

TP-00823

TP 00823

NOAA FORM 76-35 (6-80)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Map No. TP-00823	Edition No. 1
Job No. CM-7412	
Map Classification FINAL MAP - FIELD EDITED	
Type of Survey SHORELINE	
LOCALITY	
State ALASKA	
General Locality COOK INLET, EAST SIDE CAPE KASLOF TO BARREN ISLANDS	
Locality CAPE ELIZABETH	
1975 TO 19 80	
REGISTERED 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 checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Unit Atlantic Marine Center, Norfolk, VA		SURVEY TP. 00823 MAP EDITION NO. (1) MAP CLASS Final JOB PP CM-7412	
OFFICER-IN-CHARGE Roy K. Matsushige		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__			
I. INSTRUCTIONS DATED			
1. OFFICE		2. FIELD	
Aerotriangulation - North Sect Oct. 6, 1975 Compilation - North Sect May 3, 1976 Compilation - Ament I Aug. 17, 1976 Aerotriangulation - South Sect Oct. 4, 1976 Compilation - Amend II Jan. 14, 1977 Compilation - South Sect Aug.-2, 1979		Horizontal Control May 6, 1975 (Premarking)	
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 Transverse Mercator		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 (South Sect)		B. Thornton	Jan. 1977
ND MARKS AND AIDS BY		J. Perrow, Jr.	Jan. 1977
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: Coradomat CHECKED BY		B. Thornton	Jan. 1977
		J. Perrow, Jr.	Jan. 1977
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY		F. Margiotta	Jul. 1979
INSTRUMENT: Wild B-8		L. Neterer	Jul. 1979
SCALE: 1:20,000		N.A.	
		N.A.	
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY		F. Margiotta	Aug. 1979
METHOD: Smooth drafted		C. Blood	Sept. 1979
and graphic		N.A.	
SCALE: 1:20,000		N.A.	
HYDRO SUPPORT DATA BY		F. Margiotta	Aug. 1979
CHECKED BY		C. Blood	Sept. 1979
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY		C. Blood	Sept. 1979
6. APPLICATION OF FIELD EDIT DATA BY		W. Connally	Jan. 1982
CHECKED BY		I. Perkinson	Apr. 1982
7. COMPILATION SECTION REVIEW BY		I. Perkinson	Apr. 1982
8. FINAL REVIEW BY		C. Blood/J. Byrd, Jr.	May 1985
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		J. Byrd, Jr.	Nov. 1985
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		P. Dempsey	Mar 1986
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		E. DAUGHERTY	MAY 86

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

TP-00823

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC 8" E 152.71 mm Wild RC 10 C 152.74 mm		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE	
<input checked="" type="checkbox"/> PREDICTED TIDES #				Alaska	
<input checked="" type="checkbox"/> REFERENCE STATION RECORDS				MERIDIAN	
<input checked="" type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				150th	
				<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT	
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
75C(C) 7218-7221#	Aug. 3, 1975	11:46	1:60,000	9.7 ft. above MLLW	
75C(C) 7189-7191#	Aug. 3, 1975	10:28	1:60,000	10.6 ft. above MLLW	
75E(I) 0539-0544*	Jul. 8, 1975	13:55	1:30,000	14.23 ft. above MLLW	
75E(I) 0572-0573*	Jul. 8, 1975	14:30	1:30,000	14.18 ft. above MLLW	
75E(I) 0551-0553*	Jul. 8, 1975	14:03	1:30,000	14.19 ft. above MLLW	
75E(I) 0516-0519*	Jul. 8, 1975	13:31	1:30,000	13.64 ft. above MLLW	
75E(I) 0684-0686**	Jul. 9, 1975	09:25	1:30,000	0.48 ft. above MLLW	
76E(I) 4347-4351**	Jun. 26, 1976	08:16	1:30,000	0.00	
76E(I) 4727-4729**	Jun. 29, 1976	09:45	1:30,000	1.90 ft. above MLLW	
76E(I) 4365-4366**	Jun. 26, 1976	08:40	1:30,000	1.53 ft. above MLLW	

REMARKS Tide gage at Seldovia was observed and tide corrections for Port Chatham applied to the infrared photographs. Port Chatham #Bridge/compilation photo centers not on map. Port Chatham MHW is 13.5 ft. above MLLW. Mean tide range 12.0 ft.

2. SOURCE OF MEAN HIGH-WATER LINE: Data for MHW line is from the above listed

#*The MHW line was compiled from office interpretation of the above listed 1:60,000 color photographs using stereo instrument methods. Compilation was supplemented by graphic methods using the MHW tide coordinated infrared (ratio) photographs.

3. SOURCE OF MEAN LOW-WATER LINE: Data for MLLW line is from the above listed

**The MLLW line was compiled graphically from the above listed tide coordinated MLLW infrared ratio 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
TP-00820	TP-00824	TP-00826	No survey

REMARKS

TP-00823

HISTORY OF FIELD OPERATIONS

1. ☒ FIELD INSPECTION OPERATION (Premarking) ☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. Melby	June 1975
2. HORIZONTAL CONTROL	RECOVERED BY R. Melby	June 1975
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY L. Riggers	June 1975
3. VERTICAL CONTROL	RECOVERED BY None	
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
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 N.A.	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED		2. VERTICAL CONTROL IDENTIFIED	
Paneled		None	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
75C(C) 7221	EGG, 1906 (Paneled direct)		
75C(C) 7219	PEARL 2, 1906 (Sub.Pt. paneled)		

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)

Project data - 2 Forms 277 & 1 Form 77-53 (Tides record books)
2 Forms 152 (CSI cards)

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TP-00823

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	A. Patrick	July 1980
2. HORIZONTAL CONTROL	RECOVERED BY V. Ross	July 1980
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
3. VERTICAL CONTROL	RECOVERED BY None	
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY None	
	LOCATED (Field Methods) BY V. Ross	July 1980
	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 C. Hancock	July 1980
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY N.A.	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED		2. VERTICAL CONTROL IDENTIFIED	
N.A.		N.A.	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)
76E(I)4347, 4348, 4350, 4351, 4365, 4366, 4327, 4728, 4729
76E(I)0684-0686

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

CABIN

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
76E(I)4729	CABIN		

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

7. SUPPLEMENTAL MAPS AND PLANS

N.A.

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

Field Edit film copy

Form 252 (field vol)

Field Edit Report

List of Field Positions (2 pages)

2 Forms 76-40

NOAA FORM 76-36D
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

TP-00823

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	Sept. 1979	Class III Manuscript	Sept. 1979	Nov. 1979
Field edit applied compilation complete	April 1982	Class I Manuscript	None	April 1982
			mar 1986	mar 1986
Final Review	May 1985	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		mar 1986	Landmarks to be Charted
1		mar 1986	Nonfloating Aids to be charted

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

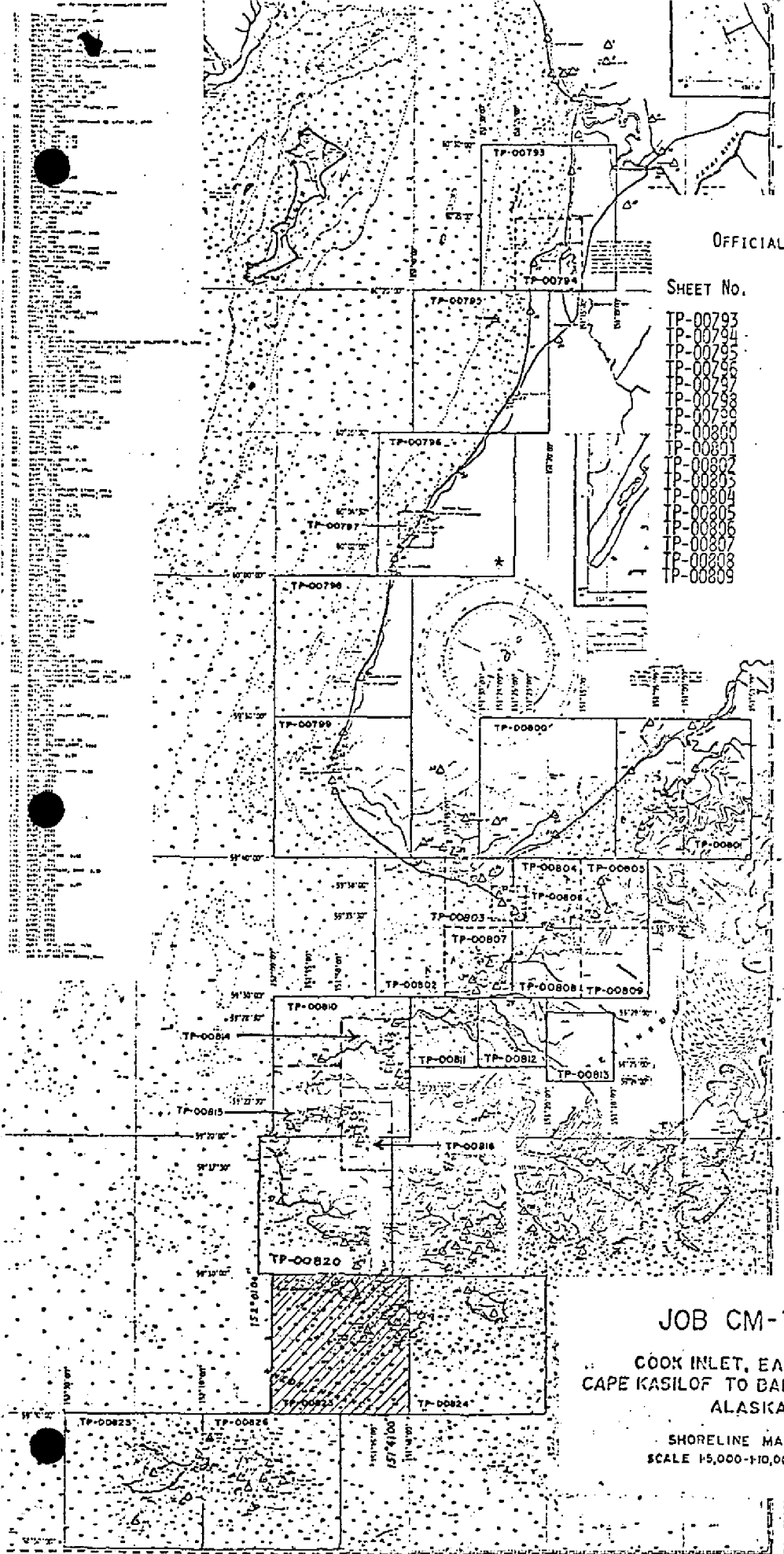
III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
 2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS 76-40⁷⁶⁻⁴⁰ 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	



OFFICIAL MILEAGE FOR COST ACCOUNTS

SHEET No.	Sq. Mi.	SHEET No.	Sq. Mi.
TP-00793	7	TP-00810	17
TP-00794		TP-00811	
TP-00795		TP-00812	
TP-00796		TP-00813	
TP-00797		TP-00814	
TP-00798		TP-00815	
TP-00799		TP-00816	
TP-00800			
TP-00801			
TP-00802			
TP-00803			
TP-00804			
TP-00805			
TP-00806			
TP-00807			
TP-00808			
TP-00809			
		TP-00820	14
		TP-00823	
		TP-00824	
		TP-00825	
		TP-00826	
		TOTAL	193

REVISED 9/23/75 R.W.D.
6/13/79 L.F.V.

JOB CM-7412

COOK INLET, EAST SIDE
CAPE KASILOF TO BARREN ISLANDS
ALASKA

SHORELINE MAPPING
SCALE 1:5,000-1:10,000-1:20,000

MARCH 1974

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-00823

This 1:20,000 Final shoreline map is one of twenty-nine maps designated as project CM-7412, Cook Inlet, East Side, Cape Kasilof to Barren Islands, Alaska.

The purpose of this project was to provide current charting information for nautical chart maintenance and to furnish support data for hydrographic operations. This Final Map portrays the Chugach Islands west of longitude $151^{\circ}40'00''$ and south of latitude $59^{\circ}10'00''$. This includes some shoreline of Kenai Peninsula.

Field work prior to compilation consisted of the recovery and identification of the horizontal control necessary for the aerotriangulation of the project and establishing and monitoring tide gages while the photography was being taken for the tide coordinated infrared photographs. This activity was completed in June 1976.

Photograph coverage was adequately provided by natural color and infrared tide coordinated photographs. The RC-10 (C) camera was used to expose the natural color film required for the 1:60,000 scale aerotriangulation, compilation photographs taken August 1975. The RC-8 (E) camera was used for the infrared black and white 1:30,000 scale photographs taken June 1976. The infrared photographs were used to supplement the color compilation photography.

Analytic aerotriangulation was adequately provided by the Washington Science Center for the south part of the project January 1977. Aerotriangulation operations included ruling the base manuscript and determining ratio values for the infrared photographs.

Compilation, based upon photo interpretation, was performed by the Coastal Mapping Unit at the Atlantic Marine Center in September 1979. Refer to the compilation report, Item #31 and NOAA Form 76-36B for specific usage of the photography.

Field edit was conducted in July and August 1980 by hydrographic personnel assigned to the NOAA ship FAIRWEATHER. Field edit for this manuscript is complete and was applied to the manuscript by the Coastal Mapping Unit, Atlantic Marine Center in April 1982.

Final review was performed at the Atlantic Marine Center in May 1985. 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

TP-00823

There was no field inspection prior to compilation. Field work accomplished was limited to the recovery and identification (premarking) of the horizontal control necessary for the aerotriangulation of the project and the monitoring of tide gages for the tide coordinated infrared photographs.

Photogrammetric Plot Report
Cape Kasilof to Barren Islands

Job CM-7412
South ~~Part~~
January 1977

Job index was revised June 13, 1979
Number of sheets compiled, revised
March 7, 1984 C.E.B.

Area Covered

The area covered by this report is the south central coastal area of Cook Inlet, Alaska, from ~~Cape Kasilof~~ ^{Kachemak Bay} to Barren Island. This area is covered by ~~Six~~ ^{Ten} on 1:20,000 scale sheets, ~~eight~~ 1:10,000 scale sheets, and ~~seven~~ 1:5,000 scale sheets.
Canceled

Method

Nine strips (four 1:60,000 scale, five 1:30,000 scale) of bridging photography were measured by analytic aerotriangulation methods. The nine strips of bridging photography were controlled by field identified control including some additional points drilled and tied from the 1:60,000 scale photography to the 1:30,000 scale photography where field identified control was inadequate for a satisfactory strip adjustment.

Common points were located on the bridging photography and the tide controlled IR for ratio purposes. Tie points were used in all strips to insure an adequate junction of all strips during the strip adjustments. Ties to the compilation photography were made also.

The manuscripts are being plotted on the coradomat and will be sent upon completion.

Ratios have been ordered for the MHW and MLLW (1-6-77). A copy of this order will be included in this report.

Adequacy of Control

Several stations (Tutka-000158, Halibut Cove Light, Panel - 12101, Table Mtn., Panel-178101) were bad due to snow coverage or other reasons which made it difficult to obtain an adjustment adequate to N.M.A.S.

Strip #1, 76-C(C) 4975 thru 4987 was terminated early when flown, (planned originally to extend from sheet 801 thru 823) which gave us weak and poorly distributed control to properly check and strengthen overlapping strips.

There was a problem with the "C" camera, which was used for several of the bridging strips, that introduced a random error into the strip adjustments. This problem was bypassed by removing the correction values for film distortion in the strip adjustments.

In conclusion, with all the problems encountered and their respective errors introduced into the job, the adequacy of control overall is fair.

Supplemental Data

USGS quadrangles were used to provide vertical control for the strip adjustments.

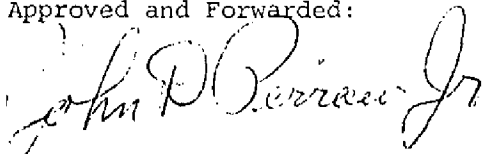
Photography

The coverage, overlap and quality of the photography was adequate for the job with the exception of the above mentioned "C" camera.

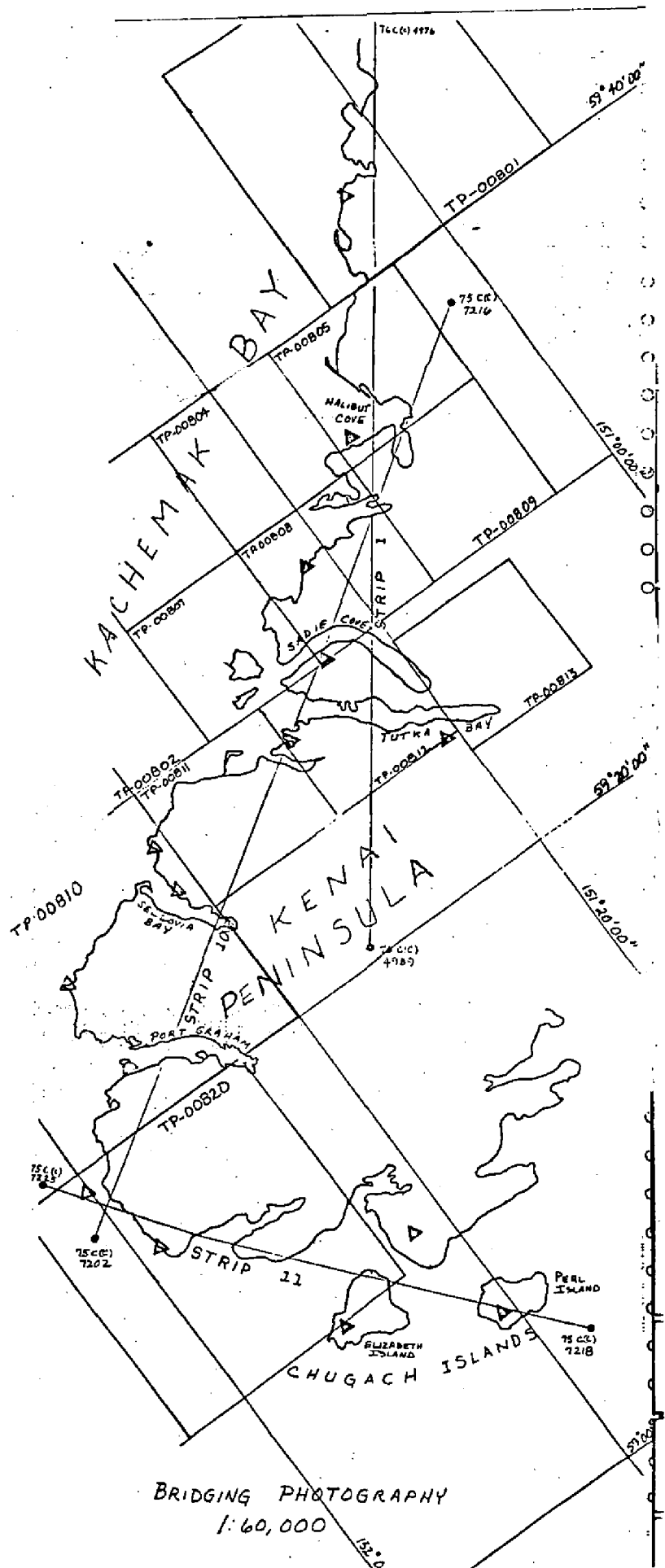
Submitted by:

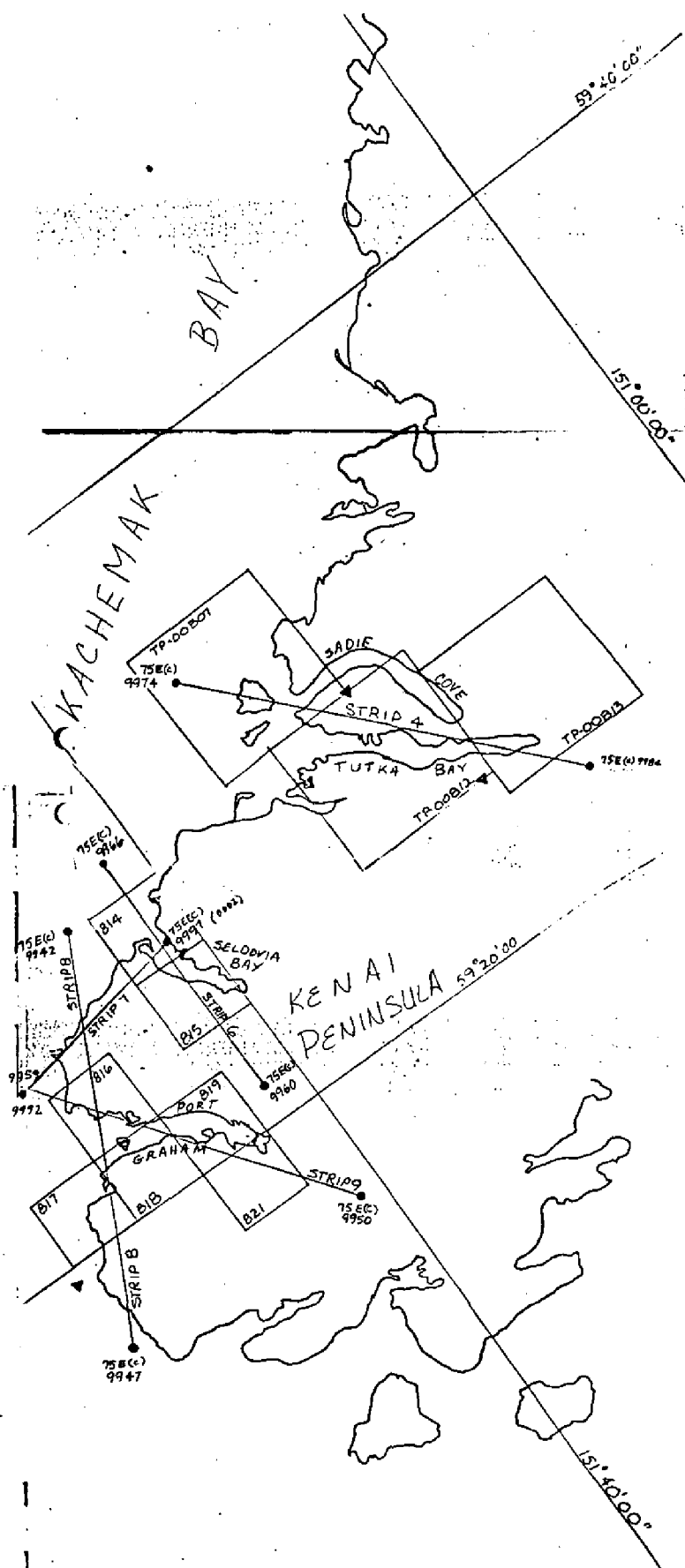
Brian Thornton

Approved and Forwarded:

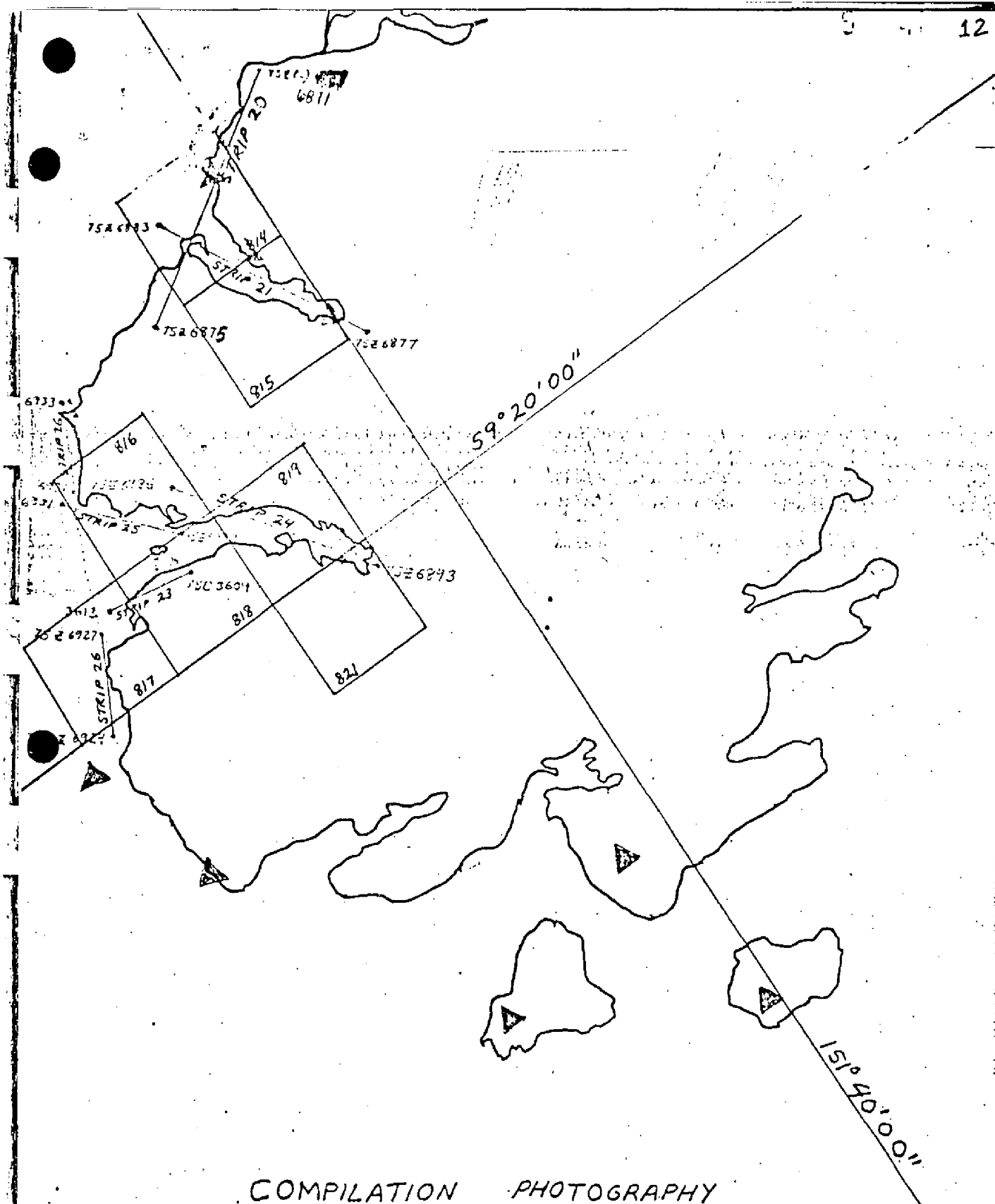


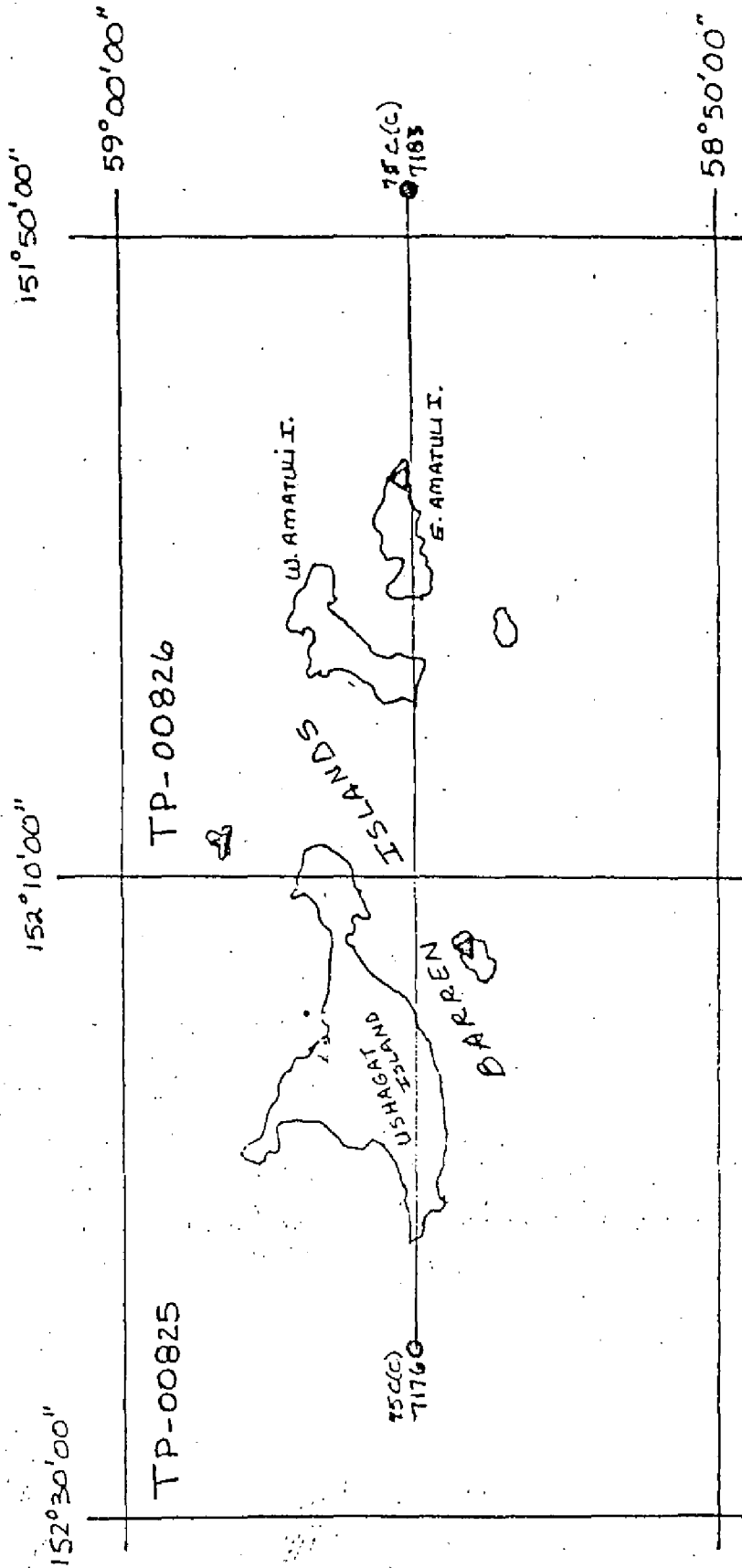
Chief, Aerotriangulation Section





BRIDGING PHOTOGRAPHY
1:30,000





1:20,000

List and Accuracy of Control Used in Strip Adjustment

x-error y-error

Strip #1

310100	1.092	- .446
307100	-3.443	1.765
12100	.803	-1.021
984100	2.971	- .047
977101	-3.278	- .076
986101	1.253	.431

Strip #10

203100	- .543	-3.772
944100	2.985	4.840
206100	-3.549	-3.305
207100	1.142	5.249
977101	.318	-3.937
12100	- .845	1.438

Strip #12

178101	3.435	2.681
179100	1.047	-3.350
180101	-4.475	1.956
181100	.021	-1.299

List and Accuracy of Control Used in Strip Adjustment

x-error y-error

Strip #11

219101	1.518	.598
221100	-3.964	.647
223100	3.269	-3.324
203100	-.840	2.100

Strip #4

975801	.001	.006
977101	-.001	-.005
985805	.001	-.003

Strip #6

206100	.000	-.010
964100	.001	-.011
207100	.006	-.007

Strip #7

992112	-3.929	-1.672
941100	1.088	3.253
964100	-.570	-.973
169	-1.089	-.030

List and Accuracy of Control Used in Strip Adjustment

4-error

y-error

Strip #8

941100	-1.785	-2.540
944100	1.521	-1.094
203100	-1.481	-.632
203802	1.826	-2.245

Strip #9

955101	-.515	1.133
944100	3.529	2.770
204803	-.118	-.672
204804	1.503	-1.036
204806	-.621	.619

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	STATION NAME	JOB NO.	GEODETTIC DATUM			ORIGINATING ACTIVITY		REMARKS
			COORDINATES IN FEET	STATE	ZONE	Unit, AMC, Norfolk, VA		
TP-00823		CM-7412	N.A. 1927			Coastal Mapping		
		SOURCE OF INFORMATION (Index)	AEROTRIANGULATION POINT NUMBER	STATE	ZONE	φ LATITUDE λ LONGITUDE	Forward (Back)	
END, 1931		Quad. 59151 pg. 8	118	Alaska	4	φ 59 07 49.216 λ 151 40 59.129	1522.9 (333.8) 940.5 (13.9)	
EGG, 1906		Quad. 59151 pg. 8	221100			φ 59 09 17.663 λ 151 51 00.626	546.6 (1310.1) 09.9 (943.7)	
HEAD, 1931		Quad. 59151 pg. 10	000112			φ 29 07 01.11 λ 151 43 32.48	34.3 (1822.4) 516.8 (437.9)	
NAG, 1931		Quad. 59151 pg. 14	000113			φ 59 05 59.785 λ 151 45 56.097	1850.0 (06.7) 893.1 (62.1)	
PEARL 2, 1906		Quad. 59151 pg. 16	219100			φ 59 06 25.037 λ 151 40 19.135	774.7 (1082.0) 304.6 (650.4)	
GET, 1931		Quad. 59151 pg. 9	000110			φ 59 08 30.272 λ 151 47 20.596	936.7 (920.0) 327.5 (626.5)	
BARE, 1931		Quad. 59151 pg. 2	143			φ 59 05 58.28 λ 151 40 55.95	1803.4 (53.2) 890.7 (64.5)	
PEARL 2, 1906 Sub Pt		NOAA Form 76-41 pg. 22 present from Wash. Off. 5				φ 1,869,552.53 λ 185,847.29	9,552.53 (447.47) 5,847.29 (4152.7)	
JOY, 1931		Quad. 59151 pg. 12	108			φ 59 09 57.402 λ 151 51 47.546	1776.2 (80.5) 755.5 (197.8)	
HIKE, 1980 (field position)		NOAA Form 76-82A NOAA Form Signal Tape (ASCII) - OPR -pl14-FA-80				φ 59 09 42.090 λ 151 40 43.856	1,302.43 (554.23) 697.05 (256.65)	
COMPUTED BY			DATE	COMPUTATION CHECKED BY		DATE	DATE	
A. C. Rauck, Jr.			2/21/76	R. Minton		11/5/76	11/5/76	
A. C. Rauck, Jr.			2/21/76	R. Minton		11/5/76	11/5/76	
HAND PLOTTING BY			DATE	HAND PLOTTING CHECKED BY		DATE	DATE	
I. Perkinson			3/82	C. Blood		3/82	3/82	

COMPILATION REPORT

TP-00823

31 - DELINEATION

Delineation was accomplished by stereo instrument and graphic compilation methods. The Wild B-8 stereoplotter with 1:60,000 scale color bridging photographs was used to delineate alongshore and interior detail, and to locate common image points to graphically control the 1:30,000 scale infrared photography. Supplemental tide coordinated infrared ratio photographs for both MHW and MLLW were used to delineate the MHW and MLLW lines.

All photographs used to compile this map are listed on NOAA Form 76-36B. Photography was adequate.

32 - CONTROL

Horizontal control was adequate. Refer to the Photogrammetric Plot Report, dated January, 1977.

33 - SUPPLEMENTAL DATA

None.

34 - CONTOURS AND DRAINAGE

Contours were not applicable to this project.

Drainage was compiled from interpretation of the photographs and delineated by using the Wild B-8 stereoplotter.

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 described in item #31.

36 - OFFSHORE DETAILS

Offshore detail was compiled by instrument methods as described in item #31. Dora Reef was not visible on the photographs.

TP-00823

37 - LANDMARKS AND AIDS

There are two charted navigational aids and no charted landmarks within the mapping limits of this map. One aid was photogrammetrically located, and the other was field located during hydrographic operations.

38 - CONTROL FOR FUTURE SURVEYS

None.

39 - JUNCTIONS

Refer to the Data Record Form 76-37B, item 5.

40 - HORIZONTAL AND VERTICAL ACCURACY

Refer to Item 32.

46 - COMPARISON WITH EXISTING MAPS

A comparison has been made with the U.S. Geological Survey
Quadrangle:
Seldovia (A-5), Alaska, scale 1:63,360, dated 1953
Seldovia (A-6), Alaska, scale 1:63,360, dated 1953.

47 - COMPARISON WITH NAUTICAL CHARTS

A comparison has been made with the following National Ocean
Survey charts:
No. 16645, scale 1:82,662, dated Mar. 13, 1976
No. 16641, scale 1:77,062, dated Apr. 7, 1973
No. 16643, scale 1:82,662, dated Apr. 21, 1973.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

TP-00823

Submitted by:



F. Margiotta
Cartographic Technician
August, 1979

Approved:



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

March 22, 1984

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH - 7412 (Cook Inlet, East Side - Cape Kasilof to Barren Islands, Alaska)

TP - 00823

Cape Elizabeth

Chugach Islands

Chugach Passage

Elizabeth Island

Gulf of Alaska

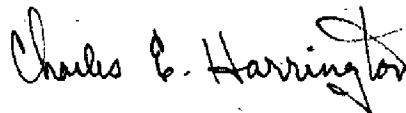
Kennedy Entrance

Nagahut Rocks

Per1 Island

Per1 Rock

Approved by;

Charles E. Harrington
Chief Geographer
Nautical Charting Division

FIELD EDIT REPORT
TP-0823
Cook Inlet East Side
July, 1980

Description

Elizabeth Island, mountainous and uninhabited, has an extremely rugged shoreline especially on the south side where there are numerous detached rocks. Kelp surrounds the island extending as much as 400 meters offshore. A high bluff on the south side is of landmark value. Perl Island is similar. Two isolated rocks approximately 1.2 nm offshore lie to the west between Perl Island and Nagahut Rocks. A high bluff on the west side of the island is of landmark value. On the north side where the shoreline is composed of gravel and sand beaches there exist 2 fresh water ponds, an airstrip and several summer cabins which are of landmark value. Two large reefs foul with kelp lie off the north shore of Chugach Pass. A shallow area foul with rocks extends 0.2 nm off the southwest point of the mainland. North from here along the mainland there exist several isolated rocks which lie as much as 300 meters offshore. Strong tide rips exist around Nagahut Rock, the southwest sides of Elizabeth and Perl Islands and in Chugach Passage.

Methods

Field Edit on this sheet was conducted entirely from a skiff during lower low tide except for an occasional on foot investigation, where details could not be adequately discerned from sealevel. The small settlement on the north side of Perl Island was investigated on foot. Several rocks not visible on the photos had to be located by sextant fixes. In most cases the angleman was able to occupy the feature, however due to limiting conditions it was sometimes necessary to record a fix at a position offset from the feature. Fixes were recorded in a single volume. Some fixes were rejected when the features were later identified on the photographs. On julian day 196 the isolated rock located 0.45 nm southeast of Nagahut Rocks was seen under a breaking swell. A height and time were recorded, however it was not possible to take a fix because of the strong current and large seas. On julian day 199 a hydrographic development was run over the same feature resulting in a least depth which agreed with that recorded during field edit. The position for this feature thus can be derived from the hydrographic records.

FIELD EDIT NOTE
OPR-P114-FA-80
Southern Cook Inlet
Summer, 1980

Several inadequacies in the data received from the photogrammetric office made the job of field edit exceedingly more difficult than necessary. The commencement of Field Edit on this project was delayed by 5 weeks because of the late arrival of 2 manuscripts. One stable-base copy of each photo was all that was supplied. Therefore these valuable and vulnerable cronopaques had to be taken into the field. This problem is addressed in the attached memo OA/C34:WSS. To make matters worse these photos had been marked with red ink, obscuring images along the shoreline and totally obliterating the images of some detached rocks. Compilation of the manuscripts was in some instances inadequate. Details of the mean high water line and ledges as well as some isolated rocks and reefs which are clearly visible on the photographs were overlooked. Two small islands, obvious on the photography, were completely left out during compilation. They were on TP-0816 at $59^{\circ}21'10''N$, $151^{\circ}47'25''W$ and on TP-0815 at $59^{\circ}21'27''N$, $151^{\circ}51'45''W$. On TP-823 two non-existent isolated rocks were plotted well offshore where no images were visible on any of the photographs. These were at $59^{\circ}09'36''N$, $151^{\circ}41'45''W$ and $59^{\circ}05'57''N$, $151^{\circ}40'40''W$. Similarly on TP-820 at $59^{\circ}11'50''N$, $151^{\circ}45'36''W$ a group of non-existent rocks were plotted where no images appear on the photographs, yet only 300 meters south along the shore a group of large easily identifiable rocks was not compiled. Miscompilations such as these can confuse and mislead the field editor when trying to locate his position. Time is wasted during the valuable hours of low tide levels.

All of the field edit data has been depicted on film ozalids labeled MASTER FIELD EDIT PRINT. All features shown in violet have been verified or added by the field editor. Those features marked in green are to be deleted. Features identified on the photographs were pricked or outlined and labeled in violet. Correspondingly the MASTER FIELD EDIT PRINT was marked as close as possible to the actual position of the feature and labeled with all pertinent information. T-2 theodelite and sextant fixes using geodetic, photogrammetric and hydrographic signals were taken in areas where small features could not be clearly identified, where photo interpretation was difficult due to shadows on the photography, or where it was apparent that changes had occurred since the time of the photography. Some of these features were later identified on the photographs with the help of a light table and mirror stereoscope. The corresponding fixes were then rejected. All retained fixes were calculated and checked by RK 300 and then plotted on the MASTER FIELD EDIT PRINT, labeled with the fix number and all of the related data. Each manuscript, except TP-810, is accompanied by a SIGNAL OVERLAY on which are plotted all of the hydrographic and photogrammetric signals.

An inspection from seaward for significant landmarks was conducted by both the field editor and the hydrographer. NOAA Forms 76-40, received from the photogrammetric office, were corrected and amended. In the case of TP-810, the NOAA Forms 76-40 which have been submitted were originated during the field edit operation.

Submitted by:

Christopher P. Hancock

Christopher P. Hancock
Lt(jg)., NOAA

Approved by:

A. J. Patrick

A. J. Patrick
Capt., NOAA

REVIEW REPORT
TP-00823
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

A comparison was made with the following U.S.G.S. quadrangles:
Seldovia (A-5), Alaska, scale 1:63,360, dated 1953
Seldovia (A-6), Alaska, scale 1:63,360, dated 1952.

64 - COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

The contemporary survey H-9890, 1:20,000 scale, dated March 15, 1983, was compared to this manuscript.

Three rocks on the H-9890 do not agree with this manuscript; all of them are field identified.

Lat. $59^{\circ}06.1'$, Long. $151^{\circ}46.1'$ - photo 76 E (I) 4350

Lat. $59^{\circ}06.1'$, Long. $151^{\circ}46.3'$ - photo 76 E (I) 4350

Lat. $59^{\circ}09.9'$, Long. $151^{\circ}52.1'$ - photo 76 E (I) 4366.

65 - COMPARISON WITH NAUTICAL CHARTS

Comparisons were made with the following charts:
Chart 16645, scale 1:82,662, dated July 30, 1983
NOS chart 16606, scale 1:77,062, dated Oct. 20, 1979
C & GS chart 8532, scale 1:77,062, dated April 7, 1973 (These charts are representative of the same area.)

A comparison between the earlier dated April 1973 chart 8532, with the latest dated charts indicate that two offshore rocks were added to current charts from the unreviewed Class III Chart Maintenance Print submitted to Marine Charts September 14, 1979. The intended purpose of showing these offshore rocks on the 1979 Chart Maintenance Print was to advise the Hydrographer of potential hazard. The Hydrographer was expected to determine whether or not the rocks existed. It was never intended for charting purposes because the photointerpretation of the rocks did not render positive identification. The field investigation of the rocks revealed them to be nonexistent by the field editor at the time the hydrography was performed, July and August 1980. The non-existent rocks were removed from the Final Map. These and other recommended changes are annotated on the Final Map Chart Maintenance Print.

TP-00823

The field editor and hydrographic survey H-9890 have both shown an uncharted offshore rock. Its position is Lat. $59^{\circ}09.6'$, Long. $151^{\circ}53.6'$, and is field identified on photo 76 E (I) 4347.

The Nautical Charts show the Navigation Aid, Cape Elizabeth Light, north of the position on this map.

A Final Chart Maintenance Print indicating discrepancies 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,

Charles E. Blood / J. Byrd

Charles Blood/James L. Byrd, Jr.
Final Reviewers

Approved for forwarding,

Billy H. Barnes

Billy H. Barnes
Chief, Photogrammetric Section, AMC

Approved,

John A. Mooney
Chief, Photogrammetric Section,
Rockville

Ronald K. Brewer
Chief, Photogrammetry Branch,
Rockville

Replaces C&GS Form 567.

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

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

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)*

REPORTING UNIT	STATE	LOCALITY	DATE
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coastal mapping and	Alaska	Cook Inlet East side	5 Jan 82
AMC. Norfolk. VA			

[illegible]

£7800-411

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

LATITUDE		LONGITUDE	
°	'	°	'
D.M. Meters		D.P. Meters	

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

CHARTS
AFFECTED

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	° /		D.M. Meters		° /		D.P. Meters		OFFICE	FIELD	
		°	/	D.M. Meters	"	°	/	D.P. Meters	"			
LIGHT	Cape Elizabeth Light	59°08		59.79		151	52	28.81		75C(C) 7221 Aug. 3, 1975	F-2-6-L July 1980	16640 16645
LIGHT	Perl Rock Light	59°05		26.27		151	41	32.58		Not Visible	F-2-6-L July 1980	16640 16645

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	A. Patrick
POSITIONS DETERMINED AND/OR VERIFIED	C. Hancock
	W. Connally
	C. Blood
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64.)	
OFFICE 1. 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) 8. 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 1. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection P - Photogrammetric Vis - Visually 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	11. 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. 8-12-75 111. 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.
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

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

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)

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

REPORTING UNIT
(Field Party, Ship or Office)
Coastal Mapping Unit

STATE
Alaska

LOCALITY

Cook Inlet East Side

DATE

5 Jan 82

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

DATUM

N.A. 1927

POSITION

LONGITUDE

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° / ' " D.M. Meters

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

TP-00823

CM-7412

OPR-P114

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RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	A. Patrick
POSITIONS DETERMINED AND/OR VERIFIED	C. Hancock
	W. Connally
	C. Blood
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
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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.
*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 charts.

- | CHART | DATE | CARTOGRAPHER | REMARKS |
|-------|------|--------------|---------|
|-------|------|--------------|---------|

***** ALL EDITIONS OF FORM C-63-978. *****