Original

9818

9818

FORM C&GS-504

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

DESCRIPTIVE REPORT

Type of Survey SHORELINE

Field No. ..... Office No. T-9818

LOCALITY

State ALASKA

General locality PRINCE WILLIAM SOUND

Locality TAYLOR GLACIER

1957 - 59

CHIEF OF PARTY
FIELD - H. J. Seaborg
OFFICE - L. W. Swanson

LIBRARY & ARCHIVES

DATE

USCOMM-DC 37022-P66

FORM 181
(4-23-54)

I

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T- 9818

Project No. (II): PH-152 Quadrangle Name (IV):

Field Office (II): Ship BOWIE Chief of Party: H. J. Seaborg

Photogrammetric Office (III): Washington, D. C. Officer-in-Charge: L. W. Swanson

Instructions dated (II) (III): Copy filed in Division of Photogrammetry (IV)

Compilation Instructions - Supp. 5 - Prince Wm. Sd. dated 15 Dec. 58
" " Supp. 6 - " " " " 22 July 59 Office Files

Method of Compilation (III): Graphic

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

Scale Factor (III): 1.0

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

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

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

Geographic Datum (III): NA, 1927 Vertical Datum (III): MHW

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):

Lat.: Long.: Adjusted
Unadjusted

Plane Coordinates (IV): UTM 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.

COMM-DC-57842

FORM 181b
(4-23-54)

2

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): W. P. James — Date: June 1959

Planetable contouring by (II): None — Date:

Completion Surveys by (II): None — Date:

Mean High Water Location (III) (State date and method of location):
Field and office identification of shoreline on photograph taken May 1957 and Aug. 1958

Projection and Grids ruled by (IV): Dempsey — Date: Dec. 17, '58

Projection and Grids checked by (IV): Shoup — Date: Jan. '59

Control plotted by (III): H. Lucas, J. Battley — Date: Jan. '59, Aug. '59

Control checked by (III): W. Helluin, R. Sugden — Date: Sept. '59

Radial Plot or Stereoscopic Control extension by (III): R. Sugden — Date:

Stereoscopic Instrument compilation (III): Planimetry — Date:

Contours — Date:

Manuscript delineated by (III): J. Battley T-9817, R. Sugden T-9818 — Date: 9 - 59

Photogrammetric Office Review by (III): E. Ramey — Date: 22 Oct. 59

Elevations on Manuscript checked by (II) (III): — Date:

CGMM-DC-57842

Camera (kind or source) (III): C&GS Nine-lens and infrared single-lens

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
9-Lens 56139	17 May 57	1350	1:20,000	9.5 above MLW
56145		1402		
Single-lens 58-L-5358 - 5361	7 Aug. 58	1209	1:30,000	4.1 above MLW

Tide (III)

Ratio of Ranges	Mean Range	Spring Range
	10.0	
9.5	9.7	

Reference Station: Cordova
Subordinate Station: Wells Passage
Subordinate Station:

Atlantic Marine Center
~~Washington Office~~ Review by (IV): C. H. Bishop Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III):
Shoreline (More than 200 meters to opposite shore) (III): 9 miles
Shoreline (Less than 200 meters to opposite shore) (III):
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): Recovered: Identified:
Number of BMs searched for (II): Recovered: Identified:
Number of Recoverable Photo Stations established (III):
Number of Temporary Photo Hydro Stations established (III):

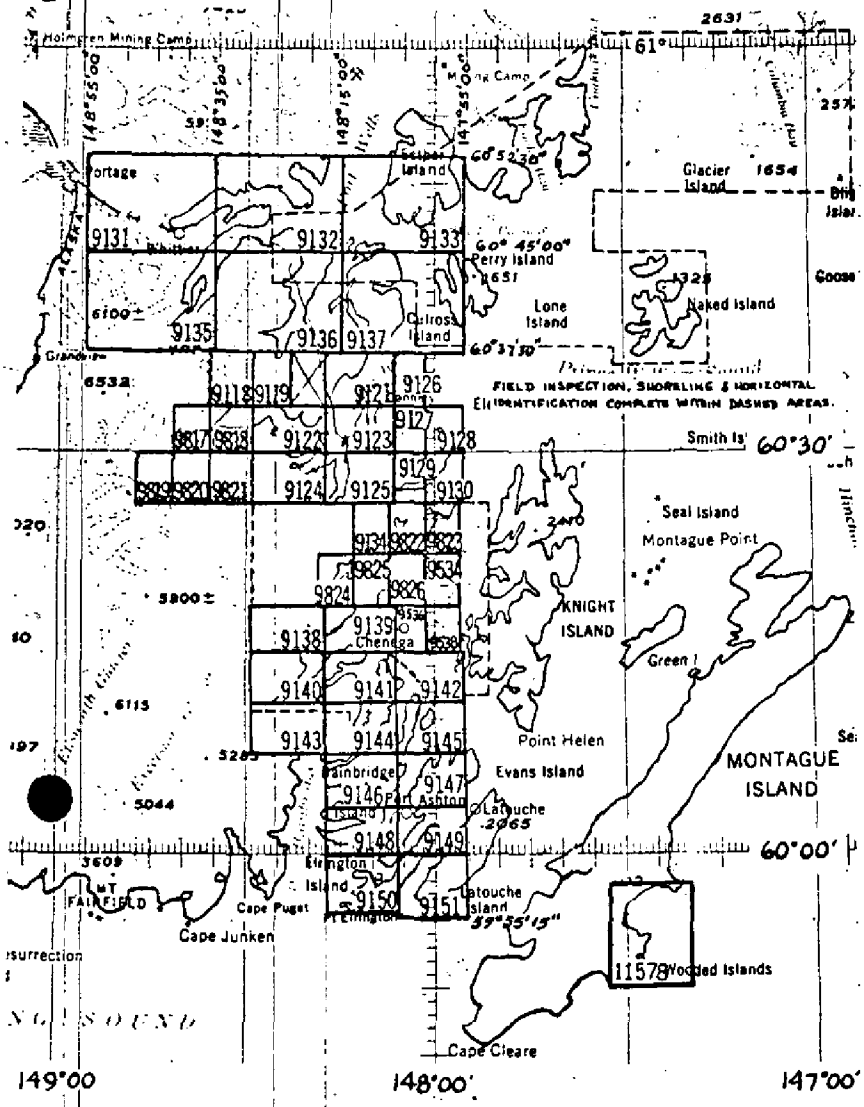
Remarks:

T - 9818

COMPILATION RECORD	COMPLETION DATE	REMARKS
PRELIMINARY shoreline for hydrography	1957	Superseded
New radial plot, manuscript revised; ADVANCE	Sept 1959	
Final Review	August 1970	

SHORELINE MAPPING PROJECT PH-152

Prince William Sound, Alaska



OFFICIAL MILEAGE FOR COST ACCOUNT		
SHEET NO.	LIN.MI. SHORELINE	AREA SQ MILES
9118	3	13
9119	9	11
9121	11	10
9122	23	7
9123	17	7
9124	7	5
9125	15	6
9126	5	3
9127	6	8
9128	5	3
9129	7	8
9130	14	6
9131	12	95
9132	48	50
9133	36	45
9134	5	11
9135	24	90
9136	26	85
9137	68	48
9138	10	7
9139	13	5
9140	12	8
9141	24	12
9142	10	3
9143	9	4
9144	26	9
9145	19	8
9146	18	8
9147	24	9
9148	25	9
9149	19	7
9150	24	8
9151	15	9
9534	6	4
9536	6	6
9538	4	1
9817	9	10
9818	11	6
9819	3	9
9820	7	5
9821	2	10
9822	9	9
9823	7	4
9824	9	10
9825	11	6
9826	10	8
11578	19	21
TOTALS	702	726

SUMMARY TO ACCOMPANY

DESCRIPTIVE REPORT T-9818

Records for this map were not complete at the time of final review, which was several years after compilation. The Compilation Record and notes concerning the absence of reports were inserted by the final reviewer.

This shoreline manuscript, scale 1:10,000, is one of 43 sheets that comprise Project PH-152, which is located in the western part of Prince William Sound. T-9818 covers the central part of Kings Bay.

The original manuscript was preliminary in advance of hydrography. A radial plot was run on a 1:20,000 scale base sheet, using nine-lens photography of 1957. Points thus obtained were transferred to the 1:10,000 scale manuscript and alongshore features were compiled.

Copies of the preliminary manuscript were sent to the field for photo-hydro support. Additional horizontal control was identified on the photographs furnished and field edit was accomplished. A final plot was laid, the manuscript revised, and then classified "Advance."

Final review was done at the Atlantic Marine Center in August 1970.

The compilation manuscript was a vinylite sheet 3 minutes 45 seconds in latitude by 6 minutes 37.5 seconds in longitude.

A cronaflex copy of the final reviewed manuscript and a negative have been forwarded for record and registry.

FIELD INSPECTION REPORT

MAP T-9818

PROJECT PH-152

There was no field inspection prior to compilation of this map and no Field Inspection Report is bound with this Descriptive Report.

PHOTOGRAMMETRIC PLOT REPORT

KINGS BAY, ALASKA

Project Ph-152

Aug - 1959

A preliminary plot of this area using mostly office-identified control was done in Feb. 1959. Ten additional control stations with CS1 cards and accompanying field photo identification (June 1959) were furnished to control a new plot. The original templets were utilized in laying this latter plot.

21. Area Covered: This report discusses the final radial plot for shoreline surveys T-9118, T-9817 thru T-9821 and a portion of T-9122. These surveys cover the area of Kings Bay from the entrance to the head.

22. Methods - Vinylite sheets, ruled with base grids at 1:20,000 scale to correspond with the UTM grid lines were used to lay the plot.

Photo coverage of the area included two nine-lens flights on either side of the bay furnished on positype paper prints at 1:20,000 scale, and single-lens 58 L series infra-red photographs at 1:10,000 scale.

The additional field-identified control was transferred to the nine-lens office prints and added to the original templets. Positions of templets generally remained the same in the junction area of the north part of the plot which had former field-identified control. Due to the additional control some positions on the west side of the bay and in the delta at the head of the bay shifted about 0.3 mm. Otherwise positions did not change. The new positions were recircled on the base sheet and replotted on the 1:10,000 scale manuscripts where the resultant error would be doubled.

The single lens photographs were resected on the manuscripts into common pass points with the nine-lens photographs used in the plot. The positions of their centers were added for compilation purposes.

23. Adequacy of Control. The additional control resulted in a tight plot throughout. All control held within 0.3 mm. except EDNA 1948 (sub pt) which was missed 0.5 mm to the southeast

due to an error in identification on the field photo. During photo preparation another similar point fitting the description was noted which would have held in the photo. (see plot sketch for distribution of control).

24. Supplemental Data - None

25 Photography

The infra-red photographs were lacking in detail especially in shadow areas, making it difficult to find common pass points with the nine-lens photographs. The nine-lens photographs although lacking in definition were adequate for the plot.

Photogrammetric Plot Sketch and list of control submitted with report.

Submitted by

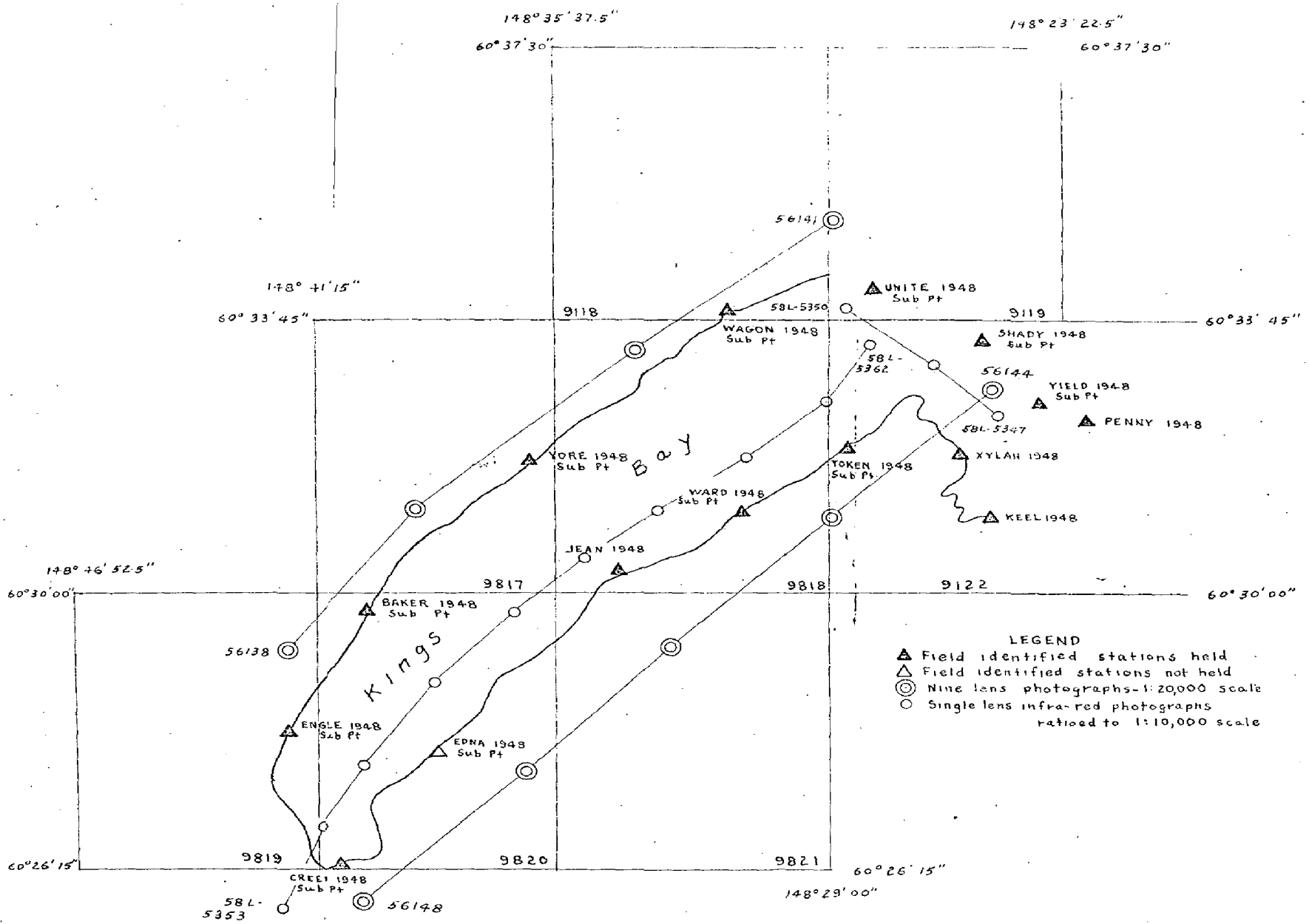
Robert L. Sugden

Robert L. Sugden
Cartographer

Approved by:

Everett H. Ramey

Everett H. Ramey
Chief, Graphic Unit



PHOTOGRAMMETRIC PLOT SKETCH
PH-152
Kings Bay, Alaska
Aug. 1959

Photogrammetry

MAP T- 9818 PROJECT NO. PH-152 SCALE OF MAP 1:10,000 SCALE FACTOR

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)
WARD 1948	VI p 42	NA 1927	60 31 07.584 148 30 50.752		1857.1 915.4	234.7 1622.4 774.3 141.1	
JEAN 1948	VI p 42	"	60 30 11.070 148 34 17.149		1857.1 915.9	342.6 1514.5 261.8 654.1	
REPLY 1948	VI p 38	"	60 32 48.627 148 33 26.776		1857.1 914.7	1505.1 352.0 408.2 506.5	
ZIPPER 1948	VI p 38	"	60 30 05.371 148 34 12.760		1857.1 916.0	166.2 1690.9 194.8 721.2	
WARD, 1948 Sub Pt.		"	60 31 148 30		1857.1 915.4	213.7 1643.4 795.7 119.7	
WAGON 1948	VI p 37		60 33 43.501 148 31 32.892			1346.4 501.2	

1 FT. = .3048006 METER

COMPUTED BY: R. Sugden P. M. Hanicki DATE 1/9/59 1/13/59

CHECKED BY: R. Kelly DATE 1/14/59

M-2388-12

COMPILATION REPORT
T-9817 & T-9818 (Advance)
September 1959

Preliminary manuscripts based on an office-controlled plot of the Kings Bay Area were completed in February 1959. These were furnished to the field party for the purpose of establishing photo-hydro control positions.

The plot was re-laid in August 1959 and the manuscripts re-compiled incorporating the 1959 field inspected control and shoreline.

The preliminary manuscripts were utilized for compilation, holding to the positions established by the new plot. Only minor changes in position resulted from the new plot.

31. Delineation

The 1:10,000 scale manuscripts were compiled by graphic methods, shoreline being delineated stereoscopically both from 1:10,000 ratioed infrared photographs and from 1:20,000 scale nine-lens photographs. The reflecting projector was used to fit photographic detail to manuscript scale where necessary. Field inspected photographs were used as a guide in detailing shoreline and foreshore features.

The quality of the infrared photographs was generally very poor, especially on the eastern shore, thus nine-lens photographs were used for delineation in this area. As the shoreline inspection was done primarily on the single-lens photographs, it likewise had some errors which were corrected by office interpretation of the single-lens and nine-lens photographs.

Field inspection photographs used were numbered:

Single-lens - 58-L-5357 thru 5360
Nine-lens 56137 thru 56138, 56140, 56146 thru 56148

32. Control

Control was adequate as regards identification, density and placement. (See Radial Plot Report filed with Descriptive Report T-9118)

33. Supplemental Data

None.

34. Contours and Drainage

Inapplicable.

35. Shoreline and Alongshore Features

Generally the low-water line outlined on the field photos, were flown at about 4 feet above low water tide, this line must be very approximate. The high-water line was delineated as field-inspected except to correct for errors obvious in a stereoscopic study of the photographs. (See Sub-heading 31 above.)

36. Offshore Detail

Inapplicable.

37. Landmarks and Aids

Inapplicable.

38. Control for Future Surveys

Photo - hydro stations were located in the field on vinylite impressions of the preliminary manuscripts. These positions were relocated referencing to the new plot positions. This resulted in different positions for stations for CAB, DUD, EAR, and ROT on manuscript T-9817. Two positions are shown on T-9818 for station SAD as it was field identified in two different positions on the office prints used to cut in positions for the hydro control. There are no descriptions for the photo - hydro stations.

39. Junctions

Junctions were effected with adjoining manuscripts.

40. Horizontal and Vertical Accuracy

Vertical control inapplicable. Horizontal control - see pp 32.

41. through 45.

Inapplicable.

16. Comparison with Existing Maps

US Geological Survey Quadrangles - Seward (C-4) and Seward (C-5), Scale 1:63,360, dated 1954. No differences noted.

17. Comparison with Nautical Charts

US C&GS Chart #8517, Scale 1:80,000 dated January 1952 and US C&GS Chart #8551, Scale 1:200,000 dated May 1952. No differences noted.

Items to be applied to Nautical Charts immediately: None.

Items to be carried forward: None.

SUBMITTED BY:

R. L. Sugden

R. L. Sugden

APPROVED:

Everett H. Ramey

Everett H. Ramey
Chief, Graphic Unit
Photogrammetry Division

August 28, 1970

GEOGRAPHER NAMES

FINAL NAME SHEET

PH-152 (Alaska)

T-9818

Chugach National Forest

Kings Bay

Taylor Glacier

Approved by:

A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett
Cartographic Technician

KINGS BAY
Surveys T-9118, T-9119, T-9817 through T-9821

NOTES TO THE HYDROGRAPHER

The manuscripts of the Kings Bay area were corrected to datum as established by the plot of August 1959 and positions of all photo-hydro stations were relocated to this datum. As the final plot resulted in some shift in pass point positions, local differences occur between some of the field-established photo-hydro positions and those on the final manuscript.

Those stations with significantly different positions are:

CAB - T-9817
FAT - T-9820
LUX - T-9820

Photo-hydro Station RAT on manuscript T-9820 is listed as "Out" on the field photo.

Photo-hydro control ends on manuscripts T-9118 and T-9818.

The manuscripts which are subject to a final office review show new positions for photo-hydro stations and the shoreline as field inspected in 1959. They with accompanying vinylite impressions of preliminary manuscripts should suffice for the completion of the hydrographic surveys.

The low-water line shown on the manuscripts was identified in the field on infrared photographs which were taken at 4 feet above low water. The line is thus very approximate.

Everett H. Yancey
Chief, Graphic Unit
Photogrammetry Division

FORM 1002(T-2) PHOTOGRAMMETRIC OFFICE REVIEW

MAP T- 9818

PROJECT PH-152

No Form 1002(T-2) was available at the time of final review and none is bound with this Descriptive Report.

FIELD EDIT REPORT

MAP T-9818

PROJECT PH-152

Field edit was accomplished in 1959 in advance of revision of this map. At the time of final review, no Field Edit Report was available and none is bound with this Descriptive Report.

REVIEW REPORT T-9818

SHORELINE

AUGUST 27, 1970

61. GENERAL STATEMENT:

See Summary on page 6 of this Descriptive Report.

Only one difference of significance was found while making comparisons with other surveys. It is indicated on an ozalid comparison print (page 20) bound with the original of this report and discussed in Item 63.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

No registered topographic surveys were available for comparison.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A visual comparison was made with U.S.G.S. Quadrangles SEWARD (C-4) and (C-5), ALASKA, scale 1:63,360, dated 1952 and 1951 respectively. Differences between these surveys and T-9818 are shown in brown on the comparison print.

Only one significant difference was noted. On SEWARD (C-4) the placement of the shoreline in the vicinity of Taylor Glacier differs with the shoreline on T-9818. This may be due to the possibility that the glacier is receding or to differences in interpretation of two sets of photographs taken eight years apart.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

A comparison was made with unverified copies of smooth sheets for surveys H-8491, scale 1:10,000, dated 1959, and H-8593, scale 1:10,000, dated 1961. Apparently T-9818 was used as a base map for shoreline. No significant differences in shoreline or alongshore features were noted.

65. COMPARISON WITH NAUTICAL CHARTS:

A visual comparison was made with Chart 8517, scale 1:80,000, 9th edition, dated April 28, 1969. No significant differences in shoreline or alongshore features were noted.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This survey complies with Job Instructions, Bureau requirements, and the National Standards for Map Accuracy. No accuracy tests were run in the field.

Reviewed by:

Charles H Bishop

Charles H. Bishop
Cartographer
August 27, 1970

Approved:

Allen L. Powell

Allen L. Powell, RADM, USESSA
Director, Atlantic Marine Center

Approved:

Chief,
Photogrammetry Branch

Chief,
Photogrammetry Division

34'

33'

JOINS SURVEY NO. T

COMPARISON PRINT

Brown = SEWARD (B-4)