PHOTOGRAMMETRY BRANCH
COASTAL MAPPING PROGRAM
PROJECT CM-8408
COMPLETION REPORT
ALASKA
WASHINGTON AND ROWAN BAYS, BAY OF PILLARS
TP-01322 thru TP-01324

Agency Use H— ORIGINAL

PHOTOGRAMMETRY BRANCH
COASTAL MAPPING PROGRAM

PROJECT CM-8408
COMPLETION REPORT
ALASKA
WASHINGTON AND ROWAN BAYS, BAY OF PILLARS
TP-01322, TP-01323, TP-01324

1987

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
OFFICE OF CHARTING AND GEODETIC SERVICES
NAUTICAL CHARTING DIVISION

PHOTOGRAMMETRY BRANCH
COASTAL MAPPING PROGRAM

PROJECT CM-8408
COMPLETION REPORT
ALASKA
WASHINGTON AND ROWAN BAYS, BAY OF PILLARS
TP-01322, TP-01323, TP-01324

Clearance and Approval

This report summarizes the photogrammetric operations related to project completion and is submitted for approval. The maps, associated project data, and this report meet the requirements and standards of the Photogrammetry Branch Coastal Mapping Program. Clearance for project registration is requested.

Submitted by,

James L. Byrd, Jr.

James L. Byrd, Jr.

Chief, Coastal Mapping Unit

APPROVED:

Fidel Smith 8/3/90

Section Chief Date
Chief, Field Photogrammetry Section

for Ryan Thomas 10/23/90

Branch Chief Date
Chief, Photogrammetry Branch
Nautical Charting Division, Office of Geodetic Charting Services

COMPLETION REPORT

COASTAL MAPPING PROGRAM PROJECT CM-8404

WASHINGTON AND ROWAN BAYS, BAY OF PILLARS

ALASKA

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COASTAL MAPPING PROGRAM PROJECT CM-8408
PROJECT SUMMARY

INTRODUCTION

Project CM-8408 Washington and Rowan Bays, Bay of Pillars, Alaska consists of three maps TP-01322 at 1:10,000 scale and TP-01324 and TP-01323 at 1:20,000. All maps are based on the North American Datum 1983 (NAD 83) depicted by the Oblique Mercator Projection and offset tick for the NAD 27.

This project extends from Washington Bay latitude 56°45'00" longitude 134°25'00" southeast to Point Ellis latitude 56°33'00" latitude 134°24'00" including Bay of Pillars, Rowan Bay and all adjacent waters.

PLANNING

This project was planned in support of the Nautical Charting Program. It was determined that the three maps were needed to meet the project requirements.

Planning included the selection of 4 horizontal control stations to control 5 strips of color photography: 1 strip of color photography at 1:30,000 scale, 4 strips of color photography at 1:50,000 scale.

There are 3 strips and 3 single photographs of black and white tide coordinated infrared photography: 2 single photographs at 1:30,000 scale, 3 strips and 1 single photograph at 1:50,000 scale. All of the photographs were needed to meet the requirements for completing this photogrammetric survey.

FIELD OPERATION

Refer to the Premarking Reports included in Appendices A and B of this Completion Report.

The cameras used for the acquisition of the photography to meet the requirements for this project were:

Wild RC-10Z (focal length 153.15 millimeters), serial number Z-1391
Wild RC-10B (focal length 152.74 millimeters), serial number B-1777

AEROTRIANGULATION

Refer to the Aerotriangulation Report included in Appendix C of this Completion Report.

COMPILATION

Compilation was accomplished at the Atlantic Marine Center from April 1990 through July 1990.

The maps were compiled according to the Coast and Geodetic Services (C&GS) Topographical Manual, the applicable National Ocean Sevice Photogrammetric instructions and standard compilation methods.

The Wild B-8 stereo instruments B8-2109 and B8-2125 were used to compile the maps by analog methods.

Ratioed infrared MLLW tide coordinated photography was used to graphically compile the MLLW line on this project.

Refer to the Map Compilation Sources pages included in Appendix E for the number, type data, and scale of the photographs used for each map.

The maps, junction sheet labels and descriptive notes were smooth drafted. The project formats were applied with wax-back stickup.

The selection of Geographic Names came from United States Geological Surveys (USGS) quadrangles and National Ocean Service (NOS) charts. They were submitted to the Chief Geographer of the Nautical Charting Division and were approved.

FINAL REVIEW

The final review of this project began July 1990 and was completed July 1990.

There were no prior surveys in this area to junction with this project area.

Included with the appendices is the approved listing of discrete point data for application in the nautical charting program.

This project meets the requirements for the National Standards of Map Accuracy.

A comparison was made between the maps and the following National Ocean Service charts:

CHART	EDITION	SCALE	DATE
17320	13th	1:217,828	February 25,1989
17370	9th	1:20,000	November 28, 1987
17376	5th	1:40,000	April 11, 1981

Differences were noted on Chart Maintenance Prints.

DISSEMINATION OF PROJECT DATA AND PRODUCTS

National Archives/Federal Records Center:
Copy of the Project Completion Report
Brown jacket contents, e.g. field data, Aerotriangulation

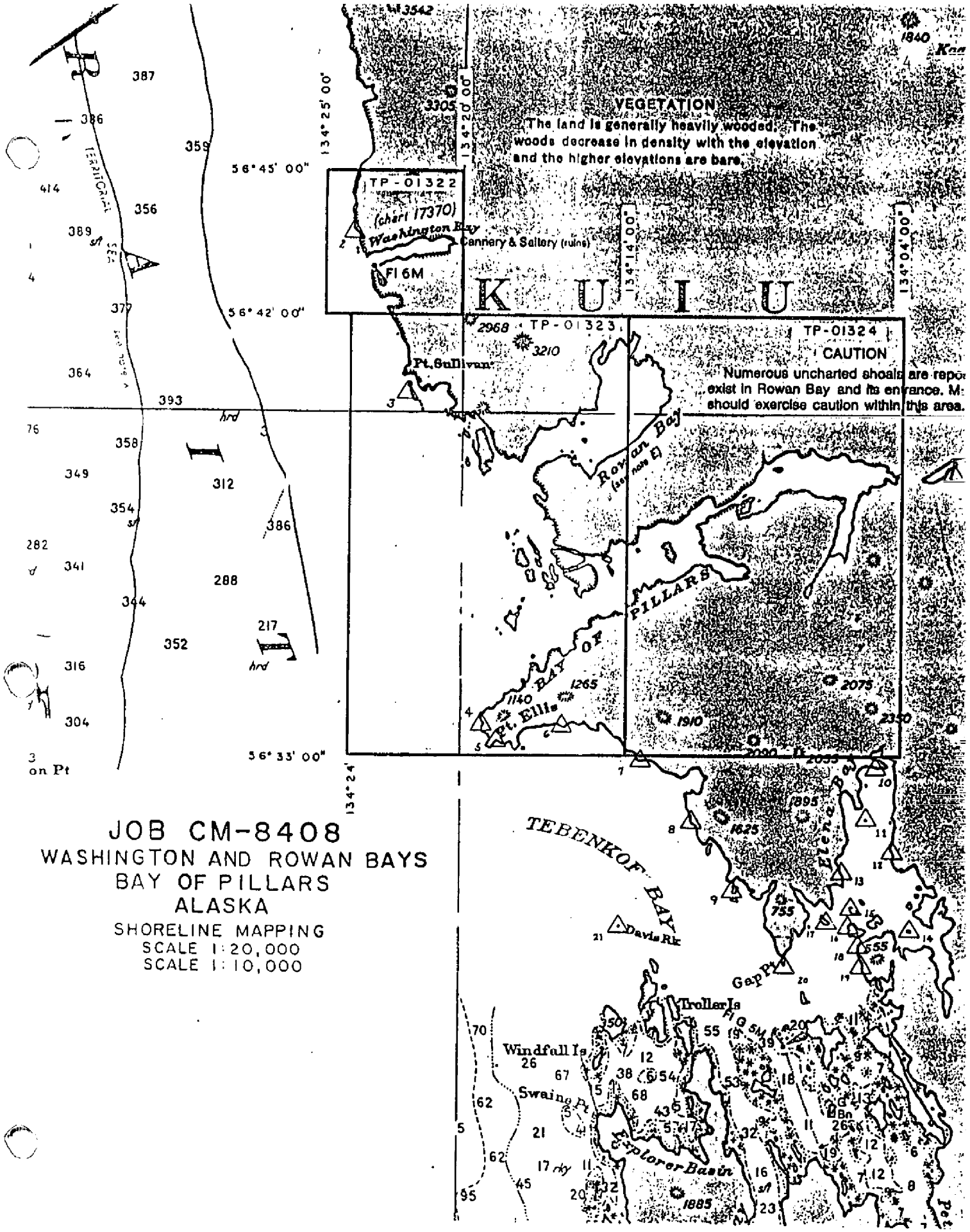
Agency Archives:
The original Project Completion Report
Registration copy of each map

Photogrammetric Electronic Data Library
Not applicable

Reproduction Branch Aeronautical Charting Division
8x reduction negative of each map

Mapping and Charting Branch
Abbreviated copy of the Project Completion Report
Chart Maintenance Prints

Hydrographic Surveys Branch
Notes to Hydrographer Prints
Copies of Cartographic Features of Charting Interest Forms



JOB CM-8408

WASHINGTON AND ROWAN BAYS
BAY OF PILLARS
ALASKA

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

PROJECT GEODETIC CONTROL LISTING

PROJECT: CM-8408

GEODETIC DATUM: North American Datum of 1983

The following permanent geodetic control was recovered or established during photogrammetric operations. Data pertaining to stations is resident in the National Geodetic Survey Division (NSGD) Horizontal Control Databank.

Refer to Nautical Charting Division Standards Digital Data Exchange Format documentation for quality codes (QC) criteria..

STATION NAME	QUAD	GEODETIC COORDINATES (°-'-") LONGITUDE	LATITUDE	QC	DAY/YEAR
JUT,1897	561341	56°43'44.380"	134°24'03.962"	3	001/1897
SULLIVAN 2, 1925	561341	56°40'27.343"	134°22'08.014"	3	001/1925
BERRY	561341	56°35'30.945"	134°18'08.172"	3	001/1982
BEN,1926	561341	56°30'23.612"	134°06'12.857"	3	001/1926
KINGSMILL,1897	561341	56°50'00.179"	134°25'19.894"	3	001/1897

REMARKS:

All geodetic survey operations were performed by Office of Charting and Geodetic Sevices personnel in October 1987.

Listing approved by: James L. Byrd, Jr. 8/08/90

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

Date

APPENDICES

APPENDIX A

PROJECT FIELD INSTRUCTIONS

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF CHARTING AND GEODETIC SERVICES
ROCKVILLE, MARYLAND 20852

March 23, 1987 N/CG2313:JDM

Chief, Program Services Division
Pacific Marine Center

PROJECT INSTRUCTIONS: FIELD - Job CM-8408, Washington Bay, Rowan Bay, and Bay of Pillars, Alaska, Shoreline Mapping

1.0. PURPOSE

These instructions provide specifications and a schedule for placing targets on horizontal control stations in advance of aerial photography.

2.0. AREA

The area to be mapped is located in southeast Alaska on the east shore of Chatham Strait. Shoreline mapping at 1:20,000 scale will cover the shoreline, offshore islands, and adjacent waterways, including the north portion of Tebenikof Bay. Mapping at 1:10,000 scale will cover the shoreline in the vicinity of Washington Bay.

3.0. PHOTOGRAPHY

3.1. Aerotriangulation photography at 1:50,000 scale and supplemental bridging and compilation photography at 1:30,000 scale will be obtained using color film. Also, 1:50,000- and 1:30,000-scale black-and-white infrared photography will be obtained at mean high water and mean lower low water ±1.0 foot based on predicted tides (tide station Kuiu Island, based on Sitka, will be used).

3.2. If target configuration and placement necessitate it, target identification photography may be obtained at 1:15,000 scale and may be flown at less than optimum photographic conditions.

4.0. ASSIGNMENT

You are assigned all field operations required to place targets on horizontal control stations selected for aerotriangulation.

5.0. HORIZONTAL CONTROL

5.1. The horizontal datum for this project is the North American Datum of 1983.

5.2. Horizontal control requirements for aerotriangulation have been furnished as part of the field data.

5.3. Limit recovery of horizontal control stations to those needed to meet aerotriangulation requirements. Prepare and submit recovery notes for each station for which a search was made.

5.4. New control stations, where needed, shall be established by triangulation, trilateration, traverse, satellite positioning, or a combination of the four methods, in accordance with Third-Order, Class I specifications provided in Standards and Specifications for Geodetic Control Networks, dated September 1984.

5.5. Notify N/CG2313 if recovery of existing control does not meet aerotriangulation requirements. An alternative will be selected, if possible, to avoid establishing new control.

6.0. PREMARKING OF CONTROL

6.1. As soon as possible after all control stations have been paneled, the field party will forward to N/CG2313 a chart section, quad, or any graphic depicting the station location, panel array used, and the panel number. This will assist in the film quality review and target identification and will help expedite the results to the field unit.

6.1.1. Wing panels will be used with all targets in accordance with established specifications but may be modified to conform with local terrain conditions.

6.2. Aerotriangulation Control

6.2.1. Panel each station selected to meet horizontal control requirements in accordance with specifications given on the attached sheet for 1:50,000-scale photography.

6.2.2. Use panel array No. 1 for targets with a normal background; it may be modified, as necessary, to conform with local terrain conditions. Any deviation from given panel and spacing dimensions should be indicated on the large-scale sketch on NOAA Form 76-53, Control Station Identification Card.

6.2.3. Panel array No. 3 shall be used in areas where the background offers poor contrast to the center panel, such as on sandy terrain.

6.2.4. The distance given for dimension "C" may be increased, but not decreased.

6.2.5. Panel substitute stations wherever shadows or relief displacement will obscure the home stations. Reference marks may be paneled in lieu of the main station, if a position can be determined for it.

6.2.6. In cases where the target might be subject to vandalism, select two photoidentifiable objects. Observe directions and distances to them from the home station and record with sketch and description on separate NOAA form 76-53.

7.0. CONTROL STATION IDENTIFICATION CARD

Prepare and submit a NOAA form 76-53 for each paneled station. Observe Photogrammetric Instruction No. 22, Revised September 30, 1965, except as follows:

a. Record distances and directions in the usual manner to the center of the station panel of all targets used as substitutes for horizontal control stations.

b. In the space provided for the sketch of Substitute Station A, make a large-scale sketch of the immediate vicinity showing the array used.

c. In the space provided for a sketch of Substitute Station B, make a smaller scale sketch that shows the relationship of the target to the surrounding terrain. Include one or more salient features to assist office personnel in locating the target on the photographs.

d. Indicate on suitable chart bases the approximate locations of all targets placed.

8.0. SCHEDULE

All stations shall be premarked and ready for photography by June 25, 1987. If premarking is not completed by this date, inform N/CG2313 so this information can be relayed to the air photo mission.

9.0. REPORT

A field operations report covering all pertinent field work performed is required upon completion of the field phase of this project. The report shall be accompanied by all field data observed and collected and forwarded to N/CG2314.

10.0. MODIFICATIONS OF INSTRUCTIONS

If changes in procedures and methods seem advisable, please make appropriate recommendations to this office.

11.0. COSTS

All costs incurred on this assignment shall be charged to Task 8K6C01.

12.0. RECEIPT

Acknowledge receipt of these instructions.

Christian Andreasen

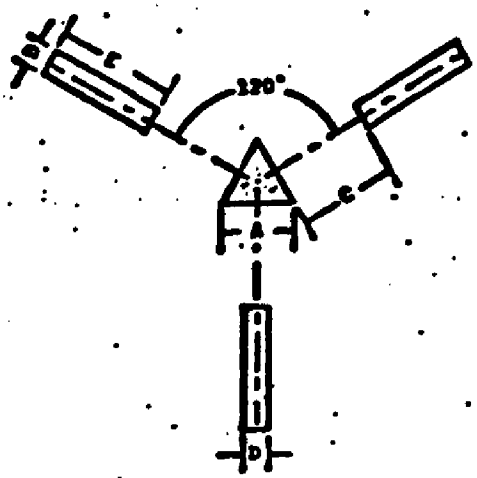
Robert L. Sandquist
Director
Pacific Marine Center

Christian Andreasen
Chief, Nautical Charting Division
Charting and Geodetic Services

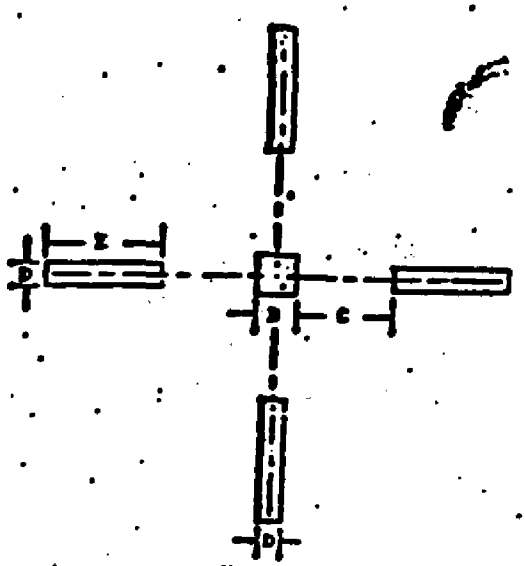
SPECIFICATIONS FOR PREMARKING CONTROL STATIONS

Revised November 23, 1976

ARRAY NO. 1



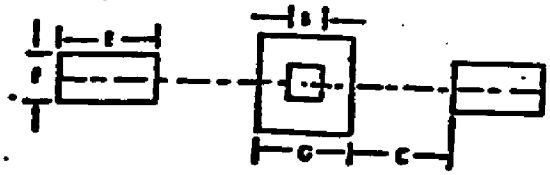
ARRAY NO. 2



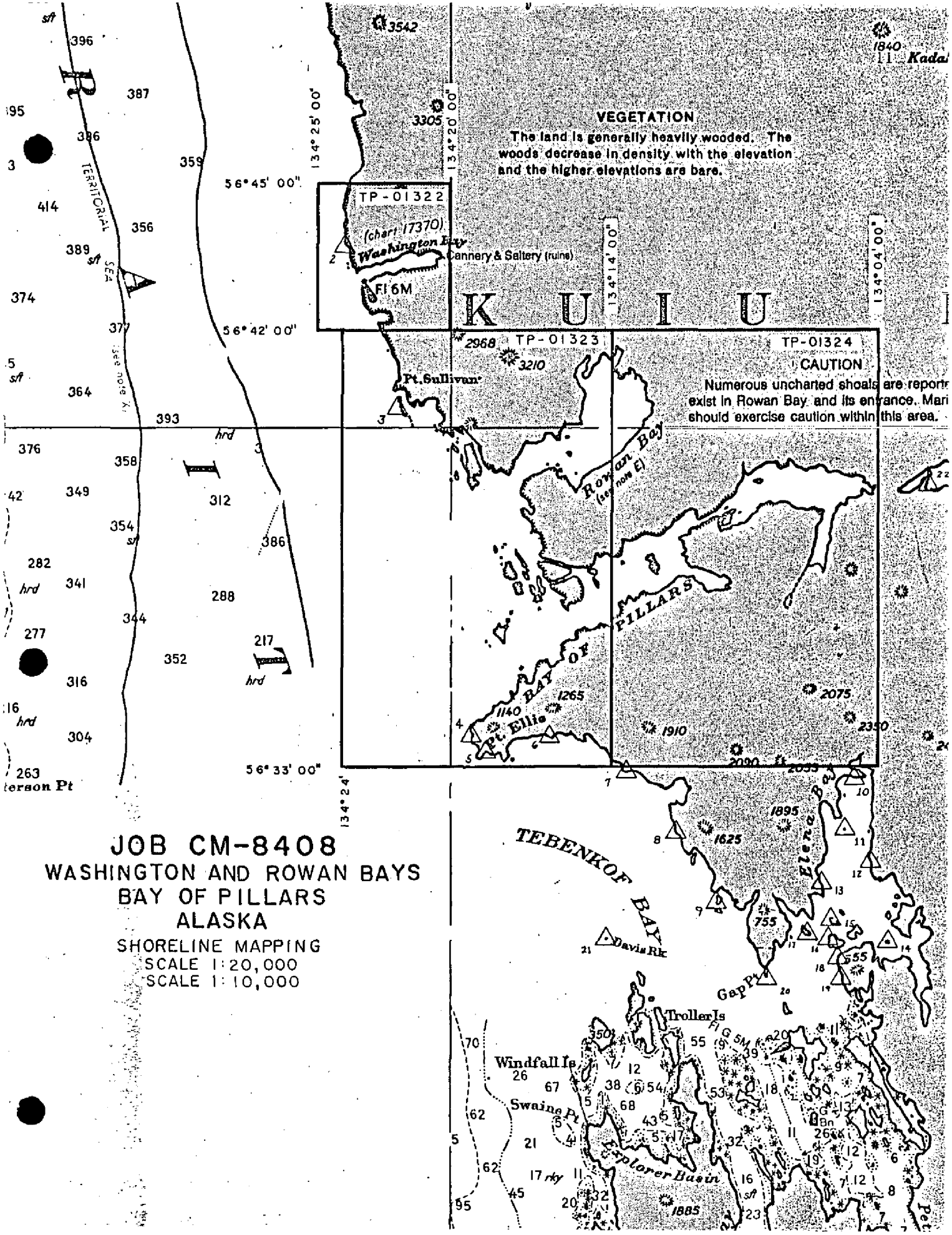
NOTE:

1. The dimensions and centering of center panel over station or substitute station are critical.
2. Panel array No. 1 is preferred but No. 2 is acceptable.
3. Array No. 3 - for contrast in very light colored areas. The border surrounding center panel and the recognition panels shall be black.
4. Chief of party will select array that makes best application of field conditions and is authorized to adjust or omit one of the recognition panels if terrain is not suitable for placement of entire array.

ARRAY NO. 3



Photography Scale	PANEL AND SPACING DIMENSIONS (IN METERS) A	B	C	D	E	F	G
1:10:000	0.5	0.3	1.3	0.2	0.9	0.9	1.5
1:20,000	1.1	0.7	2.6	0.4	1.8	0.9	1.9
1:30,000	1.6	1.0	3.9	0.5	2.7	0.9	2.2
1:40,000	2.2	1.3	5.2	0.7	3.6	0.9	2.5
1:50,000	3.2	2.0	7.8	1.1	5.4	1.8	3.8
1:60,000	3.8	2.3	9.1	1.3	6.3	1.8	4.1
1:70,000	4.4	2.6	10.4	1.4	7.2	1.8	4.4
1:80,000	5.0	3.0	11.7	1.5	8.0	1.8	4.8
1:100,000	6.4	4.0	18.2	2.2	10.8	3.6	7.6



JOB CM-8408

WASHINGTON AND ROWAN BAYS
BAY OF PILLARS
ALASKA

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

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF CHARTING AND GEODETIC SERVICES
ROCKVILLE, MARYLAND 20852

August 24, 1987 N/CG2313:JDM

Chief, Program Services Division
Pacific Marine Center

PROJECT INSTRUCTIONS: FIELD - Job CM-8408, Washington Bay, Rowan Bay, and Bay of Pillars, Alaska, Shoreline Mapping, dated March 23, 1987

CHANGE NO. 1: Amendment to Instructions

1. Section 1.0. PURPOSE is amended to read:

   These instructions provide specifications for photoidentifying horizontal control stations required for aerotriangulation.

2. Section 4.0. ASSIGNMENT is amended to read:

   You are assigned all field operations required to photoidentify horizontal control stations on 1:50,000-scale photography.

3. Add the following to section 5.2:

   5.2. Horizontal control stations will be recovered or established and photoidentified in the areas indicated on the control requirements diagram which has been furnished. Identification shall include two substitute stations for each control station and shall conform with requirements of Photogrammetric Instruction No. 22, Revised September 30, 1965. Prepare and submit a NOAA form 76-53 for each station identified. Contact prints of the 1:50,000-scale color photography will be furnished.

4. Delete Section 6.0. PREMARKING OF CONTROL.

5. Section 8.0. SCHEDULE is amended to read:

   Scheduling will be at your earliest opportunity after October 1, 1987.

6. Acknowledge receipt of this CHANGE.

Robert L. Sandquist
Director
Pacific Marine Center

Christian Andreasen
Chief, Nautical Charting Division
Charting and Geodetic Services

APPENDIX B

FIELD OPERATIONS REPORT

U.S. DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL OCEAN SERVICE

PACIFIC MARINE CENTER

PACIFIC PHOTO PARTY

PROJECT REPORT CM-8408

WASHINGTON AND ROWAN BAYS

BAY OF PILLARS, ALASKA

1987

I. AUTHORITY

By instruction of the Director, Pacific Marine Center.

II. DATES

Field work was accomplished between October 23 and 31, 1987.

III. PURPOSE

The purpose of this project was to photo identify horizontal control in accordance with Project Instructions: Field - Job CM-8408, Washington Bay, Rowan Bay and Bay of Pillars, Alaska, Shoreline Mapping dated March 23, 1987 and Change No. 1 to Project Instructions dated August 24, 1987.

IV. TERRAIN AND WORKING CONDITIONS

The project area requires approximately forty five minutes to reach by helicopter from Petersburg, Alaska. The village of Kake is slightly closer but no helicopter service is available. Sitka is about the same distance in straight linear air miles, but the mountains between Sitka and the work area would have caused an unacceptable increase in ferry time. Further, flying from Sitka would have required extended over water flight time which the Office of Aircraft Operations considers to be a safety hazard.

The terrain along this portion of Chatham Strait consists mostly of low, heavily forested mountains with a narrow band of ledge and short stretches of gravel beach along the shoreline. The area is uninhabited except for an active logging camp in Rowan Bay. This project lies within the boundaries of the Tongas National Forest, Stikine Area which is administered by the USFS office in Petersburg.

The weather was good relative to normal conditions in southeastern Alaska for the time period of field operations. The field party encountered daily rain and wind to approximately thirty miles per hour. Temperatures ranged from thirty five to forty five degrees. No work time was lost to weather. Working with the color photographs in the rain was extremely difficult due to the solubility of the photos. While this is not a new problem, it continues to be a very negative aspect of photo identification operations.

V. PERSONNEL

J. Gary Fredrick	(NOS, Pacific Photo Party)
J. Richard Minton	(NOS, Pacific Photo Party)
Jack McKenzie	(TEMPSCO Helicopter Pilot)

VI. EQUIPMENT

Wild T-2 Theodolite,	No. 257486
Hewlett Packard 3808A EDMI,	No. 1723A00204 (.036 I.C.)

3-Prism Retro Reflectors
Wild adjustable tripods
30 meter steel tape
Hughes 500D Helicopter (TEMPSCO, Petersburg)

Accommodations, supplies and helicopter services are available in Petersburg. No major equipment failures occurred.

VII. FIELD METHODS

The scale (1:60,000) of the 9x9 color contact prints used in this project was very poor, and as previously noted, the color prints were less than ideal for use in the rainy conditions the field party encountered.

Six (6) existing control points were recovered and two (2) of these points were identified directly on the photography. Four (4) of the control stations had published NAD 83 positions. Stations BERRY and POST, which were established by the NOAA ship DAVIDSON in 1982, were transformed from NAD 27 to NAD 83 using the mean shift at ELLIS 1897 and SILL 1926. Seven (7) additional substitute stations were identified and located by standard azimuth, angle, distance measurements from the recovered horizontal control points. BEN 1926 Sub Station A was located by solar azimuth/distance because the only other station that sees this mark was submerged at the time of occupation. Reoccupation of BEN 1926 would have required another full day of field operation including helicopter time. None of the substitute stations were monumented.

VIII. STATISTICS

NUMBER OF STATIONS RECOVERED	6
NUMBER OF STATIONS IDENTIFIED DIRECT	2
NUMBER OF SUBSTITUTE STATIONS IDENTIFIED	8

X. RECORDS

All photo points identified by the Photo Field Party have been described and sketched on CSI cards. The color 9x9 contact prints have been pricked and annotated. In addition, 35mm hand held oblique photographs of all five sites are attached to the CSI cards. The photographs, CSI cards, field book and this report will be forwarded to the Rockville office for dissemination as required.

XI. RESULTS

The following list of NAD 1983 geographic positions is the result of the operations described in this report.

SITE NO.	STATION NAME	LATITUDE	LONGITUDE	METHOD
1.	KINGSMILL 1897			
	Sub Station A	56,50,01.405	134,25,18.983	Az/Dist
	Sub Station B	56,50,00.306	134,25,18.177	Az/Dist

2.	JUT 1897	56,43,44.380	134,24,03.962	Direct
	Sub Station A	56,43,43.955	134,24,03.416	Az/Dist
3.	SULLIVAN 2 1925			
	Sub Station A	56,40,44.120	134,22,00.724	Az/Dist
	Sub Station B	56,40,27.830	134,22,00.894	Az/Dist
4.	BERRY			
	Sub Station A	56,35,32.384	134,18,10.469	Az/Dist
	Sub Station B	56,35,30.662	134,18,08.296	Az/Dist
5.	BEN 1926	56,30,23.612	134,06,12.857	Direct
	Sub Station A	56,30,23.606	134,06,13.330	Sol/Dist

APPENDIX C

AEROTRIANGULATION REPORT

Aerotriangulation Report
CM-8408
Washington and Rowan Bays,Bay of Pillars,Alaska

September 1988

AREA COVERED

This report covers the area from Washington Bay down to Pt. Ellis, Alaska. The project consists of one 1:10,000-scale sheet, and two 1:20,000-scale sheets; TP-01322 through TP-01324.

METHOD

One strip of 1:30,000-scale, and four strips of 1:50,000-scale color photographs were bridged by analytical aerotriangulation methods using the STK comparator. The bridging strips were adjusted to ground using the General Integrated Analytical Triangulation Program (GIANT). Field photo-identified control stations were used as horizontal control. Common points were transferred between strips to insure adequate junctioning.

Ratio values were determined for the bridging and MHW, MLLW infrared photographs. A copy of the ratio values is attached to this report.

The base manuscripts were plotted on the Kongsberg plotter. The positions are in the Alaskan 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 on the final manuscripts.

ADEQUACY OF CONTROL

The points selected for control in this project made it extremely difficult if not impossible to accurately identify. As a result of this difficulty, it was necessary to drop a control station (two sub stations), and two bridging photographs from the adjustment.

The project meets the National Standards of Map Accuracy. A listing of closures to control is attached.

CM-8408

SUPPLEMENTAL DATA

USGS topographic quadrangles were used to obtain vertical control for bridging. NOS nautical charts were used to locate aids and landmarks within the project area.

PHOTOGRAPHY

The coverage, overlap, and quality of the photographs were adequate for the job. The color bridging photographs used in this project are :

87 Z CN 1615 to 1625 (odd #)
87 Z CN 1634 to 1656 (even #)
87 Z CN 1681 to 1683 (odd #)
87 Z CN 1686 to 1688 (even #)
87 Z CN 1752 to 1755

The camera was mounted backwards in the aircraft so the direction of flight is 180 off from the direction of measurement.

Submitted by,

Brian Thornton

Brian Thornton

Approved and Forwarded

Don O. Norman

Don O. Norman
Chief, Aerotriangulation Unit

CM-8408

RATIO VALUES

Color bridging photographs:

87 Z CN 1615 to 1625	Ratio	2.45
87 Z CN 1634 to 1656	Ratio	2.45
87 Z CN 1681 , 1683	Ratio	2.45
87 Z CN 1686 , 1688	Ratio	2.45
87 Z CN 1752 to 1755	Ratio	2.92

Black & White infrared photographs:

87 B (R) 6104 , 6107 , 6108	Ratio	2.45
87 B (R) 6116 to 6120	Ratio	2.46
87 B (R) 6132 to 6134	Ratio	2.45
87 B (R) 6147	Ratio	2.91
87 B (R) 6163	Ratio	2.94
87 B (R) 6183	Ratio	2.93
87 B (R) 6192	Ratio	2.94
87 B (R) 6243 to 6246	Ratio	2.43
87 B (R) 6257 to 6259 , 6264	Ratio	2.44
87 B (R) 6271 to 6276	Ratio	2.44

CM-8408

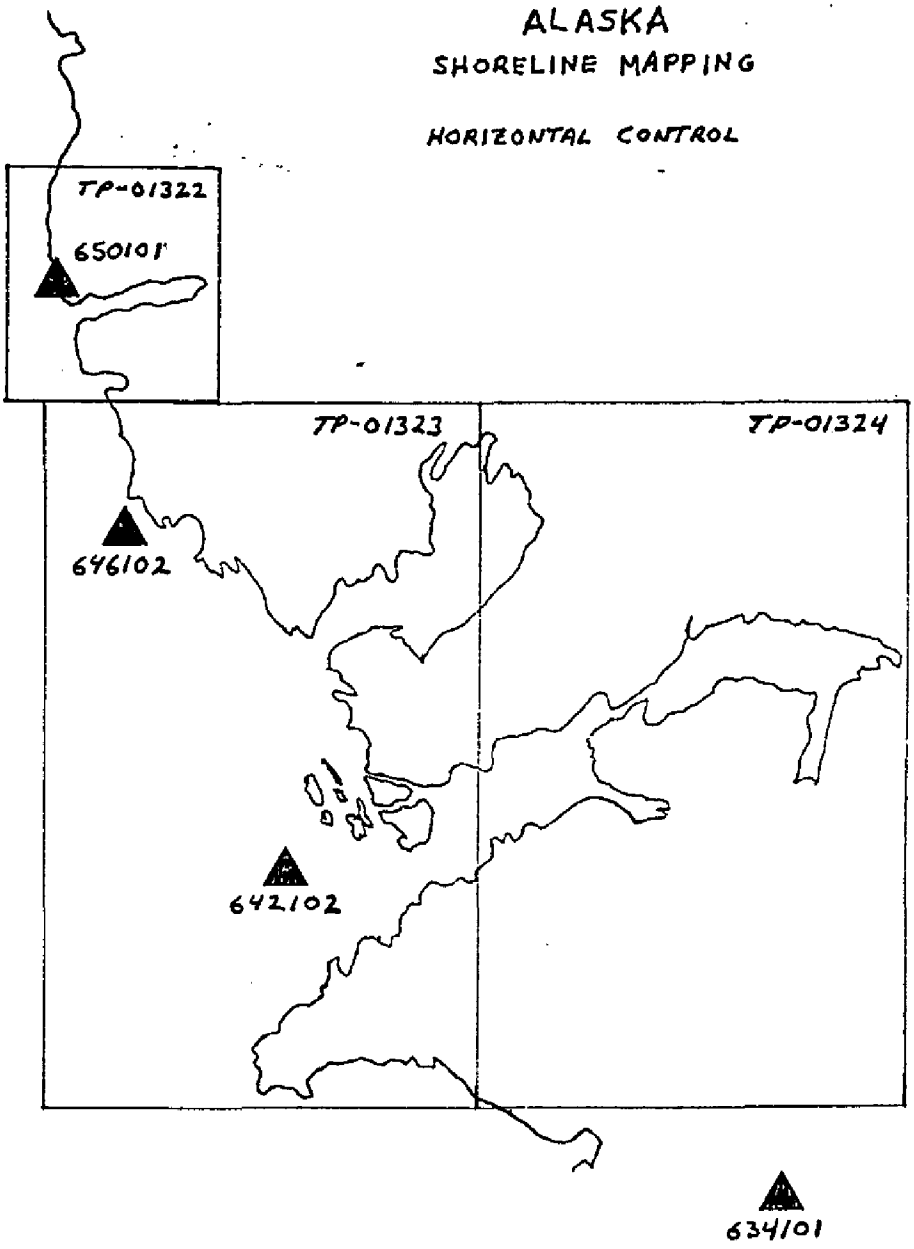
FIT TO CONTROL

STATION NAMES	POINT NO.	VALUES IN FEET X	Y
Jut,1897 Sub Station A	650101	-2.6	-5.4
Sullivan 2, 1925 Sub Station B	646102	1.3	9.0
Berry Sub Station B	642102	2.9	-2.8
Ben, 1926 Sub Station A	634101	-6.2	-3.2

All points listed were held in the adjustment

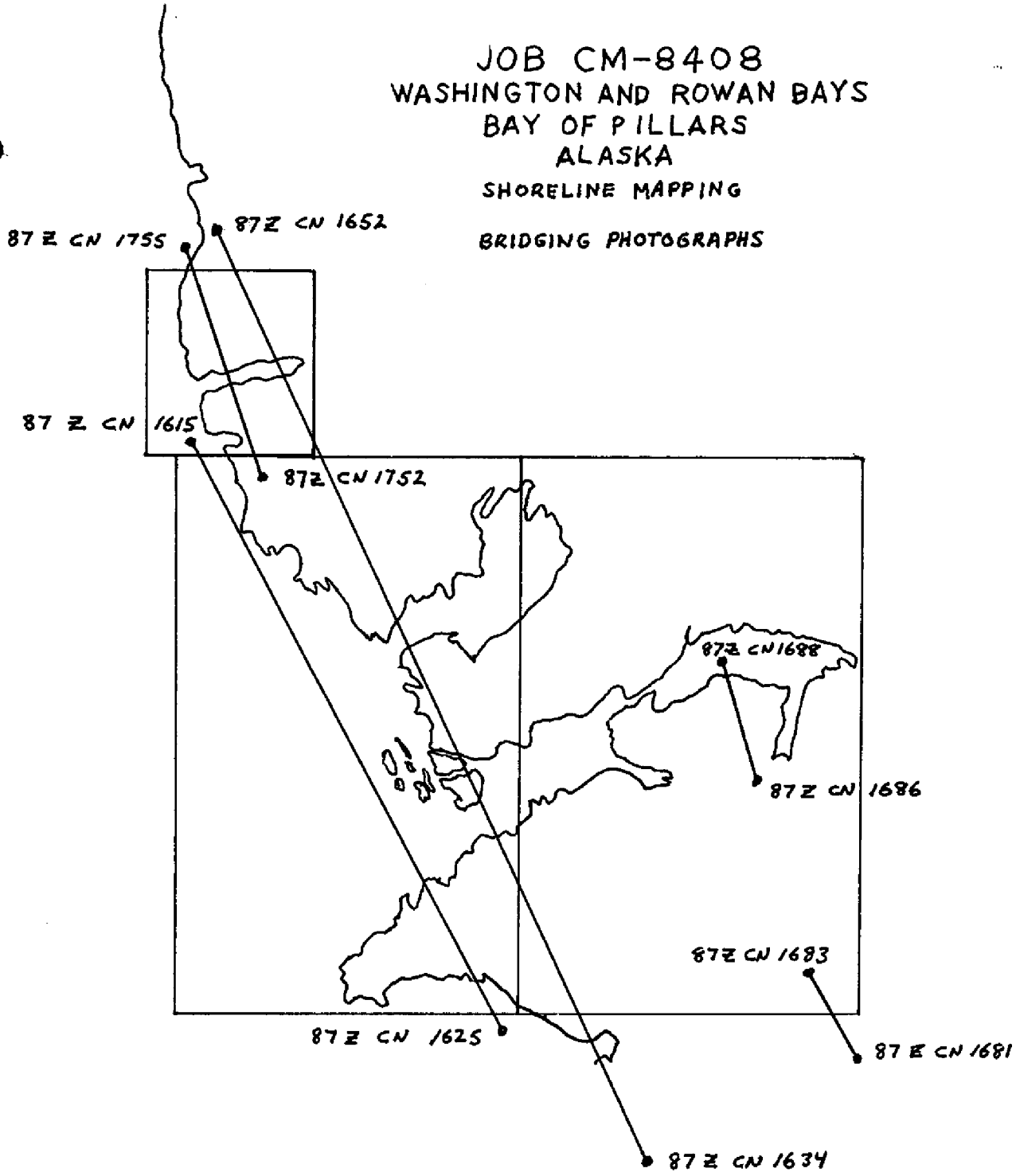
JOB CM-8408
WASHINGTON AND ROWAN BAYS
BAY OF PILLARS
ALASKA
SHORELINE MAPPING

HORIZONTAL CONTROL



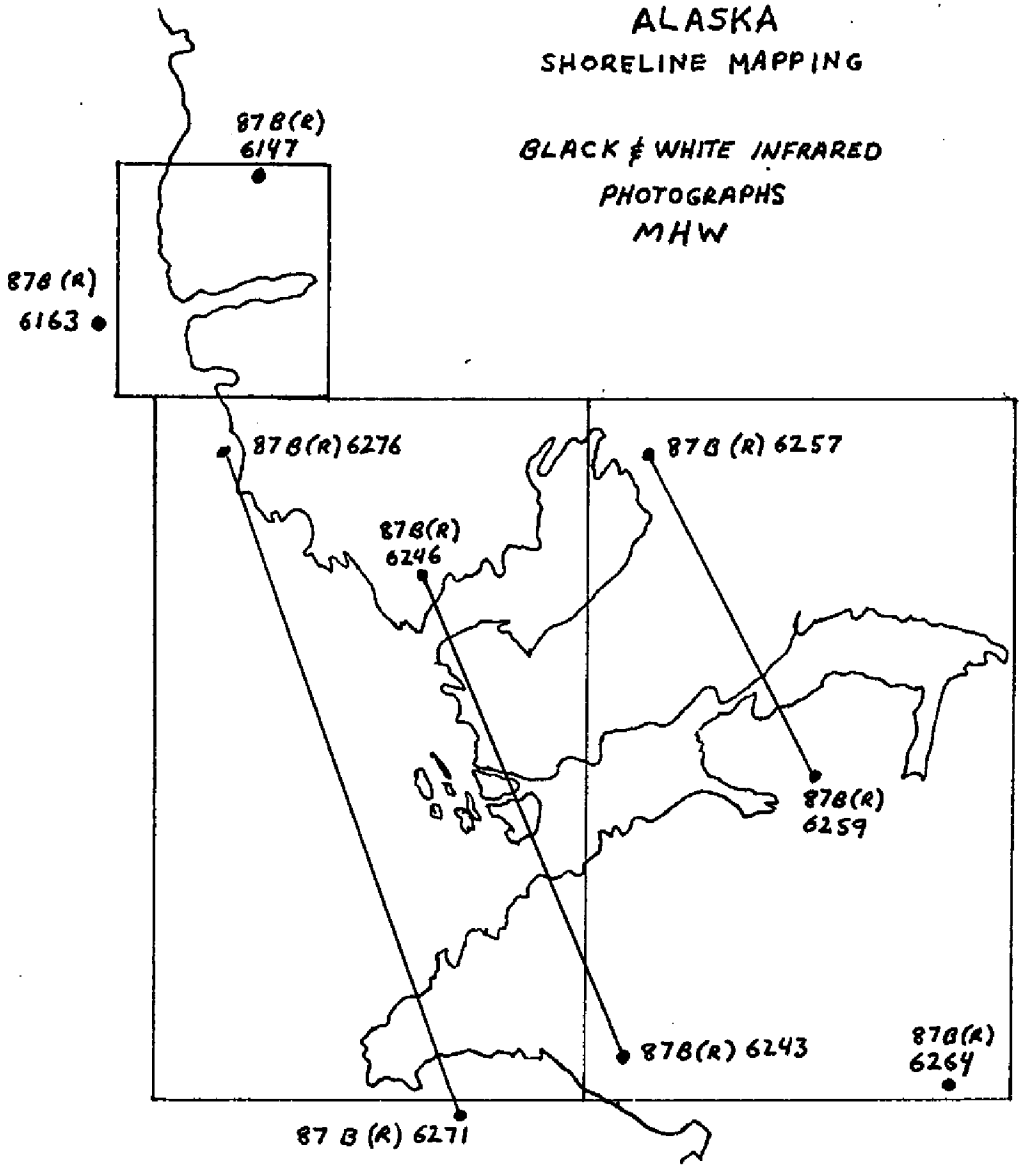
JOB CM-8408
WASHINGTON AND ROWAN BAYS
BAY OF PILLARS
ALASKA
SHORELINE MAPPING

BRIDGING PHOTOGRAPHS



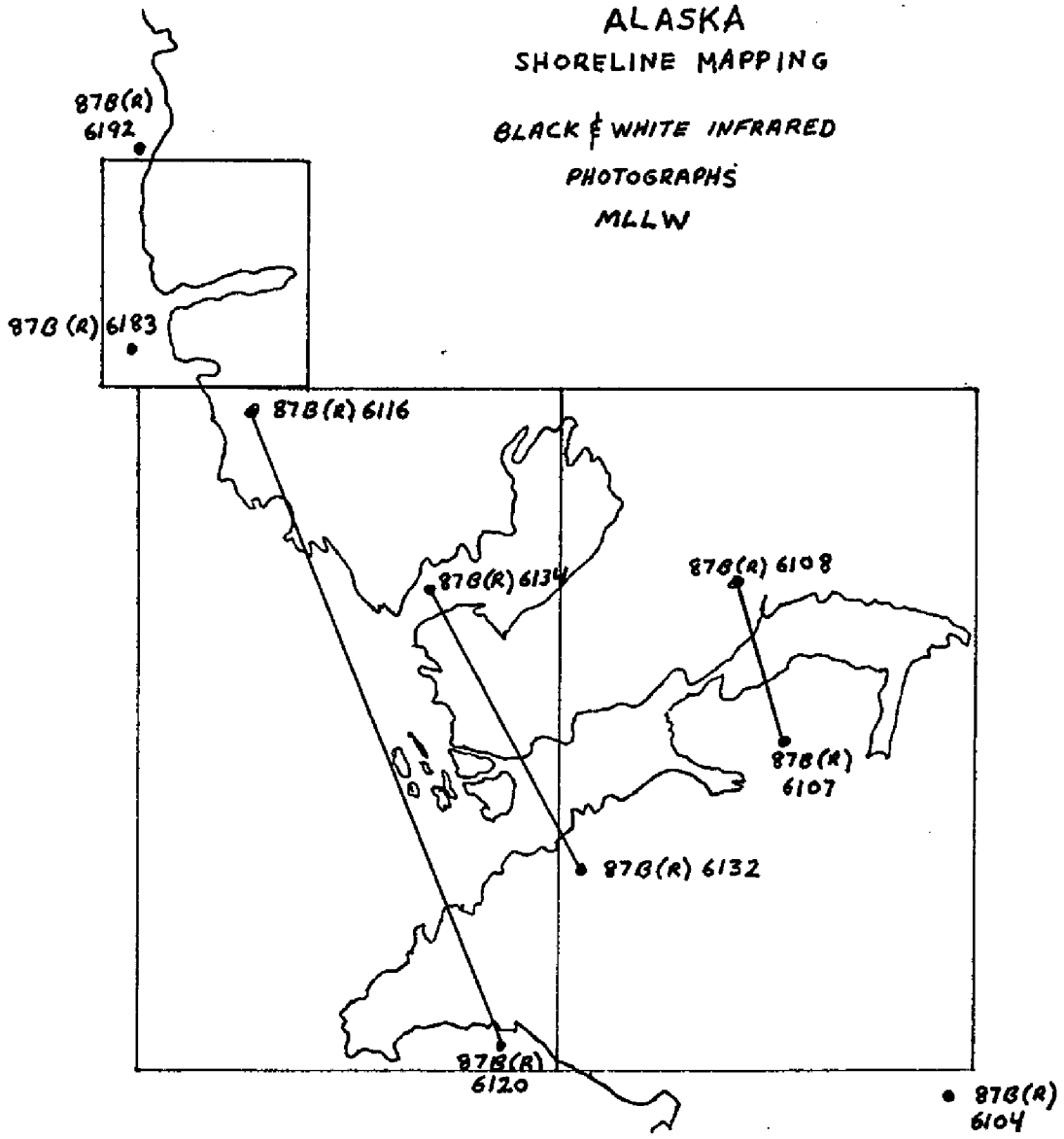
JOB CM-8408
WASHINGTON AND ROWAN BAYS
BAY OF PILLARS
ALASKA
SHORELINE MAPPING

BLACK & WHITE INFRARED
PHOTOGRAPHS
MHW



JOB CM-8408
WASHINGTON AND ROWAN BAYS
BAY OF PILLARS
ALASKA
SHORELINE MAPPING

BLACK & WHITE INFRARED
PHOTOGRAPHS
MLLW



APPENDIX D

MAP COMPILATION SOURCE PAGES

DESCRIPTIVE DATA

CM-8408

TP-01322

MAP SCALE 1:10,000

PHOTOGRAPHY

YEAR/TYPE/NUMBERS	DATE	TIME	SCALE	STAGE OF TIDE
87Z(CN)1753-1755	06-28-87	10:35	1;30,000	+1.9 ft MLLW
87B(R)6183	06-29-87	10:01	1:30,000	at MLLW
87B(R)6192	06-29-87	10:07	1:30,000	+0.2 ft MLLW
87B(R)6163	06-28-87	15:15	1:30,000	+10.5 ft MLLW
				MEAN HIGH WATER = 10.2 ft

COMPILER: D. R. Miller DATE: 4/16/90

REVIEWER: F. Mauldin Jay F Mauldin DATE: 6/27/90

COMPILATION REMARKS:

The stage of tide for all photography is based on predicted tide data using Sitka as the reference station and Chatham Strait (Kuiu Island) as the subordinate station. All times are referenced to Alaska Standard Time.

These infrared photographs are stamped 6/29/87 but the time correction makes the date 6/28/87.

The mean high water line was compiled by photointerpretation from the color bridging photography and the MHW infrared ratio photographs.

DESCRIPTIVE DATA

CM-8408

TP-01323

MAP SCALE 1:20,000

PHOTOGRAPHY

YEAR/TYPE/NUMBERS	DATE	TIME	SCALE	STAGE OF TIDE
85Z(CN)1615,1617, 1621,1623,1625	06-28-87	08:31	1:50,000	-1.1 ft MLLW
87Z(CN)1644,1646	06-28-87	08:43	1:50,000	-0.9 ft MLLW
87B(R)6243-6246	06-29-87	14:13	1:50,000	+9.7 ft MLLW
87B(R)6271-6276	06-29-87	14:33	1:50,000	+10.0 ft MLLW
87B(R)6132-6134	06-28-87	09:54	1:50,000	+0.8 ft MLLW
87B(R)6116-6120	06-28-87	09:41	1:50,000	+0.3 ft MLLW
				MEAN HIGH WATER =10.2 ft

COMPILER: R. R. Kravitz DATE: 04/30/90

REVIEWER: F. Mauldin Fay F Mauldin DATE: 05/17/90

COMPILATION REMARKS:

The stage of tide for all photography is based on predicted tide data using Sitka as the reference station and Chatham Strait (Kuiu Island) as the subordinate station. All times are referenced to Alasks Standard Time.

The mean high water line was compiled by photointerpretation from the color bridging photography and the MHW infrared ratio photographs.

DESCRIPTIVE DATA

CM-8408

TP-01324

MAP SCALE 1:20,000

PHOTOGRAPHY

YEAR/TYPE/NUMBERS	DATE	TIME	SCALE	STAGE OF TIDE
87Z(CN)1681, 1683 1686, 1688	06-28-87	09:29	1:50,000	-0.1 ft MLLW
87Z(CN)1623, 1625	06-28-87	08:31	1:50,000	-1.1 ft MLLW
87Z(BR)6257-6259	06-29-87	14:21	1:50,000	+9.7 ft MLLW
87Z(BR)6264	06-29-87	14:21	1:50,000	+9.7 ft MLLW
87Z(BR)6104	06-28-87	09:28	1:50,000	-0.1 ft MLLW
87Z(BR)6107-6108	06-28-87	09:28	1:50,000	-0.1 ft MLLW MEAN HIGH WATER =10.2 ft

COMPILER: D. R. Miller DATE: 04/23/90

REVIEWER: F. Mauldin Fay F Mauldin DATE: 06/20/90

COMPILATION REMARKS:

The stage of tide for all photography is based on predicted tide data using Sitka at the reference station and Chatham Strait (Kuiu Island) as the subordinate station. All times are referenced to Alaska Standard Time.

The mean high water line was compiled by photointerpretation from the color brigding photography and the MHW infrared ratio photographs.

APPENDIX E

APPROVED GEOGRAPHICAL NAMES

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8408 (Washington & Rowan Bays, Bay of Pillars, AK)

TP-01322

Chatham Strait
Kuiu Island
Washington Bay

TP-01323

Chatham Strait
Ellis, Point
Kuiu Island
Kwatahein Creek
Pillars, Bay of
Rowan Bay
Sullivan, Point
Tebenkof Bay

TP-01324

Elena Bay
Kuiu Island
Kutlaku Creek
Kutlaku Lake
Pillars, Bay of
Rowan Bay
Tebenkof Bay

Approved:

Charles E. Harrington

Charles E. Harrington
Chief Geographer
Nautical Charting Division

APPENDIX F

CARTOGRAPHIC FEATURES OF CHARTING INTEREST

CARTOGRAPHIC FEATURES OF CHARTING INTEREST

COASTAL MAPPING PROJECT: CM-8408, TP-01322, 1:10,000, WASHINGTON AND ROWAN BAYS, BAY OF PILLARS, ALASKA

NOS CHARTS AFFECTED: 17320, 17370

GEODETIC DATUM: NAD 1983

The following charted cartographic features and newly identified cartographic features of possible landmark value have been identified and measured 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). Please note that cartographic code 993 is a photogrammetric source code for cartographic features of possible landmark value.

FEATURE DESCRIPTION	NCD CC	GEOGRAPHIC POSITION (°-'-") LATITUDE	LONGITUDE	NCD Q.C.	DATE OF LOCATION
NONE					

Listing approved by: James L. Byrd, Jr. 8/2/90

FINAL REVIEWER DATE

CARTOGRAPHIC FEATURES OF CHARTING INTEREST

COASTAL MAPPING PROJECT: CM-8408, TP-01323, 1:20,000, WASHINGTON AND ROWAN BAYS, BAY OF PILLARS, ALASKA

NOS CHARTS AFFECTED: 17320, 17370, 17376

GEODETIC DATUM: NAD 1983

The following charted cartographic features and newly identified cartographic features of possible landmark value have been identified and measured 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). Please note that cartographic code 993 is a photogrammetric source code for cartographic features of possible landmark value.

FEATURE DESCRIPTION	NCD CC	GEOGRAPHIC POSITION (°-'-") LATITUDE	LONGITUDE	NCD Q.C.	DATE OF LOCATION
POINT ELLIS LIGHT	200	56 34 00.21	134 19 59.50	4	179/1987

Listing approved by: James L. Byrd, Jr. (FINAL REVIEWER) 8/6/90 (DATE)

CARTOGRAPHIC FEATURES OF CHARTING INTEREST

COASTAL MAPPING PROJECT: CM-8408, TP-01324, 1:20,000, WASHINGTON AND ROWAN BAYS, BAY OF PILLARS, ALASKA

NOS CHARTS AFFECTED: 17320, 17370, 17376

GEODETIC DATUM: NAD 1983

The following charted cartographic features and newly identified cartographic features of possible landmark value have been identified and measured 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). Please note that cartographic code 993 is a photogrammetric source code for cartographic features of possible landmark value.

FEATURE DESCRIPTION	NCD CC	GEOGRAPHIC POSITION (°-'-") LATITUDE	LONGITUDE	NCD Q.C.	DATE OF LOCATION
NONE					

Listing approved by: James L. Byrd Jr. FINAL REVIEWER — 8/2/90 DATE