

Date: 01/03/85

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Marine Center: Pacific

OPR: P114

Hydrographic Sheet: H-10143

Locality: Kennedy Entrance, Cook Inlet, Alaska

Time Period: July 20 - August 8, 1984

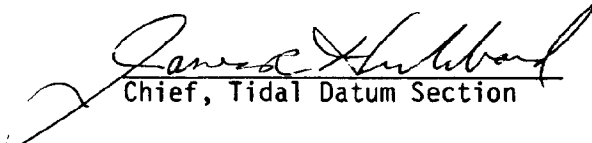
Tide Station Used: 945 5427 Perl Island, Alaska  
945 5478 Ushagat Island, Alaska

Plane of Reference (Mean Lower Low Water): 945 5427 = 20.28 ft.  
945 5478 = 15.45 ft.

Height of Mean High Water Above Plane of Reference: 945 5427 = 12.8 ft.  
945 5478 = 12.9 ft.

Remarks: Recommended Zoning

See page 2

  
Chief, Tidal Datum Section

DATE: 01/02/85

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TIDE NOTE FOR HYDROGRAPHIC SHEET (CONT'D)

OPR-P114

H-10143

1. Southeast of line formed by 2 points located at, 58°45.5' and 59°07.5'  
151°49.0' 151°23.0'
  - a. South of latitude 58°57.0' zone on 945 5427 and apply -10 minute time correction and x0.89 range ratio to all heights.
  - b. North of latitude 58°57.0' zone on 945 5427 and apply x0.89 range ratio to all heights.
2. Northwest of the previous line to a line formed by 2 points located at, 58°45.5' and 59°07.5'  
152°13.0' 151°38.0'
  - a. East of the longitude 151°49.0' zone on 945 5427 and apply x0.94 range ratio to all heights.
  - b. West of longitude 151°49.0' zone on 945 5427 apply +10 minute time correction and x0.94 range ratio to all heights.
3. Northwest by a line formed by 2 points located at 58°45.5' and 59°07.5'  
152°13.0' 151°38.0'
  - a. East of longitude 152°00.0' *FROM PHONE CONV. W/JOE M. 2-25-85*
    1. South of latitude 59°00.0' zone on 945 5427 and apply ~~+10~~ minute time correction and x0.98 range ratio to all heights.
    2. North of latitude 59°00.0 zone on 945 5427 and apply x0.98 range ratio to all heights.
  - b. West of longitude 152°00.0'
    1. South of latitude 58°54.0' zone on 945 5478 and apply a -10 minute time correction to all heights.
    2. North of latitude 58°54.0' to 59°00.0' zone direct on 945 5478.
    3. North of latitude 59°00.0' zone on 945 5478 and apply +10 minute time correction to all heights.

\*\* Tide reducers requested for May 15-17, 1981 (J Day 135-137) are not available, no tide gage was installed in the survey area during the course of the survey.

FIELD TIDE NOTE  
RA-40-1-84  
H-10143

Field tide reduction of soundings for survey H-10143 was based on predicted tides from Seldovia, Alaska (945-5500). Corrections were obtained from Preliminary Tidal Zoning OPR-P114-RA-84. The predicted tides were derived using program AM500.

Two Bristol Bubbler tide gages were installed at two locations in the project area. Location and period of operation are as follows:

<u>SITE</u>	<u>LOCATION</u>	<u>PERIOD</u>
Ushagat Island	58/56/30N, 152/14/30W	June 17-August 31, 1984
Perl Island	59/07/48N, 151/41/48W	July 18-August 31, 1984

USHAGAT ISLAND

Gage (S/N 64A11026) was installed and levels were run June 17, 1984. No staff was installed, therefore, levels were run from reference mark BM3 to the waters edge.

On August 9, 1984 a storm caused the orifice to relocate to a position 3.0 ft deeper. The orifice was secured at this level by divers on August 17, 1984. Records are consistent and should be accurate throughout this period.

The marigram was lost completely from 0730 hrs August 20 to 2100 hrs August 22, when the orifice was washed ashore during a storm. The orifice was reinstalled and good records were obtained until the orifice tubing developed a leak at 0945 hrs August 26 during another gale. The tubing was repaired and good records were obtained until the gage was removed August 31, 1984. Weather conditions did not permit a final leveling to the waters edge.

## PERL ISLAND

Gage (SN 64A11031) was installed, leveled, and began operation July 18, 1984. A staff was installed and good records were obtained until a storm on August 20 caused the staff to fall. The staff was not replaced. Levels run to the waters edge proved the orifice had not moved. One day of records was lost from 1400 hrs August 22 to 1330 hrs August 23 due to a malfunction of the pen. Good records were obtained until 0200 hrs August 26 when the orifice line was broken during a storm. The gage was down and records were lost until the removal on August 31, 1984. A final leveling to the waters edge could not be made because the gage was not operating.

## LEVELS

The reference station at Seldovia was leveled June 21, 1984. Final levels were run August 24, 1984. Initial and final levels compared very well.

Final levels on the two subordinate stations at Ushagat Island and Perl Island were run August 28, and August 31, 1984 respectively.