T-12651

T-12651

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

PH-6409

Type of Survey SHORELINE (PHOTOGRAMMETRIC)

~~Field No.~~ Edition No. 1 Office No. T-12651

Field Edited map

LOCALITY

State ALASKA

General locality ORCA INLET

Locality DEEP BAY

1964-1966

CHIEF OF PARTY

CHIEF OF PARTY H. J. SEABORG

COMPILATION OFFICE P. A. STARK

LIBRARY & ARCHIVES

DATE

USCOMM-DC 5087

8. 1

FORM C&GS-181a
(12-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD
T - 12651

PROJECT NO. (II):
21423 (2) PH-6409

FIELD OFFICE (II):	CHIEF OF PARTY
SHIP PATHFINDER	H. J. SEABORG
PHOTOGRAMMETRIC OFFICE (III):	OFFICER-IN-CHARGE
PORTLAND, OREGON	P. A. STARK

INSTRUCTIONS DATED (II) (III):
DECEMBER 7, 1964 III

METHOD OF COMPILATION (III):
KELSH INSTRUMENT

MANUSCRIPT SCALE (III):	STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:6,000
1:10,000	PANTOGRAPH SCALE: 1:10,000
DATE RECEIVED IN WASHINGTON OFFICE (IV):	DATE REPORTED TO NAUTICAL CHART BRANCH (IV):
May 1977	

APPLIED TO CHART NO.	DATE:	DATE REGISTERED (IV):
		AUG. 1977

GEOGRAPHIC DATUM (III):	VERTICAL DATUM (III): MHW
N.A. 1927	~~MEAN SEA LEVEL EXCEPT AS FOLLOWS:~~ *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):
ATOMIC, 1964

LAT.:	LONG.:	
60° 36' 47.798"	145° 48' 19.626"	☐ ADJUSTED ☒ UNADJUSTED

PLANE COORDINATES (IV):		STATE	ZONE
Y = 2,416,136.9 FT	X = 534,952.7 FT.	ALASKA	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.

USCOMM-DC 16276A-P61

3. 2

FORM C&GS-1816
(12-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

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 11-24-64
PROJECTION AND GRIDS CHECKED BY (IV): P. HAWKINS	DATE
CONTROL PLOTTED BY (III): R. H. MEYER	DATE 12-14-64
CONTROL CHECKED BY (III): W. MASULA	DATE 12-14-64
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): W. HEINBAUGH	DATE 11-18-64
STEREOSCOPIC INSTRUMENT COMPILATION (III): PLANIMETRY W. MASULA	DATE 1-5-65
CONTOURS	DATE
MANUSCRIPT DELINEATED BY (III): C. C. HARRIS	DATE 1-8-65
SCRIBING BY (III): A. Santillan	DATE Dec. 1966
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): D. N. WILLIAMS	DATE 1-12-65
REMARKS:	

USCOMM-DC 16276-P61

FORM C&GS-181c
(12-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

C&GS SINGLE LENS "S"

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
64 S 6786 THRU 64 S 6789	8-25-64	0850	1:30,000	0.5 FT ABOVE M.L.L.W.
64 S 6892 THRU 64 S 6894	"	0954	"	4.0 FT ABOVE M.L.L.W.
64 S 6913 AND 64 S 6914	"	1005	"	3.8 FT ABOVE M.L.L.W.

TIDE (III)

DIURNAL

	RATIO OF RANGES	MEAN RANGE	~~SPRING~~ RANGE
REFERENCE STATION: CORDOVA, ALASKA		10.0 FT	12.4 FT
SUBORDINATE STATION: ORCA		9.9 FT	12.4 FT
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV): Leo F. Beugnot, Atlantic Marine Center — DATE: April 1967

PROOF EDIT BY (IV): J.B. Phillips Rockville, Md. — DATE: June 1977

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): — RECOVERED: 1 — IDENTIFIED: 1

NUMBER OF BM(S) SEARCHED FOR (II): — RECOVERED: — IDENTIFIED

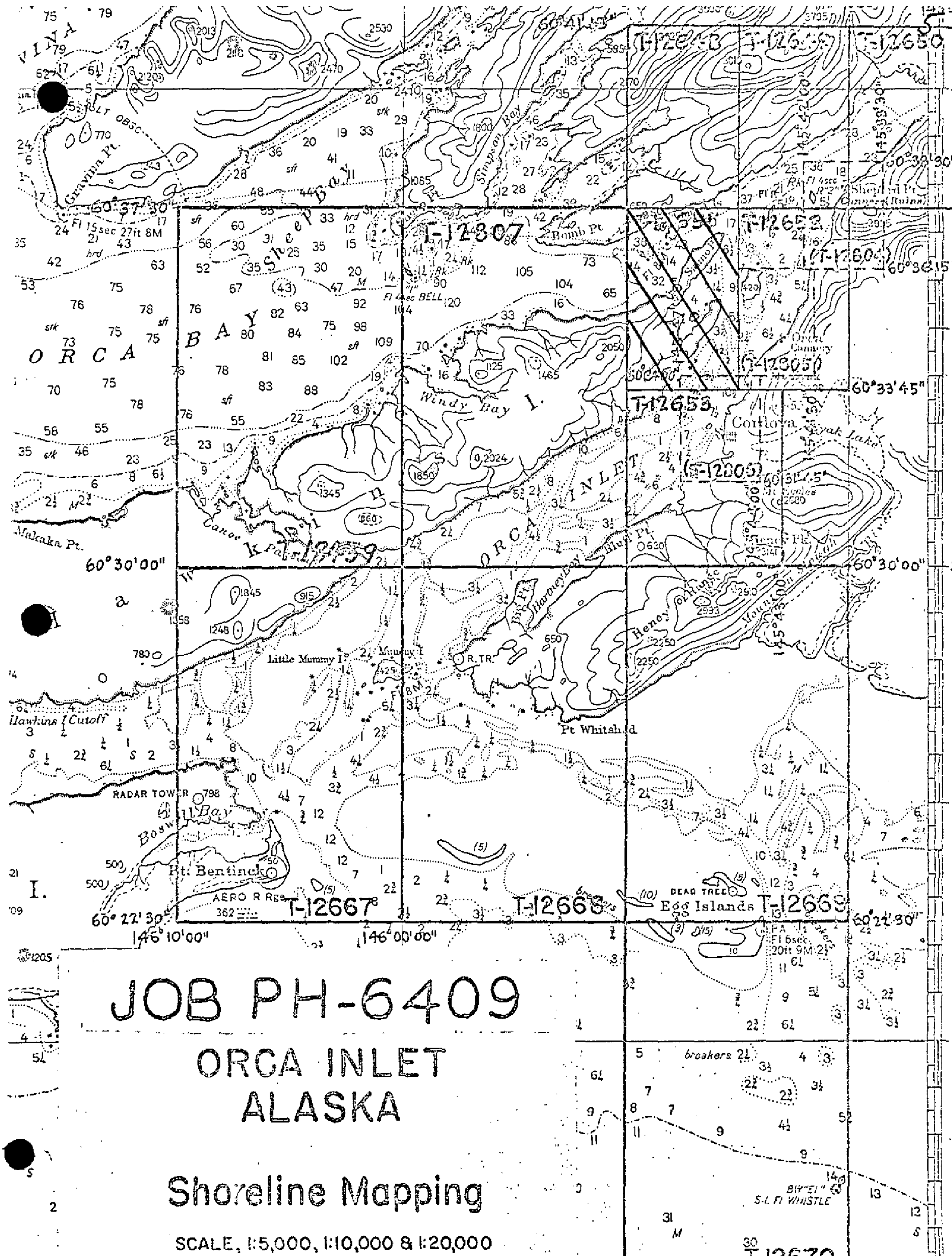
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): NONE

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

REMARKS:

T-12651

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	April 1967	



JOB PH-6409

ORCA INLET
ALASKA

Shoreline Mapping

SCALE, 1:5,000, 1:10,000 & 1:20,000

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT T-12651

Shoreline survey T-12651 is one of fifteen similar maps in project PH-6409. The primary purpose of the project 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/or establishment and identification of horizontal control. There was no field inspection prior to compilation.

The manuscript was compiled by Kelsh instrument at 1:10,000 scale using the panchromatic photography obtained August 25, 1964. Cronaflex copies were provided for preparation of the hydrographer's boat sheet along with specially prepared ratio photographs for location of hydro signals and for field edit use.

The manuscript is a vinylite sheet 3 minutes 45 seconds in latitude by 5 minutes 00 seconds 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-12651

Project 21423 (2)

None submitted. There was no field inspection before compilation.

FORM C&GS-164
(3-64)
USCOMM-DC
6659-P64

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- 12651 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)
ATOMIC, 1964	UNADJUSTED FIELD POSITION	N.A. 1927	2,416,136.9 534,952.7	
AZIMUTH MARK, 1900	ALASKA 60145 P. 1	"	2,408,865.2 542,905.7	
GRASS, 1899	ALASKA 60145 P. 4	"	2,401,225.2 539,586.6	
SALMO, 1900	ALASKA 60145 P. 12	"	2,415,775.8 541,702.9	
WINDY, 1964	UNADJUSTED FIELD POSITION	"	2,409,548.8 534,176.2	
CHANNEL ISLAND LIGHT 1964	"	"	60 36 46.880 145 48 08.057	

COMPUTED BY C.H.B. DATE 12-14-64 CHECKED BY J.S.P. DATE 12-14-64

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. Perrow, Jr.

Submitted by:

W. Heinbaugh

COMPILATION REPORT
T-12651

31. DELINEATION

The manuscript was compiled by Kelsh instrument.

32. CONTROL

Adequate supplemental control, based on field identified horizontal control, was established by aerotriangulation for control of the Kelsh models.

33. SUPPLEMENTAL DATA

None.

34. CONTOURS AND DRAINAGE

Contours inapplicable.

The drainage was delineated by the Kelsh operator using the USGS 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

There are no offshore details within the limits of this survey visible on the photographs.

37. LANDMARKS AND AIDS

There are no landmarks within the limits of this survey. One fixed aid to navigation is listed on Form 567.

38. CONTROL FOR FUTURE SURVEYS

None.

39. JUNCTIONS

Satisfactory junctions were made with 1:10,000 scale manuscripts T-12648 on the north, T-12652 on the east, T-12653 on the south; 1:5,000 scale overlapping manuscripts T-12805 and T-12806 and with 1:20,000 scale manuscript T-12807 on the west.

40. HORIZONTAL AND VERTICAL CONTROL

46. COMPARISON WITH EXISTING MAPS

Comparison was made with USGS 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.

Submitted:

Donnel N. Williams
Donnel N. Williams
Cartographer

Approved:

for Leo F. Bengnet
P. A. Stark, CDR, C&GS
Portland Field Officer

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.

Channel Island
Deep Bay
Deep Creek
Grass Island
Hawkins Island
Knot Point
Odiak Channel
Orca Bay
Orca Inlet
Salmo Point
Shipyard Bay
The Narrows

49. NOTES FOR THE HYDROGRAPHER:

VERIFY FOUL AREAS AT 60° 36' 30", 145° 47' 30"; AND 60° 34', 145° 45'.

INVESTIGATE POSSIBLE WRECKS AT 60° 35' 15", 145° 48' 10"; 60° 34' 50", 145° 47' 40" AND 60° 35' 40", 145° 46' 55".

INVESITGATE BUILDING IN ISLAND AND PILING AT 60° 35' 15", 145° 48' 55".

C&GS FORM 1002
(11-13-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

PHOTOGRAMMETRIC OFFICE REVIEW

50

T-~~10383~~ 12651

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	None	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
L. Neterer Reviewed by C. Bishop	Albert C. Rauck Jr. A. C. Rauck

43. REMARKS

FORM CD-121 (11-63) (PREV. ED. A.O. 208-10)

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

TO : Chief, Photogrammetry Division

DATE: May 7, 1966

In reply refer to:

FROM : Commanding Officer
USC&GS Ship HODGSON

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

Photographs, manuscripts and ozalids for the above project are returned under separate cover. The required field edit has been accomplished and appropriate notes made on the photographs and ozalids. 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 B. Watkins, Jr.

cc: PACMARCEN

Sheet T-12806

New photos scheduled at 1/10,000 Pan film 5/11/66 [illegible]

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 MHW for western side of observation island.

Sheet 12804

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 [illegible]

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-12646

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. 64S6952 and 64S6953, 1/10,000.

Sheet T-12651

Discrepancies as noted were verified in the field. All references are made to photo no. 64S6784, 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 T-12651
SHORELINE
18 APRIL 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, dated 1916 and based on Valdez datum. The comparison of this older survey with T-12651 has been shown on the Comparison Print.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Comparison was made with USGS CORDOVA (C-5), ALASKA quadrangle, 1:63,360 scale, edition of 1951 with minor revisions in 1962. The two surveys are in good general agreement considering that the USGS quadrangle has been somewhat generalized because of the scale.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Comparison was made with a copy of boat sheets H-8853, PF-10-1-64 and H-8854, HO-20-1-65. The source for the shoreline for H-8853 is not known. The shoreline for H-8853 was probably obtained from the Incomplete Manuscripts which were provided for location of hydrographic signals.

Due to field edit corrections, slight changes were made in the shoreline on the manuscript so that the shoreline of the boatsheet and the Advance Manuscript are not in complete agreement.

65. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with Chart 8525, 1:30,000 scale, 8th edition, March 14, 1966 revised November 14, 1966. The comparison between the chart and this survey has been shown on the Comparison Print.

66. ACCURACY OF RESULTS AND FUTURE SURVEYS

This survey complies with instructions and meet the National Standards of Map Accuracy.

Approved by:

J. Bull by HDL
J. Bull, RADM
Director, Atlantic Marine Center

Reviewed by:

Leo F. Beugnet
Leo F. Beugnet

Approved by:

Chief, Photogrammetric Branch

Chief, Photogrammetry Division

Chief, Nautical Chart Division

NOTES TO THE VERIFIER

An approximate mean lower low water line has been left on the manuscript for any value it may have to the nautical chart compiler. It is not in complete agreement with the soundings on the boat sheet. However, it is realized that the sounding on the copy of the boat sheet furnished the reviewer have probably not been reduced to their final value.

C&GS FORM 567
(11-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
~~TO BE REVISED~~
~~TO BE DELETED~~
} STRIKE OUT TWO

Portland, Oregon February, 1965

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 C. H. Bishop

P. A. Stark, CDR, C&GS
Portland Field Officer *Chief of Party.*

STATE	ALASKA		POSITION					METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
			LATITUDE*		LONGITUDE*		DATUM						
CHARTING NAME	DESCRIPTION	SIGNAL NAME	° ′	″ D.M. METERS	° ′	″ D.P. METERS							
	Channel Island Light ~~(Channel Island Light 1964)~~		60 36	46.880 1451.0	145 48	08.057 122.6	NA 1927	Triang. T-12651	1964	X	X	X	8525 8520 8551
	Position is from unadjusted field computation												
	This position was checked with Base Plot listing for this chart (8525) The listing is from an adjusted 1964 position — these have superceded this G.P. DJK 12/14/78												

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

USCOMM-DC 16234-P61