

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: November 27, 1987

MARINE CENTER: Pacific

OPR: R184

HYDROGRAPHIC SHEET: ~~PT-303~~ (H-102⁶³~~28~~)

LOCALITY: Nunavachak Bay, Bristol Bay, Alaska

TIME PERIOD: June 21 - July 11, 1987

TIDE STATION(S) USED: 946-5283 Summit Island, N.E. Side, AK

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 10.34 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 10.0 ft.

REMARKS: RECOMMENDED ZONING

1. Zone Direct



Chief Tidal Datum
Quality Assurance Section

July 23,1987

FIELD TIDE NOTE OPR-R184-RA-87

Field-tide reduction of soundings was based on predicted tides computed with program AM 500, Predicted Tide Generator, by using the predicted tides for Black Rock, Walrus Islands, Bristol Bay tide station (946-5182) provided by the Sea and Lake Levels branch of the National Ocean Service (attached). The correctors that were used for Nunavachak Bay are as follows:

Time Correction		Height
<u>High Water</u>	<u>Low Water</u>	<u>Ratio</u>
+0hr 10min	+0hr 10min	x1.03

Tide station information follows:

N.E. SUMMIT ISLAND, ALASKA (946-5283)

Geographic Locale- Lat: 58⁰ 50.0' N, Long: 160⁰ 11.3' W.

Installation Date- June 9, 1987

Removal Date- Not yet removed.

Gage Type- Bristol Bubbler (S/N 64A-11030). There was a backup Bristol Bubbler, (S/N 67A-10292), which was installed at the same time. The gages were placed inside a small wooden shed approximately ten feet above the high water line.

Staff- The staff was constructed from aluminum angle iron with 4-inch webs. It was secured to a rock ledge 100 feet east of bench mark 5283 D with lag bolts. The scale was standard vitrified mounted to the staff. The staff stop was a stainless steel hex machine bolt located at 18.100 feet on the staff. On June 30, 1987, it was discovered that the staff had been blown down in heavy weather and on July 7, 1987, the staff was recovered and replaced.

Staff Zero/Gage Zero- For S/N 64A-11030: 2.0 ± 0.1 feet
For S/N 67A-10292: 3.2 ± 0.1 feet

Gage Time- Universal Coordinated Time

Bench Marks- Five bench marks were connected by the initial and final leveling. They are: 5283 A 1986, 5283 B 1986, 5283 C 1986, 5283 D 1986, 5283 E 1986.

Levels- Installation levels were run on June 9, 1987, connecting four of the five bench marks mentioned above. On July 7 1987 the levels, connecting all five bench marks, were rerun in conjunction with the replacement of the staff on July 7, 1987.

Marigram Records-

GAGE # 64A-11030: The marigram records are continuous from 6/11/87 at 0106 Z, until 6/26/87 at 1530 Z when the gage ran out of paper. Paper was replaced and records are continuous until at least July 22, 1987.

GAGE # 67A-10292: The marigram records are continuous from 6/11/87 at 0106 Z until 6/17/87 at 1620 Z and from 6/17/87 at 1741 until 6/29/87 at 2318 Z when the paper was replaced. Records are continuous from then until at least July 22, 1987.

Station Problems-On July 17, 1987, the chart drive(S/N 518515) in gage 67A-10292 was replaced with a new chart drive (S/N 513628) due to a problem with the take-up spool. On June 30, 1987, the staff was discovered to have been blown down in heavy weather. On July 7, 1987, the staff was recovered and replaced. During the period between June 30, 1987, and July 7, 1987, no hydrographic surveying was conducted.