2000 FIELD and FINAL TIDE NOTE

Hydrographic Sheet: H-11010 (Sheet C)

KENAI FIORDS, AK

NOAA Project No:	OPR-P353-KR-00 KENAI FIORDS, Alaska				
NOAA Contract No:	50-DGNC-8-90028				
The Seward, Alaska tide station (945-5090) served as control for the subordinate stations for this project. Datum determinations were made for subordinate stations, Crater Bay(945-5159), Bear Cove, (945-5128), and Camp Cove, (945-5151). These sites generated the final tide reducer files and the basis for final zoning. The NTDE 1960-78 was utilized.					
Location and Tiome Meridian	Name:	Lat (NAD 83)	Long (NAD 83)	Time Meridian:	
	Crater Bay:	59° 42' 47"	149° 47' 11"	0° (UTC)	
	Bear Cove:	59° 48' 05"	149° 36' 51"	0° (UTC)	
	Camp Cove:	59° 41' 38"	149° 44' 52"	0° (UTC)	
Time Period and Datum Reference	Name:	Established:	Removed:	MLLW	MHW units
	Crater Bay:	07/11/2000	11/14/2000	0.000	2.989 meters
	Bear Cove:	06/25/2000	11/15/2000	0.000	2.952 meters
	Camp Cove:	08/29/2000	11/11/2000	0.000	2.967 meters
Tide observer	LCMF Incorporated 139 E. 51st Ave. Anchorage, Alaska 99503 (under subcontract to Racal Pelagos, San Diego, CA)				
Gauges	Design Analysis H350/355 bubbler systems.				
Installation	Each gauge was secured inside a waterproof case, and fastened vertically to a wooden brace above the high water line. A tent covered each gauge site installation . Refer to the tide station packages for additional site specific details of installation.				
Tide staff	None. Spirit leveling was observed between a nearby tidal bench mark and the water. The survey rod was outfitted with a stilling well to dampen wave action.				
Benchmarks	The following benchmarks were installed at these sites: Crater Bay: 5159 A 2000, 5159 B 2000, 5159 C 2000, 5159 D 2000, and 5159 E 2000 Bear Cove: 5128 A 2000, 5128 B 2000, 5128 C 2000, 5128 D 2000, and 5128 E 2000 Camp Cove: 5151 A 2000, 5151 B 2000, and 5151 C 2000 The following benchmarks were recovered at these sites: Camp Cove: BM 1 1912, BM 2 1912, BM 4 1965, and BM 5 1965				
Levels	Benchmarks were leveled at the installation and removal of each tidal station. The benchmarks and station datums were connected through frequent leveling to the water. The level runs closed within NOS tolerance. Benchmarks were stable.				
Final Tidal Zoning	The final tidal zoning follows this report (color map and MapInfo zoning file).				

Appendix D - Tides and Water Levels[41]

Abstract of Times of Hydrography For Smooth Tides
Project Number: OPR-P353-KR Registry Number: H-11010
Contractor Name: Racal Pelagos Inc. Date: April 17, 2001
Sheet Letter: C
Inclusive Dates: August 31, 2000 to November 12, 2000
Field work is Complete and verified tides were applied for the production of the smooth sheet. Refer to LCMF's final verified tides report for additional information.

Abstract of Times of Hydrography for F/V Quicksilver:

YEAR	DAY	START TIME (UTC)	END TIME (UTC)	COMMENTS
2000	243	02:02:06	03:03:29	
2000	243	17:07:02	23:20:26	
2000	244	00:01:53	03:48:59	
2000	244	18:30:20	23:59:59	
2000	245	00:00:00	03:16:01	
2000	245	17:04:12	23:57:30	
2000	246	00:00:42	02:20:32	
2000	246	17:47:10	23:59:59	
2000	247	00:00:00	03:43:15	
2000	247	17:56:49	23:59:59	
2000	248	00:00:00	03:42:36	
2000	248	17:00:54	23:58:14	
2000	249	00:09:58	02:39:55	
2000	249	18:48:10	20:53:51	
2000	250	00:19:21	02:56:24	
2000	250	18:01:05	23:59:59	
2000	251	00:00:00	03:36:55	
2000	251	17:33:45	23:56:25	
2000	252	00:02:48	03:32:47	
2000	252	17:29:00	23:59:59	
2000	253	00:00:00	02:59:00	
2000	253	16:50:55	23:55:15	
2000	254	00:01:49	04:07:45	
2000	254	17:53:00	23:57:40	
2000	255	00:12:46	02:52:50	
2000	255	17:27:23	23:54:35	
2000	256	00:00:00	00:24:53	
2000	256	17:58:45	23:59:59	
2000	257	00:00:00	01:36:23	
2000	257	16:35:46	23:59:59	
2000	258	00:00:00	00:59:16	
2000	258	17:38:13	23:59:59	
2000	259	00:00:00	02:01:45	
2000	259	17:03:45	20:15:30	
YEAR	DAY	START TIME	END TIME	COMMENTS

		(UTC)	(UTC)	
2000	260	19:21:46	21:25:00	
2000	261	23:49:45	23:59:59	
2000	262	00:00:00	01:51:07	
2000	262	17:07:03	23:59:59	
2000	263	00:00:00	01:35:00	
2000	263	16:43:08	23:59:59	
2000	264	00:00:00	01:26:48	
2000	264	17:00:19	23:59:59	
2000	265	00:00:00	03:11:59	
2000	265	16:44:54	23:58:07	
2000	266	00:10:19	02:07:40	
2000	266	16:39:28	17:14:42	
2000	267	16:58:03	17:36:03	
2000	268	22:41:09	23:38:20	
2000	269	00:01:48	02:16:47	
2000	269	18:37:40	22:23:05	
2000	270	21:56:47	21:59:20	
2000	280	01:53:50	03:22:10	
2000	281	17:04:12	23:59:35	
2000	282	00:03:10	00:09:09	
2000	284	17:51:30	23:47:25	
2000	285	00:32:55	03:48:40	
2000	285	18:12:26	23:24:27	
2000	286	00:04:50	03:00:00	
2000	286	18:26:30	23:59:59	
2000	287	00:00:00	03:27:01	
2000	287	16:55:00	23:59:59	
2000	288	00:00:00	00:44:16	
2000	288	17:20:36	23:59:59	
2000	289	00:00:00	03:39:39	
2000	289	16:42:41	22:52:59	
2000	292	17:12:09	23:59:10	
2000	296	23:05:48	23:59:32	
2000	297	00:13:17	03:44:25	
2000	297	16:46:56	23:59:59	
2000	298	00:00:00	03:05:13	

Abstract of Times of Hydrography for Sea Ducer:

YEAR	DAY	START TIME	END TIME	COMMENTS

		(UTC)	(UTC)	
2000	247	21:54:27	23:23:13	
2000	248	00:16:03	02:18:00	
2000	248	18:05:35	23:52:43	
2000	249	00:01:27	03:25:48	
2000	249	17:53:38	23:59:59	
2000	250	00:00:00	02:56:58	
2000	250	17:54:56	23:59:59	
2000	251	00:00:00	03:33:18	
2000	251	17:27:39	23:59:59	
2000	252	00:00:00	04:08:04	
2000	252	17:20:20	21:28:03	
2000	253	00:02:38	02:35:50	
2000	253	17:05:03	23:59:47	
2000	254	00:01:14	01:21:37	
2000	256	21:49:22	23:59:59	
2000	257	00:00:00	02:35:55	
2000	258	17:22:40	23:59:59	
2000	259	00:00:00	02:35:33	
2000	259	16:15:52	23:59:59	
2000	260	00:00:00	02:35:50	
2000	260	16:07:27	20:15:40	
2000	262	22:15:48	23:59:59	
2000	263	00:00:00	02:06:07	
2000	263	16:58:00	18:01:25	
2000	265	18:41:12	23:59:59	
2000	266	00:00:00	02:52:31	
2000	274	17:17:55	17:46:25	
2000	294	16:49:14	23:35:29	
2000	295	00:05:46	03:29:20	
2000	299	00:45:05	01:33:48	
2000	308	17:19:46	23:06:34	
2000	309	0:25:10	2:49:42	
2000	309	17:38:48	21:18:09	
2000	310	0:04:04	2:43:09	
2000	310	17:03:31	17:23:30	
2000	313	0:06:53	3:14:04	
2000	313	18:09:48	23:59:59	
2000	314	0:00:00	2:28:46	
2000	315	1:59:51	2:07:56	
2000	315	17:36:58	19:24:54	
2000	316	22:16:24	23:58:40	
2000	317	0:09:49	2:42:22	
2000	317	20:06:28	22:41:56	