

TP- 00634

TP- 00634

NOAA FORM 76-35 (3-76) U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
<h2>DESCRIPTIVE REPORT</h2>	
Map No. TP-00634	Edition No. 1st
Job No. CM-7210	
Map Classification FINAL, FIELD EDITED MAP	
Type of Survey SHORELINE	
LOCALITY	
State Alaska	
General Locality Hinchinbrook Island	
Locality Shelter Bay	
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> 1972 TO 1977 </div>	
REGISTRY IN ARCHIVES	
DATE	

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
DESCRIPTIVE REPORT - DATA RECORD		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Division AMC, Norfolk, Virginia		SURVEY TP. <u>00634</u> MAP EDITION NO. <u>(1)</u> MAP CLASS <u>FINAL MAP</u> JOB <u>CM-7210</u>	
OFFICER-IN-CHARGE Jeffrey G. Carlen, CDR/R. K. Matsushige, CDR		LAST PRECEDING MAP EDITION TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB <u>PH.</u> MAP CLASS <u></u> SURVEY DATES: 19 <u></u> TO 19 <u></u>	
I. INSTRUCTIONS DATED			
1. OFFICE		2. FIELD	
Aerotriangulation Aug. 18, 1972 Compilation Oct. 30, 1972 Field Edit Cancellation Aug. 19, 1980		Horizontal Control April 17, 1972 (Premarking)	
II. DATUMS			
1. HORIZONTAL: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify)	
2. VERTICAL: <input checked="" type="checkbox"/> MEAN HIGH-WATER <input type="checkbox"/> MEAN LOW-WATER <input type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL		OTHER (Specify)	
3. MAP PROJECTION Polyconic		4. GRID(S) STATE <u>Alaska</u> ZONE <u>3</u> STATE <u></u> ZONE <u></u>	
5. SCALE 1:20,000		STATE <u></u> ZONE <u></u>	
III. HISTORY OF OFFICE OPERATIONS			
OPERATIONS		NAME	DATE
1. AEROTRIANGULATION BY METHOD: <u>Analytic</u> LANDMARKS AND AIDS BY		R. Kelly	Oct. 1972
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: <u>Coradomat</u> CHECKED BY		D. Phillips	Oct. 1972
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY INSTRUMENT: <u>Wild B-8</u> CONTOURS BY SCALE: <u>1:30,000</u> CHECKED BY		L. Neterer Jr. R. White None None	Dec. 1972 Dec. 1972
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY METHOD: <u>Smooth Draft</u> CONTOURS BY CHECKED BY SCALE: <u>1:20,000</u> HYDRO SUPPORT DATA BY CHECKED BY		S. Kumer L. Neterer Jr. None None S. Kumer L. Neterer Jr.	Jan. 1973 Jan. 1973
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY		L. Neterer Jr.	Jan. 1973
6. APPLICATION OF FIELD EDIT DATA BY CHECKED BY		J. R. Minton J. Massey	March 1978 March 1978
7. COMPILATION SECTION REVIEW BY		J. Massey	March 1978
8. FINAL REVIEW BY		J. Hancock	June 1981
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		J. Hancock	July 1981
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		R. Kelly	FEB 1982
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		H. D. Wolfe	ADD 01

COMPILATION SOURCES

TP-00634

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-8 "E" and RC-9 "M"		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		(C) COLOR <input checked="" type="checkbox"/> (P) PANCHROMATIC <input checked="" type="checkbox"/> (I) INFRARED <input type="checkbox"/>		ZONE	<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT
<input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				Alaska	
				MERIDIAN	150th
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
72-E(C)-4391-4393	July 3,72	11:45	1:40,000	1.8' above MLLW	
72-E(C)-4396-4397	July 3,72	11:48	1:40,000	1.8' above MLLW	
72-E(C)-4427-4428	July 3,72	12:23	1:40,000	2.7' above MLLW	
72-E(C)-4438-4442	July 3,72	12:44	1:40,000	3.6' above MLLW	
*72-M-1261-1263	July 3,72	11:07	1:60,000	1.2' above MLLW	
*72-M-1255-1257	July 3,72	10:57	1:60,000	1.1' above MLLW	
Camera focal length: E=152.71mm, M=88.20mm					

REMARKS

* The bridging photographs were used only on the Wild B-8.

2. SOURCE OF MEAN HIGH-WATER LINE:

The mean high water line was compiled from the above listed photographs.

Compilation was by office interpretation of aerotriangulation photographs.

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

The mean lower low water line was compiled from the above listed photographs.

Compilation was by office interpretation of aerotriangulation photographs.

4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED
H-9424	1974	Verified	H-9713	1977	Verified
H-9425	1974	smooth sheet			smooth sheet

5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
No survey	TP-00633 TP-00635	TP-00636	PH-6410 T-12663

REMARKS

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

TP-00634

HISTORY OF FIELD OPERATIONS

I. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. Melby	June 1972
2. HORIZONTAL CONTROL	RECOVERED BY R. Melby	June 1972
	ESTABLISHED BY R. Melby	June 1972
	PRE-MARKED OR IDENTIFIED BY L. Riggers	June 1972
3. VERTICAL CONTROL	RECOVERED BY None	
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY None	
	LOCATED (Field Methods) BY None	
	IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	None

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

Pre-Marked

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
72M-1254	Anders, 1972		
72M-1256	Sisters, 1965		

3. PHOTO NUMBERS (Clarification of details)

None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

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

7. SUPPLEMENTAL MAPS AND PLANS

None

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

Two - Forms C&GS 152

One - Form C&GS 526

HISTORY OF FIELD OPERATIONS

TP-00634

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION July 1974 Partial Edit

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	M. Fleming	July 1974
2. HORIZONTAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None M. Fleming None
3. VERTICAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None None None
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY IDENTIFIED BY	None J. Oswald None
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED		2. VERTICAL CONTROL IDENTIFIED	
None		None	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

72E(C) 4391, 4393, 4397, 4438, and 4442 matte ratio prints

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

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

7. SUPPLEMENTAL MAPS AND PLANS

None

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

- One - Field Edit Report, containing original field notes and final abstract of positions
- One - Field Edit Ozalid
- One - Film position sheet

HISTORY OF FIELD OPERATIONS TP-00634

I. ☐ FIELD INSPECTION OPERATION ☒ FIELD EDIT OPERATION 1977 Partial Edit

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	B.I. Williams	Sept 1977
2. HORIZONTAL CONTROL RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None None None	
3. VERTICAL CONTROL RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None None None	
4. LANDMARKS AND AIDS TO NAVIGATION RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY IDENTIFIED BY	None None None	
5. GEOGRAPHIC NAMES INVESTIGATION TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION		
6. PHOTO INSPECTION CLARIFICATION OF DETAILS BY	R. Crowell	Sept. 1977
7. BOUNDARIES AND LIMITS SURVEYED OR IDENTIFIED BY	None	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED None		2. VERTICAL CONTROL IDENTIFIED None	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

72E(C) 4427, 4428 cronopaque ratio

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

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

7. SUPPLEMENTAL MAPS AND PLANS

None

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

one field edit report

one field edit ozalid

one fix volume

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

RECORD OF SURVEY USE

TP-00634

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete Pending field edit.	Jan 1973	Class 111 manuscript	Feb 12, 1973	Feb 7, 1973
Field edit data applied, Compilation complete	Mar. 1978	Class 1 manuscript	June 14, 1978	None
Final Review	June, 1981	Final Map	Feb. 1982	

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
1		June 14, 1978	Form 76-40 for 1 landmark to be charted.
1		June 14, 1978	Form 76-40 for 2 nonfloating aids to be charted

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: July 19813. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

III. FEDERAL RECORDS CENTER DATA

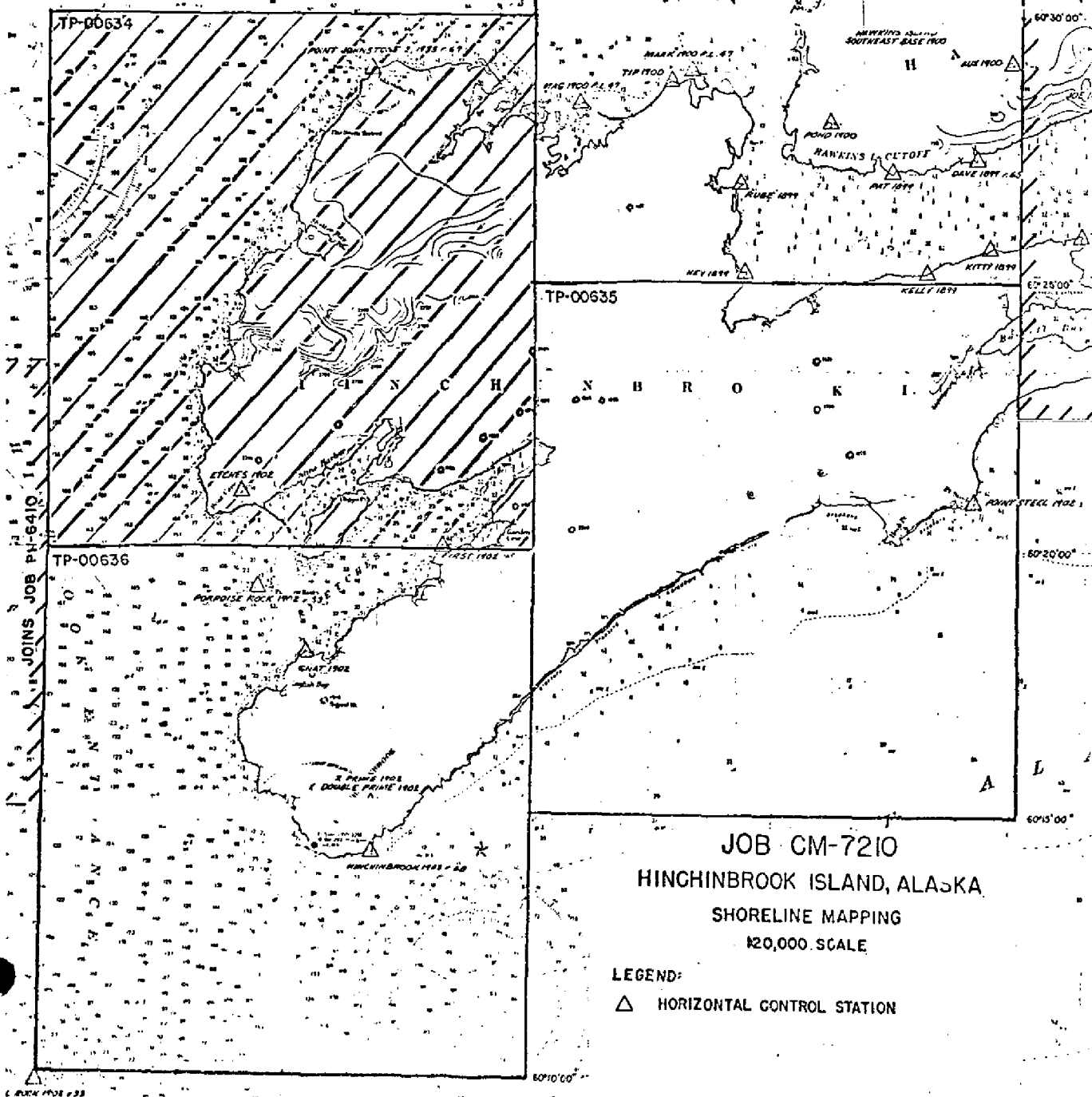
1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
 2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS 567 SUBMITTED BY FIELD PARTIES.
 3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.
 ACCOUNT FOR EXCEPTIONS:

4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: FEB 24, 1982

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	

Sheet No.	Sq. Miles
TP-00633	17
TP-00634	19
TP-00635	11
TP-00636	9
Total 56	



JOB CM-7210
 HINCHINBROOK ISLAND, ALASKA
 SHORELINE MAPPING
 1:20,000 SCALE

LEGEND:

△ HORIZONTAL CONTROL STATION

SUMMARY TO ACCOMPANY

DESCRIPTIVE REPORTS

TP-00634

This 1:20,000 shoreline manuscript is one of four maps, TP-00633 thru TP-00636, that comprise project CM-7210, Hinchinbrook Island, Alaska. Excluding the Boswell Bay area, the project limits incorporate all of Hinchinbrook Island and the western portion of Hawkins Island. This project junctions with the 1977 registered shoreline project PH-6409.

Via correspondence letter dated August 19, 1980, instructions from the Chief, Photogrammetric Division call for the cancellation of future field edit and requested registration for the project. Registration for TP-00633, TP-00635 and TP-00636 will be Final Class III Maps as only partial field edit has been accomplished. Map TP-00634 was completely field edited and will be registered as a Final Map.

The purpose of this project was to provide contemporary shoreline data in the support of hydrographic operations and to furnish data for nautical chart revision.

Contemporary hydrographic surveys were performed by NOAA ships DAVIDSON in 1974 and FAIRWEATHER in 1977. Copies of verified smooth-sheets H-9424 and H-9425 at 1:20,000 scale, 1974 and H-9713 at 1:10,000 scale, 1977 were compared with this map during final review. Two discrepancies concerning H-9425 are discussed in the Review Report item #64.

Field work prior to compilation was accomplished in April 1972; this involved the establishment of horizontal control by premarking methods in order to meet aerotriangulation requirements.

Photo coverage was provided in July 1972 for aerotriangulation and compilation using panchromatic film with the "M" camera at 1:60,000 scale. Hydro support photography was taken using natural color film with the "E" camera at 1:40,000 scale.

Analytic aerotriangulation was adequately provided by the Washington Science Center in October 1972.

Compilation was performed at the Atlantic Marine Center in Jan. 1973. Copies of the Class III manuscript were immediately forwarded to the Pacific Marine Center for the hydrographic survey scheduled in Prince William Sound. This hydro project progressed, as initially proposed, for several field seasons.

Field edit operations were accomplished by NOAA ship personnel in conjunction with the 1974 and 1977 contemporary hydrographic surveys.

Field Inspection

TP-00634

Field insection was limited to idenification of horizontal control.

PHOTOGRAMMETRIC PLOT REPORT
Job CM-7210
Hitchenbrook Island, Alaska
October 1972

21. Area Covered

This report covers TP sheets, TP-00633 thru TP-00636 of Hitchenbrook Island, Alaska, at 1:20,000 scale.

22. Method

Three strips of 1:60,000 scale photography were bridged by analytic aerotriangulation methods to provide horizontal control and ratio points for 1:40,000 scale photography. The attached sketch of the strips bridged shows the placement of triangulation used in the strip adjustments. A list of closures to control is part of this report. Positions of all pass points, control stations, and ratio prints have been plotted on the manuscripts by the Coradi, on the Alaska Zone 3 plane coordinate system.

23. Adequacy of Control

The horizontal control provided was adequate and held well within the accuracy required by National Standards of Map Accuracy at 1:20,000 scale. Tie points were used to augment datum ties between strips 1, 2, and 3.

24. Supplemental Data

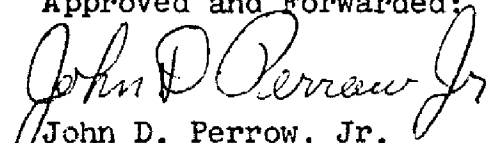
USGS quadrangles were used to provide elevations for vertical adjustment of bridges.


25. Photography

RC-9 photography was adequate as to coverage and overlap, but not definition. Strip 1 adjustment showed control station PORPOISE ROCK 1902 substitute station with +11.0 ft. error in the Y direction, and control station HORN 1972 with -9.2 ft. error in the X direction. The reason for these closures is poor imagery.

Respectively submitted:

Approved and Forwarded:


John D. Perrow, Jr.
Chief, Aerotriangulation Section


Robert B. Kelly
Cartographic Technician

LEGEND

- ▲, ● CONTROL USED IN ADJUSTMENT
 () CLOSURES OF BRIDGE TO CONTROL SHOWN
 IN PARENTHESIS
 △ CONTROL USED AS CHECKS.

STRIP # 1

▲	x PRIME, 1902	(0.0, 0.0)
△	PORPOISE ROCK, 1902 SUB. STA.	(-2.8, 11.0)
△	HORN, 1972	(-9.2, 1.7)
▲	HOOK, 1972	(0.0, 0.0)
△	BEACH, 1899	(3.3, -0.7)
▲	JOSE, 1972	(0.0, 0.0)

STRIP # 2

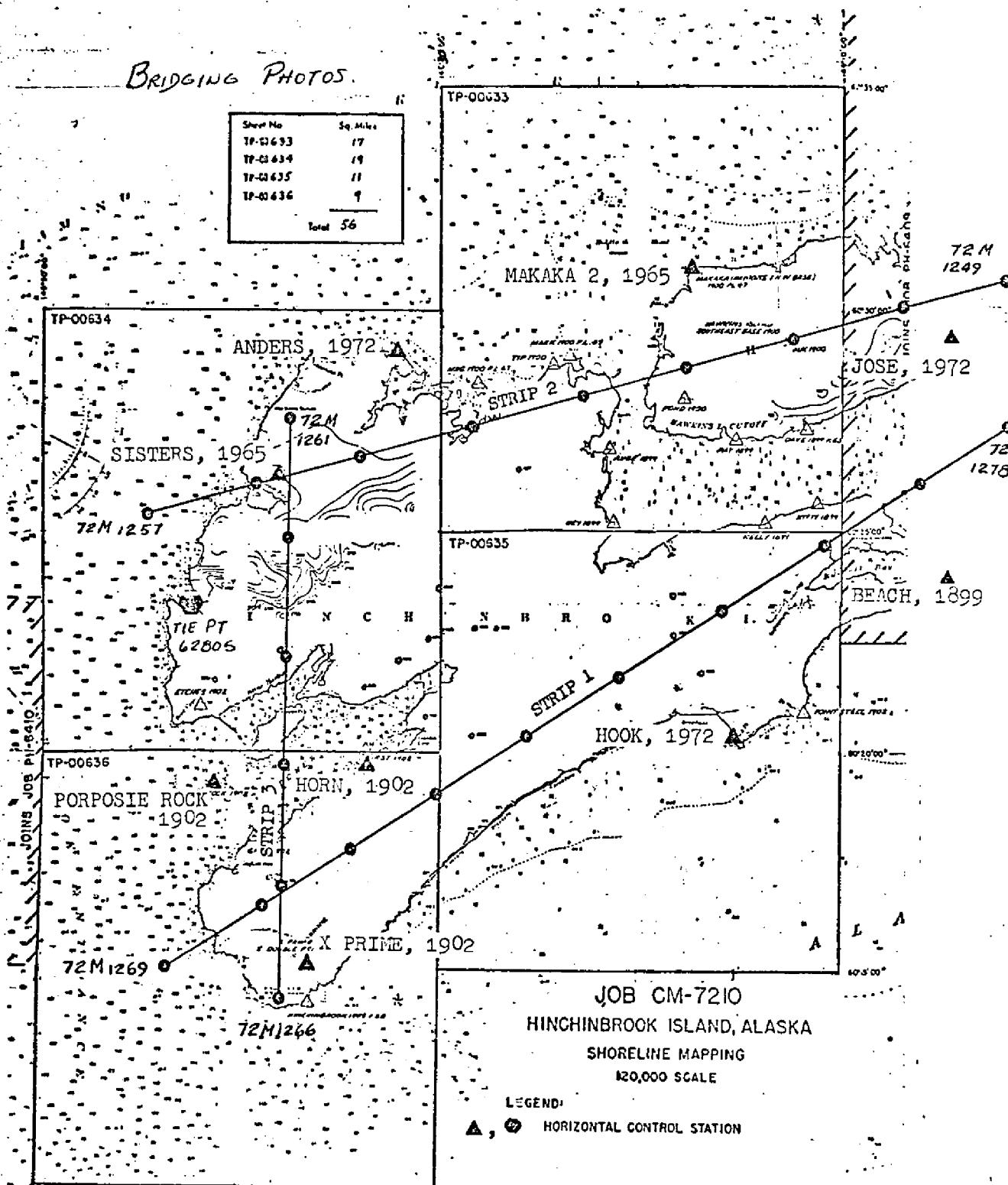
▲	JOSE, 1972	(0.5, 0.4)
▲	MAKAKA 2, 1965 SUB. STA.	(-1.5, 0.0)
▲	ANDERS, 1972	(1.2, 0.9)
△	SISTERS, 1965	(2.1, 3.9)
●	TIE POINT 62805	(-0.1, -0.5)

Strip #3

▲	SISTERS, 1965	(0.0, 0.0)
△	PORPOISE ROCK, 1902	(-4.2, -3.5)
▲	HURN, 1972	(0.0, 0.0)
▲	X PRIME, 1902	(0.0, 0.0)

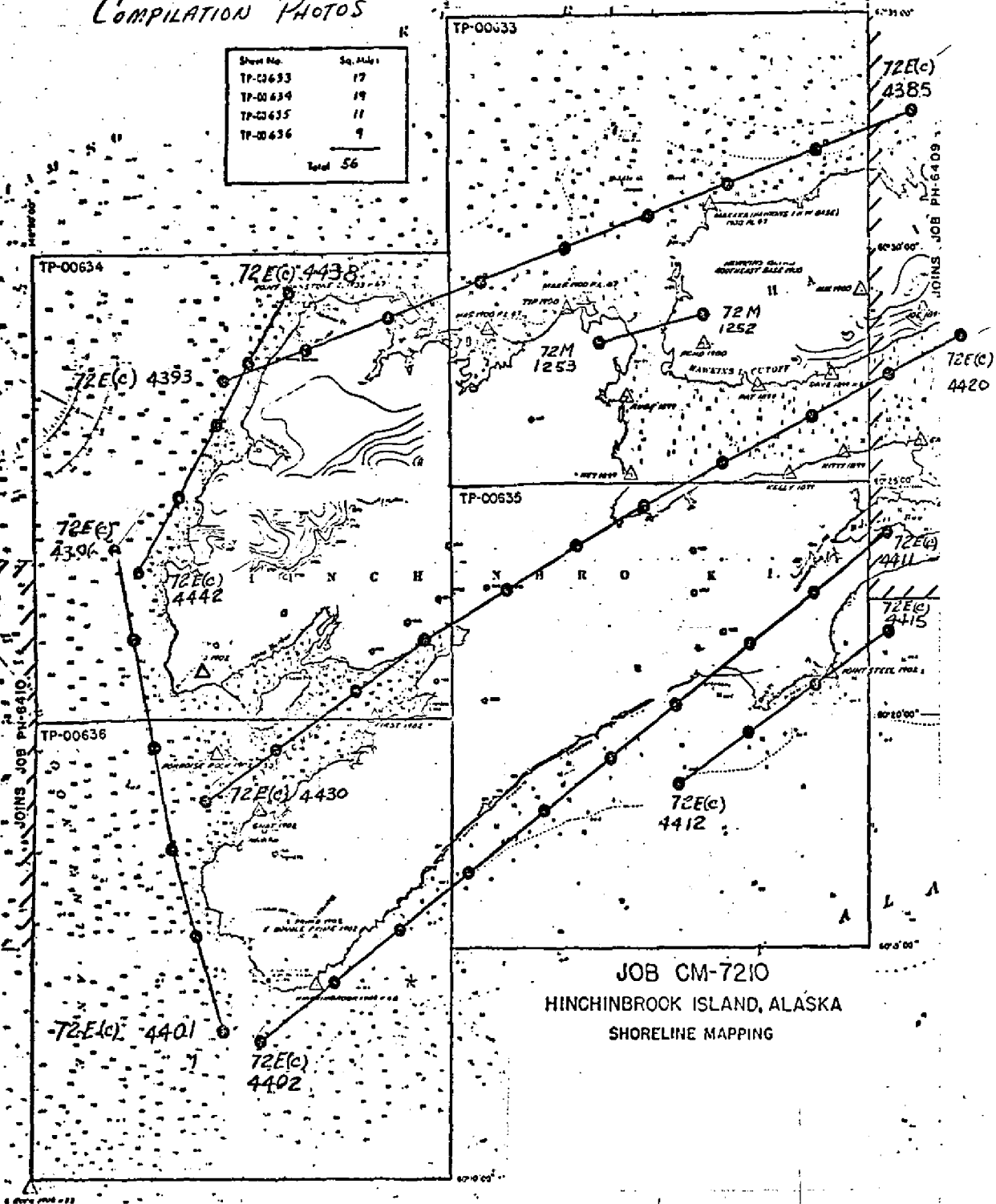
BRIDGING PHOTOS

Sheet No	Sq. Miles
TP-02633	17
TP-02634	19
TP-02635	11
TP-02636	9
Total 56	



COMPILATION PHOTOS

Sheet No.	Sq. Miles
TP-00633	17
TP-00634	19
TP-00635	11
TP-00636	9
Total 56	



DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	STATION NAME	JOB NO.	GEODETTIC DATUM		AEROTRI- ANGULATION POINT NUMBER	COORDINATES IN FEET		GEOGRAPHIC POSITION		REMARKS
			STATE	ZONE		ϕ LATITUDE	λ LONGITUDE			
TP-00634		QM-7210	N.A. 1927							
	Sisters, 1965	G.P. G-14841 unadjusted			172	X=		ϕ 60°26'27.628"		Front (Back) 855.1 (1001.9)
						Y=		λ 146°37'53.155"		813.0 (104.6)
	Anders, 1972	G.P. G-14841 unadjusted				X=		ϕ 60°28'54.119"		1675.0 (182.0)
						Y=		λ 146°32'07.111"		108.6 (807.8)
	First, 1902	G.P. Vol. VI Pg. 314			"	X=		ϕ 60°20'04.100"		126.9 (1730.1)
						Y=		λ 146°33'39.620"		607.9 (312.8)
	Etches, 1902	G.P. Vol. VI Pg. 313			"	X=		ϕ 60°21'03.044"		94.2 (1762.8)
						Y=		λ 146°11'58.596"		898.7 (21.5)
	Point Johnstone 2, 1933	G.P. Vol. VI Pg. 321			"	X=		ϕ 60°28'59.51"		1841.9 (15.1)
						Y=		λ 146°36'43.45"		663.7 (252.7)
						X=		ϕ		
						Y=		λ		
						X=		ϕ		
						Y=		λ		
						X=		ϕ		
						Y=		λ		
						X=		ϕ		
						Y=		λ		
						X=		ϕ		
						Y=		λ		
COMPUTED BY	A.G. Rauck Jr.				DATE	COMPUTATION CHECKED BY		R. White		DATE
LISTED BY	J. Minton			10/31/72						11/08/72
HAND PLOTTING BY	J. Minton			DATE	LISTING CHECKED BY					DATE
				03/78	J. Massey					03/78
				DATE	HAND PLOTTING CHECKED BY					DATE
				03/78	J. Massey					03/78

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

Compilation Report

TP - 00634

31- DELINEATION

Delineation was by the Wild B-8 Stereoplotter, using 1:60,000 scale photography. Common points were selected and transferred to the 1:40,000 scale 1972 color photographs used for hydro support.

32- CONTROL

See photogrammetric Plot Report, dated; October 1972

Horizontal control was adequate.

33- SUPPLEMENTAL DATA

None

34- CONTOURS AND DRAINAGE

Contours are inapplicable. Drainage was delineated from office interpretation of the photographs.

35- SHORELINE AND ALONGSHORE DETAILS

The mean high water line and alongshore details were delineated from office interpretation of the photographs.

36- OFFSHORE DETAILS

Offshore details were compiled from office interpretation of the 1972 photographs.

37- LANDMARKS AND AIDS

Preliminary Forms 76-40 for Landmarks and/or Aids were prepared by the Compilation Office and forwarded to the Field Editor and/or Hydrographer for verification, location, or deletion on Feb. 7, 1973.

38- CONTROL FOR FUTURE SURVEYS

None

39- JUNCTIONS

See form 76-36b, item #5, of the descriptive report.

40- HORIZONTAL AND VERTICAL ACCURACY

No statement

46- COMPARISON WITH EXISTING MAPS

A comparison has been made with the following U.S. Geological Survey quadrangles: Cordova (B-7), Alaska, dated 1950, scale 1:63,360 and Cordova (B-8), Alaska, dated 1951, scale 1:63,360.

47- COMPARISON WITH NAUTICAL CHARTS

A comparison has been made with the following National Ocean Survey chart: #8520, 14th Edition, October 25, 1969, scale 1:80,000.

Items to be applied to Nautical Charts immediately

None

Items to be carried forward

None

Approved by: *Jim Byrd*
 for Albert C. Rauck Jr.
 Chief of Coastal Mapping Section

Submitted by: *Jim Byrd*
 for Susan Kumer
 Cartographer
 January 8, 1973

TP-00634

Field edit was applied in March 1978 by the Photogrammetric Branch at the Pacific Marine Center.

Final review was performed at the Atlantic Marine Center in June 1981. During this review, questionable horizontal control in the immediate vicinity of Bear Cape Light 2 was investigated. This was initiated because of the 80 meter difference in the 1974 and 1977 field positions for the light. According to the 1974 field edit report, the hydrographic survey incorporated this light in the original horizontal control data. This original data was not evaluated during final review as the information has been extracted by N.G.S. and was not readily accessible. Although horizontal control in this area was randomly used to locate offshore rocks and ledges during field edit, position inaccuracies could not be detected. Additional remarks concerning Bear Cape Light are included in the Review Report.

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

ADDENDUM TO THE COMPILATION REPORT-FIELD EDIT

HINCHINBROOK ALASKA, CM-7210, TP-00634

Field edit in the area of this manuscript was accomplished by different editors in 1974 and 1977. The edit methods and resultant characteristics differ significantly and are discussed separately in this report. The 1974 edit is discussed first, both because it was accomplished first and because it was by far the most extensive.

The 1974 field edit included all of the shoreline north of Bear Cape and into the adjoining manuscript. Overall, this area was thoroughly investigated and unusually accurate data was developed by the editor utilizing a range/azimuth method to locate detail. However, several problems have arisen in the processing of this data.

Initially, some of the fixes plotted on the edit ozalid by the field editor were transferred directly to the manuscript to locate detail. During the final compilation of the manuscript, the accuracy of the plotted field positions was found to be unsatisfactory due to misplotted control and inherent scaling inaccuracies. Consequently, geodetic positions were derived from all 171 fixes using program, \$FEDT, on the PMC EDR Branch computer in order to check the field plotted positions. Plotting errors as large as a full millimeter were noted, though not all of the fixes were examined. To eliminate the misplotted fixes, a new position overlay was produced by establishing a dummy hydro survey, H11111, inputting all control points as well as marks and aids and fix positions as sounding misses. Then the projection, control points and fixes were plotted on stable film by a Xynetics Plotter. The fixes were then transferred to the original manuscript resulting in significant positional changes. The individual fixes were compared to the original fix data and final abstract included as part of the edit report, as well as to the field annotated photography and edit ozalid to verify location, description and height information prior to final compilation. Discrepancies in the comparison process are itemized in the numbered paragraphs following this general statement. Stereo examination of the field annotated photographs suggests the editor monoscopically identified detail. The fixes were categorized as ledge fixes, awash rock fixes, submerged rock fixes, waterline checks and other fixes. Ledges were compiled from the ledge fixes and stereo examination of the photography. The editor's use of the term "rock outcrop" rather than ledge caused concern but was interpreted as ledge after close stereo examination of the photography. Rock heights were determined from approved tide data for the Johnstone Point, Alaska tide gage. Waterline and other fixes were considered on an individual basis and problems are detailed in the numbered paragraphs. The numbered statements are in order of occurrence and the numbering is maintained to allow ready location from notes attached to field edit data items.

- 2 -

1. Transposition errors occurred from the original field observation records to the final field abstract in fixes 4, 22, 41, 47, 56, 80, 91 and 128.
2. No position for station Sisters, 1965 was included on the signal list. The position was located on Form 164 in the compilation report.
3. The height of fix 6 on the ozalid is in question. Should it be 10 or 1.0? The fix was plotted as 10.
4. Bear Point Light 2 was erroneously located in 1974 but was relocated by R.B. Melby in 1977. The 1977 position is carried forward on this manuscript.
5. Fix 148 was not plotted on ~~H11111~~^{H-9425} because it is a sextant fix. Both the left and center sighted objects are indefinite in nature, so the position was plotted as well as possible and labeled P.A.
6. Fix 10 was described as anchors in the field notes and abstract, but as anchor and windless on photograph 72E(C)4391 and the ozalid. A foul was depicted on the manuscript.
7. Fix 12 was described as a rock in the field notes on the photography and ozalid, but as a wreck in the abstract. A rock was plotted at the position.
8. Fixes 17 and 18 are described as "Rocky Pt" and "Rk bares" in both the field notes and abstract, but the ozalid describes both positions as extent of a rock point. The area is not described as a rock outcrop as ledge is elsewhere noted. Stereo examination of 72E(C)4390 and 4391 leads to the interpretation of 17 as a foul line and 18 as a rock awash.
9. Fix 19 was not plotted by H11111 because it was presented in range/range format. When the position was established on the position sheet from the data presented in the field abstract and compared to the controlled cronapaque ratios, the described feature plots approximately 100 meters from the photo position. Examination of the field edit data indicates station High was probably misidentified as ANDRY. The position determined using station High instead of ANDRY agrees with the photo position and was compiled
10. A large area near the junction with TP-00633 was originally compiled as a single ledge but was divided into smaller ledges by the field edit data. The western portion is shown as ledge on the ozalid but not fixes or photo reference is found to this structure. Stereo examination of 72E4391 and 4390 fail to confirm ledge. The area was compiled as foul with rocks rather than ledge.

- 3 -

11. Fix 7 was described as a check on the MLWL in the field notes and abstract but was described as a rock awash on the edit ozalid. The fix position from the field notes is plotted as a rock awash with the height data from the ozalid. The scaled distance from the MLLWL to the feature agrees with the data presented on the ozalid but differs approximately 8 meters from the field notes. There is no photo reference to the feature.
12. Fix 6 contained no descriptive information in the field notes or abstract but was described as a rock awash on the ozalid. The fix position was plotted, and the height from the ozalid applied.
13. Fix 4 is described as the center of wreck in field notes, has no description in the abstract and is described as a wreck at the HWL on the ozalid. The wreck is referenced on the photo but is not identifiable. Since the plotted position and description place the wreck at the HWL, implying no hazard to navigation, a wreck symbol was compiled only as a map feature.
14. Fix 5 is not described in the field edit data so no feature was compiled.
15. Fix 136, which is a waterline check, was not plotted because incomplete fix information was given.
16. Fix 31 is described as a rock in the field notes which is the same as fix 20, but the field abstract and ozalid both describe fix 31 as the terminal point of a rock outcrop. The plotted position of fix 31 is approximately the same as fix 21 rather than 20 as described. Fix 21 is described as the extent of a rock outcrop. Fix 31 was compiled as a rock awash on a ledge defined by fix 21.
17. Fix 20 is described as a rock in the field notes and abstract. The edit ozalid illustrates the position as the limit of a rock outcrop. A ledge was delineated by stereo interpretation of the ratio photographs.
18. Fix 19 is described as rocks in the field notes, abstract and on the edit ozalid. The edit ozalid illustrates the fix as the limit of a ledge. The fix was plotted as a rock but a ledge was delineated by stereo interpretation of the ratios.
19. The rock awash of fix 88 was not delineated because of the location of the rock awash at fix 87. Fix 87 is more seaward and of greater height. The overlapping symbols that would result if both fixes were plotted, appear too congested.
20. Fixes 110A and 111A plot too close together to delineate both positions. Fix 110A was delineated since it is farthest outboard. Both fixes have the same height data so they are of equal significance other than position is concerned.

- 4 -

21. Fix 93 was described as 100m west of a rock and reef with kelp. Fixes 143 and 144 are positions on the reef and fix 143 has the same ht as the feature described for fix 93 though the horizontal difference is approximately 70m. A rock symbol 100m east of position 93 would cause congestion without aiding the definition of the reef/kelp area. Fix 93 was not compiled.
22. Fix 118 plots on a ledge line for all practical purposes and was not compiled as an awash rock.
23. Fix 125 plots on a ledge line and was not compiled as a separate rock.
24. Fix 169 was not detailed as a rock because it falls on a compiled ledge line and is inshore of an awash rock with a greater height.
25. A question exists as to whether the height for fix 147A recorded in the original field notes is b4.0' or C4.0'. Because the height is referred to as b4.0' on the field abstract and edit ozalid, b4.0' is accepted as correct.
26. Fix 148A is described as 2m to rk where WHALE is; however, it plots approximately ten meters from the rock where BAR is located. No detail was compiled from this fix.
27. Fix 17 is described as a rocky point instead of a rock outcrop associated with ledge symbolization in this edit. Stereo examination of the ratios covering this area suggests numerous small rocks rather than a single mass. Consequently the area was depicted as foul with rocks rather than ledge.
28. Fix 11, which is described as a section of an old ship, was not compiled because it plots inshore of the MHWL and constitutes no navigation hazard. The windless and anchor delineated as a foul at nearby fix position 10 may have originated from the same hulk and are compiled since the outboard position could constitute an obstruction.
29. Stereo examination of the photography resulted in the delineation of the ledge limits enclosing fix position 1.
30. Fix 135 is described as the shoreline of a rocky beach but plots outboard of the compiled MLLWL. Examination of the tide data for the time of the fix reveals the fix was shot at a -2.5 tide height. Consequently no change to the compiled MLLWL was deemed necessary.
31. Fix 121 is a position of the waterline at a -1.2 ft tide. The description confirms a line originally compiled as ledge limit as the MLLWL since the ledge has been revised by adjacent fixed positions.

32. Fix 115 was used to modify the MLLWL. The description and time indicate the position is the waterline at a -.7 ft ht of tide. While the photography does not confirm the fixed position, the MLLWL was adapted to accommodate the field location.
33. Fix 112 confirmed the compiled MLLWL but resulted in a 20 meter westerly shift in a 450 meter section at the shoreline.
34. Fixes 62, 63, 68 and 69 confirm the compiled MLLWL when consideration is given to the negative tide ht at the time of the fixes, but significant differences exist between the compiled MHWL and the line defined by the distances given on the field edit ozalid for these fixes. Stereo examination of the ratio prints confirms the compiled MHWL. The original field notes contain no description for these fixes and the field abstract describes them only as shoreline positions with no distance references to the MHWL. The origin and validity of the distances presented on the ozalid are in question and no shoreline change have been made.
35. Fix 84 fails to confirm the MHWL using the distance presented in the field abstract description. Stereo examination of the hydro support ratios confirm the MHWL as compiled. Since no description for this position is included with the original field notes or on the field edit ozalid, the validity of the distance is in question. No shoreline changes were made using this edit item.

ADDENDUM TO THE COMPILATION REPORT-FIELD EDIT

HINCHINBROOK ALASKA, CM-7210, TP-00634

The 1977 Field Edit Data submitted was substandard in quantity and presentation. Three (3) fixes were applicable to this manuscript although one fix was indicated to be on an adjoining sheet.

Fix 249-01 described as a rock outcrop on the beach was visible on the photography and called for on the master film field edit ozalid. This fix was not used.

Fix 249-02 described as "cabin on beach", "prominent" was plotted using given data and plots in the back water of Constantine Harbor. This position is in dispute of the position identified on the master film field edit ozalid. Examination of the ratio photographs in stereo did not reveal the position of the building. There was no position plotted for this fix.

Fix 251-04 was identified as anchor and plotted using data submitted. This position carries an ^{abstract} symbol, position approximate note as it is a sextant fix with three (3) tangents to indefinite points used as signals. There was also no check fix taken on this position.

Several items were referenced on both the photography and master film field edit ozalid but with different heights or classifications. All detail compiled was positioned from the photography although heights may have been derived from the master film field edit ozalid references to allow use of approved tide data. There was no approved tide data for Julian Day 235 furnished.

Rocks located near Long. $146^{\circ}35.5'$ by Lat. $60^{\circ}21.3'$ were presented on the ozalid with height data from JD 250 and represented on the photography from JD 235 also with height data. They showed different positions and configurations. Information from the photograph was used, even tho no approved tide data is available. Detail presented on the photography was examined stereoscopically and some items of the final compilation reflect office interpretation of limit lines that were judged to have been monoscopically sketched by the field editor.

Field Edit Report
Shelter Bay and Port Etches
OPR-452-FA-77

GENERAL

This report covers manuscripts T-00634 and T-00636. Field edit was performed by Fairweather personnel along shoreline inside Port Etches only.

The area inspected is characterized by rocky beach areas with occasional sandy beaches, especially in protected coves. Steep, wooded hillsides rise up from the beach in many places; low, rocky bluffs in others. Rock ledges extend out from shore to varying distances in many areas.

Only 6 fixes were taken along 24 miles of shoreline. Each was assigned a number with the format DDD-FF, where DDD represents the julian day of the fix and FF represents the sequential fix number for that day.

All fix information is recorded in the field edit data volume. Fix times are given in Greenwich mean time. All height information is noted on the master field edit ozalid. Information on all signals and stations used for control is included in the report. Deletions are noted in green ink, additions and changes in red ink, verifications in violet ink. All are noted on the master field edit ozalid.

METHOD

Field edit inside Port Etches was done by LTJG Robert Crowell during the month of September, 1977. Work was performed during fairly high low tides from a 17 foot skiff and on foot. Copies of the field edit ozalids were examined in the field. Verification of general features, including the mean high water line, was done by visual comparison of the field edit ozalid and the area concerned.

Control for fixes was by horizontal sextant angles from the skiff and theodolite directions from shore. Heights were estimated by comparison to objects of known size. The positions of some objects were estimated and have no fix information associated with them.

ADEQUACY OF COMPILATION

Compilation of the manuscripts is generally adequate. Several corrections to the mean high water line are noted on the master ozalids. Most areas labelled as bluffs are more accurately described as steep, wooded hillsides and are so noted on the master ozalids.

MAP ACCURACY

The plotted positions of horizontal control stations compared well with surrounding features. However, no actual measurements were made. No check fixes were taken. The positions of some objects which were partially or totally estimated are probably accurate within 10 meters as this was done only for objects near known points or previously located objects.

MISCELLANEOUS

Due to the lack of low tides during the time of field edit, some submerged rocks in the area may have been missed. One such rock was seen on the day of arrival but could not be found later.

Submitted by:



Robert B Crowell
LTJG, NOAA

Approved by:



Bruce I Williams
Commanding Officer
NOAA Ship Fairweather

SIGNAL LIST

Station	Position	Height
SIGNAL (est. 1977)	60°18'00.427" N 146°39'11.777" W	7 m
PORPOISE ROCK 1902	60°19'09.858" N 146°41'24.525" W	25 m

Map T-00634
Shelter Bay

METHOD

Field edit was accomplished by Fairweather personnel inside Port Etches east of $146^{\circ} 43' W$.

ADEQUACY OF COMPILATION

There were several corrections to the mean high water line inside Constantine Harbor. The revised mean high water line was estimated from examinations on foot.

RECOMMENDATIONS

It is recommended that the map be revised as noted on the master ozalid. Field edit for submerged rocks should be performed with future field edit of map T-00636.

EXAMINATION OF PROOF COPY

No village exists in the area labelled Nuchek. The name should be deleted.

29

Date

Project No. OPR-452-FA-77 Vessel

Date of Survey 23 Aug, 6-8 Sep, 1977

Fieldsheet No. T-00634. Registry No.

Fieldsheet is ~~Complete~~/Incomplete

[illegible]

FIELD EDIT REPORT

Prince William Sound OPR-999 - DR-73

1974

for

TP-00634

Shelter Bay, Alaska

by NOAA Ship DAVIDSON

M.H. Fleming, CMDG

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I INTRODUCTION

The area entailed in this field edit report is that of T-00⁶34, Shelter Bay, Alaska, which covers the northwestern shoreline of Hinchinbrook Island in Prince William Sound. It is bounded by Anderson Bay in the northeast and Constantine Harbor in Port Etches to the southeast. Progress proceeded from the Anderson Bay area around to Bear Cape. No field edit was completed in Port Etches east of Bear Cape. A very careful inspection was made of the western coast as to rocks that were not shown on the manuscripts. This survey was completed on July 10, 12, 17, 18, and 19, which correspond to Julian dates 191, 193, 198, 199, and 200. During this time 137 fixes were obtained, numbers 1-21, 31, and 57-171.

II METHODS

Several techniques were used to obtain field edit data. Where exact positions were not necessary, a visual inspection was made comparing the real shoreline with the paper Ozalid. Many of the questions on the Field Edit Ozalid were answered in this manner. The compilation of the high water line, bluffs, and foreshore areas was very complete on this sheet.

To obtain precise positions of off lying rocks, a mini-ranger/theodolite system was used. This type of positioning, with respect to field edit, was discussed in the Shoreline Delineation Report, OPR-999, Prince William Sound, and the Field Edit Report, T-00633, which is the sheet adjacent and to the east of T-00634. Basically what was done was that a mini-ranger navigator was placed in a skiff. A mini-ranger transponder was then set up over control stations, as well as a Wild T1-A theodolite. This would enable us to locate the skiff by an angle and distance. All data was collected on the skiff and would be plotted manually in the evenings. This system has several advantages, the main one being the speed of the whole operation. No signals have to be built or located, other than the mini-ranger/theodolite sites. The main disadvantage is that presently fixes cannot be taken on the shore in order to located MHHW or landmarks.

After the fixes were plotted, a smooth position abstract was made simply by putting each bit of fix data in a recognizable form for future processing or verification. Also the notes would be transferred to the Field Edit Ozalid and the field ratio prints. Sketching was done on an Ozalid in the field; however, the prints were seldom taken in the field and no notes were taken on the photos while in the field. Thus, a complete list of sheets accompanying this report:

1. Signal Overlay (mylar T-sheet with control stations plotted)
2. Field Edit Ozalid (notes and answers in purple)
3. Position Overlay (all fixes are plotted on this T-sheet with notes)
4. Field Photographs #72 E-4397, 4442, 4393, 4438, and 4391 (with notes in purple cross-referenced to the Ozalid)

The T-sheet, called the position overlay, was made for use by the verifier at PMC, and for use here on the ship to transfer changes onto the boat sheets. The T-sheet provides a good base and writing surface for this, versus a paper Ozalid.

III ADEQUACY

The compilation of this sheet is complete north of Bear Cape. Corrections should accordingly be made to the final product. As an entirety, this sheet is not complete, as the area in Port Etches was not checked.

The rock in the middle of the cove west of Shelter Bay, fix #148, has been reported to the Local Notice to Mariners, as it is deemed to be a hazard, particularly to any ship intending to anchor in this area. The rock was observed at a minus three-foot predicted tide.

IV RECOMMENDATIONS

1. The boat sheets for this project are to receive top priority in processing. I recommend that this also apply to these field edit notes. The verifier at PMC should have a copy of the position overlay, as soon as possible, to aid him in his work.
2. A careful review should be made of this type of application of the Motorola mini-range to use in field edit. The data could easily be digitized such that computer plots could quickly be made, thus speeding up the entire process. I feel the system is justified for this type of work.
3. I also suggest that the field Edit Ozalid be made on the more stable T-sheet versus the paper Ozalid. If this were done, maybe a photocopy could be made and immediately given to the verifier at PMC.

Submitted by,

John L. Oswald

John L Oswald
LTJG, NOAA

Approved by

Michael H. Fleming

Michael H. Fleming
CDR, NOAA
Commanding Officer

STATION LISTING

T-00634, Shelter Bay, Alaska

Name	latitude			longitude		
	deg	min	sec	deg	min	sec
✓ High(1974)	60	28	23.690	146	29	21.442
✓ Andry(1974)	60	28	11.212	146	29	26.121
(✓ Eagle(1974)	60	29	11.677	146	32	10.410
✓ Anders, 1972	60	28	54.103	146	32	07.126
Point Johnstone Light, 1972	60	28	59.707	146	36	43.317
✓ Jon, 1973	60	28	46.171	146	37	17.934
✓ Sis, 1973	60	27	24.319	146	39	06.419
✓ Zap, 1973	60	27	08.197	146	39	12.400
✓ Deer(1974)	60	24	44.353	146	42	15.560
? Titsup(1974)	60	23	21.375	146	43	44.614
✓ Aardvark(1974)	60	22	58.872	146	43	45.877
✓ Whale(1974)	60	21	18.235	146	43	45.848
✓ Bar(1974)	60	20	37.526	146	43	26.537
FAA Tower(1974)	60	28	53.809	146	34	37.575
* Bear Cape Lt(1974)	60	23	21.633	146	43	43.893
* Wes(1974)	60	25	34.202	146	40	57.188

*Light relocated
during 1977 Field Ed.T.
see Form 76-40
dated March 1978.
J.H.*

** all stations listed as (1974) were established by the Davidson by traverseor triangulation and are of topographic quality. Refer to the Horizontal Control Report for further data as to the location of these stations.

J.L.O.

* Station Wes was established by a mini-ranger distance and an angle from Sis, 1973. Initialling on Jon, 1973 the angle was 173-15-25 and the distance was 3806 meters.

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
TO BE REVISED
~~TO BE DELETED~~

STRIKE OUT TWO

OCTOBER

110, 19 74

I recommend that the following objects which have *(have not)* been inspected from seaward to determine their value as landmarks be charted on *(deleted from)* the charts indicated.

The positions given have been checked after listing by J.L.Oswald

M. H. Fleming CDR. NOAA
Chief of Party

[illegible]

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

NAME OF STATION: Point Johnstone Light

CHIEF OF PARTY: M.H.F.

YEAR: 1973

STATE: Alaska

COUNTY: Prince William Sound

6
36

Location, including sketch of object:

Located about 30 miles west-southwest of Cordova, about 20 yards north of Point Johnstone, on a 55 foot high, offshore rock that is attached to the mainland except at the higher tides.

The station is the flashing white light atop a skeleton steel tower. Designated as Johnstone Point Light No. 3345 in the publication 'Light List Volume III Pacific Coast & Pacific Islands, 1973.

NAME OF STATION: Point Johnstone Light

ESTABLISHED BY: M.H.F.

YEAR: 1973

STATE: Alaska

BENCH MARK ALSO ☐

RECOVERED BY: * M.H.F.

YEAR: 1974

COUNTY: Prince William Sound

AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 30 miles west south west of Cordova

HEIGHT OF TELESCOPE ABOVE STATION MARK

FEET.

HEIGHT OF LIGHT ABOVE STATION MARK

FEET.

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION

OBJECT	BEARING	DISTANCE		DIRECTION
		FEET	METERS	
				° ' "

The light was recovered as described in good condition.

HORIZONTAL CONTROL DATA

by the
Coast and Geodetic Survey
NORTH AMERICAN 1927 DATUM

ALASKA 60146 PAGE NO. 29

PER (Prince William Sound, Alaska, G.T.R., 1914).--Station is located on the first prominent point along the shore to the southward magnetic from Burke and Steel's old dock on the west shore of Leadlock Bay. It is marked by a standard disk cemented in a rock.

PINE (Prince William Sound, Alaska, H.P.R., 1901).--This station is located on Porcupine Point, and is on the most northern point of land and the one farthest to the westward from which can be seen station 50W. A tree 0.20 meter in diameter was sawed off 1.30 meters above the ground. The remaining stump marks the station. A 7-inch galvanized wire spike, driven into the top of the stump, marks the center of station.

Two trees and one stump were marked with triangles and four nails were driven into each. They are 18.25 meters, 5.15 meters and 10.15 meters distant.

PT. JOHNSTONE (Prince William Sound, Alaska, H.P.R., 1900).--This station is located on the large rock about 60 feet offshore at Point Johnstone, Hinchinbrook Island. The rock is about 60 feet high, 50 feet in length and 35 feet in width. It is covered with berry bushes and grass. The top is accessible only by use of ladder, the necessary timber for building of which may be found in immediate vicinity. The station is marked by a quart whiskey bottle buried into the ground about 1-1/2 feet.

PT. JOHNSTONE (Prince William Sound, Alaska, H.P.R., 1900; F.W., 1902).--Station of 1900 recovered and re-occupied. Center marked by bottle, neck projecting just above surface of ground. Bottle found broken and reset in cement.

PT. JOHNSTONE (Prince William Sound, Alaska, H.P.R., 1900; A.M.S., 1933).--This station was looked for but not found. It is possible that the station was removed when "dead men" were planted to support a steel ladder up the rock.

New station, Point Johnstone 2, established.

PT. JOHNSTONE 2 (Prince William Sound, Alaska, A.M.S., 1933).--This station is located on a large rock 60 feet offshore at Point Johnstone, Hinchinbrook Island. The rock is about 60 feet high, 50 feet in length and 35 feet in width. It is covered with berry bushes and grass. It is 14 feet from the lighthouse end of rock, 46 feet from offshore end, 10 feet from southern side, 26 feet from northern side and 24 feet from nearest corner of lighthouse on same rock.

DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: PT. JOHNSTONE 2 STATE: Alaska COUNTY: Prince William Sound
ESTABLISHED BY: J.W.S. YEAR: 1933 LOCATION: Pt. Johnstone, Hinchinbrook Island
RECOVERED BY: E.M. YEAR: 1937

Detailed statement as to the nature of the original description: Station recovered as described in 1933.

wire and parts of the old signal were found in the area. Rock station is on the north coast of Hinchinbrook Island on top of a 60 foot rock located about 60 feet offshore at Johnstone Point. This large rock is about 60 feet long and 40 feet wide, grass and small bushes on the top. Point Johnstone Light is on this rock 2 1/2 feet NW of the station. A iron ladder is in place up the lighthouse side of the rock. Station is 15 feet from lighthouse edge of rock, 32 feet from north edge and 10 feet from south edge. It is 24 feet from the nearest corner of the lighthouse box structure. Mark is a standard disk cemented in a drill hole in a 12" by 7" rock and stands 5' above ground surface. It is stamped Pt. Johnstone, 1933.

Max. H. Hatcher

RECOVERY NOTE, TRIANGULATION STATION

NAME OF STATION: PT. JOHNSTONE 2 STATE: Alaska COUNTY: Prince William Sound
ESTABLISHED BY: J.W.S. YEAR: 1933 LOCATION: Pt. Johnstone, Hinchinbrook Is.
RECOVERED BY: J.W.S. YEAR: 1937
AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN:

Detailed statement as to the nature of the original description, including marks found, measurements, character made, and other pertinent facts:
The station was recovered in good condition. The original description is adequate for recovery.

(No previous description)
POINT STEEL (Prince William Sound, Alaska, F.W., 1902).--The old station of Assistant Hitter was recovered. It consists of a large stump, sawed off about 4 feet from the ground. It is in good condition.

POND (Prince William Sound, H.P.R., 1900).--This station is located on the hill, approximately 650 feet high, at the west end of Hawkins Island. It is on the west end of the ridge that runs the entire length of the island. The station is marked by a copper bolt 5/8 inch in diameter leaded in a rock. The station is at the top of the hill.

PORPOISE ROCK (Prince William Sound, Alaska, F.W., 1902).--This station is on the largest and outermost of the group of rocks of the same name lying in the entrance to Port Etches. The rock is flat on top and covered with a growth of rank grass. The station is on the southern edge of the islet on a point a little higher than the general level of the surface. The center is marked by a faint cross on a rock below the general surface of the ground. Two witness marks on projecting rocks close to the edge of the cliff should be easily found and are placed as follows:
Cross, azimuth 33°35', distance 7.58 feet
Cross, azimuth 321°02', distance 10.25 feet

PORPOISE ROCK (Prince William Sound, Alaska, F.W., 1902; A.M.S., 1933).--This station is on the largest and outermost of the group of rocks of the same name lying in the entrance to Port Etches. The rock is comparatively flat on top and covered with a growth of grass. The station is on the southern edge of the islet on a point a little higher than the general level of the surface. The station is marked with a standard disk set in a drill hole. Hole was drilled in the center of the cross that formerly marked the station. The two witness marks were recovered as described. In addition, two standard reference marks were put in drill holes in bedrock.
Reference mark no. 1 is 2.160 meters from station, in azimuth 07°53'. Iron bolt is 2.910 meters from station in azimuth 23°18'.

PEAK # 5 MT. FREEMANTLE (Prince William Sound, Alaska, H.A.K., 1947).--Station is the highest point of the peak which is 1 mile north of Point Freemantle in Valdez arm. It is the southern peak of the ridge on the west side of Valdez arm. Station is Mt. Freemantle.

PRESTON (Prince William Sound, Alaska, H.P.R., 1901).--This station was placed on a rock on the most easterly point of Fox Island, which is just south of the entrance to the Valdez Arm. The rock is separated from the shore at high water and is 2 feet above high water. The station was marked by a 3- by 5/8-inch copper bolt leaded in the rock. Two trees on shore were marked with triangles, with three nails driven into each; 28.14 meters and 44.47 meters distant.

(continued on page 30)

NAME OF STATION: Point Johnstone 2

ESTABLISHED BY: A.M.S.

YEAR: 1933

STATE: Alaska

BENCH MARK ALSO ☐

RECOVERED BY: * M.H.F.

YEAR: 1974

COUNTY: Prince William Sound

AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN: 25 nm west southwest of Cordova

HEIGHT OF TELESCOPE ABOVE STATION MARK

FEET.

HEIGHT OF LIGHT ABOVE STATION MARK

FEET.

DISTANCES AND DIRECTIONS TO AZIMUTH MARK, REFERENCE MARKS AND PROMINENT OBJECTS WHICH CAN BE SEEN FROM THE GROUND AT THE STATION

OBJECT	BEARING	DISTANCE		DIRECTION
		FEET	METERS	
				0 1 "

The station was was recovered in good condition as described.

* Name of chief of party should be inserted here. The person who actually visited the station should sign his name at the end of the recovery note.

John L. Russell

CALIBRATION 10 JUL 1972

ANGLE	R4 HIGH	R3 EAGLE
76	1493	2853
80	1493 -6	2853 -2
84	1287 0	2823 0
88	1167 -2R	2808 +2
92	892 4/-	2561 R
96	597 -1	2547 R
100	off range	
104		
108		

Mini Range Calibration

EAGLE

HICIT

12 JULY

R3

R4

80 2849 +2 1494 -7

84 2823 0 1295 -8

88 2815 -5 1087 -3

92 ~~2843~~ R 902 -8

96

Calibration

17 JULY 1974

Johnstone - John

LR Z-P

R4 from S13

170° 963 -4

112 968 -3

114 979 -5

116 992 - 5

118 1006 -4

CORRECTOR

$\sim 1600 \text{ z}$

Calibration

JULY 18

Range is SIS-ZAP

Rate from

WCS

John - R3

CORRECTOR

80"		1197	-6
85		1187	-9
90		1184	-11
95		1182	-4
100	6339 -9	1195	-4
105	6233 -9	1218 -3	
110	6123 -10	1252	-3

CALIBRATION RANGES

JON - POINT JOHNSTONE LIGHT

with ZAP on the right

Right Angle	SIS	JON
110	959	2785
112	965	2734
114	974	2681
116	987	2626
118	1002	2569

SIS - ZAP

with JON on the left

Right Angle	WES	JON
80	6738	1191
85		1178
90		1173
95		1178
100	6330	1191
105	6224	1215
110	6113	1249

HIGH - ANDRY.....MINI RANGER RANGE

44

Eagle on the right

Right Angle	EAGLE	HIGH
76	2894	1692
80	2851	1487
84	2823	1287
88	2810	1090
92	2810	894
96	2823	696

comp by JLO

chk by JLO

Average Correctors for the MINI-RANGER

12 July

Eagle -1 High -6

10 July

Eagle 0 High -2

17 July

Sis -4

18 July

Wes -9 JON -6

10 JULY

TIME (Z)	Post#	EAGLE			ANGLE
		MINI-RANGER	ANDRY	DESCRIPTION	
1947	1	3347			93-19
1952	2	3039	LWL		91-25.6
1955	3	3040	HWL		90-47.2
2006	4	2537	Cnt Under		$\frac{85-30.0}{10-2.5}$
2065	5	2532			86-46.3
* 2010	6	1837			88-23.5
2013	7	1417	LWL ^{10m}		89-34.3
2015	8	1415	HWL		86-31.7
2024	9	765	ROCKS		87-14.9
2030	10	340	Anchor		340-55.1
2033	11	332	Cut Holl		348-38.8
2034	12	531	Rock B 1.0		330-31.9
2035	13	542	Rock Anchor		328-52.0
2038	14	591	LWL/S/L		335-62.5
2042	15	875	Rock B 4.0		331-12.0
2047	16	1271	S/L Rk B 1.0		326-42.4
2050	17	1557	Rock Pt		318-00
2051	18	1606	Rk B 2.0		" "
2055	19	1757	1410 Mini-Ranger		
2057	20	2270	Rk B 4.0		319-44.2
2059	21	2330	Extant of Rk		315-32.9
2107	22	4512 375	Rock edge		292-54.4
2108	23	4506	Rock "		293-24.0
2110	24	4493	Rk "		293-10.0

July 17 Field edit
L to W 173 525

		Min for	AL from Ss
Pos #	Time	Sis RI	initial m JON
✓ 57	1340	855	354° 20
✓ 58	1348	618	334° 04
✓ 59	1352	386	357° 21.8
✓ 60	1358	195	170 20.3
✓ 61	1401	492	169 09.3
✓ 62	1407	816	171° 13.9
✓ 63	1412	1303	170° 44.0
✓ 64	1416	1530	171 40.7
✓ 65	1420	1980	172 11.8
✓ 66	1422	2109	172 40.3
✓ 67	1434	3614	172° 22.00
✓ 68	1444	3658	173° 17.3
✓ 69	1447	3772	174° 05.2
✓ 70	1449	3957	174° 54.3
✓ 71	1453	4183	176° 06.8
✓ 72	1455	4236	176° 12.8
✓ 73	1458	4512	176 52.6
✓ 74	1501	4662	177 30.3
✓ 75	1504	4822	178 36.1
✓ 76	1506	4906	179° 09.7
✓ 77	1508	4933	178 47.6
✓ 78	1511	4967	178° 12.0
✓ 79	1514	5124	178° 10.8
✓ 80	1516	5153	177 28.6

Field edit 7/18

Pos #	Time	Rate from Sta 6 Jcs	Az. from Wcs 515
✓ 94	1353	1620	003° 08.9
✓ 95	1358	1551	005° 38.3
✓ 96	1406	1388	018° 00.9
✓ 97	1410	892	029° 00
✓ 98	1413	843	032° 0.6
✓ 99	1416	785	032° 05.2
✓ 100	1420	435	034 17.4
<hr/>			
Initial	on Sisters	Rate from Jcs R3	Az. from Jcs 14.148 on Sisters
✓ 101	1504	126	111° 30
✓ 102	1540	133	105° 16
✓ 103	1513	125	194° 54
✓ 104	1518	670	217° 18.4
✓ 105	1524	145	032° 15
✓ 106	1527	253	348° 49
✓ 107	1528	110 Line (253)	340° 33.2
✓ 108	1536	1213	23° 58.6
✓ 109	1537	1316	24 17.1
✓ 110	1539	1535	24° 40.2
✓ 111	1541	1755	25° 29
✓ 112	1544	1990	25° 58.3
✓ 113	1546	2167	28 21.7
same as position 57 on Seven Sisters Rocks			

Detached Rks c. 1-2'

Fix #49

Left L Sig 18°

Center S. point Shelter Bay

Right L DEAR 88° + 52' 50'

125 m SW of rkt.

J.L. DARLING CORP.
TACOMA WASH. U.S.

Weatherproof
No. 312

* SEA-BAR is located approx
3m above HUL on a detached
rk 25m long in a N-S dir +
10m wide with 2 prominent
peaks. Mark is a spike connected
on the edge of a crevice near
northern most peak

88
52' 50"
10

TIME	POS #	Rate from AZ	Description
ZULU		DEER	DEER INITIAL ON TITUP
1357	110A	126	334 00.4 - rk AW 3m to rk cut up
1359	111A	126	331 07.8 outermost of 3 ditch rks AW
1400	112A	128	321 18.0 at rk atop 25 m long 6 1-5
1406	113A	223	302 50.7 rk. C. 2' 20 m to WL on
			rk cut up fool from 112 to bch out 50 m from 112 to bch.
1411	114	136	294 50 2 m to WL Rock + sand bch
1417	115	662	318 25.9 50 m to H.W. 3 m to WL at mouth of stream twice 20 ft bch
1419	116	774	339 07.7 at rk AW 15 m to rk cut up
1422	117	843	336 15.9 H.W. 1' 3 m to out up
1424	118	931	330 01.4 at rk b. 3' 2 m to rk atop
1426	119	973	333 19.2 at edge of out up 30 m long 5 1-5
1428	120	1048	345 26.9 outer edge of out up b. 1'
			40 m to bch
1429	121	1090	344 38.4 1 m to WL on bldn. bch
1431	122	1077	346 24.0 at rk b. 1' 70 m to bch
1432	123	1111	340 52.2 at inner edge of out up
1435	124	1127	350 46.7 at outer edge of out up b.
		1334 00.4	Initial on Tils up

July
19

TIME	Post#	R ³	L	Comments
2000				
1436	125	1150	350° 54.8	etch rk aw
1438	126	1196	351° 29.1	edge of outcrop b 1-7'
1439	127	1240	352° 51.0	etch rk 3' b 10 m to outcrop
1440	128	1343	352° 00.6	edge of outcrop b 5'
1443	129	1473	351° 23.5	etch rk 5' b 20 m to beh
1447	130	1606	351° 49.0	rk aw 30 m to beh
1448	131	1445	351° 37.0	rk c 1'
1456	132	1799		Fall ↑
1504	132	2635	0° 40.7	rk aw 10 m to outcrop
1505	133	2575	359° 45	rk aw 20 m to S.L.
1506	134	2571	359° 15	rk c 1' 20 m to SL
1510	135	2615	356° 31.8	at SL up rk beh.
1513	136	2720	none	st SL 20 m to HU directly off 5
1524	137	2754	0° 46.3	large niches at rk 6' b connected to rk b 4' 20 m to SL
1529	138	2817	0° 51.2	rk c 2' 40 m to SL
1531	139	2886	0° 50'	rk aw 20 m to TIF. 15'
1533	140	2922	0° 46.7	rk 2' b
1534	141	2939	0° 47.3	rk aw
1535	142	2944	0° 18.4	rk aw
1541	143	330	355° 48.6	rk 0.6'
1542	144	310	358° 00	rk c 2'

J.L. DARLING CORP.
TONGUE WASH. U.S.J.L. DARLING CORP.
TONGUE WASH. U.S.

No. 312

J.L. DARLING CORP.
TONGUE WASH. U.S.

Time	Des #	30° 39'		Description
		Dist	L	
1844	145	203	339 4.0	rks aw ✓
1847	146	393	307 35.2	Anchor stem
1850	147	123	30° 39'	Rk AW 50 m
Shelter buoy (Rk Aw.) at 1625Z on				
L Left HWH 83° 00' Center - Bluff line (LH) L Right Star W 110° 00'				
L Left - Same 34° 45' Center Calibration Buoy L Right Bluff - Far point 112° 42' +46.00 = R L = 158° - 12'				
Bluff is to the right of gravel bar at the inlet to Shelter Bay Lagoon				
Final Review Remarks: Position fixed from very indefinite points and computed as PA. Rock observed at minus 3 ft. tide as "rock awash" according to approved tides. JH				

initial on ARDUARK					
Time	Pos. #	Rate Wb. to	Az. whale		
1824	147	1416	168° 36'	4 dth rk	6 4'
1828	148	1295	167° 42'	2 m to rk where whale is located	
1830	149	1229	169° 50.6'	at rk and 2 m to rk b 3'	
1831	150	1132	170° 21'	1 m to rk b 3'	
1832	151	1112	163° 30.3'	at rk dth 20'	
1834	152	1032	166° 07.6'	at rk and	
1840	153	777	166° 01'	rk c 4'	
1841	154	753	163° 51.4'	rk b 1'	
1842	155	640	167° 46.4'	rk b 1'	
1843	156	575	167° 56.4'	rk b 1'	
1844	157	537	169° 46.7'	rk and	
1845	158	517	170° 11.8'	rk and	
1846	159	469	171° 24.3'	rk and	
1848	160	342	181° 43.8'	at edge of rk at dth b 3'	
1850	161	172	181° 37.0'	rk b 2'	
1852	162	121	195° 34'	rk b 5'	
1854	163	119	288° 01.5'	rk 1' b.	
	164		279° 25'		
1855	164	121	344° 28.7'	rk 2' b	
1856	165	147	356° 01.5'	rk and	30 m to beh.

J. L. DARLING COPY
TACOMA WASH. U.S.No. 312
Weatherproof

Pos. #				
1850	166	274	350°44	pt of rd at cp
1859	167	310	349°40	at RKS AW
1906	168	2235	35929.7	outermost of detached rks b 4'
1908	169	2259	0°32.7	rks b 1'
1912	170	2623	0°53.4	rk 22'
1914	171	2718	0°51.4	rk 22' (171)
1915	172			

J. L. DARLING CO.

YACOMA, WASH. U.S.

"Get it Right"

WEATHERPROOF

No. 312

10 JULY 74

	ZULU	POS	DESCRIPTION	DISTANCE TO EAGLE FROM OBJECT (METERS)	ANGLE AT EAGLE FROM ANGERS TO OBJECT	L	C	R
191	1947	1		3347	93° 19'			
191	1952	2	LWL	3039	91° 25.6'			
191	1955	3	HWL	3040	90° 47.2'			
191	2000	4		2537	80° 30.0'			
191	2005	5		2532	86° 46.3'			
191	2010	6		1837	88° 23.7'			
191	2013	7	LWL	1417	89° 34.3'			
191	2015	8	HWL	1415	86° 31.7'			
191	2024	9	ROCKS	765	87° 14.9'			
191	2030	10	ANCHORS	340	340° 55.1'			
191	2033	11	Cwt Holl	332	348° 38.8'			
191	2034	12	WRECK BY 1.0	531	330° 31.9'			
191	2035	13	ROCK AWASH	542	328° 52.0'			
191	2038	14	LWL/S/L	591	335° 02.5'			
191	2042	15	ROCK B 4.6	875	331° 12.0'			
191	2047	16	S/L ROCK B 1.0	1271	326° 42.9'			
191	2050	17	Rocky Pt.	1557	318° 0.0'			
191	2051	18	ROCK B 2.0'	1606	318° 0.0'			
191	2055	19	1410 ^N TO ANDRY W/MINIRANGER	1757	-			
191	2057	20	ROCK B 4.0	2270	319° 44.2'			
191	2059	21	EXTENT OF ROCKS	2330	315° 32.8'			
191	2107	22	ROCK EDGE	4512	292° 54.0'			
191	2108	23	" "	4506	293° 24.0'			
191	2110	24	" "	4493	293° 10.3'			
191	2112	25	RK B. 1.5	4289	294° 52.8'			
191	2115	26	RK B 3.0	4064	295° 29.2'			
191	2120	27	EXTENT OF ROCKS	3822	297° 06.8'			
191	2124	28	" "	2122	304° 58.5'			

	ZULU	POS	DESCRIPTION	ANGLE		L	C	R
191	2126	29	EXTENT OF RKS	2670	309° 27.6'			
191	2128	30	ROCK OUTCROP	2544	312° 31.2'			
191	2130	31	RK B. 1.6'	2336	315° 31.7'			
				FROM HIGH				
	ZULU TIME	POS#	DESCRIPTION	(METERS) DISTANCE	ANGLE FROM HIGH			
192	18522	31	RK OUTCRP	315	238° 23'			
192	1903	32	" "	416	195° 13.5'			
192	1909	33	SINGLE RK BARE BY 1'	821	189° 43.5'			
192	1911	34	RK OUTCROP	878	194° 42.8'			
192	1914	35	" "	1013	196° 59.0'			
192	1916	36	ROCK BARE BY 5'	1089	187° 57.4'			
192	1916	37	" "	1103	188° 11.6'			
	1920	38	" "	1070	189° 05.2'			
192	1922	39	RK BARE BY 3'	1064	182° 42.6'			
192	1925	40	" "	1138	179° 52.3'			
192	1929	41	ROCK OUTCRP	891	163° 23.1'			
192	1930	42	" "	777	157° 22.4'			
	ZULU	POSITION	DESCRIPTION	DIST. FROM HIGH	ANGLE FROM HIGH			
	2008	43	RK Pt 6m LONG BARE 1'	5603	138° 25.8'			
193	2012	44	RK OUTCRP BARE 12'	5536	138° 30.7'			
193	2016	45	RKS ON BEACH BARE 1'	5468	138° 48.4'			
193	2020	46	GRAVEL BEACH S/L	5363	139° 56.7'			
193	2022	47	HWL	5363	140° 08.2'			
193	2026	48	3RKS BARE 4'	4828	139° 26.2'			
193	2028	49	RK BARE 4'	4735	139° 53.9'			
193	2032	50	RK OUTCRP BARE 6'	4684	140° 13.9'			
193	2035	51	RK OUTCRP BARE 4'	4512	140° 51.5'			
193	2038	52	RK BARE 3'	4437	141° 09.5'			
193	2040	53	RK OUTCRP 4m LONG BARE 3'	4266	143° 00'			
193	2043	54	2' DEEP 20m TO S/L	4160	144° 45.5'			

	ZULU	POS	DESCRIPTION	DIS. FM HIGH	AZ FM HIGH	L	C	R
193	2048	55	HWL	2048	144°58'7			
	2051	56	RK OUTCRP HWL = LWL	2051	147°23'5			
	MINI RANGER(R) FROM SIS; ANGLE FROM SIS			INITIAL ON JON		/		
128	1340	57	EDGE ROCK OUTCROP	855	354 20			
198	1348	58	Rock OUTCROP B 5.0'	618	354 04.0			
198	1352	59	RK OUTCROP B 6.0'	386	357 21.8			
198	1358	60	RK LEDGE B 7.0'	195	170 20.3			
198	1401	61	2m to RK OUTCROP B 4.0'	492	169 09.3			
198	1407	62	Rocky Bch S/L	816	171 13.9			
198	1412	63	S/L ROCKY BEACH	1303	170 44.0			
198	1416	64	RKS AWASH; 45m to HWL	1530	171 40.7			
198	1420	65	S/L = HWL	1980	172 11.8			
198	1422	66	Rocky OUTCROPS	2109	172 40.3			
198	1439	67	RK B 1.0'	3614	172 22.0			
198	1444	68	S/L ROCKY BEACH	3658	173 17.3			
198	1447	69	S/L 25 m to HWL	3772	174 05.2			
198	1449	70	At Rocky outcrop B 4.0' 4m to S/L	3957	174 54.3			
198	1453	71	RKS B 1.0' 5m to S/L	4183	176 06.8			
198	1455	72	RK B 4.0' 3m to S/L	4236	176 12.8			
198	1458	73	Rock AWASH 2m to outcrop B 5.0'	4512	176 52.6			
198	1501	74	S/L ~130 m to HWL	4662	177 30.3			
198	1504	75	RK B 2.0' 20m to S/L	4822	178 36.1			
198	1506	76	RK AWASH	4906	179 09.7			
198	1508	77	RK B 3.0' 5m to outcrop B 7.0'	4933	178 47.6			
198	1511	78	3m to S/L ~140 to HWL	4967	178 12.0			
198	1514	79	Rock AWASH	5124	178 10.8			
198	1516	80	At S/L; 50 m to HWL	5123	177 28.6			
198	1524	81	2m to RK AWASH; 10m to outcrop B 8.0'	5213	177 41.4			

	ZULU	POS	DESCRIPTION			L	C	R
	MINI RANGER	(R ₄)	FROM SIS	ANGLE FROM SIS	INITIAL	ON JOI	✓	
198	1525	82	At S/L	5239	177	22.8		
198	1527	83	Rk B 2.0', outcrop of 3, 45m to S/L	5363	177	39.3		
198	1530	84	2 m to S/L ~ 120m to HWL	5424	177	12.0		
198	1533	85	Rk AWASH 30m to S/L	5497	177	46.3		
198	1535	86	At Rk B 4.0', 5m to outcrop B 10.0	5585	177	45.7		
198	1538	87	Rk B 6.0' 30m long NE-SW direct	5631	177	45.7		
198	1540	88	Rk AWASH, 8m to S/L	5646	177	37.5		
198	1543	89	At outcrop B 4.0', 35m to HWL	5695	177	30.6		
198	1545	90	Rk AWASH 20m to S/L	5734	177	47.0		
198	1548	91	2m to outcrop	5754	177	25.0		
198	1550	92	Detached rock B 2.0'	5818	177	25.0		
198	1555	93	¹⁰⁰ 50 m east to Rk B 3.0' reef	6080	177	22.0		
			with kelp.					
	MINI RANGER	(R ₄)	FROM WES	ANGLE FROM WES	INITIAL	ON SIS	✓	
199	1353	94	At Rock Outcrop B 7.0'	1620	03	08.9		
199	1358	95	Rk outcrop B 8.0', 60m to HWL	1551	05	38.3		
199	1406	96	Mid channel to Shelter Bay Inlet	1388	18	00.9		
199	1410	97	Edge of rocky outcrop B 4.0'	892	29	00.0		
199	1413	98	DETACHED ROCK B 2.0'	843	32	00.6		
199	1416	99	" " B 2.0', ^{SIZE} 20m x 10m	785	32	05.2		
199	1420	100	BOULDERS B 0-4', ~ 80 m to HWL	435	34	17.4		
	MINI RANGER	ON JOI (R ₃)	ANGLE FROM JOI	INITIAL	ON SISTER		✓	
199	1509	101	OUTER EDGE, Rk outcrop B 5.0'	126	111	30.0		
199	1510	102	DETACHED Rk C 1.0'	133	105	16.0		
199	1513	103	Rk B 7.0'	125	194	54.0		
199	1518	104	OUTER MOST OF 2 Rks B 2.0'	670	217	18.4		
199	1524	105	DETACHED Rks B 1.0' 10m east to edge of outcrop.	145	32	15.0		

	ZULU	POS	DESCRIPTION			L	C	R
	MINI RANGER	(R ₂)	ON JON ANGLE FROM JON; INITIAL ON SISTERS	✓				
199	1527	106	S/L	253	348	49.0		
199	1528	107	HWL	253	340	33.2		
199	1536	108	Small Rk outcrop B3-5'	1213	23	58.6		
199	1537	109	Rk B1.0'; 3m to S/L	1316	24	17.1		
199	1539	110	Rks At S/L B 1-3'	1535	24	40.2		
199	1541	111	Rks At S/L B 1-4'	1755	25	29.0		
199	1544	112	BOULDER BEACH S/L; 40m to HWL	1990	25	58.3		
199	1546	113	OUTER ROCK OF "SEVEN SISTERS"	2167	28	21.7		
	T1A AND MIDIRABER	()	ON DEER INITIAL ON TITSUP				7	
200	1357	110A	Rk AWASH; 3m to Rk OUTCROP	126	334	60.4 57.8	-	
200	1359	111A	OUTERMOST OF 3 DITCHD RKS AWASH	126	331	07.8	-	
200	1400	112A	Rk OUTCROP 25m long B1-5'	128	321	18.0	-	
200	1406	113A	Rk C2.0' FOUL AREA	223	302	50.7	-	
200	1411	114	2m to WL; Rk & SAND Bch; 50m to HWL	436	294	50.0	-	
200	1417	115	3m to WL AT MOUTH OF STREAM	662	318	25.4	-	
200	1419	116	AT Rk AWASH 15m TO ROCKY OUTCROP	774	334	04.7	✓	
200	1422	117	Rk B1.0'; 3m TO OUTCROP	843	336	15.9	✓	
200	1424	118	AT Rk B3.0'; 2m TO ROCKY OUTCROP	931	338	01.4	✓	
200	1426	119	30m long OUTCROP B1-5'	973	343	19.2	✓	
200	1428	120	OUTCROP B1.0'; 40m TO Bch	1048	345	26.9	✓	
200	1429	121	1m to S/L ON BLDR BEACH	1090	344	38.4	✓	
200	1431	122	DITCHD Rk B1.0'; 70m TO Bch	1077	346	24.0	✓	
200	1432	123	AT INNER EDGE OF OUTCROP B5.0'	1111	348	52.2	✓	
200	1435	124	AT OUTER " " " B1.0'	1127	350	46.7	✓	
200	1436	125	DITCHD Rk AWASH	1150	350	54.8	✓	
200	1438	126	EDGE OF OUTCROP B1-7'	1196	351	29.1	✓	

	ZULU	POS	DESCRIPTION	LEFT	RIGHT	L	C	R
T	1A AND MINI RANGER		ON DEER INITIAL ON	TITSUP				
200	1439	127	DITCHED RK B 3.0'; 10m TO OUTCROP	1240	352 51.0			
200	1440	128	Edge of OUTCROP B 5.0'	1343	352 50.0			
200	1443	129	DITCHED RK B 1.0', 20 m TO BCH	1473	351 23.5	✓		
200	1447	130	Rk AWASH, 30 m TO BCH	1606	351 49.0	✓		
200	1448	131	Rk C 1.0'; FOUL	1445	351 37.0	✓		
200	1504	132	Rk AWASH, 10m TO OUTCROP	2635	000 46.7	✓		
200	1505	133	Rk AWASH 20 m to S/L	2575	359 45.0	✓		
200	1506	134	Rk C 1.0'; 20 m to S/L	2571	359 15.0	✓		
200	1510	135	S/L OF ROCK BEACH	2615	356 31.8	✓		
200	1513	136	AT S/L; 20m TO HWL, NEAR LARGE ANCHORS	2720				
200	1524	137	AT Rk B 1.0', connected to Rk B 4.0' 20m to S/L	2754	000 46.3	✓		
200	1529	138	Rk C 2.0'; 40 m to S/L	2817	000 51.2	✓		
200	1531	139	Rk AWASH 20 m to TITSUP	2886	000 50.0	✓		
200	1533	140	Rk B 2.0'	2922	000 46.7	✓		
200	1534	141	Rks AWASH	2939	000 42.3	✓		
200	1535	142	Rks AWASH	2944	000 18.4	✓		
200	1541	143	Rk B 6.0'	330	355 48.6			
200	1542	144	Rk C 2.0'	310	358 00.0			
200	1544	145	Rks AWASH	203	339 46.0			
200	1547	147	ANCHOR STEM B 2.0'	393	307 35.2			
200	1550	148	Rk AWASH SOMEWHERE TO S WES	123	30 39.0			
200	1625	148	Rk AWASH WITH KELP					
	MINI RANGER		ON WHALE ANGLE AT WHALE	INITIAL ON	AARDVARK.	7		
200	1824	147A	DITCHED RK B 4.0'	1416	168 36.4			
200	1828	148A	2m TO Rk WHERE WHALE IS	1295	167 42.0			
200	1830	149	AT Rk AWASH, 2m TO Rk B 3.0'	1229	169 50.6			

	ZULU	POS	DESCRIPTION	LEFT	RIGHT	L	C	R
200	1831	150	Rk B 3.0'	1132	170 21.0	✓		
200	1832	151	At Rk OUTCROP	1112	163 30.3	✓		
200	1834	152	At Rk AWASH	1032	166 07.8	✓		
200	1840	153	Rk C 4.0'	777	166 01.0	✓		
200	1841	154	Rk B 1.0'	753	163 51.4	✓		
200	1842	155	Rk B 1.0'	640	167 46.4	✓		
200	1843	156	Rk B 1.0'	575	167 56.4	✓		
200	1844	157	Rk AWASH	537	169 46.7	✓		
200	1845	158	Rk AWASH	517	170 11.8	✓		
200	1846	159	Rk AWASH	469	171 24.3	✓		
200	1848	160	AT OUTER EDGE OF Rk OUTCROP ^{B 3.0'}	342	181 43.8	✓		
200	1850	161	Rks B 2.0'	172	181 37.8	✓		
200	1852	162	Rks B 5.0'	121	195 34.0	✓		
200	1854	163	Rk B 1.0'	119	208 01.5			
200	1855	164	Rk B 2.0'	121	344 28.7			
200	1856	165	Rks AWASH 30m TO BCH	197	356 06.5			
200	1858	166	POINT OF Rk OUTCROP	274	350 44.0			
200	1859	167	At Rks AWASH	310	349 40.0			
200	1906	168	OUTER OF DITCH Rks B 4.0'	2235	359 29.7			
200	1908	169	Rk B 1.0'	2259	000 32.7			
200	1912	170	Rk C 2.0'	2623	000 53.4			✓
200	1914	171	Rk C 2.0'	2718	000 51.4			
200		172						
		173						

NOAA FORM 75-74 (2-74)		U.S. DEPARTMENT OF COMMERCE NOAA NATIONAL OCEAN SURVEY	
PHOTOGRAMMETRIC OFFICE REVIEW			
1. PROJECTION AND GRIDS		2. TITLE	
LON Jr.		LON Jr.	
3. MANUSCRIPT NUMBERS		4. MANUSCRIPT SIZE	
LON Jr.		LON Jr.	
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY		6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations)	
LON Jr.		LON Jr.	
8. BENCH MARKS		9. PLOTTING OF SEXTANT FIXES	
LON Jr.		LON Jr.	
10. PHOTOGRAMMETRIC PLOT REPORT		11. DETAIL POINTS	
LON Jr.		LON Jr.	
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE		13. LOW-WATER LINE	
LON Jr.		LON Jr.	
14. ROCKS, SHOALS, ETC.		15. BRIDGES	
LON Jr.		LON Jr.	
16. AIDS TO NAVIGATION		17. LANDMARKS	
LON Jr.		LON Jr.	
18. OTHER ALONGSHORE PHYSICAL FEATURES		19. OTHER ALONGSHORE CULTURAL FEATURES	
LON Jr.		LON Jr.	
PHYSICAL FEATURES			
20. WATER FEATURES		21. NATURAL GROUND COVER	
LON Jr.		N.A.	
22. PLANETABLE CONTOURS		N.A.	
23. STEREOSCOPIC INSTRUMENT CONTOURS		24. CONTOURS IN GENERAL	
N.A.		N.A.	
25. SPOT ELEVATIONS		26. OTHER PHYSICAL FEATURES	
N.A.		LON Jr.	
CULTURAL FEATURES			
27. ROADS		28. BUILDINGS	
LON Jr.		LON Jr.	
29. RAILROADS		30. OTHER CULTURAL FEATURES	
LON Jr.		LON Jr.	
BOUNDARIES			
31. BOUNDARY LINES		32. PUBLIC LAND LINES	
N.A.		N.A.	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES		34. JUNCTIONS	
LON Jr.		LON Jr.	
35. LEGIBILITY OF THE MANUSCRIPT		LON Jr.	
36. DISCREPANCY OVERLAY		37. DESCRIPTIVE REPORT	
LON Jr.		LON Jr.	
38. FIELD INSPECTION PHOTOGRAPHS		39. FORMS	
LON Jr.		LON Jr.	
40. REVIEWER		SUPERVISOR, REVIEW SECTION OR UNIT	
L. O. Neterer Jr. 01/31/73		A.C. Rauck Jr.	
41. REMARKS (See attached sheet)			
FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT			
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.			
COMPILER		SUPERVISOR	
James R. Minton 03/22/78		James Massey	
Reviewer James Massey 03/78			
43. REMARKS			
See Part II of forms 76-36c for 1974 and 1977 for all field edit source data.			

REVIEW REPORT TP-00634

SHORELINE

61. GENERAL STATEMENT:

Field edit was accomplished for this Final Map during the 1974 and 1977 hydrographic survey operations.

See the Summary included in 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 Cordova (B-7) Alaska, 1950, 1:63360 scale and Cordova (B-8) Alaska, 1951, 1:63360 scale. No significant differences were noted.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

The contemporary hydrographic survey covering this map includes the three following verified smoothsheets: H-9424, 1974, 1:20,000 scale; H-9713, 1977, 1:10,000 scale and H-9425, 1974, 1:20,000 scale. No significant differences were noted during the comparison with H-9424 and H-9713.

A comparison with H-9425 revealed two major discrepancies. The mapped position for a hazardous rock located at Lat. 60° 25' 53" Long. 146° 40' 30" in Shelter Bay disagrees with the smoothsheet location by approximately 120 meters. This rock was field determined by inaccurate control methods and the photography is unsupportive offshore. Consequently, the rock was compiled as position approximate on this shoreline map.

The other discrepancy involves the smoothsheet location of Bear Cape Light. This navigational aid was originally field determined in 1974 and was listed as horizontal control for the hydrographic survey. However, in 1977 during additional field edit operations, a new position was redetermined which located the light approximately 80 meters northeast of the 1974 position. No explanation concerning this difference was submitted, but according to N.G.S. the 1974 horizontal control data submitted for that immediate area was evaluated and rejected.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with NOS chart 16709, 1:80,000 scale, 18th Ed., June 28/80.

TP-00634

There is an apparent displacement between the charted position for Bear Cape Lt. 2 and the 1977 field surveyed position. A comparison between the 17th and 18th chart editions indicates a small adjustment to the light's location. However, the 18th edition appears to be less accurate as the surveyed position locates the Light on the west side of the bluff as previously published on the 17th edition. A call to Geodesy confirmed the 1977 position which was adjusted in March 1981. It is listed in the N.G.S. file as G-16601, BEAR CAPE LIGHT 2, 1977, Lat. $60^{\circ} 23' 22.793''$ Long. $146^{\circ} 43' 38.621''$ and makes reference in the description as being navigational aid #3406.70 in the Light List. The 1980 Light List indicates a 1974 position which was probably provided during the 1974 partial field edit operation; this position was later found to be incorrect and the light was relocated in 1977 as stated on the March 1978 Form 76-40 included in this Descriptive Report.

The height assigned to the position approximate rock located at Lat. $60^{\circ} 25' 53''$ Long. $146^{\circ} 40' 30''$ in Shelter Bay was inaccurately labeled as uncovering 3 feet on the Class I map. Consequently, this error is carried forward on the 18th edition chart and the 1981 edition of the Coast Pilot. This rock is correctly described in the field edit report and the descriptive report for the Contemporary Hydrographic Survey (H-9425, 1974) as being covered 3 feet at MLLW. Subsequently, the revision to this map, "covers 3 ft. MLLW," was made during final review.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

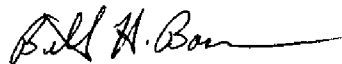
This map complies with the Project instructions, and meets the requirements for Bureau Standards of Map Accuracy.

Submitted by:



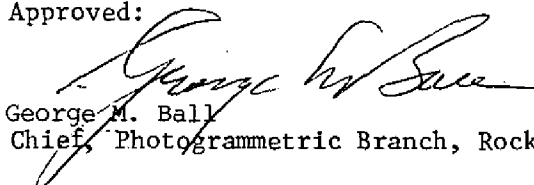
Jerry L. Hancock
Final Reviewer

Approved for forwarding:

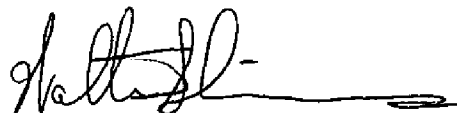


Billy H. Barnes
Chief Photogrammetric Branch, AMC

Approved:



George M. Ball
Chief, Photogrammetric Branch, Rockville



Walter S. Simmons
Chief, Photogrammetry Division

May 19, 1981

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-7210 (HINCHINBROOK ISLAND, ALASKA)

CM-7210

TP-00634

Anderson Bay	Johnstone Point
Anderson Creek	Orca Bay
Bear Cape	Phipps Point
Constantine Harbor	Point Horn
Deer Cove	Port Etches
Eagle Creek	Prince William Sound
Eagle Point	Shelter Bay
Garden Cove	Shelter Point
Garden Creek	The Seven Sisters
Garden Island	
Hinchinbrook Entrance	
Hinchinbrook Island	

Approved by:

Charles E. Harrington

Charles E. Harrington
Chief Geographer, C3x5

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

NONFLOATING AIDS FOR CHARTS

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

<input checked="" type="checkbox"/> TO BE CHARTED <input type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED		REPORTING UNIT Pacific Northwest Office Seattle, Wa.	STATE Alaska	LOCALITY Hinchinbrook Island	DATE Mar 1978
The following objects HAVE <input checked="" type="checkbox"/> BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS. OPR PROJECT NO.		JOB NUMBER CM-7210	SURVEY NUMBER TP-00634	DATUM N.A. 1927	

OPR PROJECT NO.		JOB NUMBER	SURVEY NUMBER		DATUM	METHOD AND DATE OF LOCATION (See instructions on reverse side)				CHARTS AFFECTED
The following objects have been inspected from standard sea limits and found to be		CM-7210	TP-00634		N.A. 1927					
CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	LATITUDE		POSITION		LONGITUDE		OFFICE	FIELD	
		° /	"	° /	"	D.P. Meters	D.P. Meters			
Light	Johnstone Point Light (Point Johnstone Light, 1978) ³	60	28	59.707 1848.0	146	36	43.317 661.6		F-2-6-L 1973	16709 16700
Light	(Bear Cape Light 2, 1977)	60	23	22.786 705.2	146	43	38.770 593.9		F-2-6-L 7/14/77	16709 16700
	Note: A position was determined for								o	
	bear cape light in 1974 by J.L. Oswald,									
	but was discovered to be incorrect and									
	consequently relocated in 1977 by R.B.									
	Melby.									

ORIGINATING ACTIVITY	
<input type="checkbox"/> HYDROGRAPHIC PARTY	<input type="checkbox"/> QUALITY CONTROL & REVIEW GRP.
<input type="checkbox"/> GEODETIC PARTY	<input type="checkbox"/> COAST PILOT BRANCH
<input type="checkbox"/> PHOTO FIELD PARTY	<input type="checkbox"/> (See reverse for responsible personnel)
<input checked="" type="checkbox"/> COMPILATION ACTIVITY	
<input type="checkbox"/> FINAL REVIEWER	

[illegible]

INFORMATION ON DISSEMINATION OF PROJECT MATERIAL

CM-7210
Hinchinbrook Island, Alaska

National Archives/Federal Records Center

Brown Jacket:

Aerotriangulation Photographs
Plot Report
Tide Computations
Form(s) 275 (fix volumn Bk.)
Form(s) C&GS 152
Photo/Hydro Support Photos
Project Diagrams

Project Completion Report

Bureau Archives

Registered Maps
Descriptive Reports

Reproduction Division

Reduction Negative of each map

Office of Staff Geographer

Geographic Names Standard

Marine Chart Division

Chart Maintenance Prints