

TP-01317

TP-01317

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

<i>Map No.</i> TP-01317	<i>Edition No.</i> 1	
<i>Job No.</i> CM-8404		
<i>Map Classification</i> FINAL CLASS III		
<i>Type of Survey</i> SHORELINE		
LOCALITY		
<i>State</i> ALASKA		
<i>General Locality</i> ICY STRAIT, CRIST POINT TO IDAHO INLET		
<i>Locality</i> POINT GUSTAVUS		
<table border="1"><tr><td>1987 TO 19</td></tr></table>		1987 TO 19
1987 TO 19		
REGISTERED IN ARCHIVES		
DATE		

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY

- ORIGINAL
- RESURVEY
- REVISED

SURVEY TP. 01317

MAP EDITION NO. (1)
MAP CLASS III Final
JOB CM-8404

PHOTOGRAMMETRIC OFFICE

Coastal Mapping Unit,
Atlantic Marine Center, Norfolk, VA

OFFICER-IN-CHARGE

C. Dale North, Jr.

LAST PRECEDING MAP EDITION

TYPE OF SURVEY

- ORIGINAL
- RESURVEY
- REVISED

JOB PH. _____
MAP CLASS _____
SURVEY DATES:
19__ TO 19__

I. INSTRUCTIONS DATED

1. OFFICE

Compilation January 27, 1988

2. FIELD

Field March 23, 1987
Change No. 1 April 13, 1987

II. DATUMS

1. HORIZONTAL:

- 1983
~~NAD83~~ NORTH AMERICAN

OTHER (Specify)

2. VERTICAL:

- MEAN HIGH-WATER
- MEAN LOW-WATER
- MEAN LOWER LOW-WATER
- MEAN SEA LEVEL

OTHER (Specify)

3. MAP PROJECTION

Oblique Mercator Projection

4. GRID(S)

STATE

N.A.

ZONE

N.A.

5. SCALE

1:20,000

STATE

ZONE

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS

NAME

DATE

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-10 (B) (B = 152.74mm)		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE	
<input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				Alaska	
				MERIDIAN	
				135°	
				<input type="checkbox"/> DAYLIGHT	
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
87 BCN 5612-5615	6-04-87	0742	1:50,000	8.8 ft. above MLLW	
87 BCN 5697-5698	6-04-87	0910	1:50,000	6.6 ft. above MLLW	
87 BR 6375-6377	6-30-87	1641	1:50,000	11.4 ft. above MLLW	
Mean Tide Range = 13.5 ft.					

REMARKS
 Stage of tide for all photography based on predicted tide data at Point Adolphus, Alaska.

2. SOURCE OF MEAN HIGH-WATER LINE:

The mean high-water line was compiled from office interpretation of the above listed photographs.

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

There was no mean lower low-water line compiled on this map.

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
PH-6502*	TP-01318, TP-01321	TP-01320	TP-01316

REMARKS
 *No Contemporary Survey

TP-01317

HISTORY OF FIELD OPERATIONS

I. FIELD INSPECTION OPERATION FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. Fredrick	May 1987
2. HORIZONTAL CONTROL	RECOVERED BY M. Mozgala	May 1987
	ESTABLISHED BY N.A.	
	PRE-MARKED OR IDENTIFIED BY M. Mozgala	May 1987
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 (<i>Triangulation Stations</i>) BY N.A.	
	LOCATED (<i>Field Methods</i>) BY N.A.	
	IDENTIFIED BY N.A.	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE BY <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	N.A.
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	N.A.

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED	2. VERTICAL CONTROL IDENTIFIED
Premarked	None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
87 BCN 5617	OOPS 1987 (Field Position)		
87 BCN 5616	PT GUSTAVUS WEST BASE, 1923		
87 BCN 5615	ADOLPHUS 2, 1922		

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 NONE 6. 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*)
3 Forms 76-53

I. MANUSCRIPT COPIES			DATE MANUSCRIPT FORWARDED	
COMPILATION STAGES			MARINE CHARTS	HYDRO SUPPORT
DATA COMPILED	DATE	REMARKS		
Compilation complete	February 1988	Class III Manuscript		
Final Review	February 1988	Final Class III Map	Aug. 1988	Aug. 1988

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH None

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS

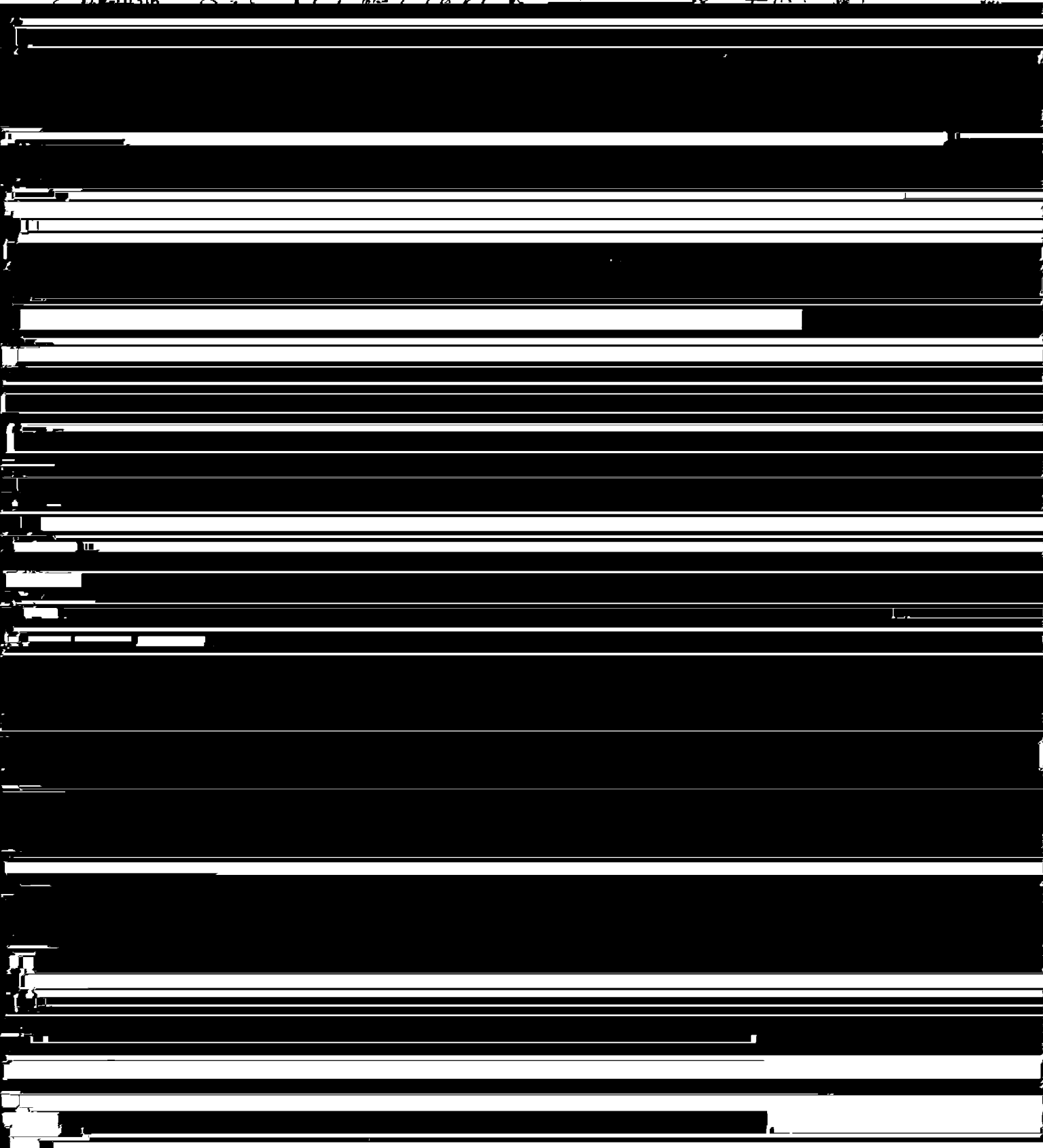
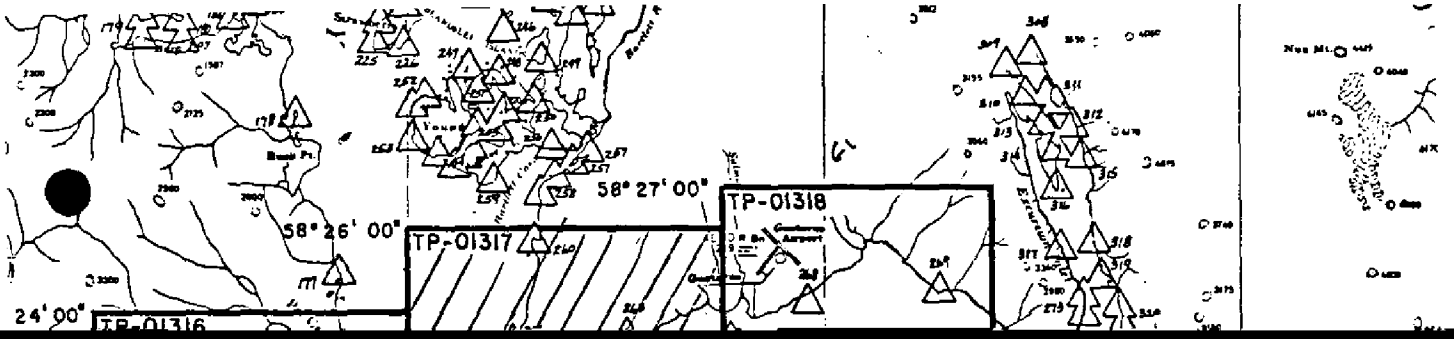
- 2. REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____
- 3. REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

III. FEDERAL RECORDS CENTER DATA

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

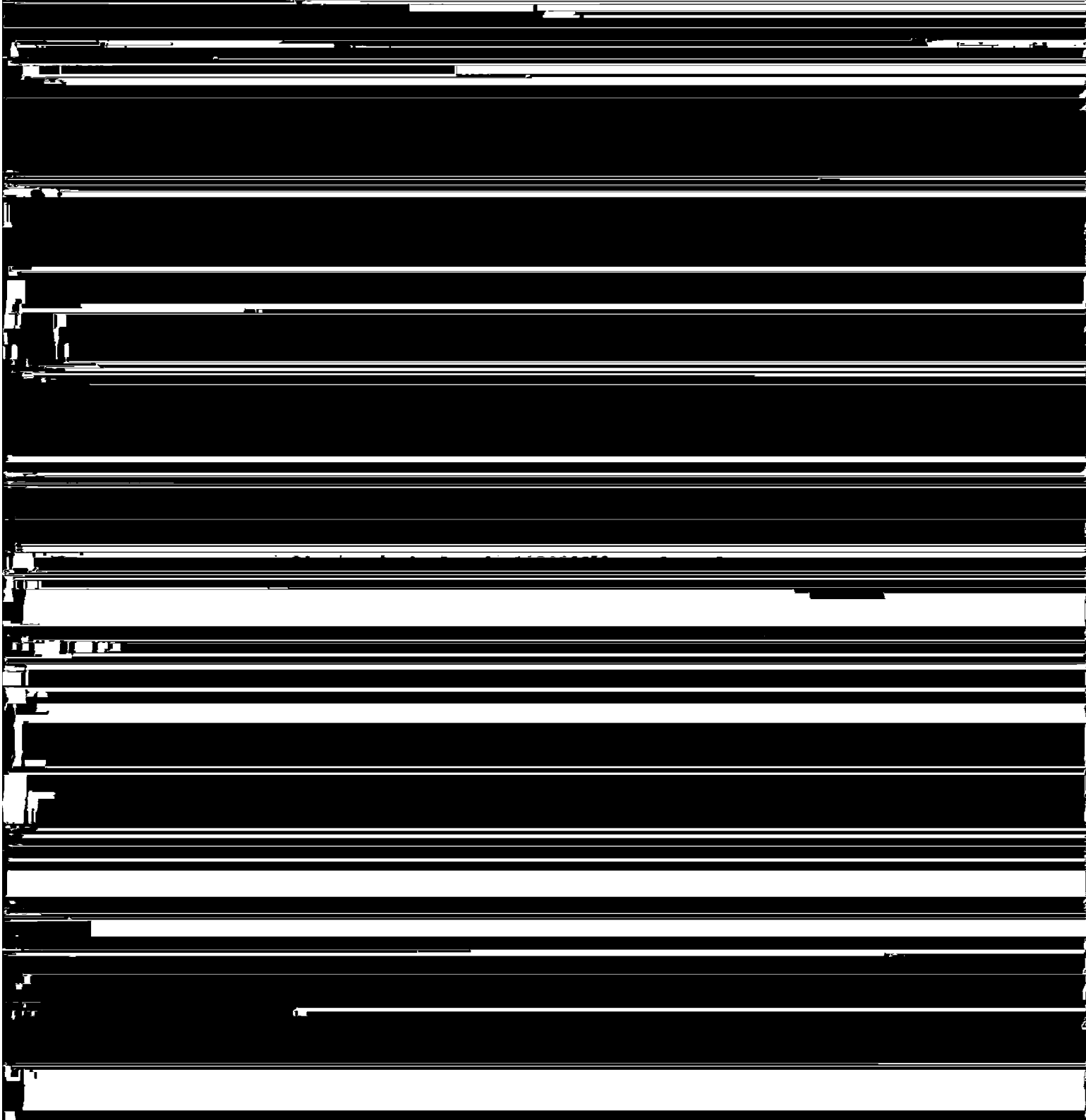
SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL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



SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-01317

This 1:20,000 scale map is one of six maps in project CX-8404. Icy



U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
PACIFIC MARINE CENTER
PACIFIC PHOTO PARTY
PROJECT REPORT CM-8404
ICY STRAIT 1987
SOUTHEAST ALASKA

I. AUTHORITY

By instruction of the Director, Pacific Marine Center.

II. DATES

Field work and paneling were accomplished during the period of April 21 to May 17, 1987. Photo Identification and the removal of panels was accomplished June 24-25, 1987.

III. PURPOSE

The purpose of this project was to panel horizontal control stations for aerial photography in accordance with CM-8404 Project Instructions, Icy Strait, Idaho Inlet to Crist Point, Alaska, Shoreline Mapping, dated March 23, 1987.

IV. TERRAIN AND WORKING CONDITIONS

The shoreline in the Icy Strait varies from rock shelf to boulder beaches with the former being the most prevalent. The treeline comes very close to shoreline in most areas.

The area between Gustavus to Point Gustavus is mud and sand. This area is changed from the depiction on both USGS Quad sheets and the Nautical Charts that were available and used by this field party. Trees now extend southward from the former shoreline in much of this area.

The basic horizontal control network in this area was established in 1901. After comparing the original descriptions with the existing terrain, it is apparent that the tree and tundra line have grown toward the shoreline approximately 20 feet and made the recovery of most marks very difficult.

Overcast skies, rain, snow and sleet was the predominant weather during this task. No time was lost to weather, however.

The paneling material used was commercial grade plastic reinforced with nylon thread and is almost bear proof, but no way was found to secure the material to the ground so that the bears couldn't rip the entire array from it's secured position. This was the case at several sites and these were re-paneled using the original material.

V. PERSONNEL


J. Gary Fredrick (NOS)
Marlene Mozgala (LT, NOAA)
Dan Maurice (Tempsco Helicopter Pilot)

VI. EQUIPMENT

Wild T-2 Theodolite
Hewlett Packard 3808A EDM
3-Prism Retro Reflectors
Wild adjustable tripods
30 meter steel tape
Magnavox 1502 Transit Satellite Receivers
Plastic Paneling Material
Hughes 500D Helicopter

VII. FIELD METHODS

Paneling was directly installed over 12 existing control points. Nine (9) sub points were established using fixed control and azimuth, angle, distance or on line azimuth, distance. Two (2) stations were established by



IX. RECORDS

All photo points paneled or identified in the field have been described and positions entered on CSI cards. Aerial Photographs of each site are attached to the CSI cards. The data supporting these geographic positions is included on the CSI cards. Translocation solutions and conventional 3rd order surveys have been retained for submission to the National Geodetic Survey.

X. RESULTS

A table of NAD 83 geographic positions follows:

DIRECT OR SUBSTITUTE STATIONS IDENTIFIED FOR PROJECT CM-8404

<u>NO</u>	<u>STATION</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>
1	TIDAL ✓	58,04,16.613 ✓	136,06,03.609 ✓
1A	TIDAL SE WING ✓	58,04,16.484 ✓	136,06,03.272 ✓
2	IDAHO 1970 ✓	58,09,28.836 ✓	136,13,15.301 ✓
3	ICY 1970 ✓	58,12,56.558 ✓	136,16,30.744 ✓
4	GLORIA 1970 ✓	58,16,10.954 ✓	136,20,03.361 ✓
5	BAN 1901 ✓	58,20,02.107 ✓	136,18,17.253 ✓
6	DEED 1901 ✓	58,21,04.689 ✓	136,17,37.122 ✓
7	TOWN 1938 SUB PT ✓	58,24,48.638 ✓	136,03,15.903 ✓
8	DAM 1901 SUB PT ✓	58,20,42.175 ✓	136,08,32.088 ✓
9	DAM 1901 ✓	58,19,08.821 ✓	136,02,27.081 ✓
10	YAK 1901 ✓	58,15,48.046 ✓	136,07,57.536 ✓
11	LACK 1901 SUB PT ✓	58,13,29.285 ✓	136,08,23.450 ✓
12	JOG 1901 SUB PT ✓	58,13,05.609 ✓	136,02,32.915 ✓
13	MUD BAY ✓	58,11,00.410 ✓	135,59,36.824 ✓
14	DAMP 1901 SUB PT ✓	58,14,46.921 ✓	135,54,20.214 ✓
15	ADOLPHUS 2 1922 ✓	58,17,09.847 ✓	135,46,58.184 ✓
16	PT GUSTAVUS WEST BASE 1923 ✓	58,22,47.408 ✓	135,54,44.931 ✓
17	OOPS ✓	58,23,13.034 ✓	135,49,27.324 ✓

AEROTRIANGULATION REPORT
CM-8404
ICY STRAIT, CRIST POINT TO IDAHO INLET,
ALASKA

DECEMBER 1987

21. AREA COVERED

This report covers the Icy Strait, Alaska area from Crist Point to Idaho Inlet. The project consists of six 1:20,000-scale sheets; TP-01316 through TP-01321.

22. METHOD

Nine strips of 1:50,000-scale color photographs were bridged by analytical aerotriangulation methods using the STK comparators. They were adjusted to ground using the General Integrated Analytical Triangulation Program (GIANT). Pre-marked control stations were used as horizontal control. Common points were transferred between strips to ensure adequate junctioning.

Ratio values were determined for the bridging photographs and the 1:50,000-scale MHW infrared photographs. There were no MLLW infrared photographs. A copy of these values and a sketch of the photo coverage are attached to this report.

The base manuscripts were plotted on the Kongsberg plotter. The positions are in the Alaska State Plane Coordinate System, Zone 1. This is an oblique Mercator projection. All positions are based on NAD 1983. In addition, 10mm ticks depicting NAD 1927 projection intersections were plotted at twice the interval of the NAD 1983 projection intersections.

23. ADEQUACY OF CONTROL

The control was adequate and meets the National Ocean Service requirements. A listing of closures to control is attached.

24. SUPPLEMENTAL DATA

USGS topographic quadrangles were used to obtain vertical control for bridging. NOS Nautical Charts were used to locate aids and landmarks.

25. PHOTOGRAPHY

The coverage, overlap, and quality of the photographs were adequate for the job.

Submitted by,

Brian Thornton
Vic McNeel
Brian Thornton
Vic McNeel

Approved and Forwarded:

Don O. Norman

Don O. Norman
Chief, Aerotriangulation Unit

RATIO VALUES
CM-8404

1:50,000 Bridging Photographs

Ratio Value

87 B(CN) 5612-5620	2.45
87 B(CN) 5639-5642	2.48
87 B(CN) 5649-5655	2.47
87 B(CN) 5664-5669	2.48
87 B(CN) 5677-5683	2.48
87 B(CN) 5689-5692	2.48
87 B(CN) 5697-5701	2.48
87 B(CN) 5708-5715	2.48
87 B(CN) 5719-5729	2.47

MHW 1:50,000 Black and White Infrared

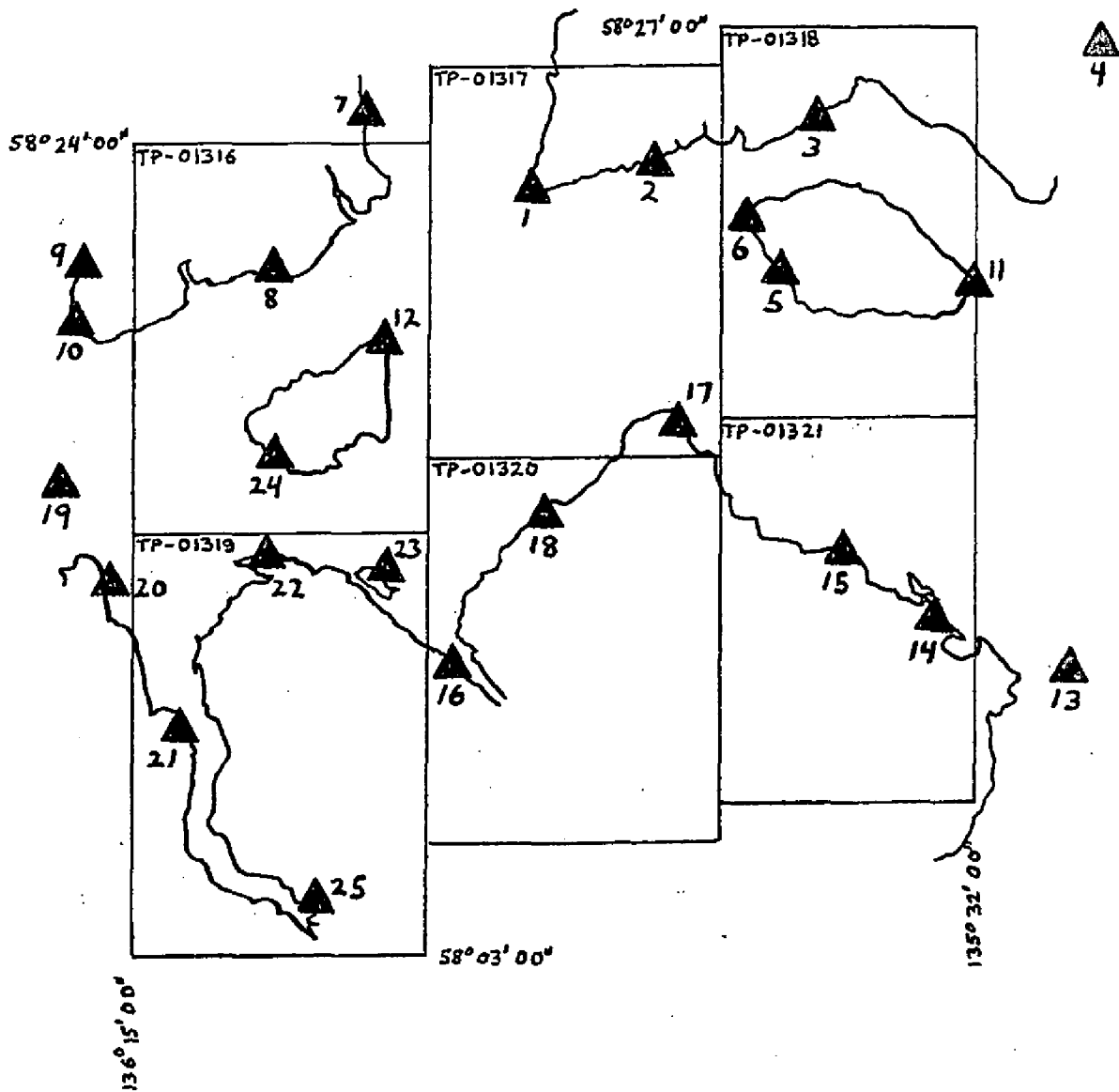
87 B(R) 6375-6379	2.46
87 B(R) 6381-6389	2.46

FIT TO CONTROL

<u>STATION NAMES</u>	<u>POINT NO.</u>	<u>VALUES IN FEET</u>	
		<u>X</u>	<u>Y</u>
1. Pt. Gustavus West Base, 1923	612100	+0.2	0.0
2. Oops	613100	+0.6	+1.5
3. Ditch	615100	-0.3	-0.3
4. Gene, sub. point	619101	-0.9	+1.7
5. Knob 1923, sub. point	641101	+0.1	-0.5
6. Ant 1923	642100	+0.7	-0.2
7. Town 1938, sub. point	649101	+0.3	+0.3
8. Dam 1901, sub. point	652101	-0.5	-0.4
9. Deed 1901	654100	-0.3	0.0
10. Ban 1901	655100	+0.6	+0.1
11. Help 1901, sub. point	669101	-0.5	-2.2
12. Dam 1901	652100	-0.1	-1.1
13. Scraggy 1901	677100	+0.3	-0.5
14. Eagle 1922, sub. point	679101	-0.4	+0.6
15. Eagle 1922	680100	+0.1	+0.2
16. Mud Bay	692100	0.0	+3.4
17. Adolphus 2, 1922	697100	+0.4	+0.2
18. Damp 1901, sub. point	699101	-0.1	-1.1
19. Gloria 1970	708100	+1.4	+0.9
20. Icy 1970	710100	-1.9	-0.3
21. Idaho 1970	711100	-2.1	-1.0
22. Lack 1901 sub. point	723101	-0.1	-2.0
23. Jog 1901 sub. point	725101	+2.6	0.0

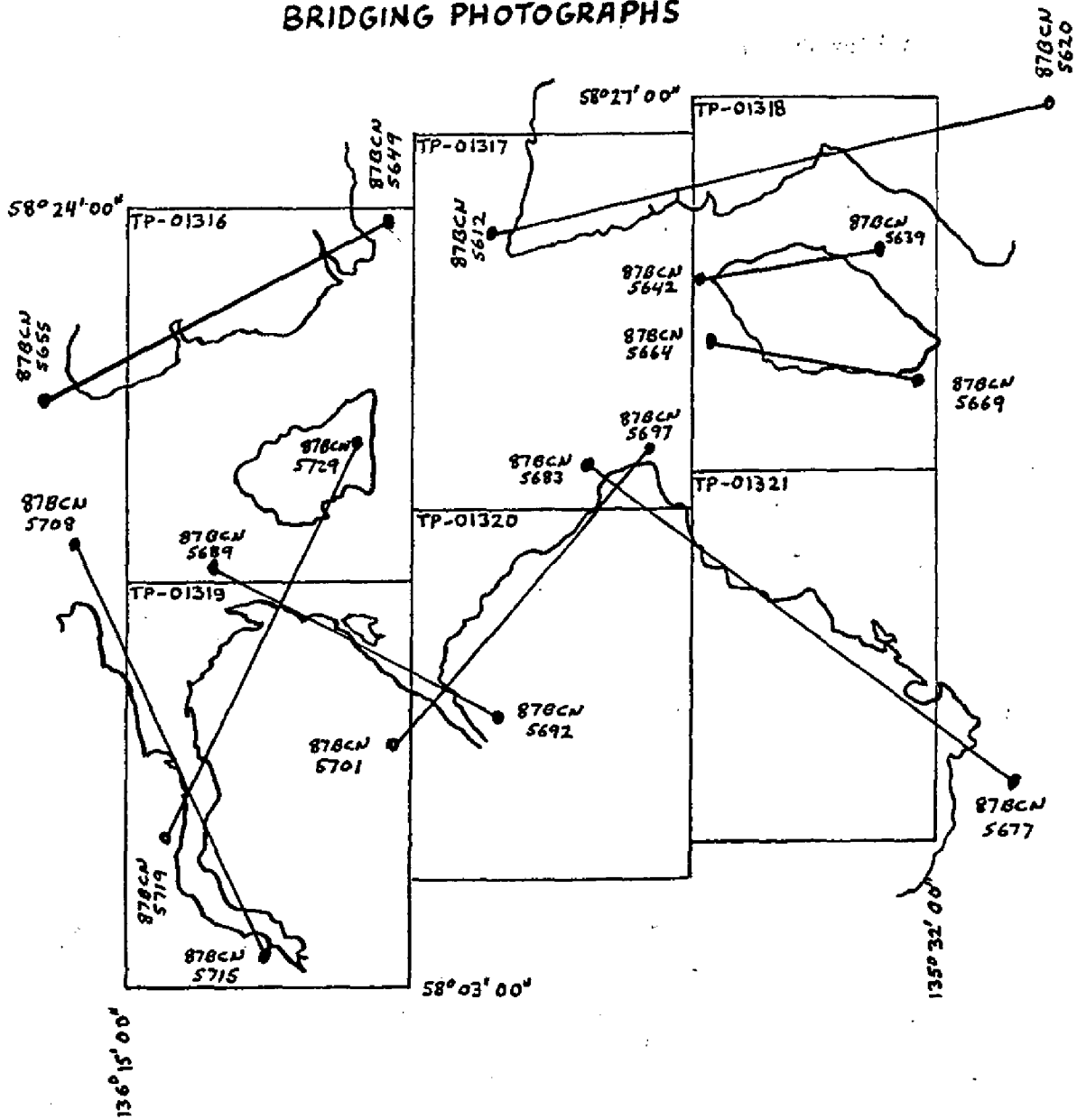
JOB CM-8404
ICY STRAIT
CRIST POINT TO IDAHO INLET
ALASKA
SHORELINE MAPPING
SCALE=1:20,000

HORIZONTAL CONTROL

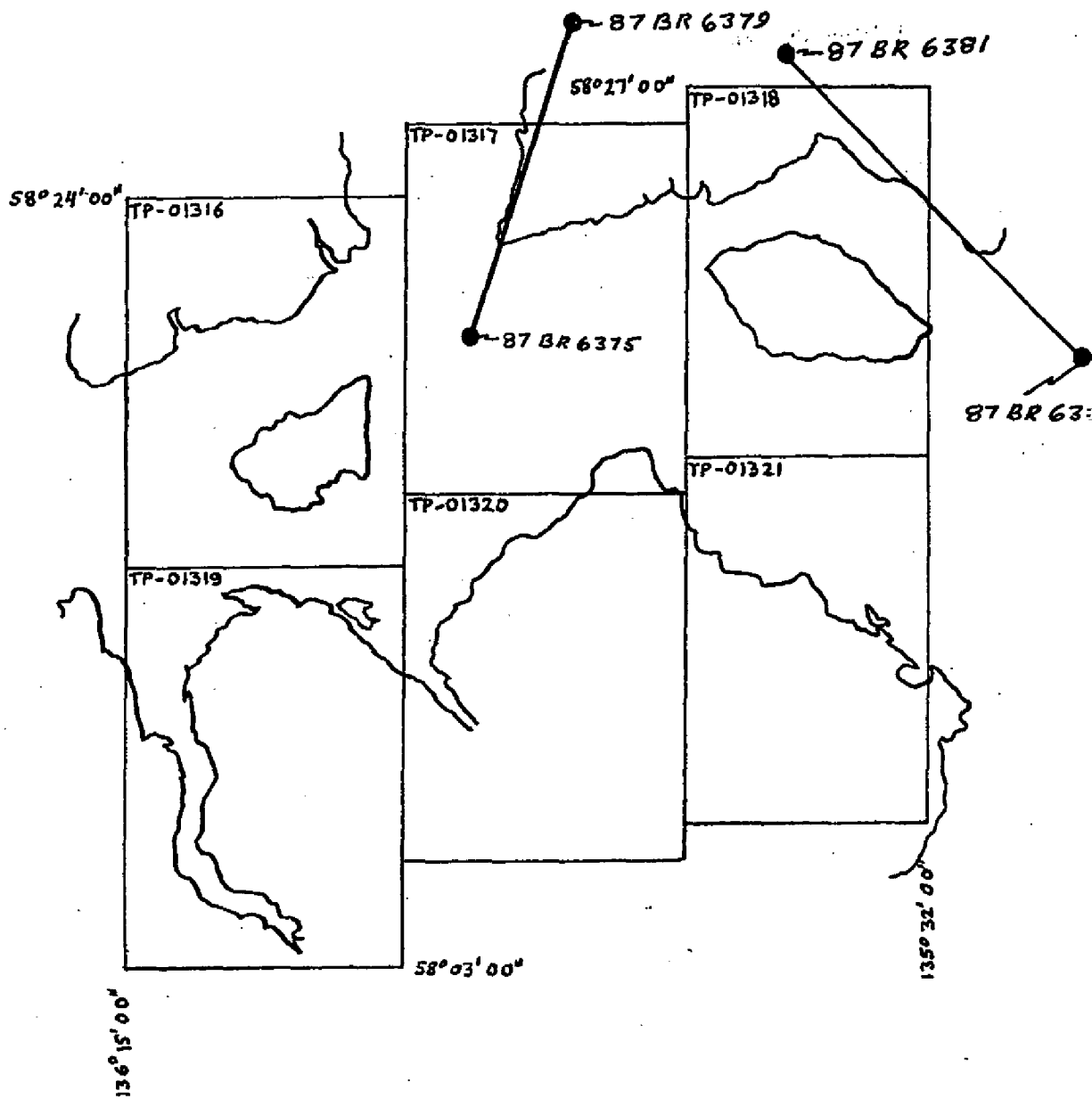


JOB CM-8404
ICY STRAIT
CRIST POINT TO IDAHO INLET
ALASKA
SHORELINE MAPPING
SCALE=1:20,000

BRIDGING PHOTOGRAPHS



JOB CM-8404
ICY STRAIT
CRIST POINT TO IDAHO INLET
ALASKA
SHORELINE MAPPING
SCALE=1:20,000



1:50,000 BLACK & WHITE (INFRARED) MHW

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	GEODETIC DATUM		AEROTRI- ANGULATION POINT NUMBER	SOURCE OF INFORMATION (index)	COORDINATES IN FEET		GEOGRAPHIC POSITION		ORIGINATING ACTIVITY	REMARKS
		STATE	ZONE			ϕ LATITUDE	λ LONGITUDE				
TP-01317	CM-8404	N.A.	1983	613100	Field Control Book	Alaska	1	ϕ 58° 23' 13.034"	λ 135° 49' 27.324"	Unit, AMC, Norfolk, VA	
OOPS, 1987				612100	Field Control Book			ϕ 58° 22' 47.408"			
PT GUSTAVUS WEST BASE, 1923				697100	Field Control Book			λ 135° 54' 44.931"			
ADOLPHUS 2, 1922								ϕ 58° 17' 09.847"			
								λ 135° 46' 58.184"			
								ϕ			
								λ			
								ϕ			
								λ			
								ϕ			
								λ			
								ϕ			
								λ			
								ϕ			
								λ			
COMPUTED BY				DATE				COMPUTATION CHECKED BY			DATE
LISTED BY	R. R. Kravitz			DATE	1/11/88			LISTING CHECKED BY		F. Mauldin	DATE
HAND PLOTTING BY				DATE				HAND PLOTTING CHECKED BY			DATE

COMPILATION REPORT

TP-01317

31. DELINEATION:

Delineation was accomplished using Wild B-8 stereo instrument compilation methods to delineate shoreline, alongshore, and interior detail based upon office interpretation of the 1:50,000 scale bridging/ compilation color photographs. Infrared ratio photographs were used to supplement the bridging/compilation photographs where coverage was available. The available infrared coverage was taken based on predicted tides referred to mean high water.

All photographs used to compile this map are listed on NOAA form 76-36B. The photography was adequate. There were no mean lower low water infrared photographs for this map.

32. CONTROL:

The horizontal control was adequate. Refer to the Aerotriangulation Report, dated December 1987.

33. SUPPLEMENTAL DATA:

None.

34. CONTOURS AND DRAINAGE:

Contours are not applicable to the project. Drainage was compiled from office interpretation of the photographs.

35. SHORELINE AND ALONGSHORE DETAILS:

The mean high water line was compiled from office interpretation of the bridging/compilation photographs. Black and white infrared ratioed photographs were used to assist in the interpretation of the mean high water line as described in item #31.

There was no mean lower low water line compiled on this map.

36. OFFSHORE DETAILS:

Offshore detail was compiled by instrument methods using the 1:50,000 scale bridging/compilation photographs as described in item #31.

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37. LANDMARKS AND AIDS:

There are no charted landmarks and one charted aid to navigation within the limits of this map. The one charted aid could not be located/verified photogrammetrically.

38. CONTROL FOR FUTURE SURVEYS:

None.

39. JUNCTIONS:

Refer to the Data Record Form 76-36B, item 5, of the Descriptive Report.

40. HORIZONTAL AND VERTICAL ACCURACY:

See item #32.

46. COMPARISON WITH EXISTING MAPS:

A comparison was made with the following U.S. Geological Survey Quadrangle:

Juneau (B-6), Alaska; dated 1948, minor revisions 1967; scale
1:63,360

47. COMPARISON WITH NAUTICAL CHARTS:

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

17300; 24th edition; dated June 15, 1985; scale 1:209,978
17302; 14th edition; dated October 3, 1981; scale 1:80,000
17318; 2nd edition; dated January 12, 1985; scale 1:80,000

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ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None.

ITEMS TO BE CARRIED FORWARD:

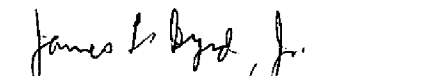
None.

Submitted by:



Robert R. Kravitz
Cartographic Technician
January 22, 1988

Approved:



James L. Byrd, Jr.
Chief, Coastal Mapping Unit

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8404 (Icy Strait, Crist Point to Idaho Inlet, Alaska)

TP-01317

Adolphus, Point

Chichagof Island

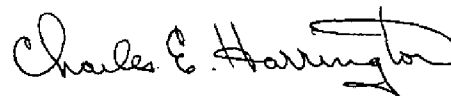
Glacier Bay

Gustavus, Point

Icy Strait

Pinta Cove

Approved:



Charles E. Harrington
Chief Geographer
Nautical Charting Division

REVIEW REPORT
SHORELINE

TP-01317

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 USGS quadrangle: Juneau (B-6), Alaska dated 1948, minor revision 1967, scale 1:63,360.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

There is no contemporary hydrographic survey within the limits of this map.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with the following NOS Charts:

17300, 24th edition, dated June 15, 1985, scale 1:209,978
17302, 14th edition, dated October 3, 1981, scale 1:80,000
17318, 2nd edition, dated January 12, 1985, scale 1:80,000

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:

Lowell O. Neterer, Jr.

Lowell O. Neterer, Jr.

Final Reviewer

February 26, 1988

Approved for forwarding:

Billy H. Barnes

Billy H. Barnes

Chief, Quality Assurance Group, AMC

Approved:

Judy O. Kohorn

Chief, Photogrammetric Production Sec.

A. Y. Bayson

Chief, Photogrammetry Branch

