

Tide and Water Levels ✓

In accordance with Attachment #7, dated October 1, 1998, of the Project Instructions, the existing primary tide station at Alameda, California (510-941-4750), was used for the survey.

Station Number	Station Name	Latitude	Longitude
941-4750	Alameda, CA	37° 46.3' N	122° 17.9' W

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Three tide zones were established on Sheet C as specified by Section 1.2.1 of the project instructions.

Task Order No. 56-DGNC-9-29001

Registry No. H-10895 Sheet C

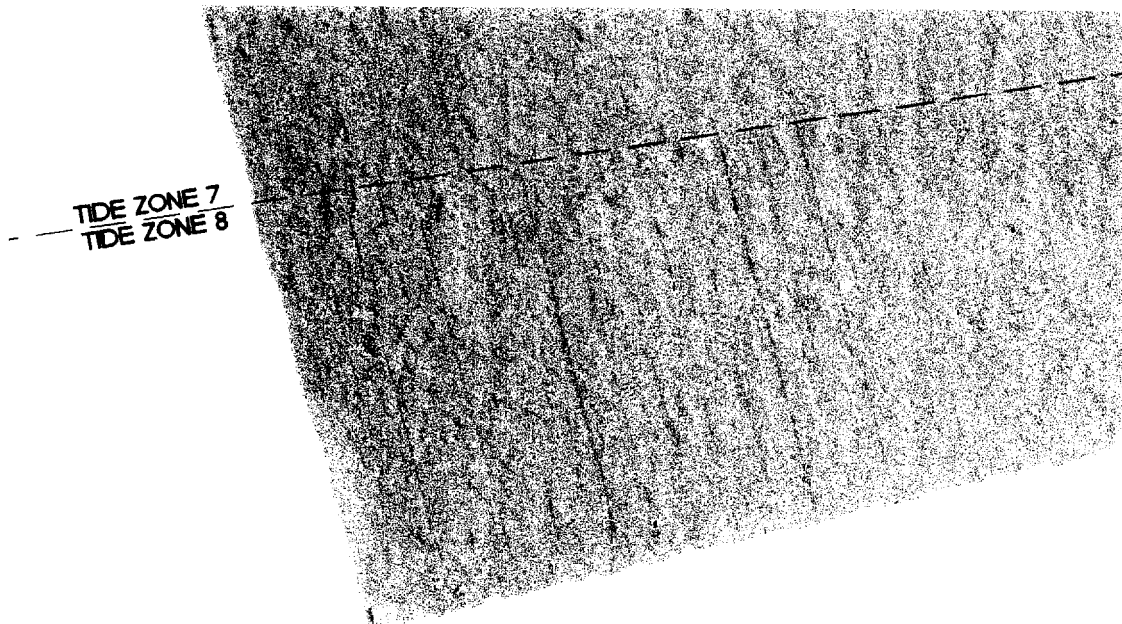
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Tidal Zone	Time Corrector	Height Corrector Ratio
SF 6	-6 min	0.94
SF 7	0 min	1.00
SF 8	+18 min	1.10

The real-time unverified tide data from the Alameda gauge was downloaded from the Ocean and Lake Levels Division of the NOS web page and used during initial processing of data with the ISS-2000 Geoswath data cleaning. When verified tide data was available, it was downloaded and applied for final processing and production of smooth sheets. Using tidal zone information from the SOW, Caris was used to calculate tidal correctors to be applied in the data.

In a review of a sun-illuminated plot and a contour plot, artifacts in the data were seen at the transition between Tidal Zones SF7 and SF8. Depth differences of one to two feet appeared between adjacent lines. The difference was more noticeable when adjacent lines had been run on different ends of the tide cycle. Further analysis confirmed that the zone information for SF8 was not adequate in correcting the survey data for tides on Sheet C.




SUN-ILLUMINATED PLOT OF SOUNDING DATA

New tidal zoning areas were determined by re-applying the tide data and changing the time and height correctors over the survey area. After each modification, the data was reviewed to determine the best fit for the correctors. Soundings were compared on adjacent lines and the data was examined visually with a sun-illuminated plot. No adjustments were needed on Zone

SF6 and Zone SF7, and those correctors remained the same as stated in the SOW. The following tide zone corrections had the best fit and were applied to the data set. Zone SF8 was renamed to Zone SF8r to identify the change in correctors.

Tidal Zone	Time Corrector	Height Corrector Ratio
SF 6	-6 min	0.94
SF 7	0 min	1.00
SF 8r	0 min	1.00



The Alameda tide station experienced no down time during periods of hydrographic survey. All data was successfully retrieved and is included on tape 1 with the processed data.