and correctors are as follows:

Tide Zone	GS Identifier	Time Corrector	Range Corrector	Reference Station
SS72	TA4	+6 minutes	x0.93	9457804
SS73	TA3	+6 minutes	x0.95	9457804
SS74	TA2	+6 minutes	x0.97	9457804

Tide Zone	GS Identifier	Time Corrector	Range Corrector	Reference Station
SS75	TA5	+6 minutes	x0.91	9457804
SS83	TA6	-6 minutes	x0.89	9457804
SS84	TA7	-6 minutes	x0.87	9457804
SS85	TA8	-12 minutes	x0.84	9457804
SS108	TA1	+6 minutes	x1.00	9457804
SWA124	TA14	-24 minutes	x0.75	9457804
SWA124A	TA13	-24 minutes	x0.74	9457804
SWA139	TA12	-24 minutes	x0.77	9457804
SWA140	TA11	-18 minutes	x0.79	9457804
SWA141	TA10	-12 minutes	x0.81	9457804
SWA141A	TA9	-12 minutes	x0.83	9457804

For final tide application, the time and range correctors were applied to the smoothed tidal data provided by JOA. Soundings were then reduced to MLLW using these corrected tides. An analysis of depth benchmark and crossline comparisons, and overlaps of the mainlines of sounding concluded that final tide zoning was adequate.

The derived value for the difference between MLLW and MHW at the Alitak tide gauge is 3.30m. From the final zoning, a range factor of 0.75 was applicable for Sheet E, resulting in a MHW value of 2.475m.