

Field Tide Note
Point Adolphus, Alaska
October to November, 1987

Field tide reduction of sounding data for surveys H-10257 and 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.

All calculated correctors were based on zone correctors supplied by project instructions and tabulated 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-10257	0	0	x 0.92
H-10258	0	0	x 0.90

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

A Bristol Bubbler, Model 15 (gage s/n 68A14940) analog tide gage, (range 0 to 30 feet) was installed in support of surveys H-10257 and H-10258. Location and dates of operation are as follows:

<u>Site</u>	<u>Location</u>	<u>Dates of Operation</u>
Point Adolphus, Alaska (945-2516)	58/17.2N 135/46.2W	October 21 to November 9, 1987

Point Adolphus

The tide gage, staff and orifice were installed at Point Adolphus, Icy Strait, Alaska, on October 14; the first staff-to-gage comparison was made on October 21 at 0035 UTC. A three-hour observation on October 21 confirmed consistent gage-to-staff differences. Nitrogen flow to the gage was secured from November 3 at 2315 UTC to November 4 at 1945 UTC, rendering the gage inoperative until a faulty regulator was replaced. Data collection continued until November 9 at 2230 UTC, when the gage, staff, and orifice were removed.

The gage ran well throughout the project. The zero mark on the tide staff corresponded to 6.1 feet on the gage.

Levels

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

Zoning Recommendations

None

Field Tide Note
Excursion Inlet, Alaska
October to November, 1987

Field tide reduction of sounding data for surveys H-10257 and H-10258 were based on predicted tides from Juneau, Alaska (945-2210) corrected to the survey area. Tide correctors were interpolated by PDP/8e computer using AM 500.

All calculated correctors were based on zone correctors supplied by project instructions and tabulated 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-10257	0	0	x 0.92
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 Bubbler, Model 15 (gage s/n 73A229) analog tide gage (range 0 to 30 feet) was installed in support of surveys H-10257 and H-10258. Location and dates of operation are as follows:

<u>Site</u>	<u>Location</u>	<u>Dates of Operation</u>
Excursion Inlet, Alaska (945-2447)	58/29/51N 135/29/12W	October 15 to November 10, 1987

Excursion Inlet

The tide gage, staff, and orifice were installed on the eastern shore at the northern end of Excursion Inlet, Alaska, on October 15. A three-hour observation on October 21 confirmed consistent gage-to-staff differences. The gage and staff were removed on November 10. The orifice and tubing were left in place for possible use next field season.

A slight oscillation of the tide curve was noted that became prominent during periods of high winds and low tides. The maximum oscillation observed was 0.5 feet at approximately 1300 UTC on November 2 and 0400 UTC on November 6. At these times winds in Excursion Inlet were in excess of 40 knots. 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 8.7 feet on the gage.

Levels

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

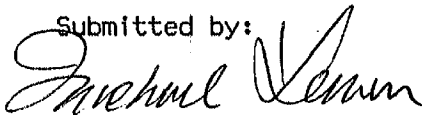
A discrepancy occurred between opening and closing levels. On October 20, opening levels showed bench mark 2447A to be 3.611 meters above the zero of the tide staff. Closing levels on November 9 showed an elevation of 4.275 meters. Levels run to the mark again on November 10 verified the elevation from the previous day. No movement of bench mark 2447A was observed to have occurred. Apparently a blunder occurred during the first leveling on October 20. Recommend only the closing leveling data be used for benchmark elevation determination.

Zoning Recommendations

None

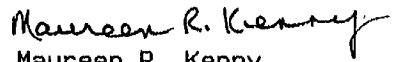
Approval

Submitted by:



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Lieutenant Commander, NOAA
Field Operations Officer

Date:

November 2, 1987

Predicted tide correctors were applied to the soundings plotted on the final field sheets for this survey. The tide correctors used were from the Tide Tables 1987, West Coast of North and South America. Tide correctors use Juneau, Alaska, as the reference station using a height correction range ratio of "x0.92" and no time correction. For further information, refer to Appendix II, Field Tide Note.