

DATE: April 20, 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): 945-1277 Chatham Strait, AK  
945-1353 Rowan Bay, AK

Period: October 8 - November 3, 1981

HYDROGRAPHIC SHEET: H-9976

OPR: 0353

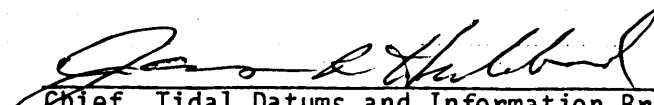
Locality: Entrance to Rowan Bay, Alaska and Bay of Pillars, Alaska

Plane of reference (mean lower low water): 945-1277 = 14.0 ft.  
945-1353 = 5.1 ft.

Height of Mean High Water above Plane of Reference is 945-1277 = 11.3 ft.  
945-1353 = 11.4 ft.

REMARKS: Recommended Zoning:

1. North of 56°37' zone direct on 945-1353, Rowan Bay, Alaska.
2. South of 56°37' zone direct on 945-1277, Chatham Strait, Alaska.

  
Chief, Tidal Datums and Information Branch

DATE: October 28, 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): 945-1278 Chatham Straits, Alaska

Period: May 13-June 15, 1982

HYDROGRAPHIC SHEET: H-9976

OPR: 0-353

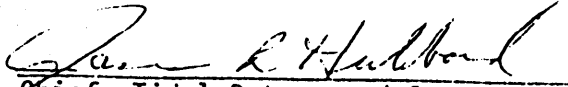
Locality: Entrance to Bay of Pillars, Alaska

Plane of reference (mean lower low water): 2.28 ft.

Height of Mean High Water above Plane of Reference is 11.8 ft.

REMARKS: Recommended Zoning:

1. West of longitude  $134^{\circ}16'$  zone direct.
2. East of Longitude  $134^{\circ}16'$  apply x0.98 apply range ratio.

  
Chief, Tidal Datums and Information Branch

DATE: May 12, 1983

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Pacific Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 945-1278 Chatham Straits #2, AK

Period: September 22 - October 6, 1982

HYDROGRAPHIC SHEET: H-9976

OPR: 0353

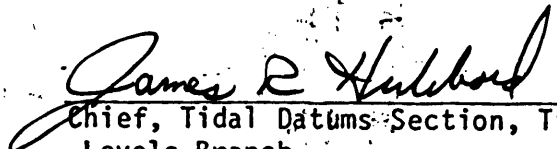
Locality: Chatham Straits - Rowan Bay, Alaska

Plane of reference (mean lower low water): 2.19 ft.

Height of Mean High Water above Plane of Reference is 11.8 ft.

REMARKS: Recommended Zoning:

1. North of  $56^{\circ}38.0'$  apply x0.98 range ratio.
2. South of  $56^{\circ}38.0'$ 
  - a. West of  $134^{\circ}16.0'$  zone direct.
  - b. East of  $134^{\circ}16.0'$  apply x0.98 range ratio.

  
Chief, Tidal Datums Section, Tides & Water  
Levels Branch

FIELD TIDE NOTE  
OPR- 0353-DA-81  
ROWAN BAY, ALASKA

INTRODUCTION

Field tide reduction of soundings on H-9976 (DA-10-3-81) and H-9977 (DA-10-4-81) is based on predicted tides for Sitka, Alaska, corrected to Rowan Bay, Alaska, using the zoning corrections specified in the project instructions. Tidal heights were interpolated using the DAVIDSON's PDP 8/e computer system and program AM 500. All times of predicted and recorded tides are Greenwich Mean Time.

Two tide stations were occupied to provide data for the surveys. They are listed below.

<u>Station</u>	<u>Position</u>	<u>Period of Operation</u>	<u>S/N</u>
Chatham Strait (945-1277)	56/36.4 N 134/17.3 W	9/17/81 - 11/3/81	73A233
Rowan Bay (945-1353)	56/40.1 N	9/19/81 - 11/2/81	62A92

The Chatham Strait gage provided data for both surveys, while the Rowan Bay gage is for sheet H-9977 (DA-10-4-81) only.

CHATHAM STRAIT

The Chatham Strait tide station is located on the southeast side of a small island approximately 3 miles NNW of Point Ellis. The staff and orifice were at the south end of a narrow but deep channel between two islands. There were no impediments to tidal flow through the channel, and the gage continuously provided good data.

Based on 37 staff-to-gage comparisons, including three hours of observations at 12 minute intervals on 21 September 1981, a marigram reading of 11.55 feet corresponds to the staff zero. No orifice shift was detected or is suspected. The gage and staff were removed on 3 November 1981.

ROWAN BAY (945-1353)

The Rowan Bay tide station is located on the northern shore of Rowan Bay, near the wharf and log boom facilities of the Mud Bay Logging Company, Rowan Bay Logging Camp. The gage was installed on property belonging to the logging camp, after receiving permission to do so.

The gage continuously provided good data until 14 October 1981 (JD 287) when an extreme high tide covered the bottom four inches of the gage; the record was not lost and the gage not damaged. The following day, the gage was set on a wood platform, raising it 5 feet. At 2159Z, JD 288, the paper was observed to have jumped some sprockets. Moisture in the gage from the previous day probably contributed to this problem. On JD 289, the paper was changed, and no further problems were encountered with this gage.

The gage and staff were removed on 1 November 1981. No orifice shift was detected.

Based on 40 staff-to-gage comparisons, including three hours of observations at 12 minute intervals on 21 September 1981, a marigram reading of 5.03 feet corresponds to staff zero.

#### LEVELING

The Chatham Strait tide station was leveled to five newly established permanent bench marks at the time of installation and removal. No shift of the staff was observed.

The Rowan Bay tide station was leveled to three temporary bench marks at the time of installation and removal. A negligible shift of +0.002 m was observed between the two leveling runs.

#### REFERENCE STATION

The Sitka, Alaska tide station (945-1600) served as the reference station for this survey. The staff was leveled to three bench marks on 11 September 1981, prior to beginning of hydrography. The staff was again leveled on 3 November 1981 after the completion of hydrography. A negligible shift of +0.004 m was observed between the two leveling runs.

#### ZONING RECOMMENDATIONS

Zoning recommendations are as follows. The Chatham Strait tide station data should be used to reduce soundings on field sheet H-9976. The Rowan Bay tide station should be used to reduce soundings on field sheet H-9977.

Respectfully Submitted

  
Steven J. Konrad LTJG, NOAA

Approved and Forwarded

  
N. C. Austin CDR, NOAA