

T-12653

T-12653

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
PH-6409	
Type of Survey SHORELINE (PHOTOGRAMMETRIC)	
Field No. <del>PH-6409</del>	Office No. T-12653
Edition No. 1	
Field Edited Map	
LOCALITY	
State	ALASKA
General locality	ORCA INLET
Locality	CORDOVA
1964-1966	
CHIEF OF PARTY	
CHIEF OF PARTY	H. J. SEABORG
COMPILATION OFFICE	P. A. STARK
LIBRARY & ARCHIVES	
DATE	

## DESCRIPTIVE REPORT - DATA RECORD

T - 12653

PROJECT NO. (II):  21423 (2) <i>PH-6409</i>		
FIELD OFFICE (III):  SHIP PATHFINDER		CHIEF OF PARTY  H. J. SEABORG
PHOTOGRAMMETRIC OFFICE (III):  PORTLAND, OREGON		OFFICER-IN-CHARGE  P. A. STARK
INSTRUCTIONS DATED (II) (III):  DECEMBER 7, 1964 III		
METHOD OF COMPILATION (III):  KELSH INSTRUMENT		
MANUSCRIPT SCALE (III):  1:10,000		STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:6,000 PANTOGRAPH SCALE: 1:10,000
DATE RECEIVED IN WASHINGTON OFFICE (IV):  <i>May 1977</i>		DATE REPORTED TO NAUTICAL CHART BRANCH (IV):
APPLIED TO CHART NO.		DATE:  DATE REGISTERED (IV):  <i>AUG 1977</i>
GEOGRAPHIC DATUM (III):  N.A. 1927		VERTICAL DATUM (III): <i>MHW</i> <del>MEAN SEA LEVEL EXCEPT AS FOLLOWS:</del> Elevations shown as (25) refer to mean high water Elevations shown as (5) refer to sounding datum i.e., mean low water or mean lower low water
REFERENCE STATION (III):  TOWN 1933		
LAT.:  60° 33' 01.406"	LONG.:  145° 45' 28.633"	<input checked="" type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED
PLANE COORDINATES (IV):  Y = 2,393,178.46 FT.    X = 543,570.75 FT.		STATE  ALASKA  ZONE  3
ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (II) FIELD PARTY, (III) PHOTOGRAMMETRIC OFFICE, OR (IV) WASHINGTON OFFICE. WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.		



## DESCRIPTIVE REPORT - DATA RECORD

FIELD INSPECTION BY (II): NONE		DATE:
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):  KELSH INSTRUMENT - AUGUST 25, 1964		
PROJECTION AND GRIDS RULED BY (IV): A. E. ROUNDTREE		DATE 11-25-64
PROJECTION AND GRIDS CHECKED BY (IV): P. HAWKINS		DATE
CONTROL PLOTTED BY (III): W. MASULA		DATE 12-15-64
CONTROL CHECKED BY (III): R. H. MEYER		DATE 12-15-64
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): W. HEINBAUGH		DATE 11-18-64
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY R. H. MEYER	DATE 1-6-65
	CONTOURS NONE	DATE
MANUSCRIPT DELINEATED BY (III): C. C. HARRIS		DATE 1-19-65
SCRIBING BY (III): A. Shands		DATE Dec. 1966
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): D. N. WILLIAMS		DATE 1-21-65
REMARKS: Field Edit  Sept. 1965 and May 1966		

## DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

C&amp;GS SINGLE LENS "S"

## PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
64 S 6892 AND 64 S 6893	8-25-64	0955	1:30,000	3.8 FT ABOVE M.L.L.W.
64 S 6789	"	0850	"	0.5 FT " "
64 S 6941 THRU 64 S 6944	"	1035	1:15,000	5.1 FT " "

## TIDE (III)

## DIURNAL

	RATIO OF RANGES	MEAN RANGE	<del>SPRING</del> RANGE
REFERENCE STATION: CORDOVA		10.0 FT	12.4 FT
SUBORDINATE STATION:			
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV):

*Leo F. Beugnot, Atlantic Marine Center*

DATE:

*May 1967*

PROOF EDIT BY (IV):

*J.B. Phillips Rockville, Md*

DATE:

*June 1977*

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (III):

RECOVERED: 2

IDENTIFIED: 2

NUMBER OF BM(S) SEARCHED FOR (III):

RECOVERED:

IDENTIFIED

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): NONE

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III): NONE

REMARKS:

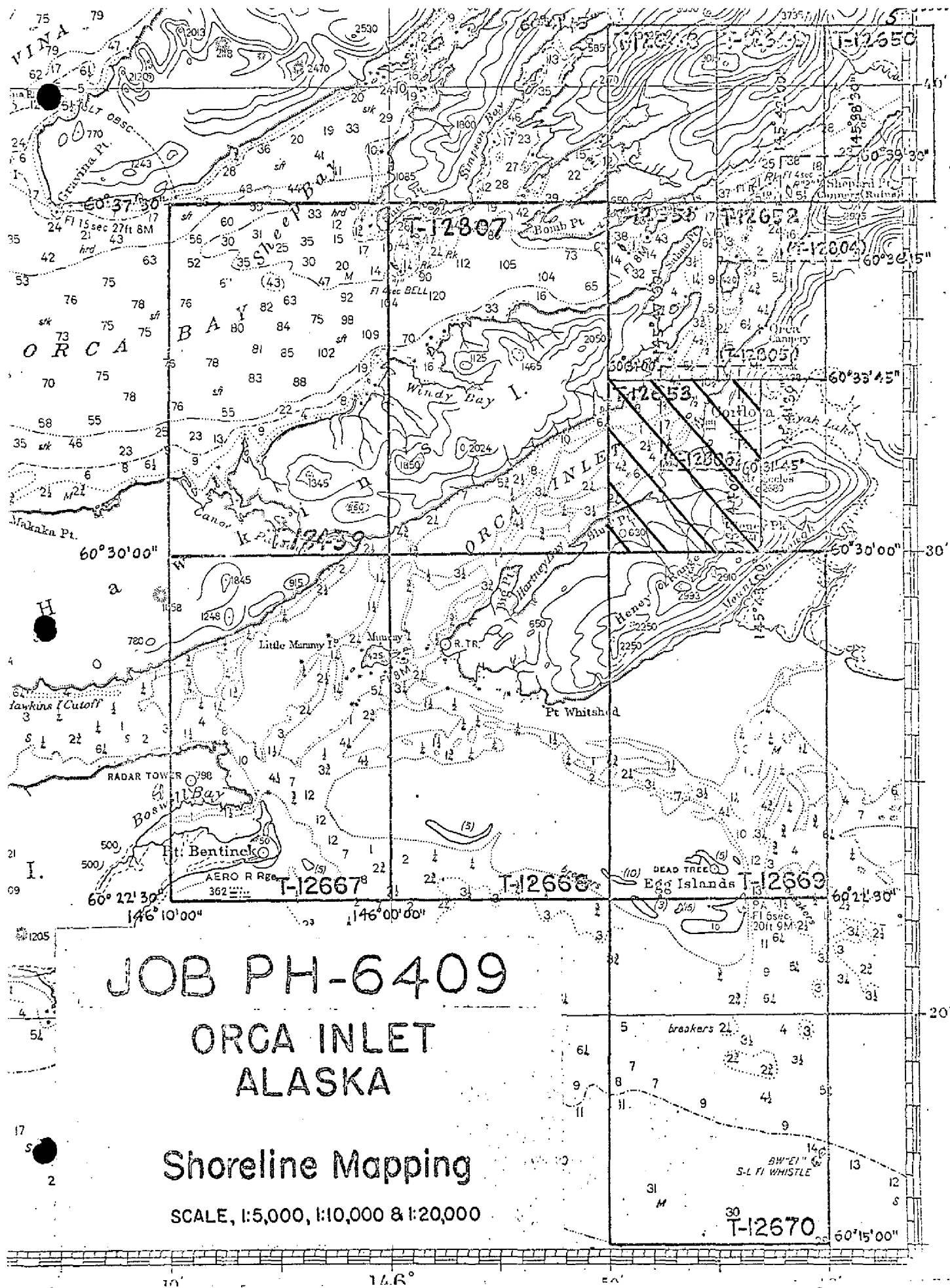
T-12653

COMPILATION RECORD

COMPLETION DATE

REMARKS

Alongshore area for hydro	January 1965	Superseded
Field Edit applied: subject to further verification	November 1965	Superseded
Second Field Edit applied	May 1966	
Final Review	May 1967	



SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT T-12653

Shoreline survey T-12653 is one of fifteen similar surveys in project PH-6409. It covers a part of the shoreline of Orca Inlet in the vicinity of Cordova, Alaska. The primary purpose of the survey was to provide new shoreline for nautical charts and photo-hydro support data for hydrographic surveys to be made in the same area.

Field work preceding compilation consisted of recovery and identification of horizontal control. There was no field inspection prior to compilation.

Compilation was by Kelsh Instrument, at 1:10,000 scale, using the panchromatic photography obtained August 25, 1964. The area around Cordova Harbor was later revised from photography of July 9, 1966.

The manuscript is a vinylite sheet 3 minutes 45 seconds in latitude by 7 minutes in longitude which was scribed and reproduced on cronaflex. One cronar positive and one cronar negative are provided for record and registry.

FIELD INSPECTION REPORT

MAP MANUSCRIPT T-12653

PROJECT 21423 (2)

NONE SUBMITTED. THERE WAS NO FIELD INSPECTION BEFORE  
COMPILATION.



# DESCRIPTIVE REPORT CONTROL RECORD

MAP T- 12653 PROJECT NO. 21423 (2) SCALE OF MAP 1:10,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 Ft. = 3048006 meter) FORWARD (BACK)
ACROSS 1933	ALASKA 60145 P.1	N.A. 1927	2,396,838.0 535,135.6	
C-15/13.00 (USE) 1948	" P.2	"	2,392,401.7 542,089.1	
COPPER CITY, HOUSE, WEST GABLE, 1899	" "	"	2,391,493.8 543,627.6	
CORDOVA 1933	" P.3	"	2,377,547.0 547,842.1	
CORDOVA BOAT HARBOR LIGHT 1964	UNADJUSTED FIELD POSITION	"	2,392,043.6 541,999.4	
CORDOVA RADIO MAST, 1955	ALASKA 60145 P.3	"	2,389,246.6 543,229.2	
EYAK 1933	" P.4	"	2,388,238.0 540,053.9	
MAUD 1899	" P.5	"	2,385,146.5 537,089.8	
MAUD 2, 1964	UNADJUSTED FIELD POSITION	"	2,385,147.6 537,088.0	
NARD 1933	ALASKA 60145 P.5	"	2,393,296.4 541,567.0	7
STUMP 1899	" P.15	"	2,393,880.0 531,955.9	
STUMP 2, (USGS) 1964	UNADJUSTED FIELD POSITION	"	2,393,887.3 531,960.5	8
COMPUTED BY C.H.B.	DATE 12-15-64	CHECKED BY R.H.M.	DATE 12-15-64	

# DESCRIPTIVE REPORT CONTROL RECORD

SCALE FACTOR

[illegible]

Aerotriangulation Report  
Project 21423  
Orca Inlet, Alaska

21. Area Covered

The area covered by this report on aerotriangulation bridging encompasses the shoreline of Orca Inlet, Alaska (T-12648 through T-12652 and the northeast portion of T-12653).

22. Method

Three strips of photography (64S 6892-98), (64S 6787-92) and (64S 6909-15) were bridged on the stereoplanigraph and were adjusted by IBM 1620 methods.

Plotting coordinates are furnished at 1:5,000 scale for T-12804, T-12805 and T-12806 and at 1:10,000 scale for T-12648 through T-12653.

Positions of tie points were meaned when necessary.

23. Adequacy of Control

Horizontal control provided was adequate as to location and quality to control the bridges within the limits of accuracy required by National Map Accuracy Standards. However, a portion of the shoreline of T-12653 cannot be compiled since control station, Travel 2, could not be held. Each attempt to use Travel 2 as the terminal point (Strip 3) resulted in large residuals for other control stations in that bridge. An adjustment of the bridge, with Orca Bay, South Bldg., West Gable (1955) as the terminal station, was made and the resulting foreshortened bridge held satisfactorily. No explanation of the failure of station Travel 2 to hold is apparent. The station should be re-identified to provide control for that portion of the shoreline.

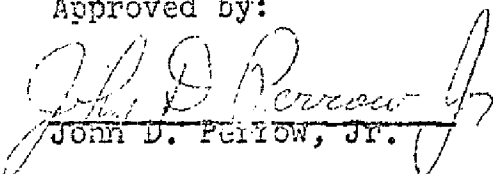
24. Supplemental Data

USGS quadrangles Cordova, Alaska (B-5, B-6, C-5 and C-6) scale 1:63,360, 1953 edition were used to provide vertical control where needed.

25. Photography

Photography was adequate as to coverage, overlap and definition.

Approved by:

  
JOHN D. PELLOW, JR.

Submitted by:

  
W. Heinbaugh

Aerotriangulation Report  
Project 21423  
Orca Inlet, Alaska  
Supplemental Report

Re-identification of Station Travel 2, 1964 provided means of extending Strip #1 to the southern limits of T-12653. A straight line adjustment was run from Cordova Jetty Lt. 1964 to Travel 2, 1964 with Across 1933 plus four tie points as checks.

Residuals plus ties indicate the bridge is good. However, if future work is planned to the south of T-12653 it is recommended that bridging extend to Cordova Jetty Lt. 1964 in order to obtain proof of the tie.

John D. Perrow, Jr.

## COMPILATION REPORT

T-12653

31. DELINEATION:

Planimetry was compiled by Kelsh Instrument from office interpretation of the photographs.

32. CONTROL:

Adequate supplemental control, based on field identified horizontal control, was established by aerotriangulation.

33. SUPPLEMENTAL DATA:

None

34. CONTOURS AND DRAINAGE:

Contours inapplicable.

The drainage was delineated by the Kelsh operator using the U.S.G.S. quadrangle as a guide.

35. SHORELINE AND ALONGSHORE DETAILS:

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

36. OFFSHORE DETAILS:

None

37. LANDMARKS AND AIDS:

Two fixed aids to navigation are reported on form 567.

One landmark, HOUSE, shown on Chart 8525 at latitude  $60^{\circ} 35.5'$  longitude  $145^{\circ} 44.9'$  was not visible on the photographs and is not shown on this survey.



38. CONTROL FOR FUTURE SURVEYS:

None

39. JUNCTIONS:

Satisfactory junctions were made with T-12651 and T-12652, 1:10,000 scale manuscripts, on the north; T-12807, 1:20,000 scale manuscript on the west, and with T-12806 a 1:5,000 scale manuscript which lies within the limits of this manuscript. There are no contemporary surveys to the east and south.

40. HORIZONTAL AND VERTICAL ACCURACY:46. COMPARISON WITH EXISTING MAPS:

Comparison was made with U.S.G.S. CORDOVA (C-5), ALASKA quadrangle, 1:63,360 scale, edition of 1951.

47. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with the following nautical charts:

8525,	1:30,000	scale,	July 27, 1964
8520,	1:80,000	scale,	July 20, 1964
8551,	1:200,000	scale,	April 15, 1963

Items to be applied to nautical charts immediately:

None

Items to be carried forward:

None

Approved by:

*for* *Leo L. Beugnot*  
P. A. Stark, CDR, C&GS  
Portland Field Office

Submitted by:

*Donnel N. Williams*  
Donnel N. Williams  
Cartographer

14

48. GEOGRAPHIC NAME LIST:

THE APPROVED GEOGRAPHIC NAMES LISTED BELOW WERE FURNISHED BY  
THE WASHINGTON OFFICE ON U.S.G.S. CORDOVA (C-5) ALASKA, 15 MINUTE  
QUADRANGLE, SCALE 1:63,360, EDITION 1951.

CORDOVA  
HAWKINS ISLAND  
MUD BAY  
ODIAK SLOUGH  
ORCA INLET  
SPIKE ISLAND

49. NOTES TO THE HYDROGRAPHER:

NONE.

## PHOTOGRAMMETRIC OFFICE REVIEW

50			
T-12653			
1. PROJECTION AND GRIDS	2. TITLE	3. MANUSCRIPT NUMBERS	4. MANUSCRIPT SIZE
DNW	DNW	DNW	DNW
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations)		7. PHOTO HYDRO STATIONS
DNW	NONE		NONE
8. BENCH MARKS	9. PLOTTING OF SEXTANT FIXES	10. PHOTOGRAMMETRIC PLOT REPORT	11. DETAIL POINTS
NONE	NONE	DNW	DNW
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE	13. LOW-WATER LINE	14. ROCKS, SHOALS, ETC.	15. BRIDGES
DNW	DNW	DNW	NONE
16. AIDS TO NAVIGATION	17. LANDMARKS	18. OTHER ALONGSHORE PHYSICAL FEATURES	19. OTHER ALONGSHORE CULTURAL FEATURES
DNW	DNW	DNW	DNW
PHYSICAL FEATURES			
20. WATER FEATURES	21. NATURAL GROUND COVER		22. PLANETABLE CONTOURS
DNW	DNW		NONE
23. STEREOSCOPIC INSTRUMENT CONTOURS	24. CONTOURS IN GENERAL	25. SPOT ELEVATIONS	26. OTHER PHYSICAL FEATURES
NONE	NONE	NONE	DNW
CULTURAL FEATURES			
27. ROADS	28. BUILDINGS	29. RAILROADS	30. OTHER CULTURAL FEATURES
DNW	DNW	DNW	DNW
BOUNDARIES			
31. BOUNDARY LINES		32. PUBLIC LAND LINES	
NONE		NONE	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES	34. JUNCTIONS		35. LEGIBILITY OF THE MANUSCRIPT
DNW	DNW		DNW
36. DISCREPANCY OVERLAY	37. DESCRIPTIVE REPORT	38. FIELD INSPECTION PHOTOGRAPHS	39. FORMS
DNW	DNW	DNW	DNW
40. REVIEWER		SUPERVISOR, REVIEW SECTION OR UNIT	
Donnel N. Williams		Leo F. Beugnet	
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	
K. Boyle		Albert C. Rauck, Jr.	
Reviewed: C. Bishop		A. C. Rauck	
43. REMARKS			

UNITED STATES GOVERNMENT

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

ENVIRONMENTAL SCIENCES SERVICES ADMINISTRATION

# Memorandum

TO : Chief, Photogrammetry Division

DATE: May 7, 1966

In reply refer to:

FROM : Commanding Officer  
USCGS Ship HODGSON

SUBJECT: Field Edit - Orca Inlet  
Project 21423 (2) Job PH-6409

Photographs, manuscripts and originals for the above project are returned under separate cover. The required field edit has been accomplished and appropriate notes made on the photographs and originals. Upon re-compilation the advance manuscripts and photos should be returned to Seattle processing office for application of shoreline to smooth sheets and final signal location.

*John E. Watkins, Jr.*  
John E. Watkins, Jr.

cc: PACMARCEIN



New photos  
scheduled  
at 1/10,000  
Pan. 5.1m  
5/11/66  
R22/3

Sheet T-12606

Discrepancies as noted were verified in the field. See photo no. 64S6942 1/5000. Please note the changes to the area about the small boat basin. To scale sketch has been made of the area as found in May 1966. Other changes are contemplated and it is recommended that a stereo triplet be obtained in mid-summer for updating. The MHW line is shown in purple about the fill area as requested.

Sheet T-12649

Discrepancies as noted were verified in the field and appropriate notes made in purple on photo no. 64S6786 1/10,000.

Sheet T-12652

Discrepancies as noted were verified in the field and appropriate notes made in purple on photo no. 64S6786, 64S6787, 64S6949, 1/10,000. Please note new MHWL for western side of observation island.

Sheet 12604

Discrepancies as noted were verified in the field. Applicable notes were made on the ozalid.

Sheet 12805

Discrepancies as noted were checked in the field. See also sheet T-12652.

Sheet T-12653

All discrepancies as noted were verified on photo nos. 64S7353, 64S6891, 64S7350, 1/10,000 and 64S6943, 1/5000. All shoreline verified is shown in purple on the photos.

New  
photos  
scheduled  
at 1/10,000  
Pan.  
5/11/66  
R22/3

In the area SW of station MAUD 2, 1964, photo no. 64S6891 considerable activity by the Corps of Engineers makes MHW verification impracticable at this time. More recent photography is required. It is recommended that a stereo triplet be made of the area in mid-summer for final shoreline detail of this area.

On photo no. 64S6943 changes were made to shoreline from that shown in 1965 in red. These changes (1966) are shown in purple on the photo.

Sheet T-12648

All discrepancies as noted by the compiler were checked and appropriate notes made on the ozalid with the exception of Simpson Bay. This area was not within the project limits.

Sheet T-12650

Discrepancies as noted were verified in the field. MHWL was inked in purple on photo no. 6486952 and 6486953, 1/10,000.

Sheet T-12651

Discrepancies as noted were verified in the field. All references are made to photo no. 6486784, 1/10,000. Notes with "LL" indicate a lead line sounding at the applicable time. Shoreline verification is shown in purple on the photo. Several rocks not noted on the discrepancy sheet were added and applicable notes made.

REVIEW REPORT  
SHORELINE  
MAY 23, 1967

61. GENERAL STATEMENT

See Summary accompanying Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

Comparison was made with Registered Survey No. 3648, 1:20,000 scale, made in 1916, Valdez datum. The comparison between the two surveys is shown on the comparison print.

Shoreline survey T-12653 supersedes the older survey for nautical chart construction.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Comparison was made with U.S.G.S. CORDOVA (C-5), ALASKA quadrangle, 1:63,360 scale, edition of 1951 with minor revisions made in 1962. The two surveys are in good general agreement.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Comparison was made with copies of boatsheets H-8853, PF-10-1-64 and HO-05-0-65. The shoreline on neither boatsheet is in agreement with the advance manuscript. The source of the shoreline for HO-05-1-65 was probably obtained from an Incomplete Manuscript.

65. COMPARISON WITH NAUTICAL CHARTS

To the north of latitude  $60^{\circ} 32'$  comparison was made with Chart 8525, 1:30,000 scale, 8th edition, March 14, 1966, Revised November 14, 1966. This comparison is shown on the comparison print.

To the south of latitude  $60^{\circ} 32'$  comparison was made with Chart 8520, 1:80,000 scale, 13th edition, March 7, 1966.


66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This survey complies with instructions and meets the National standards of Map Accuracy.


Reviewed by:

  
Leo F. Beugnet

Approved by:

  
J. Bull, RADM  
Director, Atlantic Marine Center

Approved by:

  
Chief, Photogrammetric Branch

  
Chief, Photogrammetry Division

Chief, Nautical Chart Division

# NOTES TO THE REVIEWER

The approximate low water line has been retained on the manuscript for any value it may have to the nautical chart compiler.



