

11498

11498

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Shoreline (Photogrammetric)

Field No. PH-117 Office No. T-11498

LOCALITY

State ALASKA

General locality Sukkwun Strait
Deer Bay and Saltery Point

Locality to Hydaburg

1954- 1956

CHIEF OF PARTY

J. C. Partington, Chief of Field Party
William F. Deane, Baltimore District Officer

LIBRARY & ARCHIVES

DATE

DESCRIPTIVE REPORT - DATA RECORD

T- 11498

Project No. (II): PH-117 Quadrangle Name (IV):

Field Office (II): USCG&GSS PATTON

Chief of Party: J. T. Jarman
J. C. Partington

Photogrammetric Office (III): Baltimore, Maryland

Officer-in-Charge: E. H. Kirsch,
W. F. Deane

Instructions dated (II) (III):

Field: 3/17/53 Office: 12/7/53
 1/8/54 10/11/54
 1/7/55 1/24/56

Copy filed in Division of
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):

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): 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): CHURCH, 1956

Lat.: 55° 12' 30.085" (930.4m) Long.: 132° 49' 33.707" (596.1m)

Adjusted
~~Unadjusted~~

Plane Coordinates (IV):

State: UTM

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, Jr. Date: 1955 Field season
T. E. Simkin - G. E. Haraden - D.E. Westbrook 1956 " "

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

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

Projection and Grids ruled by (IV): A. Riley Date: 10/22/54

Projection and Grids checked by (IV): A. Riley Date: 10/26/54

Control plotted by (III): J. Steinberg Date: 12/3/54
E. L. Williams April 1957

Control checked by (III): H. R. Rudolph Date: 12/9/54
L. A. Senasack April 1957

Radial Plot or ~~Stereoscopic~~ ~~Control extension~~ by (III): E. L. Williams Date: 3/18/55
3/8/55

Planimetry Date:

Stereoscopic Instrument compilation (III): Date:

Contours Date:

Manuscript delineated by (III): J. Honick - R. Whitson Date: June 1957

Photogrammetric Office Review by (III): R. Glaser Date: June 1957

Elevations on Manuscript Date:

checked by (II) (III):

DESCRIPTIVE REPORT - DATA RECORD

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

Number	Date	PHOTOGRAPHS (III)		Scale	Stage of Tide
		Time			
54-0-56 thru 58	6/4/54	1055		1:10,000	1.6' below MLLW
54-0-224 & 225	6/4/54	1637		"	12.2' above MLLW
54-0-227 & 228	6/4/54	1643		"	11.3' " "
45396 thru 45398	6/4/54	1112		1:20,000	1.3' below MLLW
45415	6/4/54	1128		"	0.8' below MLLW

Tide (III)
From predicted tide tables

Reference Station: Sitka, Alaska
Subordinate Station: South Pass, Sukkwan Strait
Subordinate Station: Copper Harbor, Hetta Inlet

Diurnal		
Ratio of Ranges	Mean Range	Spring Range
	7.7	9.9
1.4	10.9	13.0
1.3	10.3	12.9

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

Date: JULY 1970

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): 15'

Shoreline (Less than 200 meters to opposite shore) (III): 3.6

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): *7 Recovered: 7 Identified: 5

Number of BMs searched for (II): Recovered: Identified:

Number of Recoverable Photo Stations established (III): None

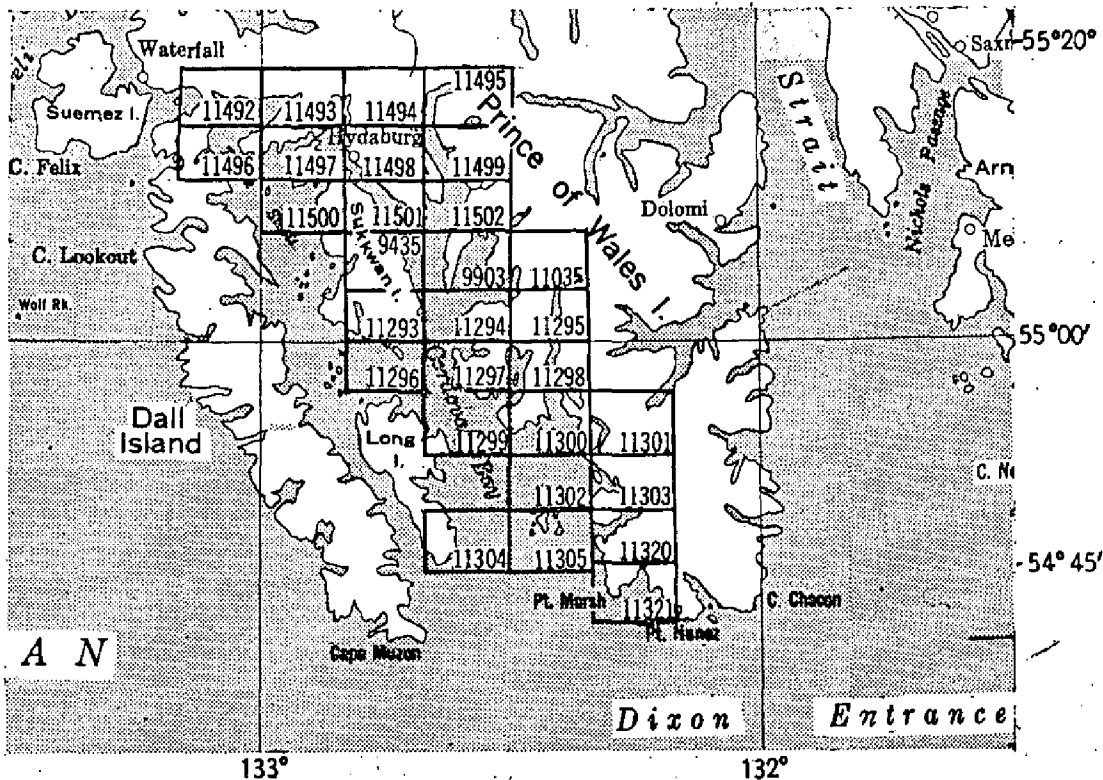
Number of Temporary Photo Hydro Stations established (III): 16

Remarks:

*In addition, five stations were established of which two were 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

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.

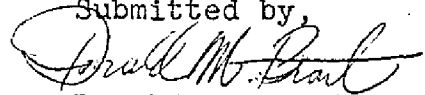
Rock Elevations

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

FIELD INSPECTION REPORT

FOR MAPS

T-11493-497-498, T-11500-501

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2. AREAL FIELD INSPECTION:

This report covers the shoreline of the northern part of Sukkwan Strait and all of South Pass and the adjacent area to the north.

The shoreline is generally rocky with trees overhanging the high water line almost everywhere. North of Saltery Point there are numerous small islands, shoals, and flats which bare at various stages of the tide.

The only cultural features are in the village of Hydaburg. There are several native cemeteries on the small islands immediately north of Sukkwan Narrows.

Photo coverage is adequate for the entire area. The photographs are somewhat "fuzzy" causing most of the boulder detail to appear as smooth, sand beaches. Shadow in some cases obscures the high water line. The approximate shoreline on the preliminary manuscripts was checked on the ground, and except as noted, is adequate for charting purposes.

3. HORIZONTAL CONTROL:

(a) The following supplemental stations were established in 1956 to control the photographs in the area northeast of North Pass.

<u>Second Order</u>	<u>Third Order (Intersection)</u>
CLAM	CALF
MINK	LION
PONY	
TOAD	
SEAL	
LOON	

All of the above stations, with the exception of Station LOON, were identified on the photographs.

In addition to the above triangulation stations, the following hydrographic signals, located by graphic control, were identified on the photographs and can be used for control if desired.

ASK	GAB	LEO	SOW	FAT	IVY	LOG	TEE	FUN
LEG	NOR	TIN						

3. HORIZONTAL CONTROL (Contin.):

(b) All horizontal control is computed on the NA 1927 Datum and no datum adjustments are necessary.

(c) All control was established by the U. S. Coast and Geodetic Survey.

(d) All control called for in the Instructions was established and identified as far as the field work was carried.

A new second order triangulation scheme was carried from Hyda- burg to North Pass. An attempt was made to identify all these stations, but lack of ground detail made some stations impossible to identify.

It is considered that a sufficient number of stations was identified to control the radial plot adequately.

(e) A thorough search was made for all stations in the project area.

4. VERTICAL CONTROL:

Inapplicable.

5. CONTOURS AND DRAINAGE:

Inapplicable.

6. WOODLAND COVER:

The entire area is covered with a dense growth of coniferous trees extending down to and overhanging the high water line in most places.

7. SHORELINE AND ALONGSHORE FEATURES:

(a) Shoreline inspection was completed in the area north of latitude $55^{\circ} 09'$ and east of longitude $132^{\circ} 55'$. All shoreline was inspected from a launch or skiff running close inshore. The highwater line is indicated on various places on the photographs. Some areas are in shadow and the high-water line is not visible on the photographs. Some of these areas are not defined in detail on the photographs, however, by comparison with the preliminary manuscript, few errors in the interpretation were found and for charting purposes, the high-water line is entirely adequate as shown.

(b) The low-water line is sketched on the photographs at various places. In areas where extensive flats exist, the low-water line is defined by the hydrography.

7. SHORELINE AND ALONG SHORE FEATURES (CONTIN.):

(c) The foreshore is characterized by boulders extending from a few feet to several hundred feet in bights. In some cases grassy islets and spits which cover only in extreme storms were misinterpreted as sand bars which cover at MHW. These have been clarified on the photographs. It is noted that almost the entire shoreline is labeled as sand and gravel on the preliminary manuscripts. It should be mentioned here that there are very few sand beaches in the project area. Most all of the foreshore is boulders, except as noted. The different types of foreshore are indicated on the photographs.

(d) There are no high bluffs or cliffs along the shoreline. Bedrock is exposed up to the storm waterline above which there is top soil and vegetation.

(e) The only waterfront structures are at Hydaburg and are evident on the pictures. Ellis Airlines maintains a small float on the north side of the cannery pier. There is a small pier in the basin at the northern edge of the village and a float secured to a dolphin just offshore from this pier. The objects on the highwater line at the head of this basin are floats which are used alongside the cannery pier during the fishing season and stored on the beach at other times.

(f) There are no submarine cables in the area.

8. OFFSHORE FEATURES:

There are some piles off the cannery at Hydaburg which are indicated on the photographs. The only other offshore features are rocks and shoals. All rocks visible at the time of inspection were noted on the photographs. Heights of rocks were estimated above the water surface at the time of inspection and the time and date is noted.

The area north of Hydaburg Harbor was not covered as thoroughly as should be because of lack of time. Some rocks were probably missed because it was impossible to complete all the inspection at low tide. A hydrographic survey would be required to locate all the rocks in this area.

Kelp areas are outlined approximately.

9. LANDMARKS AND AIDS:

Two new landmarks for nautical charts were located by planetable and were identified on the photographs. One of these, Hydaburg Presbyterian Church Spire, was later intersected with a theodolite. Of the five fixed aids to navigation in the area, three of them, Sukkwan Narrows Light, Goat Island Light, and Turn Rock Daybeacon, were used as sub-points for triangulation station identification. The Hydaburg Daybeacon is identified direct. The small uncharted and privately maintained daybeacon on the north side of the bar west of Hydaburg is not indicated on the photographs. It is located by planetable on topographic sheet PATI-56-B.

All floating aids were located by planetable and none are identified on the photographs.

10. BOUNDARIES, MONUMENTS, AND LINES:

Inapplicable.

11. OTHER CONTROL:

In addition to the hydrographic stations listed in Paragraph 3, the following recoverable topographic stations were located for hydrographic signals, but are not identified on the photographs: SKY, JIM, NAT, and PEP.

12. OTHER INTERIOR FEATURES:

There is a bridge over the creek at Hydaburg. There are no landing strips or other interior features.

13. GEOGRAPHIC NAMES:

Geographic names will be covered in a special report, to be submitted.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA:

Data forwarded separately from this report are:

- Field and Office Photographs
- Control Station Identification Cards
- Descriptions of Recoverable Topographic Stations
- Complete triangulation data will be forwarded to the Washington

Office in the near future.

15. COMMENTS:

All hydrographic signals were located graphically by planetable on Sheets PATT-56-A, B, and C. Sheets A and C are at a scale of 1:10,000 and cover the northern part of Sukkwan Strait and South Pass respectively. Sheet B is at a scale of 1:5,000 and covers Hydaburg Harbor.

Short sections of shoreline were rodded in at various places and are so indicated on the topographic sheets. All rock detail visible at low water was either cut in or located by sextant fixes. Rocks are shown with their heights above mean lower low water.

On sheet C, all shoreline shown as dotted on the preliminary manuscripts was rodded in. The shoreline on both 10,000 scale sheets is in generally good agreement with the manuscripts.

Some discrepancies between the manuscript and topographic sheet B are apparent by inspection. The shoreline of the small islands north of Saltery Point is not in agreement with the manuscripts. The shoreline in this area was rodded in and is shown on the topographic sheet.

It is also apparent that the shoreline as per boat sheet PA-05156 should be shifted to the north slightly to agree with the graphic control. The shoreline for this boat sheet was blown up, using a Saltzman Projector, from 1:10,000 to 1:5,000. It is possible that some of the discrepancy was introduced in the process of enlarging the manuscripts to 1:5,000 scale.

15. COMMENTS (Contin.):

In compiling the final manuscripts, reference should be made to the graphic control sheets.

Because of the overhang of the trees and the lack of detail on the ground, it would have been difficult to locate, with certainty, sufficient signals to control the hydrography. The area surveyed was particularly well suited for graphic control in that there was ample triangulation on both sides of Sukkwan Strait and South Pass. For these reasons, photo-hydro control was not used and it is felt that control by planetable was justified.

16. LIST OF CONTROL STATIONS IDENTIFIED:

A complete list of horizontal control stations and the photographs on which they were identified follows:

STATION	MANUSCRIPT	PHOTO NO.
ANT 1925	T-11500	540-47
ARK 1907, 14	T-11500	540-38
BEACH 1925	T-11498	540-57
BLUFF? 1908	T-11501	540-58
BOAR 1956	T-11497	540-55
CALF 1956	T-11493	540-223
CLAM 1956	T-11497	540-224
COLT 1956	T-11497	540-54
CRAB 1956	T-11497	540-56
CRIB 1956	T-11497	540-55
CROW 1956	T-11497	540-55
DEER 1956	T-11497	540-55
DUCK 1956	T-11498	540-56
END 1925	T-11500	540-47
FIRST 1925	T-11498	540-56
FORT 1908, 25	T-11500	540-38
FROG 1956	T-11497	540-55
GOAT 1956	T-11497	540-55
GOOD 1908, 27	T-11501	540-58
HIGH 1908, 14	T-11501	540-59
HIP 1907, 27	T-11500	540-38
HOOK 1956	T-11498	540-56
HOP 1956	T-11497	540-56
HYDA 1925	T-11498	540-56
LAP 1908, 27	T-11500	540-38
LION 1956	T-11493	540-223
MINK 1956	T-11494	540-224
OAR 1908, 27	T-11501	540-58

16. LIST OF CONTROL STATIONS IDENTIFIED (Contin.):

STATION	MANUSCRIPT	PHOTO NO.
POINT 1925	T-11498	540-57
PONY 1956	T-11497	540-223
ROW 1925	T-11497	540-56
SCRAGG 1925	T-11497	540-47
SEAL 1956	T-11497	540-55
SMALL 1925	T-11498	540-57
SNAG 1956	T-11497	540-56
TERN 1956	T-11497	540-49
TOAD 1956	T-11497	540-224
WASH 1908,27	T-11501	540-58
WOLF 1956	T-11491	540-49

TOPOGRAPHIC STATIONS IDENTIFIED

STATION	SOURCE	MANUSCRIPT	PHOTO NO.
ASK	PATT-56-C	T-11497	540-47.3 ✓
FAT ✓	PATT-56-B	T-11498	540-57
FUN	PATT-56-C	T-11500	540-47
GAB ✓	PATT-56-B	T-11498	540-57
IVY	PATT-56-C	T-11500	540-48 ✓
LEG ✓	PATT-56-A	T-11501	540-58
LEO ✓	PATT-56-A	T-11501	540-58
LOG	PATT-56-C	T-11500	540-48 ✓
NOR ✓	PATT-56-B	T-11498	540-57
SOW ✓	PATT-56-B	T-11498	540-57
TEE ✓	PATT-56-B	T-11498	540-57
TIN ✓	PATT-56-B	T-11498	540-57

Respectfully submitted,

*Gerard E. Haraden*Gerard E. Haraden
LT C&GS

Approved and Forwarded:

J. T. Jarman
J. T. Jarman
CDR USC&GS

Cmdg., Ship PATTON

Scaled Geographic Positions
Topographic Control Identified

Name	Latitude & Longitude	Meters
FAT	55 11 132 48	431 1296
GAB	55 12 132 49	671 516
NOR	55 12 132 49	244 444
SOW	55 12 132 49	231 428
TER	55 12 132 49	889 565
TIN	55 12 132 49	548 479
LOG	55 11 132 52	412 1019
ASK	55 11 132 53	1055 642
FUN	55 10 132 52	1200 14
IVY	55 11 132 54	274 69
LEG	55 10 132 47	1714 346
LEO	55 10 132 47	284 596

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 Bek 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*	Yam	Fig
Amo	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	54-0-182
Add	183
Bib	182
Big	183
Car	183
Cod	183
Don	183
Ear	183
Era #1	184
Fox	183
Gin	183
Oat 1954(Recovered)	182
Pic	41002
Ply #1	54-0-181
Roy	182
Sal *	182
Try *	182
Van *	182
War *	182
Yet *	41002

* Located also by sextant cuts.
1 Located also by triangulation.

Map T-9435

<u>Station</u>	<u>Photo No.</u>
Ace	54-0-74
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	54-0-280
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	54-0-72
Pot 1954(Recovered)	72
Quo	72
Rag	72
Sam	72
Toy	72

Map T-11495

Map T-11495 (Cont.)

<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
Eho	216
Era	216
Fez	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
Fut	217
Oak	216
Odd	215
Ohm	217
Oil	217
Pet	216

<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
Nat	76
Nip	186
Oak	186
Old	76
Pad	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 Hydaburg, 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 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

~~18~~

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 templets. A templet 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

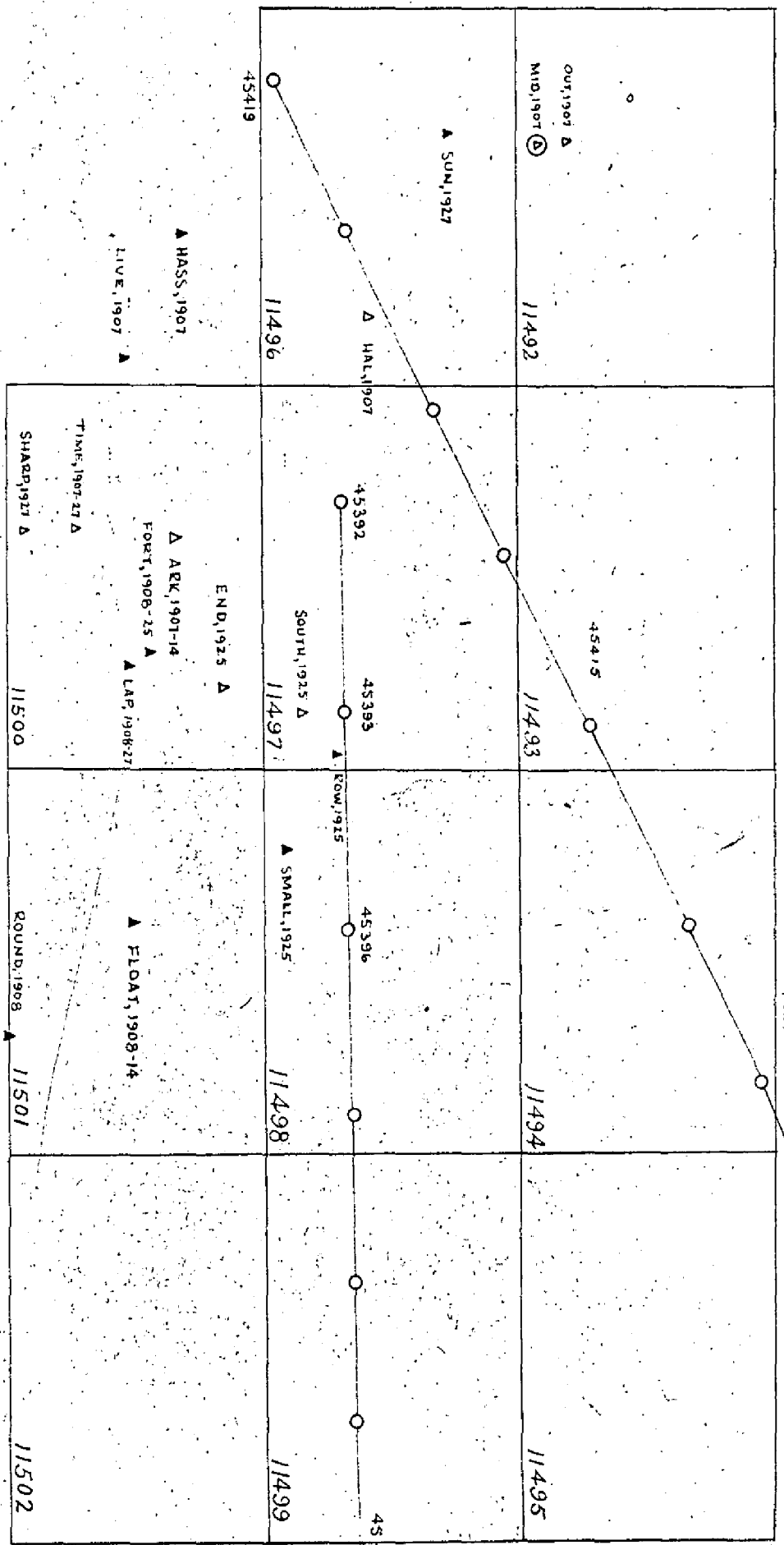
Photographic coverage and overlap is adequate and definition is good. The side lap in T-11495 is quite small, and to the eastward there is none.

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

Respectfully submitted
23 March 1955

Frank J. Warcza
Frank J. Warcza
Supervisory Cartographer

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



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

PHOTOGRAMMETRIC PLOT REPORT
PROJECT PH- 117
SUVREYS T-11492, T-11493, T-11494
T-11496, T-11497, T-11498
T-11500, T-11501, T-11502

21. AREA COVERED

This radial plot report covers: (1) The entire area of Surveys Nos. T-11493, T-11497, T-11500 and T-11501; (2) The portions of Surveys Nos. T-11492 and T-11496 which are covered by photography; (3) The western portions of Surveys T-11494 and T-11498; (4) The south west corner of Survey No. T-11502.

Another radial plot report for Hetta Inlet deals with the portions of Surveys Nos. T-11494, T-11498, and T-11502 which are east of the limits of this plot.

This radial plot is for shoreline surveys located along Sukwan Strait, South Pass, North Pass, Tlevak Strait, and Soda Bay, near the southern end of 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 positions of all control and substitute stations were plotted on the manuscripts using the beam compass and meter bar.

A sketch showing the layout 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.

Thirty-nine single lens photographs were used, numbered as follows:

- 54-0-32 thru 40
- 54-0-43 thru 61
- 54-0-63
- 54-0-75 thru 77
- 54-0-219 thru 225

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.

Supplementary pass points established in a 1:20,000 scale radial plot of the area was transferred graphically to the 1:10,000 scale 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 the grid intersections on the 1:20,000 base sheets. Then the templet was oriented over the corresponding grid intersections on the 1:10,000 base sheets and the point pricked through to the base sheet.

For additional information about this supplementary control see the photogrammetric plot report for the 1:20,000 radial plot of the area with 9-lens photographs.

The plot was laid in three parts. The first part extended from ROUND, 1908-14 northwest along Sukkwan Strait to ROW, 1925. This includes all of Survey T-11501 and parts of T-11498 and T-11502 in this area, in addition to control identified in the field; some stations were identified in this office by referring to the descriptions.

This portion of the plot started with photographs 54-0-43 and 54-0-62 holding to ROUND, 1908-14 and pass points established in a radial plot for Surveys T-9435, to the south. The flight of photographs Nos. 54-0-43 through 54-0-48 was laid first because it was a continuous flight. Photographs 54-0-63, 61, and 60 were then laid. There was less than 50% overlap between photographs 58 and 59, and 59 and 60. Therefore, this flight was not continuous and could be laid holding only to the few common points established by the other flight. Both of these flights, however were tied in to ROW, 1925. After these flights were laid photographs 54-0-75 through 77 were laid holding to BRETT, 1908-14. This was done at that time to establish sufficient points to compile Survey No T-11501 in its entirety.

The second part of this radial plot consisted only of laying photographs 54-0-37 through 54-0-40 which are on Survey T-11500. These were laid holding to points established by the photographs 54-0-47 and 48 in the first part of the plot and to control stations which were identified in the office.

The third part of the plot was an extension of the three flights of single lens photographs northwestward into the area where the only control was that established in the 1:20,000 scale radial plot. It was extremely difficult to get a tight plot chiefly because of insufficient overlap between photographs in line of flight. Specifically, breaks occur in all three flights at the following places:

- Between photographs 54-0-48 and 49;
- " " 54-0-58 and 59;
- " " 54-0-59 and 60; and in the flight from 54-0-32 through 40 all of the centers are in water areas except photographs 34, 39, and 40.

A tight plot in this area was finally achieved after considerable adjustment between the three flights. In this area, substitute station SUN, 1927 was held. Of the supplementary control points transferred from the 1:20,000 radial plot about two-thirds of them were held within 0.5 mm. This can be attributed to three causes: (1) The points selected

on the 1:20,000 photographs are not exactly the same as those on the 1:10,000 photographs, (2) In transferring the points from a 1:20,000 scale to a 1:10,000 scale discrepancies occurred, (3) The points are the product of two different plots using different photographs and base sheets.

Finally after the three flights were laid; the flight numbered 54-0-219 through 225 was laid. No great difficulty was encountered here, although again a break occurred in the flight line where photograph 54-0-221 and 222 did not have 50% overlap along the flight line.

The positions of all the pass points and photograph centers in the area north of ROW, 1925 and FORT, 1908-25 are weak. It is difficult to estimate how far off the points may be on Survey T-11493 and the areas immediately adjacent. It is felt, however, that they are not in error by more than 1.5mm.

Transfer of points:

The positions of all photograph centers and pass points were transferred to the manuscripts 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 were not held, the positions established in this 1:10,000 scale plot were shown on the manuscript.

23. ADEQUACY OF CONTROL

With the points established in the 1:20,000 plot, the control should have been adequate, however, because of the inadequate 1:10,000 photography too much dependance had to be placed on the control from the 1:20,000 plot. If more of the established control had been identified in the field along the 54-0-32 through 40 flight then that flight could have been strengthened and the plot extended to the east to hold the supplemental 1:20,000 control points.

All of the control identified in the field was held except Sub Pt. "B" ROUND, 1908-14. The radially plotted position of Sub Pt. "B" is 0.7mm N of the plotted position. Sub Pt. "A" was held.

Of the 17 control stations identified in this office from descriptions, 10 were held within 0.5mm and all but two were off less than 1.0mm.

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 plot report for Surveys Nos. T-11492 thru T-11502.

25. PHOTOGRAPHY

The photography was inadequate in that too many of the photographs had less than 50% overlap in line of flight, . In some areas definition

was poor; quite possibly because of the enlargement process.

Respectfully submitted
14 March, 1955

E. L. Williams
E.L. Williams
Carto. Photo. Aid *E.L.*

SUPPLEMENTARY
Photogrammetric Plot Report
Project Ph-117

Surveys T-11493, T-11494, T-11497, T-11498, T-11500 & T-11501

During the 1956 field season the triangulation network was extended northward from Hydaburg with 30 new stations. 22 of these were identified, as well as 17 existing control stations. All new control and identified points were plotted and used to verify the radial plot.

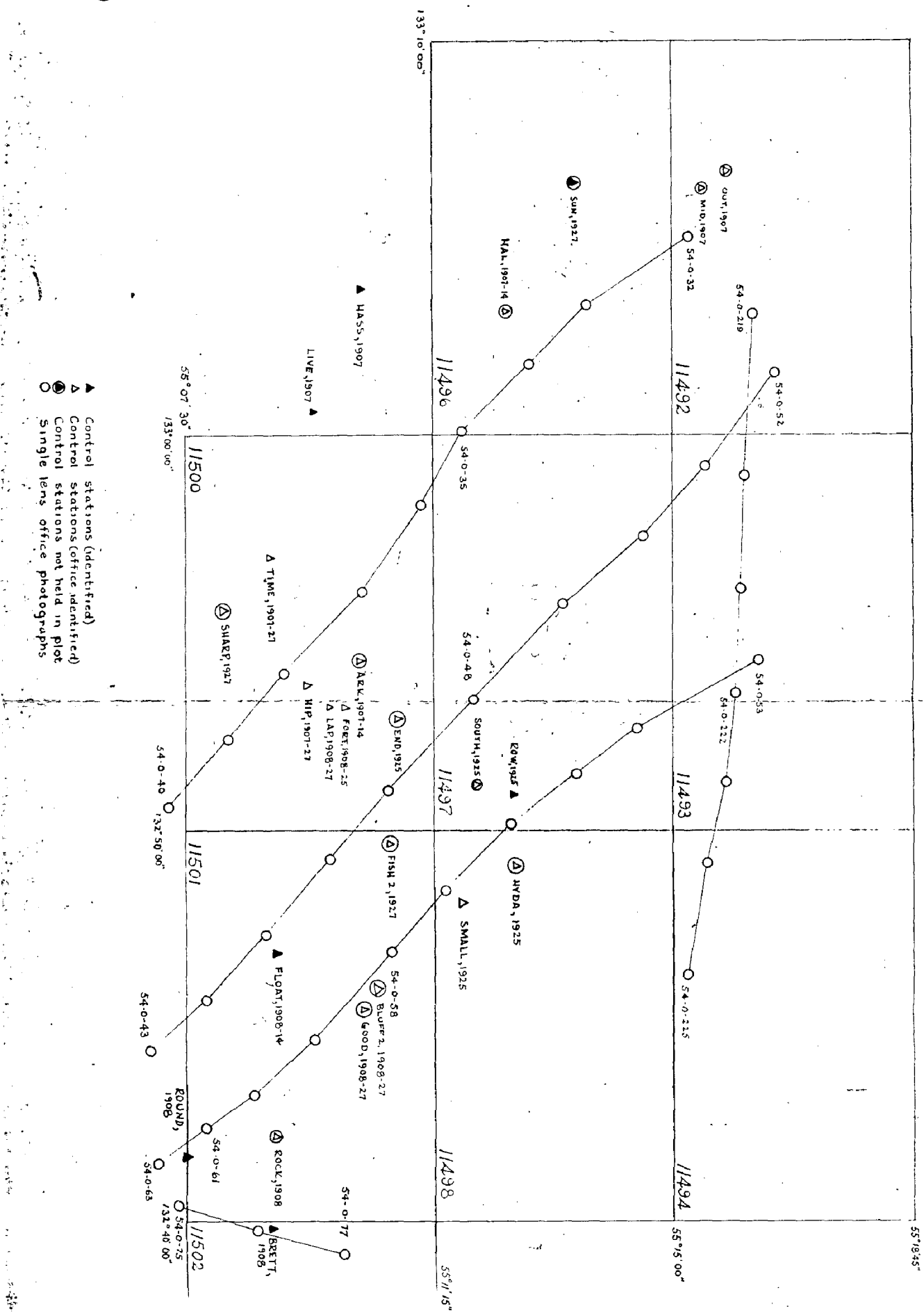
Except at stations PASS, 1925 and END, 1925, where minor local corrections in shoreline were needed, and in the Hydaburg area, the radial plot was found to be reasonably accurate in position. In the northern part of Natzuhini Bay, where the radial plot was considered weakest, the error was only about 0.3 mm.

At Hydaburg, Survey T-11498, the entire area from POINT, 1925 to HOOK, 1956 was moved northerly about 0.6 mm. The adjustment was made using the photographs under the map manuscript. It was not considered necessary to make templets and reassemble the radial plot.

Respectfully submitted
June 1957

Elmer L. Williams
Elmer L. Williams
Carto. (Photo.)

LAYOUT SKETCH
 PROJECT - DH 117
 SURVEYS: T-11492 thru T-11494, T-11496 thru T-11498, &
 T-11500 thru T-11502



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

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 "C" 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.

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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-O-183, and proceeding northward to photograph 54-O-188. Then the templates for photographs 54-O-75 through 54-O-79 were laid. It was found that the templet for photograph 54-O-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-O-227 through 229 and 54-O-214 through 54-O-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-O-191 and 192 were fitted into the plot.

The following conditions greatly affected this plot: (1) Between photographs 54-O-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.

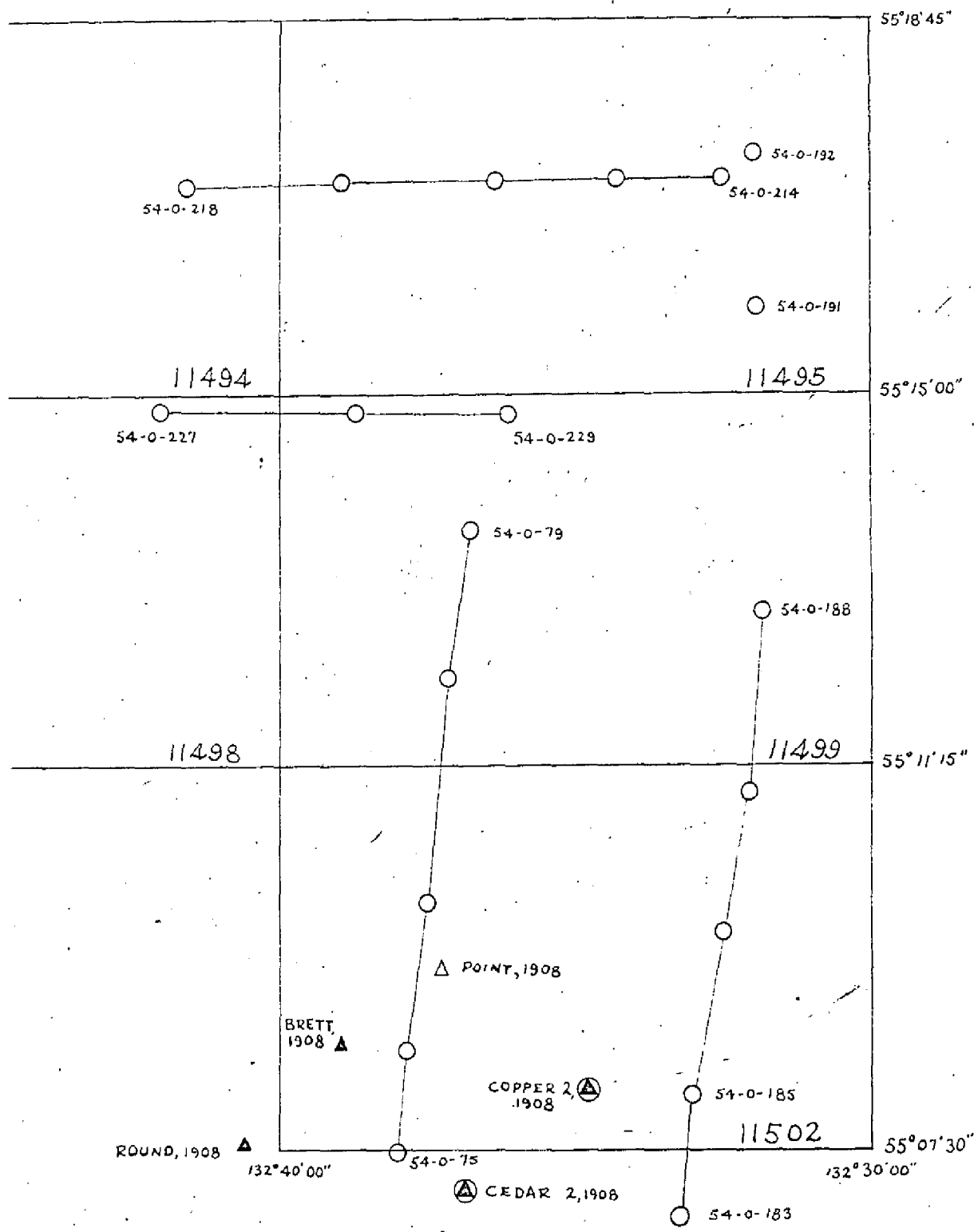
Photograph 54-0-184 was too badly tilted to be used in the radial plot.

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

MAP T. 11498

PROJECT NO. Ph-117

SCALE OF MAP 1:10,000

SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ψ -COORDINATE LONGITUDE OR α -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
✓ CHURCH, 1956	G-11323 p. 1	N.A. 1927	55 12 30.085 132 49 33.707				930.4 (925.1)		
✓ DUCK, 1956	"	"	55 12 52.066 132 49 43.780				1610.1 (245.4) 774.1 (286.8)		
✓ HOOK, 1956	"	"	55 13 19.689 132 49 55.377				608.9 (1246.6) 979.0 (81.7)		
✓ PRESBYTERIAN CH. STEEPL E HYDABURG, 1956	" p. 5	"	55 12 28.738 132 49 31.945				888.7 (966.8) 564.9 (496.2)		
✓ HETTA INLET HIGH-EST PEAK, 1955	G-10977 Form 26B p.3	Unadj. field	55 12 27.995 132 40 13.378				865.7 (989.8) 236.6 (824.5)		
✓ Sub. Pt. DUCK, 1956	Comp.	N.A. 1927	55 12 132 49				1590.3 (265.2) 703.0 (357.9)		
✓ Sub. Pt. HOOK, 1956	"	"	55 13 132 49				556.5 (1299.0) 945.1 (115.6)		
✓ Sub. Pt. HYDA, 1925	"	"	55 12 132 49				853.5 (1002.0) 684.4 (376.7)		
✓ Sub. Pt. FIRST, 1925	"	"	55 11 132 49				707.2 (1148.2) 293.2 (768.4)		
✓ Sub. Pt. BEACH, 1925	"	"	55 11 132 49				1228.4 (627.1) 813.8 (247.7)		
✓ Sub. Pt. POINT, 1925	"	"	55 12 132 49				311.2 (1544.3) 351.1 (710.2)		
✓ Sub. Pt. SMALL, 1925	"	"	55 11 132 48				937.7 (917.8) 560.2 (501.3)		

COMPILATION REPORT
T-11498

Field Inspection Report:

- ~~1. Refer to Field Inspection Report, Project 6117, Hotta Inlet and Sukkwan Strait, 1955, USC&GS Ship PATTON, J. C. Partington, commanding. (See Descriptive Report for Survey T-9903).~~
- ~~2. Refer to Field Inspection Report for Maps T-11493-497-498, T-11500-501, 1956 season, USC&GS Ship PATTON, J. T. Jarman, commanding. (See Descriptive Report for Survey T-11497).~~

Photogrammetric Plot Report:

- ~~1. Photogrammetric Plot Report, 1955 for surveys T-11492 thru 11494, T-11496 thru 11498, T-11500 thru 11502. (See Descriptive Report for Survey T-11497).~~
- ~~2. Photogrammetric Plot Report, 1955 for surveys T-11494, T-11495, T-11498, T-11499, T-11502 and T-9903. (See Descriptive Report for Survey T-11502).~~

31. DELINEATION

This manuscript was delineated by graphic methods. In areas where the shoreline was obscured by shadows or relief displacement, the shoreline was shown with a broken line.

1:20,000 scale nine-lens photographs were used in the vertical projector to supplement the single-lens photographs.

32. CONTROL

Refer to Photogrammetric Plot Reports.

33. SUPPLEMENTAL DATA

Copies of the following Boat Sheets were used for comparison:

- H-8325 (1956)
- H-8326 (1956)

Graphic Control sheets PATT-56-A & B were used to delineate the following:

Numerous rocks in Sukkwan Strait. (Elevations of rocks not used).
 Shoreline revision of two islands in vicinity of WOODY, 1925.
 One daybeacon west of Hydaburg.

- Charts No. 8147 and 8151 used for geographic names.

34. CONTOURS AND DRAINAGE

Contours: Not applicable.

Drainage: No comment.

35. SHORELINE AND ALONGSHORE DETAILS

The delineation of the shoreline is based on office interpretation of the photographs, verified by field inspection.

The Graphic Control Sheet was used to delineate two islands in the vicinity of WOODY, 1925.

The low-water line is based on office interpretation of the photographs, which were at an extremely low tide.

36. OFFSHORE DETAILS

The Graphic Control Sheets were used to transfer one daybeacon, west of Hydaburg, and numerous rocks in Sukkwan Strait. (The rock elevations were not used).

37. LANDMARKS AND AIDS

Forms 567 have been submitted for two landmarks and two daybeacons.

No elevations were furnished for the landmarks.

38. CONTROL FOR FUTURE SURVEYS

Sixteen Photo-Hydro signals have been located on this manuscript and are listed in paragraph 49.

39. JUNCTIONS

Junctions have been made and are in agreement with Survey T-11494 to the north, T-11499 to the east, T-11501 to the south and T-11497 to the west.

40. HORIZONTAL AND VERTICAL ACCURACY

Refer to Photogrammetric Plot Report.

41. - 45. Inapplicable.

46. COMPARISON WITH EXISTING MAPS

Comparison has been made with Craig, Alaska, quadrangle, scale 1:250,000, edition of 1952.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison has been made with the following charts:

Chart No. 8147, scale 1:40,000, edition of 5/28/56.

Chart No. 8151, scale 1:40,000, edition of Sept. 1929, corrected to 6/9/52.

Items to be applied to charts immediately:

None.

Items to be carried forward:

None.

Respectfully submitted
12 June 1957

Joseph W. Vonasek
J. W. Vonasek
Carto. (Photo.)

Approved and forwarded

William F. Deane
William F. Deane,
CDR, C&GS
Baltimore District Officer

August 17, 1970

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-117 (Alaska)

T-11498

Deer Bay

Hetta Inlet

Hydaburg

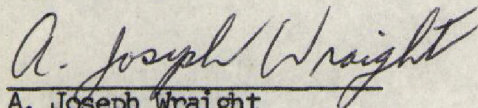
Junbo Island

Prince of Wales Island

Sukwan Island

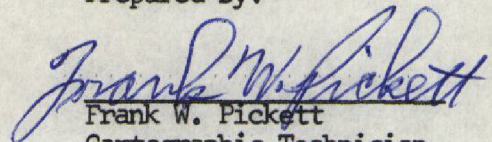
Sukwan Strait

Approved by:



A. Joseph Wraight
Chief Geographer

Prepared by:



Frank W. Pickett
Cartographic Technician

T-11498

49. NOTES FOR HYDROGRAPHER

The following are the photo-hydro signals located on this manuscript:
Position discrepancies from the boat sheets are listed.

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

50 -

PHOTOGRAMMETRIC OFFICE REVIEW

T-11498

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

CONTROL STATIONS

4a. 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. Glau Reviewer Joseph Steinberg Supervisor, Review Section of 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-11498
Shoreline Mapping

August 1970

61. General Statement

The registration manuscript copy for T-11498 was made from the negative of the Advanced Manuscript. The original manuscript is lost.

The Descriptive Report for H-8232 (Processing Office Notes) states that the hydrographer had difficulty using signals located by photogrammetric methods. These signals were relocated and the shoreline revised by the replot dated 10/28/58 (section of T-11498 showing new positions of signals and revised shoreline). No mention was made about a replot or revision of shoreline in the Descriptive Report for T-11498. This revision has now been applied to survey T-11498 and a copy of the section of T-11498 (Hetta Inlet) and "Processing Office Notes" is a part of this report.

Differences in some rock elevation were found between photogrammetric survey T-11498 and hydrographic survey 8326 (refer to Summary, "Rock Elevations"). These elevations were removed from T-11498. *page 7*

Field photograph 54-W-0-58 was used during final review.

62. Comparison with Registered Topographic Surveys

Comparison was made with T-2331, 1:80,000 scale, dated 1897 and T-2788, 1:20,000 scale, dated 1905. These surveys are superseded for charting by T-11498.

63. Comparison with Maps of Other Agencies

Comparison was made with USGS Craig (A-3), Alaska, quadrangle, scale 1:63,360, 1948 edition. No differences of importance were found in the comparison.

64. Comparison with Contemporary Hydrographic Surveys

Survey T-11498 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.
- H-8326 (unverified), 1:5,000 scale, dated 1956.
- H-8456 (unverified), 1:10,000 scale, dated 1956.

The agreement is good, except for a rock (three feet above MHW) which is not shown on survey H-8326. The rock is located north of triangulation station FIRST, 1925 near hydro signal Bat. A "Notes to the Verifier" page is inserted in the Descriptive Report for 8326 regarding this rock.

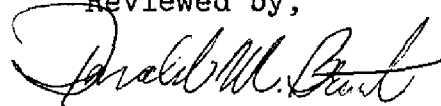
65. Comparison with Nautical Charts

Comparison was made with Chart 8151, 1:40,000 scale, 9th Edition, corrected to February 26, 1968, and 8147 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

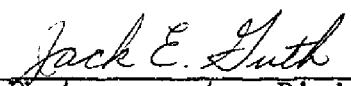
Reviewed by,

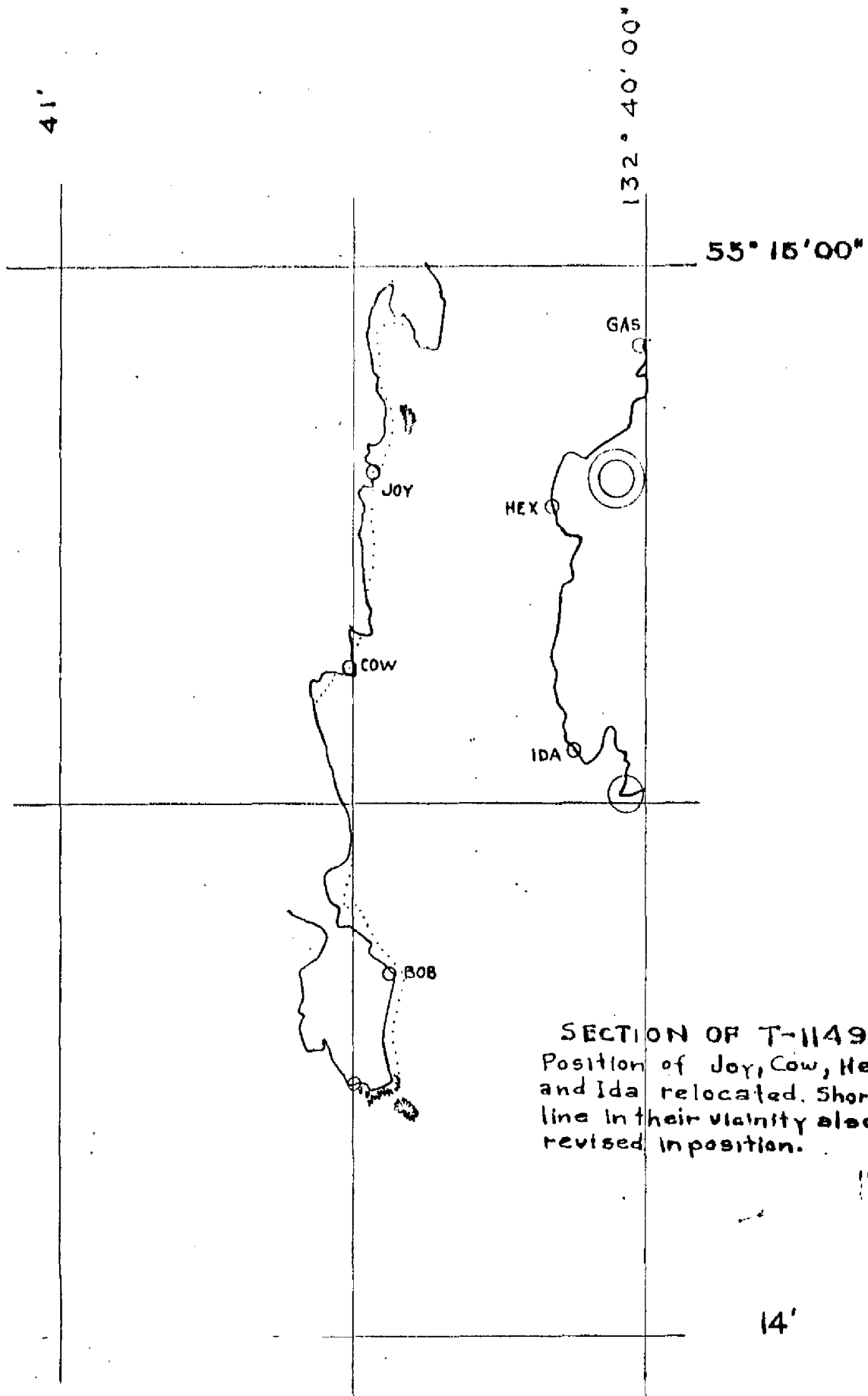


Donald M. Brant

Approved by,


Chief, Photogrammetric Branch


Chief, Photogrammetry Division



SECTION OF T-11498
 Position of Joy, Cow, Hex
 and Ida relocated. Shore
 line in their vicinity also
 revised in position.

10-28-58

14'

PROCESSING OFFICE NOTES H-8232

SMOOTH SHEET

The smooth sheet was hand constructed and checked by the Seattle Hydrographic Processing Unit.

CONTROL STATIONS

As stated in the hydrographer's report, the control is from photo manuscripts. Some difficulty was encountered using signals COW and JOY, which was reported to Washington. The Signals were relocated along with signals HEX and IDA. The positions of COW and JOY, along with the shoreline in the vicinity of the signals, were changed to agree with the new locations. Since the shift in location of HEX and IDA was small, they weren't moved. Changing the location of the latter two signals appeared to have little if any effect on the sounding lines.

SHORELINE AND TOPOGRAPHY

The shoreline and off shore detail was transferred from *advance* Manuscripts T-11494, T-11495, T-11498 and T-11499. Shoreline in the vicinity of signals COW and JOY was changed to agree with the replot dated 10/28/58.

ADEQUACY OF SURVEY

The survey is complete and adequate for charting. The junction with H-8231 ⁽¹⁹⁵⁵⁾ has been compared and found to be satisfactory. Depth curves at the junction can be adequately drawn.

COMPARISON WITH CHART

This survey was compared with Chart 8147 4th Ed. Revised 10/7/57, which was made from the boat sheet. The agreement between the chart and the survey appears to be very good. *A soundings chart tracing at the scale of the chart is enclosed showing three soundings that are one fathom deeper than the charted depths. The soundings records have been checked and no soundings of the charted depths can be found.* *Soundings charted from reproduction of boat sheet of present survey. Correct values are shown on S.S. after rec. review.*

Respectfully submitted

William M. Martin
WILLIAM M. MARTIN
Supervisory Cartographer

L.S.S.
2/24/60

Approved and forwarded
E. H. Kirsch
E. H. KIRSCH
CAPTAIN, C&GS
SEATTLE DISTRICT OFFICER

