

T-12040

T-12040-2

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-12040 (2)
Classification No. Final Map Edition No. 2

LOCALITY

State Alaska
Cook Inlet
General Locality Kalgin Island to Anchorage
Locality Boulder Point

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		SURVEY TR T-12040(2) MAP EDITION NO. 2 MAP CLASS Final Map JOB PH. 6013	
OFFICER-IN-CHARGE Jeffrey G. Carlen, Cdr.		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	
Aerotriangulation 8/13/73 Compilation, Supplement 5 3/20/73 Compilation, Amend. 1 to Supp. 5 4/05/73 Compilation, Amend. 2 to Supp. 5 1/31/74		Field Supplement 1 6/6/66 Field 8/08/66 Field 3/30/73	
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 ZONE	
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 CONTOURS BY CHECKED BY		L. O. Neterer, Jr.	12/74
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY		D. P. Butler	12/74
METHOD: Smoothdrafted CONTOURS BY CHECKED BY		C. E. Blood	1/75
SCALE: 1:20,000 HYDRO SUPPORT DATA BY CHECKED BY		D. P. Butler	12/74
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY		C. E. Blood	1/75
6. APPLICATION OF FIELD EDIT DATA BY CHECKED BY		D. P. Butler	12/76
7. COMPILATION SECTION REVIEW BY		F. Margiotta	12/76
8. FINAL REVIEW BY		F. Margiotta	12/76
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		J. Byrd/C. Blood	4/86
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		J. Byrd	9/86
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		P. Dempsey E.A. DAUGHERTY	Oct. 1986 DEC 86

NOAA FORM 76-36B
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYT-12040 (2)
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-8"L" and "E"		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		<input checked="" type="checkbox"/> (C) COLOR <input checked="" type="checkbox"/> (P) PANCHROMATIC <input checked="" type="checkbox"/> (I) INFRARED		ZONE	<input checked="" type="checkbox"/> STANDARD
<input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				Alaska	<input type="checkbox"/> DAYLIGHT
				MERIDIAN	150th
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
* 67L3683 - 3686	6/23/67	11:30	1:40,000	3.4 ft. below MLLW	
** 67L(P)3483 - 67L(P)3486	6/22/67	13:55	1:20,000	12.1 ft. above MLLW	
** 72E(C)4901 - 72E(C)4904	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 LOW-WATER OR 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-12041	T-12046 (2)	None

REMARKS

T-12040 (2)

HISTORY OF FIELD OPERATIONS

1. ☒ 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
None2. 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-12040 (2)
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 R. B. Melby	6/66
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY R. Melby	6/66
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 None	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED		2. VERTICAL CONTROL IDENTIFIED	
		NA	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
66L6545	FARM, 1963		
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: <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)			
1 Form 152			

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-12040 (2)
HISTORY OF FIELD OPERATIONSI. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. E. Alderman, CAPT, NOAA	9/76
2. HORIZONTAL CONTROL	RECOVERED BY	G. E. Leigh, ENS, NOAA
	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 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 (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)

Raw Field Edit Data, OPR-469-FA-76, Vol. 1 & 2 Field Edit Reports, OPR-469-FA-76
 Field Edit Ozalid, Map T-12040
 Field Edit Report, Map T-12040
 Field Edit Fix Computations for Map T-12040

NOAA FORM 76-36C
(3-72)

T-12040 (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.	12/74	Class III Manuscript	3/25/75	3/24/75
Field edit applied. Compilation complete.	12/76	Class I Manuscript	2/11/77	2/11/77
Final Review	4/86	Final Map		

II. LANDMARKS AND AIDS TO NAVIGATION None

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____
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 ~~800~~ 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 MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	

JOB PH-6013 SHORELINE MAPPING COOK INLET, ALASKA KALGIN ISLAND TO ANCHORAGE 1:20,000 & 1:10,000 SCALE

REVISED 8-24-76 PHW
REVISED 3-11-77 RS

Sheet No. 4 SQ. Miles
T-11998 SCALE 4
11999 6
12000 9
12001 5
12002 3
12003 2
12004 2
12005 4
12006 2

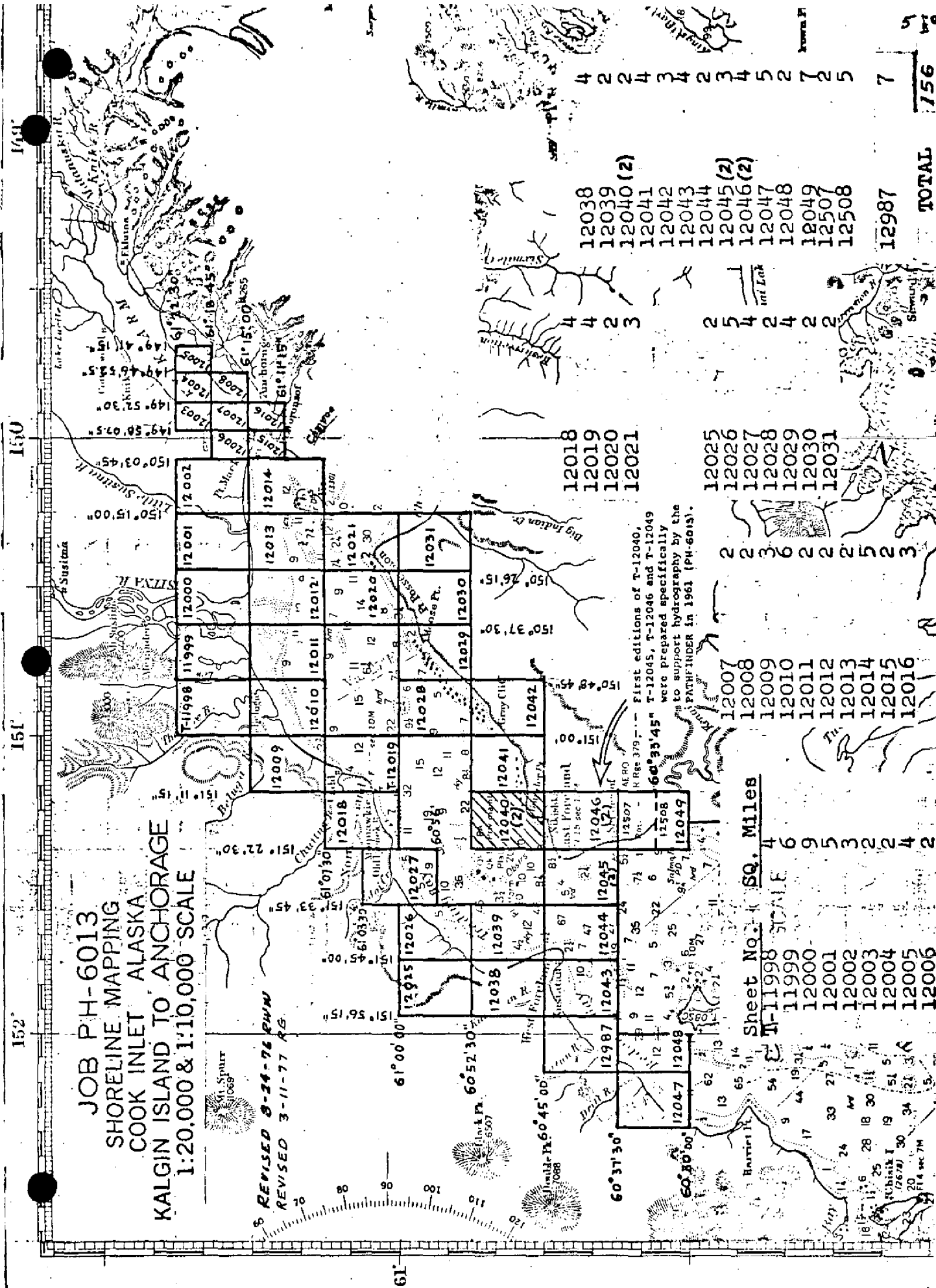
12038
12039
12040 (2)
12041
12042
12043
12044
12045 (2)
12046 (2)
12047
12048
12049
12507
12508
12987
TOTAL 1756

12025
12026
12027
12028
12029
12030
12031
2
2
3
3
6
2
2
2
2
3
3
3

12018
12019
12020
12021

First editions of T-12040, T-12045, T-12046 and T-12049 were prepared specifically to support hydrography by the KALGIN PATHFINDER in 1961 (PH-6013).

12007
12008
12009
12010
12011
12012
12013
12014
12015
12016



SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

T-12040(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-12040(2) was compiled from photography taken after the 1964 earthquake.

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 re flown 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-12040(2) was compiled at the Norfolk office in December 1976.

Field edit was performed for T-12040(2) during the 1976 field season. Field edit data was applied at AMC in December 1976.

Final review was performed at the Atlantic Marine Center April 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-12040 (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.

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

9/9/74

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 18 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.

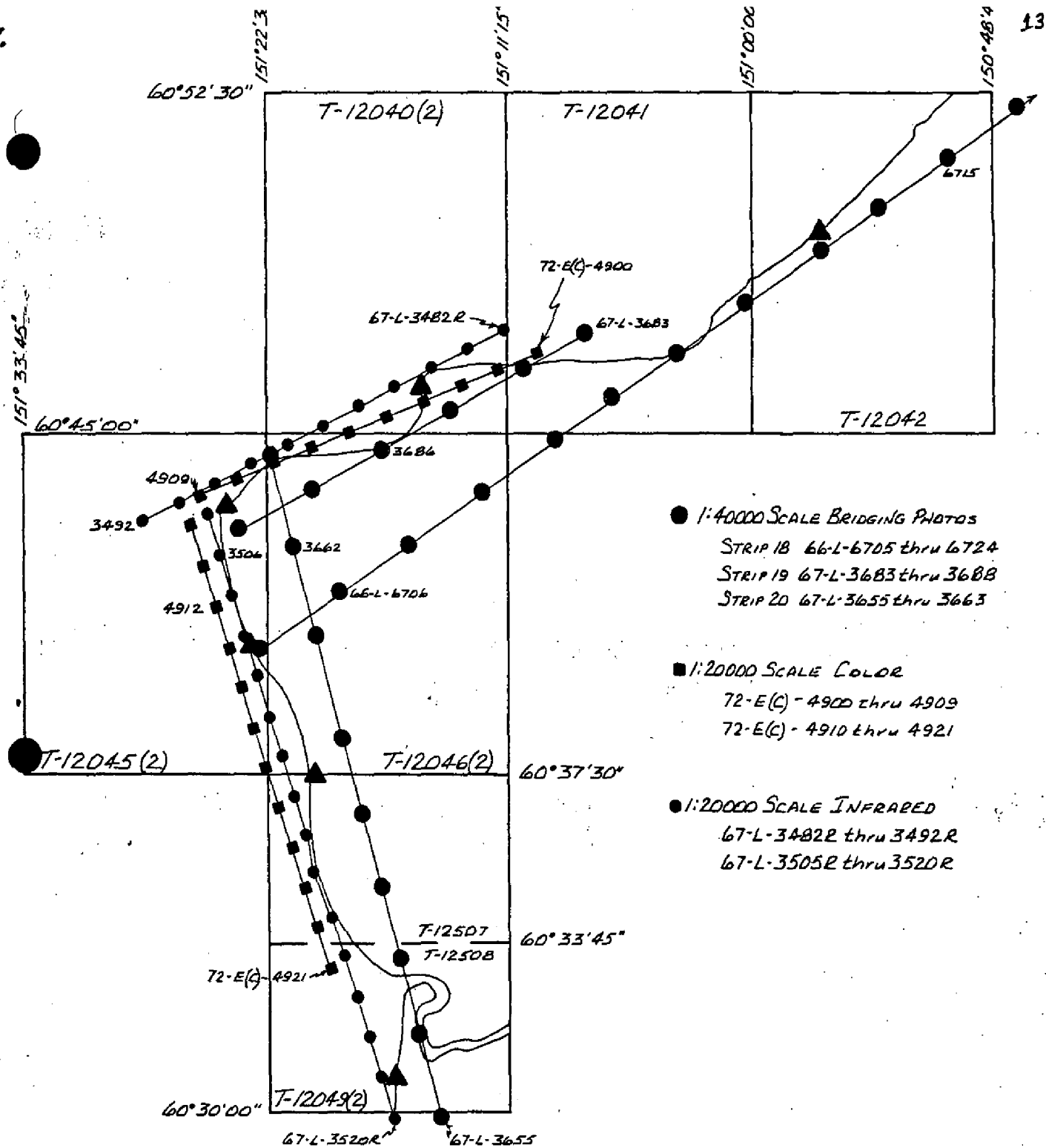
Approved by:

John D. Perrow

John D. Perrow, Jr.
Chief, Aerotriangulation Section

Submitted by:

Michael L. McKinley
Michael L. McKinley



JOB PH-6013
COOK INLET
EAST FORELAND AREA
ALASKA

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODETTIC DATUM		COORDINATES IN FEET STATE _____ ZONE _____	GEOGRAPHIC POSITION		ORIGINATING ACTIVITY	REMARKS
				PH-6013	NA 1927		ϕ LATITUDE	λ LONGITUDE		
T-12040 (2)									Coastal Mapping Division, AMC, Norfolk, VA	
BOULDER, 1909		G.P. Vol 5 P. 003				X=	ϕ	60 46 18.298		
						Y=	λ	151 15 25.941		
						X=	ϕ			
						Y=	λ			
						X=	ϕ			
						Y=	λ			
						X=	ϕ			
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COMPILATION REPORT

T-12040 (2)

31. DELINEATION:

Delineation was by the Wild B-8 stereoplotter, using the bridging photographs with a scale of 1:40,000. The photography was adequate.

32. CONTROL:

See the attached Photogrammetric Plot Report dated September 9, 1974. Recovered stations BOULDER, 1909 and FARM, 1963 are within 5 meters of each other. One triangulation and one center were mapped. Both station names were shown beside the triangulation, indicating that there are two stations. Station FARM, 1963 was paneled for aerotriangulation.

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.

36. OFFSHORE DETAILS:

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

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

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-4), ALASKA, scale 1:63,360, dated 1952.

47. COMPARISON WITH NAUTICAL CHARTS:

A comparison has been made with the following National Ocean Survey Chart: No. 16660 (C&GS No. 8553), scale 1:194,154, dated February 26, 1972.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None.

ITEMS TO BE CARRIED FORWARD:

None.

Submitted by:

David P. Butler

David P. Butler
Cartographic Aid
December 29, 1974

Approved:

Albert C. Rauck, Jr.

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

FIELD EDIT REPORT

Map T-12040

Boulder Point, Alaska

July & August 1976

Field edit of map T-12040 was done by LT(jg) Gregory Kosinski and ENS. Neal G. Millett during July and August 1976. The area between the apparent shoreline and the mean lower low water line is characterized by gravel and large boulders to gravel and isolated large boulders. Bluffs of charting value extend along the coastline. Inspection was done from a skiff.

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. Many isolated rocks were found in the field, but fixes were taken on only the rocks which were located the furthest offshore. Visual three-point sextant fixes with check positions were used to determine the detached positions on these rocks. Prominent photo-identifiable islets that were on the ozalid along with oil drilling platforms, located by the Ship RAINIER in 1975, were used for signals. The photo signals were located by scaling the position from the film ozalid using the Sylar-Lockerbie scale. Heights of these rocks are noted in the field edit notebook and directly on the ozalid.

The mean lower low water line is presented in the hydrographic records for sheet FA-20-4-76 (no registry number available at this time).

The foul zone, as indicated on the ozalid, will not be confirmed by referring to the hydrographic records for FA-20-2-76. Numerous currents 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 generally good. Note is made of the following:

<u>Fix Number</u>	<u>Object</u>	<u>Position</u>
211-03	Rock Subm. 0.5ft.	60/47/15.219N, 151/14/02.887W✓
211-04	Rock Subm. 3ft.	60/47/02.492N, 151/13/35.610W✓
211-05	Rock Awash	60/46/54.434N, 151/14/10.276W✓
213-05	Rock Bares 1ft.	60/46/40.650N, 151/15/11.854W✓
211-06	Rock Bares 4ft.	60/46/45.103N, 151/14/35.599W✓

<u>Fix Number</u>	<u>Object</u>	<u>Position</u>
213-04	Rock Awash	60/46/35.405N, 151/15/35.209W ✓
213-03	Rock Bares 1ft.	60/46/39.141N, 151/15/31.995W ✓
213-02	Rock Awash	60/46/38.370N, 151/15/34.458W ✓
211-02	Rock Awash	60/47/17.077N, 151/13/40.115W ✓
238-02A	Rock Awash	60/46/24.252N, 151/15/41.987W ✓

Field inspection of this map is complete.

RECOMMENDATIONS

It is recommended that the map be revised in accordance with the notes on the ozalid and in the field edit notebook, and that the map be accepted as an advance manuscript.

Respectfully submitted,



Neal G. Millett, ENS. NOAA

REVIEW REPORT
SHORELINE

T-12040(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 Hydrographic Survey H-9648, 1:20,000 scale, November 15, 1978. There were no major conflicts.

65 - COMPARISON WITH NAUTICAL CHARTS.

A comparison was made with the following NOS Charts:
16662, scale 1:100,000, 1st edition, April 9, 1983
16660, scale 1:194,154, 22nd edition, May 8, 1982.

The above 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

C. Blood
James L. Byrd, Jr.
Final Reviewer

Approved for forwarding

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

Approved

J. M. Moring
Chief, Photogrammetric Production Sec.

Ronald K. Brewer
Chief, Photogrammetry Branch

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]