11598

Aug

11598

Diag. Cht. No. 6450-2.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Shoreline (Photogrammetric)

Field No. Ph-5905 *Office No.* T-11598

LOCALITY

State Washington

General locality Skagit Bay, Camano Island

Locality Utsalady

1959-1960

CHIEF OF PARTY

Lorne G. Taylor and Fred Natella

LIBRARY & ARCHIVES

DATE July 1964

USCOMM-DC 5087

FORM 181
(4-23-54)

2.

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T - 11598

Project No. (II): Ph-5905 Quadrangle Name (IV):

Field Office (II): Mt. Vernon,, Washington

Chief of Party: Lorne G. Taylor

Unit Chief: J. C. Lajoye & W. V. Hull

Photogrammetric Office (III): Portland, Oregon

Officer-in-Charge: Lorne G. Taylor & Fred Natella

Copy filed in Division of Photogrammetry (IV)

Instructions dated (II) (III): 10 Feb. 1960 II

Supplement 1: 5 May 1960 II & III

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:10,000 Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): None

1962

Date received in Washington Office (IV): FEB Date reported to Nautical Chart Branch (IV):

Applied to Chart No. Date: Date registered (IV):

Publication Scale (IV): Publication date (IV):

Geographic Datum (III): N.A. 1927 Vertical Datum (III): X

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): None on manuscript (Refer to T-11599).

Lat.: Long.: Adjusted / Unadjusted

Plane Coordinates (IV): State: Zone:

Y= X=

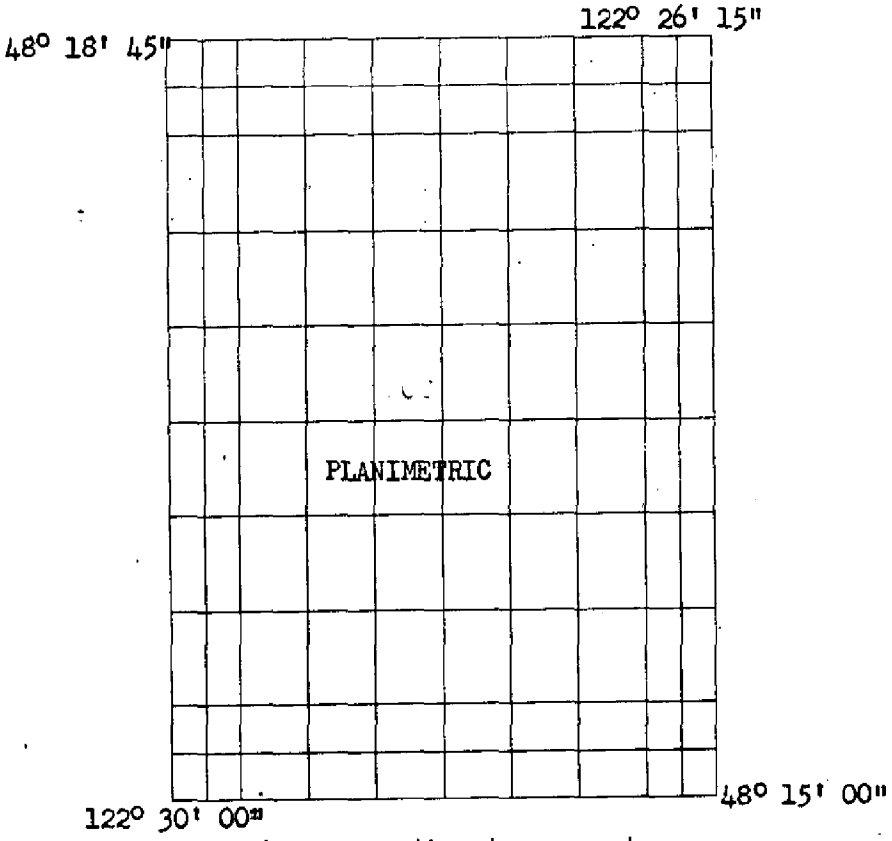
Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office, or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

FORM 181a
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD



Areas contoured by various personnel
(Show name within area)
(II) (III)

FORM 181b
(4-23-54)

4.

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II):	R. B. Melby & L. F. Van Scoy	Date:	July & Aug. 1960
Planetable contouring by (II):		Date:	
Completion Surveys by (II):		Date:	

Mean High Water Location (III) (State date and method of location): 7-14-60 by field inspection and graphic compilation.

Projection and Grids ruled by (IV):	J. Keefer	Date:	6-24-60
Projection and Grids checked by (IV):	W. S.	Date:	8-18-60
Control plotted by (III):	None	Date:	
Control checked by (III):		Date:	
Radial Plot or Stereoscopic Control extension by (III):	J. L. Harris	Date:	4-12-61
Stereoscopic Instrument compilation (III):	Planimetry	Date:	
	Contours	Date:	
Manuscript delineated by (III):	C. H. Bishop, Rough Draft J. L. Harris, Scribing C. C. Harris, Stick-up	Date:	4-19-61 10-6-61 12-18-61
Photogrammetric Office Review by (III):	C. C. Harris, Rough Draft J. E. Deal, Advance	Date:	6-9-61 12-26-61
Elevations on Manuscript checked by (II) (III):		Date:	

FORM 181c
(4-23-54)

5.

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

Camera (kind or source) (III): C&GS 9-lens, Focal length 8.25 inches, & Camera "L".

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
60011	9-9-59	08:57	1:10,000	8.9' above M.L.L.W.
60212 & 60213	"	11:09	"	9.6' above M.L.L.W.
60-L-9573 thru 9575	4-16-60	13:50	1:30,000	0.8' below M.L.L.W.

Tide (III)

		Ratio of Ranges	Mean Range	Diurnal ~~Spring~~ Range
Reference Station:	Seattle, Washington		7.6	11.3
Subordinate Station:	Coupeville, Washington		7.8	11.5
Subordinate Station:				

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): 2.6

Shoreline (More than 200 meters to opposite shore) (III): 3.5

Shoreline (Less than 200 meters to opposite shore) (III): None

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 2 Recovered: 0 Identified: 0

Number of BMs searched for (II): None Recovered: Identified:

Number of Recoverable Photo Stations established (III) None

Number of Temporary Photo Hydro Stations established (III): None

Remarks:

COMM-DC-57842

FIELD INSPECTION REPORT

Map Manuscript T-11598

Project Ph-5905

Refer to the Field Inspection Report for the entire Project Ph-5905 by Wesley V. Hull, February 1960 to September 1960.

Filed with Desc. Report T-11584

PHOTOGRAMMETRIC PLOT REPORT

Map Manuscripts T-11598 thru T-11600,

T-11606 thru T-11610 and T-11616

Project Ph-5905

21. Area Covered:

This radial plot covers the Port Susan area of Puget Sound and comprises Map Manuscripts T-11598 thru T-11600, T-11606 thru T-11610 and T-11616.

22. Method:

Prints of the nine lens photographs were furnished on Cronarpaque and these were prepared by the usual methods. A number of pass points which had been selected in the stereoplanigraph bridge in the flights of single lens photographs to the west and which were common to the nine lens photographs were identified and used for horizontal control.

Hand templets of nine lens photographs were drawn on vinylite material and corrected for paper distortion and transforming errors by use of master templet No. 59741.

Horizontal control stations identified in the area were plotted and checked. The pass points located by stereoplanigraph bridge in flights of single lens photographs to the west and which were common to the nine lens photographs were also plotted and checked.

The manuscripts were joined together by matching at the neat lines and the templets were oriented.

Excellent intersections of radials were obtained and all identified horizontal control was held. A few of the pass points located in the previous stereoplanigraph bridge plots were discarded because they could not be identified with certainty on the nine lens photographs.

23. Adequacy of Control:

The identified horizontal control was adequate.

24. Supplemental Data:

Stereoplanigraph Bridge Control Extensions for Strips No. 1, 6 and 8. Refer to Special Report, Photogrammetric Plot, Puget Sound, Washington (1960) by Willard A. Kuncis. Filed with Desc. Report T-11584

25. Photography:

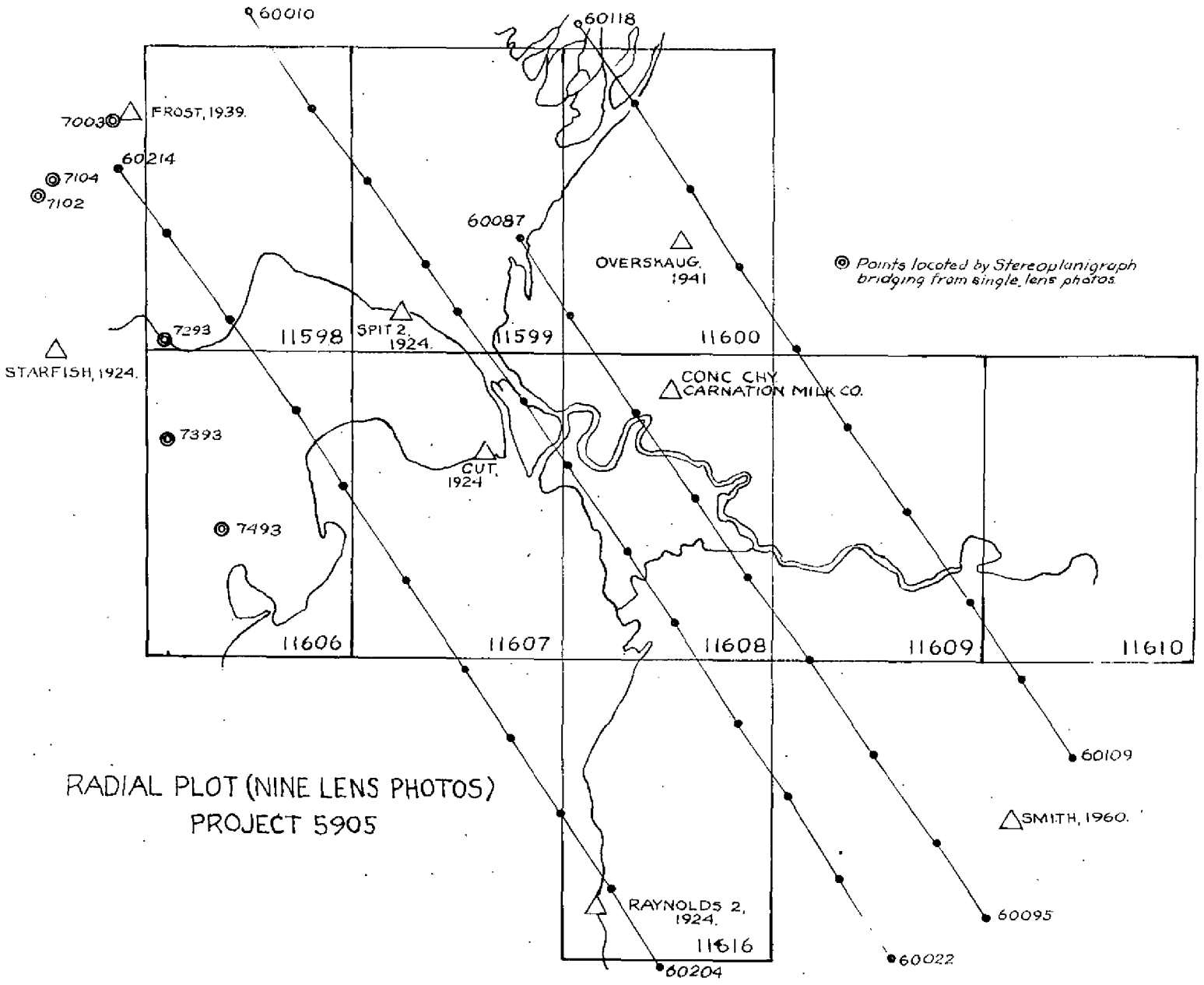
The photography was adequate except for definition which was poor in many instances. Images appearing on the paper field prints did not appear on the Cronarpaque office prints. This made it quite difficult to transfer a few sub stations from field photographs to office prints and many pass points from contact prints to office prints.

Approved:

Fred Natella, CAPT, C&GS
Portland District Officer

Respectfully submitted:

J. Edward Deal
Cartographer



RADIAL PLOT (NINE LENS PHOTOS)
PROJECT 5905

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
DESCRIPTIVE REPORT
CONTROL RECORD

MAP T-11598 PROJECT NO. Ph-5905 SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
		There are no stations on this sheet.					

1 FT. = .3048006 METER

COMPUTED BY: DATE CHECKED BY: DATE

COMM-DC-57843

COMPILATION REPORT

Map Manuscript T-11598

Project Ph-5905

31. Delineation:

Graphic methods were used to compile the planimetry. The nine lens photographs were satisfactory for the compilation of the mean high-water line and all interior features. They were not adequate for compiling the large tidal flat areas in Skagit Bay because they were taken at about high-water. A small portion of these tidal flat areas were photographed with infrared photography taken at low-water. Refer to Item 35 of this Descriptive Report for additional remarks relative to these features.

32. Control:

There were no triangulation stations recovered in the area of the map manuscript. Pass points located by radial plot were satisfactory for the compilation work.

33. Supplemental Data:

Map of Island County, Washington, compiled by Island County Engineer, March 1958, Scale 1 inch = 1 mile.

34. Contours and Drainage:

Contours are not applicable.

Drainage was not field inspected. One piece of drainage shown on U.S.G.S. 7½ minute Utsalady, Washington, quadrangle could not be verified by stereoscopic examination of the photographs. It was transferred to the manuscript from the quadrangle by use of the vertical projector.

35. Shoreline and Alongshore Details:

The mean high-water line and alongshore details were adequately field inspected and were compiled from nine lens photography taken when the predicted tide was about 9.5 ft. above M.L.L.W. The tidal data from nearby tide stations indicates mean high-water to be about 10.3 ft. in Skagit Bay.

There is a large tidal flat area in Skagit Bay which could not be determined from the nine lens photography. One flight of infrared single lens photography taken when the predicted tide was 0.8 ft. below M.L.L.W. shows part of the area. This portion of the tidal flat area has been shown on the manuscript and the limits of each flat have been outlined with a low-water line which indicates their extent as of 16 April 1960.

The 1960 recovery note for triangulation station BROWN 2, 1924 states that the shoreline in this area is subject to severe change. This condition will continually affect the mean high-water and low-water lines in this area.

Pass points could not be located in the radial plot to control the infrared photography and the tidal flat area was transferred from the 1:30,000 infrared photography to the manuscript by use of the vertical projector. For this reason the location of the limits of tidal flats may be subnormal.

36. Offshore Details:

Refer to Item 35 of this Descriptive Report.

37. Landmarks and Aids:

None.

38. Control for Future Surveys:

None.

39. Junctions:

Satisfactory junctions were made with T-11597 on the west, T-11599 on the east and T-11606 on the south. On the north is Skagit Bay and no junction was required.

40. Horizontal and Vertical Accuracy:

Vertical accuracy is not applicable.

There are no areas of subnormal horizontal accuracy except as stated in Item 35 of this Descriptive Report relative to tidal flats.

46. Comparison with Existing Maps:

Comparison was made with the U.S.G.S. Utsalady, Washington, 7½ minute quadrangle, Edition of 1956, Scale 1:24,000.

47. Comparison with Nautical Charts:

Comparison was made with Nautical Chart No. 6450, Scale 1:80,000, Revised 7-27-59, hand corrected 11-14-59.

Items to be Applied to Nautical Charts Immediately:

None.

Items to be Carried Forward:

None.

Approved:

Fred Natella, CAPT, C&GS
Portland District Officer

Respectfully submitted:

J. Edward Deal
Cartographer

49. Notes to the Hydrographer:

Refer to remarks relative to tidal flats under Item 35 of this Descriptive Report.

COMPILATION RECORD	COMPLETION DATE	REMARKS
Interior details added. Compilation complete	12/27/61.	

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

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

PHOTOGRAMMETRIC OFFICE REVIEW

T-~~11598~~ 11598

1. PROJECTION AND GRIDS	2. TITLE	3. MANUSCRIPT NUMBERS	4. MANUSCRIPT SIZE
✓	✓	✓	✓

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
None	None	None

8. BENCH MARKS	9. PLOTTING OF SEXTANT FIXES	10. PHOTOGRAMMETRIC PLOT REPORT	11. DETAIL POINTS
None	None	✓	✓

ALONGSHORE AREAS *(Nautical Chart Data)*

12. SHORELINE	13. LOW-WATER LINE	14. ROCKS, SHOALS, ETC.	15. BRIDGES
✓	✓	✓	None

16. AIDS TO NAVIGATION	17. LANDMARKS	18. OTHER ALONGSHORE PHYSICAL FEATURES	19. OTHER ALONGSHORE CULTURAL FEATURES
None	None	✓	✓

PHYSICAL FEATURES

20. WATER FEATURES	21. NATURAL GROUND COVER	22. PLANETABLE CONTOURS
✓	✓	None

23. STEREOSCOPIC INSTRUMENT CONTOURS	24. CONTOURS IN GENERAL	25. SPOT ELEVATIONS	26. OTHER PHYSICAL FEATURES
None	None	None	✓

CULTURAL FEATURES

27. ROADS	28. BUILDINGS	29. RAILROADS	30. OTHER CULTURAL FEATURES
✓	✓	None	✓

BOUNDARIES

31. BOUNDARY LINES	32. PUBLIC LAND LINES
None	None

MISCELLANEOUS

33. GEOGRAPHIC NAMES	34. JUNCTIONS	35. LEGIBILITY OF THE MANUSCRIPT
✓	✓	✓

36. DISCREPANCY OVERLAY	37. DESCRIPTIVE REPORT	38. FIELD INSPECTION PHOTOGRAPHS	39. FORMS
None	✓	✓	✓

40. REVIEWER	SUPERVISOR, REVIEW SECTION OR UNIT
Carita L. Harris	J Edward Deal

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

USCOMM-DC 16252-P61

T-11598

48. Geographic Names:

Arrowhead Beach

Brown Point

Camano Island

Skagit Bay

Utsalady

Utsalady Point

Geographic Names Section
27 February 1963

Revised Report
Shoreline Surveys
T-11594 through T-11600
April 1964

61. General Statement

These are seven (7) shoreline maps of project PH 5905, Puget Sound, Washington. These maps were prepared primarily to provide basic maps, including the location of all non-floating aids and landmarks for use in revising our nautical charts, and for control of proposed hydrographic surveys.

62. Comparison with Registered Topographic Surveys

T-1253	1:10,000	1871
T-2011	1:20,000	1888
T-2156	1:20,000	1889
T-6685a	1:10,000	1939
T-6768	1:10,000	1940
T-6769	1:10,000	1940

Cultural and shoreline changes have been continuous with extensive cultural changes in Oak and Crescent Harbors on Whidbey Island. These maps are to supersede the above surveys of common area for nautical charting.

63. Comparison with Maps of Other Agencies

Deception Pass	1:62,500	1951
Utsolady	1:24,000	1956
Conway	1:24,000	1956

There are some cultural and shoreline differences but in general the agreement is good.

64. Comparison with Contemporary Hydrographic Surveys

H-8542	1:10,000	1960
H-8543	1:10,000	1960

Shoreline and control of the subject surveys was furnished prior to the hydrographic surveys and apparently no differences exist.

65. Comparison with Nautical Charts

6404	1:10,000	1952 revised to Mar. 1961
6450	1:80,000	1961 revised to Oct. 1963
184 S.C.	1:80,000	1963

There are no differences of importance between the charts and the manuscripts.

66. Accuracy of Results and Future Surveys

These surveys were prepared according to project instructions and are within the required accuracy for nautical charting.

Reviewed by:

L. C. Lande

Approved by:

Chief, Photogrammetric Branch

Chief, Photogrammetry Division 7/10/64

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-11598

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
184-5C (18423)	12-29-64	A.J. Hoffman	~~Full~~ Part ~~Before~~ After Verification Review Inspection Signed Via Drawing No.
6300 (18400)	8-18-65	G. R. Johnson	Full ~~Part Before~~ After ~~Verification~~ Review ~~Inspection~~ Signed Via Drawing No.
18441	3-27-80	R.A. Lillis 5-29-80 - RCS	Full ~~Part Before~~ After Verification Review Inspection Signed Via Drawing No. 49
18423	1/13/81	D. C. Larson 3-12-81	Full ~~Part Before~~ After Verification Review Inspection Signed Via Drawing No. 21
18440	3/12/81	D. C. Larson 3-12-81	Full ~~Part Before~~ After Verification Review Inspection Signed Via Drawing No. 33
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8858-P68