

Field Tide Note
OPR-P146-FA-85
Puale Bay, Alaska

As stated in the project instructions OPR-P146-FA-85, the tide gauge at Seldovia, Alaska (945-5500) served as the controlling and reference station for the predicted tides used for correctors on the field examination of shoal indications and an unsurveyed area on survey H-7195 (1947). Leveling and maintenance of this station are performed by the Pacific Tide Party.

Predicted tide correctors were interpolated aboard FAIRWEATHER using data from the 1985 West Coast Tide Tables and program AM 500 dated November 10, 1972. All correctors calculated were based on the zone correctors for Puale Bay.

All times of predicted and reported tides are expressed in Universal Coordinated Time (UTC). Predicted tides were acceptable for hydrography with no discrepancies in the data attributable to tide errors.

One field tide station, Puale Bay (945-8209), was established during this field examination. The gauge, a Bristol Bubbler analog (S/N 68A9333), was installed at the historic site on an island 0.5nm off the eastern point of Puale Bay (latitude 57/42/24 N, longitude 155/23/24 W) on July 9, 1985 (DN 190). The orifice was mounted to an eyebolt secured to a boulder on the bottom. The staff was bolted to a rock face and guyed from the top and bottom. Zero on the staff equals 2.8 feet on the analog trace. The gauge was removed on July 17, 1985 (DN 198). For more information see the Tide Station Report #945-8209, Puale Bay, AK.

Opening levels were performed on July 9, 1985 (DN 190) from the staff to three benchmarks. All three marks are standard NOS brass disks cemented into rock. A closure of one millimeter was observed. The levels agreed within 4 millimeters of the historic data. Closing levels were performed on July 17, 1985 (DN 198) over the same run with a closure of 2 millimeters obtained. The closing levels are in agreement with the opening levels. Hydrographic operations ended on July 16, 1985 (DN 197).

The staff was found to have pulled free from the rock face on July 13, 1985 (DN 194) and was reinstalled the same date. Levels were rerun between the first benchmark and the staff and it was determined that the staff was 8 millimeters lower than the first installation. No data was lost because of the staff pulling free.

No zoning recommendations are forwarded.

Predicted tide correctors were applied to the soundings plotted on the field sheets for this survey. The tide correctors were from the 1985 West Coast of North and South America Tide Tables. Seldovia, Alaska was the controlling and reference station for this field examination with times and heights corrected for Puale Bay. Program AM500 was used to interpret tides for hydrography. For further information, refer to appendix B, "Field Tide Note".