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

TIDE NOTE FOR HYDROGRAPHIC SHEET

DATE: August 12, 1987

Marine Center: Pacific

OPR: 0186

Hydrographic Sheet: H-10238 = H-90238

Locality: Swanson Harbor and Vicinity, Ict Strait, Alaska

Time Period: April 7 - May 15, 1987 AND JD 283

Tide Station Used: 945-2368 Swanson Harbor, AK (PREDICTED FOR JD 283)
(444-2368 PREDICTED)

Plane of Reference (Mean Lower Low Water): 3.14 ft.

Height of Mean High Water Above Plane of Reference: 14.0 ft.

Remarks: Recommended Zoning:

1. Zone Direct

Chief, Tidal Datum Quality
Assurance Section

Swanson Harbor, Alaska
Field Tide Note
April - May, 1987

The tide gage located in Juneau, Alaska (945-2210) served as the reference station for the predicted tides used for correctors on surveys H-10238, H-10240, H-10227 (addendum) and H-10231 (addendum) as specified by Project Instructions OPR-0186-FA-87.

Predicted tide correctors were interpolated aboard the FAIRWEATHER using data from the 1987 West Coast Tide Tables and PDP-8 program AM 500, dated November 10, 1972. All correctors calculated were based on zone correctors supplied by the project instructions and tabulated below.

Time Correction		Height Correction
High Water	Low Water	Range Ratio
0	0	X .92

All times of predicted and reported tides are expressed in Universal Coordinated Time. Predicted tides were acceptable for hydrography with no discrepancies in the raw data attributable to tidal errors.

A Bristol Bubble, Model 15 analog tide gage (range 0-30 feet) was installed in support of the above mentioned hydrographic surveys. Location and period of operation are as follows:

Site	Location	Period
Swanson Harbor, Icy Strait, AK 945-2368	58/12/18N 135/06/30W	4/5/87 - 5/17/87

SWANSON HARBOR

Tide gage (SN # 63A2920) was installed in Swanson Harbor on the southeast side of Ansley Island, Icy Strait, Alaska on April 5, 1987 (DN 95). A three-hour observation on April 6 confirmed that the gage was operating with consistent gage to staff differences. The gage was removed at the finish of hydrographic operations on May 16, 1987 (DN 136).

The orifice at the Swanson Harbor tide gage was secured to a 150-lbs cement block with an angle iron placed vertically to support the orifice which was secured with hose clamps. Tubing was placed between the orifice and gage (approximately 200 feet) and was secured with boulders along its length. A 14-foot fiberglass staff was erected at the site by securing its base within a fracture at the base of a large outcrop. The staff was then shored with an 8-foot 2X4. Guy wires and cables were secured to the staff at the 6-foot and 14-foot marks. Cables which connected to the top of the

staff were anchored to the outcrop by means of eye bolts and turnbuckles which were tightened to give the staff rigidity.
The gage itself ran perfectly throughout the project, although the clock consistently ran fast requiring the marigram to be advanced 24 hours on four separate occasions. The zero mark on the tide staff corresponded to 6.6 feet on the gage.

LEVELING

The comparision of opening and closing level runs suggests that there was no significant staff movement. The staff apparently settled 0.003 meters during the course of the survey. No differences in elevation were recorded between level runs to suggest that the benchmarks had been disturbed.

ZONING RECOMENDATIONS

None.