

T-012402

T-012402

NOAA FORM 76-35 (6-80)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Map No. T-12402	Edition No. 1
Job No. PH-6705	
Map Classification FINAL, FIELD EDITED MAP	
Type of Survey SHORELINE	
LOCALITY	
State ALASKA	
General Locality THORNE ISLAND AND WHALE PASSAGE	
Locality STEVENSON ISLAND	
19 66 TO 19 78	
REGISTERED IN ARCHIVES	
DATE	

NOAA FORM 76-36B
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYT-12402
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-8"L", L=152.21 mm Wild RC-9"M", M= 88.20 mm		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE	
☒ PREDICTED TIDES ☐ REFERENCE STATION RECORDS ☐ TIDE CONTROLLED PHOTOGRAPHY				Pacific	
				MERIDIAN	
				120th	
				☒ STANDARD ☐ DAYLIGHT	

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
66L(P)5850-5851 ✓	Jul.12,1966	14:01 ✓	1:30,000	4.5 ft. above MLLW ✓
66L(P)5841-5843 ✓	Jul.12,1966	13:55 ✓	1:30,000	4.6 ft. above MLLW ✓
66L(P)5835 ✓	Jul.12,1966	13:49 ✓	1:30,000	4.6 ft. above MLLW ✓
66L(C)5883-5888 ✓	Jul.12,1966	14:48 ✓	1:20,000	4.6 ft. above MLLW ✓
66L(C)5889-5890 ✓	Jul.12,1966	14:53 ✓	1:20,000	4.7 ft. above MLLW ✓
66L(C)5903-5904 ✓	Jul.12,1966	15:03 ✓	1:20,000	4.8 ft. above MLLW ✓
66M(C)233-234* ✓	Jul.12,1966		1:60,000	
67M(P)635-636* ✓	May 31,1967		1:60,000	
				Mean Range = 13.6 ft.

REMARKS

*Bridging photographs ✓

2. SOURCE OF MEAN HIGH-WATER LINE:

The MHW Line was compiled from the above listed photographs using stereo instrument methods.

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

None compiled.

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-8945	1967	Registered			
H-9754	1978	Registered			

5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
T-12313	T-12403	No Survey	T-12401

REMARKS

T-12402

HISTORY OF FIELD OPERATIONS

- I.
- ☒
- FIELD INSPECTION OPERATION
-
- (photoidentification)
- ☐
- FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. B. Watkins	Sept 1966
2. HORIZONTAL CONTROL	RECOVERED BY L. Riggers	Sept 1966
	ESTABLISHED BY L. Riggers	Sept 1966
	PRE-MARKED OR IDENTIFIED BY L. Riggers	Sept 1966
3. VERTICAL CONTROL	RECOVERED BY N.A.	
	ESTABLISHED BY N.A.	
	PRE-MARKED OR IDENTIFIED BY N.A.	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY None	
	LOCATED (Field Methods) BY None	
	IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION ☐ COMPLETE ☐ SPECIFIC NAMES ONLY ☒ 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

photoidentified (*Film Contact Photos)

2. VERTICAL CONTROL IDENTIFIED

N.A.

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
*66M(C)233	LAKE BAY MAGNETIC STATION, 1916 Sub pts. A & B		

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)

3 - forms M-2226-12 (CSI Cards)

1 Hor. Observation Book (Form 251) for T-12402 and T-12403

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

T-12402

HISTORY OF FIELD OPERATIONS

NOTE: Partial field edit
performed and premarking
for new bridging photography.I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	WLM	Apr 1967
2. HORIZONTAL CONTROL	RECOVERED BY L. Riggers	Apr 1967
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY L. Riggers	Apr 1967
3. VERTICAL CONTROL	RECOVERED BY N.A.	
	ESTABLISHED BY N.A.	
	PRE-MARKED OR IDENTIFIED BY N.A.	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY None	
	LOCATED (Field Methods) BY None	
	IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION ☐ COMPLETE BY ☐ SPECIFIC NAMES ONLY ☒ NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY hydrographer/field editor	Apr 1967
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY None	

II. SOURCE DATA

1. HORIZONTAL CONTROL ~~IDENTIFIED~~

Paneled

2. VERTICAL CONTROL IDENTIFIED

N.A.

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
67M635	LAKE BAY MAGNETIC STATION, 1916 (Paneled Direct)		

3. PHOTO NUMBERS (Clarification of details)

66L(P)5841,5843 (Field annotated 1:10,000 matte ratios)

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)

1 - form C&GS 152 (CSI Card)

(Fix data for rocks submitted with contemporary hydro survey)

NOTE: No Field Edit Report nor Field Edit Print is available for the record (1967).

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

T-12402

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	M. Molchan	May 1978
2. HORIZONTAL CONTROL	RECOVERED BY M. Molchan ESTABLISHED BY None PRE-MARKED OR IDENTIFIED BY None	May 1978
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 ☐ COMPLETE ☐ SPECIFIC NAMES ONLY ☒ NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY M. Molchan	May 1978
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY N.A.	

II. SOURCE DATA

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

3. PHOTO NUMBERS (Clarification of details)

66 L(P) 5850 thru 5852 (Field annotated 1:10,000 cronapaque ratios)

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE

6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

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

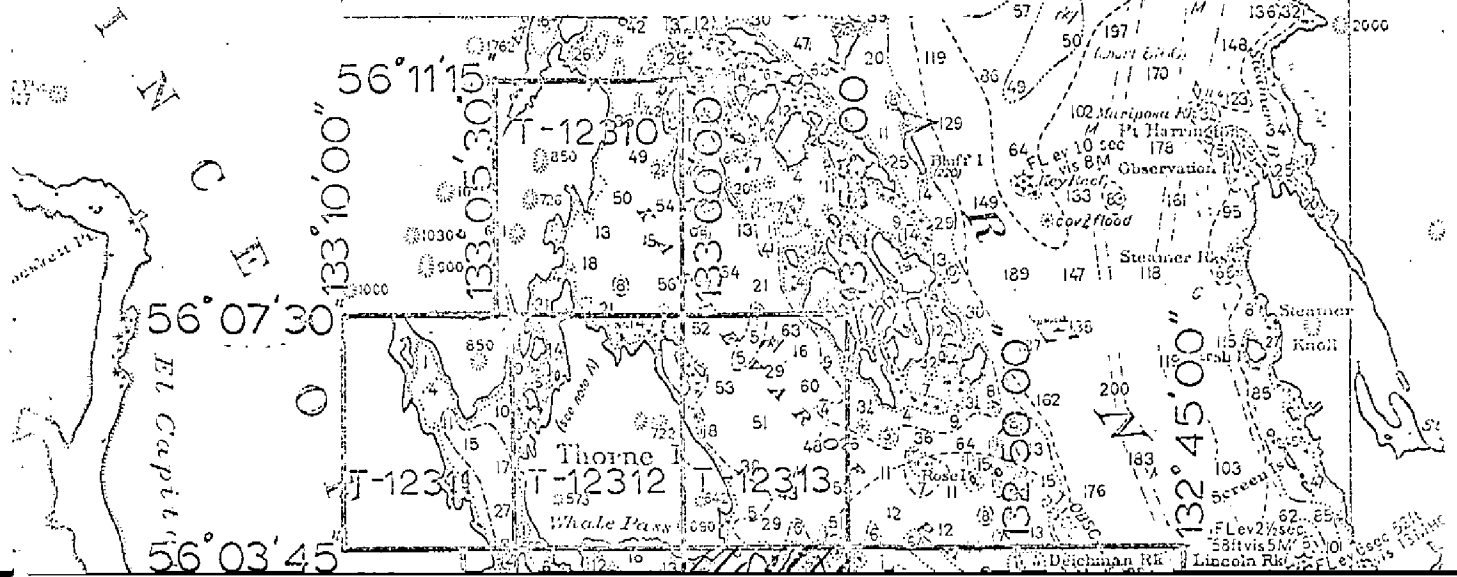
1 field edit report
1 field edit film print
1 76-40 form

NOAA FORM 76-36D (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION		
T-12402 RECORD OF SURVEY USE				
I. MANUSCRIPT COPIES				
COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete pending field edit.	Apr 1967	Preliminary	Apr 1967	Apr 1967
Manuscript re-compiled from new bridge. Partial (1967) field edit applied	Apr 1968	Class I (Only partial field edit)	May 1968	May 1968
(1978) field edit applied, compilation complete.	Dec 1978	Class I Manuscript	Jan 1979	Jan 1979
Final Review	May 1986	Final Map		
II. LANDMARKS AND AIDS TO NAVIGATION				
1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH				
(NUMBER)	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS	
1			One landmark recommended for charts.	
2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____ 3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____				
III. FEDERAL RECORDS CENTER DATA				
1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS. 2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS 76-40 567 SUBMITTED BY FIELD PARTIES. 3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS: _____ 4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____				
IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)				
SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY ☐ REVISED ☐ RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY ☐ REVISED ☐ RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY ☐ REVISED ☐ RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL	

JOB PH-6705

THORNE ISLAND
AND
WHALE PASSAGE
ALASKA
SHORELINE MAPPING
SCALE 1:10,000

NOTE A
Uncharted rocks and s
in Whale Passage.



SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

T-12402

This 1:10,000 scale final shoreline map is one of nine maps that comprise project PH-6705, Thorne Island and Whale Passage, Alaska. The project was originally assigned as 6 maps (T-12310 thru T-12313, T-12401 and T-12402); however, 3 additional maps (T-12403, T-12404, and T-13096) were included at a later date in order to support an extended area of proposed hydrography. This map is the result of preliminary compilation, field edit of the preliminary manuscript, revised bridging data, recompilation of the manuscript and additional field edit activity.

The purpose of this map was to provide support data to assist hydrographic operations in the vicinity of Whale Passage.

This map portrays shoreline in the eastern segment of Whale Passage and features the surrounding coast of Stevenson Island.

Photo coverage for the project was provided in July 1966 with 1:60,000 scale, 1:30,000 scale, and 1:20,000 scale photographs. The 1:60,000 scale color photographs were taken with the RC-9 "M" camera for aerotriangulation. Panchromatic photographs at 1:30,000 scale were taken with the RC-8 "L" camera for aerotriangulation and instrument compilation. Supplemental color photographs at 1:20,000 scale were also taken with the "L" camera in order to assist compilation and to provide photo coverage for hydro support. Because of inadequate aerotriangulation results, additional panchromatic bridging photographs at 1:60,000 scale were flown in May 1967 with the "M" camera. The stage of tide for all photographs was based upon predicted tide data. No MLLW photographs were provided.

Field work prior to aerotriangulation consisted of the recovery and establishment of horizontal control by photoidentification methods. This activity was performed in September 1966. Additional field work was performed in April 1967 in order to establish horizontal control by premarking methods for new bridging photography. At this same time, field edit for preliminary compilation of T-12310 thru T-12313, T-12401, and T-12402 was also accomplished.

Analytic aerotriangulation was provided by the Washington Science Center in February 1967; however, adequate bridging results could not be obtained. In order to accommodate the hydrographer, the aerotriangulation office forwarded the project data to compilation with the agreement that the six initial manuscripts would be classified as preliminary. New bridging photography, as requested by aerotriangulation, was provided in May 1967. Though six manuscripts had been compiled using the original bridging results, new aerotriangulation activity was performed in September 1967. Consequently, new and adjusted horizontal control was provided and the compilation of new manuscripts was required.

T-12402

Compilation of preliminary manuscripts T-12310 thru T-12313, T-12401 and T-12402 was performed in 1967 at the Coastal Mapping Section, Atlantic Marine Center. With the anticipation of obtaining new photography, preliminary manuscript copies were submitted to the hydrographer for field edit and hydrographic support. When new aerotriangulation results were provided as a result of the new bridging photography, recompilation of the preliminary manuscripts was accomplished. This compilation utilized the field edit data that was performed by the hydrographer during the 1967 field season. Compilation of three additional manuscripts, T-12403, T-12404, and T-13096 was completed in January 1972.

Field edit and hydrographic support data for the contemporary hydro surveys were submitted in two stages. A tabulated summary of the six preliminary and three later Class III manuscripts is provided.

<u>DATA SUBMITTED FOR FIELD EDIT</u>	<u>DATE OF EDIT</u>	<u>EDITOR</u>	<u>CONTEMPORARY HYDRO SURVEY</u>
T-12310 (Preliminary)	May 1967 (Partial Edit)	C&GS Ship LESTER JONES	H-8946
T-12311 (Preliminary)	May 1967	C&GS Ship LESTER JONES	H-8945 & H-8946
T-12312 (Preliminary)	May 1967	C&GS Ship LESTER JONES	H-8945 & H-8946
T-12313 (Preliminary)	May 1967 (Partial Edit)	C&GS Ship LESTER JONES NOAA Ship RAINIER	H-8945 & H-8946 H-9754
T-12401 (Preliminary)	May 1967	C&GS Ship LESTER JONES	H-8945
T-12402 (Preliminary)	May 1967 (Partial Edit) May 1978 (Completion of Edit)	C&GS Ship LESTER JONES NOAA Ship RAINIER	H-8945 H-9754
T-12403 (Class III)	May 1978	NOAA Ship RAINIER	H-9754 & H-9756
T-12404 (Class III)	May 1978	NOAA Ship RAINIER	H-9756
T-13096 (Class III)	May 1978	NOAA Ship RAINIER	No Survey

T-12402

The initial field edit (1967) for this map was applied at the time of recompilation. The manuscript was advanced to Class I status; however, it should have remained Class III because field edit was not performed along the eastern segment of the sheet. When hydrographic activity was resumed in 1978, the unedited portion of the manuscript along with various discrepancies from the original edit were field evaluated. Application of this data was sufficient to advance the sheet to Class I.

Final review for this final map was performed at the Atlantic Marine Center in May 1986. A comparison was made with the common nautical charts and hydrographic survey(s). The original base manuscript and related data along with a final Chart Maintenance Print and a Notes to Hydrographer Print were forwarded to the Washington Science Center for registration and distribution.

FIELD INSPECTION REPORT
T-12402
Whale Passage to Thorne Island
Project PH-6705

There was no field inspection prior to compilation of the PRELIMINARY manuscripts. These were compiled from office inspection, using bridge points established by the preliminary photogrammetric plot as control. Copies of the PRELIMINARY manuscripts, hydro support data, and field edit ozalids were furnished to the hydrographer for the 1967 field season. Additional horizontal control was established and field edit was performed.

Control data was returned to the office in the fall of 1967 and a new photogrammetric plot was run. The manuscripts were re-compiled, using new coordinates for the same bridge points used for the PRELIMINARY manuscripts, and classified as ADVANCE. The field edit performed in 1967 was used as field inspection for the new compilation.

Refer to PHOTOGRAMMETRIC PLOT REPORT dated February 15, 1967 and PHOTOGRAMMETRIC PLOT REPORT dated September 25, 1967, both submitted with this report.

PHOTOGRAMMETRIC PLOT REPORT
JOB PH-6705
THORNE ISLAND AND
WHALE PASSAGE, ALASKA

February 15, 1967

21. Area Covered

The area covered in this report is in the vicinity of Thorne Island. The sheets covered are T-12310, T-12311, T-12312, T-12313, T-12401, T-12402 and T-12403. Only part of T-12404 and none of T-13096 are covered by present photography. Because of inadequate bridging photography and poor placement of control, it is recommended by this office that the manuscripts be classified as "Preliminary".

22. Method

Five strips of photography were bridged by analytic aerotriangulation. Strip 1 (scale of 1:60,000, RC-9 color) was adjusted to ground with field identified control points. Strips 2, 3, 4 and 5 (scale of 1:30,000, RC-8 panchromatic) were adjusted to ground with common points transferred from Strip 1.

23. Adequacy of Control

The distribution of the field identified control was not optimum for a proper analysis of the adjustment of Strip 1. The control is located near both ends of the strip with nothing in the middle.

Two of the identified subpoints could not be held in the bridge. They are ROSE 1916, subpoint A and POLE 1916, subpoint A. The two points would not hold because they could not be positively identified in the office.

24. Supplemental Data

None

25. Photography

The RC-9 color photography was inadequate. The fiducial marks were not visible and the image definition was poor.

Respectfully submitted:

Don O. Norman

Don O. Norman

Approved and Forwarded:

W. K. F. D. O. S. X FM
Henry P. Eichert HPS

THORNE ISLAND AND
WHALE PASSAGE, ALASKA
CLOSURES TO CONTROL (FT.)

STRIP 1

1. LAKE BAY MAGNETIC STATION 1916.

subpoint A	+ 1.2	- 1.8
subpoint B	- 1.0	- 0.4

2. BARNACLE ROCK 1916

subpoint A	+ 1.8	- 2.6
subpoint B	+11.1	-11.7
subpoint C	+ 7.4	+ 8.0

3. ROSE 1916

subpoint A	+15.4	-34.6
subpoint B	+ 1.6	- 1.1
subpoint C	- 2.7	+ 0.6

4. POLE 1916

subpoint B	+ 4.0	+19.4
------------	-------	-------

5. RAG 1916

subpoint A	+ 4.6	- 1.6
subpoint B	+ 5.1	+ 0.5

6. MOSS 1916

subpoint A	- 3.7	+ 0.4
subpoint B	- 7.2	+ 9.2

STRIP 2

05801	- 1.3	+ 0.6
05802	- 8.0	+14.3
04801	- 4.7	- 9.5
02802	- 1.5	+ 3.7
02803	+ 4.4	-32.1
02801	+ 2.9	+ 1.9
01801	- 1.4	- 2.0
01802	+12.8	+12.3

STRIP 3

LAKE BAY MAGNETIC STATION, 1916

	subpoint A	- 0.2	- 2.6
	subpoint B	- 0.2	+ 2.4
01801	- 6.3	- 0.9	
01802	+11.5	+ 9.7	
02804	+ 1.5	+ 2.4	
02801	+ 0.7	+ 1.9	
02802	+ 2.3	+ 4.4	
02803	+ 5.8	-31.0	
04801	- 1.4	+ 0.1	
05802	+ 3.8	+26.3	

RAG, 1916

	subpoint B	+ 1.9	- 1.3
05803	+ 3.0	- 5.5	
05804	+ 7.8	+ 1.2	

STRIP 4

03801	- 0.8	- 0.5
03802	+ 9.1	+ 2.5
04802	+ 2.8	+ 2.8

POLE, 1916

	subpoint A	+ 2.1	- 0.9
	subpoint B	- 3.5	-20.0
04804	+ 1.8	- 5.4	
04803	- 4.7	+ 2.5	

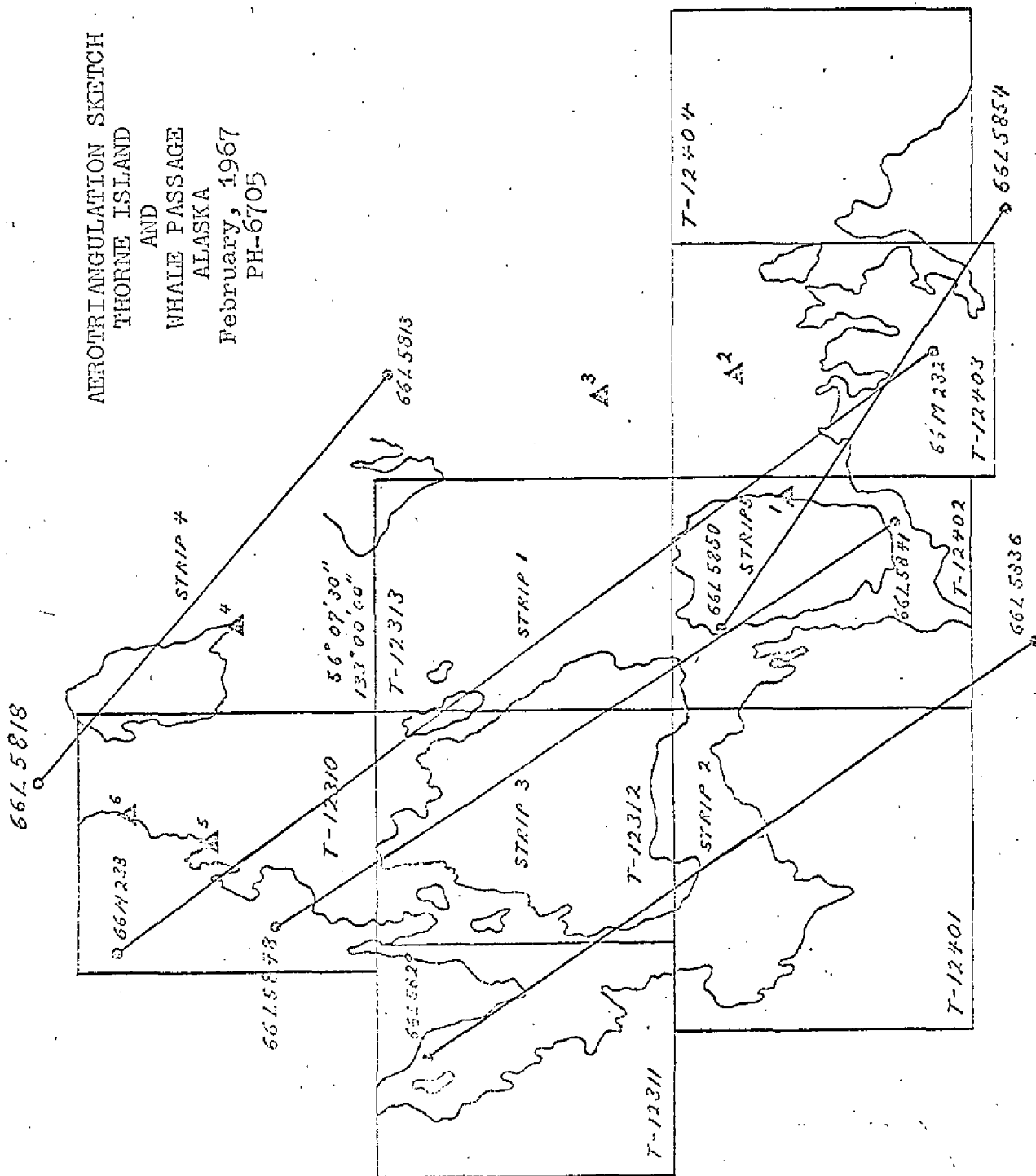
MOSS, 1916

	subpoint A	+ 0.2	- 0.1
	subpoint B	- 2.8	+ 8.7
06801	- 0.2	0.0	
06802	+ 9.4	-24.1	

STRIP 5

02808	0.0	0.0
01801	+ 0.6	- 1.0
01806	0.0	0.0
01807	+ 0.6	- 0.4
01803	- 3.0	+ 4.8
01804	+ 2.4	- 1.7
01804	0.0	0.0

AEROTRIANGULATION SKETCH
THORNE ISLAND
AND
WHALE PASSAGE
ALASKA
February, 1967
PH-6705



PHOTOGRAMMETRIC PLOT REPORT
Job PH-6705
Thorne Island and Whale Passage, Alaska

September 25, 1967

This report supersedes the preliminary report dated February 15, 1967. The original bridge strip of "M" photography flown in 1966 proved to be inadequate for the major portion of the area. It was, therefore, necessary to obtain a new bridge strip of "M" photography which was flown in May, 1967.

21. Area Covered

The area covered is in the vicinity of Thorne Island, Alaska. The sheets covered are T-12310 thru T-12313, T-12401 thru T-12404 and T-13096.

22. Method

Five strips of photography were included in this job.

Strip 1 (scale of 1:60,000, RC-9 panchromatic) was bridged by analytic aerotriangulation and adjusted to ground with field identified control points. The bridges from the preliminary report of February 15, 1967, were retained for Strips 2, 3 and 4 (scale of 1:30,000, RC-8 panchromatic). Strips 2 and 3 were readjusted using new values for common points established by the adjustment of Strip 1. Strip 4 could not be readjusted since it had no points in common with Strip 1. The preliminary adjustment of February 15, 1967, is considered adequate for Strip 4 and should be retained. Strip 5 (scale of 1:30,000, RC-8 panchromatic) was increased by three photographs -- 66-L-5855 thru 5857. It was bridged by analytic aerotriangulation and adjusted using values for common points established by the adjustment of Strip 1.

23. Adequacy of Control

Horizontal control was adequate and complied with the project instructions. Closures to control are tabulated and attached.

24. Supplemental Data

USGS quadrangles were utilized to obtain vertical control needed for strip adjustment.

25. Photography

The coverage of the photography was adequate. The diapositives were of good quality.

Respectfully submitted:



Victor E. McNeel

Approved and forwarded:



Henry P. Eichert
Chief, Aerotriangulation Section

CLOSURES TO CONTROL (FEET)
 Job PH-6705
 Thorne Island and Whale Passage, Alaska

STRIP #1

	ΔX	ΔY
LUCK POINT SOUTH BASE, 1915 (32100)	-0.3	0.0
LUCK POINT NORTH BASE, 1924 (34100)	+0.5	+0.8
LAKE BAY MAGNETIC STATION (35100)	+0.8	+1.8
BEST, 1916, Substation (36100)	+1.5	+1.4
DAVID, 1967 (37100)	-3.7	-6.2
RAG, 1916 (38100)	+0.3	+0.1

STRIP #2

	ΔX	ΔY
5801	-0.3	-0.7
4801	+0.3	+1.7
2802	+0.4	-1.5
2803	+3.8	+4.8
1801	+0.2	+0.4

STRIP #3

	ΔX	ΔY
LAKE BAY MAGNETIC STATION, Subpoint A, 01101	0.0	0.0
02804	-4.2	0.0
02802	-0.3	-0.5
02803	+1.9	-3.3
04801	+0.3	+0.1
RAG, 1916, Subpoint B 05104	-0.1	0.0
05805	+4.1	-11.7

STRIP #5

	ΔX	ΔY
02805	+0.3	-0.2
01803	-3.3	-6.4
35801	-1.9	+0.5
35802	-5.8	-4.2
34801	+1.9	-1.4
34802	+1.0	+3.3
33801	-1.6	-0.3
32801	+4.8	-3.2
32802	+0.5	+0.2

AEROTRIANGULATION SKETCH

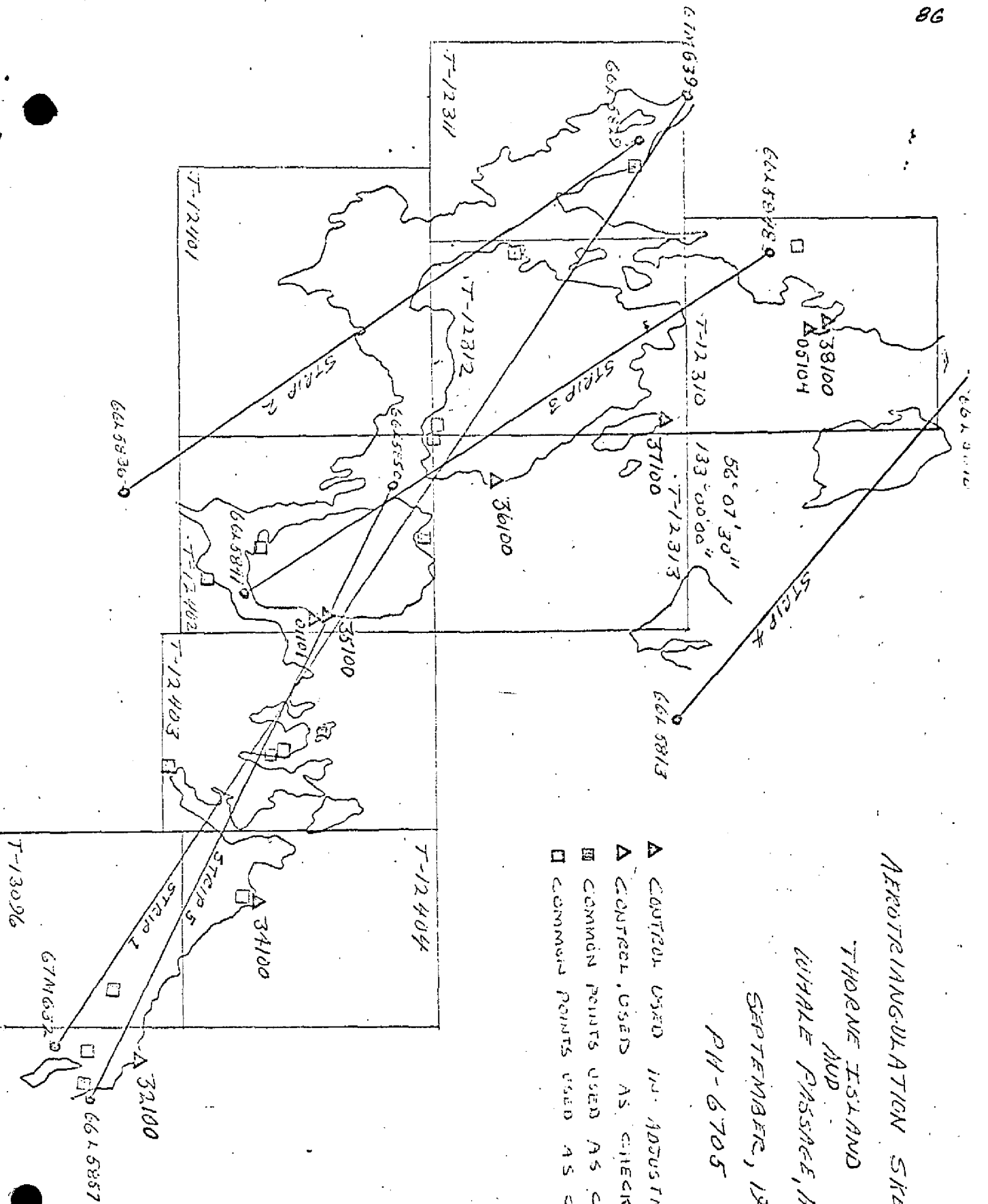
THORNE ISLAND
AND

WHALE PASSAGE, ALASKA

SEPTEMBER, 1967

PM-6705

- △ CONTROL USED IN ADJUSTMENT
- △ CONTROL USED AS CHECK
- COMMON POINTS USED AS CONTROL
- COMMON POINTS USED AS CHECK



DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODETIC DATUM		COORDINATES IN FEET STATE Alaska ZONE 1	GEOGRAPHIC POSITION		ORIGINATING ACTIVITY	REMARKS
				N.A. 1927			ϕ LATITUDE	λ LONGITUDE		
T-12402	PH-6705								Division, AMC, Norfolk, VA	
LAKE BAY MAGNETIC STATION, 1916	G.P. Vol. 1 pg. 157					X=	ϕ 56 02 02.94			
						Y=	λ 132 55 14.95			
						X=	ϕ			
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						X=	ϕ			
						Y=	λ			
COMPUTED BY A. C. Rauck, Jr.										DATE 3/29/67
LISTED BY										DATE
HAND PLOTTING BY										DATE

COMPILATION REPORT

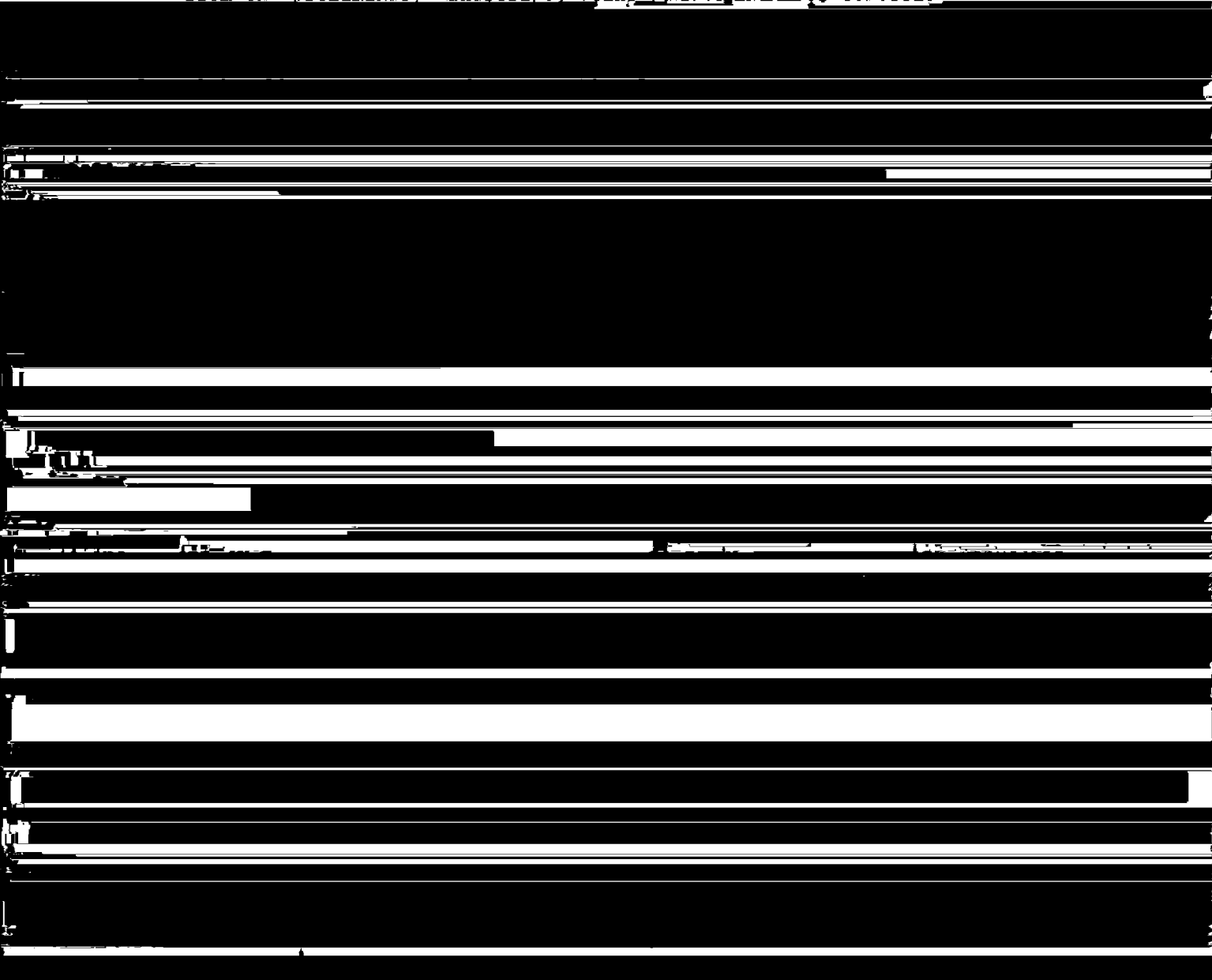
T-12402

PH-6705

31. DELINEATION

A preliminary manuscript was compiled with the Kelsh Plotter in 1967. Cronaflex copies of this manuscript and photo-hydro support data were furnished to the hydrographer for the 1967 field season. Additional control was established, all data was returned to the office, and a new photogrammetric plot was run using the same photography and drill points that were used for the preliminary manuscript.

New projections were furnished and the plates were re-set using the Wild B-8 instrument. The pass points used for the preliminary manuscript and hydrographic signal positions were dropped on the new projection. A new manuscript was compiled by transferring the shoreline from the preliminary manuscript, using pass points for control.



T-12402

37. LANDMARKS AND AIDS

There are no landmarks or fixed aids to navigation within the area of this map.

38. CONTROL FOR FUTURE SURVEYS

None.

39. JUNCTIONS

Satisfactory junctions were made with T-12401 to the west, and T-12313 to the north. There are no contemporary surveys to the south, and T-12403 was not compiled as of the date of this report.

40. HORIZONTAL AND VERTICAL ACCURACY

Map accuracy was upgraded as a result of additional premarked control, bridging photography, and new aerotriangulation activity.

46. COMPARISON WITH EXISTING MAPS

Comparison was made with USGS Quadrangle PETERSBURG (A-3), Alaska, scale 1:63,360, dated 1953.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with Chart 8160, scale 1:80,000, 7th edition, dated December 19, 1966.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

Submitted

Henry L. Hancock
for Charles H. Bishop
Cartographer

Approved

for Henry L. Hancock
A. C. Rauck, Jr.
Chief, Coastal Mapping Division

ADDENDUM TO COMPILATION REPORT (1967)
NOTES FOR THE SMOOTH PLOTTER, PACIFIC MARINE CENTER
T-12402
Project Ph-6705

Rock positions were transferred from the position overlay to the cronaflex copy of the Preliminary Manuscript by holding projection ticks; then these positions were transferred from the cronaflex copy to the Advance Manuscript by holding pass points as control.

The following items explain differences in rock positions on the position overlay and the Advance Manuscript. Space is left after each item for comments. We would appreciate the return of your comments, as we wish to correct the original manuscript.

1. Position 5004 - Height on Field Photo 66-L-5843 different than height on Boat Sheet. Height on photo was used.

2. Position 5005 - Height on Field Photo 66-L-5843 different than height on Boat Sheet. Height on photo was used.

3. Positions 5007, 5008, and 5037 are in conflict. Position locations are not the same on Field Photo 66-L-5843, Field Edit Ozalid and Position overlay. Positions on Position overlay were used; rock heights on Photo 5843 were used.

4. Position 5009 - Verify height applied to rock. Height (Cov 4 ft. MLLW) shown is the height indicated on Field Photo 66-L-5843. Boat Sheet indicates that this height may be 16 feet east of the position, and that the position may be "awash MLLW".

5. Position 5030 - Height indicated on Field Photo 66-L-5843 is different than height shown on Boat Sheet. Height on photo was used.

6. Position 5032 - Height on Field Photo 66-L-5843 is different than height on Boat Sheet. Height on photo was used.

7. Position 5036 should be verified; location indicated on Field Photo 66-L-5843 is different than that on the Position overlay. The position on the overlay was used.

8. Positions 5073 and 5088 are in conflict. Position is numbered 5088 on Field Edit Ozalid; 5073 on Field Photo 66-L-5843 and Position overlay. Data for Position 5073 was used.

9. Positions 5081 and 5089 are in conflict (5081 on Position overlay and Field Photo 66-L-5843 and 5089 on Field Edit Ozalid). Data for Position 5081 was used.

10. Barnes Lake - 2 locations for Position 5120 on Position overlay; also 2 locations for Position 5122. Which positions are correct?

11. Position 5147 - two heights shown on Boat sheet; discrepancy in position between Field Photo 66-L-5843 and Position overlay. Position on overlay was used; height on photo was used. See DISCREPANCY OZALID for locations for each of the above notes.

Addendum to Compilation (1978)

T-12402

There are two field edit applications for T-12402. The first field edit was done in April 1967, using matte field photographs 66-L-5841, and 66-L-5843. No other field data could be found.

The field edit was applied during a recompilation of the manuscript. The first compilation was Preliminary. The second



¹⁶
APR 30 1986

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6705 (Thorne Island to Whale Passage, Alaska)

TM-12402

Barnes Lake

Indian Creek

Indian Creek Rapids

Keg Point

Lake Bay

Lake Bay Creek

Point Barnes

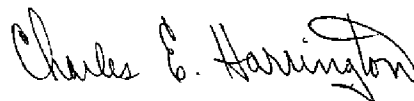
Prince of Wales Island

Stevenson Island

Thorne Island

Whale Passage

Approved:



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

FIELD EDIT REPORT

T-12402

OPR-0910-RA-78

STEVENSON ISLAND, ALASKA

Thorne Island and Whale Passage

2 Field Units

May 2, 1978 - May 21, 1978

JD (122-141)

51 METHODS

The project involved the investigation of a rock considered doubtful but charted in mid-channel, Whale Passage, S. E. Alaska. By chart and project instructions the rock position is 56°03'6"N, 132°58'4"W; however, the T-sheet position differed by 1/10 minute in latitude (56°03'7"N). To avoid any chance of an error, both areas were investigated. Refer to the Separates Following the Text for complete information on Hydrographic Operations conducted mid-channel in Whale Passage.

Hydrography was also run along the eastern edge of Stevenson Island (see progress sketch in Separates Following the Text). Field edit was conducted on Stevenson Islands eastern shore prior to and concurrent with hydrography. Edit was also performed in Whale Passage around area of investigation and was conducted by skiff and foot. Shoreline and topographic detail are noted on black and white chronapaque photographs 66L(C)-5850 and 5851. Colors with the following acceptable meaning were used on both the Manuscript and the photographs: violet-verification of features, red-additions or corrections of features, green-deletion of features. Any photogrammetrically located additions or corrections to manuscript compilation are noted directly on the photographs. All deletions of features on the manuscript determined by either hydrographic means or photogrammetric means are noted on the Field Edit Sheet.

Heights of rocks, islets and ledges were estimated at close range. Depths of submerged rocks were determined with leadline. All rock heights are referenced to GMT.

ADEQUACY OF COMPILATION

An islet located at Lat. 56°02'15" Long. 132°55'34" is on chart 17401 1:10,000 scale (7th ed June 18/77) but is not on T-12402. (refer to photograph 5851 for islet location).

Approximately one-half mile of foul limit lines were deleted on the northern shoreline of Stevenson Island. The shore is gravel with no offshore dangers to navigation for small craft.

53 MAP ACCURACY

In addition to the rocks in Whale Passage (Lat. 56°03'42" Long. 132°58'26") a rock off the northeastern shore of Stevenson Island (Lat. 56°03'07" Long. 132°55'21") was disproved by hydrography. See Descriptive Report, RA-5-1-78 (H-9754) for the procedures used in the search for this non-existent rock.

South of Thorne Island heights were added to those rocks to which they had not been applied during the original Field Edit. The estimates were made at a near zero tide, close-on from a Boston Whaler.

-2-

The southeastern offshore region of Thorne Island contained the following errors:

- 1) Five rocks charted approximately 100 meters south of Thorne Island were not seen.
 - a) a search was made from a Boston Whaler at a 0' tide state with 10' - 15' visibility in the water. Photograph 66L-5850 shows what could easily be in the location of the five rocks.
- 2) An islet charted off the southeast tip of Thorne Island is actually submerged at high tide. It lies in a ledge area and is merely a misjudgement of MHWL during office compilation.

These discrepancies along with others indicated on black and white photo 66L-5850 are cause for concern.

54 COMMENTS

The original field edit of this and the surrounding T-sheets was poorly done, however even had it been done exceptionally well, hydrography was needed to provide an accurate, reliable chart of the Whale Passage - Lake Bay area.

Respectfully submitted,

Marianne Molchan LTJG
Marianne Molchan, LTJG
Field Edit Officer

Approved by,

James P. Randall
James P. Randall, Captain, NOAA
Commanding Officer

-1-

Rock Investigation Hydrographic Report
Whale Passgae AK.

Hydrography was conducted in Whale Passage between Thorne Island and Stevenson Island. The area surveyed was rectangular covering waters between Lat. 56°03'23"N and 56°04'09"N and between Long. 132°58'00"W and 132°58'48"W.

The hydrography was run in support of field edit to disprove a rock at midchannel in Whale Passage. A total of three rocks were disproved during hydrographic operations. They are as follows:

<u>Charted Rock Position</u>	<u>Source</u>	<u>Reason to Disprove</u>
56°03'36.0" 132°58'24.0"	Chart 17382 1:80,000 scale 11th Ed. Mar. 26,77	Project Inst. OPR-910-RA-78 Field Edit ask to disprove this rock.
56°03'42.0" 132°58'26.0"	T-12402	Believe to be same rock as above. Different charted position.
56°03'48.0" 132°58'33.0"	Chart 17382 1:80,000 scale 11th Ed. Mar. 26,77	Subm. rock approx. 250m NE of the above charted rocks.

Three crosslines were run north and south to check sounding agreement and to verify accurate positioning control. Each of the three crosslines had been plotted in red ink on the boatsheet and was run directly over three charted rock or submerged rock positions. None of the crosslines or the mainscheme lines which ran over the charted rock positions showed any indication of peaks or even the slightest shoaling to the bottom configuration.

All soundings are plotted in fathoms. Crossline soundings agree within one fathom of the mainscheme soundings. The shoalest corrected depth over any of the three charted rock positions is twenty-one fathoms.

Detached postions were taken on each of the three charted rock positions. Positioning for the "D.P."s included two mini-ranger rates and a check angle.

Mainscheme lines were run at fifty meter spacing beginning at the southern end of the sheet working north. After completion of main-scheme lines the hydrographer returned to the area and ran 'splits' on either side of the three rocks reducing the spacing to twenty-five meters.

-2-

Upon the completion of the sounding lines the areas of each of the three charted rock positions was returned to and a spiral search pattern was run using a wide beam (45°) transducer.

All search efforts supported the same conclusion. Neither the three rocks nor even traces of these rocks were found by the hydrographer. It is recommended that the submerged rock at Lat. 56°03'48" Long. 132°58'33.0" and rock at Lat. 56°03'36.0" Long. 132°58'24.0" be removed from C-17382 1:80,000 scale 11th ed. 3/26/77 chart. It is also recommended that the rock at Lat. 56°03'42.0" Long. 132°58'26.0" be removed from Manuscript T-12402.

REVIEW REPORT
SHORELINE

T-12402

61 - GENERAL STATEMENT

Final review for this final map was accomplished at the Atlantic Marine Center in May 1986. For a schedule of the office and field operations, refer to the Summary included with this Descriptive Report.

62 - COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

Not applicable.

63 - COMPARISON WITH MAPS OF OTHER AGENCIES

A comparison was made with USGS quadrangle Petersburg (A-3), Alaska, dated 1953, scale 1:63,360.

64 - COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

A comparison was made with a registered copy of contemporary hydrographic surveys H-8945, field surveyed 1967, 1:10,000 scale and H-9754, field surveyed 1978, 1:5,000 scale. A discrepancy was noted concerning four rocks that were delineated on H-8945 at Lat. 56°03.6', Long. 133°59.2'. These rocks were disproved in 1978 during the field edit and hydrographic activity that was performed for the adjacent hydro survey H-9754. Final review will submit a Notes to Hydrographer print indicating the removal of the "rocks".

65 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the followin NOS charts 17401, 8th edition, dated October 6, 1979, 1:10,000 scale 17382, 12th edition, dated July 25, 1981, 1:80,000 scale.

66 - ADEQUACY OF RESULTS AND FUTURE SURVEYS.

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

T-12402

Submitted by



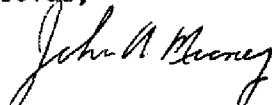
Jerry L. Hancock
Final Reviewer

Approved for forwarding



Billy H. Barnes
Chief, Photogrammetric Section, AMC

Approved,



John A. Macneary
Chief, Photogrammetric Operations,
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Ronald K. Brewer
Chief, Photogrammetry Branch,
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