TP-01158

TP-01158

NOAA FORM 76-35
(6-80)

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

DESCRIPTIVE REPORT

THIS MAP EDITION WILL NOT BE FIELD EDITED.

Map No.	*Edition No.*
TP-01158	1

Job No.
CM-8200

Map Classification
CLASS III (FINAL)

Type of Survey
SHORELINE

LOCALITY

State
ALASKA

General Locality
CAPE KILOKAK TO CAPE KUMLIK

Locality
SUTWIK ISLAND

1982 TO 1983

REGISTERED IN ARCHIVES

DATE

*U.S. GOVERNMENT PRINTING OFFICE: 1980-665-115

NOAA FORM 76-36A (3-72) — U. S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY
- [X] ORIGINAL
- [ ] RESURVEY
- [ ] REVISED

SURVEY TP-01158
MAP EDITION NO. (1)
MAP CLASS III Final
JOB PD-CM 8200

PHOTOGRAMMETRIC OFFICE
Pacific Marine Center
Seattle, Washington

OFFICER-IN-CHARGE
David W. Yeager

LAST PRECEEDING MAP EDITION
TYPE OF SURVEY
- [ ] ORIGINAL
- [ ] RESURVEY
- [ ] REVISED

JOB PH-
MAP CLASS
SURVEY DATES:
19__ TO 19__

I. INSTRUCTIONS DATED

1. OFFICE		2. FIELD	
Aerotriangulation	Feb. 15, 1984	Field	Feb. 5, 1982
Office	July 24, 1984	Field (Change 1)	May 21, 1982

II. DATUMS

1. HORIZONTAL: [X] 1927 NORTH AMERICAN — OTHER (Specify): None

2. VERTICAL: [X] MEAN HIGH-WATER; [ ] MEAN LOW-WATER; [X] MEAN LOWER LOW-WATER; [ ] MEAN SEA LEVEL — OTHER (Specify): None

3. MAP PROJECTION: Transverse Mercator

4. GRID(S)

STATE	ZONE
Alaska	6

5. SCALE: 1:20,000

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: Analytic	BY	S. Solbeck	April 1984
	LANDMARKS AND AIDS BY	D. Norman	April 1984
2. CONTROL AND BRIDGE POINTS METHOD:	PLOTTED BY	S. Solbeck	April 1984
	CHECKED BY	D. Norman	April 1984
3. STEREOSCOPIC INSTRUMENT COMPILATION	PLANIMETRY BY	D. Butler	Jan. 1985
	CHECKED BY	J. Minton	Jan. 1985
INSTRUMENT: Wild B-8 Stereoplotter	CONTOURS BY	N.A.	
SCALE: 1:20,000	CHECKED BY	N.A.	
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	D. Holeski	March 1985
	CHECKED BY	J. Minton	March 1985
METHOD: Smooth drafted, graphic MLLW line	CONTOURS BY	N.A.	
	CHECKED BY	N.A.	
SCALE: 1:20,000	HYDRO SUPPORT DATA BY	N.A.	
	CHECKED BY	N.A.	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	N.A.	
6. APPLICATION OF FIELD EDIT DATA	BY	N.A.	
	CHECKED BY	N.A.	
7. COMPILATION SECTION REVIEW Class III	BY	J. Minton	July 1985
8. FINAL REVIEW	BY	L. O. Neterer, Jr.	Nov. 1985
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY	L. O. Neterer, Jr.	Dec. 1985
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	P. Dempsey	Jan. 1986
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY	E DAUGHERTY	1-FEB 1986

NOAA FORM 76-36A — SUPERSEDES FORM C&GS 181 SERIES

★ U.S. G.P.O. 1972-769380/547 REG. #6

NOAA FORM 76-36B
(3-72)

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

TP-01158

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) (focal length = 152.74 mm)
Wild R.C. 10 "B"

TIDE STAGE REFERENCE
- [xx] PREDICTED TIDES
- [ ] REFERENCE STATION RECORDS
- [ ] TIDE CONTROLLED PHOTOGRAPHY

TYPES OF PHOTOGRAPHY LEGEND
(C) COLOR
(P) PANCHROMATIC
(I) INFRARED

TIME REFERENCE
ZONE: Alaska
MERIDIAN: 150°W
- [xx] STANDARD
- [ ] DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
82B(C)6457 thru 6562	Jul.19,1982	11:26	1:50,000	6.8 ft. above MLLW
83B(I)5505 thru 5510	Aug.25,1983	10:13	1:50,000	1.5 ft. below MLLW

REMARKS
Tide levels were calculated for Anchorage Bay subordinate station using Kodiak as the reference station. Mean High Water is 8.1 feet above Mean Lower Low Water.

2. SOURCE OF MEAN HIGH-WATER LINE:

The Mean High Water line was compiled on a Wild B-8 stereoplotter using the color photographs listed above.

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

The Mean Lower Low Water line was compiled graphically from the infrared enlargements listed in item 1 above. See the attached aerotriangulation report for the enlargement ratio. These prints were controlled with pass points which were selected and positioned during the compilation of the MHW line described in item 2 above.

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-01155	No Survey	No Survey	TP-01157

REMARKS

*U.S. GOVERNMENT PRINTING OFFICE:1977-765-092

NOAA FORM 76-36C
(3-72)

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

TP-01158

HISTORY OF FIELD OPERATIONS

1. [X] FIELD INSPECTION OPERATION (premarking) [ ] FIELD EDIT OPERATION

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		R. Melby	June 1982
2. HORIZONTAL CONTROL	RECOVERED BY	R. Melby	June 1982
	ESTABLISHED BY	None	
	PRE-MARKED OR IDENTIFIED BY	S. Feher	June 1982
3. VERTICAL CONTROL	RECOVERED BY	N.A.	
	ESTABLISHED BY	N.A.	
	PRE-MARKED OR IDENTIFIED BY	N.A.	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED *(Triangulation Stations)* BY	R. Melby	June 1982
	LOCATED *(Field Methods)* BY	None	
	IDENTIFIED BY	L. Riggers	June 1982
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION: [ ] COMPLETE [ ] SPECIFIC NAMES ONLY [X] NO INVESTIGATION — BY		
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 and paneled

2. VERTICAL CONTROL IDENTIFIED
N.A.

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
	SUT, 1925 WIK, 1925 FOGGY CAPE LIGHT, 1944		

3. PHOTO NUMBERS *(Clarification of details)*

None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
	FOGGY CAPE LIGHT, 1944		

5. GEOGRAPHIC NAMES: [ ] REPORT [X] NONE

6. BOUNDARY AND LIMITS: [ ] REPORT [X] NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

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

Field Operations Report and NOAA Forms 76-53 for paneled control, and preselected photo - hydro stations.

☆U.S. Government Printing Office: 1975 – 665-661/1110, Region No. 6

NOAA FORM 76-36D
(3-72)

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

TP-01158

RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Class III Compilation Complete	July 1985	Class III Manuscript		
Final Reviewed	Nov. 1985	Class III Final Map	16/12/85	16/12/85

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
1		16/12/85	Form 76-40 for Aids to Navigation

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 567 SUBMITTED BY FIELD PARTIES.
3. ☒ SOURCE DATA *(except for Geographic Names Report)* AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:

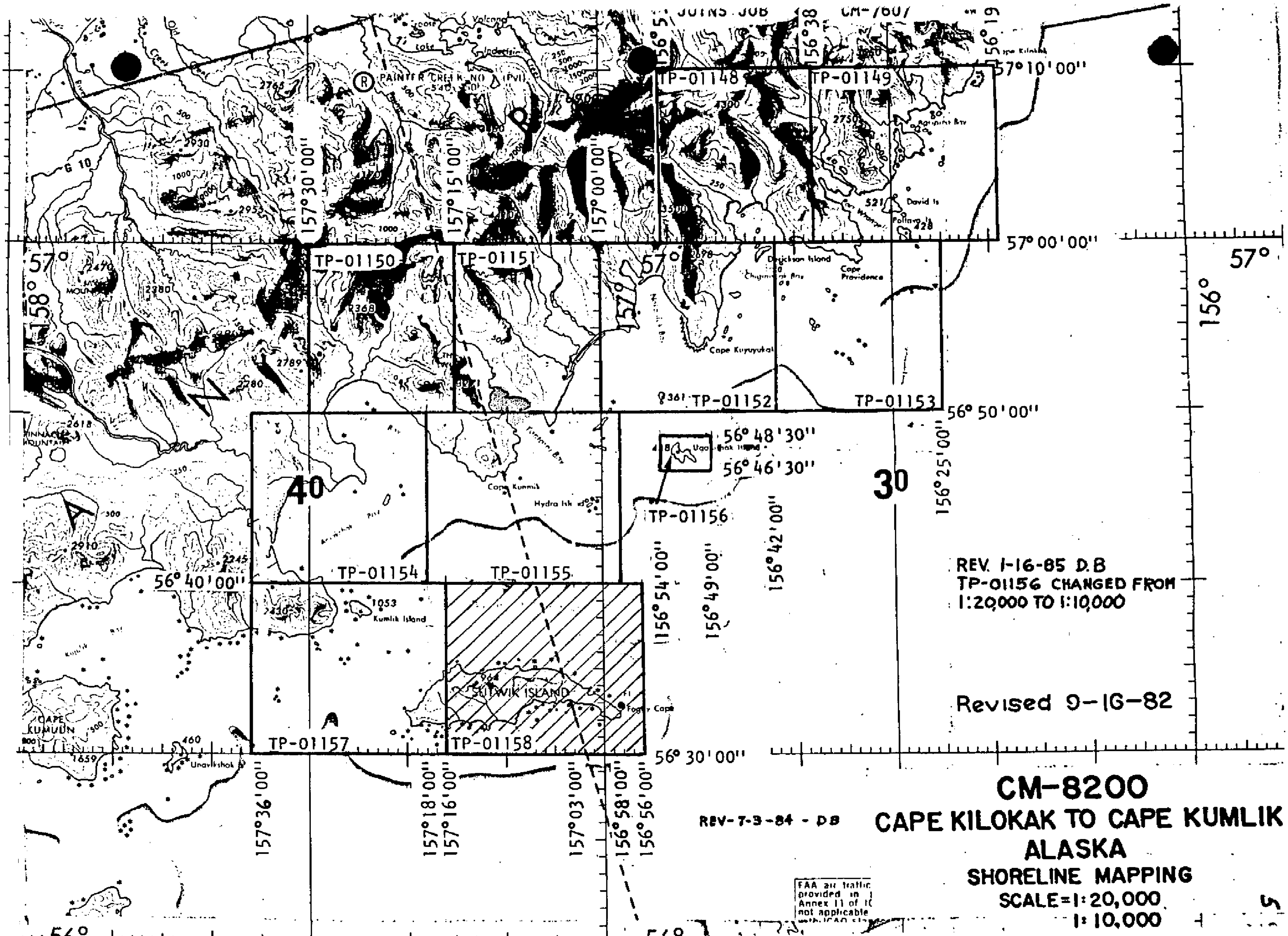
4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

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

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

NOAA FORM 76-36D

*U.S. GOVERNMENT PRINTING OFFICE:1977-765-092


JOINS JOB
CM-7607
57°10'00"
57°00'00"
56°50'00"
56°48'30"
56°46'30"
56°40'00"
56°30'00"
157°30'00"
157°15'00"
157°00'00"
157°36'00"
157°18'00"
157°16'00"
157°03'00"
156°58'00"
156°56'00"
156°54'00"
156°49'00"
156°42'00"
156°25'00"
156°38
156°19
57°
156°
158°
56°
TP-01148
TP-01149
TP-01150
TP-01151
TP-01152
TP-01153
TP-01154
TP-01155
TP-01156
TP-01157
TP-01158
40
30
PAINTER CREEK NO
Cape Kilokak
David Is
Dirickson Island
Chiginagak Bay
Cape Providence
Cape Kuyuyukak
Ugaiushak Island
Cape Kumlik
Hydra Isl
Kumlik Island
SUTWIK ISLAND
Foggy Cape
Unavikshak
CAPE KUMLIK
REV. 1-16-85 D.B
TP-01156 CHANGED FROM
1:20,000 TO 1:10,000
Revised 9-16-82
REV-7-3-84 - DB
CM-8200
CAPE KILOKAK TO CAPE KUMLIK
ALASKA
SHORELINE MAPPING
SCALE=1:20,000
1:10,000

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-01158

This 1:20,000 scale shoreline map is one of eleven maps that comprise project CM-8200 Cape Kilokak, Alaska latitude 57°10'00" south to Cape Kumlik, Alaska latitude 56°30'00". This project includes Sutwik Island.

Photographic coverage was provided in July 1982 with color film at 1:50,000 scale and in August 1983 with black-and-white infrared film at 1:50,000 scale. The Wild RC-10 "B" camera (focal length 152.74 mm) was used for all photography.

Field work prior to compilation, accomplished in June 1982, involved the identification of horizontal control by pre-marking techniques to meet aerotriangulation requirements.

Analytic aerotriangulation was performed at the Washington Science Center in April 1984.

Compilation was performed at the Pacific Marine Center from office interpretation of the 1982 and 1983 photography in July 1985.

Final Review was performed at the Atlantic Marine Center in November 1985. This map is to be registered as a Final Class III map.

This Descriptive Report contains all pertinent information used to compile this final map.

The original base map and all pertinent data were forwarded to the Washington Science Center for final registration.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102

August 10, 1982 CPM133/RBM

TO: C3415 - National Ocean Survey

FROM: CPM133 - Pacific Photo Party

SUBJECT: Field Operations Report - Project CM-8200, Cape Kilokak to Cape Kumlik, Alaska, Shoreline Mapping dated February 5, 1982

This shoreline mapping project was undertaken by the Pacific Marine Center Photogrammetric Party during the month of June 1982.

The purpose of the field project was to place panels on selected, horizontal control stations, prior to the scheduled, aerial photography.

Each of the selected stations were paneled as per project instructions.

Additional points were paneled to allow their positioning during the aerotriangulation and monumented to permit future recovery. These points are designated as "PR" Points. "PR" numbers less than 50 are marked with a P-K nail through an aluminum washer, with the point designation stamped on it, and driven into the bare rock, such as PR 10 1981. Numbers above 50 were marked with a length of 3/4" thin-wall conduit pipe, with the point designation stamped on the side of the pipe, such as PR 62 1982 and driven in the ground. A copy of a chart with the approximate location of these points will be included with the field data. Control Station Identification, Form 76-53, was filled out for each horizontal control station or point paneled.

Transportation was by a NOAA helicopter, based out of Port Heiden, Alaska, and Wide Bay, Alaska, with support by the NOAA Ship FAIRWEATHER.

Where stations were missing, new horizontal control was established by Third-order, Class I methods.

A problem developed with the present adjustment of the horizontal control in the area of Sutwik Island. NGS headquarters has been notified of this problem and will probably readjust the existing horizontal control in this area. All field computations are based on the old 1948 adjustment. Station SHANE 1982 was computed on this older adjustment also. Copies of the field observations by the NOAA Ship FAIRWEATHER are included to permit an interim position to be computed for SHANE.

Prior to any aerotriangulation, the National Geodetic Survey headquarters should be contacted (C131, McKay) to determine, if the final adjustment of the horizontal control in the project area, has been accomplished.

Edward J. McKay 443-8110

The horizontal control has been transmitted to NGS headquarters via the telephone data terminal. Again, all computations and positions are based on the old 1948 adjustment to permit consistency of data.

Respectfully Submitted,

Robert B. Melby
Chief, PMC Photo Party

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102

August 10, 1982 CPM133/RBM

TO: C174 - National Ocean Survey

FROM: CPM133 - Pacific Photo Party

SUBJECT: Field Report, Cape Kilokak to Cape Kumlik, Alaska
Project CM-8200, TSN No: 315 thru 365

Authority: Project Instructions, Field - Job CM-8200, Cape Kilokak to Cape Kumlik, Alaska, Shoreline Mapping dated February 5, 1982.

General: The project is along a section of the southeast shoreline of the Alaska Peninsula, Shelikof Strait, Alaska. The main purpose of the project was to premark horizontal control stations, prior to scheduled aerial photography. The supplemental, horizontal control stations that were established by the field party, were to augment the existing control or to replace missing stations.

Terrain: The area is a barren, rainy, windswept coastline of the Alaska Peninsula, devoid of permanent human habitations or trees.

Personnel: Two employees of the NGS Mark Maintenance Program, one member of the Pacific Photo Party, and one Junior officer of the NOAA Ship FAIRWEATHER performed the field functions.

Transportation: Transportation was accomplished by a NOAA helicopter with support from the NOAA Ship FAIRWEATHER.

Equipment: 2 Wild T-2 theodolites
1 Hewlett-Packard, Model 3808A EDM Instrument
2 Tellurometers Model CA-1000
1 0.5. Meter, Mirror Bar
2 K&E Retrodirective Prisms
Various tripods, signal poles, etc.

Field Methods: Third-order traverse methods were employed by the field party.

Computations: The field computations were performed with Hewlett-Packard hand held and desk calculators, and satisfactory results were obtained..

A problem developed during the field observations at statio KUMLIK 1925. The field observed, check angle, between BLU 1925 and SUT 1925, failed to agree by more than 20 seconds using the most recently published horizontal positions. (Adjustment of Nov 1976 (G-15838)). By reverting to the old lithograph, Geographic Positions, Vol. V, pages 35 and 81, Revised 6/10/48,

a satisfactory check angle was obtained. There appears to be a problem with the NOV 1976 readjustment, as the horizontal angle produced by inverses worked between KUMLIK to BLU and KUMLIK to SUT, using both the old and the 1976 adjustments, failed to agree by about 20 seconds. There appears a possible problem of rotation and an uneven lateral shift in the 1976 adjustment.

The NGS headquarters were alerted to the possible discrepancies, and stated that the final disposition of the adjustment in the area of Sutwik Island would not be finalized, until the field records of this project, are submitted to do a further comparison of observations at station KUMLIK, involving BLU and SUT.

All the positions used and transmitted through the telephone data terminal are the "old" Geographic Positions, to allow the field data to be consistent throughout, until the final horizontal control adjustment is made.

Records: All the field data was entered and processed through the NGS data telephone terminal.

Respectfully Submitted,

R.B. Melby

R. B. Melby
Chief, Pacific Photo Party

PHOTOGRAMMETRIC PLOT REPORT

Cape Kilokak to Cape Kumlik, Alaska

CM-8200

April 1984

AREA COVERED

The area covered by this report is the eastern shoreline of the Alaskan Peninsula, from Cape Kumlik, north to Cape Kilokak. The area is covered by eleven 1:20,000 scale manuscripts (TP-01148 through TP-01158).

METHOD

Seven strips of 1:50,000 scale color photographs and one strip of 1:12,000 scale color photographs (TP-01156) were bridged by Standard Analytic Aerotriangulation Methods. The horizontal control was premarked with positions being determined on a revised 1948 adjustment (see Field Report). Tie points were needed to supplement the premarked horizontal stations to control three of the strips. Tie points were also used to ensure the adequate junctioning between adjacent bridging strips.

The 1:50,000 scale bridging photographs provided two additional functions: one, to locate and identify a series of premarked hydrographic panels which are to be used in future hydrographic surveys in this area; the other being to provide ratio values for the 1:30,000 scale color compilation photographs and all of the 1:50,000 scale photographs used in the project.

Ratio values were determined for the bridging photographs, 1:30,000 scale color, and the black-and-white infrared photographs that are to be used for delineating MLLW and MHW. Ratios of the bridging and the MLLW photographs were ordered.

The positions of nineteen Hydrographic Control Stations were determined. All were measured on the 1:50,000 scale bridging photography. The panels of three Hydrographic Control Stations could not be identified and, therefore, were not positioned.

The manuscripts were plotted on the Calcomp 718 Plotter using the Alaska State Plane Coordinate System, Zone 6.

ADEQUACY OF CONTROL

Of the control provided, all held within the National Standards of Map Accuracy, except for station Goon, 1945. This station was paneled direct, but could not be held closer than 15 feet in X and 30 feet in Y. Upon completion of the photo mission, the field party did not return to verify that the panels, which had been set in place one month prior, had

remained in tact. station Goon, along with other paneled stations, did not appear on the photographs as sketched by the field party. This office is assuming that the panel marking station Goon had moved prior to being photographed. It was not held in the adjustment.

Except for station Goon, 1945, the control provided, proved to be adequate for completion of the project. Tie points were required in some areas to supply necessary horizontal control.

SUPPLEMENTAL DATA

USGS quardrangles were used to provide vertical control for the project.

Nautical Charts were used to locate aids and landmarks.

PHOTOGRAPHY

The coverage, overlap, and quality of the photographs proved adequate for completion of the project.

Submitted by:

Stephen H. Solbeck

Approved and Forwarded:

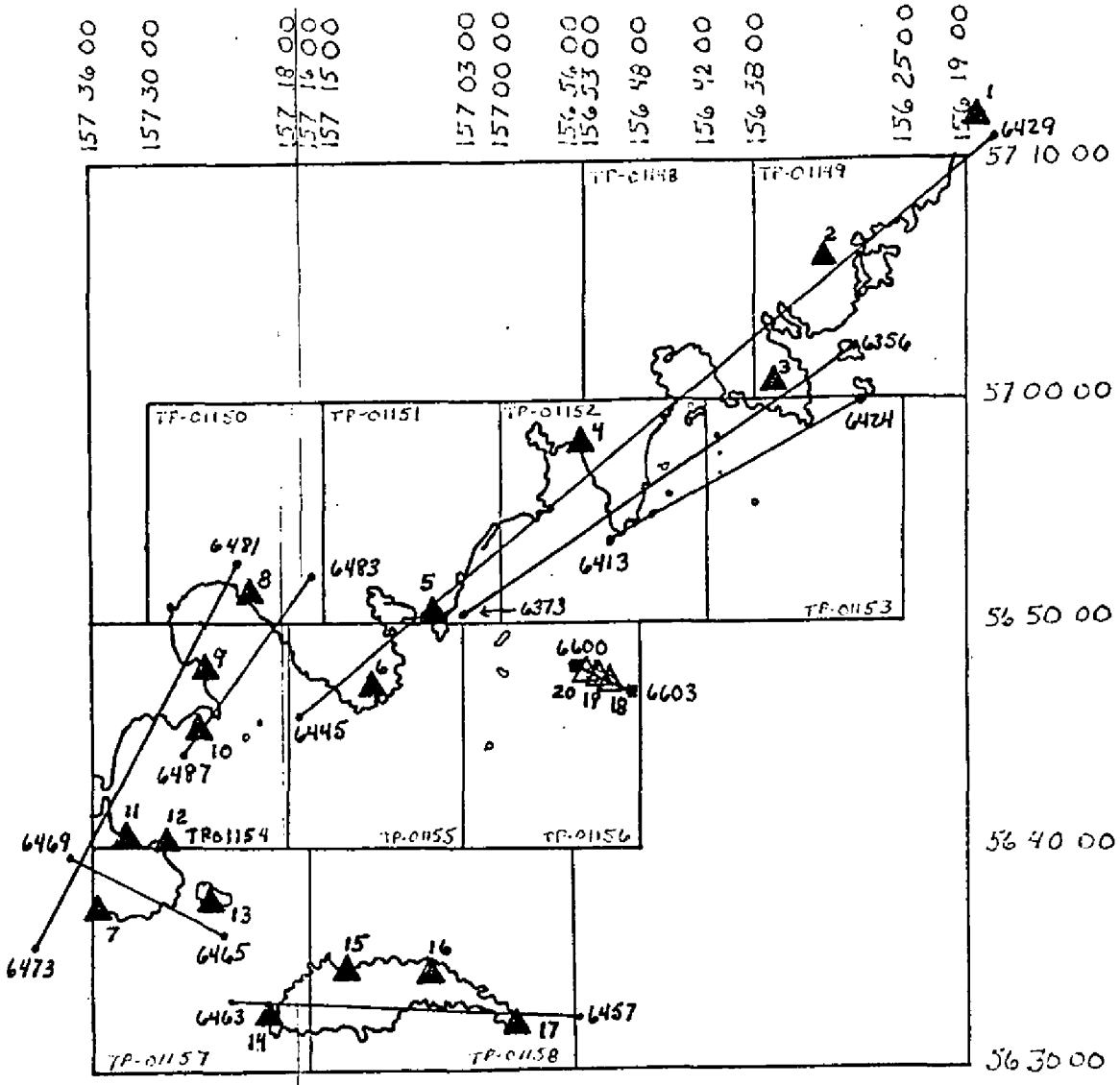
Don O. Norman

Don O. Norman
Chief, Aerotriangulation Unit

CM-8200
CAPE KILOKAK TO CAPE KUMLIK
ALASKA

BRIDGING PHOTOGRAPHS

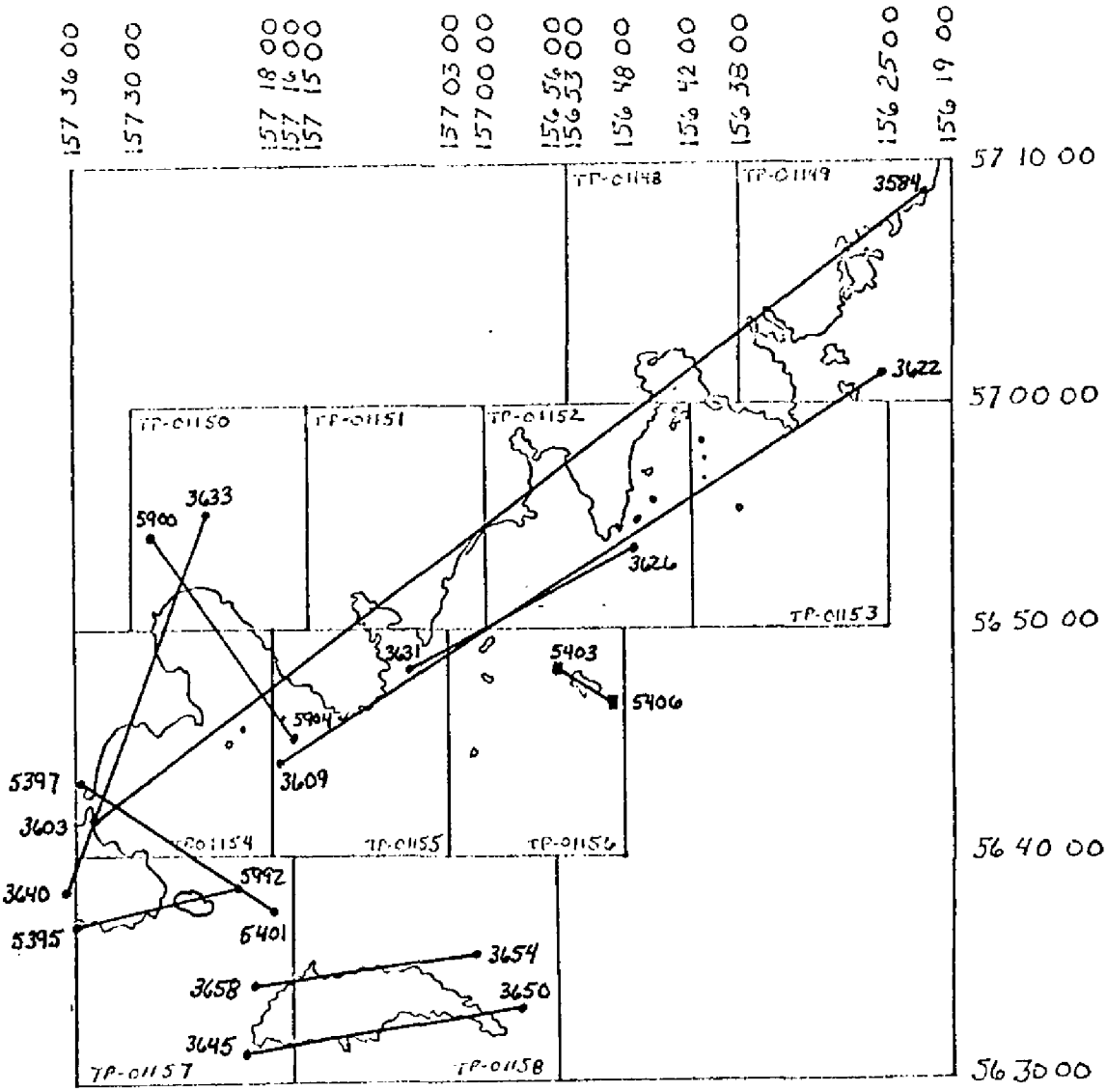
- 82B(c) 1:50000
- 82B(c) 1:12000
- ▲ HORIZONTAL CONTROL



CM-8200
CAPE KILOKAK TO CAPE KUMLIK
ALASKA

BLACK AND WHITE INFRARED PHOTOGRAPHS
MHW

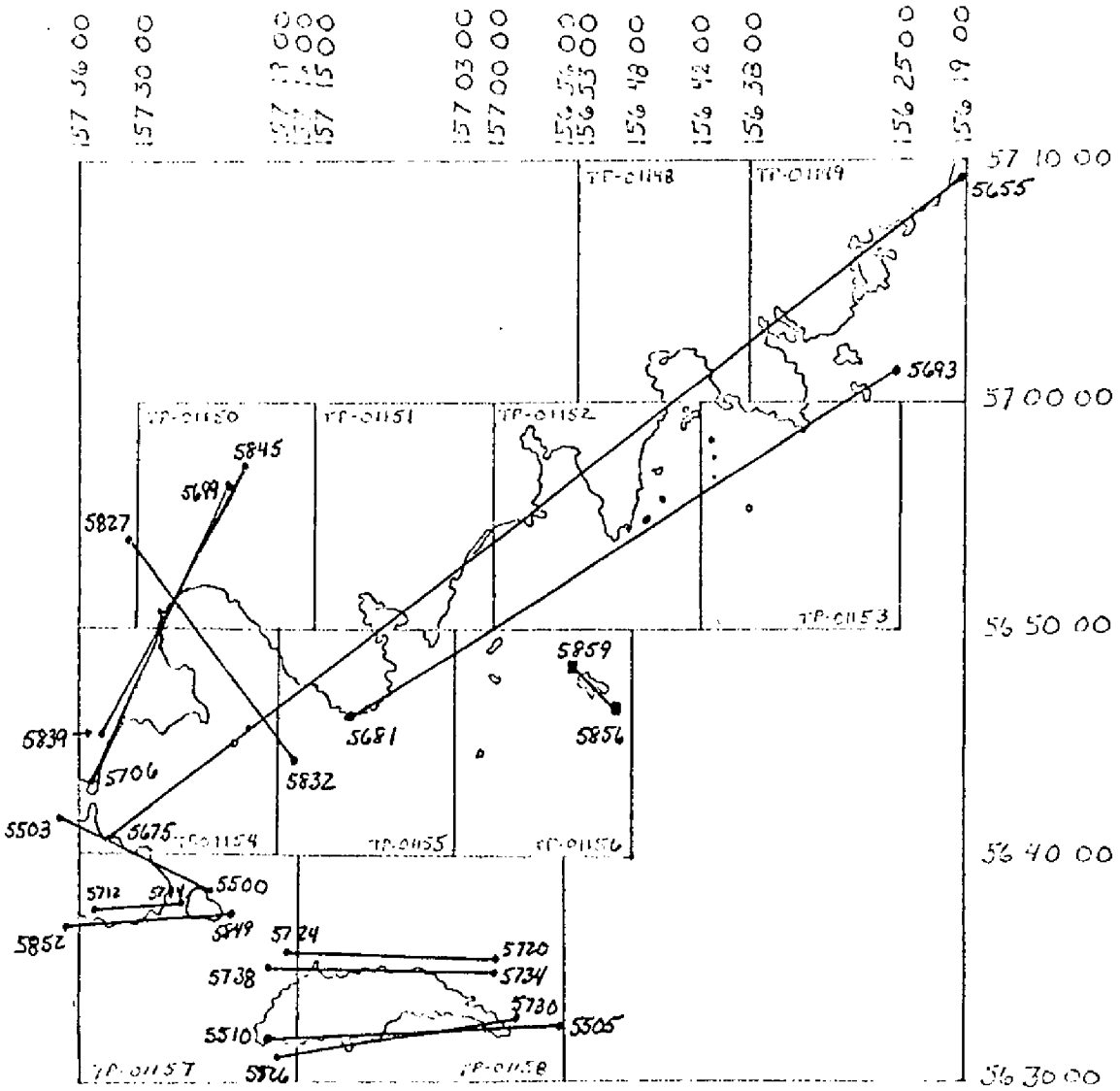
- 83 B (R) 1:50000
- 83 B (R) 1:12000



CIM-8200
CAPE KILOKAK TO CAPE KUMLIK
ALASKA

BLACK AND WHITE INFRARED PHOTOGRAPHS
MLLW

- 83 B(R) 1:50000
- 83 B(R) 1:12000



REFERENCE TO SKETCH OF BRIDGING PHOTOGRAPHS

1	SHANE, 1982	(429100)
2	LAGOON, 1944	(433100)
3	PORT, 1944	(435100)
4	NAKOLILOK E. BASE, 1944	(438100)
5	YANT, 1944	(442100)
6	KUNMIK, 1944	(444100)
7	RUSS, 1982	(469100)
8	ASPEN, 1945	(481100)
9	GOON, 1945	(479100)
10	LAND, 1945	(478100)
11	LAG, 1945	(468100)
12	BLU, 1925	(467100)
13	KUMLIK, 1925	(465100)
14	ATTI, 1982	(462100)
15	SUT, 1925	(461100)
16	WIK, 1925	(460100)
17	FOGGY CAPE LIGHT, 1944	(458100)
18	HAWK, 1944	(603100)
19	HUEY, 1982	(602100)
20	UGAI, 1944	(600100)

Fit to Control

Station Name		Values in Feet	
	1:12,000	X	Y
STRIP #1			
OGAI, 1944	600100Δ	.001	-.001
HUEY, 1982	602100Δ	.000	.000
HAWK, 1944	603100Δ	.000	.000
	1:50,000		
STRIP #1			
ATTI, 1982	462100Δ	-.307	.068
SUT, 1925	461100Δ	-.561	-.954
WIK, 1925	460100Δ	.873	.497
FOGGY CAPE LIGHT, 1944	458100Δ	-.004	.388
STRIP #2			
KUMLIK, 1925	465100Δ	.422	-.700
BLU, 1925	467100Δ	-2.398	.860
LAG, 1945 - Sub Point	468101Δ	1.938	.300
RUSS, 1982	469100Δ	.024	-.456
STRIP #3			
RUSS, 1982	469100Δ	-2.184	.991
LAG, 1945 - Sub Point	468101Δ	5.473	-1.354
LAND, 1945	478100Δ	-4.094	.753
GOON, 1945	479100	-15.787	-32.546
ASPEN, 1945	481100Δ	.806	-.388
STRIP #4			
GOON, 1945	479100	-15.482	-30.214
TIE from #3	485801Δ	-.172	.324
TIE from #3	485802Δ	-.189	-.390
TIE from #3	486801Δ	-.729	-.022
TIE from #3	486802Δ	-.310	-1.093

TIE FROM 3#	486803△	.881	.990
LAND, 1945	478100	-6.042	5.116
TIE FROM #3	487801△	.472	-.773
TIE FROM #3	487802△	-.963	.813
TIE FROM #3	487803△	.900	.051
STRIP #6			
SHANE, 1932 - Sub Point	429101△	.838	-1.243
LAGOON, 1944	433100△	-2.495	3.446
PORT, 1944	435100△	1.204	-2.546
NAKOLILOK E. Base, 1944	438100△	-.038	.454
YANT, 1944	442100△	1.785	-.397
KUNMIK, 1944	444100△	-1.290	.293
STRIP #7			
ALL POINTS ARE TIES	356801△	1.099	-.088
FROM STRIP #6	356802△	-1.134	1.198
	356803△	.794	.266
	357801△	-2.517	-1.172
	357802△	.991	-1.309
	357803△	-1.949	.448
	358801△	2.983	-.853
	358802△	1.302	.231
	358803△	.840	1.773
	360801△	.320	.020
	360802△	-1.647	.175
	360803△	-2.752	.519
	362801△	2.019	1.803
	362802△	-.686	.804
	362803△	.151	-3.205
	364801△	-.485	1.800
	364802△	-.670	1.288
	364803△	1.380	.985

3

		365801	.948 1.272
		365802	-.842 -.433
		365803	-.458 -.873
STRIP #8			
TIES FROM	#6	413801	-.026 .789
	#6	413802	-.191 2.415
	#6	413803△	-1.430 1.784
	#6	413804	-.566 .704
	#6	413805	-3.305 .638
TIE FROM	#7	413806	-.407 -2.578
	#7	413807	.371 -.638
	#7	413808	-2.094 .115
	#7	414801	3.171 -.452
	#7	414802△	2.085 -1.015
	#7	414803	3.397 -4.059
TIE FROM	#6	360801△	2.766 -1.955
	#6	360802	1.186 1.216
	#6	360803△	-2.546 -.019
TIE FROM	#7	416801	2.708 3.426
	#7	416802△	1.537 1.787
	#7	416803	-.989 -.915
TIE FROM	#6	417801△	-3.838 1.437
	#6	417802	-3.929 1.244
TIE FROM	#7	417804△	.109 -.675
	#7	417805	-.753 .041
	#7	417806	-.479 -.108
	#7	417807	-1.098 -.992
PORT, 1944		435100△	-.016 -1.680
TIE FROM	#7	419801△	1.225 -.138
	#7	419802	2.174 -1.229
	#7	419803	.490 1.077
TIE FROM	#6	356801△	1.294 1.127

4

TIE FROM	#6	356802	2.300	2.957
	#6	356803	-2.906	-3.178
TIE FROM	#7	420802△	-1.186	-.653
	#7	420803	-.779	-1.627

△ STATIONS HELD IN THE STRIP ADJUSTMENTS

Ratio Values

CM-8200

Cape Kilokak to Cape Kumlik, Alaska

1:50,000 Color Bridging Photographs	Ratio Value
82 B(C) 6356 thru 6365	2.565
6413 " 6420	2.559
6429 " 6445	2.567
6457 " 6463	2.564
6465 " 6469	2.569
6473 " 6481	2.568
6483 " 6487	2.562
6600 " 6603 (1:12,000)	.608
1:50,000 Black-and White-Infrared Photographs-MHW	
83 B(C) 3584 thru 3603	2.538
3609 " 3622	2.535
3626 " 3631	2.543
3633 " 3640	2.538
3644 " 3650	2.537
3654 " 3658	2.539
5392 " 5395	2.573
5397 " 5401	2.571
5403 " 5406 (1:12,000)	.606
1:50,000 Black-and-White Infrared Photographs-MLLW	
83 B(R) 5500 thru 5503	2.491
5505 " 5510	2.487
5655 " 5675	2.497
5681 " 5693	2.500
5699 " 5706	2.500
5712 " 5714	2.503

83 B(R)	5720 thru 5724	2.503
	5726 " 5730	2.504
	5734 " 5738	2.502
	5827 " 5832	2.538
	5839 " 5845	2.557
	5849 " 5852	2.545
	5856 " 5859 (1:12,000)	.584

1:30,000 Color Compilation Photographs

82 B(C)	6606 thru 6615	1.531
	6624 " 6626	1.532
	6649 " 6659	1.526
	6660 " 6661	1.526
	6665 " 6676	1.530
	6693 " 6703	1.529
	6708-09, 6711-13, 6715-18	1.532
	6885	1.524
	8438 thru 8442	1.527
	8444 " 8447	1.526
	8467 " 8473	1.520
	8484 " 8487	1.533
	8490-93, 8495-96	1.529
	8503 thru 8505	1.523
	8515 " 8522	1.536
	8576 " 8584	1.500
	8651 " 8656	1.531

NOAA FORM 76-41
(6-75)

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

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	GEODETIC DATUM	ORIGINATING ACTIVITY
TP-01158	CM-8200	North American 1927	Photogrammetric Sec., Seattle, WA

STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRIANGULATION POINT NUMBER	COORDINATES IN FEET STATE Alaska ZONE	GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE	REMARKS
Foggy Cape Light, 1944	G.P. Vol. V Pg. 79	458100	x=	φ 56° 32' 13.692"	
			y=	λ 156° 58' 31.230"	
SUT, 1925	G.P. Vol. V Pg. 35	461100	x=	φ 56° 34' 17.611"	
			y=	λ 157° 12' 56.916"	
WIK, 1925	G.P. Vol. V Pg. 35	460100	x=	φ 56° 34' 37.877"	
			y=	λ 157° 06' 22.623"	
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	

COMPUTED BY	DATE	COMPUTATION CHECKED BY	DATE
LISTED BY V. McNeel	DATE 08/25/82	LISTING CHECKED BY Thornton	DATE 08/25/82
HAND PLOTTING BY	DATE	HAND PLOTTING CHECKED BY	DATE

SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

Compilation Report
TP-01158

31. Delineation

Delineation was accomplished by a combination of stereo instrument and graphic methods. The color bridging photographs were used in conjunction with a Wild B-8 to compile the MHW line and interior detail as well as bare and awash rocks. Pass points were also selected and positioned on the B-8 to control the enlarged infrared photographs taken at predicted mean lower low water. These enlarged infrared photographs were used to graphically compile the MLLW line, ledges, and additional rocks which may not have been visible on the color bridging photographs because of the difference in water level.

32. Control

As discussed in the preceding Photogrammetric Plot Report, dated April 1984, control is adequate.

33. Supplemental Data

None.

34. Contours and Drainage

Contours are not required on this project. Drainage was delineated on the stereoplotter from the color 1:50,000 scale bridging photographs.

35. Shoreline and Alongshore Detail

The preceding form 76-36B, as well as section 31 of this report detail the sources and method used to compile the shoreline and alongshore detail. Standard symbolization was used throughout this manuscript. Infrared contact prints 83B(I) 3646 through 3650 and 83B (I) 3654 through 3658 were provided and used as interpretive aids. The tide level displayed on these 1:50,000 scale prints was calculated to be 1.8 feet below Mean High Water.

36. Offshore Detail

Offshore detail was compiled in the same manner as the shoreline and along-shore detail discussed in the preceding section of this report.

37. Landmarks and Aids to Navigation

There is one charted Aid to Navigation within this manuscript. Refer to NOAA Form 76-36C, item number four. There were no charted landmarks within the manuscript limits.

38. Control for Future Surveys

None.

39. Junctions

Refer to the preceding form 76-36B, item five.

40. Horizontal and Vertical Accuracy

Refer to the Photogrammetric Plot Report, dated April 1984.

46. Comparison with Existing Maps

A comparison was made with the following U.S.G.S. quadrangles:

SUTWIK ISLAND (C-4), Alaska, 1963, 1:63,360 scale
SUTWIK ISLAND, Alaska, 1963,1:250,000 scale

47. Comparison with Nautical Charts

A comparison was made with the following National Ocean Service chart:

Wide Bay to Cape Kumlik, 16568, 5th edition, December 9, 1978, 1:106,000 scale.

Items to be applied to Nautical Charts immediately: None

Submitted by.

Daniel C. Holeski

Daniel C. Holeski
Cartographer
July 24, 1985

Approved:

James R. Minton

James R. Minton
Acting Chief, Photogrammetric Section
July 25, 1985

26
AUG 13 1985

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8200 (Cape Kilokak to Cape Kumlik, Alaska)

TP-01158

Foggy Cape
Shelikof Strait
Sutwik Island

Approved:

Charles E. Harrington

Charles E. Harrington
Chief Geographer
Nautical Charting Division

REVIEW REPORT
SHORELINE

TP-01158

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 U.S.G.S. quadrangles:
Sutwik Island (C-4), dated 1963, scale 1:63,360
Sutwik Island, Alaska, dated 1963, scale 1:250,000.

64 - COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

There are no contemporary hydrographic surveys within the limits of this map.

65 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following N.O.S. chart:
Preliminary Chart 16568, 5th edition, dated December 9, 1978, scale 1:106,600.

66 - ADEQUACY OF RESULTS AND FUTURE SURVEY

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

Submitted by,

Lowell O. Neterer, Jr.
Final Reviewer
November 15, 1985

Approved for forwarding,

Billy H. Barnes
Chief, Photogrammetric Section

Approved,

Chief, Photogrammetric Section,
Rockville

Ronald K. Brewer
Chief, Photogrammetry Branch,
Rockville

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS ~~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)

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

REPORTING UNIT (Field Party, Ship or Office): Photogrammetry Sec. P.M.C. - Seattle, WA

STATE: Alaska

LOCALITY: Cape Kilokak to Cape Kumlik

DATE: Jan. 1985

The following objects HAVE ☐ HAVE NOT ☒ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.:

JOB NUMBER: CM-8200

SURVEY NUMBER: TP-01158

DATUM: North American 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° / // D.M. Meters	POSITION LONGITUDE ° / // D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	METHOD AND DATE OF LOCATION FIELD	CHARTS AFFECTED
Light	(Foggy Cape Light, 1944)	56 32 13.692 423.5	156 58 31.230 533.7	82B(C)6458 July 19, 1982		16568

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED		FIELD ACTIVITY REPRESENTATIVE
	David P. Butler, Cartographer	OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

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

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

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

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

II. 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

III. 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.

TO: N/MOP - Robert L. Sandquist

FROM: N/CG2 - J. Austin Yeager /s/ Frederick K. Ganjon

SUBJECT: Aerotriangulation Stations and Shoreline Accuracy for OPR-P180-FA-86

REF: Memorandum to N/MOP from Commanding Officer, NOAA Ship FAIRWEATHER, Same Subject, dated August 19,1986

The Commanding Officer, NOAA Ship FAIRWEATHER S220, has established that the control points furnished by the Aerotriangulation Unit, Photogrammetry Branch (PB), for Job CM-8200, Cape Kilokak to Cape Kumlik, Alaska, have a datum shift of approximately 18 meters. PB investigated this discrepancy and found it correct. When this project was bridged by aerotriangulation, the control points used were based on a 1948 geodetic adjustment. A new geodetic adjustment was performed in 1976. This adjustment caused a datum shift in longitude of approximately 1 second and .05 to .1 second in latitude

Five geodetic control stations were selected from Job CM-8200 extending over the whole project. A comparison was made between the 1948 and 1976 adjustments.

Station	1948 Adjustment	1976 Adjustment	Datum Shift	Meters
Lagoon	57°06'02.626"	57°06'02.722"	.096"	2.97
1944	156°30'28.250"	156°30'29.290"	1.040"	17.50
Port	57°00'40.699"	57°00'40.792"	.093"	2.87
1944	156°35'41.795"	156°35'42.836"	1.041"	17.57
Yant	56°50'45.505"	56°50'45.579"	.074"	2.29
1944	157°06'22.039"	157°06'23.072"	1.033"	17.51
Sut	56°34'17.611"	56°34'17.673"	.062"	1.92
1925	157°12'56.916"	157°12'57.916"	1.000"	17.08
Lag	56°40'38.729"	56°40'38.779"	.050"	1.55
1954	157°31'53.263"	157°31'54.285"	1.022"	17.40

N/CG2311:PDempsey:443-8340:
jls:9/17/86:Aero/Alaska:APK2

FILE COPY

CODE	SURNAME	DATE	CODE	SURNAME	DAT
N/CG231	Wright	9/17/86			
N/CG23	Brelve	9/17			

NOAA FORM 61

The mean value of this adjustment is 17.4 meters in longitude and 2.3 meters in latitude. This should be taken into consideration when applying these manuscripts.

A copy of this Memorandum will be inserted in each Descriptive Report for Job CM-8200.

cc:
N/MOP21 - Richards
N/CG22 - Nortrup
N/CG23 - Brewer
N/CG24 - Matsushige

FORM C&GS-8352
(2-20-63)

NAUTICAL CHART DIVISION

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 Rev

CHART	DATE	CARTOGRAPHER	REMARKS
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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