

DATE: 9/19/84

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Marine Center: Pacific

OPR: T126

Hydrographic Sheet: ~~H-10126~~ *FOR 10,169*

Locality: Kamalo Harbor, Kalaeloa Harbor, Pukoo Harbor, SE Coast Molokai
Island, Hawaii

Time Period: March 29 - May 3, 1984

Tide Station Used: 161-3077 Kamalo Harbor, HI
161-3155 Pukoo Harbor, HI

Plane of Reference (Mean Lower Low Water): 161-3077 = 31.39 ft.
161-3155 = 1.76 ft.

Height of Mean High Water Above Plane of Reference: 161-3077 = 1.7 ft.
161-3155 = 1.8 ft.

Remarks: Recommended Zoning:

1. In Kamalo Harbor Zone Direct on 161-3077.
2. In Kalaeloa Harbor Zone Direct on 161-3077.
3. In Pukoo Harbor Zone Direct on 161-3155.

James R. Hubbard
Chief, Tidal Datums Section

FIELD TIDE NOTE

RA-2.5-²~~1~~-84
H-101²²~~26~~

Field tide reduction of soundings for survey H-10126 was based on predicted tides from Honolulu, Hawaii (161-2340). Corrections were obtained from Preliminary Tidal Zoning OPR-T126-RA-84. The predicted tides were derived using program AM500.

The reference station at Honolulu was leveled on March 3, 1984. Three permanent benchmarks (including the primary mark) were connected to the ETG reading mark. Levels were run at the end of survey operations on April 26, 1984. Initial and final levels compared very well.

Two subordinate stations were installed on Molokai on March 28, 1984 to provide data for this survey. A Fisher/Porter ADR tide gage was installed in Kamalo Harbor (161-3077), 21 02.9'N, 156 52.6"W. A Metercraft bubbler gage was installed in Pukoo Harbor (161-3155), 21 04.3'N, 156 48.0'W.

Two historic benchmarks were recovered at Kamalo Harbor. In addition, two triangulation disks and one reference mark were used for leveling purposes. Installation levels were run on March 29, 1984. Final levels were run on May 3, 1984. The gage was removed on May 4, 1984. Comparison of the initial and final levels showed no appreciable movement of the staff during survey operations.

Pukoo Harbor was not an historical gage site. This gage was to operate for a period of three days or for the duration of hydro operations in the area. No reference marks were established. A triangulation disk ("Harbor 1983") and two reference marks were used for leveling. No tide staff was installed at this site. Therefore, leveling was done to the water's edge. Installation levels were conducted on March 28, 1984.

Due to a change in operation plans, the survey of Pukoo Harbor did not begun until April 29, 1984. The gage did not operate continuously between installation and the beginning of hydro due to lack of maintenance. However, the gage operated well during survey operations. Final levels were run on May 3, 1984. Comparison of initial and final levels indicated no movement of the orifice.