

T- 12039

T- 12039

NOAA FORM 76-35

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## DESCRIPTIVE REPORT

### Shoreline

Type of Survey .....  
Job No. PH-6013 ..... Map No. T-12039 .....  
Classification No. Final Map Edition No. 1 .....

### LOCALITY

State ..... Alaska .....  
General Locality ..... Cook Inlet .....  
Locality ..... Kalgin Island to Anchorage .....  
Locality ..... West Foreland, North of .....

1966 TO 1976

### REGISTRY IN ARCHIVES

DATE .....

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
<b>DESCRIPTIVE REPORT - DATA RECORD</b>		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Division Atlantic Marine Center, Norfolk, VA		SURVEY <b>AT-T-12039</b> MAP EDITION NO. (1) MAP CLASS Final Map JOB PH- <b>6013</b>	
OFFICER-IN-CHARGE  Jeffrey G. Carlen, Cdr.		LAST PRECEDING MAP EDITION TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB PH- _____ MAP CLASS _____ SURVEY DATES: 19__ TO 19__	
<b>I. INSTRUCTIONS DATED</b>			
<b>1. OFFICE</b>		<b>2. FIELD</b>	
Aerotriangulation 9/15/66 - Compilation, Supplement 5 3/20/73 Compilation, Amend. 1 to Supp. 5 4/15/73 Compilation, Amend. 2 to Supp. 5 1/31/74		Field 6/6/66 Supplement 1 8/08/66	
<b>II. DATUMS</b>			
1. HORIZONTAL: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify)	
2. VERTICAL: <input checked="" type="checkbox"/> MEAN HIGH-WATER <input type="checkbox"/> MEAN LOW-WATER <input checked="" type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL		OTHER (Specify)	
3. MAP PROJECTION  Polyconic		4. GRID(S) STATE Alaska ZONE 4	
5. SCALE  1:20,000		STATE ZONE	
<b>III. HISTORY OF OFFICE OPERATIONS</b>			
OPERATIONS		NAME	
DATE			
1. AEROTRIANGULATION BY METHOD: Stereoplanigraph LANDMARKS AND AIDS BY		P. Hawkins 4/67	
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: Coordinatograph CHECKED BY		L. O. Neterer, Jr. 11/73 C. Blood 11/73	
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY		R. B. White/L. O. Neterer 3/74 11/73 A. L. Shands/R. R. White 3/74 11/73	
INSTRUMENT: Wild B-8 SCALE: 1:20,000		CONTOURS BY NA CHECKED BY NA	
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY		R. White 3/74 G. R. Vanderhaven 3/74	
METHOD: Smoothdrafted SCALE: 1:20,000		CONTOURS BY NA CHECKED BY NA	
HYDRO SUPPORT DATA BY		R. R. White/L. O. Neterer 3/74 11/73	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY		G. R. Vanderhaven 3/74	
6. APPLICATION OF FIELD EDIT DATA BY		J. Roderick 12/76	
CHECKED BY		F. Margiotta 12/76	
7. COMPILATION SECTION REVIEW BY		F. Margiotta 12/76	
8. FINAL REVIEW BY		J. Byrd/C. Blood 7/86	
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		J. Byrd 9/86	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		P. Dempsey Oct. 1986	
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		E. L. DAUGHERTY Dec '86	

NOAA FORM 76-36B  
(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEYT-12039  
COMPILATION SOURCES

## 1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-8"L"		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE <input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY		(C) COLOR <input checked="" type="checkbox"/> (P) PANCHROMATIC (I) INFRARED		ZONE Alaska	<input checked="" type="checkbox"/> STANDARD
				MERIDIAN 150th	<input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
*66L6631 - 66L6634 66L6617	8/14/66 8/14/66	08:00 07:40	1:40,000 1:40,000	0.3 ft. below MLLW 0.5 ft. above MLLW	

REMARKS

## 2. SOURCE OF MEAN HIGH-WATER LINE:

\*The mean high water line was compiled from the above listed photographs.

3. SOURCE OF ~~MEAN LOW-WATER~~ OR MEAN LOWER LOW-WATER LINE:

The mean lower low water line was delineated using all the above photographs.

## 4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED

## 5. FINAL JUNCTIONS

NORTH T-12026	EAST None	SOUTH T-12044	WEST T-12038
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REMARKS

T-12039

## HISTORY OF FIELD OPERATIONS

I. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	A. Wardwell	4/61 - 7/61
2. HORIZONTAL CONTROL	RECOVERED BY G. Saladin	4/61 - 7/61
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
3. VERTICAL CONTROL	RECOVERED BY NA	
	ESTABLISHED BY NA	
	PRE-MARKED OR IDENTIFIED BY NA	
4. LANDMARKS AND AID TO NAVIGATION	RECOVERED (Triangulation Stations) BY None	
	LOCATED (Field Methods) BY None	
	IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY NA	

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

None

2. VERTICAL CONTROL IDENTIFIED

NA

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

None

4. LANDMARKS AND AID TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

None

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(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEYT-12039  
HISTORY OF FIELD OPERATIONSI. ☒ FIELD INSPECTION OPERATION *Premarking* ☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. B. Melby	6/66
2. HORIZONTAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None None None
3. VERTICAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	NA NA NA
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED ( <i>Triangulation Stations</i> ) BY LOCATED ( <i>Field Methods</i> ) BY IDENTIFIED BY	None None None
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY BY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	NA

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED None		2. VERTICAL CONTROL IDENTIFIED NA	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
3. PHOTO NUMBERS ( <i>Clarification of details</i> ) None			
4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED None			
PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
5. GEOGRAPHIC NAMES: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE		6. BOUNDARY AND LIMITS: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE	
7. SUPPLEMENTAL MAPS AND PLANS None			
8. OTHER FIELD RECORDS ( <i>Sketch books, etc. DO NOT list data submitted to the Geodesy Division</i> ) None			

NOAA FORM 76-36C  
(3-72)

NOAA FORM 76-36C  
(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEYT-12039  
HISTORY OF FIELD OPERATIONSI. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. E. Alderman, CAPT, NOAA	8/76
2. HORIZONTAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None NA None
3. VERTICAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	NA NA NA
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY IDENTIFIED BY	None NA None
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	NA
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	NA
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	NA

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED None		2. VERTICAL CONTROL IDENTIFIED	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
	NA		NA
3. PHOTO NUMBERS (Clarification of details) NA			
4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED NA			
PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
5. GEOGRAPHIC NAMES: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE		6. BOUNDARY AND LIMITS: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE	
7. SUPPLEMENTAL MAPS AND PLANS None			
8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division) Raw Field Edit Data, OPR-469-FA-76, Vol. TWO    Field Edit Reports, OPR-469-FA-76 Field Edit Ozalid, Map T-12039 Field Edit Report, Map T-12039 Field Edit Fix Computations, Map T-12039			

NOAA FORM 76-36C  
(3-72)

T-12039  
**RECORD OF SURVEY USE**

**I. MANUSCRIPT COPIES**

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete, pending field edit.	3/74	Class III manuscript	None	4/16/74
Partial 1975 field edit (landmarks plotted).	3/76	Class III manuscript	None	None
Field edit applied. Compilation complete.	12/76	Class I manuscript	2/11/77	2/11/77
Final Review	7/86	Final Map		

**II. LANDMARKS AND AIDS TO NAVIGATION**

**1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH**

NUMBER pages	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
1		02/6/78	aids for charts.

2. ☒ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: February 6, 1978

3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: \_\_\_\_\_

**III. FEDERAL RECORDS CENTER DATA**

- ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
- ☐ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM 75-40 ~~105-107~~ SUBMITTED BY FIELD PARTIES.
- ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.  
ACCOUNT FOR EXCEPTIONS:
- ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: \_\_\_\_\_

**IV. SURVEY EDITIONS** (This section shall be completed each time a new map edition is registered)

SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL	



SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT

T-12039

This 1:20,000 scale Final shoreline map is one of 44 maps designated as project PH-6013 Cook Inlet, Kalgin Island to Anchorage, Alaska.

The purpose of this map was to provide contemporary shoreline in support of hydrographic operations and to aid in chart revision.

Field work prior to compilation in the 1961 field season consisted of recovery of horizontal control and limited field inspection. Field work in 1966 consisted of premarking of horizontal control for future aerotriangulation.

This area was photographed in August 1966 with the RC-8 "L" camera using panchromatic film at 1:40,000 scale.

Aerotriangulation was performed in the Washington office in April 1967 and January 1974.

This map was compiled at the Norfolk office in March 1974.

Field edit was performed for T-12039 during the 1975 and 1976 field seasons. Field edit data was applied at AMC in December 1976.

Final review was performed at the Atlantic Marine Center in July 1986. A Chart Maintenance Print was prepared and forwarded to the Marine Charts Branch.

This Descriptive Report contains all pertinent information used to compile this Final Map. The original base manuscript and all related data were forwarded to the Washington Science Center for final registration.

## FIELD INSPECTION

T-12039

There was no field inspection prior to compilation. Field work accomplished was limited to the recovery and identification of the horizontal control necessary for the aerotriangulation of the project.

PHOTOGRAMMETRIC PLOT REPORT  
Job PH-6013  
Cook Inlet, Alaska

April 13, 1967

21. Area Covered

The area covered by this report extends from the Redoubt Bay-East Foreland area to Anchorage, Alaska. Included in this area are T-sheets 11998 thru 12001, 12009 thru 12012, 12018, 12019, 12021, 12025 thru 12030, 12038, 12039, 12042 thru 12044, 12047, 12048 and 12987.

22. Method

Five strips were bridged on the C-8 and C-5 stereoplanigraph. Strip #1 (66-L-6602 thru 6623) was adjusted on four triangulation stations with tie points used as checks. Strip #2 (66-L-6629 thru 6634) was adjusted on two triangulation stations plus tie points from Strip #1. Strip #3 (66-L-6641 thru 6653) was adjusted on three triangulation stations plus ties. Strip #4 (66-L-6667 thru 6677) was adjusted on three triangulation stations plus ties. Strip #9 (66-L-6713 thru 6725) was adjusted on three triangulation stations.

23. Adequacy of Control

The control, being premarked, was very good insofar as being able to see it clearly; however, in several cases, the 1:40,000 scale photography completely missed the stations. It should be noted that all strips were adjusted with minimum control, and as such, no positive proof can be provided that the adjustments are correct other than by means of tie points and residuals of adjustment. The tie points and residuals do indicate a good adjustment on all strips. Strip #4 had to be terminated at station SIT 1966 due to lack of control beyond this point. (Port McKenzie could not be seen on the 1:40,000 scale photography.) Attempts were made to provide a tie point for the terminal station on the east end of this strip by bridging three models south of Anchorage, dropping points onto Strip #4. This met with complete failure. Strip #6 had to be terminated on the southern end at station GRAY CLIFF 1909 since the station at East Foreland was not covered by the 1:40,000 scale photography.

#### 24. Supplemental Data

Local USGS quads were used to provide vertical control used in the bridging adjustment.

The coverage of 1966 photography falls short of being sufficient to show the shallow mud areas which are near lower-low water level in the area of the Susitna River Delta. To provide for the delineation of the limiting line of this feature, scale points have been selected which are common to 61M photography which does show the limiting line. Ratios of these photographs will be provided for the graphic delineation of the limiting line only. The compiler should select whatever additional points are necessary for correct delineation. A holiday exists on some of the shoreline along Strip #9. A flight of 60W photography provides coverage and three ratio photos were provided for compilation of this area.

All points on the bridged plates were drilled by PUG methods. Plate 66-L-6719 was broken after bridging. A new plate was provided but it does not contain any drilled points. It is suggested that the models on either side be compiled and pass points be dropped on this plate for compilation.

#### 25. Photography

Photography was adequate as to definition and overlap but was not adequate as to coverage. The 1:40,000 scale photos did not cover either the shoreline or the marked control on the east end of Strip #4 or the southwest end of Strip #9. A portion of the shoreline along the part of Strip #9 which was bridged also lacks coverage.

Submitted by:

*Paul Hawkins*

Paul Hawkins

Approved by:

*John D. Perrow, Jr.*

John D. Perrow, Jr.

Photogrammetric Plot Report  
Cook Inlet, Alaska  
Job PH-6013  
January 1974

21. Area Covered

The area covered by this report is along the coast at West Foreland Cook Inlet, Alaska. This area is covered by four 1:20,000 scale sheets TP-12038, TP-12039, TP-12043, and TP-12044.

22. Method

One strip of 1:40,000 scale panchromatic photography was bridged by analytic methods. Sketch #1 shows the flight line of the photography and the placement of the control used in this adjustment. This strip was adjusted in April 1967 but part of the bridging photography was lost. Points were transferred from the old bridge photography to this bridge using the same photography to control the northwest end of the strip. Data for plotting the points were furnished to AMC to be plotted by manual methods.

23. Adequacy of Control

The control was adequate.

24. Supplemental Data

The data from the 1967 bridge were used to control the northwest end of the strip.

25. Photography

The photography was adequate. Ratios were ordered on January 3, 1974.

Respectfully submitted,

*Ivey O. Raborn*  
Ivey O. Raborn

Approved and forwarded:

*John D. Perrow, Jr.*  
John D. Perrow, Jr.  
Chief, Aerotriangulation Section

## COMPILATION REPORT

T-12039

31. DELINEATION:

Delineation was by the Wild B-8 stereoplotter, using 1:40,000 scale photography.

The limit of the tidal flats in the northwest corner of the map was delineated graphically.

32. CONTROL:

See the attached Photogrammetric Plot Report dated April 13, 1967.

33. SUPPLEMENTAL DATA:

None.

34. CONTOURS AND DRAINAGE:

Contours are not applicable to the project. Drainage was delineated by the Wild B-8 stereoplotter and by office interpretation of the photographs.

35. SHORELINE AND ALONGSHORE DETAILS:

Alongshore details were delineated using the Wild B-8 stereoplotter and by office interpretation of the photographs.

The mean high water line was delineated from the photographs. The mean lower low water line was compiled from the low water photography.

36. OFFSHORE DETAILS:

None.

37. LANDMARKS AND AIDS:

No charted landmarks or aids were noted during compilation.

38. CONTROL FOR FUTURE SURVEYS:

None.

39. JUNCTIONS:

See the attached Form 76-36B, Item 5 of the Descriptive Report, concerning junctions.

40. HORIZONTAL AND VERTICAL ACCURACY:

No statement.

46. COMPARISON WITH EXISTING MAPS:

A comparison has been made with the following USGS Quadrangle: KENAI (D-5), ALASKA, scale 1:63,360, 1958.

47. COMPARISON WITH NAUTICAL CHARTS:

A comparison has been made with the following National Ocean Survey Chart: No. 8553 (Cook Inlet, Northern Part), scale 1:194,154, December 29, 1973, 15th Edition.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None.

ITEMS TO BE CARRIED FORWARD:

None.

Submitted by:

*Albert C. Rauck, Jr.*  
G. Vanderhaven  
Cartographer  
March 21, 1974

Approved:

*Albert C. Rauck, Jr.*  
Albert C. Rauck, Jr.  
Chief, Coastal Mapping Section

## GEOGRAPHIC NAMES

## FINAL NAME SHEET

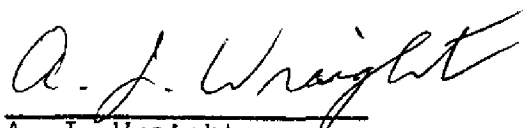
PH-6013 (Cook Inlet)

T-12039


Cook Inlet

Trading Bay

Approved by:

  
A. J. Wraight  
Chief Geographer

Prepared by:

  
Frank W. Pickett  
Cartographic Technician

## FIELD EDIT REPORT

OPR-469-RA-1975

UPPER COOK INLET, TRADING BAY

ALASKA

T-12018 thru T-12019  
T-12025 thru T-12027  
T-12038

NOAA Ship RAINIER

CDR. Charles K. Townsend

Commanding

## INTRODUCTION

The field edit of the Alaskan project, OPR-469-RA-75, Trading Bay, Upper Cook Inlet, was started on June 10, 1975 (J.D. 161) and completed on July 24, 1975 (J.D. 205). The manuscripts had been compiled without field inspection prior to compilation, therefore a complete and thorough field edit was done in the areas that were investigated. Work was carried out on shore and water.

Field edit began at North Foreland and continued southwest to the western edge of Trading Bay. All deletions, additions and corrections to be applied to the manuscripts appear on the T-sheets. All questions on the field edit ozalids were answered on the T-sheets. The T-sheet is an index of all field edit work performed. All field edit notes on the T-sheets which are in violet ink, are verified. Those in red ink are changes. The smooth boatsheets are also master indexes of field work accomplished. All notes on the boatsheets that are in black ink are verified, those in red ink are changes, blue ink signifies features that were not verified. Most of the field edit for this survey was accomplished by hydrographic methods due to the poor quality of the photographs for this area.

Height data on all rocks were estimated; plus or minus one foot. Times were referenced to 0° Longitude.

## ADEQUACY OF COMPILATION

The compilation of the manuscripts was adequate and complete. Compilation of the HMMT was excellent where it was possible to verify.

The MLLW line agreed extremely well with hydrography. There are a few minor discrepancies due to recent construction, these are noted in the Shoreline Summaries. All rocks and offshore features are labeled on the T-sheets.

#### POSITION CONTROL

In many areas of Cook Inlet, such as Granite Point, it is impossible to verify rocks which are on the manuscripts or newly discovered ones, due to the abundance of rocks, without D.P.'s on each rock. Therefore the field edit in this survey received permission (refer to Correspondence in the Separates following the text) and made use of the super-high frequency (SHF) Motorola Mini-Ranger III (range-range system) for position control on detached positions. The system worked satisfactorily during the survey. Mini-Ranger stations were established on existing (BOULDER, 1909) or newly established triangulation stations of third order precision, (BRUCE, GRANITE, KING.) Stations BRUCE, GRANITE, and KING were traversed (closed) with T-2 Theodolites and with a CA-1000 Tellurometer. Refer to the Horizontal Control Report, OPR-469-RA-75, for specific procedures used in establishing these stations.

Daily calibration of the Mini-Ranger system was accomplished by using three-point sextant fixes or by static calibrations which were taken next to pilings 3, 4, and 5 (stations 123, 124, 125) at the North Foreland pier. Use of a signal strength indicator along with the daily calibrations, reaffirmed baseline calibration correctors,

which were used as the correctors for the electronic hydro positioning tapes throughout the survey. Refer to the Electronic Control Report, OPR-469-RA-75, for specifics on the Mini-Ranger III system.

The Mini-Ranger console, serial number 720, and Receiver/Transmitter unit, s/n 727, connected to a 24 volt system were arranged in a tin skiff (RAINIER skiff 2128), making it possible to take D.P.'s next to the rocks.

Each D.P. contains a fix and a check fix by using Mini-Ranger rates, Mini-Ranger and sextant, or three point sextant fixes. Each D.P. was processed by using the PDP 8/e computer and complot system on board the RAINIER, (s/n 1015, DP-3 5445-7 respectfully.) Program AM 602 was used to produce master tapes and corrector tapes from information in the sounding volume, while RK 211, 212, 214 & 215 were used to plot the data on the boatsheets. Each D.P. was plotted twice, once using the fix information, and the check fix was used to confirm the position. A few discrepancies were found due to Mini-Ranger busts or misidentified signals. These were resolved by evaluating the intersection of the M/R rates, comparison of the positions to other rocks and conservative positioning. For printouts of all D.P.'s refer to the Separates following the text.

All final positions were plotted on a field edit boatsheet and then transferred to the master index T-sheet and smooth boatsheets.

The final positions on the RA-20-3B-75 boatsheet (field edit sheet), range from #28 thru #164. These correspond to positions #3028 to #8164 in the sounding volume. Only those D.P.'s which were not

duplicates of themselves nor duplicates of manuscript rocks, were kept and are listed in the Separates following the text.

#### SHORELINE SUMMARIES

##### T-12019

Field edit for OPR-469-RA-75 began at North Foreland,  $61^{\circ} 02' 58''\text{N}$ ,  $151^{\circ} 09' 33''\text{W}$ . The area southwest of there was field edited and verified, everything northeast of this point was not.

The bluff at North Foreland has been cut away ( $61^{\circ} 02' 54''\text{N}$ ,  $151^{\circ} 09' 55''\text{W}$  to  $61^{\circ} 02' 43''\text{N}$ ,  $151^{\circ} 10' 43''\text{W}$ ) and this is now the site of the Tyonek Timber Company. A large company pier is being constructed as shown on the T-sheet. The shape and length of the pier was determined by positions obtained for the supporting pilings present at the time of the survey (#8007-9, 8016-18, 8023-25, 8158-160.) This is the field editor's interpretation of how the pier will appear when finished. It is recommended that construction plans be obtained from the company office in Anchorage, Alaska. Six mooring bouys used with the construction, has also been plotted and it is recommended that these are not to be charted since they will probably be removed with the completion of the pier.

Due to the construction, North Foreland Light has been moved several times and it is still not permanently secured. A temporary position ( $61^{\circ} 02' 51.616''\text{N}$ ,  $151^{\circ} 09' 50.604''\text{W}$ ) has been obtained by traverse methods, refer to the Horizontal Control Report, OPR-469-RA-75, for further information. However, it is recommended that the light be relocated when the construction is completed.

The MHWL has been verified northeast of  $61^{\circ} 00' 20''\text{N}$ ,  $151^{\circ} 29' 33''\text{W}$ . Due to the inaccessability of the MHWL southwest of this point, caused by the extensive mud and sand flats, this area was not field edited nor were any measurements from a photo identifiable object to the MHWL taken. Field Edit Ozalid Note 2 was unable to be fulfilled. This area extends onto T-12026, T-12025 and ends on T-12038.

The foreshore area was field edited and no rocks or dangers to navigation were found.

#### T-12026

The shoreline on this ozalid was also not verified as that mentioned under T-12027. The foreshore area was investigated at low water, no rocks were found which could be a hazard.

There were no cabins nor buildings of any landmark value found.

#### T-12025

The MHWL on this T-sheet has not been field edited (note summary for T-12027.) The foreshore area is void of any hazardous rocks, investigation was completed at low water.

#### T-12038

The unverified MHWL continues until  $60^{\circ} 50' 14''\text{N}$ ,  $151^{\circ} 47' 50''\text{W}$ . There were no rocks considered a hazard to navigation, in the foreshore area. Measurements to the MHWL were not taken.

The shoreline between  $61^{\circ} 50' 14''\text{N}$ ,  $151^{\circ} 47' 50''\text{W}$  to  $61^{\circ} 48' 50''\text{N}$ ,  $151^{\circ} 46' 45''\text{W}$ , was field edited. In the approximate vicinity of  $61^{\circ} 48' 50''\text{N}$ ,  $151^{\circ} 46' 45''\text{W}$ , there have been new additions including an airfield, an oil tank farm, a stack and a microwave tower which are of landmark value. The exact positions of these were not obtained.

$61^{\circ} 48' 50''\text{N}$ ,  $151^{\circ} 46' 45''\text{W}$  is the limit of the field edit for OPR-469-RA-75; anything south of here is unverified.

#### RECOMMENDATIONS

In the vicinity of East, West and North Foreland, there are thirteen oil platforms. It is recommended as an aid navigation that each individual platform's name be added to the chart, as an assistance to any vessels in the area and as an aid to navigation. (Refer to Oil Platforms in the Separates following the text.)

It is also recommended that the stack and microwave tower on T-12038 be located as a nonfloating aid to navigation.

Throughout this survey, electronic control was used most of the time for field edit. It is recommended that this control be used in future projects for field edit needs. The electronic control made it easier to accurately plot all D.P.'s on hazards to navigation on all the rough-field boatsheets along with the smooth sheet. This method made it possible to process the acquisition of data with greater efficiency and speed, both in the field and office verification. In maintaining the guidelines set down (see Correspondence in the Separates following the text)

electronic controlled field edit has proven valuable by increasing the speed and proficiency of data acquisition and processing. This will help to decrease the amount of time that it takes to produce a new chart after the survey has been completed.

Respectfully submitted,

*Kathryn Andreen*

Kathryn Andreen, Ltjg. NOAA

## FIELD EDIT REPORT

Map T-12039

North of West Foreland, Alaska

August 1976

Field edit of map T-12039 was done by ENS. Neal G. Millett during the month of August 1976. The area between the apparent shoreline and the mean lower low water line is characterized by gravel and boulders. Inspection was done from a small boat and on foot when fixes on land were required.

METHOD

Field photographs and a copy of the field edit ozalid were examined in the field. The mean high water line was verified by visual comparison of the beach area and the ozalid in the field. All detached positions were determined by visual three-point sextant fix with check positions utilizing the offshore platforms. Some detached positions were rejected, either as swingers or for exceeding the accuracy requirements of 1mm at the scale of the survey. Fix 225-07a was rejected because it was found to be the same rock as fix 224-07a. Heights of rocks are noted in the field edit notebook volume 2 and on the ozalid. The mean lower low water line is not presented here but appears in the hydrographic records for survey H-9621.

No photographs are referenced for map T-12039. All times are based on +9 hours from Greenwich.

The foul zone, as indicated on the ozalid, will not be confirmed by referring to the hydrographic records for H-9621. Numerous currents, eddies, and swirls that were impossible to accurately locate indicate the presence of submerged boulders. The field editor has estimated their offshore extent despite their probable conflict with sounded depths.

ADEQUACY OF COMPILATION

Compilation of this map is good. Note is made of the following items:

<u>Fix Number</u>	<u>Object</u>	<u>Position</u>
✓224-01a	Rock Bares 2ft.	60/45/13.901N, 151/42/57.107W✓
✓224-02a	Rock Awash	60/45/27.865N, 151/43/01.691W✓
✓224-07a	Rock Bares 1ft.	60/46/38.890N, 151/43/55.535W✓
✓224-08a	Rock Awash	60/47/23.144N, 151/44/27.278W✓
✓224-09a	Rock Awash	60/47/35.923N, 151/44/16.488W✓
225-01a	Wooden Barge Wreck	60/46/27.272N, 151/44/12.337W✓
225-02a	Red & White Day Shape	60/46/31.711N, 151/44/20.694W✓
✓225-03a	Rock Bares 2ft.	60/45/45.773N, 151/43/17.382W✓
✓225-04a	Rock Awash	60/45/49.830N, 151/43/13.781W✓

<u>Fix Number</u>	<u>Object</u>	<u>Position</u>
✓225-05a	Rock Subm. 1ft.	60/46/06.159N, 151/43/25.110 W
✓225-06a	Rock Awash	60/46/35.826N, 151/43/53.905W
✓225-08a	Rock Subm. 2ft.	60/46/43.128N, 151/43/54.558W
✓225-09a	Rock Awash	60/47/22.625N, 151/44/43.837W
✓225-10a	Rock Subm. 1ft.	60/47/35.750N, 151/44/46.576W

Field inspection of this map is complete.

#### RECOMMENDATIONS

It is recommended that the map be revised in accordance with the notes on the original and that the map be accepted as an advance manuscript.

Respectfully submitted,

*Neal G. Millett*  
Neal G. Millett  
ENS. NOAA

REVIEW REPORT  
T-12039

SHORELINE

61. GENERAL STATEMENT

See Summary included with this Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

Not applicable.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Not applicable.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

A comparison was made with the following contemporary Hydrographic Surveys:

H-9641, scale 1:20,000, dated January 1, 1978

H-9621, scale 1:20,000, dated June 1, 1978.

There were no major conflicts.

65. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following NOS chart:

16660, scale 1:194,154, 22nd edition, May 8, 1982

16662, scale 1:100,000, 1st edition, April 9, 1983.

The listed charts compared well with this manuscript.

A Final Chart Maintenance Print was prepared and forwarded to Marine Charts.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This map complies with the Project Instructions, and meets the requirements for National Standards of Map Accuracy.

Submitted by

*James L. Byrd, Jr.*  
James L. Byrd, Jr.  
Final Reviewer

Approved for forwarding

*Billy H. Barnes*  
Billy H. Barnes  
Chief, Photogrammetric Section

Approved

*John Murney*  
Chief, Photogrammetry Production Sec.

*Ronald K. Brewer*  
Chief, Photogrammetry Branch

NOAA FORM 76-40  
(8-74)

Replaces C&GS Form 567.

**NONREMOVING AND/OR LANDMARKS FOR CHARTS**  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

<input checked="" type="checkbox"/> TO BE CHARTED <input type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED		REPORTING UNIT (Field Party, Ship or Office) Coastal Mapping Unit AMC, Norfolk, VA	STATE Alaska	LOCALITY Cook Inlet, Kalgin Island to Anchorage	DATE Jul. 1986
The following objects HAVE <input checked="" type="checkbox"/> BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS. OPR PROJECT NO. 469					
JOB NUMBER PH-6013		SURVEY NUMBER T-12039		DATUM N.A. 1927	

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	JOB NUMBER		SURVEY NUMBER		DATUM		METHOD AND DATE OF LOCATION (See instructions on reverse side)				CHARTS AFFECTED
		PH-6013	T-12039	N.A. 1927	POSITION			OFFICE	FIELD			
					LATITUDE		LONGITUDE					
					° / ' / "	D.M. Meters				° / ' / "	D.P. Meters	
PLATFORM	Oil Platform Dolly Varden East Derrick	60 48	28.32	151 37	57.79		F-3-6-L Aug. 1975	16662 16660				
PLATFORM	Oil Platform Dolly Varden West Derrick	60 48	28.35	151 37	59.27		F-3-6-L Aug. 1975	16662 16660				
PLATFORM	Oil Platform Grayling East Derrick	60 50	22.60	151 36	46.76		F-3-6-L Aug. 1975	16662 16660				
PLATFORM	Oil Platform Grayling West Derrick	60 50	22.85	151 36	48.12		F-3-6-L Aug. 1975	16662 16660				
PLATFORM	Oil Platform King Salmon	60 51	55.59	151 36	20.08		F-3-6-L Aug. 1975	16662 16660				

**ORIGINATING ACTIVITY**

☐ HYDROGRAPHIC PARTY  
☐ GEODETIC PARTY  
☐ PHOTO FIELD PARTY  
☐ COMPILATION ACTIVITY  
☒ FINAL REVIEWER  
☐ QUALITY CONTROL & REVIEW GRP.  
☐ COAST PILOT BRANCH  
 (See reverse for responsible personnel)

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	C. Townsend, CDR, NOAA
POSITIONS DETERMINED AND/OR VERIFIED	K. Andreen, LT(jg), NOAA J. Roderick
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	C. Blood
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64.)	
<b>OFFICE</b> <b>I. OFFICE IDENTIFIED AND LOCATED OBJECTS</b> Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	<b>FIELD (Cont'd)</b> <b>B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.</b> EXAMPLE: P-8-V 8-12-75 74L(C)2982
<b>FIELD</b> <b>I. NEW POSITION DETERMINED OR VERIFIED</b> Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	<b>II. TRIANGULATION STATION RECOVERED</b> When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 <b>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH</b> Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 <b>**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.</b>
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

**FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.**

**A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart**

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the R=

[illegible]