

11499

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11499

Form 504 U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY DESCRIPTIVE REPORT	
Type of Survey <u>Shoreline (Photogrammetric)</u>	
Field No. ^{PH} <u>6117</u>	Office No. <u>T-11499</u>
LOCALITY	
State <u>Alaska</u>	
General locality <u>Hetta Inlet</u>	
Locality <u>Simons Point to Jumbo Island</u>	
<u>1954 - 1955</u>	
CHIEF OF PARTY	
<u>J. C. Partington, Chief of Field Party</u> <u>E. H. Kirsch, Baltimore District Officer</u>	
LIBRARY & ARCHIVES	
DATE _____	

DESCRIPTIVE REPORT - DATA RECORD

T - 11499

Project No. (II): ^{PH-} 5117 Quadrangle Name (IV):

Field Office (II): USC&GS Ship PATTON Chief of Party: J. C. Partington

Photogrammetric Office (III): Baltimore, Maryland Officer-in-Charge: E. H. Kirsch

Instructions dated (II) (III):
Field: 1/7/55 Copy filed in Division of
Office: 10/11/54, 1/24/56 Photogrammetry (IV)

Method of Compilation (III): Graphic

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

Scale Factor (III): 1.000

Date received in Washington Office (IV): 3-28-56 Date reported to Nautical Chart Branch (IV): 4-2-56

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

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

Geographic Datum (III): N.A. 1927 Vertical Datum (III): MHW
Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (2) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): SIMON, 1955

Lat.: 55° 12' 01.717" (53.1 mm) Long.: 132° 37' 11.719" (207.3 mm) ~~ADJUSTED~~
Unadjusted

Plane Coordinates (IV): State: Alaska Zone: 8

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.

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): W. C. Russell
F. J. Tucker

Date: 1955 Field season

Planetable contouring by (II): None

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location): 1954, date of photography
field inspection.

Projection and Grids ruled by (IV): A. Riley

Date: 10/21/54

Projection and Grids checked by (IV): A. Riley

Date: 10/26/54

Control plotted by (III): J. E. Tolodziecki

Date: 1/31/56

Control checked by (III): E. L. Williams

Date: 2/1/56

Radial Plot or ~~Stereoscopic~~

~~Stereoscopic~~ by (III): E. L. Williams
H. R. Rudolph

Date: 3/8/55
2/27/56

Planimetry

Date:

Stereoscopic Instrument compilation (III):

Contours

Date:

Manuscript delineated by (III): J. Honick

Date: 3/31/55

Photogrammetric Office Review by (III): R. Glaser

Date: 4/6/55
2-29-56

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

Date:

DESCRIPTIVE REPORT - DATA RECORD

- 4 -

Camera (kind or source) (III): USC&GS nine-lens and single lens camera "0"

Number	Date	PHOTOGRAPHS (III)		Scale	Stage of Tide
		Time			
45398 & 45399	6/5/54	1112		1:20,000	1.2' below MLLW
54-0-78 & 79	"	1110		1:10,000	1.3' below MLLW
54-0-188	"	1600		"	11.0 above MLLW
54-0-228 & 229	"	1643		"	11.3 " "

Tide (III)
From predicted tables

Diurnal

Reference Station: Sitka, Alaska
Subordinate Station: Copper Harbor, Hetta Inlet
Subordinate Station:

Ratio of Ranges	Mean Range	Range
	7.7	9.9
1.3	10.3	12.9

Washington Office Review by (IV): D. M. BRANT

Date: JUNE 1970

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

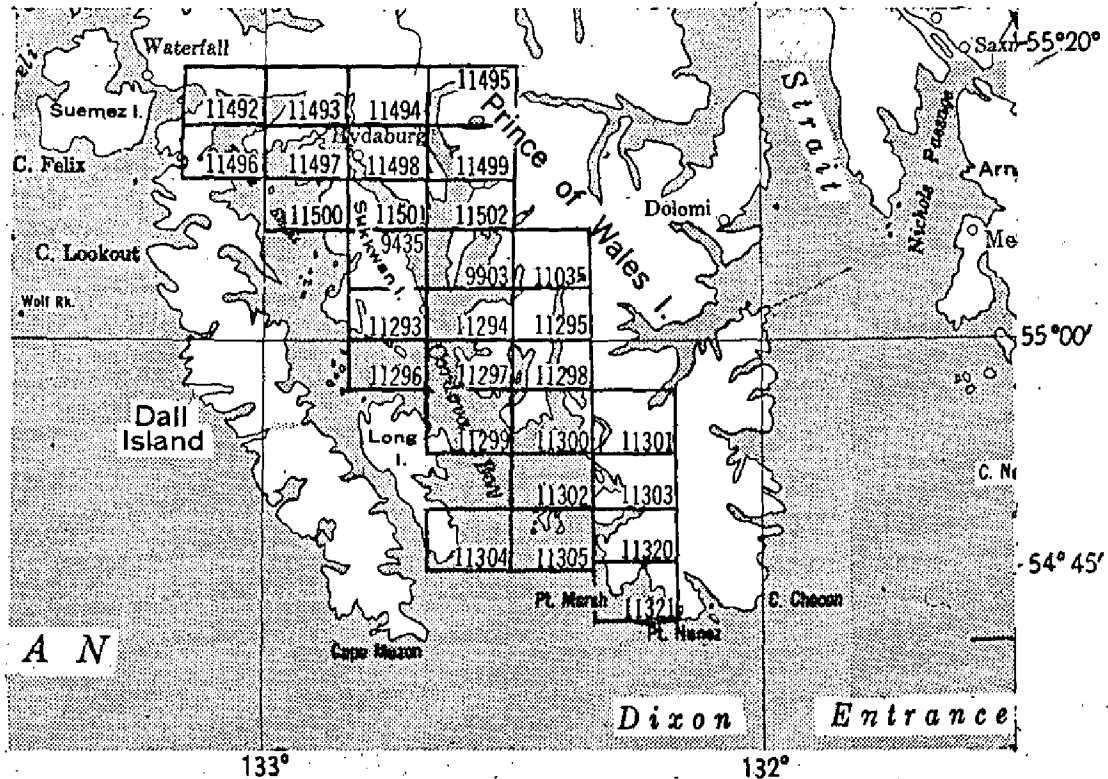
Land Area (Sq. Statute Miles) (III): 3
Shoreline (More than 200 meters to opposite shore) (III): 12.0
Shoreline (Less than 200 meters to opposite shore) (III):
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): * Recovered: Identified:
Number of BMs searched for (II): Recovered: Identified:
Number of Recoverable Photo Stations established (III): 1
Number of Temporary Photo Hydro Stations established (III): 21

Remarks:

*One station SIMON, 1955 established and identified.

SHORELINE MAPPING PROJECT PH-117

Cordova Bay & Vicinity of S.E. Alaska



OFFICIAL MILEAGE FOR COST ACCOUNTS			
SHEET NO.	AREA SQ. MILES	LIN. MI. SHORELINE	
9435	13	13	11304 12
9903	21	21	11305 37
11035	9	9	11320 24
11293	20	20	11321 20
11294	15	15	11492 24
11295	13	13	11493 12
11296	14	14	11494 2
11297	21	21	11495 16
11298	23	23	11496 17
11299	16	16	11497 26
11300	31	31	11498 8
11301	7	7	11499 11
11302	18	18	11500 27
11303	14	14	11501 17
			11502 15
			TOTALS 503 503

Summary to Accompany
Descriptive Report
All T-Numbers
PH-117

September 1970

This project is comprised of twenty-nine shoreline surveys compiled at 1:10,000 scale. It covers an area in the vicinity of Cordova Bay in southeast Alaska. The purpose for the compilation of these shoreline surveys was to provide a base for hydrographic survey operations and to update marine charts of the area.

The shoreline area was covered with single-lens and nine-lens photography. Field inspection prior to compilation consisted only of recovery and identification of control. Control was extended by radial plot method in the Baltimore District Office prior to graphic compilation. The shoreline was delineated from office interpretation of the photographs.

Copies of the manuscripts and the ratio photographs were sent to the hydrographic parties (ships HODGSON and PATTON) for hydro support use. Hydro signals were identified and described. Corrections and additions to the shoreline and offshore details were made from field annotated photographs. This has been treated as field inspection throughout this project, but actually it is field edit.

The application of field inspection and photogrammetric office review was done in the Baltimore District Office.

Map Accuracy

The extension of control (radial plots) for the subject maps was considered to be sub-standard in accuracy (refer to radial plot reports). However, the maps were used to provide shoreline and control for hydrographic surveys and were found by the hydrographer to be generally satisfactory for this purpose. A new project is planned for this area.

(continued)

Differences Between Contemporary Hydrographic and Topographic Surveys

Field inspection was done during hydrography (refer to the field inspection report). Where the application of field inspection (additions and corrections) was not applied to the hydrographic surveys, they were called to the attention of the hydrographic verification and review activities by the following means:

1. For an unverified smooth sheet a "Notes to the Verifier" page was inserted in the Hydrographic Survey Descriptive Report.
2. For an unreviewed smooth sheet a "Notes to the Reviewer" page was inserted in the Hydrographic Survey Descriptive Report.
3. For reviewed hydrographic surveys the Chief, Hydrographic Data Branch was notified.

The remaining discrepancies were disposed of in conference with the Hydrographic Review Branch.

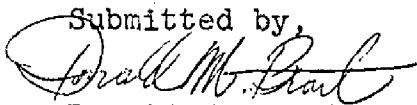
Rock Elevations

Differences in some rock elevations were found during final review between a number of the photogrammetric surveys and the contemporary hydrographic surveys. It was decided in conference with the Hydrographic Review Branch that since the rock elevations were from predicted tides they would be removed in most cases from the photogrammetric surveys and the elevations on the hydrographic surveys would be used because of more accurate tide data. An ozalid copy of all manuscripts showing the rock elevations computed from predicted tides will be filed along with available field inspection photographs in the Federal Records Center.

A complete Geographic Names Investigation was made and a final names sheet is a part of this report.

Field records were incomplete at the time of final review. Available field data was used at this time.

A registration manuscript copy for all surveys, except T-11301 and T-11321 which are lost, will be registered in the Bureau Archives under their respective T-numbers.

Submitted by,

Donald M. Brant

2. AREAL FIELD INSPECTION:

The area inspected for boat sheet PA-1155 (covered by manuscripts T-11295 and T-11035) is in the upper half of Klakas Inlet on the east side of Cordova Bay (USC&GS Chart No. 8147). The shoreline inspection was started from the northern limits of the 1954 work to the north end of Klakas Inlet.

The area inspected for boat sheet PA-1255 (covered by manuscripts T-9903, T-9435, T-11501, and T-11502) is in Hetta Inlet and the southern end of Sukkwan Strait. The field inspection started from the northern limits of the 1954 work and continued north to a line running easterly from Eek Point, and into Sukkwan Strait to a north-south line at longitude 132 degrees, 44 minutes.

The area inspected for boat sheet PA-1355 (covered by manuscripts T-11498, T-11499, and T-11502) is in Hetta Inlet and extends northerly from junction with boat sheet PA-1255 to latitude 55 degrees, 14 minutes.

The area inspected for boat sheet PA-1455 (covered by manuscripts T-11494, T-11495, and T-11499) is in Hetta Inlet north of junction with boat sheet PA-1355 to the head of Portage Bay.

The field inspection was accomplished at various times throughout the current season, during the periods when hydrographic signals were built and located in advance of the hydrographic surveys.. The entire shoreline was inspected from the water, close inshore.

Field inspection consisted of (1) recovery and identification on areal photographs of existing triangulation stations, and identification of newly established triangulation stations; (2) identification of hydrographic control signals; (3) shoreline and offshore rock inspection.

The photographic coverage consists of single lens photographs at a scale of 1:10,000 and nine lens photographs at a scale of 1:10,000 and 1:20,000. The single lens photographs were used throughout with the exception of the identification of two hydro signals, PIE and YET, which could only be identified on one nine lens 1:10,000 photograph numbered 41002 (manuscript T-9903).

The photography was generally good, but due to shadows and overhanging trees along the shoreline, some difficulty was experienced in interpreting features.

3. HORIZONTAL CONTROL:

(a) Horizontal control established by second order triangulation:

TALON 1955, HETTA 1955, PARKA 1955, ANTON 1955, and SIMON 1955.

Horizontal control established with third order accuracy, for location of hydrographic signals (manuscripts T-9903, T-11499, and T-11502):

Ida	Sign*	Yan	Fig
Azo	Bat*	Ado*	Dog*
Eva*	Era*	Hex	Lax*
Pod*	Ice	Gas*	Mar

Horizontal control established by theodolite and sextant cuts from triangulation stations and whose positions were computed, for location of hydrographic signals and the adjustment of radial plot of manuscripts (manuscripts T-9903 and ~~T-11294~~):

Bib, Oat 1954, Ply, and Abe.

All of the above hydrographic signals, except those marked with an asterisk, have been field inspected and also located on the photographs. Their photo locations were used on the boat sheets. It is recommended that the triangulation positions of the above hydro signals be used on the smooth hydrographic sheet.

(b) All horizontal control is on the N.A. 1927 datum and no datum adjustments are necessary.

(c) All control used in 1955 was established by the Coast and Geodetic Survey.

(d) An attempt was made to recover and identify on photographs all previously established triangulation stations, together with identifying on photographs all newly established triangulation stations within the area field inspected.

(e) The following triangulation stations were searched for but could not be found, and are presumably lost:

HIGH 1908-14, REEF 1908-14, NEAR 1908-14

(f) The following twelve stations were identified for photo control and entered on Control Identification Cards:

Triangulation Station	Map No.	Photo No.
COPPER 2, 1908	T-11502	54-0-184
POINT 1908	T-11502	54-0-76
BRETT 1908-14	T-11501	54-0-76
EASY 2, 1908	T-9435	54-0-75
FOG 1908, 1954	T-9435	54-0-73
LIME 2, 1954	T-11294	54-0-181
GRASS 1905, 1954	T-11293	54-0-72
LOG 1908-14	T-11501	54-0-60
CLOSE 1908-14	T-11501	54-0-60
TALON 1955	T-11502	54-0-76
HETTA 1955	T-11502	54-0-186
SIMON 1955	T-11499	54-0-78

4. VERTICAL CONTROL:

No vertical control was established.

5. CONTOURS AND DRAINAGE:

Not investigated.

6. WOODLAND COVER:

The area is heavily covered with spruce, hemlock, and some cedar. The only deciduous trees are small birches and alders growing sparsely in small areas which have been cut over for mining installations and are now in ruins. Along the major portion of the shoreline, the heavy growth of trees extends to the high water line, and in many cases overhang into the water. This condition made it impossible in several instances to identify triangulation stations on the photographs.

7. SHORELINE AND ALONGSHORE FEATURES:

(a) The mean high water line was adequately compiled on the manuscripts. A few exceptions were noted on the field photos.

(b) The low water line, where it existed, was delineated on the boat sheet. In general, it agreed with the offshore dotted line shown on the manuscripts.

(c) The foreshore was usually steep. The delineation as shown on the manuscripts is adequate.

(d) There were no prominent bluffs and cliffs of importance within the area inspected.

(e) There are no shoreline structures within the area inspected. The one dock in Copper Harbor is now in ruins and does not show on the photographs outside of the high water line.

8. OFFSHORE FEATURES:

Islands, rocks, reefs, ledges, and foul areas, offshore from the high water line, was well defined on the manuscripts. All offshore information was transferred from the manuscripts to the boat sheets and investigated during the hydrographic surveys. Information from these investigations was noted on the boat sheets.

9. LANDMARKS AND AIDS:

There were no landmarks or aids within the area field inspected.

10. BOUNDARIES, MONUMENTS, AND LINES:

Not investigated.

11. OTHER CONTROL:

Recoverable topographic stations were established in accordance with project instructions and are being submitted on Form 524. Two topographic stations were established in Klakas Inlet and two in Hetta Inlet.

The following photo-hydro stations were established:

Map T-9903

<u>Station</u>	<u>Photo No.</u>
Abe *1	54-O-182
Add	183
Bib 1	182
Big	183
Car	183
Cod	183
Don	183
Ear	183
Era *1	184
Fox	183
Gin	183
Oat 1954(Recovered) 1	182
Pie	41002
Ply *1	54-O-181
Roy	182
Sal *	182
Try *	182
Van *	182
War *	182
Yet *	41002

* Located also by sextant
outs.

1 Located also by trian-
gulation.

Map T-9435

<u>Station</u>	<u>Photo No.</u>
Ace	54-O-74
Cut	42
Dip	74
Ego	42
Gal	42
How	42
Ivy	42
Jib	42
Key	75
Kim	42
Low	42
Mag	42
Max	74
Ned	73
Nut	42
Oak	72
Oil	42
Pal	42
Rat	42
Sip	42
Tan	42
Val	73
Vet	42
Wig	73
Yak	42
Zig	74

Map T-11035

<u>Station</u>	<u>Photo No.</u>
Ida	54-O-280
Nig	280
Out	279
Pet	279
Quo (Marked)	279
Rev	279
Sis	279
Tan	279
Use	279

Map T-11293

<u>Station</u>	<u>Photo No.</u>
Lag	54-O-72
Pot 1954(Recovered)	72
Quo	72
Rag	72
Sam	72
Toy	72

Map T-11495

<u>Station</u>	<u>Photo No.</u>
Alp	54-0-216
Art	216
Amp	216
Bum	216
Bus	216
But	216
Cab	215
Cat	216
Cop	216
Dog	216
Dot	215
Duo	216
Eat	228
Ego	216
Emo	216
Era	216
Fer	216
Fin	228
Fry	216
Gad	217
Gin	216
Gum	216
Hoe	216
Hop	217
Hut	216
Ice	216
Irk	216
Ivy	217
Jar	217
Job	215
Jut	216
Ked	217
Kin	215
Lad	214
Leo	217
Lug	217
Low	216
Mag	215
Man	217
Mop	217
Mug	216
Ned	215
Nip	216
Now (Marked)	217
Nut	217
Oak	216
Odd	215
Ohm	217
Oil	217
Pet	216

Map T-11495 (Cont.)

<u>Station</u>	<u>Photo No.</u>
Pin	54-0-217
Pup	215
Rag	217
Rat	216
Rig	215
Rio	217
Sal	215
Sol	228
Sop	216
Tax	215
Tub	216
Val	217
Vet	215
Wag	215
War	217
Was	216
Yam	216
Yes	216
Zoo	216

Map T-11295

<u>Station</u>	<u>Photo No.</u>
Add	54-0-282
Art	282
Bag	282
Bob	282
Cab	282
Cob1954 (Rec.)	282
Cry	282
Day	282
Dig1954 (Rec.)	282
Dip	282
Ear	282
EGG	281
Fix	282
Gal (Marked)	281
Her	281
Jay	280
Kim	280
Leo	280
Mop	280
Sam 1954 (Rec.- Marked)	282
Val	282
Wag	282
Yes	282
Zoo	282

Map T-11502

<u>Station</u>	<u>Photo No.</u>
Alp	54-0-76
Bob	76
Cow	76
Day	76
Eat	76
Fig *	77
Fly	76
Gag	76
Hat	76
Hex *	76
Irk	76
Ice *	76
Job	76
Ked	76
Key	187
Lay	76
Lug	187
Mal	76
Moe	186
Mat	76
Nip	186
Oak	186
Old	76
Ped	186
Rev	186
Sol	186
Tub	186
Use	186
Wed	186
Wag *	76
Yam *	76
Zoo	76

* Located also by triangulation.

Map T-11498

<u>Station</u>	<u>Photo No.</u>
Ado	54-0-227
Bob	227
Cow	227
End	78
Fat	79
Gas	228
Hex	228
Ida	227
Joy	227
Set	227
Tom	228
Use	227
Van	227
Who	227
Yak	227
Zig	227

Map T-11499

<u>Station</u>	<u>Photo No.</u>
Ace	54-0-228
Ask	78
Arm	78
Bag	78
Bib	228
Box	78
Cab	78
Cod	228
Cut	78
Day	228
Dip (Marked)	228
Don	79
Dot	78
Ebb	78
Eva	228
Fog	79
Fun	78
Gus	78
How	78
Jug	78
Mar *	78
Yum	78
Zoa	78

* Located also by triangulation.

Map T-11501

<u>Station</u>	<u>Photo No.</u>
Hod	54-0-76
Jap	76
Ken	60
Mid	59
Nod	60
Ora	60
Rio	61

Map T-11494

<u>Station</u>	<u>Photo No.</u>
Key	54-0-228
Peg	217
Toy	228

12. OTHER INTERIOR FEATURES:

There are no buildings, docks, bridges, cables, roads or airports in this area.

13. GEOGRAPHIC NAMES:

The area field inspected is all inclusive on Chart No. 8147.

On 22 July 1955, Mr. James Edenso, whose address is Hydadurg, Alaska, was interviewed by CDR. J. C. Partington. Mr. Edenso was then employed as a watchman at Eek Inlet for the U. S. Fish and Wildlife Service. Mr. Edenso, a member of the Indian race, was born at Howkan village in Kaigani Strait, and is about 60 years old. He has fished most of his life in and around Cordova Bay. He is an intelligent man with probably a grammar school or possibly a high school education. Mr. Edenso stated that the following geographic names are in local use:

Blanket Island - The island at the southeast entrance to Suk-Kwan Strait whose northeast point is charted as Round Point. No specific reason was given for this name.

Y Bay - The small bay on the west side of Hetta Inlet and just south of the above Blanket Island. The name Y Bay is used to denote this body of water because of a slide at the head of the bay shaped like the letter Y.

Mud Bay - On the east side of Hetta Inlet, about 2 $\frac{1}{2}$ miles north of Lime Point. The Coast Pilot mentions this name although the name is not charted. Local fishermen call this Mud Bay because of its usefulness as an anchorage.

The sites of Copper City, Coppermount, Corbin Mine, and Sulzer no longer exist. They are abandoned and in complete ruins. The aerial tramway and pipeline shown on the chart at Coppermount, together with the aerial tramway leading to Copper Mt., and the flume at Sulzer, are no longer in existence and should be removed from Chart No. 8147.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA:

<u>Item</u>	<u>Transmitting Letter Date</u>
Triangulation Data, Cordova Bay, Hetta Inlet, S.E. Alaska, Project 1357	12 August 1955

Reference is made to the following applicable data:

The 1955 Hydrographic Surveys. Boat sheets of the Ship PATTON were forwarded to the Washington Office and prints are available.

Copies of the transmittal letters showing the photogrammetric records transmitted with this report, are attached.

Respectfully submitted,

William C. Russell

William C. Russell,
CDR., USC&GS

Approved and forwarded:

J. C. Partington
J. C. Partington,
CDR., USC&GS,
Comdg., Ship PATTON

PHOTOGRAMMETRIC PLOT REPORT
PROJECT PH-117
SURVEYS T-11492 thru T-11502

21. AREA COVERED

This radial plot covers the area of shoreline surveys T-11492 thru T-11502 in the vicinity of Sukkwan Strait and Hetta Inlet on Prince of Wales Island, Alaska. This radial plot at 1:20,000 scale was used to establish pass points to control a radial plot with single lens photographs at a scale of 1:10,000.

22. METHOD - RADIAL PLOT

Map Manuscripts:

Vinylite sheets with polyconic projections in black at a scale of 1:10,000, and Universal Transverse Mercator Alaska, Zone 8, grids in red, were furnished by the Washington Office. Base sheets were prepared in this office, at a scale of 1:20,000.

All control was plotted using the meter bar and beam compass.

A sketch showing photograph centers, distribution of control, and layout of surveys is attached to this report.

Photographs:

Fifteen (15) unmounted nine lens photographs at a scale 1:20,000 were used in this radial plot, with the following numbers: 45392, 45393, 45396 thru 45400, and 45412 thru 45419.

Templets:

Vinylite templets were made for all photographs using a master templet to make adjustments for paper and film distortion and chamber displacement.

Closure and adjustment to control:

All control was transferred graphically to the 1:20,000 scale base sheets, the plot was begun at the southwestern end of the two flights where a fix could be obtained on 45392. The northern flight was extended north-eastward to control station TIP, 1924. The southern flight was extended eastward holding control stations FLOAT, 1908-14, and ROUND, 1908. At the eastern end of the flight in surveys T-11499 and T-11502 the plot was adjusted to pass points established in a previous plot. The previous plot was a long bridge between control stations in Cordova Bay and identified control in Clarence Strait on the east side of Prince of Wales Island. At the northern end of Hetta Inlet in T-11495 there was very little side lap between the two flights. It was not possible to hold Sub Pt. TIP, 1924, and the pass points from the previous plot on the southern flight and at the same time get good intersections in this area. After considerable adjustment of templets it was decided to hold slightly off TIP, 1924, in order to get a more rigid plot in the northern tip of HETTA INLET.

Transfer of points:

All pass points which were common on both the nine lens and single lens, 1:10,000 scale, photographs were transferred to 1:10,000 scale base sheets, using small transparent templates. A template was made for each pass point drawing radial lines to four grid intersections on the 1:20,000 scale base sheet. The position of the point was established on the 1:10,000 scale base sheet by holding the same grid intersection and pricking the position of the point through to the base sheet. In survey T-11496, in the area where there was no coverage with single lens photographs, the positions were transferred in similar manner to the map manuscripts. These points are to be used for delineation of shoreline, using the 1:20,000 scale nine lens photographs in the vertical projector.

23. ADEQUACY OF CONTROL

Except in the southern and southwestern side of the plot, control was inadequate for an accurate radial plot. There was no control in the northern part of Hetta Inlet in surveys T-11495 and T-11499. The purpose of this plot was to establish control points to be used in a radial plot at a scale of 1:10,000 with single lens photographs. The positions of pass points in this survey are known to be quite weak because of the long bridge between control stations; and because control station TIP, 1924, was not held exactly. The identification of Sub Pt. TIP, 1924, is doubtful because of shadows and trees and may be up to 0.5mm in error. It is believed, the positions of these pass points may be in error by 0.5mm or more in this plot. When transferred to 1:10,000 scale base sheets this error would be doubled. This means that the positions of Pass points on the map manuscripts may possibly be in error by 1.0mm or more. The results obtained are not considered to be satisfactory due to the lack of control, however they are the best that can be obtained at the present time. Several tilted photographs in the uncontrolled area added to the difficulty of getting a satisfactory plot. (See paragraph 25)

An attempt was made to identify MID, 1907, in the office to strengthen the plot, but it could not be held. The radially plotted position fell 30 meters southeast of the true position. All other identified control stations, including those identified in the office, were held satisfactorily in the radial plot.

24. SUPPLEMENTAL DATA

No supplemental data was used in this radial plot.

25. PHOTOGRAPHY

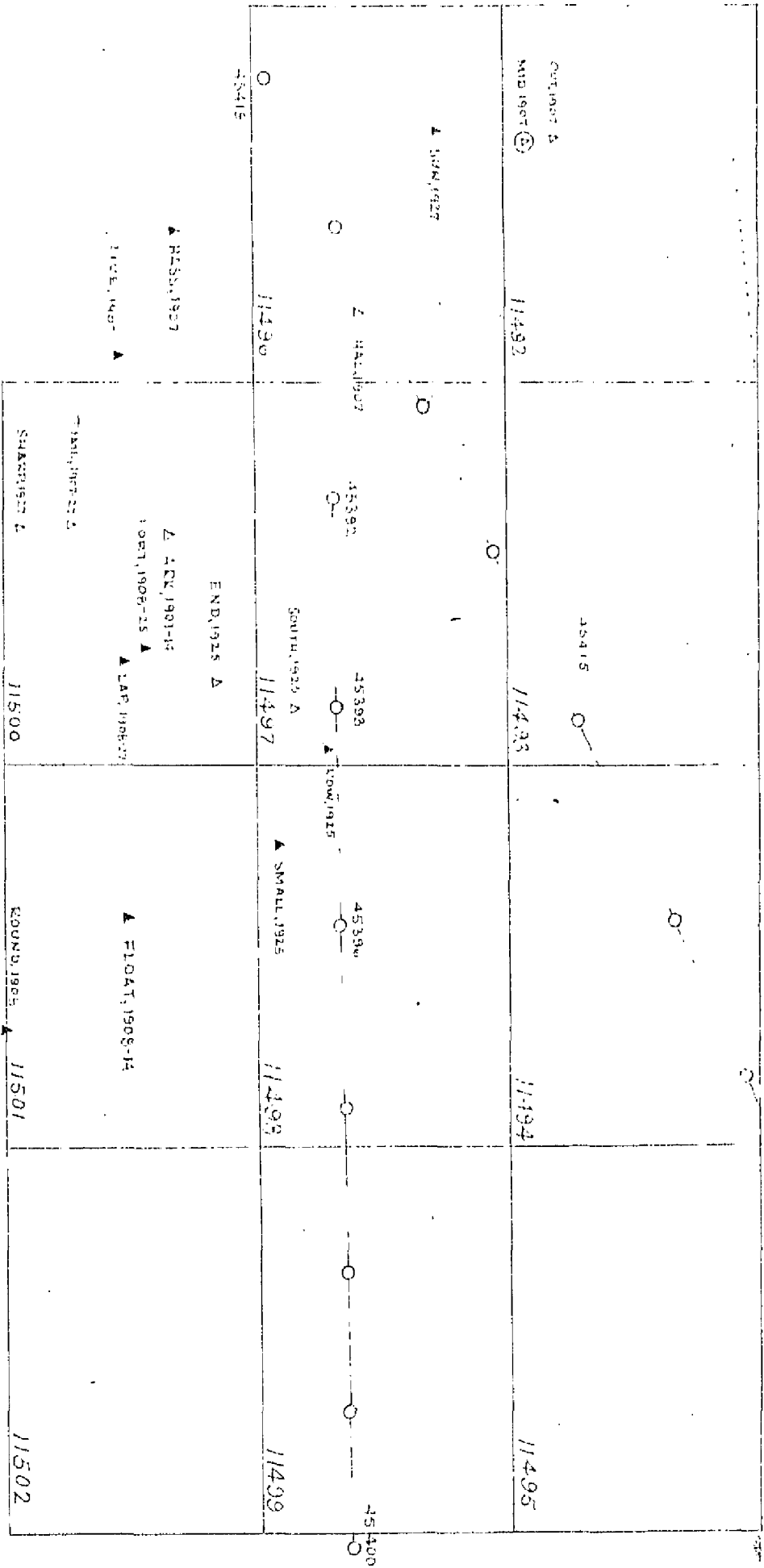
Photographic coverage and overlap is adequate and definition is good. The side lap in T-11495 is quite small, and to the eastward there is none.

The following photographs were tilted, but no tilt determination was made: 45396, 45400, 45414 and 45416.

Respectfully submitted
23 March 1955

Frank J. Varca
Frank J. Varca
Supervisory Cartographer

LAYOUT SKETCH
 PROJECT PH-117
 SURVEYS T-11492 thru T-11502



- Nine-lens office photographs
- ▲ Control stations (identified)
- △ Control stations (office identified)
- ⊙ Control stations not held in plot

PHOTOGRAMMETRIC PLOT REPORT
Project Ph-117
Surveys Nos. T-11494, T-11495,
T-11498, T-11499,
T-11502 & T-9903

21. AREA COVERED

This radial plot report covers the entire area of Surveys Nos. T-11495, T-11499, T-11502; the eastern portions of T-11494 and T-11498, and part of T-9903. These are all shoreline surveys located along Hetta Inlet, north of Cordova Bay, Prince of Wales Island, Alaska.

22. METHOD - RADIAL PLOT

Map Manuscripts:

Vynylite sheets with polyconic projections in black and Universal Transverse Mercator, Alaska, Zone 8, grids in red, at a scale of 1:10,000 were furnished by the Washington office.

The position of all control and substitute stations were plotted using the beam compass and meter bar.

A sketch showing the layout of the surveys and the distribution of control and photograph centers is attached to this report.

Photographs:

Single lens photographs taken 4 June 1954, with the "O" camera at a scale of 1:27,500 and ratioed to a scale of 1:10,000 were used in this plot.

The twenty (20) single lens photographs used are numbered as follows:

- 54-0-75 through 79
- 54-0-183
- 54-0-185 thru 188
- 54-0-191 and 192
- 54-0-214 through 218
- 54-0-227 through 229

Templets:

Vynylite templets were made for all photographs. The master templet was used to make adjustments for film and paper distortion.

Closure and Adjustment of control:

Vynylite base sheets were prepared in this office. All control was transferred to the base sheets from the manuscripts.

Pass points already established on manuscripts T-9435 and T-9903 from previous plots were also transferred to the base sheets. Additional pass points, established in a 1:20,000 scale plot with nine-lens photographs, were transferred graphically to the 1:10,000 base sheets. This was done by means of transparent templets made for each point to be transferred. Four rays were drawn radially from the point through grid intersections on the 1:20,000 scale base sheets. The templet was oriented over the corresponding grid intersection on the 1:10,000 base sheets and the point pricked through to the base sheet.

-9-

22. METHOD - RADIAL PLOT (CONT'D)

Closure and Adjustment of Control: (cont'd)

For additional information about this supplementary control see the photogrammetric plot report for the 1:20,000 radial plot of Surveys T-11492 thru T-11502. The report for that plot is made a part of Descriptive Report for Surveys T-11492 thru T-11494, T-11496 thru T-11498 and T-11500 thru T-11502.

The plot was laid starting with the templates for photograph 54-C-183, and proceeding northward to photograph 54-C-188. Then the templates for photographs 54-C-75 through 54-C-79 were laid. It was found that the templet for photograph 54-C-184, could not be held in this plot because of excessive tilt. With this templet left out it was possible to lay these two flights in a tight plot holding the control; the pass points established in previous plots; and the supplementary control established in the 1:20,000 plot. Then flights 54-C-227 through 229 and 54-C-214 through 54-C-218, which depended almost wholly for control on the supplementary points established in the 1:20,000 plot were adjusted. Lastly, the templates for photographs 54-C-191 and 192 were fitted into the plot.

The following conditions greatly affected this plots: (1) Between photographs 54-C-77 and 78 there was a definite break in the plot because of insufficient overlap along the flight line. (2) A break, also, occurred on the east side where photographs 189 and 190 were left out of the plot, because no shoreline was on these photographs which showed a mountainous and snow-covered area. These were omitted because in tilted photographs any points of extreme elevation hinder the development of a plot rather than aid it. (3) Photographs 193, 219, 230, 231 and 232 were not used in the plot because little or no shoreline appeared on them and they also would not materially strengthen the plot.

led Breaks in the flight lines and photographs omitted from the plot lead to the creation of many two-radial intersections. In most cases this could not be avoided because of poor overlap on the photographs. However, most of the photographs were fixed by supplementary control points from the 1:20,000 plot.

Transfer of Points:

The positions of all photograph centers and pass points were transferred to the manuscript by superimposing the manuscripts on the plot and matching common grid intersections. All the supplementary control points were treated as pass points; i. e., where the positions of the points established in the 1:20,000 scale plot could not be held, only the positions established in this 1:10,000 scale plot were shown on the manuscript.

23. ADEQUACY OF CONTROL

As the plot was started it was necessary to hold to pass points established in previous plots of the area. Of the three control points in the area it was possible to hold only BRETT, 1908. CEDAR 2, 1908 was not held in any plots of the area and in this plot fell 18 meters north of the true position. COPPER 2, 1908 was very difficult to identify and was not held where identification was attempted.

23. ADEQUACY OF CONTROL, (cont'd)

As the plot was extended northward the only control available was those points established in a previous plot of the area at a scale of 1:20,000.

Positions in the northern part of Hetta Inlet are probably weak and may be in error 1 mm, or more, in geographic position.

24. SUPPLEMENTAL DATA

Supplementary control established in a 1:20,000 scale radial plot was used as control for this radial plot. Reference should be made to the 1:20,000 scale radial plot report for surveys in this area.

25. PHOTOGRAPHY

In certain areas the definition was very good, but in others, possibly due to the process of enlarging the photographs, it was poor. The photograph coverage was inadequate in that breaks occurred in the flight lines because of insufficient overlap. This, was evident throughout photography in this area.

Photograph 54-0-184 was too badly tilted to be used in the radial plot.

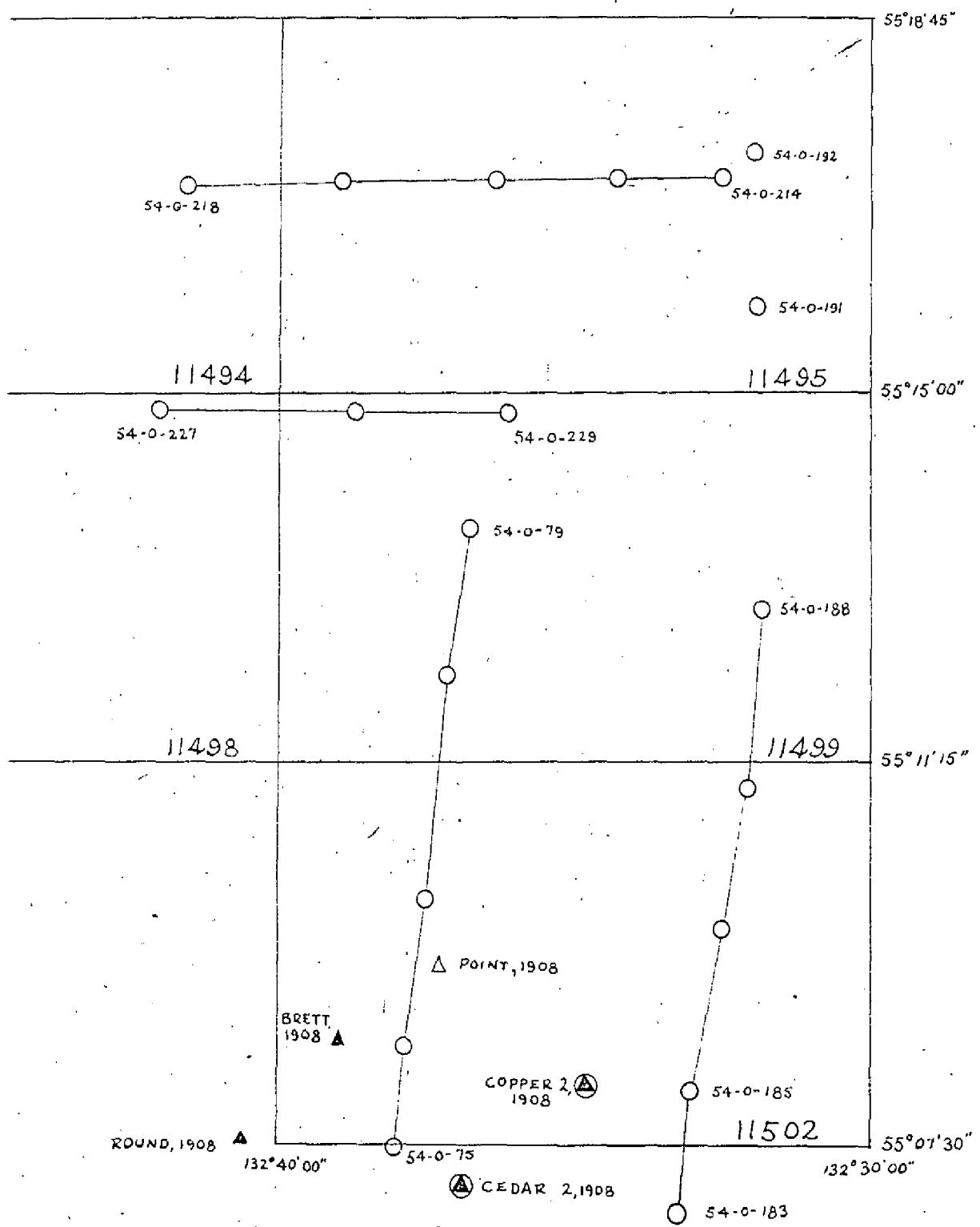
Respectfully submitted
8 March 1955

E. L. Williams

E. L. Williams,
Carto. Photo. Aid

LAYOUT SKETCH

PROJECT PH-117
SURVEYS-11494, 11495, 11498, 11499, & 11502



- Single lens office photographs
- ▲ Control stations (identified)
- △ Control stations (not identified)
- ⊗ Control stations not held in plot

SUPPLEMENTARY
PHOTOGRAMMETRIC PLOT REPORT
Project 6117,
Surveys No. T-9435, T-9903,
T-11499, T-11501
and T-11502

21. AREA COVERED

This radial plot covers the entire area of surveys No. T-9435, T-11502; the eastern half of survey No. T-11501; the southern half of Survey No. T-11499; and the western part of T-9903. These are shore-line surveys located along Hetta Inlet and Sukkwan Strait. This radial plot was reconstructed in accordance with instructions dated 24 January 1956.

22. METHOD - RADIAL PLOT

Map Manuscripts:

Vinylite sheets with polyconic projections in black and Universal Transverse Mercator, Alaska, zone B, grids in red at a scale of 1:10,000 were furnished by the Washington Office. These surveys were compiled as incomplete manuscripts during 1954 and 1955. Black line impressions of each of the incomplete manuscripts were furnished in 1956, by the Washington Office.

The positions of all hydrographic signals, computed by the hydrographic party, five new control stations, and an additional substitute station for triangulation station BRETT, 1908-14, were plotted on the manuscripts using the beam compass and meter bar.

A sketch showing the layout of the surveys and the distribution of control and photograph centers is attached to this report.

Photographs:

One unmounted nine-lens photograph, No. 41002, taken 8 July 1953, at a scale of 1:10,000 was used in the plot.

In addition to this nine-lens photograph, twenty (20) single lens photographs taken 4 June 1954, with the "0" camera at a scale of 1:27,500 and ratioed to scale of 1:10,000 were used in the plot. They are numbered as follows:

- 54-0-42 and 54-0-43
- 54-0-59 thru 54-0-61
- 54-0-63 and 54-0-64
- 54-0-72 thru 54-0-78
- 54-0-182 and 54-0-183
- 54-0-185 thru 54-0-188

Single lens photograph No. 54-0-184 was not used in the plot because of excessive tilt. Single lens photograph No. 54-0-62 was not used in the plot because of the very close spacing in line of flight between 54-0-61, 54-0-62 and 54-0-63.

Standard symbols were used on the photographs.

22. METHOD - RADIAL PLOT (CONT'D)

Templets:

Vynylite templets were made for all photographs. The master templet was used to make adjustments for paper and film distortion on all single lens photographs except No. 54-0-182 which did not have fiducial marks. The master templet was used to make corrections for paper and film distortion and chamber displacement on the nine-lens photograph.

Closure and Adjustment of Control:

The blackline impressions of incomplete manuscripts No. T-11499, T-11501 and T-11502 were used as base sheets. Vynylite base sheets were prepared in this office for surveys No. T-9435 and T-9903, because of scale difference and distortion in the blackline impressions.

Since there was discrepancy between the grids as shown on surveys No. T-9435 and T-11501 and between surveys No. T-9903 and T-11502, the projection intersections along the southern limits of surveys No. T-11501 and T-11502 were transferred to the base sheets holding the grid intersections on blackline impressions of T-11501 and T-11502.

All control, pass points, and photograph centers on surveys No. T-9435 and T-9903; control stations ATA, 1918 and LIME 2, 1954 located on survey No. T-11294; control station GRASS, 1905 - 18; and photograph center 54-0-72 were then transferred to the base sheets by matching common projection intersections.

The radial plot was then reconstructed on the base sheets.

The templets for photographs 54-0-182 thru 54-0-188 were laid but photograph No. 54-0-184 was tilted and could not be used in the plot. The flight 54-0-72 to 54-0-78 was then laid. Neither of these two flights could be held to all of the newly established control. After several adjustments to the templets in each flight, satisfactory intersections were made at the points which were common to both flights.

The templet for 41002 was laid and verified the points as established by the two flights of single lens photographs.

The templets for photographs 54-0-59 thru 54-0-64 were then laid starting with 54-0-64. Finally the templets for photographs 54-0-42 and 54-0-43 were laid and a satisfactory plot made. The following control could not be held in the plot:

- Hydrographic stations ABE, BIB, FIG and ICE.
- Triangulation stations LOG, 1908-14; CLOSE, 1908-14; POINT, 1908; and EASY, 1908-14.

Transfer of Points:

The positions of all photograph centers and pass points, which were moved by this plot, were transferred to the manuscripts by superimposing the manuscripts on the templets and matching common projection intersections and control points.

23. ADEQUACY OF CONTROL

The positions of the photograph centers and pass points in Survey T-111,99 may be weak because there are only two identified control points in this survey. These stations appear only on photograph No. 54-0-78.

These two control points, MAR and SIMON, 1955; controlled the north-south movement of photograph No. 54-0-78, but not the movement in the east-west direction. Therefore, since all of the pass points that had been established by the previous plots could be held with the control, they were used to orient the photograph. However, when the photograph was oriented beneath the manuscript hydro MAR, as identified by the Hydrographic Party, fell about 0.5 mm east of its computed position when the pass points were held in adjustment. The pricking of Hydro Station MAR was examined and the point repricked on another rock farther inshore, that also answered the description of the signal.

As previously stated, several other control stations could not be held in the plot. They are:

Hydro signal ABE, 1955: The radially plotted position of the signal falls 0.9 mm northeast of its geographic position. Several other control points in the area were held on all of the photographs along with the pass points as previously established. Either the identification or the position of the signal is in error.

Hydro Signal BIB, 1955: The radially plotted position of this signal falls 1.0 mm east southeast of its geographic position. The position of this signal is believed to be in error. The radially plotted location is radial along the theodolite azimuth from FOG, 1908.

EASY 2, 1908-14: The radially plotted position of this station falls 0.2 mm north of its geographic position. The identification is probably in error as this station was identified in a wooded area along the shoreline. Sub Pt. A ROUND, 1908-14 was held instead of EASY 2-1908 - 14.

Hydro signal ICE, 1955: The radially plotted position of the signal, as identified by the Hydrographic Party, falls 1.5 mm south of its geographic position. Several other control points in the area were held in the plot. The photographs were carefully examined and another point, which agrees with the description, was identified in the compilation office. This office identification holds in the plot.

POINT, 1908: The radially plotted position of the station as identified by the hydrographic party, falls 1.4 mm southwest of its geographic position. Only two photographs show this station. The hydrographic party identified the station on photograph 54-0-76 and their identification held radially in the plot. However, when their identification was transferred to photograph 54-0-77 it was found that the identification was in error radially. The point was re-identified according to its description. The office identification now holds in the radial plot.

2A

23. ADEQUACY OF CONTROL (cont'd)

Hydro signal FIG, 1955: This signal falls on only one photograph. The signal as identified by the Hydrographic party falls approximately 3.0 mm northeast of its geographic position. It was identified in a wooded area and the identification is believed to be incorrect. No radially plotted position could be shown. The field position was accepted.

CEDAR, 2, 1908: A substitute station was identified in 1954. A radially plotted position of the substitute station was established 2.7 mm north of its position by the previous plot. The Hydrographic Party identified the station direct in 1955. However, the radial lines for the new identification of the station held the same radially plotted position of the substitute station. This station was identified among trees the "layover" of which completely obscure the shoreline.

LOG, 1908-14: The radially plotted position of this station falls 0.2 mm west of its geographic position. ROCK, 1908-14 was given preference.

CLOSE, 1908-14: The radially plotted position of this station falls 0.6 mm northeast of its geographic position. The identification of this station is probably incorrect.

BRETT, 1908-14: This station was identified by sub. pts. A and B in 1954. The hydrographic party identified sub. pt. C in 1955. Sub. pt. C was held in this plot and a radially plotted position of sub. pt. B was established 0.2 mm west of its computed position with the result that some changes occurred in the pass points located along the northern shoreline of Sukkwan Strait between BRETT, 1908-14 and ROCK, 1908-14.

New positions were established for a few of the pass points and photograph centers. The maximum movement of any pass point or center was approximately 0.5 m.m. There were no changes large enough to cause the jumps in hydrography. Those were probably due mainly to accumulative effects of errors in identification and position.

24. SUPPLEMENTAL DATA

None.

25. PHOTOGRAPHY

The overlap between flights on the east and west sides of Hetta Inlet was mostly in the water area with very few identifiable points common to the two flights.

The overlap in line of flight between photographs 54-0-77 and 54-0-78 was approximately 20 percent. The side lap between the 54-0-77 to 54-0-78 flight and the 54-0-186 to 54-0-188 flight was also only about 20 percent which made it very difficult to get any common points in the overlap areas.

25. PHOTOGRAPHY (cont'd)

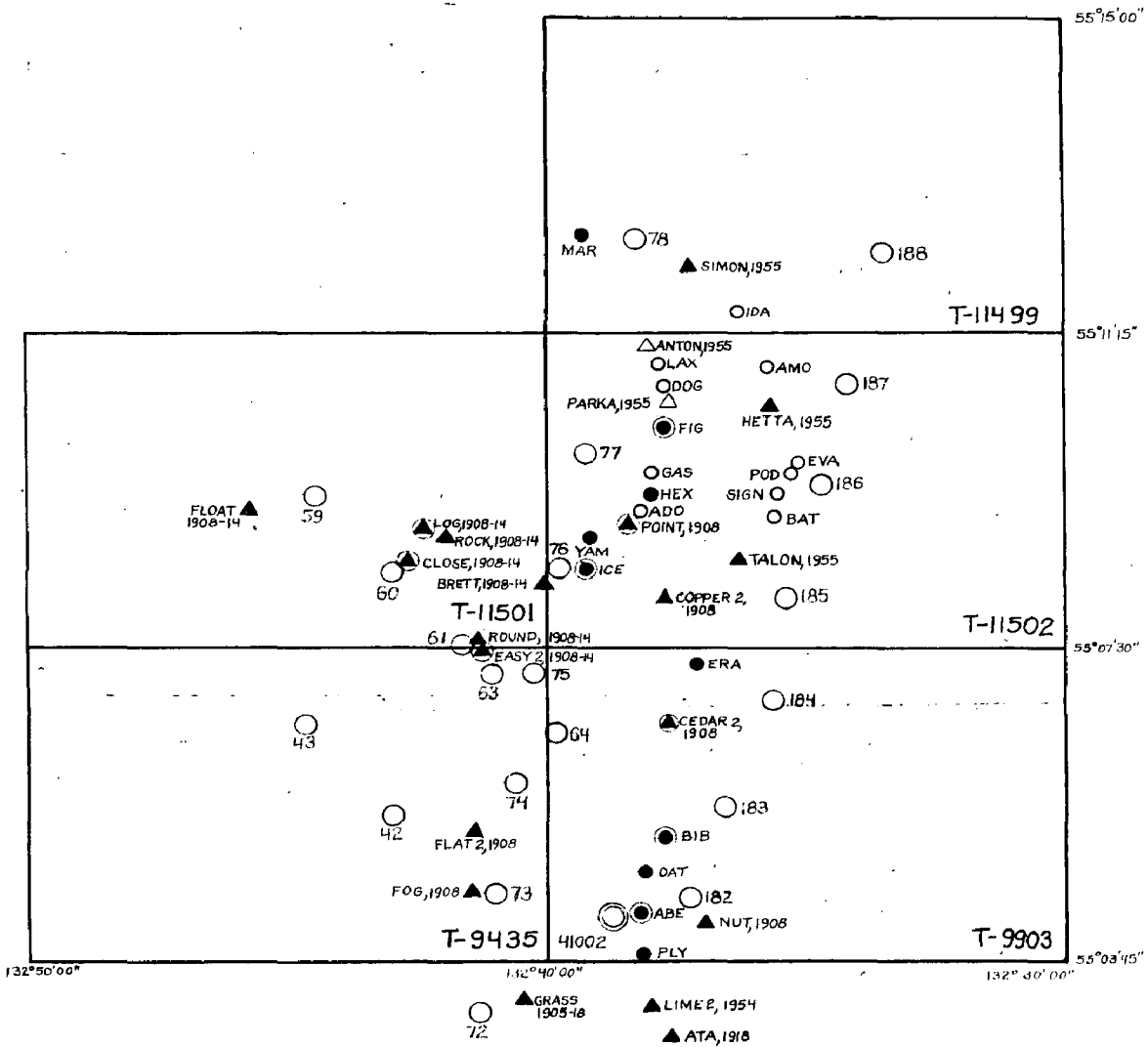
Photograph 54-0-184 was tilted to such an extent that it could not be used in the plot. The photograph was oriented under the manuscript holding to the shoreline points along the east shoreline of Hetta Inlet and an approximate center was then located on the manuscript.

The office photograph No. 54-0-182 was unavailable to this office. The field photograph was used in the plot. This field photograph did not contain any fiducial marks.

Respectfully submitted
27 February 1956

H. R. Rudolph

H. R. Rudolph
Carto. Photo. Aid



LAYOUT SKETCH
PROJECT NO. 6117
SURVEYS NOS. T-9435, T-9903, T-11499, T-11501
AND T-11502

- NINE LENS PHOTOGRAPH
- SINGLE LENS PHOTOGRAPH
- △ TRIANGULATION STATION (Not identified)
- ▲ TRIANGULATION STATION (Identified)
- ▲ TRIANGULATION STATION (Not held in plot)
- HYDRO SIGNAL (Not identified)
- HYDRO SIGNAL (Identified)
- HYDRO SIGNAL (Not held in plot)

COMPILATION REPORT
Project No. 6117
Survey T-11499

Field Inspection Report:

~~Refer to the Photogrammetric Field Inspection Report, Project 6117, Hetta Inlet and Sukkwan Strait, 1955, USC&GS Ship PATTON, J. C. Partington, commanding, (See Descriptive Report for survey T-9903.)~~

Photogrammetric Plot Report:

~~1. Photogrammetric Plot Report for surveys T-11492 thru T-11502 which is part of the Descriptive Report for survey T-11497.~~

~~2. Photogrammetric Plot Report for surveys T-11494, T-11495, T-11498, T-11499, T-11502 and T-9903 which is part of the Descriptive Report for survey T-11502.~~

~~3. Photogrammetric Plot Report for surveys T-11499, T-11501, T-11502, T-9435 and T-9903 which is part of the Descriptive Report for Survey T-9903.~~

31. DELINEATION

This manuscript was delineated by graphic methods. In areas where the shoreline was obscured by shadows or relief displacement on the single lens and nine-lens photographs, the shoreline was shown with a broken line.

On the west shore of Hetta Inlet, detail points could not be cut in with the single lens photos and nine-lens photograph 45398 was used in the vertical projector to locate them.

32. CONTROL

Refer to the Photogrammetric Plot Reports. Although a third-order triangulation position was available for signals MAR and IDA, they were shown with circles because they are not monumented and recovery may be doubtful.

33. SUPPLEMENTAL DATA

Copies of boat sheets PA-1355 and PA-1455 (H-8232) were available for purposes of comparison.

34. CONTOURS AND DRAINAGE

Contours: Inapplicable.
Drainage: No comment.

35. SHORELINE AND ALONGSHORE DETAILS

The delineation of the shoreline is based on office interpretation of the photographs. In the area between photographs 54-0-77 and 78, (T-11502) nine-lens photograph 45398 was used in the vertical projector.

35. SHORELINE AND ALONGSHORE DETAILS (cont'd)

The low water line is based on office interpretation of the photographs which are at an extremely low stage of tide. The ledge symbol was shown only where there was positive interpretation of ledge.

Upon receipt of the boat sheet and the descriptions of the photo-hydro signals, the shoreline was corrected at several places. No other shoreline inspection was furnished.

36. OFFSHORE DETAILS

No rock elevations were transferred from the boat sheets.

37. LANDMARKS AND AIDS

None. The field party described signal FUN as being on an abandoned lighthouse.

38. CONTROL FOR FUTURE SURVEYS

Form 524 has been submitted for station DIP, 1955.

Twenty-one photo-hydro signals have been located on this manuscript and are listed in paragraph 49. In addition, two signals located by triangulation are shown (See paragraph 32.) These were shown with circles because they are not monumented stations and their recovery may be doubtful.

39. JUNCTIONS

Junctions have been made with surveys T-11495 to the north, T-11498 to the west and T-11502 to the south. There is no junction to be made with survey T-11513 (Project 6148) to the east.

40. HORIZONTAL AND VERTICAL ACCURACY

Refer to the Photogrammetric Plot Reports.

41 - 45 Inapplicable.

46. COMPARISON WITH EXISTING MAPS

Comparison has been made with the USGS Craig Quadrangle, scale 1:250,000, edition of 1952.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with Chart 8147, scale 1:40,000, published August 1931, corrected to 10/8/54.

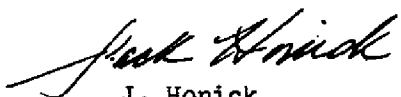
Items to be applied to nautical charts immediately:

None.

Items to be carried forward:

None.

Respectfully submitted
24 February 1956



J. Honick,
Carto. Photo. Aid

Approved and Forwarded



E. H. Kirsch,
Capt. C&GS
Baltimore District Officer

August 17, 1970

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-117 (Alaska)

T-11499

Copper Harbor

Coppermount

Corbin Mine

Corbin Point

Hetta Inlet

Jumbo ~~Jumbo~~ Creek

Jumbo ~~Jumbo~~ Island

Prince of Wales Island

Reymonds Creek

Simmons Point

Wright Creek

Approved by:

A. Joseph Wraight

A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett

Frank W. Pickett
Cartographic Technician

T-11498 and T-11499

49. NOTES FOR HYDROGRAPHER

Recoverable topographic station DIP, 1955 is located on manuscript T-11499.

The following are the photo-hydro signals located on these manuscripts. Position discrepancies from the boat sheets are listed.

T-11498

ADD-0.4 mm SE	HEX-0.5 mm E	USE-1.0 mm NW
BOB-0.7 mm NW	IDA-0.6 mm NE	VAN
COW-1.6 mm W	*JOY-2.5 mm S	WHO-0.5 mm NE
*END-0.5 mm W	SET-0.4 mm SE	YAK
FAT-1.0 mm S	*TOM-	ZIG
GAS-0.5 mm SW		

*END, JOY, and TOM identified and transferred from nine-lens field photograph 45398.

T-11499

ACE	COD	FOG - 0.5 mm SW
ASK	CUT - 0.5 mm SE	FUN
ARM	DAY	GUS
BAG	DON	HOW
BIB	DOT	JUG - 0.6 mm S
BOX	EBB	YUM
CAB	EVA	ZOA

Signals IDA and MAR, located by triangulation, are also shown.

PHOTOGRAMMETRIC OFFICE REVIEW

T. 11499

1. Projection and grids 2. Title 3. Manuscript numbers 4. Manuscript size

CONTROL STATIONS

5a. Classification label

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 8. Bench marks
9. Plotting of sextant fixes 10. Photogrammetric plot report 11. Detail points

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline 13. Low-water line 14. Rocks, shoals, etc. 15. Bridges 16. Aids to navigation
17. Landmarks 18. Other alongshore physical features 19. Other along-shore cultural features

PHYSICAL FEATURES

20. Water features 21. Natural ground cover 22. Planetable contours 23. Stereoscopic instrument contours
24. Contours in general 25. Spot elevations 26. Other physical features

CULTURAL FEATURES

27. Roads 28. Buildings 29. Railroads 30. Other cultural features

BOUNDARIES

31. Boundary lines 32. Public land lines

MISCELLANEOUS

33. Geographic names 34. Junctions 35. Legibility of the manuscript 36. Discrepancy overlay
37. Descriptive Report 38. Field inspection photographs 39. Forms

40. R. Glaser
Reviewer

Joseph Steinberg
Supervisor, Review Section or Unit

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. *Information is not available.*

Compiler

Supervisor

43. Remarks:

Review Report T-11499
Shoreline Mapping

August 1970

61. General Statement

Field photograph 54-0-78 was available during final review.

62. Comparison with Registered Topographic Surveys

Comparison was made with survey 2788 (Topographic and Hydrographic), 1:20,000 scale, dated 1905. This survey is superseded for charting by T-11499.

63. Comparison with Maps of Other Agencies

Comparison was made with USGS Craig (A-2) quadrangle, Alaska, dated 1951, 1:63,360 scale. No differences of importance were found in the comparison.

64. Comparison with Contemporary Hydrographic Surveys

Survey T-11499 was used as a base for new hydrography. The following contemporary hydrographic surveys were used for comparison:

- H-8231, 1:10,000 scale, dated 1955
- H-8232, 1:10,000 scale, dated 1955

The agreement is good.

65. Comparison with Nautical Charts

Comparison was made with Chart 8147, 1:140,000 scale, 5th Edition, corrected to July 3, 1967. No significant differences were found in the comparison.

66. Adequacy of Results and Future Surveys

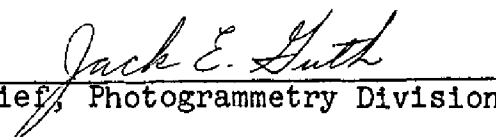
(Refer to Summary, "Map Accuracy.") - page 6

Reviewed by,



Donald M. Brant

Approved by,


Chief, Photogrammetric Branch
Chief, Photogrammetry Division