

T-12439

T-12439

NOAA FORM 76-35

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

## DESCRIPTIVE REPORT

Type of Survey ..... Shoreline  
Job No. .... PH-6409 ..... Map No. .... T-12439  
Classification No. .... III ..... Edition No. .... 3

### LOCALITY

State ..... Alaska  
General Locality ..... Orca Inlet  
Locality ..... Hidden Creek

1965 TO 19

### REGISTRY IN ARCHIVES

DATE .....

## DESCRIPTIVE REPORT - DATA RECORD

## TYPE OF SURVEY

☒ ORIGINAL☐ RESURVEY☐ REVISEDSURVEY ~~NO.~~ T-12439

MAP EDITION NO. (1)

MAP CLASS III

JOB PH- 6409

## PHOTOGRAMMETRIC OFFICE

Coastal Mapping Division  
Atlantic Marine Center, Norfolk, VA

## OFFICER-IN-CHARGE

Jeffrey G. Carlen, Cdr.

## LAST PRECEDING MAP EDITION

## TYPE OF SURVEY

☐ ORIGINAL☐ RESURVEY☐ REVISED

JOB PH- \_\_\_\_\_

MAP CLASS \_\_\_\_\_

SURVEY DATES:

19\_\_ TO 19\_\_

## I. INSTRUCTIONS DATED

## 1. OFFICE

Aerotriangulation  
Office8/18/65  
10/11/65

## 2. FIELD

## II. DATUMS

## 1. HORIZONTAL:

☒ 1927 NORTH AMERICAN

OTHER (Specify)

## 2. VERTICAL:

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

OTHER (Specify)

## 3. MAP PROJECTION

Polyconic

## 4. GRID(S)

STATE

Alaska

ZONE

3

## 5. SCALE

1:20,000

STATE

ZONE

## III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: <u>Analytic</u>	BY LANDMARKS AND AIDS BY	D. O. Norman	10/65
2. CONTROL AND BRIDGE POINTS METHOD: <u>Coordinatograph</u>	PLOTTED BY CHECKED BY	L. O. Neterer J. S. Place	10/65 10/65
3. STEREOSCOPIC INSTRUMENT COMPILATION INSTRUMENT: <u>Kelsh</u> SCALE: <u>1:8,000</u>	PLANIMETRY BY CHECKED BY CONTOURS BY CHECKED BY	L. O. Neterer J. S. Place NA	12/65 12/65
4. MANUSCRIPT DELINEATION METHOD: <u>Smooth Drafted</u> SCALE: <u>1:20,000</u>	PLANIMETRY BY CHECKED BY CONTOURS BY CHECKED BY HYDRO SUPPORT DATA BY CHECKED BY	L. O. Neterer L. L. Graves NA NA L. O. Neterer L. L. Graves	12/65 4/65
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	L. L. Graves	4/66
6. APPLICATION OF FIELD EDIT DATA	BY CHECKED BY	Cancelled	
7. COMPILATION SECTION REVIEW	BY		
8. FINAL REVIEW	BY	A. L. Shands	3/77
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY	A. L. Shands	5/77
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	J. B. Phillips	6-77
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY	R. T. CATOR	8-77

NOAA FORM 76-36B  
(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEYT-12439  
COMPILATION SOURCES

## 1. COMPILATION PHOTOGRAPHY

CAMERA(S) RC 8 "L"		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE Alaska	<input checked="" type="checkbox"/> STANDARD
<input type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input checked="" type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				MERIDIAN 150th	<input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
65L(I)3559-3560	5/05/65	06:37	1:40,000	2.2 ft. below MLLW	
65L(I)3652-3653	5/05/65	08:46	1:40,000	1.7 ft. below MLLW	

REMARKS

## 2. SOURCE OF MEAN HIGH-WATER LINE:

Office interpretation of the above listed photographs.

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

Office interpretation of the above listed 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

## 5. FINAL JUNCTIONS

NORTH No Survey	EAST T-12807	SOUTH T-12667	WEST No Survey
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REMARKS

T-12439

## HISTORY OF FIELD OPERATIONS

1. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. D. Watkins, Jr.	Jun 1965
2. HORIZONTAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	R. B. Melby None None
	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	NA NA NA
	RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY IDENTIFIED BY	None None None
3. VERTICAL CONTROL		
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	None
7. BOUNDARIES AND LIMITS SURVEYED OR IDENTIFIED BY	NA	

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED None		2. VERTICAL CONTROL IDENTIFIED	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
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: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE		6. BOUNDARY AND LIMITS: <input type="checkbox"/> REPORT <input type="checkbox"/> NONE	
7. SUPPLEMENTAL MAPS AND PLANS None			
8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division) None			

NOAA FORM 76-36D  
(3-72)

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

T-12439

## RECORD OF SURVEY USE

**I. MANUSCRIPT COPIES**

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Alongshore area for hydro	4/66	Class III		
Final Review	3/77		7/28/77	

**II. LANDMARKS AND AIDS TO NAVIGATION****1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH**

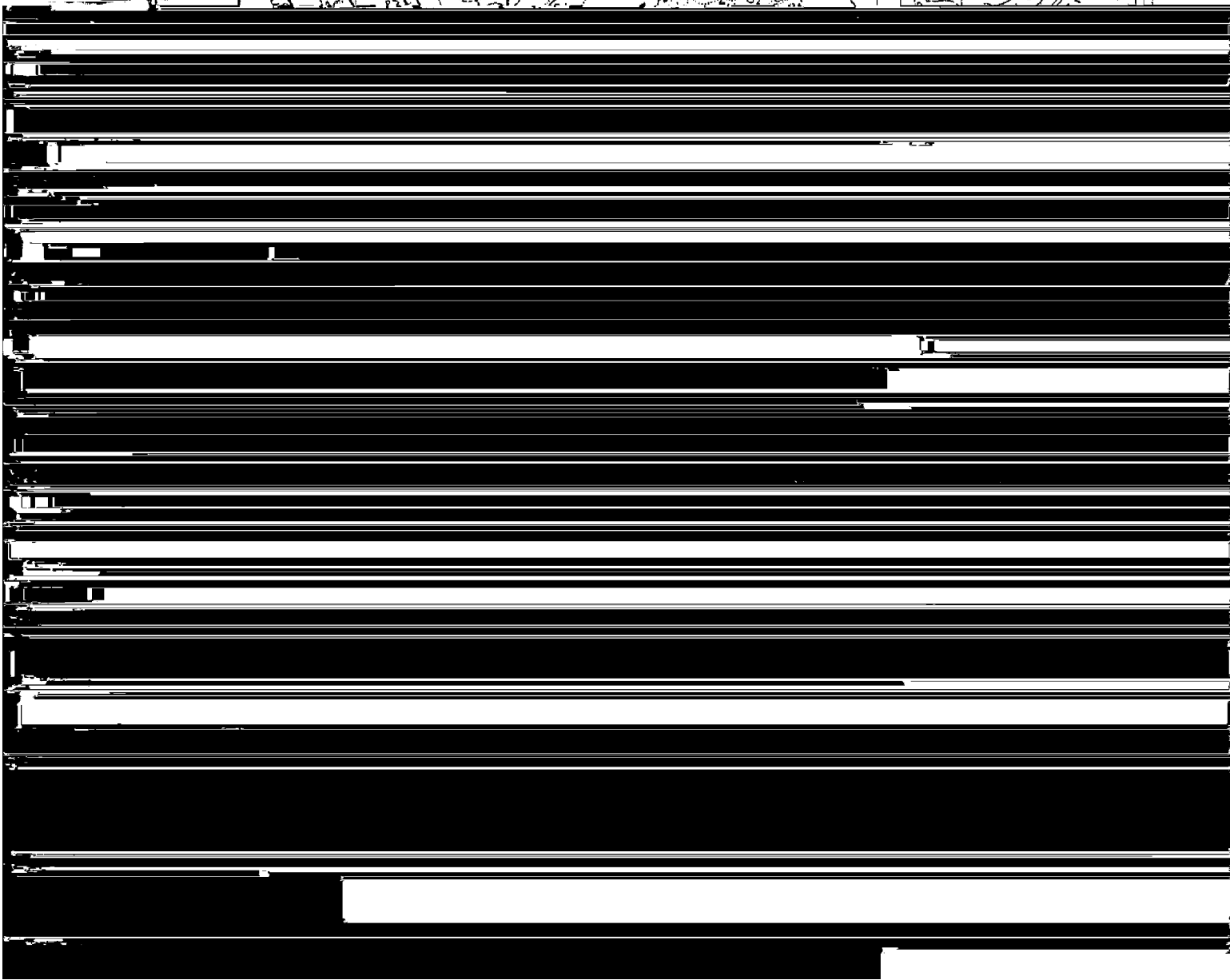
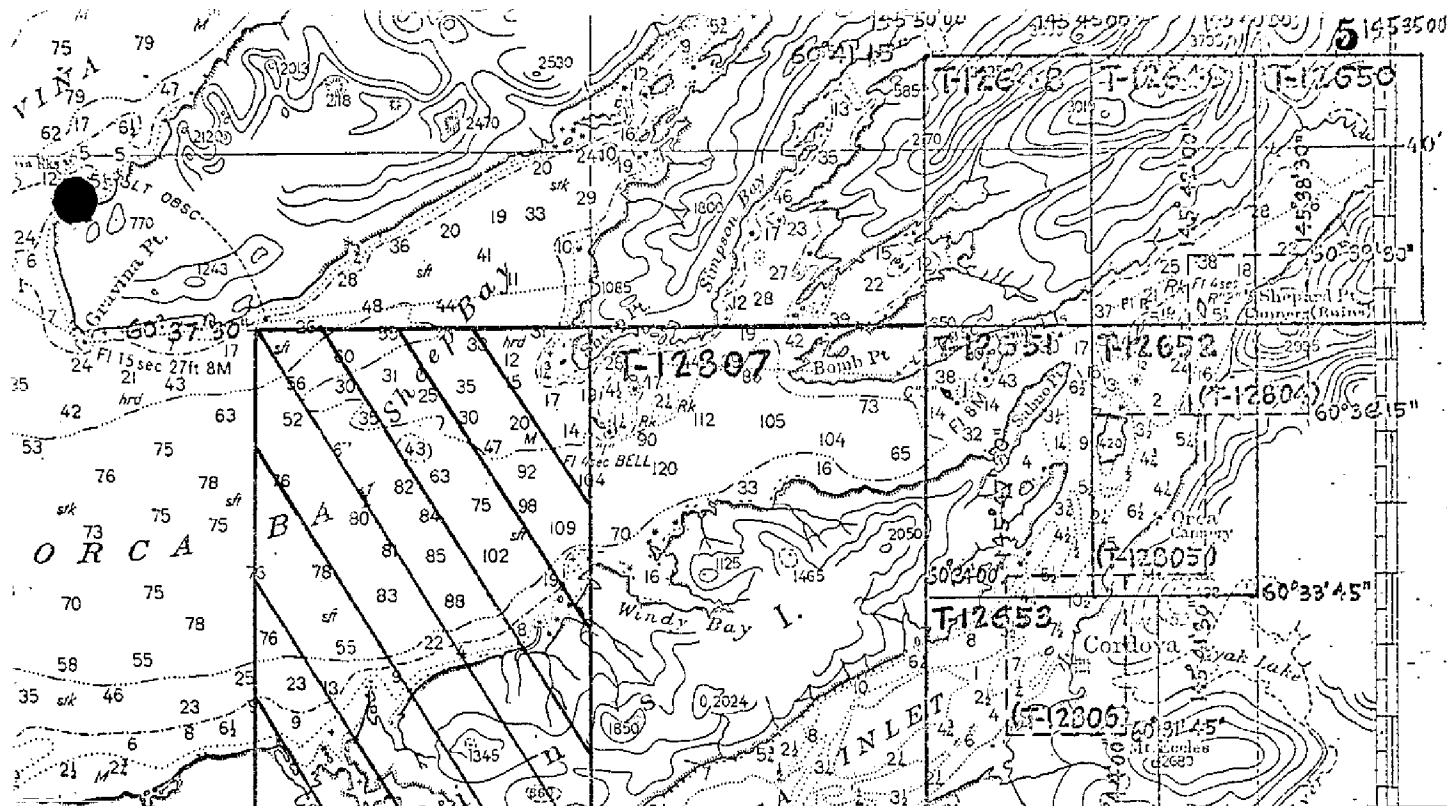
NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
			None

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 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 <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	



## SUMMARY TO ACCOMPANY

## DESCRIPTIVE REPORTS

T-12807, T-12439, T-12667 through T-12670

Shoreline Maps T-12807, T-12439, and T-12667 through T-12670 are all 1:20,000 scale maps, 7½ minutes in latitude and 10 minutes in longitude, covering the southwest portion of Project PH-6409, Orca Inlet, Alaska. The purpose of these maps was to provide hydro support and to furnish shoreline for nautical chart construction.

As stipulated in the instructions, compilation was by Kelsh and graphic methods, using tide coordinated infrared photography taken at near and below MLLW and near MHW.

The area covered by these maps was severely affected by the 1964 earthquake. A general uplift resulted. Because of the very wide expanse of mud and sand tidal flats which exist, it is logical to expect new shorelines to have been created. However, many such shorelines may have gone undetected or been misidentified on the infrared photography because of rain which dominates weather conditions of the area. Also, in May, the date of photography, there is a constant runoff from melting snow. This also serves to keep the ground wet. The newness of the shoreline (14 months since the earthquake) might mean that a sufficiently distinguishable berm line would not have had time to develop. These factors may have combined to make new shoreline created since the earthquake unidentifiable on the infrared photography taken at 7.9 to 8.2 feet above MLLW. MHW is 11.5 feet at Cordova. The shoreline shown is from office interpretation without field confirmation.

Field work preceeding compilation consisted of the recovery, identification and establishment of horizontal control necessary for bridging. There was no clarification of details.

Except for T-12807, which was partially edited in 1965, none of these maps was field edited.

Final review was done at AMC in March and April of 1977.

## FIELD INSPECTION

T-12439

There was no field inspection prior to compilation.



Photogrammetric Plot Report  
Orca Inlet, Alaska  
PH-6409  
October 1965

21. Area Covered

This report pertains to the area of Orca Inlet, Alaska. The sheets covered are T-12667, T-12668, T-12669, T-12670, and parts of T-12439 and T-12807.

22. Method

Four strips were bridged by analytic aerotriangulation methods. Common points were transferred from Strips #1 and #2 (1:60,000 scale) to infrared photography (1:40,000 scale) which is to be used by compilation. These points are 150 micron drill holes on the infrared photography.

Strips #3 and #4 (1:40,000 scale) are infrared photography to be used by compilation. Plane coordinates for Alaska, Zone 3, have been furnished.

23. Adequacy of Control

The control was adequate. Most of the control consisted of premarked stations; however, three stations were used that had been identified on a previous survey in the area. Two office identified control stations were also used.

Strip #3 was adjusted in part on tie points from Strip #4.

SKY 2, 1965 (temp.), a premarked station, could not be held in the adjustment. The discrepancy of this station is 78 feet in X and 310 feet in Y. It is obvious that the object identified as the target was not the target and that the target is not visible on the photography. The lack of fit by this station will in no way affect the accuracy of the manuscripts.

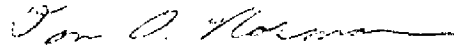
24. Supplemental Data

Approximate elevations were taken from USGS topographic quadrangles to satisfy vertical requirements for the horizontal-vertical strip adjustment program.

25. Photography

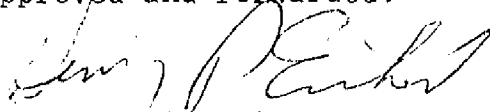
The photography was adequate.

Respectfully submitted:



Don O. Norman

Approved and Forwarded:



Henry P. Eichert  
Acting Chief, Aerotriangulation  
Section

AEROTRIANGULATION  
Fit to Control  
Orca Inlet  
(Closures are shown in feet)

## Strip #1

GLACIER, 1965 (temp)	0.0	0.0
SKY 2, 1965 (temp)	-78.4	-310.0
WHITSHED, 1916	+ 1.2	+ 2.2
substation	0.0	+ 0.2
MUMMY ISLAND LIGHT, 1964	+ 1.6	+ 4.0
PINNACLE ROCK, 1899 (office ident.)	0.0	- 0.3
GIRL, 1899 RM#1	+ 1.4	- 2.7
DAVE, 1899	0.0	0.0

## Strip #2

DAVE, 1899	- 0.1	+ 1.1
GIRL, 1899 RM#1	+ 0.6	- 3.6
WHITSHED, 1916	not visible	
substation	+ 1.0	+ 3.0
EGG ISLAND LIGHT, 1965	- 1.0	- 2.3
substation	- 4.4	+ 0.7
SKY 2, 1965 (temp)	not visible	
GLACIER, 1965 (temp)	- 0.6	+ 0.6

## Strip #3

DAVE, 1899	- 0.5	+ 1.2
69403 tie point from Strip #4	+ 0.8	- 1.6
67402 tie point from Strip #4	+ 0.6	- 2.3
65403 tie point from Strip #4	- 1.3	+ 3.8
ORCA CANNERY S. BLDG. W. GABLE, 1955	+ 0.4	- 1.4

## Strip #4

CORDOVA BOAT HARBOR LIGHT 2, 1964	+0.7	- 0.7
CORDOVA LIGHT #1, 1964 (office ident.)	+ 0.3	- 0.7
TRAVEL 2, 1964		
substation "A"	- 1.3	+ 1.3
substation "B"	- 2.9	+ 6.0
MUMMY ISLAND LIGHT, 1964	+ 0.4	+ 11.1
PINNACLE ROCK, 1899 (office ident.)	+ 0.8	- 1.9
GIRL, 1899 RM#1	- 0.2	+ 1.0

## Tie points between Strips #1 &amp; #2

02401	+0.3	+0.7
02402	0.0	-0.6
03401	-3.4	-1.1
03402	+1.5	-0.1
04401	-1.3	+0.9
04402	-3.3	-2.8
05401	-2.9	-2.4
05402	-0.6	-3.7
06401	-0.1	-7.1
06402	+1.3	-4.3
07401	+5.7	-6.5
07402	+6.7	+0.1
08401	+2.4	-2.0
08402	+1.6	-3.1
09401	+2.2	-0.4
09402	-0.6	-1.5
10401	-1.2	-6.1

## Tie points between Strips #3 &amp; #4

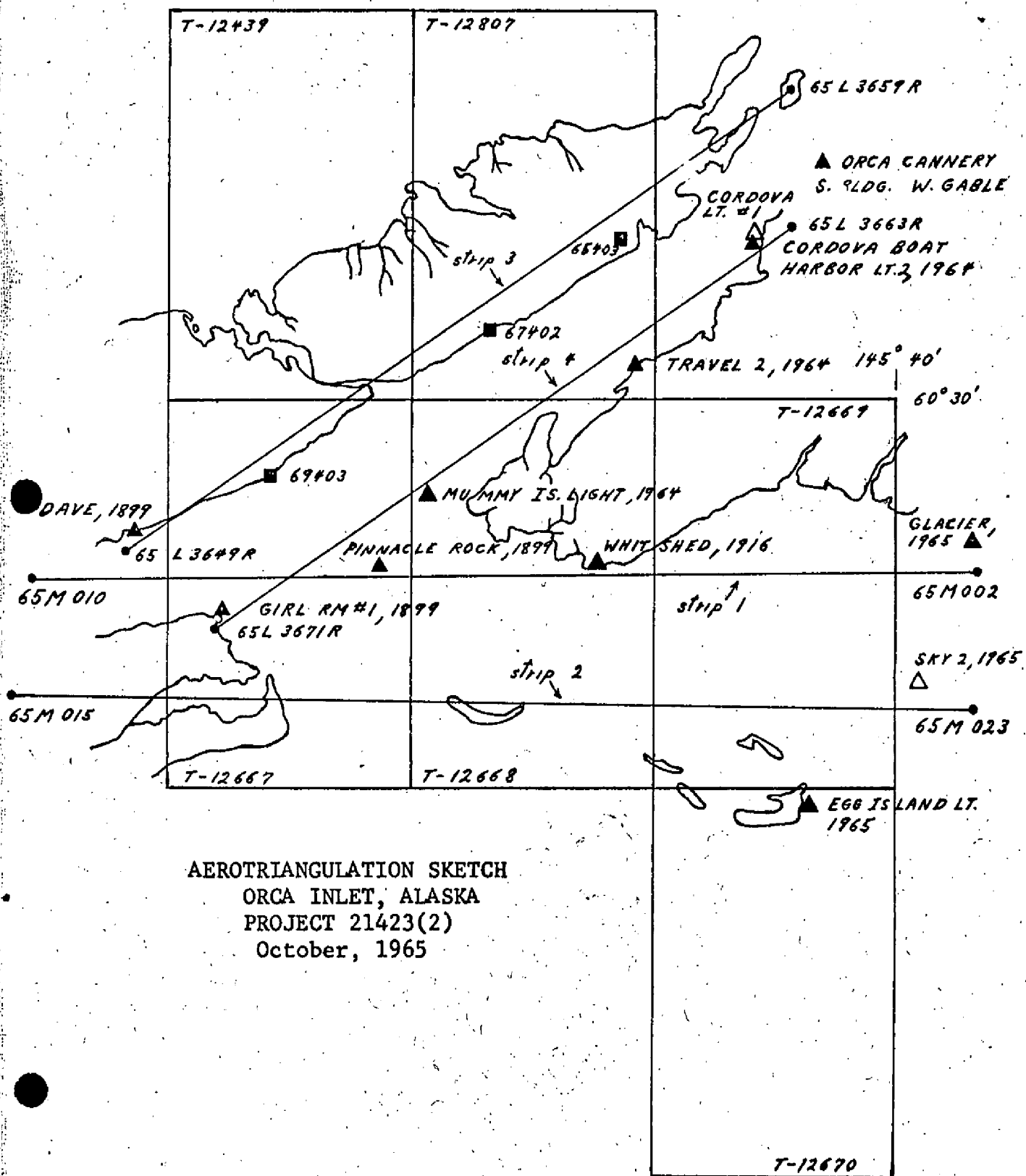
70401	+2.5	-4.6
70402	+2.3	-5.0
69401	+0.7	-3.2
69402	-1.0	-4.2
68401	-1.4	-0.6
68402	-0.3	-1.1
68403	-2.0	-0.2
67401	-0.2	-4.2
67403	+0.6	-2.3
66401	-0.9	-1.1
66402	-1.8	+0.1
65401	+0.8	+1.2
65402	-0.8	+3.4
64401	-0.6	+4.5
64402	-0.1	+2.0

## Tie points between Strips #1 &amp; #3

50401	+4.3	-5.1
50402	+7.3	-9.0
69403	+7.1	-8.8

## Tie points between Strips #1 &amp; #4

67404	+3.2	-4.2
67405	+5.3	-2.7
71401	+2.4	-1.3
71402	+0.1	+1.4





## COMPILATION REPORT

T-12439

31. DELINEATION:

Models were set on the instrument to locate common points. These were used to control the graphic delineation of details from the ratio photographs. There was no field inspection. The north shore of Hawkins Island was not compiled. No hydro was scheduled for that area of Orca Bay.

32. CONTROL:

See Photogrammetric Plot Report dated October, 1965.

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 shoreline and all alongshore details were compiled from office interpretation of the photographs.

36. OFFSHORE DETAILS:

None.

37. LANDMARKS AND AIDS:

None.

38. CONTROL FOR FUTURE SURVEYS:

None.

39. JUNCTIONS:

See Form 76-36B, Item 5.

40. HORIZONTAL AND VERTICAL ACCURACY:

No statement.

41. CHANNEL AND SHOAL LINES:

Bottom features visible on the lowest stage photography were delineated as channel and shoal lines.

46. COMPARISON WITH EXISTING MAPS:

Comparison was made with USGS Quadrangle CORDOVA (C-6), ALASKA, 1:63,360 scale, dated 1950.

47. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with Chart 8520, 1:80,000 scale, dated July 20, 1964.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None.

ITEMS TO BE CARRIED FORWARD:

None.

Submitted by:

*Lowell Neterer Jr.*

L. O. Neterer, Jr.  
Cartographic Technician

Approved by:

*Albert C. Rauck, Jr.*

Albert C. Rauck, Jr.  
Chief, Coastal Mapping Section, AMC



T-12439

48. GEOGRAPHIC NAME LIST:

Canoe Passage  
Hawkins Island  
Hidden Creek  
Orca Inlet

NOTE: Names appearing on this list were furnished by the Staff Geographer on USGS Quad Cordova (C-6), Alaska, dated 1950.

NOAA FORM 75-74  
(2-74)U.S. DEPARTMENT OF COMMERCE  
NOAA  
NATIONAL OCEAN SURVEY

## PHOTOGRAMMETRIC OFFICE REVIEW

T-10300 12439

1. PROJECTION AND GRIDS  LLG	2. TITLE  LLG	3. MANUSCRIPT NUMBERS  LLG	4. MANUSCRIPT SIZE  LLG
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY  LLG	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations)  None		7. PHOTO HYDRO STATIONS  None
8. BENCH MARKS  None	9. PLOTTING OF SEXTANT FIXES  None	10. PHOTOGRAMMETRIC PLOT REPORT  Washington Office	11. DETAIL POINTS  None
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE  LLG	13. LOW-WATER LINE  LLG	14. ROCKS, SHOALS, ETC.  LLG	15. BRIDGES  None
16. AIDS TO NAVIGATION  None	17. LANDMARKS  None	18. OTHER ALONGSHORE PHYSICAL FEATURES  None	19. OTHER ALONGSHORE CULTURAL FEATURES  None
PHYSICAL FEATURES			
20. WATER FEATURES  LLG	21. NATURAL GROUND COVER  LLG		22. PLANETABLE CONTOURS  None
23. STEREOSCOPIC INSTRUMENT CONTOURS  None	24. CONTOURS IN GENERAL  None	25. SPOT ELEVATIONS  None	26. OTHER PHYSICAL FEATURES  None
CULTURAL FEATURES			
27. ROADS  None	28. BUILDINGS  None	29. RAILROADS  None	30. OTHER CULTURAL FEATURES  None
BOUNDARIES			
31. BOUNDARY LINES  None		32. PUBLIC LAND LINES  None	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES  LLG	34. JUNCTIONS  LLG		35. LEGIBILITY OF THE MANUSCRIPT  LLG
36. DISCREPANCY OVERLAY  None	37. DESCRIPTIVE REPORT  LON	38. FIELD INSPECTION PHOTOGRAPHS  None	39. FORMS  LLG
40. REVIEWER <i>A. L. Schand for</i> L. L. Graves		SUPERVISOR, REVIEW SECTION OR UNIT <i>Albert C. Rauck, Jr.</i> Albert 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	
43. REMARKS  This map not field edited.			

## REVIEW REPORT

T-12439

## SHORELINE

March 23, 1977

61. GENERAL STATEMENT:

See Summary, which is Page 6 of this Descriptive Report. A comparison print showing the differences noted in Paragraphs 62 and 65 is submitted with the original of this report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

The area is covered by Registered Surveys 3642 and 3648, each 1:20,000 scale, dated 1916. No meaningful comparison could be made, however, because the shoreline in the area of comparison is symbolized as unsurveyed on each of these maps.

T-12439 does supersede Registered Surveys 3642 and 3648 for nautical chart construction in the area compared.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A comparison was made with USGS Quadrangle CORDOVA (C-6), ALASKA, 1:63,360 scale, dated 1950. No significant differences were noted.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

No contemporary hydrographic surveys were conducted in the area bounded by this map.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with Chart 8520, 1:80,000 scale, 13th Edition, dated March 7, 1966. The position of Canoe Passage is east of the position shown on T-12439. This is shown on the comparison print in red pencil.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This map complies with the Project Instructions, except no field edit was performed. The map meets the requirements for Bureau Standards and the National Standards of Map Accuracy.

Submitted by:

*A. L. Shands*

A. L. Shands  
Final Reviewer

Approved for forwarding:

*Joseph W. Vonasek*

Joseph W. Vonasek  
Chief, Photogrammetric Branch, AMC

Approved:

*A. K. Brown*

Chief, Photogrammetric Branch

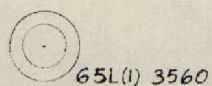
*Jan. 64*

Chief, Coastal Mapping Division

COMPARISON PRINT  
T-12439

Blue = Reg. Survey 3648

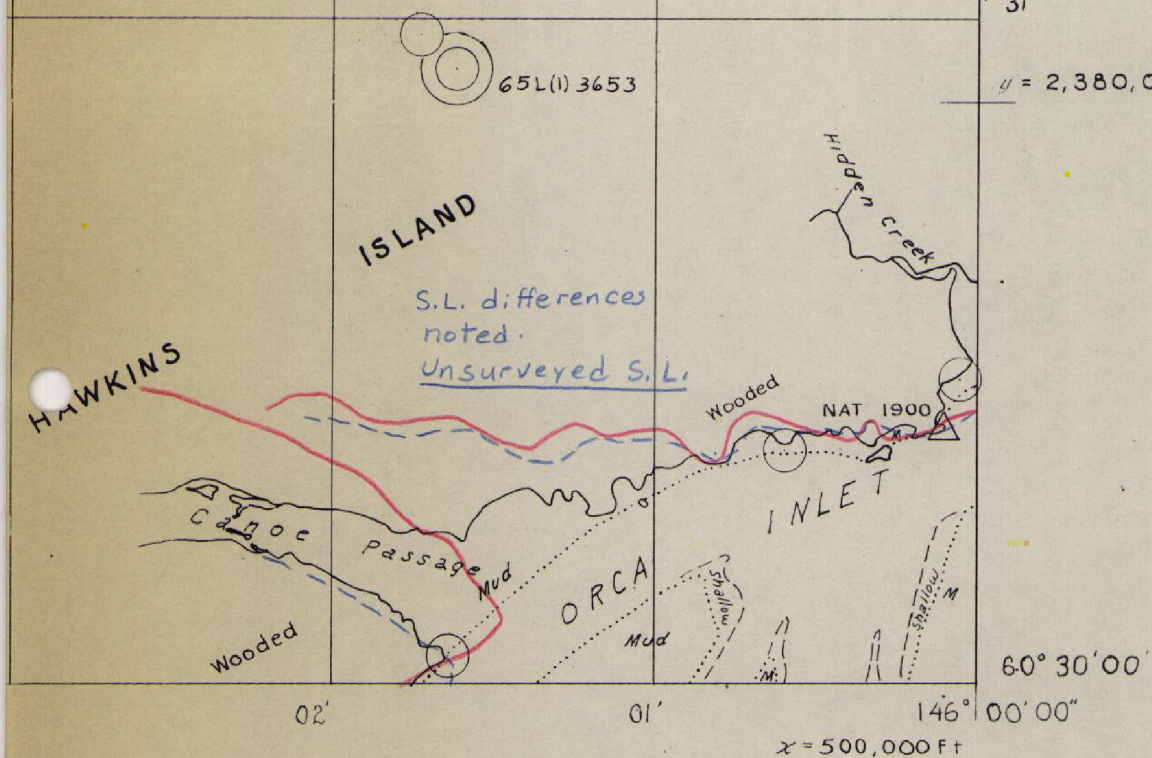
Red = Chart 8520



65L(1) 3560

31'

$\eta = 2,380,000$  Ft.



NATIONAL OCEAN SURVEY  
SHORELINE MANUSCRIPT

T-12439

ALASKA

ORCA INLET

CANOE PASSAGE

SCALE 1:20,000

(1 inch = 1666.7 ft.)

CONTROL DATA

Polyconic Projection. 1927 North American datum  
10,000 ft. grid based on Alaska (zone 3) plane coordinate system.

Datum plane: Mean High Water

T-12439