

DATE: September 7, 1983

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): 945-2292 Hawk Inlet, AK
945-2294 Hawk Inlet Entrance, AK

Period: April 29 - May 15, 1983

HYDROGRAPHIC SHEET: H-10087

OPR: 0362

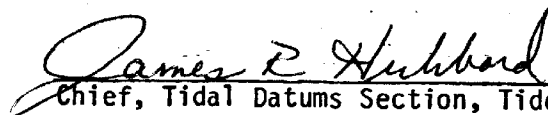
Locality: Hawk Inlet, Admiralty Island, Alaska

Plane of reference (mean lower low water): 945-2292 = 1.57 ft.
945-2294 = 3.56 ft.

Height of Mean High Water above Plane of Reference is 945-2292 = 14.7 ft.
945-2294 = 14.6 ft.

REMARKS: Recommended Zoning:

1. North of latitude 58°06.2'N zone direct on 945-2292, Hawk Inlet, Alaska.
2. South of 58°06.2'N zone direct on 945-2294, Hawk Inlet Entrance, Alaska.


Chief, Tidal Datums Section, Tides & Water
Levels Branch

Field Tide Note
OPR-0362-FA-83
West Side Admiralty Island, Hawk Inlet

The primary tide gage (945-2210) Juneau, Alaska served as reference station for the navigable area survey of Hawk Inlet (H-10087) on the West Side Admiralty Island, as stated in Project Instructions OPR-0362-FA-83. Third-order levels were run from the reading mark of the ETG to three permanent bench marks on 22 April 1983 (JD 112). Closure was within the acceptable limits set forth by the Hydrographic Manual, Fourth Edition, Section A.8.4.

As per project instructions, the tide correctors of zero minutes added to the times of predicted tides. All times of both predicted and recorded tides were based on Universal Coordinated Time (UTC). All predicted tides were acceptable for hydrography with no discrepancies in data attributable to tide errors.

Two tide gages were utilized for this project.

Hawk Inlet, Alaska

Tide station (945-2292) Hawk Inlet located at latitude $58^{\circ}07'39.4''N$, longitude $134^{\circ}45'15''W$ was the gage that controlled the project area north of latitude $58^{\circ}06.2''N$. On 21 April 1983 (JD 111) the tide staff, stilling well, and Fisher Porter gage s/n 7601A 1469M15 were installed. Both staff and float well were secured to wood piles. Gage was installed directly over PVC stilling well.

Opening 3rd order levels were run to five established permanent bench marks on 26 April 1983 (JD 116). Closing levels were run on 14 May 1983 (JD 134). Closures were within acceptable limits set forth by the Hydrographic Manual. A comparison of opening to closing levels shows no sign of any vertical movement in the marks or tide staff. Staff value of the zero line on analog tide records was 20.03 feet.

Fisher Porter gage s/n 7601A 1469M15 worked well during the entire project period. Gage was removed by tide observer after the FAIRWEATHER left the working area to fulfill the 30 day minimum requirement stated in Section 5.8.2 of the Project Instructions.

Hawk Inlet Entrance

Tide station (945-2296) Hawk Inlet Entrance located on a small island at latitude $58^{\circ}05'09''N$, longitude $134^{\circ}46'33''W$ was control for hydrography in the vicinity of Hawk Inlet Entrance and the area south of latitude

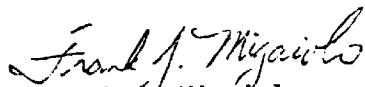
58°06.0'N in Hawk Inlet.

On 10 May 1983 (JD 130) the tide staff and Bristol bubbler gage s/n 63A2920 were installed. Staff assembly was anchored to a vertical rock face. The orifice was secured to an eye bolt set in rock. Tubing leads up rocks to gage secured to rock outcropping above MHHW line. The gage was removed on 15 May 1983 (JD 135).

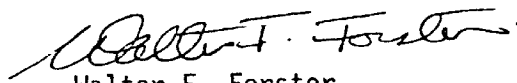
Opening 3rd order levels were run to three temporary bench marks as described in Level Records on 10 May 1983 (JD 130). Closing levels were run on 14 May 1983 (JD 134). Closures were within the acceptable limits set forth by the Hydrographic Manual. A comparison of opening to closing levels shows no sign of any vertical movement in the marks or tide staff. Staff value of the zero line on analog tide records were 0.4 feet.

Bristol bubbler s/n 63A2920 worked well during the project period with one exception. On 13 May 1983 (JD 133) at 1950 UTC to 14 May 1983 (JD 134) at 1845 UTC, there was no marigram trace because the ink well went dry. Hydrography was run during this down time. Due to time restraints the Hawk Inlet entrance gage was removed before the 4 hour period of post hydrography could be met, as stated in Section 5.8.4 of the Project Instruction. The required 3 hour (12 min. interval) comparison was done on 11 May 1983 (JD 131). Discrepancies of up to 0.12 feet are attributed to the wave action and resultant surge at the staff site.

Submitted by


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Approved by


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