

T-12045

T-12045

-2

NOAA FORM 76-35

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

DESCRIPTIVE REPORT

Type of Survey Shoreline

Job No. PH-6013 Map No. T-12045(2) ..

Classification No. Final Map Edition No. 2

Field Edited Map

LOCALITY

State Alaska

General Locality Cook Inlet
Kalgin Island to Anchorage

Locality East Foreland

1966 TO 1976

REGISTRY IN ARCHIVES

DATE

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
DESCRIPTIVE REPORT - DATA RECORD		TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input checked="" type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Division Atlantic Marine Center, Norfolk, VA OFFICER-IN-CHARGE Jeffrey G. Carlen		SURVEY XX T-12045(2) MAP EDITION NO. (2) MAP CLASS Final Map JOB PH. 6013	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Division Atlantic Marine Center, Norfolk, VA OFFICER-IN-CHARGE Jeffrey G. Carlen		LAST PRECEDING MAP EDITION TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB PH. 6013 MAP CLASS I SURVEY DATES: 1960 TO 1964	
I. INSTRUCTIONS DATED			
1. OFFICE		2. FIELD	
Compilation 11/18/60 Compilation, Supplement 5 3/20/73 Compilation, Amend. 1 to Supp. 5 4/05/73 Aerotriangulation 8/13/73 Compilation, Amend. 2 to Supp. 5 1/31/74		Field 6/6/66 Field Supplement I 8/8/66 Field 3/30/73 Field 6/7/73	
II. DATUMS			
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 Alaska ZONE 4	
III. HISTORY OF OFFICE OPERATIONS			
OPERATIONS		NAME	
DATE			
1. AEROTRIANGULATION BY METHOD: Analytic LANDMARKS AND AIDS BY		M. McGinley 9/74	
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: Calcomp CHECKED BY		R. Robertson 9/74	
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY		R. R. White 12/74	
INSTRUMENT: Wild B-8 SCALE: 1:20,000		L. O. Neterer, Jr. 12/74	
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY		NA	
METHOD: Smoothdrafted SCALE: 1:20,000		Charles Parker 1/75	
HYDRO SUPPORT DATA BY CHECKED BY		Charles E. Blood 2/75	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY		NA	
6. APPLICATION OF FIELD EDIT DATA BY		Charles Blood 2/75	
7. COMPILATION SECTION REVIEW BY		David Butler 12/76	
8. FINAL REVIEW BY		Jim Byrd 1/77	
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		Jim Byrd 1/77	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		J. Byrd/C. Blood 3/86	
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		J. Byrd 9/86	
P. Dampsey E. L. DAUGHERTY		Dec. 1986 DEC '86	

NOAA FORM 76-36B
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYT-12045(2)
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S)

Wild RC-8 "L" and "E"

TYPES OF PHOTOGRAPHY
LEGEND

TIME REFERENCE

TIDE STAGE REFERENCE

- ☒ PREDICTED TIDES
☐ REFERENCE STATION RECORDS
☐ TIDE CONTROLLED PHOTOGRAPHY

- (C) COLOR
(P) PANCHROMATIC
(I) INFRARED

ZONE

Alaska

☒ STANDARD

MERIDIAN

150th

☐ DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
* 66L6704 - 66L6705	8/14/66	09:20	1:40,000	0.1 ft. below MLLW
* 67L3661 - 67L3663	6/23/67	10:53	1:40,000	3.6 ft. below MLLW
** 67L(I)3490 - 67L(I)3491	6/22/67	13:55	1:20,000	12.1 ft. above MLLW
** 67L(I)3505 - 67L(I)3509	6/22/67	14:15	1:20,000	13.9 ft. above MLLW
** 72E(C)4907 - 72E(C)4915	7/05/72	09:15	1:20,000	14.4 ft. above MLLW

REMARKS

*Bridge and compilation photos

**Hydro support photos

2. SOURCE OF MEAN HIGH-WATER LINE:

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

3. SOURCE OF MEAN LOWER LOW-WATER LINE:

*The mean lower low water line was compiled from the above listed 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	EAST	SOUTH	WEST
None	T-12046(2)	None	T-12044

REMARKS

T-12045 (2)

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 AIDS 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 AIDS 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

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYT-12045(2)
HISTORY OF FIELD OPERATIONS

1. <input checked="" type="checkbox"/> FIELD INSPECTION OPERATION <input type="checkbox"/> FIELD EDIT OPERATION			
Photoidentification			
OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		R. B. Melby	6/73
2. HORIZONTAL CONTROL		R. B. Melby	6/73
RECOVERED BY		None	
ESTABLISHED BY		None	
PRE-MARKED OR IDENTIFIED BY		R. Melby L. Riggers	6/66 6/73
3. VERTICAL CONTROL		NA	
RECOVERED BY		NA	
ESTABLISHED BY		NA	
PRE-MARKED OR IDENTIFIED BY		NA	
4. LANDMARKS AND AIDS TO NAVIGATION		R. B. Melby	6/73
RECOVERED (Triangulation Stations) BY		None	
LOCATED (Field Methods) BY		None	
IDENTIFIED BY		R. B. Melby	6/73
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	
		None	
II. SOURCE DATA			
1. HORIZONTAL CONTROL IDENTIFIED		2. VERTICAL CONTROL IDENTIFIED	
		NA	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
66L6542 67L3661	EAST FORELAND LIGHT, 1960* T.B.M. NIKISKI, 4, 1964 *Later destroyed. New 1973 position submitted.		
3. PHOTO NUMBERS (Clarification of details)			
None			
4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED			
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)			
3 Forms 152			

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(3-72)

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYT-12045(2)
HISTORY OF FIELD OPERATIONSI. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	CAPT R. E. Alderman, NOAA	8/76
2. HORIZONTAL CONTROL	RECOVERED BY LTJG G. P. Kosinski, NOAA	8/76
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
3. VERTICAL CONTROL	RECOVERED BY NA	
	ESTABLISHED BY	
	PRE-MARKED OR IDENTIFIED BY	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY LTJG G. P. Kosinski, NOAA	8/76
	LOCATED (Field Methods) BY	
	IDENTIFIED BY	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY BY <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

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
	NA		NA

3. PHOTO NUMBERS (Clarification of details)

None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

See Forms 76-40

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)

Raw Field Edit Data, OPR-469-FA-76, Vol. 1
 Field Edit Ozalid, Map T-12045, Master copy
 Field Edit Fix Computations for Map T-12045
 Field Edit Report, Map T-12045

Field Edit Reports, OPR-469-FA-76

NOAA FORM 76-36D
(3-72)

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

T-12045(2)
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.	1/75	Class III Manuscript Superseded	3/25/75	3/24,75
Field edit applied. Compilation complete.	12/76	Class I Manuscript	2/11/77	2/11/77
Final Review	3/86	Final Map		

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
1		2/6/78	5 Aids for charts
1		2/6/78	8 Landmark for charts
1		2/6/78	1 Revision

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

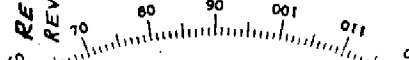
1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
 2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS. ⁷⁶⁻⁴⁸ ~~50~~ SUBMITTED BY FIELD PARTIES.
 3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:

4. ☐ 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	

REVISED 3-24-76 PWN
REVISED 3-11-77 RG.



and
151.00
150.49 45
AERO
H Reg 379 --- First editions of T-12040,
T-12045, T-12046 and T-12049
"60°33'45" were prepared specifically
to support hydrography by the
SPATHINDER in 1961 (PH-601).

Barrier Reef

Sheet No. 11998

Scale 1:50,000

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

12018	4	12038	12987	TOTAL
12019	4	12039		
12020	2	12040 (2)		
12021	3	12041		
		12042		
		12043		
		12044		
12025	2	12045 (2)		
12026	5	12046 (2)		
12027	4	12047		
12028	2	12048		
12029	4	12049		
12030	2	12507		
12031	2	12508		

TOTAL

6

FIELD INSPECTION

T-12045(2)

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

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

T-12045(2)

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. T-12045(2) is a post earthquake map, second edition of T-12045.

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 aerotriangulation.

This area was flown in August 1966 and June 1967 with the RC-8 "L" camera using panchromatic film at 1:40,000 scale and in June 1967 using infrared film at 1:20,000 scale. The area was reflown in July 1972 with the RC-8 "E" camera using color film at 1:20,000 scale. The 1:40,000 scale photographs were used for bridging and compilation. The 1:20,000 scale photographs were used for hydrographic support.

Aerotriangulation was performed in the Washington office in September 1974.

T-12045(2) was compiled at the Norfolk office in February 1975.

Field edit was performed for T-12045(2) during the 1976 field season. Field edit data was applied at AMC in January 1977.

Final review was performed at the Atlantic Marine Center March 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 REPORT

COOK INLET, ALASKA

PROJECT SP-1-61 1961

USC&GS Ship PATHFINDER

Arthur L. Wardwell, CAPT., Comdg.

MANUSCRIPTS:-

12049, 12046, 12045, 12040, 12031, 12032, 12026, 12027, 12028, 12020, 12021, 12022, 12017, 12015, 12016, 12014, 12013, 12008, 12007, 12006, 12003, 12004, 12005, 12002, 12001, 12000, 12012, 11999, 12011, 11998, 12010, 12009, 12019, 12018, 12023, 12025, 12024, 12029, 12030, 12035, 12034, 12033, 12037, 12036

AERIAL FIELD INSPECTION:-

Areas inspected were as follows: Manuscripts No. 12049, 12046, 12045, 12040, Kenai to Boulder Point, all shoreline and alongshore features.

Balance of above listed manuscripts were used only for horizontal control identification.

The area is primarily moderately timbered with spruce, fir, alder and bear claw above the mean high water line. Shoreline varies from fine black silt at the mouth of the Kenai River mouth to large fragmented boulders at Boulder Point. Most of the beachline is sand and shingle interspersed with boulders of varying sizes. Numerous underground springs and some small creeks discharge small quantities of silt and water and are subject to constant change.

The area was inspected by cruising alongshore by launch and by walking the beach and bluff line. Foul areas now indicated on Chart No. 8553 are adequate. Two primary foul areas were noted as follows:

Kenai River Mouth

East Foreland to Moose Point

Quality of photographs was excellent. Areas of shadow were limited to the shoreline east of East Foreland and upper Knik Arm. No attempt was made to sketch in the mean high water line. Enough open areas in shadowed areas are available to adequately delineate mean high water line.

HORIZONTAL CONTROL:-

Four additional second-order triangulation stations were established between Kenai and East Foreland to supplement existing control in the area of hydrography. They were identified as follows:

AUDRY 1961	Manuscript No. 12049	Photo No. 1397
LOUISE 1961	" " 12049	" " 1402
BOO 1961	" " 12045	" " 1420
HELEN 1961	Traverse from East Foreland Light 1960.	

- (2) -

Additional horizontal control recovery was made in upper Cook Inlet in accordance with project instructions. All stations were searched for and approximately 75 percent were recovered. Most of the stations not recovered are considered lost. It is recommended that the next vessel assigned to this project be given a Tellurometer. Simple traverse between recovered triangulation stations would adequately control presently un-controlled flight lines.

In many cases the listed triangulation station was not recovered and a U.S. Engineers' triangulation station was used as a substitute. It appears that the U.S. Engineers could not recover listed C&GS control and substituted their own stations.

Great assistance was rendered by the 5040 Air Transport Squadron at Elmendorf AFB in furnishing helicopter service. Three days of flying enabled personnel to cover shoreline control stations over the greater part of upper Cook Inlet.

If additional control is required in the vicinity of Elmendorf AFB, use can be made of triangulation now being observed by a C&GS geodetic party. Triangulation station DORF 1961 (in the vicinity of LOOP 2) is to be set in the roof of a building on the base. By use of the description written by the observing party, an accurate office identification can be made.

Triangulation not plotted on the Photo Index was identified where it was on photographs. This control was established by G.W.M. in 1959 and H.G.C. in 1960.

VERTICAL CONTROL:-

None recovered or established.

CONTOURS AND DRAINAGE:-

No contouring was attempted.

Primary drainage features are the Kenai, Matanuska, Little Susitna, Susitna, Beluga, Kustitan, and Drift Rivers. Tidal sweep keeps some of the rivers from building up deltaic features. An extremely flat foreshore on the Matanuska, Little Susitna, Susitna and Beluga rivers give rise to wide deltas that change seasonally. Many small streams discharge around Cook Inlet but have no apparent seasonal change.

WOODLAND COVER:-

The major portion of the area is wooded and interspersed with muskeg and open grassy areas. These are easily identifiable on the photographs. In areas of increasing cultural activity, the woodland cover is being removed. No attempt was made to indicate these areas.

SHORELINE AND ALONGSHORE FEATURES:-

The mean high water line is adequately delineated on manuscripts 12049, 12046, 12045, 12040. In the area of photo hydro signals IVY and EGG, east of East Foreland, the mean high water line is as follows:

IVY 30 meters inside MHW
EGG on piles at MHW

- (3) -

Most of the shoreline signals are located at MHW along the beach. Many of the fishing huts set on piles at the base of the bluff were used as signals.

No attempt was made to delineate the low water line. Hydrography in the area should be satisfactory.

The foreshore area is primarily sand, small stones and boulders. The normal gradation from stones at MHW to sand at MLW exists in all areas, except south of the Kenai River. In this area a heavy layer of silt is found in the tide zone.

OFFSHORE FEATURES:-

All offshore features are located by the hydrographer.

LANDMARKS AND AIDS:-

There are two fixed aids to navigation within the limits of the hydrographic project:

EAST FORELAND LIGHT

KENAI RIVER ENTRANCE RANGE

Both are located on Chart No. 8553.

One floating aid is also located on Chart No. 8553. Another can buoy is maintained by the oil company and is located just north of the pier.

One landmark for charts is recommended in the Descriptive Report for SP-1-61. This landmark is identified as follows:

KENAI TANK 1959, located by G.W.M. and identified on Photo No. 60W1400.

BOUNDARIES, MONUMENTS AND LINES:-

None shown.

OTHER CONTROL:-

Photo hydro signals were located in accordance with standard instructions. Signal IVY was found in error and relocated photogrammetrically, then verified by hydrographic cuts. Final location is shown on manuscript 12045.

Final location of photo hydro signals will remain in their relative position with the shoreline. Final compilation will cause a datum shift which will move both hydrography and signals the same relative amount.

DATUM DIFFERENCES:-

Radial plotting of photo identified control stations was made in the field. The following discrepancies were noted between plot positions and geographic positions.

EAST FORELAND LIGHT 1960	Lat. -13.8 meters
	Long. -75.4 meters
BOULDER (USE)	Lat. -37.0 meters
	Long. -45.2 meters
KENAI CHURCH STEEPLE 1909	Lat. -15.3 meters
	Long. -23.6 meters

-(4)-

CULTURAL FEATURES:-

Numerous fishing shacks are located along high water line in the area of hydrography. These huts are subject to damage by winter storms and are in a constant state of transition. No attempt was made to locate current huts.

The Nikiski Oil Pier was under construction at the time of photography. The completed dimensions are available from a blueprint of the structure submitted with descriptive report for Project SP-1-61.

Respectfully submitted,

Robert E. Williams,
Lieut. Comdr., C&GS

Gerald C. Saladin
Gerald C. Saladin
LTJG, C&GS

Arthur L. Wardwell
Arthur L. Wardwell,
Captain, C&GS
Comdg., Ship PATHFINDER

PHOTOGRAMMETRIC PLOT REPORT
Job PH-6013
Cook Inlet
East Foreland Area
Alaska

21. Area Covered

This project covers the eastern shoreline of Cook Inlet from Kenai to just north of Number Three Bay. Included are seven T-sheets: T-12040(2), T-12041, T-12042, T-12045(2), T-12046(2), and ~~T-12049(2)~~ at 1:20,000 scale, and T-12507, T-12508, at 1:10,000 scale.

22. Method

Three strips of 1:40,000 scale panchromatic photography (strips 18, 19, and 20) were bridged on the Wild STK-1 in order to obtain pass point positions and exact scale ratios to be used during compilation.

Strip 20 was adjusted on four field identified triangulation stations with checks obtained from two additional triangulation stations and two tie points. Strip 18 was adjusted on four field identified triangulation stations with two tie points as checks. Strip 19 was adjusted on six tie points. All adjustments were performed on the IBM 6600. All sheets were ruled and plotted on the Calcomp.

Ratios at 1:20,000 scale were ordered for the entire project with additional 1:10,000 scale ratios for the area covering sheets T-12507 and T-12508. Ratios at 1:20,000 scale of the bridging photography were also ordered for the portion of the project not covered by the offshore photography.

The horizontal control utilized in the adjustments held within National Map Accuracy.

24. Supplemental Data

Vertical control for bridging only was obtained from local USGS quads.

25. Photography

Photography was adequate as to overlap, definition, and coverage.

Approved by:

John D. Perrow, Jr.

John D. Perrow, Jr.
Chief, Aerotriangulation Section

Submitted by:

Michael L. McGinley
Michael L. McGinley

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.		JOB NO.		GEODETTIC DATUM		ORIGINATING ACTIVITY		REMARKS
T-12045(2)		PH-6013		N.A. 1927		Division, AMC, Norfolk, VA		
STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRIANGULATION POINT NUMBER	COORDINATES IN FEET		GEOGRAPHIC POSITION		LATITUDE LONGITUDE	
			STATE	ZONE				
T.B.M. NIKISKI 4, 1964	Bridge Form 164 p. 3		Alaska	4				
			X=	250,621.25 ft.				
			Y=	2,444,824.50 ft.				
EAST FORELAND LIGHT, 1973 (field position)			X=			60 43 11.841		
			Y=			151 24 18.524		
			X=					
			Y=					
			X=					
			Y=					
			X=					
			Y=					
			X=					
			Y=					
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			X=					
			Y=					
			X=					
			Y=					
			X=					
			Y=					
COMPUTED BY	R. R. White	DATE	COMPUTATION CHECKED BY		J. Desch		DATE	
LISTED BY		11/14/73	L. B. Foltz				11/15/73 10/04/74	
		DATE	LISTING CHECKED BY				DATE	
HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY				DATE	

COMPILATION REPORT

T-12045(2)

31. DELINEATION:

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

32. CONTROL:

See the attached Photogrammetric Plot Report dated September 1974.

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 by 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 compilation photos.

36. OFFSHORE DETAILS:

None.

37. LANDMARKS AND AIDS:

One aid, a triangulation station, was plotted and one landmark was located 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 (C-4), ALASKA, 1951, scale 1:63,360.

47. COMPARISON WITH NAUTICAL CHARTS:

A comparison has been made with the following National Ocean Survey Chart: No. 8553, 13th Edition, February 26, 1972, scale 1:194,154.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None.

ITEMS TO BE CARRIED FORWARD:

None.

Submitted by:

Albert C. Rauck, Jr. for
Charles Parker
Cartographic Aid
January 6, 1975

Approved:

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

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6013 (Cook Inlet)

T-12045

Bernice Lake

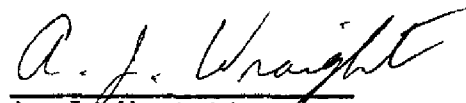
Cook Inlet

East Forehand


Kenai National Moose Range

Nikishka Bay

Approved by:


A. J. Wraight
Chief Geographer

Prepared by:


Frank W. Pickett
Cartographic Technician

FIELD EDIT REPORT

MAP T-12045

EAST FORELAND

JULY-AUGUST 1976

Field work on map T-12045 was completed by LTJG G.P. Kosinski and ENS N.G. Millett during July and August, 1976. The foreshore consists of gravel and rocks with a few isolated boulders. Bluffs of charting value extend along the entire coastline as noted on the ozalid. Field inspections of the shoreline were made at various stages of the tide by skiff and on foot.

METHOD

Photographs and a copy of the field edit ozalid were examined in the field. The photographs supplied to the field editor turned out to be of no value whatsoever in identifying offshore features, as they were all taken at fairly high stages of the tide. Significant features not visible on the photos (fixes 240-01 and 240-02) were located by visual three-point sextant fixes utilizing signals located by the NOAA Ship Rainier in 1975 (offshore oil platforms), by the NOAA Ship Fairweather in 1976 (navigational aids), or scaled from the ozalid. A complete list of signals is appended. Refer to the accompanying fix computations and the observed angles found in the sketch book, volume one.

There are three oil company docks that are indicated on the map. The northern and southern ends of these piers are marked by navigational lights. The Collier pier, southernmost of the three, is presently being extended parallel to the shoreline. The navigational lights will be moved in the near future and were not located; these lights are not reported on form 76-40. Further information may be obtained from the Union/Collier company, North Kenai Road, Kenai, Alaska. The remaining navigational lights on the Kenai Pipeline and Phillips piers were located by theodolite intersection or traverse. All computations are included with this report; the field geographic positions may be found in the following Table of Field Edit Fixes or accompanying form 76-40.

Only three prominent rust-colored tanks are significant enough to be shown on the main portion of chart #16660, scale 1:194154, the others, as indicated on the ozalid, should appear on the 1:10000 scale inset of Nikishka on the same chart. Note the existence of two new bulkheads in the area; the one south of latitude $60^{\circ}41'N$ is known as the new "Barge Dock", and was completed in 1976. Its corners were located by visual three-point sextant fix. See fixes 241-01 to 241-05. The areas near this dock offshore of the MHWL were graded and surveyed by a private hydrographic surveying firm while field edit operations were in progress. The rock indicated on the ozalid on the MLLWL near the dock was not found but its existence could not be disproved and should remain.

See survey records H-9619 and H-9621 for the hydrographic determination of the MLLWL; no corrections were perceptible to the field editor and none are

indicated on the ozalid.

ADEQUACY OF COMPILATION

Compilation of this map is good. The photographs were useless in aiding the field editor. Every effort should be made to supply field units with photographs taken at zero or minus tides, rather than with photos flown at +10 to +15 foot tides.

RECOMMENDATIONS

It is recommended that this map be revised in accordance with the notes on the ozalid and be accepted as an advanced manuscript.

Respectfully submitted:

Gregory P. Kosinski
Gregory P. Kosinski, LTJG, NOAA

REVIEW REPORT
SHORELINE

T-12045(2)

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 Hydrographic Surveys:

H9074, scale 1:5,000 July 1969
H9619, scale 1:20,000 April 11, 1978
H9621, scale 1:20,000, June 1, 1978.

65 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following NOS Charts:

16660, scale 1:194,154 (1:40,000 inset), 22nd edition, May 8, 1982
16662, scale 1:100,000 (1:50,000 inset), 1st edition, April 9, 1983.

The above listed Charts show a pile located at latitude 60°40.3', longitude 151°23.5'; it was charted from the unreviewed Class I Chart Maintenance Print submitted to Marine Charts February 1977.

The intended purpose of locating this pile was to advise the Hydrographer of a potential hazard, and for the Field Editor to evaluate its character or existence. Field edit work was done in August 1976; however, no information regarding the pile was received in this AMC office.

After an examination of the Wild B-8 stereoscopic models 67 L 3661-3662 and 72 E(C) 4913-4914, the pile was removed from the Final Class I Map. A Final Map Chart Maintenance Print indicating all changes made to the Unreviewed Class I Map was prepared and forwarded to Marine Charts.

The above listed charts compared well with this manuscript.

66 - ADEQUACY OF RESULTS AND FUTURE SURVEYS

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

T-12045(2)

Submitted

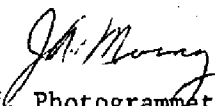


James L. Byrd, Jr.

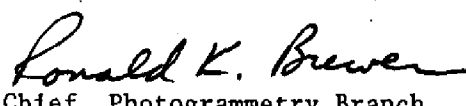
Approved for forwarding

Billy H. Barnes
Chief, Photogrammetric Section, AMC

Approved



Chief, Photogrammetric Production Sec.



Chief, Photogrammetry Branch

RESPONSIBLE PERSONNEL		ORIGINATOR	
TYPE OF ACTION	NAME		
OBJECTS INSPECTED FROM SEAWARD	Gregory P. Kosinski, Lt. (jg), NOAA	<input type="checkbox"/> PHOTO FIELD PARTY	
	Gregory P. Kosinski, Lt. (jg), NOAA	<input checked="" type="checkbox"/> HYDROGRAPHIC PARTY	
		<input type="checkbox"/> GEODETIC PARTY	
		<input type="checkbox"/> OTHER (Specify)	
POSITIONS DETERMINED AND/OR VERIFIED	David P. Butler, Cartographic Technician	FIELD ACTIVITY REPRESENTATIVE	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	Charles E. Blood	OFFICE ACTIVITY REPRESENTATIVE	
<div style="display: flex; justify-content: space-between;"> <div> <p>OFFICE</p> <p>1. OFFICE IDENTIFIED AND LOCATED OBJECTS</p> <p>Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.</p> <p>EXAMPLE: 75E(C)6042 8-12-75</p> </div> <div> <p>FIELD (Cont'd)</p> <p>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.</p> <p>EXAMPLE: P-8-V 8-12-75 74L(C)2982</p> </div> </div>			
<p>INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'</p> <p>(Consult Photogrammetric Instructions No. 64.)</p>			
<p>FIELD</p> <p>I. NEW POSITION DETERMINED OR VERIFIED</p> <p>Enter the applicable data by symbols as follows:</p> <p>F - Field P - Photogrammetric</p> <p>L - Located Vis - Visually</p> <p>V - Verified</p> <p>1 - Triangulation 5 - Field identified</p> <p>2 - Traverse 6 - Theodolite</p> <p>3 - Intersection 7 - Planetable</p> <p>4 - Resection 8 - Sextant</p> <p>A. Field positions* require entry of method of location and date of field work.</p> <p>EXAMPLE: F-2-6-L 8-12-75</p>		<p>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH</p> <p>Enter 'V-Vis.' and date.</p> <p>EXAMPLE: V-Vis. 8-12-75</p> <p>**PHOTOGAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.</p>	
<p>*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.</p>			

Replaces C&GS Form 567.

☒ TO BE CHARTED
☐ TO BE REVISED
☐ TO BE DELETEDREPORTING UNIT
(Field Party, Ship or Office)
Coastal Mapping Div.
AMC, Norfolk, VA

STATE

Alaska

LOCALITY

Cook Inlet

DATE

12/76

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

NONEXISTING OR LANDMARKS FOR CHARTS

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)The following objects HAVE ☒ BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS.

OPR PROJECT NO.

JOB NUMBER

SURVEY NUMBER

DATUM

469

PH-6013

T-12045(2)

NA 1927

POSITION

CHARTING
NAMEDESCRIPTION
(Record reason for deletion of landmark or aid to navigation.
Show triangulation station names, where applicable, in parentheses.)

LATITUDE

LONGITUDE

OFFICE

FIELD

CHARTS
AFFECTED

TANK

60 41

21.78

151 23

06.98

V-Vis

16660

TANK

60 41

19.29

151 23

04.22

V-Vis

16660

TANK

60 41

16.61

151 23

07.25

V-Vis

16660

TANK

60 40

48.46

151 23

03.43

V-Vis

16660

TANK

60 40

46.20

151 23

03.425

V-Vis

16660

TANK

60 40

43.85

151 23

03.49

V-Vis

16660

TANK

60 41

01.23

151 23

20.95

V-Vis

16660

TANK

60 40

23.94

151 22

42.08

V-Vis

16660

RESPONSIBLE PERSONNEL		ORIGINATOR	
TYPE OF ACTION	NAME		
OBJECTS INSPECTED FROM SEAWARD	Gregory P. Kosinski, Lt. (jg), NOAA	<input type="checkbox"/> PHOTO FIELD PARTY	<input checked="" type="checkbox"/> HYDROGRAPHIC PARTY
	Gregory P. Kosinski, Lt. (jg), NOAA	<input type="checkbox"/> GEODETIC PARTY	<input type="checkbox"/> OTHER (Specify)
POSITIONS DETERMINED AND/OR VERIFIED	David P. Butler, Cartographic Technician	FIELD ACTIVITY REPRESENTATIVE	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	Charles E. Blood	<input checked="" type="checkbox"/> REVIEWER	OFFICE ACTIVITY REPRESENTATIVE
		<input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE	
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'			
(Consult Photogrammetric Instructions No. 64.)			
OFFICE		FIELD (Cont'd)	
I. OFFICE IDENTIFIED AND LOCATED OBJECTS		B. Photogrammetric field positions** require entry of method of location or verification, day, and year) of the photograph used to identify and locate the object.	
EXAMPLE: 75E(C)6042 8-12-75		EXAMPLE: P-8-V 8-12-75 74L(C)2982	
FIELD		II. TRIANGULATION STATION RECOVERED	
I. NEW POSITION DETERMINED OR VERIFIED		When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.	
Enter the applicable data by symbols as follows:		EXAMPLE: Triang. Rec. 8-12-75	
F - Field			
L - Located			
V - Verified			
1 - Triangulation			
2 - Traverse			
3 - Intersection			
4 - Resection			
5 - Field identified			
6 - Theodolite			
7 - Planetable			
8 - Sextant			
A. Field positions* require entry of method of location and date of field work.		III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH	
EXAMPLE: F-2-6-L 8-12-75		Enter 'V-Vis.' and date.	
		EXAMPLE: V-Vis. 8-12-75	
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.		**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.	

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

☐ TO BE CHARTED
☒ TO BE REVISED
☐ TO BE DELETED

REPORTING UNIT
(If field party, ship or office)
Coastal Mapping Div.
AMC, Norfolk, VA

STATE
Alaska

LOCALITY
Cook Inlet
Kalgin Island to Anchorage

DATE
12/76

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NON-NAVIGATIONAL OR LANDMARKS FOR CHARTS

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)

The following objects HAVE ☒ BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS.
OPR PROJECT NO. 469

JOB NUMBER PH-6013

SURVEY NUMBER T-12045(2)

DATUM
NA 1927

METHOD AND DATE OF LOCATION
(See instructions on reverse side)

CHARTS
AFFECTED
16660

CHARTING NAME
PLATFORM DILLON

DESCRIPTION
(Record reason for deletion of landmark or aid to navigation.
Show triangulation station names, where applicable, in parentheses.)
Oil Platform called "Dillon"

POSITION
LATITUDE
60 44
LONGITUDE
151 30 45.89

OFFICE
FIELD
F-3-6-L
8/75

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	Gregory P. Kosinski, Lt. (jg), NOAA
POSITIONS DETERMINED AND/OR VERIFIED	Gregory P. Kosinski, Lt. (jg), NOAA
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	David P. Butler, Cartographic Technician
	Charles E. Blood
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64.)	
OFFICE I. OFFICE IDENTIFIED AND LOCATED OBJECTS 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	FIELD (Cont'd) 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. EXAMPLE: P-8-V 8-12-75 74L(C)2982
FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field P - Photogrammetric L - Located Vis - Visually V - Verified 1 - Triangulation 5 - Field identified 2 - Traverse 6 - Theodolite 3 - Intersection 7 - Planetable 4 - Resection 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	III. TRIANGULATION STATION RECOVERED 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 II. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.

INSTRUCTIONS

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 Review.

[illegible]