

Field Tide Note
Excursion Inlet, Icy Strait, Alaska
Station Number 945-2447
April to May, 1988

Field tide reduction of sounding data for survey H-10258 was based on predicted tides from Juneau, Alaska (945-2210), and corrected to the survey area. Tide correctors were interpolated by PDP/8e computer using AM 500.

Calculated correctors were based on zone correctors specified in project instructions and shown below.

<u>Survey</u>	<u>Time Correction</u>		<u>Height Correction</u> <u>Range Ratio</u>
	<u>High Water</u>	<u>Low Water</u>	
H-10258	0	0	x 0.90

All times of predicted and reported tides are expressed in Coordinated Universal Time. Predicted tides were acceptable for hydrography with no discrepancies in the raw data attributed to tidal errors.

A Bristol Gas-Purged Pressure Recording Tide Gage, Model 15 (gage s/n 63A2920, chart drive s/n 511055), range 0 to 30 feet, was installed in support of survey H-10258. Location and dates of operation are as follows:

<u>Station Name</u>	<u>Location</u>	<u>Dates of Operation</u>
Excursion Inlet, Icy Strait, Alaska	58/29/51N 135/29/12W	April 11 to May 14

Excursion Inlet

The tide gage, staff, orifice, and orifice tubing were installed on the eastern shore at the northern end of Excursion Inlet, Alaska, on April 11. A three-hour observation on April 11 confirmed consistent gage-to-staff differences. The gage, staff, orifice, and orifice tubing were removed on May 14.

A slight oscillation of the tide curve was noted that became prominent during periods of high winds and low tides. This seiche-like oscillation appears to be due to local conditions at the northern end of Excursion Inlet.

The gage ran well throughout the project. The zero mark on the tide staff corresponded to 9.2 feet on the gage.

Levels

The comparison between opening and closing level runs indicates no significant staff movement.

A discrepancy occurred between opening and closing levels. On April 11, opening levels showed bench mark 2447A to be 4.2620 meters above the zero of the tide staff. Closing levels on May 14 showed an elevation of 4.1604 meters. Levels run to the mark again on May 17 showed an elevation of 4.2720 meters.

The variation in elevation of bench mark 2447A over five leveling runs (shown below) indicates that the mark is unstable; it is recommended that mark 2447A no longer be used in support of this tide station, and that elevations from this mark be disregarded.

<u>Date</u>	<u>Elevation</u>
20 Oct 87	3.611 meters
9/10 Nov 87	4.275 meters
11 Apr 88	4.2620 meters
14 May 88	4.1604 meters
17 May 88	4.2720 meters

Zoning Recommendations

None

Approval

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Date:

7 JUNE '88

Predicted tide correctors were applied to the soundings plotted on the final field sheets for this survey. The tide correctors used for the fall of 1987 were from the Tide Tables 1987, West Coast of North and South America including the Hawaiian Islands, and those used for the spring of 1988 were from the same publication for 1988. Tide correctors use Juneau, Alaska, as the reference station using a height correction range ratio of "x0.90" and no time correction. For further information, refer to Appendix II, Field Tide Note.