

DATE: March 31, 1982

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Pacific Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 945-7287 Ouzinkie, AK

Period: August 5-7, 1981

HYDROGRAPHIC SHEET: FE-238

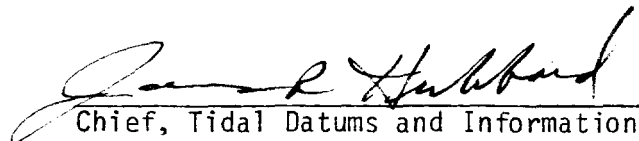
OPR: S-P908

Locality: Ouzinkie Narrows, Marmot Bay, Alaska

Plane of reference (mean lower low water): 3.0 ft.

Height of Mean High Water above Plane of Reference is 7.8 ft.

REMARKS: Zone Direct


Chief, Tidal Datums and Information Branch

FIELD TIDE NOTE
 S-P908-DA-81
 FIELD EXAMINATION
 OUZINKIE NARROWS, ALASKA

Field tide reduction of soundings on S-P908-DA-81 is based on predicted tides for Kodiak, Alaska, corrected as specified in section 5.9 of the project instructions. Tide reducers were interpolated from tabular extrema by the DAVIDSON's PDP 8/e computer and program AM500. All times of predicted and observed tides are Greenwich Mean Time.

Two tide stations were occupied to provide data for this field examination. They are listed below.

<u>Station</u>	<u>GP</u>	<u>Period of Operation</u>	<u>S/N</u>
Kizhuyak Pt. (945-7332)	57/53.7 N 152/39.1 W	6/12/81 - 9/4/81	73A233 (two gages) 64A11030
Ouzinkie (945-7287)	57/55 ^{22"} 3 N 152/29 ^{52.5"} 9 W	8/4/81 - 8/9/81	723275
<u>Kizhuyak Pt.</u> (945-7332)			

The Kizhuyak Pt. tide station is on a small island approximately one mile south of Kizhuyak Pt. Two gages were installed at this site to provide redundancy in case of gage failure. Gage S/N 73A233 was designated the "upper" gage and gage S/N 64A11030 was designated the "lower" gage. These designations were based on the placement of the gages at the site and serve only to distinguish between the two gages.

The "upper" gage continuously provided good data. The clock mechanism required adjustment initially. No other problems were experienced with the gage. Based on 58 staff-to-gage comparisons, including three hours of observations at 12 minute intervals on 14 June 1981, a marigram reading of 2.28 feet corresponds to the staff zero.

The "lower" gage had a series of problems which caused interruption of the record. Data from this gage will be submitted, however, it is recommended that only data from the "upper" gage, S/N 73A233, be applied to soundings on this field examination.

Ouzinkie (945-7287)

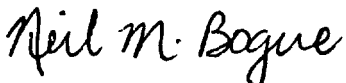
This gage continuously provided good data. Based on 22 staff-to-gage comparisons, including three hours of observations at 12 minute intervals on 4 August 1981, a marigram reading of 1.42 feet corresponds to the staff zero.

Leveling

The Kizhuyak Pt. tide staff was leveled to two historic bench marks (1933) and three newly established bench marks at the time of installation and removal. Bench mark No.1, 1933, is under an overhang which prevented the use of a two part level rod. A steel tape was used to level to BM 1 on 12 June 1981. A three part level rod was used successfully on 4 September 1981. An apparent change in the elevation of the staff of -0.010 meters was observed. This may be attributed to the different leveling techniques. Movement of the staff is not suspected since the staff rested on a solid rock bottom and was lag bolted directly to the rock face.

The Ouzinkie tide staff was leveled to three recovered bench marks (1933, 1968) at the time of installation and removal. No shift in the staff was observed.

Respectfully submitted,



Neil M. Bogue
LTJG, NOAA

Approved and forwarded,



N. C. Austin, CDR, NOAA
Commanding Officer
NOAA Ship DAVIDSON

Predicted tides were computed from daily predicted tides for Kodiak, Alaska, with the following correctors applied:

Time Correctors

<u>High Water</u>	<u>Low Water</u>	<u>Range Ratio</u>
+ 19 min	+ 19 min	* 1.04

These correctors were obtained from the project instructions. Heights of tide were computed at 0.2 fathom intervals, and applied to all soundings. Real tides were recorded on a bubbler tide gage installed by DAVIDSON personnel, on a pier in Ouzinkie, station number 945-7287. The gage was operated well throughout the duration of hydrographic operations (See Field Tide Note).

Settlement and squat corrections and TC/TI data were not applied to the final field sheet. See corrections to Echo Soundings report for this data.

Two diver verified least depths were obtained in Area B. The procedure used to obtain these depths is as follows: Divers examined the feature in question, and marked its least depth with an inflatable float on a taut line. Vessel 3131 was brought alongside the float and a detached position taken. The float and line were recovered and the depth determined by measuring the line with a steel tape. Tide correctors were applied to these depths to reduce them to the MLLW datum.

*Post 2205, 2206
day 219*