

3. HORIZONTAL & VERTICAL CONTROL

3.1. HORIZONTAL CONTROL

The horizontal control datum for this survey was the World Geodetic System of 1984 (WGS84). All positions were collected in WGS84.

Two MBX-3 differential receivers, using the U.S. Coast Guard (USCG) network of differential beacons, supplied RTCM corrections to the acquired GPS pseudorange measurements; which subsequently produced WGS84 DGPS positions.

3.2. VERTICAL CONTROL

All sounding data was reduced to MLLW using verified tidal data from one tide gauge located at Sand Point, Alaska. The tide gauge at Sand Point is operated and maintained by NOAA. The tidal data was downloaded at the Thales GeoSolutions (Pacific), Inc. office in San Diego and subsequently e-mailed to the R/V Davidson at the end of every Julian day.

Table 3-1 Vertical Control Station Specifications

NAME	SIN	LATITUDE	LONGITUDE	ESTABLISHED
Sand Point, Ak	9459450	55.386333	160.501666	10/09/72

LCMF Inc. was contracted to provide final tidal zoning for the Chirikof Island survey area. The verified tidal data were then used to correct acquired bathymetric data.

Appendix A – Progress Sheet

A chronological list of activities occurring at Chirikof Island for R/V Davidson is given below:

Table A-2 Chirikof Island Progress

YEAR	JULIAN DAY	DATE	START TIME (UTC)	COMMENTS
2001	205	24/07/01	21:00	Testing WinFrog (3.24d) and Patch test
2001	206	25/07/01	02:30	Commenced Survey at Chirikof Island
2001	208	27/07/01	01:54	Completed Block 1 survey at Chirikof Island
2001	208	27/07/01	04:15	Winfrog Testing and Fix
2001	208	27/07/01	21:15	Fixed GPS Problems
2001	209	28/07/01	03:43	Re-commenced Survey
2001	209	28/07/01	18:30	HDMS (Heading & Motion sensor) Problems
2001	209	28/07/01	21:30	Re-commenced Survey
2001	210	29/07/01	15:36	Completed Block 2 survey
2001	212	31/07/01	10:48	Completed Block 3 survey
2001	213	01/08/01	22:30	Transit & Embarked Thales Personnel
2001	214	02/08/01	5:00	Re-commenced survey
2001	214	02/08/01	09:29	Completed Block 4 survey
2001	215	03/08/01	14:42	Transit & Embarked Thales Personnel
2001	215	03/08/01	21:16	Commenced Tie Lines 1 - 6
2001	216	04/08/01	15:53	Completed Tie Lines 1 - 6
2001	216	04/08/01	16:45	Re-commenced Block 5 survey
2001	216	04/08/01	22:22	Completed Block 5 survey
2001	218	06/08/01	02:11	Completed Block 6 survey
2001	218	06/08/01	20:30	Completed Block 7 survey
2001	219	07/08/01	15:41	Completed Block 8 survey
2001	220	08/08/01	13:42	Completed Block 9 survey
2001	221	09/08/01	07:35	Completed Block 13 survey
2001	222	10/08/01	02:35	Completed Block 14 survey
2001	223	11/08/01	05:16	Completed re-runs and tie lines 7 – 14
2001	224	12/08/01	00:53	Completed Block 15 Survey and Tie Line
2001	224	12/08/01	00:53	Chirikof Island Survey Complete