DATE: August 16, 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): 945-2441 Hoonah Harbor, AK
945-2484 Salt Lake Bay, AK

Period: April 12-May 23, 1982

HYDROGRAPHIC SHEET: 10010

OPR: 0343

Locality: Port Frederick, Alaska

Plane of reference (mean lower low water): 945-2441 = 10.01 ft.
945-2484 = -3.82 ft.

Height of Mean High Water above Plane of Reference is 945-2441 = 14.17 ft.
945-2484 = 14.21 ft.

REMARKS: Recommended Zoning:

1. North of latitude 58°01.0' zone direct on 945-2441 Hoonah Harbor, Alaska.

2. South of latitude 58°01.0' zone direct on 945-2484 Salt Lake Bay, Alaska.

Chief, Tidal Datums and Information Branch

FIELD TIDE NOTE

OPR-0343-FA-82 (Spring)

Port Frederick, Alaska

Field tide reduction of soundings was based on predicted tides from Juneau, Alaska, corrected as per project instructions OPR-0343-FA-82, dated 14 October 1981, amended by Change 1, dated 15 October 1981 and 23 November 1981. Correctors were as follows:

Time Corrections		Height Correction Ratio
High	Low	
0 minutes	+10 minutes	X 0.90

Predicted tide correctors were interpolated by the hydroplot system using program AM 500. All times of both predicted and recorded tides were based on Greenwich Mean Time. The predicted tides were acceptable for hydrography with no discrepancies in data attributable to tides errors.

The tide station at Juneau, Alaska was the primary gage for this project. Levels were run to this gage on 15 April 1982 (JD105) and 14 May 1982 (JD134). Tide data was collected from the Hoonah Harbor tide station 945-2441, located at the Icy Strait Salmon Company pier at 58° 07' 45"N, 135° 27' 47"W and also from the Salt Lake Bay tide gage 945-2484, located at 57° 57' 36"N, 135° 39' 18"W. Survey H-9990 was controlled by gage 945-2441, while surveys H-10010 and H-10013 were controlled by gages 945-2441 and 945-2482 together.

ADR gage 6402A4596M2 was installed on 9 April 1982 (JD099) at the Hoonah Harbor tide station and removed on 25 May 1982 (JD145) at the end of the field work. Three wire levels were run to four existing bench marks (2441A-2441D) to the tide staff stop and tied into horizontal control station FERRY 1981 on 9 April 1982 (JD099). On 21 May 1982 (JD111) three wire levels were run from the staff stop to the existing bench marks and tied into horizontal control station FERRY RM1 and station FERRY at the end of field work. The entire run of 1.77 km closed within 2 mm.

For the Salt Lake Bay tide station, bubbler gage #67A-16205 was installed on 10 April 1982 (JD100). Three existing bench marks were recovered as described and two new bench marks stamped 2484A and 2484B were installed. Three wire levels were run to all five bench marks and to the tide staff stop. Closure for the 0.39 km run was 5.62 mm. Closing levels for this tide station were run on 24 May 1982 and closure was 5.09 mm for the same run.

An additional bubbler gage was installed at each tide station as a back up for each main gage. Back up tide gage data was not used, since no serious main gage problems developed. Data from the back up gages has been retained aboard.

OPERATIONAL PROBLEMS

On 27 April 1982 (JD117) the chart drive in the Salt Lake Bay bubbler gage #67A-16205 showed signs of malfunctioning. This chart drive was removed and replaced. Tidal data for the period 181000Z on 20 April 1982 (JD110) to 184500Z on 21 April 1982 (JD111) was recoverable by interploation of the tide marogram. A malfunction also occurred in the back up gage at the Salt Lake Bay tide station on 29 April 1982 (JD119). A anomalis trace on the tide marogram appeared and was interpreted to be an internal problem and the gage was sent to the Pacific Tides Party for required maintenance. No gage problems were incurred at the Hoonah Harbor tide station.

MISCELLANEOUS

One day of hydrography was run on survey H-9990 (FA-10-6-81) during the 1981 FAIRWEATHER field season. Hydrography run on this day (JD 347) will be controlled by tidal data collected during the 1981 field season. This information may be found in the Field Tide Note for the FAIRWEATHER'S 1981 season in Port Frederick (Copy Attached).