



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: March 29, 2002

HYDROGRAPHIC BRANCH: Pacific
HYDROGRAPHIC PROJECT: OPR-P359-RA-2001
HYDROGRAPHIC SHEET: H11075

LOCALITY: Resurrection Bay, AK
TIME PERIOD: Aug. 14 - Sept. 19, 2001

TIDE STATION USED: 945-5090 Seward, AK
Lat. 60° 7.2'N Lon. 149° 25.6'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.947 meters

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as: CA501 & CA503.

Refer to attachments for zoning information.

Note 1: Provided time series data are tabulated in metric units
(meters), relative to MLLW and on Greenwich Mean Time.

For [Signature]

CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION

Final tide zone node point locations for **OPR-P359-RA-2001,**
Sheet H11075.

Format: Tide Station (in recommended order of use)
 Average Time Correction (in minutes)
 Range Correction
 Longitude in decimal degrees (negative value denotes
 Longitude West),
 Latitude in decimal degrees

	Tide Station Order	AVG Time Correction	Range Correction
Zone CA501	945-5090	0	1.00
-148.826452 59.763477			
-149.070356 59.957131			
-149.070356 59.957131			
-149.169456 59.931179			
-149.290309 59.895001			
-149.567018 59.750298			
-149.527047 59.714435			
-149.307008 59.573642			
-149.157057 59.403902			
-148.655827 59.530663			
-148.826452 59.763477			
Zone CA503	945-5090	0	1.02
-149.157057 59.403902			
-149.307008 59.573642			
-149.527047 59.714435			
-149.535471 59.724965			
-149.554703 59.732175			
-149.572341 59.751306			
-149.753398 59.70809			
-149.836442 59.746797			
-149.99029 59.716885			
-150.036597 59.618401			
-150.110508 59.585271			
-149.957645 59.483644			
-149.853729 59.375614			
-149.157057 59.403902			

2001 FINAL FIELD TIDE NOTE
NOAA Ship RAINIER
CAPT James C. Gardner, NOAA / Commanding
Agnes Cove, AK
(945-5120)

Project: OPR-P359-RA-01, Approaches to Seward, Alaska

The operating tide station at Seward, Alaska (945-5090) serves as control for datum determination for this project. Agnes Cove (945-5120) tide station serves to provide information on zoning, tidal reducers, and harmonic constants for predictions. Agnes Cove (945-5120), Alaska serves zones CA501, CA500, CA503, and sheets C and D.

Geographic Locale — 59°46'24.9" N, 149°35'20.9" W (NAD 83)

Installation Date — August 14, 2001

Removal Date — September 20, 2001

Gauge Type — Sutron 8210 digital gauge:

	Installation	Removal	DCP S/N	CPU S/N	Paros S/N	GOES S/N
A4	08/14/01 (2307 UTC)	09/20/01 (2243 UTC)	002326	9902960	77958	33503560

Installation — The gauge was installed on a rock outcrop approximately 3 meters above the apparent high water line, at the base of a tree. The gauge was secured to the tree with parachute cord and covered with a tarp to protect it from the weather.

The orifice was attached to a sheer rock wall with lag bolts and angle iron and secured with wire ties. The orifice tubing was secured to the bedrock shore with eyebolts and tie wraps.

A GOES antenna was installed at the site with a GOES West-West orientation; its elevation was 21° and its azimuth was 140°.

Staff — A 3.00-meter staff was made by attaching a vitrified scale to a 2x4 piece of lumber. The bottom of the staff was secured to a bedrock ledge with two lag bolts. The top of the staff was braced to the ledge with two 2x4 pieces of lumber. (See attached digital photographs.)

The staff stop was the top of a hex head bolt screwed into the staff. The staff stop measured 3.00 meters above staff zero.

Gauge – Staff Comparison — The average gauge–staff difference for 3.0 hours of initial observations for Unit A4 was 8.290 meters, with a standard deviation of (+/-) 0.031 meters. Initial observations were taken on 08/15/01 for 2.4 hours and had to be completed 08/16/01, for 0.6 hours, due to the staff going dry.

An additional 1.9 hours of observations were completed on 08/16/01, 08/18/01, 09/03/01, 09/11/01, and 09/20/01 with an average gauge–staff difference of 8.311 meters, and a standard deviation of (+/-) 0.042 meters.

The overall average gauge–staff difference was 8.299 meters, with a standard deviation of (+/-) 0.037 meters.

Gauge Time — Universal Coordinated Time.

Bench Marks — The following benchmarks were established at this site: (Please refer to attached “Description of Bench Mark” forms NOAA 76-75 and digital photographs.)

“5120A 2001”

”5120B 2001”

”5120C 2001”

“5120D 2001”

“5120E 2001”

No historical benchmarks were recovered at this site, as this was a new site.

Levels — Opening levels closed within NOS tolerances on 08/16/01. Closing levels closed within NOS tolerances on 09/20/01. The Opening and Closing levels agree within 0.0038 meters.

Digital Records — Digital data files are stored on compact disk (CD).

File:	From:	To:
94551201.da1	08/14/01 (2307 UTC)	08/22/01 (2355 UTC)
94551201.da2	08/23/01 (0001 UTC)	09/02/01 (2355 UTC)
94551201.da3	09/03/01 (0001 UTC)	09/10/01 (2355 UTC)
94551201.da4	09/11/01 (0001 UTC)	09/20/01 (2243 UTC)

Station Remarks — GOES transmissions were interrupted on 08/16/01 and resumed successfully after repositioning the antenna on 08/18/01. GOES transmissions were interrupted on 08/20/01 and resumed successfully on 08/21/01. The antenna was apparently moved by weather and repositioned on 09/21/01 although no transmission problems occurred.

FINAL FIELD NOTE

AGNES COVE

945-5120

Permission to occupy this site should be obtained from the Kenai Fjords National Park Service. Contact the Seward Office at (907)-224-3175 (phone) or (907)-224-2144 (fax).

email

KEFJ_Superintendent@nps.gov

write to

National Park Service
PO Box 1727
Seward, AK 99664