2002 FIELD and FINAL TIDE NOTE

Hydrographic Sheet: H11094 (LIDAR)

Sheet C
NE of St. Paul Island
Bering Sea, Pribilof Islands

NOAA Project No:	OPR-R144-KR-2002 Alaska
NOAA Contract No:	50-DGNC-0-90017

The NOS Unalaska, AK tide station (946-2620) served as control for the subordinate station on this project. Datum determinations were made for the primary subordinate station: Village Cove (946-4212). The NTDE 1960-78 was utilized.

Location and Time Meridian	Name:	Lat (NAD 83)	Long (NAD 83)	Time Meridian:		
	Village Cove	57° 07' 31"	170° 17' 07"	0° (UTC)		
Time Period and Datum Reference	Name:	Established:	Removed:	MLLW	MHW	units
	Village Cove	4/12/2002	6/20/2002	0.000	0.904	meters

Tide observer	LCMF Incorporated 139 E. 51st Ave. Anchorage, Alaska 99503 (under subcontract to Thales GeoSolutions, Anchorage, AK)
Gauges	Design Analysis H350/355 bubbler systems.
Installation	Each gauge was secured inside a waterproof case, and fastened vertically inside of the tool shed on the St. Paul City fuel dock. Refer to the tide station package for additional site specific details of installation.
Tide staff	None. Water level measurements were made using a fiberglass survey tape. The tape end was weighted, lowered to the water till the weight was submerged and the tape was read at a chiseled 'X' on the edge of the dock ladder.
Benchmarks	The following benchmarks were installed at this site: Village Cove: 4212 N 2002, 4212 P 2002 The following benchmarks were recovered at this site: Village Cove: BM "3" 1946, BM "4" 1946, 4212 L 1976, USACE SP-3 2001, USACE RBD - 1 1994
Levels	Benchmarks were leveled at the installation and removal of the tidal station. The benchmarks and station datums were connected through frequent measurements to the water. The level runs closed within NOS tolerance. Benchmark USACE RBD - 1 1994 was not stable. Only the closeout levels from 6/19/02 were used in determining the MLLW elevation of BM USACE RBD-1 1994.
Final Tidal Zoning	One zone for the entire project. Used Village Cove data directly.
Reduction of LIDAR data	Thales GeoSolutions (the prime contractor) was provided with preliminary datums developed by LCMF during May 2002 based upon an 11 day simultaneous comparison between Unalaska and Village Cove. Six minute tide data reduced to MLLW and smoothed with a 5th order 5 hour polynomial curve fit was provided to Thales throughout the field season. In June 2002, LCMF finalized datums and forwarded all data necessary to reduce lidar soundings to the prime contractor. Final MLLW datums were based on a one month, May 2002, monthly mean computation from Unalaska.