

TP - 01212

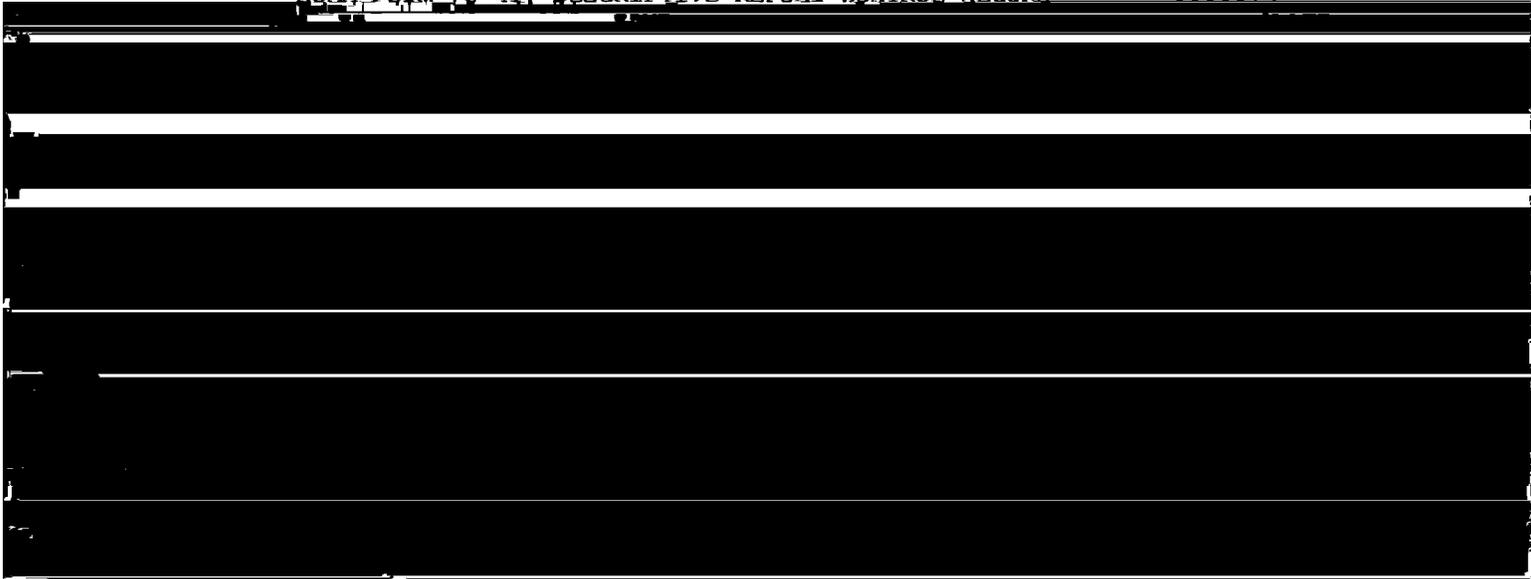
TP - 01212

NOAA FORM 76-35 (6-80)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
this Map Will Not Be Field Edited	
Map No. TP-01212	Edition No. 1
Job No. CM-8402	
Map Classification III	
Type of Survey Shoreline	
LOCALITY	
State Alaska	
General Locality Chatham Strait	
Locality Hawk Inlet	
19 85 TO 19	
REGISTERED IN ARCHIVES	
DATE	

DESCRIPTIVE REPORT

TP-01212

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NOAA FORM 76-36A (3-72) U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN. <h3 style="text-align: center;">DESCRIPTIVE REPORT - DATA RECORD</h3>		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	SURVEY TP. <u>01212</u> MAP EDITION NO. <u>(1)</u> MAP CLASS <u>III</u> JOB <u>XPN. CM-8402</u>
PHOTOGRAMMETRIC OFFICE <p style="text-align: center;">Photogrammetry Branch, Rockville, Maryland</p>		LAST PRECEDING MAP EDITION	
OFFICER-IN-CHARGE <p style="text-align: center;">CDR A. Y. Bryson</p>		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	
OFFICE 8/29/86		FIELD 4/12/85	
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 Oblique Mercator Projection		4. GRID(S)	
		STATE Alaska	ZONE 1
5. SCALE 1:20,000		STATE	ZONE
III. HISTORY OF OFFICE OPERATIONS			
OPERATIONS		NAME	DATE
1. AEROTRIANGULATION BY Edward Allen 9/86 METHOD: Analytical LANDMARKS AND AIDS BY N/A			
2. CONTROL AND BRIDGE POINTS PLOTTED BY Edward Allen 9/86 METHOD: Automated Plotter (Calcomp) CHECKED BY N/A			
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY David Butler 10/86 COMPILATION CHECKED BY James Massey INSTRUMENT: Wild B-8 Stereoplotter CONTOURS BY N/A SCALE: 1:20,000 CHECKED BY N/A			
4. MANUSCRIPT DELINEATION PLANIMETRY BY David Butler 11/86 CHECKED BY Robert Rodkey 1/87 METHOD: Smooth Drafted CONTOURS 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 BY Robert Rodkey 1/87			
8. FINAL REVIEW BY Robert Rodkey 2/87			
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY Robert Rodkey 3/87			
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY Gregory Fromm 3/87			
11. MAP REGISTERED - COASTAL SURVEY SECTION BY EUGENE L. DAUGHERTY APR 87			

COMPILATION SOURCES

TP-01212

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-10 (Z) CFL=153.14mm Wild RC-10 (R) CFL=152.74mm		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (R) INFRARED	TIME REFERENCE	
TIDE STAGE REFERENCE <input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY			ZONE Pacific	<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT
			MERIDIAN 135th	

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
85Z (C) 3233 - 3238	6/28/85	2252 - 2255	1:50,000	+4.7 FT MLLW
85B (R) 5075 - 5079	5/22/85	1907 - 1909	1:50,000	+0.3 FT MLLW
NOTE: The range of tide = 14.2 FT				

REMARKS
Tidal stages are based on predicted tides using subordinate site Swanson Hbr. and reference station Juneau, Alaska.

2. SOURCE OF MEAN HIGH-WATER LINE:

The source of the Mean High Water Line is the natural color photographs listed above.

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

The source of the approximate Mean Lower Low Water Line is the black and white infrared photographs listed 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	None	EAST	None	SOUTH	None	WEST	None
-------	------	------	------	-------	------	------	------

REMARKS

HISTORY OF FIELD OPERATIONS

TP-01212

- I. FIELD OPERATION FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. Vandermeulen	6/85
2. HORIZONTAL CONTROL	RECOVERED BY PMC Field Party	6/85
	ESTABLISHED BY N/A	
	PRE-MARKED OR IDENTIFIED BY PMC Field Party	6/85
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 N/A	
	LOCATED (Field Methods) BY N/A	
	IDENTIFIED BY N/A	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	N/A
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
Premarked
2. VERTICAL CONTROL IDENTIFIED
N/A

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
85Z(C) 3237	ANGLO 1983 ANGLO AZ 1983 Sub Point		
85Z(C) 3235	GAUL 1983		
85Z(C) 3234	BAD 2		
85Z(C) 3236	2292 D TIDAL BM Sub Point (no position)		

3. PHOTO NUMBERS (Clarification of details)
Not applicable

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)
Refer to the listing " Index to Project Data and Material on File ", which is bound with this Descriptive Report, for information on this subject.

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Final Reviewed Class III Map	3/87	Chart Maintenance pnt.	3/87	

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
1			Charted Landmarks and Fixed Aids listing

2. REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: None
 3. REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: None

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: 4/17/87

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

Project CM-8402 was planned to provide one 1:20,000 scale shoreline map, which was assigned the map number TP-01212. The photogrammetric survey depicts the mean high and mean lower low water lines and cartographic features of mapping interest within Hawk Inlet and the adjacent shoreline of Chatham Strait, which is located in the southeastern section of Alaska.

The purpose of the project is to provide contemporary photogrammetric survey data in support of the 1:40,000 scale chart inset of Hawk Inlet, which is depicted in graphic form on National Ocean Service Nautical Chart No. 17316.

Field operations in support of the photogrammetric survey took place in May and June 1985 and consisted of aerial photography and the recovery, establishment and identification (premarking) of horizontal control necessary for aerotriangulation. No field inspection of the shoreline was performed during field operations. Natural color photographs were acquired at 1:50,000 scale for basic aerotriangulation and compilation. Black and white infrared photo-



office interpretation of the ratioed 1:50,000 scale black and white infrared photographs. Tidal stage data was provided for 15 minute intervals for the dates of the color and infrared photography based on predicted tides using subordinate site Swanson Harbor and reference station Juneau, Alaska. The placement, density and quality of the aerotriangulated control was adequate for controlling the stereographic models. All line work was smooth drafted.

A comparison was made with registered hydrographic survey H-10087 for which hydrographic survey operations were conducted in Hawk Inlet and adjacent area of Chatham Strait in April and May 1983. The survey, in graphic form, was registered in March 1985. Since the hydrographic survey preceded the photogrammetric survey of the same geographic area, a comparison at map scale was made. A two time reduction of the hydrographic survey smooth sheet was acquired from the agency's Reproduction Branch. The results of the comparison are indicated on the Chart Maintenance Print which was forwarded to the Marine Chart Branch of the Rockville, Maryland office.

The final review phase was initiated in February 1987 in the Coastal Mapping Unit of the Rockville, Maryland office. The shoreline map and associated discrete point data of this project were evaluated as meeting the requirements of the National Standards of Map Accuracy. The shoreline map, reports and data sets comply with the requirements specified in the project instructions. Standard procedures were adhered to for the compilation, drafting and reproduction of this map. Standard procedures were also adhered to for the generation of reports, data listings and standard data sets, which are germane to the type of survey and intended use. All source data and photogrammetric measurement instruments meet the standards of accuracy established for the disciplines of field surveying and photogrammetry and those specified in the project instructions.

The Descriptive Report prepared for the map contains all the information pertinent to the completion of the map.



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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

August 8, 1985

TO: N/CG2313 - Jim McNamara

Michael J. McEwen

FROM: N/MOP222 - Michael J. McEwen

SUBJECT: Photo, Field Operations Report, Job CM-820⁴², Hawk Inlet -
Chatham Strait, Southeast Alaska, Shoreline Mapping

This report covers the shoreline area of Hawk Inlet and a portion of the east side of Chatham Strait just south of Hawk Inlet.

The field work was accomplished in May 1985 by the Pacific Photogrammetric Party and crew of the NOAA Ship RAINIER.

Air photo panels were placed in each office-selected area and, when required, distances and directions were observed in the field to permit the computation of positions of the substitute stations. A position for subpoint panel #2 is unavailable. The station used for an initial was a tidal bench mark which did not have a geodetic position, and without this starting azimuth a position for the subpoint could not be calculated.

Each photo panel has been entered on a Form 76-53, Control Station Identification, with information pertinent to the involved station.

Attachment



FIELD NOTE
FIELD JOB CM-8402
ALASKA SHORELINE MAPPING

INTRODUCTION

In accordance with Project Instructions: Field Job CM-8402, Hawk Inlet, Chatham Strait, Alaska, Shoreline Mapping, the RAINIER established four 1:50,000 scale photo panels. The work done by the RAINIER completes the requirements for Field Job CM-8402.

FIELD WORK

All field work was carried out in compliance with the project instructions. The following table lists the 1:50,000 scale photo panels established by the RAINIER.

AREA	REFERENCE STATION	METHOD
#1	BAD 2 1925	Direct
#2	2292D TIDAL BM	Sub Point
#3	GAUL 1983	Direct
#4	ANGLO 1983	Direct

All panels in the table above are type 1 arrays.

The sub point was established by traverse from the reference station. The distance to the sub point was taped and two plates were observed on a T-2 theodolite. Vertical angles were observed in all cases to reduce measured distances to geodetic distances. All field work was recorded on NOAA Form 76-53 for each panel established. These forms are appended to this report.

A problem was discovered with the sub point established by traverse from station 2292D TIDAL BM. The initial station used for azimuth observations was 2292E TIDAL BM, which does not have a geodetic position. As a result, the position for the sub point cannot be determined.

AEROTRIANGULATION REPORT
Hawk Inlet, Alaska
CM-8402

21. Area Covered

This project covers the shoreline area of Hawk Inlet and a portion of the east side of Chatham Strait just south of Hawk Inlet. The area is covered by one 1:20,000 scale sheet, TP-01212.

22. Method

One strip of 1:50,000-scale color photographs was bridged by analytical aerotriangulation methods and adjusted to ground with the Analytic Strip Adjustment Program. Four premark horizontal control stations were used in the adjustment. There were no Aids and landmarks located during the bridging operation. Ratio values were determined for the black-and-white infrared photographs (1:50,000 scale) which are to be used for delineating MLLW. Ruling of manuscripts and plotting of points were done on the Calcomp 718 plotter using the Alaska State Plane Coordinate System (Zone 1).

23. Adequacy of Control

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

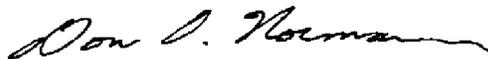
24. Supplemental Data

The USGS Topographic quadrangles were used to provide control for the project.

25. Photography

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

Approved and Forwarded

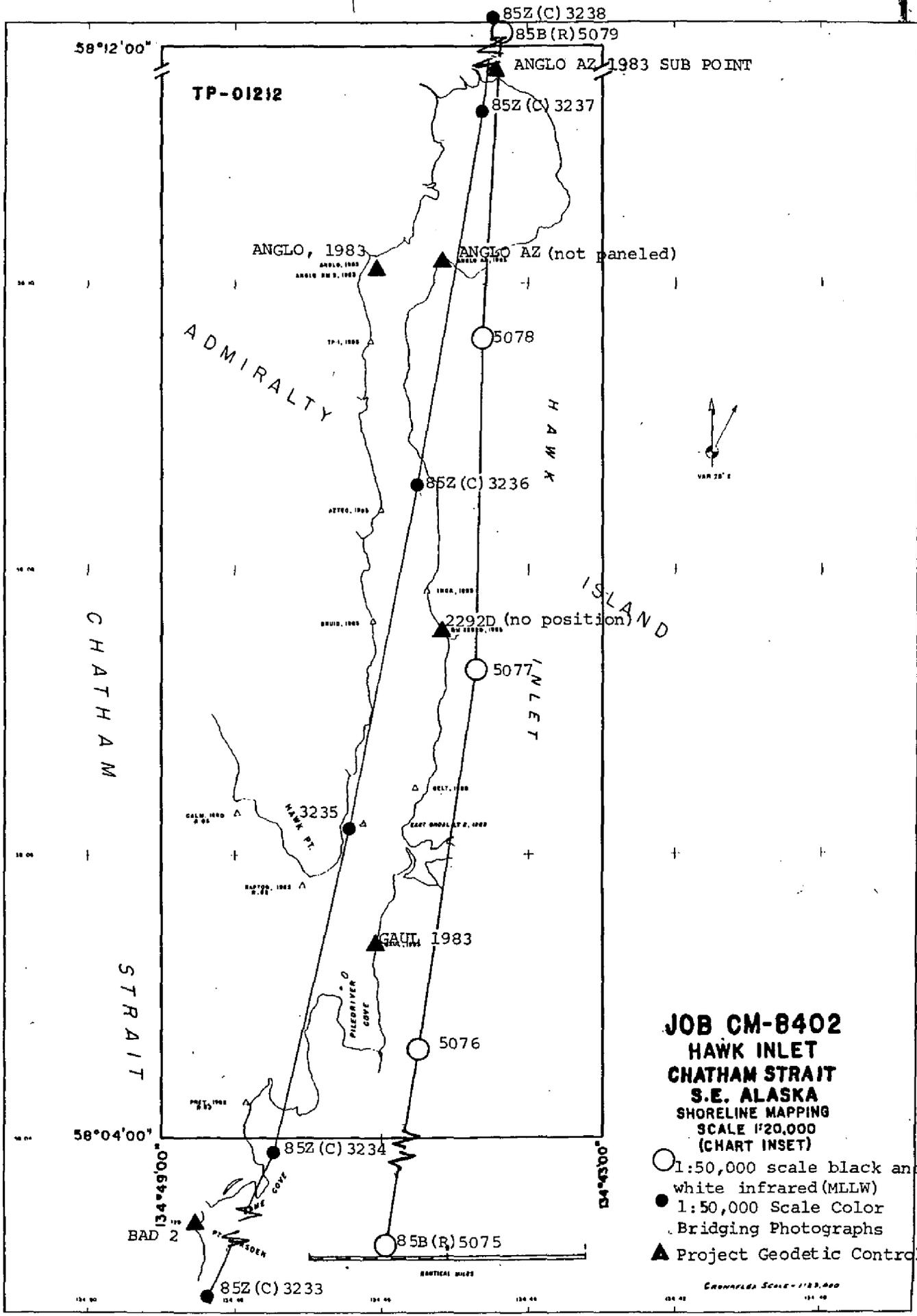


Don O. Norman
Chief, Aerotriangulation Unit

Submitted by



Edward D. Allen



JOB CM-8402
HAWK INLET
CHATHAM STRAIT
S.E. ALASKA
 SHORELINE MAPPING
 SCALE 1:20,000
 (CHART INSET)

- 1:50,000 scale black and white infrared (MLLW)
- 1:50,000 Scale Color Bridging Photographs
- ▲ Project Geodetic Control

GRAPHICAL SCALE - 1:20,000

Fit to Control

<u>Point No.</u>	<u>Station Names</u>	<u>Values of Feet</u>	
		<u>X</u>	<u>Y</u>
▲ 237101	ANGLO AZ 1983 (Sub Pt.)	-0.440	-1.404
▲ 237100	ANGLO, 1983	0.181	2.271
▲ 235100	GAUL 1983	0.077	1.639
▲ 234100	BAD 2	0.255	0.737

▲ Stations held in the strip adjustment.

Ratio Value
CM-8402

Ratio values for 1:50,000-scale black and white infrared.

Photographs are:

85-B(R)-5075-5079 X 2.45

COMPILATION REPORT

TP-01212

31. Delineation

Delineation was accomplished using a Wild B-8 stereoplotter through application of standard compilation techniques. Delineation of the shoreline, alongshore, offshore and interior cartographic features was based on office interpretation of the 1:50,000 scale natural color photographs. Delineation of an approximate mean lower low water line was accomplished by graphic compilation based on office interpretation of the ratioed 1:50,000 scale black and white infrared photographs.

32. Control

Horizontal control furnished as a result of analytic aerotriangulation was



38. Control for Future Surveys

Refer to NOAA Form 76-41 bound with this Descriptive Report for information on recoverable control for future surveys.

39. Junctions

Refer to item 5 of NOAA Form 76-36B(Data Record), which is bound with this Descriptive Report, for information on map junctions.

40. Horizontal and Vertical Accuracy

This map and associated data meet the requirements of the National Standards of Map Accuracy. For an evaluation of the aerortiangulated and geodetic project control, refer to the Aerotriangulation Report bound with this Descriptive Report.

41. through 44. - Not applicable

45. Comparison with Registered Hydrographic Survey

A comparison was made with registered hydrographic survey H-10087. Refer to the Summary bound with this Descriptive Report for more information on the comparison. The results of the comparison are noted on the Chart Maintenance Print which will be forwarded at the conclusion of the project.

46. Comparison with Existing Maps

Comparison with existing maps was not a requirement of this project.

47. Comparison with NOS Nautical Charts

A comparison was made with the following NOS Nautical Chart:

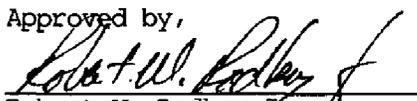
17316, 14th Edition, October 30, 1982; 1:80,000 scale with a 1:40,000 scale inset of Hawk Inlet.

A Chart Maintenance Print indicating the results of the comparison will be forwarded to the Marine Chart Branch, Rockville, Maryland. Refer to the print for items to be immediately applied and carried forward.

Submitted by,


David Butler
Cartographer(Photogrammetry)

Approved by,


Robert W. Rodkey, Jr.
Chief, Coastal Mapping Unit

REVIEW REPORT

TP-01212

61. General Statement

Refer to the Summary bound with this Descriptive Report for an overview of the photogrammetric operations related to the production of this map and completion of this project.

62. Comparison with Registered Topographic Surveys - Not applicable**63. Comparison with Maps of Other Agencies - Not applicable****64. Comparison with Hydrographic Surveys**

For more information on this subject, refer to the Summary and item 45 of the Compilation Report, which are bound with this Descriptive Report.

65. Comparison with NOS Nautical Charts

Refer to item 47 of the Compilation Report bound with this Descriptive Report for information on this subject.

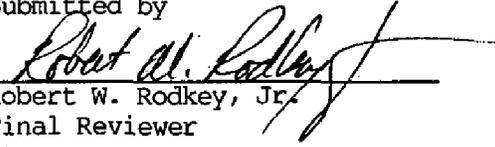
66. Adequacy of Results and Future Surveys

This map meets the National Standards of Map Accuracy and the requirements specified in the project instructions. No mapped features are of a nature which requires critical investigation in future surveys.

67. Quality Assurance

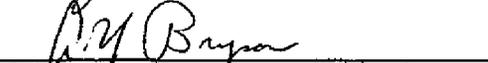
Standard procedures were adhered to for the compilation, drafting and reproduction of this map. Standard procedures were also adhered to for the generation of reports, data listings and standard data sets, which are germane to the type of survey and intended use. All source data and photogrammetric measurement instruments meet the standards of accuracy established for the disciplines of field surveying and photogrammetry and those specified in the project instructions.

Submitted by


Robert W. Rodkey, Jr.
Final Reviewer

Approved by,


Acting Chief, Photogrammetric Production Section


Chief, Photogrammetry Branch

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8402 (Hawk Inlet, Alaska)

TP-01212

Admiralty Island

Chatham Strait

Greens Creek

Hawk Inlet

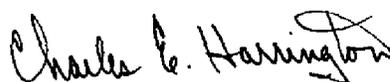
Hawk Inlet (locality)

Hawk Point

Mansfield Peninsula

Piledriver Cove

Approved:



Charles E. Harrington
Chief Geographer
Nautical Charting Division
Charting and Geodetic Services

INDEX TO PROJECT DATA AND MATERIAL ON FILE**CM-8402****HAWK INLET, CHATHAM STRAIT, ALASKA****NATIONAL ARCHIVES/FEDERAL RECORDS CENTER****Brown Jacket:**

- One binder containing data relating to OPR-0363-FA-83 used in project CM-8402
- One binder containing Original Field Data for Project CM-8402
- One binder containing Photo Panel Recovery Report and associated information
- One envelope containing one copy of the project diagram, one copy of NOAA Form 76-41(1 page), one copy of the Aero-triangulation Report

Project Completion Report**AGENCY ARCHIVES**

- Registration Copy of the Map
- Descriptive Report of the Map

PHOTOGRAMMETRIC ELECTRONIC DATA LIBRARY

There is no digital data for this project.

REPRODUCTION BRANCH

- 8X Reduction Negative of Map

OFFICE OF THE STAFF GEOGRAPHER

- Geographic Names Standard

CHARTED LANDMARKS AND NONFLOATING AIDS TO NAVIGATION LISTING

Page 1 of 1

PROJECT: CM-8402; Hawk Inlet, Chatham Strait, Alaska

MAP NUMBER: TP-01212

GEODETTIC DATUM: NAD 27

The following charted landmarks and nonfloating aids to navigation have been measured and or confirmed during photogrammetric operations. Refer to Nautical Charting Division Standard Digital Data Exchange Format documentation for quality code (QC) criteria and clarification of cartographic codes (CC).

<u>FEATURE DESCRIPTION</u>	<u>NCD CC</u>	<u>GEOGRAPHIC POSITION(°-'-")</u>		<u>NCD QC</u>	<u>DATE OF LOCATION</u>
		<u>LATITUDE</u>	<u>LONGITUDE</u>		
Hawk Inlet Favorite Channel					
East Shoal Light 2	200	58-06-13.074	134-46-15.877	3	6/28/86
- end -					

LISTED BY: David ButlerDATE: October, 1986CHECKED BY: Robert RodkeyDATE: February, 1987

