

11302 11304 ^{and} 11305

11304 ^{and} 11305

11302

Form 504 U. S. COAST AND GEODETIC SURVEY DEPARTMENT OF COMMERCE DESCRIPTIVE REPORT	
<i>Type of Survey</i> <u>Supraline (Photogrammetric)</u> T-11302, T-11304	
<i>Field No.</i> <u>Ph-117</u>	<i>Office No.</i> <u>and T-11305</u>
LOCALITY	
<i>State</i> <u>Alaska</u>	
<i>General locality</i> <u>Cordova Bay</u>	
<i>Locality</i> <u>Barrier Islands</u>	
<u>1953 - 1954</u>	
CHIEF OF PARTY E. A. Gossett, Chief of Field Party H. Hirsch, Baltimore Photo. Office	
LIBRARY & ARCHIVES	
DATE _____	

DATA RECORD

- / -

T -11302
 -11304
 -11305

Project No. (II): Ph-117

Quadrangle Name (IV):

Field Office (II): USC&GS S HODGSON

Chief of Party: F. R. Gossett

J. Bowie

Photogrammetric Office (III): Baltimore, Maryland

Officer-in-Charge: E. H. Kirsch

Instructions dated (II) (III): Field 3/17/53, 1/8/54
 Office: 12/7/53, 10/11/54, 11/4/54

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): 3-11-54

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): BARRIER, 1908

Lat.: 54° 49' 48.135" (1488.5m)

Long.: 132° 26' 47.195" (842.5m)

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.

DATA RECORD

Field Inspection by (II): D. L. Campbell
A. C. Haglund
R. C. Munson
J. J. Dermody

Date: Aug. & Sept. 1953
1954 Field Season

Planetable contouring by (II): None

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location): 1953 (date of photography)

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

Date: 1/21/54

Projection and Grids checked by (IV): C. Hanavich
H. D. Wolfe

Date: 1/22/54

Control plotted by (III): A. Queen
J. C. Cregan

Date: 1/18/54

Control checked by (III): H. R. Rudolph

Date: 1/19/54

Radial Plot or Stereoscopic
Control extension by (III): H. R. Rudolph

Date: 2/19/54

Planimetry
Stereoscopic Instrument compilation (III):

Date:

Contours

Date:

Manuscript delineated by (III): R. M. Whitson - T-11304 & T-11305
J. Y. Councill - T-11302

Date: 2/24/54

Photogrammetric Office Review by (III): R. Glaser

Date: 2/26/54

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

Date:

Camera (kind or source) (III): USC&GS nine-lens, focal length 8 1/4"

PHOTOGRAPHS (III)				
Number	Date	Time	Scale	Stage of Tide
40985 to 40987	7/8/53	1607	1:10,000	5.3' above MLLW
40989 to 40994	"	1616	"	5.3' above MLLW
41013 to 41017	"	1637	"	5.0' above MLLW
41033 to 41035	"	1653	"	4.8' above MLLW

Tide (III)
From Predicted Tables

Diurnal

Reference Station: Sitka
Subordinate Station: Tah Bay, Cordova Bay
Subordinate Station:

Ratio of Ranges	Mean Range	5.0 to 8.0 Range
	7.7	9.9
1.3	10.2	12.8

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

Date: SEPT, 1970

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 12
 Shoreline (More than 200 meters to opposite shore) (III): 81 statute miles
 Shoreline (Less than 200 meters to opposite shore) (III): 18 " "
 Control Leveling - Miles (II):
 Number of Triangulation Stations searched for (II): 25 Recovered: 15 Identified: 18*
 Number of BMs searched for (II): Recovered: Identified:
 Number of Recoverable Photo Stations established (III): 6**
 Number of Temporary Photo Hydro Stations established (III): 109

Remarks:

*Includes 3 stations established and identified in 1953.

** 5 additional whitewashed stations not described or marked, located by third-order methods, are shown as recoverable topographic stations.

(over)

T-11302

Land area (sq. Statute Miles)	3 statute miles	
Shoreline (more than 200 meters to opposite shore)		31
Shoreline (less than 200 meters to opposite shore)		3

T-11304

Land area (sq. Statute Miles)	negligible	
Shoreline (more than 200 meters to opposite shore)		1

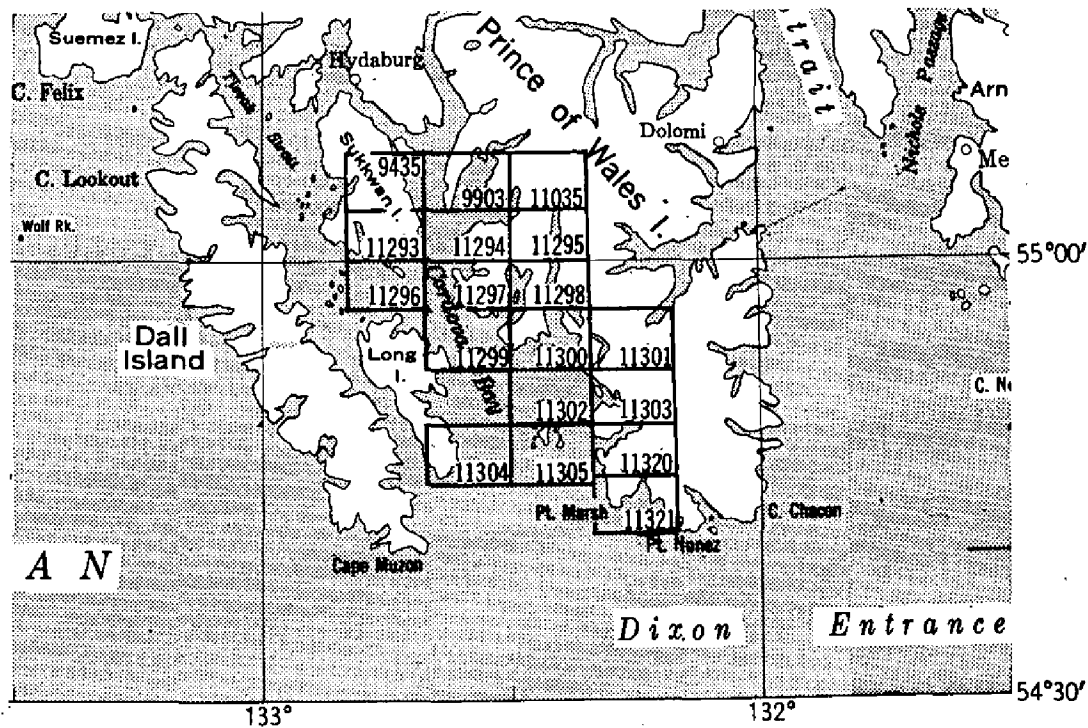
T-11305

Land area (sq. Statute Miles)	9 statute miles	
Shoreline (more than 200 meters to opposite shore)		49
Shoreline (less than 200 meters to opposite shore)		15

SHORELINE MAPPING PROJECT PH- 117

- 5 -

Cordova Bay & Vicinity of S.E. Alaska



PH-117

OFFICIAL MILEAGE FOR COST ACCOUNTS

SHEET NO.	AREA SQ.MILES	LIN. MILES SHORELINE
T-9435	13	13
T-9903	21	21
T-11035	9	9
T-11293	20	20
T-11294	15	15
T-11295	13	13
T-11296	14	14
T-11297	21	21
T-11298	23	23
T-11299	16	16
T-11300	31	31
T-11301	7	7
T-11302	18	18
T-11303	14	14
T-11304	12	12
T-11305	37	37
T-11320	24	24
T-11321	20	20
TOTALS	328	328

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.

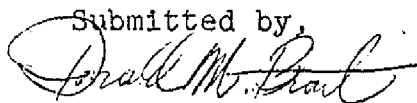
Rock Elevations

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

Control station identification was made in the main project area of Cordova Bay on the southwest side of Prince of Wales Island, and in three areas on the east side of Prince of Wales Island in accordance with instructions for Project OS-357. Shoreline inspection for this season was confined mainly to the area covered by this season's hydrographic surveys. In the areas north of Shipwreck Point, on the west side of Cordova Bay, and on the east side of Prince of Wales Island only very small amounts of shoreline inspection were done.

The Cordova Bay area is a large deep watered area with many inlets, arms, and bights that cut up the land areas. In the southern part, the Barrier Islands extend far out into the bay. The terrain in the Barrier Islands is very broken with numerous small islands and offshore rocks covering the area. A few small tidal lakes are found on several of the islands. Most of the islands are 100 to 200 feet in height. The land area in the rest of Cordova Bay is mostly rugged wooded mountains cut by deep valleys, bays and inlets.

The areas on the east side of Prince of Wales Island in which the instructions required control station identification were in or near long deep bays. These inlets have numerous small bays and arms that are in general very deep. The land areas are nearly all very mountainous with dense timber except near the summits of the highest peaks. The higher mountains inshore are very steep and rugged, and are usually bare near the summits.

There are very few cultural features in the areas covered by field inspection. In the Cordova Bay area there were only three cultural features. A small trapper's cabin was found at the old Klinkwan village site. The landmark and remains of the village have been destroyed and should be deleted from the chart. An old cannery site on the north shore of Hunter Bay is visible but no structures remain. At the northern end of the area opposite Sukkwan Strait there is an abandoned mine. This was charted as Copper City, but there are no buildings still standing.

Only control station identification was done on the east side of Prince of Wales Island. No detailed inspection of cultural features was made in this area.

The single lens photographs obtained from the Geological Survey were very poor which made field inspection difficult. These prints were very hazy and had very little contrast.

The nine lens photos were clear and had very good contrast except in areas where the sun's reflection blurred them. Usually a better print could be found in these areas, but on several photographs along the west side of Cordova Bay some difficulties were encountered.

Densities and tones were not inspected on the land areas. In water areas shoals and kelp areas were easily visible on the nine lens photographs.

3. HORIZONTAL CONTROL

(a) No supplemental triangulation control was established in connection with the field inspection. Since photo compilation had not been made for the area, graphic control sheets were surveyed to control the hydrography. These

sheets should be very helpful in making the compilation. The short sections of shoreline in the vicinity of many of the stations will probably be helpful to the compiler.

Three new main scheme triangulation stations were established during the survey. These are BLACK 2, 1953; BOG 2, 1953; and DENNEY 2, 1953.

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

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

(d) No field inspection was done this season in the vicinity of Sukwan Strait and South Pass. This section was deferred in expectation of receiving nine-lens photographs. Then near the close of the season, work on Project CG-357 was suspended to undertake the special wire drag survey at Hollis Anchorage. A better field inspection can be made when the remaining area is covered by nine-lens photographs. The single-lens photographs provided by the Geological Survey can be considered of very little value for field inspection in this area. *to the seaboard*

(e) In the Cordova Bay area the triangulation stations that were omitted in the photo identification were omitted in accordance with Paragraph 12 of Instructions dated 17 March 1953. For stations omitted in Sukwan Strait and South Pass see Paragraph 3(d) of this report.

The stations on the east side of Prince of Wales Island that were omitted were in accordance with Paragraph 13 of Instructions dated 17 March 1953.

The following stations were reported as lost:

- | | |
|--------------------------|---------------|
| NEW, 1908 | FRONT, 1909 |
| GREEN, 1907 | DOPE, 1909 |
| N. W. CHURCH SPIRE, 1909 | BAD, 1909 |
| OUR, 1909 | LIME, 1905-18 |
| CAN, 1909 | HUB, 1907 |
| TOP, 1909 | |

Stations NEW, 1908 and GREEN, 1907 were the only two stations of the list that were photo identified. At NEW, 1908 the station mark was not found but the old blaze in tree and the rock pinnacle the station was on was found. The pinnacle is only about 4 feet in diameter which made positive identification possible. At GREEN, 1907 the old R. M. drill hole was found and identified. The station mark was not found.

For further information under this heading see Triangulation Reports, Ship HODGSON, 1953.

(f) The following horizontal control stations were identified:

STATION	PHOTO NO.	QUALITY OF IDENTIFICATION	REMARKS
<u>WEST OF PRINCE OF WALES</u>			
<u>NINE LENS</u>			
ANCHOR, 1909	41015	Positive	Triangulation
ATA, 1918	41003	"	"
Axe	40991	"	Topo - 1953
BAN, 1925	40944	"	Triangulation
BARRIER, 1908	40992	"	"

STATION	PHOTO NO.	QUALITY OF IDENTIFICATION	REMARKS
BLACK 2, 1953	h0991	Positive	Triangulation
BOAT, 1909-25	h0995	"	"
CEDAR 2, 1908	h1018	"	"
CLEO, 1909	h1015	"	"
CLUMP, 1907	h0999	"	"
CON, 1925	h0901	"	"
COPPER 2, 1908	h1018	"	"
CREEK, 1909	h0993	"	"
Day	h0991	"	Topo - 1953
DENVEY 2, 1953	h0906	"	Triangulation
EGG 2, 1953	h0906	"	"
FAR, 1909	h0991	"	"
FLAT 2, 1908	h1002	"	"
FOG, 1908	h1002	"	"
GRASS, 1908-1/4	h1002	"	"
GREEN, 1907	h0977	"	"
HAS, 1918	h1004	"	"
HEN, 1907	h0977	"	"
Hip	h1011	"	Topo - 1953
HUNTER, 1909	h1035	"	Triangulation
JACK, 1907	h0978	Doubtful	"
Jar	h0992	Positive	Topo - 1953
KEET, 1918	h1045	"	Triangulation
KLINKYAN, 1909	h1035	"	"
LEDGE 2, 1908	h0998	"	"
LITTLE, 1909	h1033	"	"
MAB, 1918	h1005	"	"
MARBLE 2, 1925	h0983	"	"
MED, 1918	h1045	"	"
MEX, 1909	h0990	"	"
NEA, 1908	h1000	"	"
NICE, 1907	h0977	"	"
NING, 1925	h0943	"	"
PUT, 1918	h1002	Doubtful	"
PET, 1909	h1015	Positive	"
Ram	h1036	"	Topo - 1953
RHEA, 1909	h1034	"	Triangulation
ROUGH 2, 1908	h0982	"	"
Rut	h1036	"	Topo - 1953
SHIP 2, 1908	h0997	"	Triangulation
SNOZ, 1907	h0978	"	"
SOUTH ROCK, 1909-53	h0945	"	"
TITAN, 1909	h1033	"	"
Tomb	h0989	"	Topo - 1953
TRIM, 1925	h0979	"	Triangulation
TURN, 1909	h1012	"	"
UP, 1918	h1053	"	"
Vim	h0991	"	Topo - 1953
WEST, 1909	h0989	"	Triangulation
Yam	h0991	"	Topo - 1953
Zag	h0991	"	Topo - 1953
	Single Lens		
BRETT, 1908-1/4	SEA13-091	Doubtful	Triangulation
ROUND, 1908-1/4	SEA26-020	Positive	"

STATION	PHOTO NO.	QUALITY OF IDENTIFICATION	REMARKS
EAST OF PRINCE OF WALES ISLAND			
BAKE, 1907	SEA29-042	Positive	"Triangulation
BUT, 1907	SEA22-119	"	"
BEE, 1924	X15,026	"	"
BLACK, 1912	SEA103-006	"	"
COCK, 1924	SEA22-025	"	"
BRICK, 1912	SEA22-004	"	"
END, 1912	SEA22-009	"	"
HALLIDAY, 1912	SEA103-006	"	"
HEAD, 1922	SEA22-005	"	"
INGRAHAM, 1912-21	SEA103-004	"	"
KEN, 1921	SEA22-005	"	"
KHOB, 1924	SEA29-044	"	"
MOIRA ROCK, 1912	SEA22-135	"	"
NEST, 1912	SEA22-134	"	"
OUT, 1911	X15-026	"	"
PIT, 1924	X15,030	"	"
SCOTT, 1912	SEA15-065	"	"
SCRUB, 1924	SEA29-042	"	"
SUN, 1912	SEA103-005	"	"
TAG, 1924	SEA103-022	"	"
TIP, 1924	SEA22-025	"	"

Of the stations listed doubtful identification was made on stations: JACK, 1907; BUT, 1907; and BRETT, 1908-14. These stations are not required by the instructions since other stations in the immediate vicinity were used to meet the spacing requirements.

Station JACK, 1907 was marked doubtful because the glare of the sunlight on the photographs made positive identification difficult except to large objects.

Station BUT, 1907 was marked doubtful since overhanging trees and shadows eliminated all object that would have made good subpoints. The subpoint used was a bend in the high water mark that did not show clearly on the photograph.

Station BRETT, 1907 was identified on a single lens photograph furnished by the Geological Survey which was very dull and hazy. It was marked doubtful since the subpoints did not show clear or sharp on the photograph.

4. VERTICAL CONTROL

Not applicable.

5. CONTOURS AND DRAINAGE

Not applicable.

6. WOODLAND COVER

All land areas not covered by storm high waters were densely wooded with coniferous trees and underbrush except on very high mountains. A few offshore rocks to the south and west of the Barrier Islands were bare. A number of areas on the east side of Prince of Wales and a few areas in the Cordova Bay area had been logged out. These areas were easily seen on the nine lens photographs.

7. SHORELINE AND ALONGSHORE FEATURES

(a) Shoreline was inspected from a boat running as close inshore as was safe. The mean high water line shows clearly on the nine lens photos where shadows or overhanging trees do not obscure it. In most areas not opened to the sea the mean high water line is at the tree line. In some areas where the land protrudes up steeply from the shoreline the trees overhang it as much as 4 to 5 meters. In other areas, those open to the sea, it is usually visible on the photographs but may be as far as 50 meters from the tree line.

The mean high water line is indicated at random intervals on photographs or where it is not clear.

(b) The low water line is not indicated on the photographs, although, a number of areas were marked foul when it was considered too shoal to investigate with a motor whale boat. In some cases where a number of submerged rocks were grouped together the area would be marked foul out to the kelp line.

(c) The forashore in the vicinity of the Barrier Islands was mostly very rocky with numerous rock ledges and reefs that cover at high water. There are also many small bights with boulder, rock or gravel beaches in this area. Just north of the Barrier Islands there are many bights and small bays which have some sand beaches formed by streams that run into them.

(d) There were a few bluffs and cliffs seen over the area. None of these were marked on the photographs. However, most of them are readily identifiable on the photographs due to the lack of vegetation. They should be obvious in a stereoscopic model.

(e) In the project area where shoreline inspection was done no shoreline structures were noted other than the permanent fish trap at the mouth of Hosca Inlet. This structure was used by small fishing craft as a mooring. It was permanently secured to the beach, and had not been used as a trap for many years. It is indicated on the photograph.

8. OFFSHORE FEATURES

In the hydrographic survey area covered by field inspection important offshore features and possible dangers to navigation were indicated on the photographs. Many of the offshore rocks were located by hydrographic and/or topographic means.

In two places in the area inspected this season there were rocks that were indicated that did not show clearly on the photographs.

The first is a sunken rock in Eureka Channel about 1.1 mile NE of Far Point. In the vicinity of this rock there is a kelp area about 30 meters in diameter that appears to show on the photo. A hydrographic fix was taken on the rock and a check on its location can be obtained from the hydrographic sheet.

The second rock not clearly visible on the photographs was a rock awash about 200 meters SSE of triangulation station BIRD, 1909-53. This rock was not located by the hydrographic party, but it was noted on the photograph. It may show a little clearer on the office print. However, if a positive location cannot be made using the office prints, further hydrographic investigation is necessary.

Since the field inspection was done in conjunction with the hydrographic survey, some of the offshore features were omitted from the photographs if previously located by other methods. Although, an attempt was made to field inspect all offshore features whether they had been previously located or not.

Heights of rock were estimated in all cases. All rocks were visited, but in most cases a landing was not made. When the field inspection was made a pencil notation of the time, date, and estimated heights was made on the photographs. At the close of the day heights of rocks awash were reduced to MLW and all notes were inked.

9. LANDMARKS AND AIDS

(a) The only landmark noted was an abandoned light on Turn Point. It is station Ram identified on photograph Number 41036. Since it is a recoverable topographic station no photo location is needed.

(b) No interior landmarks will be listed since no interior inspection was done.

(c) Inapplicable.

(d) The following fixed aids to navigation are indicated on the photographs:

AID	PHOTO NOS.	HYDROGRAPHIC NAME	REMARKS
TELEVAK STRAIT LIGHT	40978		
MELLEN ROCK LIGHT	41003		
MOUND POINT LIGHT	SEA29-014		
CENTER ISLAND DAYBEACON	40991	Zag	Topo signal
GUIDE ROCKS DAYBEACON	41033	Cab	" "
TURN ISLAND DAYBEACON	41012	TURN, 1909-53	Triang. Station
HUTTER BAY DAYBEACON	41036		
EUREKA CHANNEL DAYBEACON	40992	Jar	Topo signal

The four aids listed above that were not located should be located by photogrammetric methods. No identification cards were made for those. All four were pricked direct.

The other aids listed have been located but were identified to be used in the control of the radial plot. Guide Rocks Daybeacon was identified but no card was submitted since it is not needed for control of the plot.

(e) Inapplicable.

10. BOUNDRIES, MONUMENT, AND LINES

Inapplicable.

11. OTHER CONTROL

A number of topographic stations were identified on the photographs that were not listed as recoverable topographic stations. When these were identified no pricking cards were submitted.

The specified spacing for recoverable topographic stations was complied with in the area covered by the hydrographic survey. Listing covered under

side heading 3(F).

12. OTHER INTERIOR FEATURES

Covered under side heading 2.

13. GEOGRAPHIC NAMES

Geographic names will be covered in a separate report.

Only charted names were used in connection with records and reports.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

Supplemental data includes other phases of field work - triangulation data, topographic data, hydrographic data and coast pilot notes.

Photogrammetric data forwarded separately:

Field photographs

Control Station Identification Cards

Data to be forwarded:

Descriptive Reports for Hydrographic Sheets:

HO-1153

HO-1353

HO-1253

HO-2153

Triangulation Report - Cordova Bay - 1953

Descriptions of Triangulation Stations

Descriptions of Recoverable Topographic Stations

Recovery Notes, Triangulation Stations

Report on Landmarks and Fixed Aids

Geographic Names Report *L Heck 054*

Coast Pilot Notes

Respectfully submitted,

Donald L. Campbell

Donald L. Campbell,

Ens., USC&GS

Approved and Forwarded:

F. R. Gossett

F. R. Gossett,

CDR, USC&GS

Comdg., Ship HODGSON

PHOTOGRAMMETRIC PLOT REPORT

- 8 -

Project Ph-117

Surveys Nos. T-11299 thru T-11305, T-11320 & T-11321

21. AREA COVERED

This radial plot report covers the entire areas of Surveys Nos. T-11300, T-11301, T-11302, T-11303, and T-11305. It also includes, the areas east of Cordova Bay that lie within the limits of Surveys Nos. T-11299 and T-11304, all of survey No. T-11320 except the shoreline of Brownson Bay, and the area of Survey No. T-11321 west of POINT MARSH LIGHT. These are all shoreline surveys located along the eastern side of Cordova Bay from Marsh Point northward to the north side of the entrance to Kassa Inlet.

22. METHOD - RADIAL PLOT

Map Manuscripts:

Vinylite 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. Base sheets were prepared in this office.

All control stations and substitute stations were plotted using the beam compass and meter bar.

A sketch, showing the layout of surveys in this plot, and the distribution of control and photographs is attached to this report. A list of control stations is also attached to this report.

Photographs:

Unmounted photographs taken 8 July 1953 with the U.S.C. & G. S. nine-lens camera, focal length $8\frac{1}{4}$ inches, at a scale of 1:10,000 were used in this plot.

Thirty-nine photographs were used in this plot numbered as follows:

40985 thru 40997
41010 thru 41020
41030 thru 41037
41063 thru 41069

Standard symbols were used on the photographs.

Templets:

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

Closure and Adjustment of Control

Vinylite base sheets were prepared in this office. Since junctions of grid lines between several of the manuscripts could not be made the base sheets were prepared by transferring several projection intersections (all corners) along the neat limits of the manuscript for Survey No. T-11305 to a base sheet. The projection intersections of the other manuscripts were then transferred to the base sheets by matching common projection intersections. All control was transferred to the base sheets

at the same time that the projection intersections were being transferred.

The radial plot was then constructed on the base sheets.

The templets for the two western flights were laid first. Then the templets in the other flights that contained the most control were laid. Since control stations RHEA, 1909; PET, 1909; LITTLE, 1909; and ANCHOR, 1909 could not be held at the same time on any of these templets several combinations were tried and the best results were obtained by holding RHEA, 1909 and ANCHOR, 1909. The plot was then extended to the north, east and southeast until satisfactory plot was obtained.

It was also impossible to hold control TITAN, 1909.

Transfer of Points:

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

23. ADEQUACY OF CONTROL

As previously stated all of the control could not be held in the radial plot.

TITAN, 1909 - Pricked direct - described as white banner appearing as a white spot on photograph with tree branches overhanging about 10 feet. Impossible to identify accurately on most of the office photographs. No definite radial line intersection obtained by the plot.

Sub point LITTLE, 1909 - The radially plotted position falls 0.5 mm. south of computed position.

PET, 1909 - The radially plotted position falls 1.0 mm southeast of geographic position.

The discrepancies in these stations were probably due to inaccuracies in identification. Due to urgency of completion of delineation required, no further investigation was made.

24. SUPPLEMENTAL DATA

No graphic control surveys were used in this plot.

25. PHOTOGRAPHY

All of the photographs have large light struck areas on the western sides. Many have deep shadows along shoreline.

No tilt determinations were made.

The definition is good except in the light struck and deep shadow areas.

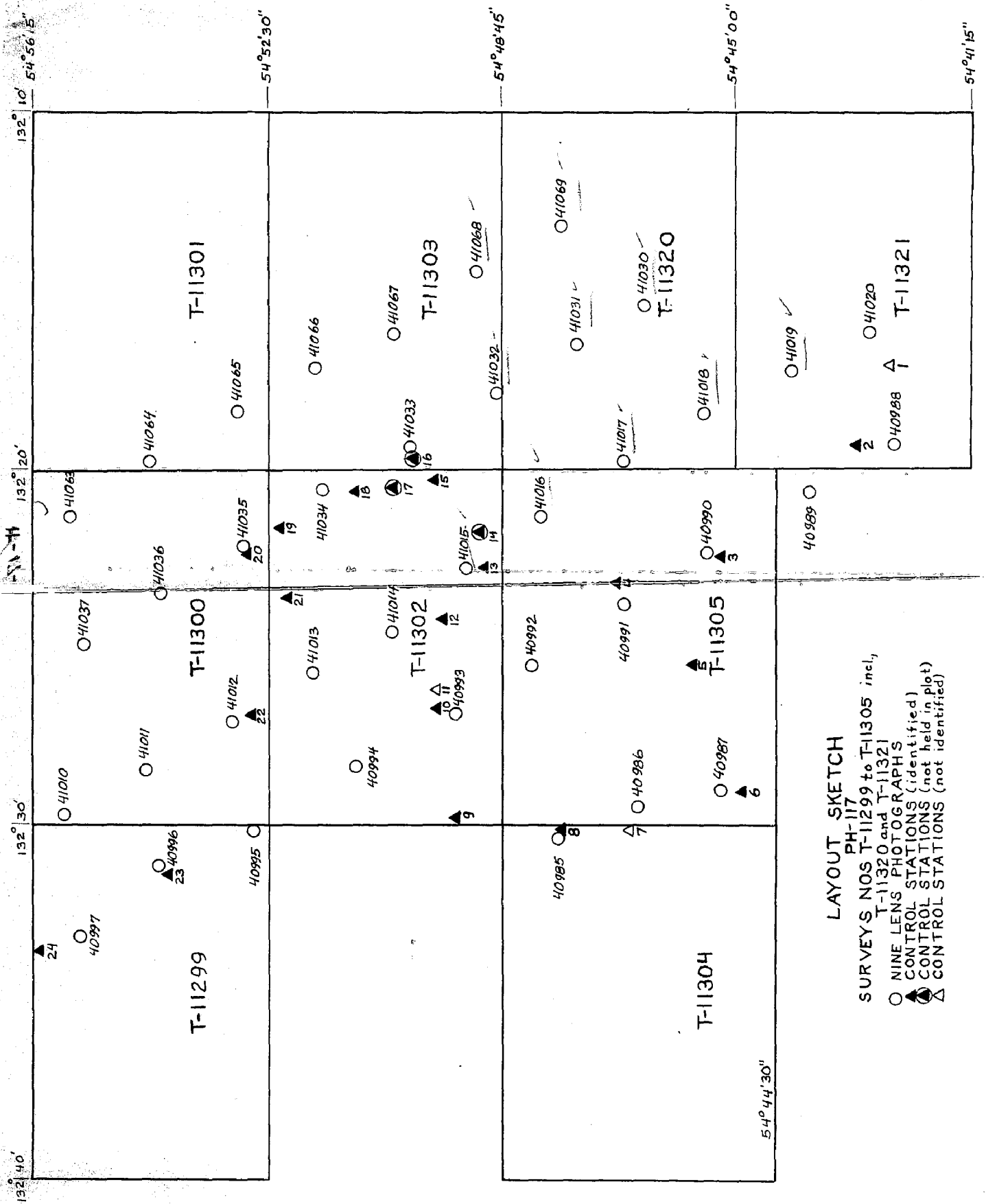
Respectfully submitted
18 February 1954

Harry R. Rudolph
Harry R. Rudolph
Carto. Aid (Photo)

10

LIST OF CONTROL

No.	Name of Station	Identification
1	MARSH, 1909	None
2	WEST, 1909	Direct
3	MEX, 1909	Direct
4	FAR, 1909	Direct
5	BLACK 2, 1953	Direct
6	DEWEY 2, 1953	Direct
7	LIGHT (ROUND ISLANDS), 1953	None
8	EGG 2, 1953	Sub. Point
9	BOAT, 1909-25	Direct
10	BARRIER, 1908	Direct
11	POE, 1909	none
12	CREEK, 1909	Direct
13	CLEO, 1909	Sub Point
14	TITAN, 1909	Direct
15	ANCHOR, 1909	Direct
16	LITTLE, 1909	Sub Point
17	PET, 1909	Direct
18	RHEA, 1909	Direct
19	HUNTER, 1909	Sub Point
20	KLINK, 1909	Sub Point
21	TURN, 1909	Direct
22	BIRD, 1909	Direct in Office
23	SHIP 2, 1908-25	Direct & Sub. Pt.
24	LEDGE 2, 1908	Sub Point
25	TRIM, 1925	Sub Point



LAYOUT SKETCH

PH-117
 SURVEYS NOS T-11299 to T-11305 incl,
 T-11320 and T-11321
 ○ NINE LENS PHOTOGRAPHS
 ▲ CONTROL STATIONS (identified)
 △ CONTROL STATIONS (not held in plot)
 ▽ CONTROL STATIONS (not identified)

MAP T. 11302 PROJECT NO. Ph-117 SCALE OF MAP 1:10,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR μ -COORDINATE LONGITUDE OR x -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)	
CLEO, 1909	G-609 p. 245	N.A. 1927	54	49	03.476			107.5	(1747.9)	
Sub Pt. CLEO, 1909			132	22	46.964			838.7	(232.8)	
TITAN, 1909	G-609 p. 246	N.A. 1927	54	49	05.794			62.8	(1792.6)	
ANCHOR, 1909	G-609 p. 245	"	132	22				842.1	(229.4)	
CREEK, 1909	G-609 p. 245	"	54	49	52.606			179.2	(1676.2)	
FOE, 1909	G-609 p. 245	"	132	21	50.495			901.7	(169.7)	
BARRIER, 1908	G-609 p. 236	"	54	49	40.356			1626.7	(228.7)	
BOAT, 1909-25	G-609 p. 246	"	132	24	08.527			391.0	(680.1)	
PET, 1909	G-609 p. 248	"	54	49	49.865			1247.9	(607.5)	
RHEA, 1909	G-609 p. 245	"	132	26	22.938			152.2	(918.9)	
TURN, 1909	G-609 p. 245	"	54	49	29.658			1542.0	(313.4)	
HUNTER, 1909	G-609 p. 247	"	132	29	51.954			409.5	(661.6)	
			54	49	48.135			1488.5	(366.9)	
			132	26	47.195			842.5	(228.6)	
			54	49	29.658			917.1	(938.3)	
			132	29	51.954			927.6	(143.7)	
			54	50	40.324			1246.9	(608.5)	
			132	20	40.660			725.6	(345.1)	
			54	51	03.352			103.7	(1751.7)	
			132	20	50.373			898.8	(171.8)	
			54	52	09.694			299.8	(1555.6)	
			132	23	36.662			653.9	(416.2)	
			54	52	18.813			581.8	(1273.6)	
			132	21	46.436			828.1	(241.9)	

MAP T-11304 PROJECT NO. Ph-117 SCALE OF MAP 1:10,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR μ -COORDINATE LONGITUDE OR x -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)	
EGG 2, 1953	G-10341 P. 1	N.A. 1927	54	47	44.239			1368.0	(487.4)	
Sub. Pt. EGG 2, 1953		"	132	30	08.142			145.5	(926.5)	
LIGHT (Round Islands) 1933	G-10341 P. 1	"	54	47				1364.5	(490.9)	
SOUTH ROCKS 1908-25	G-609 P. 202	"	132	20				142.6	(929.4)	
SLIDE, 1925	G-609 P. 282	"	54	46	43.114			1333.2	(522.2)	
KAIGANI, 1925-6	G-609 P. 278	"	132	30	18.796			336.0	(736.5)	
BAN, 1925	G-609 P. 249	"	54	45	52.876			1635.0	(220.3)	
NING, 1925	G-609 P. 249	"	132	36	04.302			76.9	(995.9)	
CONING, 1908	G-609 P. 236	"	54	45	37.079			1146.6	(708.8)	
BOB, 1953 (WW)	G-10341 P. 2	"	132	38	29.071			519.9	(553.1)	
DOG, 1953 (WW)	"	"	54	45	14.582			450.9	(1404.4)	
TOM, 1953 (WW)	"	"	132	39	20.341			363.8	(709.3)	
			54	47	03.341			103.3	(1752.1)	
			132	36	27.399			489.7	(582.6)	
			54	48	16.851			521.1	(1334.3)	
			132	37	20.833			372.1	(699.6)	
			54	48	30.600			946.2	(909.1)	
			132	39	49.392			882.2	(189.5)	
			54	46	53.414			1651.7	(203.7)	
			132	30	25.375			453.5	(618.9)	
			54	46	48.600			1502.8	(352.5)	
			132	30	25.868			462.4	(610.1)	
			54	46	36.275			1121.7	(733.6)	
			132	30	12.142			217.0	(855.5)	

1 FT. = 3048006 METER

COMPUTED BY: H. R. Rudolph

DATE 10 December 1953

CHECKED BY: R. Glaser

DATE 16 Dec. 1953

COMPILATION REPORT
T-11302, 11304 & 11305

Field Report: Refer to the Photogrammetric Field Inspection Report,
S. E. Alaska, Cordova Bay - Prince of Wales Island, 1953,
U.S.C. & G. SS HODGSON, Franklin R. Gossett, Commanding.

31. DELINEATION

Graphic methods were used to delineate these manuscripts. The vertical projector was used in some areas to correct the scale of the photographs to manuscript scale.

In accordance with the compilation instructions, the area of survey T-11304 west of Cordova Bay was not compiled.

32. CONTROL *Also see page 19*

The density and placement of horizontal control was adequate.

33. SUPPLEMENTAL DATA

Film positives of the following graphic control surveys and accompanying descriptive reports were available in the area of these surveys:

- HO-A-1953
- HO-B-1953
- HO-C-1953
- HO-D-1953
- HO-E-1953

Portions of the MHWL were delineated at several control stations on these surveys and a large number of the signals that were located were noted as being on the MHWL. This information was used where possible in the delineation.

Elevations of rocks were also furnished on these sheets and were transferred to the manuscripts.

The geographic names standard dated 6 January 1954, was furnished on a copy of Chart No. 8145.

34. CONTOURS AND DRAINAGE

Contours - Inapplicable.

Drainage - No comment.

35. SHORELINE AND ALONGSHORE DETAILS *Also see page 19*

Only a small part of the MHWL was identified by the field party. The shoreline had to be interpreted under the stereoscope by analogy with the inspected portions. In areas of high sloping ledge it was

difficult to be positive of the shoreline delineation except where it was defined by the tree line.

Shadows obscured the eastern sides of the high wooded islands and where no positive image was visible on any photograph, the MHWL was shown with a broken line as an approximate or indefinite line.

No MLLW line was shown except to outline large exposed beach areas apparent on the photographs. It is believed the actual line will be farther offshore than shown.

The foul lines shown are the outer limits of rocky, kelp, or shallow areas that are visible on the photographs or delineated by the field party. Areas visible beyond those indicated by the field party were included.

36. OFFSHORE DETAILS

All offshore details visible on two or more photographs are shown on the manuscripts. In the large ledge areas it was difficult to interpret the areas above MHW to be shown with a shoreline.

37. LANDMARKS AND AIDS *Also see page 19*

Forms 567 are being submitted for one light and five daybeacons. The radially plotted positions of the daybeacons differed from the planetable positions by as much as 2 mm.

38. CONTROL FOR FUTURE SURVEYS *Also see pages 19, 20*

Forms 524 were submitted by the field party for four recoverable topographic stations. Forms 524 were not available for DAY, 1953 and JAR, 1953.

The radially plotted positions of the four stations differed by as much as 1 mm from the planetable positions.

39. JUNCTIONS

Junctions have been made and are in agreement between surveys and with surveys T-11300, T-11301, T-11303, T-11320 and T-11321 to the north and east. There are no contemporary surveys to the south and west.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41 - 45

Inapplicable

46. COMPARISON WITH EXISTING MAPS

The U.S.G.S. Dixon Entrance quadrangle scale 1:250,000, edition of 1951 was available in the compilation office but the information shown thereon is based on U.S.C. & G. S. charts.

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 8145, scale 1:40,000, published April 1943, corrected to 9/4/53.

Chart No. 8120, scale 1:20,000 (Hunter Bay) published August 1940, corrected to 8/6/51.

Items to be applied to nautical charts immediately:

None.

Items to be carried forward:

None.

Respectfully submitted
1 March 1954

Joseph W. Vonasek
Joseph W. Vonasek
Cartographer (Photo)

Approved and Forwarded

E. H. Kirsch
E. H. Kirsch,
Comdr. US&GS
Officer in Charge

August 25, 1970

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-117 (Alaska)

T-11302

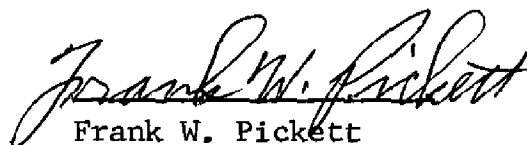
Anchor Island
Barrier Islands
Boat Rocks
Cordova Bay
Eureka Channel
Guide Rocks
Hunter Bay
Kelp Pass
Little Pass
Middle Island
Poe Island
Prince of Wales Island
Range Point
Rhea Rocks
Rocky Pass
Tah Bay
Tah Island
The Narrows
Turn Island
Turn Point
Wallace Rock

Approved by:



A. Joseph Wraight
Chief Geographer

Prepared by:



Frank W. Pickett
Cartographic Technician

August 25, 1970

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-117 (Alaska)

T-11304

Cordova Bay

Egg Passage

Egg Rock

Round Islands

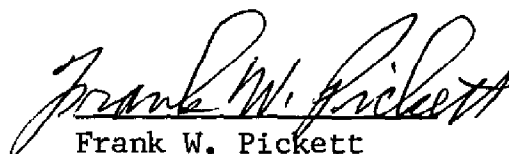
South Rocks

Approved by:



A. Joseph Wraight
Chief Geographer

Prepared by:



Frank W. Pickett
Cartographic Technician

August 25, 1970

GEOGRAPHIC NAMES

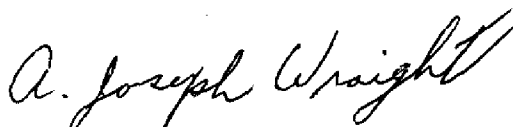
FINAL NAME SHEET

PH-117 (Alaska)

T-11305

Barrier Islands
Black Rock
Center Island
Center Island Reef
Cordova Bay
Dewey Rocks
Douglass Island
Egg Passage
Eureka Channel
Far Point
Hessa Island
Kelp Pass
Leading Point
Little Pass
Mexico Point
Middle Island
Prince of Wales Island
Rocky Pass
Round Islands
Thompson Passage

Approved by:



A. Joseph Wraight
Chief Geographer

Prepared by:



Frank W. Pickett
Cartographic Technician

T-11302, T-11304 and T-11305

NOTES FOR HYDROGRAPHER *Also see following page*

On graphic control survey HO-A-53, meridian 132° 30' 00" was ruled incorrectly resulting in the triangulation being plotted incorrectly in the vicinity of Round Islands. The effect on the positions of the hydrographic signals in this area could not be estimated.

A small portion of the shoreline as delineated on graphic control survey HO-D-53 southeast of HUNTER, 1909 differed from that delineated on the field photographs. The latter was shown on the manuscript.

Several hydrographic signals were identified on the field photographs. Where possible radially plotted positions were obtained for them; shown on the manuscripts as detail points. In some instances these positions differed from the planetable positions by 1 mm in various directions.

Where there were discrepancies in the elevations of rocks between the planetable and the field photographs - the photograph data was shown on the manuscripts.

Station BLACK 2, 1953 on graphic control, survey HO-A-1953 was plotted $\frac{1}{2}$ mm to the SW of its correct position.

PHOTOGRAMMETRIC OFFICE REVIEW

T- 11302, 11304, 11305

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

CONTROL STATIONS

- 5. Horizontal control stations of third-order or higher accuracy
- 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations)
- 7. Photo hydro stations
- 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. Glass 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.

E.L. WILLIAMS and J.B. PHILLIPS Compiler, Frank J. Hareza Supervisor

43. Remarks:

Review Report T-11302
Shoreline Mapping

September 1970

61. General Statement

The registration manuscript copy for T-11302 was made from the negative of the Advanced Manuscript. The original manuscript is lost.

Differences in some rock elevations were found between T-11302 and H-8066 (refer to Summary, "Rock Elevations"). These elevations were removed from T-11302. *page 7*

62. Comparison with Registered Topographic Surveys

Comparison was made with the following topographic surveys:

T-2331, dated 1897, 1:80,000 scale
T-2787, dated 1905, 1:40,000 scale
T-2976, dated 1909, 1:20,000 scale

These surveys are superseded for charting by T-11302.

63. Comparison with Maps of Other Agencies

Comparison was made with USGS Dixon Entrance (D-2), Alaska quadrangle, 1:63,360 scale, dated 1948. No differences of importance were found in the comparison.

64. Comparison with Contemporary Hydrographic Surveys

Photogrammetric survey T-11302 was used as a base for new hydrography. The following hydrographic surveys were used for comparison:

H-8066 (unverified), dated 1954, 1:10,000 scale
H-8067, dated 1954, 1:10,000 scale
H-8126, dated 1954, 1:10,000 scale

The agreement was good, except for the positions of some hydrographic signals that did not agree between T-11302 and H-8066.

(Refer to letters in this report.)

There are no field inspection photographs available at this time.

65. Comparison with Nautical Charts

Comparison was made with chart 8145, 1:40,000 scale, 5th Edition, dated October 25, 1965; revised July 17, 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

Donald M. Brant

Approved by,

Charles Stumm

Chief, Photogrammetric Branch *JSB*

Chief, Photogrammetry Division

Review Report T-11304
Shoreline Mapping

September 1970

62. Comparison with Registered Topographic Surveys

Comparison was made with the following topographic surveys:

- T-2331, dated 1897, 1:80,000 scale
- T-2787, dated 1905, 1:40,000 scale

These surveys are superseded for charting by T-11304.

63. Comparison with Maps of Other Agencies

Comparison was made with USGS Dixon Entrance (D-2), Alaska quadrangle, 1:63,360 scale, dated 1948. No differences of importance were found in the comparison.

64. Comparison with Contemporary Hydrographic Surveys

Photogrammetric survey T-11304 was used as a base for new hydrography. The following hydrographic surveys were used for comparison:

- H-8065a (unverified), dated 1954, 1:10,000 scale
- H-8066 (unverified), dated 1954, 1:10,000 scale

The agreement was good between the hydrographic surveys and T-11304.

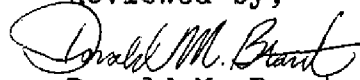
65. Comparison with Nautical Charts

Comparison was made with chart 8145, 1:40,000 scale, 5th Edition, October 5, 1965; revised July 17, 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

Review Report T-11305
Shoreline Mapping

September 1970

61. General Statement

The registration manuscript copy for T-11305 was made from the negative of the Advanced Manuscript. The original manuscript is lost.

Differences in some rock elevations were found between T-11305 and H-8066 (refer to Summary, "Rock Elevations"). These elevations were removed from T-11305. *page 7*

62. Comparison with Registered Topographic Surveys

Comparison was made with the following topographic surveys:

T-2331, dated 1897, 1:80,000 scale
T-2973, dated 1909, 1:20,000 scale

These surveys are superseded for charting by T-11305.

63. Comparison with Maps of Other Agencies

Comparison was made with USGS Dixon Entrance (D-2), Alaska quadrangle, 1:63,360 scale, dated 1948. No differences of importance were found in the comparison.

64. Comparison with Contemporary Hydrographic Surveys

Photogrammetric survey T-11305 was used as a base for new hydrography. The following hydrographic surveys were used for comparison:

H-8064 unverified dated 1953, 1:20,000 scale
H-8065a & b (unverified), dated 1953, 1:10,000 scale
H-8066 (unverified), dated 1954, 1:10,000 scale

Disagreement in positions of some hydrographic signals was found in comparing T-11305 with the unverified hydrographic surveys (refer to letters in this report). The signals shown on T-11305 were located by photogrammetric methods. They were identified and described on photography by the field party. No further check can be made because of missing data.

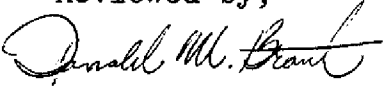
65. Comparison with Nautical Charts

Comparison was made with chart 8145, 1:40,000 scale, 5th Edition, dated October 25, 1965; revised July 17, 1967. No significant differences were found in the comparison.

66. Adequacy of Results and Future Surveys

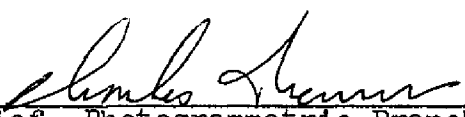
(Refer to Summary, Map Accuracy.) *page 6*

Reviewed by,



Donald M. Brant

Approved by,



Chief, Photogrammetric Branch ^{pd} Chief, Photogrammetry Division

SUPPLEMENTARY COMPILATION REPORT

Surveys T-11302, T-11304 & T-11305

27 Dec 1954

Refer to Photogrammetric Field Inspection Report for Surveys T-11293 thru T-11303, 1954 season, submitted by J. Bowie.

A list of correspondence relative to the area of these manuscripts is given in letter No. 711-aal, dated 4 November 1954, Subject: "Location of Photo-hydro stations on manuscripts T-11302 to 11305 inclusive, and T-11320 and T-11321, Project Ph-117. *Correspondence is filed at back of this report*

The radial plot in the area of Barrier Islands was relaid with new templets resulting in close agreement with the original plot. Small differences in the positions of some pass points (less than 1/2 mm.) can probably be explained by the fact that only a part of the original plot was relaid and, also, the difference in the condition of the office photographs after a season in the field. The new positions are indicated by the small red circles about 1 mm. and were used in cutting in the photo-hydro signals.

32. CONTROL

If any additional field work is done in this area consideration should be given to getting better identification for the following stations:

TITAN, 1909	did not hold in original radial plot.
LITTLE, 1909	did not hold in original radial plot.
PET, 1909	did not hold in original radial plot.
FAR, 1909	Direct pricking believed to be weak.
MEX, 1909	direct pricking believed to be weak.

35. SHORELINE

Minor shoreline changes were made at a few photo-hydro signals to fit the descriptions.

37. LANDMARKS AND AIDS

Form 567 is being submitted for the revised position of Eureka Pass Daybeacon (signal JAR). JAR was misidentified in the field in 1953. The image of the beacon is visible on photo 41017. It was repricked in the office and its position agrees more closely with the planetable position. FAR, 1909 was misplotted on the planetable sheet "B" by 0.3 mm N.E. The apparent discrepancy with the manuscript at JAR is decreased by holding to FAR, rather than the projection.

38. CONTROL FOR FUTURE SURVEYS

The positions on the Forms 524 for the following stations were changed to agree with the positions on the manuscripts.

TOMB, 1953	YAM, 1953
VIM, 1953	ZAG, 1953

Thirty photo-hydro stations were identified by the field party in 1953. The pricking of these stations on the office photographs was verified and the positions were cut in again holding to the positions of pass points as located in the check radial plot (small red circles). The positions of these identified photo-hydro stations are shown with red circles and names. A list of the signals is part of paragraph 49.

The hydrographic signals not identified by the field party were searched for on the office photos using the information concerning them in the correspondence or on the planetable sheets, and considering, also, the character of the images identified as signals by the field party. The planetable location transferred to the manuscript ^{to assist in identification} was used for an approximate location on the photos. The notes on the planetable sheets referring to the HWL etc., and the logical location for a signal were also considered before pricking a signal.

In many cases, several white rocks or images appeared close together. In such areas signals were usually not identified. Conversely, it is quite possible that in an area answering all requirements for a signal location, the lone white image that appeared there was not a signal at all. In several cases lone trees were identified chiefly because they make excellent signals, and it was assumed, perhaps incorrectly, that the hydrographer used them as a signal.

Some signals were readily identifiable or considered to be adequately identified and are indicated on the manuscripts in red ink. Those considered doubtful are indicated on the manuscript in green ink.

because there was no way to be absolutely sure of the office identification

Respectfully submitted
27 Dec. 1954

Joseph W. Vonasek
Joseph W. Vonasek,
Carto. Photo.

Approved and Forwarded

E. H. Kirsch
E. H. Kirsch,
Comdr. USC&GS
Officer in Charge
Balto. Photo. Office

T-11302, T-11305 & T-11321
NOTES FOR THE HYDROGRAPHER

The following thirty photo-hydro stations were identified by the field party in 1953:

IDENTIFIED

Name Photo

- ACE 40992 Approx. 54° 48.2', 132° 22.6'. Planetable is 1.1 mm. SW.
- ADD 40991 Planetable is 1.0 mm NW.
- AXE, 1953 40991
and 41017 Falls on survey T-11320. New plot changed the old position
by 0.6 mm. Planetable position is now 1.8 mm. W.
- CAB 41015 Guide Rocks Daybeacon. Planetable is 0.5 mm. SW.
- DAY 40991 Planetable is 0.7 mm. NE.
- EEL 40991 Planetable is 8.0 mm. N.
- IDA 40992 Planetable is 0.6 mm. S.
- JAP 41015 Planetable is 0.4 mm. SW.
- JAR 40992 Misidentified in the field. Image is visible on photo
41017. After reprojecting, position agrees closely with
planetable. FAR, 1909 was misplotted on sheet "B" by 0.3
mm. NE. The apparent discrepancy with the manuscript at
JAR is decreased by holding to FAR rather than the projec-
tion.
- KED 41015 Planetable position same as the manuscript position.
- LAD 41015 Planetable is 1.1 mm. W.
- LAM 40992 Planetable is 0.4 mm. W.
- MAG 41015 Planetable is 0.5 mm. WSW.
- MAL 40992 Planetable is 0.7 mm. SW.
- ODD 41018 Planetable position same as manuscript position.
- OFF 40992 Planetable is 1.5 mm. N.
- PAL 40992 Planetable is 0.6 mm. NE.
- PAW 40992 54° 48.3' 132° 24.6' Planetable is 1.1 mm S.
- RAT 40991 Planetable is 1.2 mm. E.
- TAP 40992 Planetable is 1.8 mm. SSW.
- TAX 40991 Planetable is 0.8 mm. N.
- TOM 40992 Planetable is 2.0 mm. SSE.
- TOMB, 1953
40989 Planetable is 1.5 mm. SE. Form 524 submitted.
- VAL 41015 Planetable is 1.1 mm. W.
- VAN 40992 Planetable is 2.0 mm. S.
- VIM, 1953
40991 Planetable is 1.7 mm. N. Form 524 submitted.
- WAG 40992 Planetable is 1.8 mm. SSE.
- WAN 40992 Planetable is 1.0 mm. E.
- YAM, 1953
40991 Planetable is 0.5 mm. S. Form 524 submitted.
- ZAG 40991 Planetable 1.1 mm. SW. Station is Center Island Reef
Daybeacon. Also, Form 524 submitted.

T-11302, T-11305 & T-11321
NOTES FOR THE HYDROGRAPHER

Eighty-three office identified signals are listed with notes concerning their identification:

<u>NAME</u>	<u>QUALITY OF IDENTIFICATION</u>	<u>COMMENT</u>
ACE	Doubtful	54° 45.7', 132° 20.3'. Pinnacle rock at HWL.
AHA	"	Pass point is possible white wash.
ALP	"	High point. Possible white wash.
ANN	"	Whitewashed rock at end of point.
ARM	"	High point on rock extending to HWL.
BAT	Adequate	Point pricked agrees with sextant angle from NED.
BED	Doubtful	Pass point. Possible signal on photos, 40985 and 40986. Doubtful because is on inshore edge of island.
BIB	Adequate	See possible signal on 40990.
BUT	Doubtful	Large white pinnacle rock. Whitewash?
CAB	Adequate	54° 45.5', 132° 21.8'. Possible whitewash visible on 41016 and 41017.
CAW	"	Very small lone rock.
COO	"	Prominent rock on small island.
COP	Doubtful	54° 45.3', 132° 21.7'. Possible whitewash on 40990 and 41017.
COF	"	54° 49.1', 132° 27.1'. Pass point looks like signal. Very prominent rock at center of small island.
CUE	Adequate	Planetable position is 0.8 mm. S. of lone rock. Survey T-11321.
CUR	"	Possible whitewash visible on 40990 and 40991.
DEB	Doubtful	Sextant angle from NED checks the point selected on photos 40985 and 40986 as possible signal.
DIM	"	Possible whitewash.
DIP	"	" "
DIX	Adequate	Large white rock.
DOC	Doubtful	Possible signal pricked.
ELM	"	Possible signal pricked.
EMO	"	Possible whitewash.
ERG	"	Whitewashed rock, end of point.
FAT	Adequate	Prominent rock, whitewashed.
FIG	"	Possible whitewash.
FIN	Doubtful	Large lone tree on end of point. Seen on 40990 and 40991.
FRY	Adequate	This is a tree on top of center of island as described in letter of G.W.M. dated 22 Oct. 1954.
GET	Doubtful	Prominent rock at center of small island, 10 x 20 meters.
GEO	"	Prominent rock, whitewash.
GIN	Adequate	Planetable position is 1.6 mm. S. of lone rock. Survey T-11321.
GOB	"	Letter of G.W.M. dated 22 Oct. 1954, states pass point is the signal. Field Photo. 40990 shows a probably whitewash about 0.2 mm. east of pass point.

<u>NAME</u>	<u>QUALITY OF IDENTIFICATION</u>	<u>COMMENT</u>
GOT	Doubtful	Possible whitewash at end of point.
HAG	"	Possible whitewash.
HAT	Adequate	Probable signal.
HER	Doubtful	Prominent rock at end of point. Possible whitewash.
HEX	"	Possible whitewash.
HIS	"	Possible whitewash on small rock (20m. greatest dimension).
HOW	Adequate	Prominent whitewash rock on HWL. This is a pass point.
ICE	Doubtful	Possible whitewash seen on 4105 and 41018.
ION	"	54° 47.7', 132° 20.5'. Possible signal.
ION	"	54° 46.3', 132° 21.8'. Possible whitewash rock visible on 40991 and 41016.
IVY	"	Possible whitewash on small lone rock (10 m. diameter).
JAY	Adequate	No comment.
JAW	Doubtful	Possible whitewashed rock visible on 41016 & 41017.
JOB	"	Possible whitewash at north end of rocky island.
JOY	"	Possible whitewashed rock visible on 40990 and 40991.
LIP	Adequate	Lone rock, most southerly of group above HW.
LUX	3rd order	Third order position available for this signal. (Round Islands).
MAN	Doubtful	Possible signal seen on 40990 and 40991.
MAX	"	Pinnacle rock. Whitewash is questionable.
MET	"	End of small island (25 x 20 m).
MOP	"	Whitewashed rock HWL.
NAT	"	54° 45.6', 132° 20.5' Pinnacle rock at HWL on 40990 and 41017.
NAT	"	54° 48.5', 132° 22.4'. Whitewashed rock at HWC.
NED	3 pt fix	Plotted using three triangulation stations. <i>and check angles *</i>
NEO	Doubtful	Possible whitewash on 40991 and 40992.
NEW	"	Possible whitewash on rock at middle and end of point.
NIG	"	Possible whitewash rock seen on 40991 and 41016.
NIX	Adequate	Lone rock.
NUT	Doubtful	Rock at HWL seen on 40990 and 41017.
OAR	Adequate	High rock at center of small island.
OIL	Doubtful	Possible signal.
OLD	"	SW end of high rock.
PAW	"	54° 45.4', 132° 20.5'. Pinnacle rock at HWL on 40990 and 41017.
PEG	Adequate	Possible whitewash.
PIT	Doubtful	Possible whitewash end of point.
REV	Adequate	Lone rock.
RIG	Doubtful	54° 48.7', 132° 25.3'. Large Prominent rock.
RIG	3rd order	54° 47.2', 132° 29.9'. Third order position available.
RIM	Doubtful	Possible signal.
RIO	Adequate	Possible whitewash.
ROT	3rd order	Third order position available. T-11321.
SAL	Doubtful	Prominent round knob.
SAM	"	Possible signal.
SIP	Adequate	Planetable position is 0.8 mm. S. of lone rock. Survey T-11321.

* Plotted from *six* angles and check angles given in letter of Oct. 12. Fix appears good. Also checked the delineation of wharves. Signal is on one side rather than in center of small peninsula as related in letter of *Feb. 22, 1952*. 2.5

<u>NAME</u>	<u>QUALITY OF IDENTIFICATION</u>	<u>COMMENT</u>
SUE	Adequate	54° 45.9', 132° 20.7'. Possible signal on 40991.
SUE	"	54° 49.1', 132° 22.8'. Probably same rock as sub. point CLEO, 1909 - 1953.
TOY	"	Possible whitewash on 40993 and 40985.
USE	"	South end of small lone rock.
VET	"	See signal on 40985 and 40986.
VIA	Doubtful	Possible whitewash.
WHY	Adequate	Possible signal seen on 40985 and 40986.
YEA	"	Lone rock. Only one in vicinity of planetable position.
ZIG	Doubtful	Probable signal seen on 40992 and 40993.
ZOO	"	Most likely spot on small point along a straight stretch of shoreline.

The remainder of approximately 200 signals on planetable sheets "A" and "B" not appearing on these manuscripts could not be identified in the compilation office.

During the 1954 season, the following signals in the northeast part of survey T-11302 were located and are shown on the manuscript in red:

BEE	ELF	NEW
BEN	LOG	PIE
DOE - Sextant fix plotted using signals ADD and CAT from the planetable location of 1953. Check angle ADD to IDA should have read ADD to FAR.		

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711-aal

4 November 1954

To: Officer-in-Charge
U. S. Coast and Geodetic Survey
Baltimore Photogrammetric Office
518 East 32nd Street
Baltimore 18, Maryland

Subject: Location of Photo-hydro stations on manuscripts
T-11302 to T-11305 inclusive, and T-11320 and
T-11321, Project Ph-117.

- Reference:
- (1) Supplemental Instructions - Project Ph-117, Cordova Bay, Alaska (Office) dated 11 October 1954.
 - (2) Ltr. from Northwestern Dist. dated 22 Oct. 1954; subject, Surveys by HODGSON in 1953 Field Season.
 - (3) Ltr. from Northwestern Dist. dated 18 Oct. 1954; subject, Surveys by HODGSON in 1953 Field Season.
 - (4) Ltr. from Northwestern Dist. dated 12 Oct. 1954; subject, Surveys by HODGSON in 1953 Field Season.
 - (5) Bureau Ltr. to Northwestern Dist. dated 7 Oct. 1954; subject, Surveys by HODGSON in 1953 Field Season.
 - (6) Ltr. from Northwestern Dist. dated 22 Sept. 1954; subject, HODGSON 1953 Hydrographic and Graphic control sheets.
 - (7) Bureau Ltr. to Comdr. F.R. Gossett dated 3 Mar. 1954; subject, Registered Surveys HO-A (1953) and HO-D (1953), scale 1:10,000, Cordova Bay, Alaska.
 - (8) Instructions, Project Ph-117, Cordova Bay, Alaska (Office) dated 7 Dec. 1953.
 - (9) Layout of Hydrographic Sheet.

1. A check of the radial plot in this area, and the location of photo-hydro stations formerly located by graphic control shall be accomplished as part of the first priority work called for in reference (1). A file of the above references is forwarded herewith. This file explains the difficulty encountered in plotting the smooth hydrographic sheets and the need for relocating graphic control stations in this area by the photogrammetric plot insofar as these stations can be identified. The enclosed file shall be returned to the Washington Office with the manuscripts.

2. Graphic control surveys, HO-A(53), HO-B(53), HO-C(53), and HO-D(53) were available when the photogrammetric manuscripts were compiled. Apparently the radial plot could not hold the graphic control stations that had been identified. This was mentioned orally, but was not discussed in the Descriptive Reports for the photogrammetric manuscripts. It appears from the above references that the planetable surveys are in error and it is necessary to relocate photogrammetrically as many of the planetable stations as can be identified. However, you will first examine the original radial plot to be sure that it was rigidly held to the identified triangulation stations; otherwise, it should be relayed if you have any question about it. We have no specific evidence to doubt the radial plot, but should make certain of its strength before assuming that all or most of the errors involved are due to the planetable work.*

3. The relocated photo-hydro stations shall be shown with colored circles and named on the manuscripts. The following sources of identification for the graphically located control signals are available:

- (1) Some were field identified on the field inspection photographs, and in some cases, supplemented by sextant fixes which are recorded on the back side of the photographs.
- (2) Some of the stations were located, i.e., white washed or flagged prior to photography, and may be imaged on the photographs. (see reference (2)). Graphic control positions will show where to look for them.
- (3) Some of the stations are sufficiently well described in the above references to warrant positive office identification, i.e., on rocks awash, etc.
- (4) Some were located by sextant fixes, but were not identified on the photographs. They can be plotted from the sextant fixes provided the fixes are on triangulation stations or on stations located by the photogrammetric plot. Graphic control stations should not be used for the sextant fixes unless the stations are proved correct by the plot.

Photogrammetrically located stations wherein you consider their identification to be positive shall be circled in red. The location of those stations where you feel the identification or sextant position to be correct, but about which you cannot be positive should be circled in green.

4. Reference (2) gives considerable information about identification of stations. Paragraph 7, page 2 of Reference (2), is not entirely clear to me. I think it means that the field party prefers that the sextant position on backs of field photographs be used in place of the field identification where we have both for the same station. The next to the last paragraph, Page 2 of Reference (2), will not be resorted to as yet. Later in your work if you can spare photographs of the area and want to ask for this identification by Commanders Gossett and Hicks, we can try.

The graphic control surveys have notes relating signals to the high water line and they may be useful in identifying stations.

5. Reference (4) gives new triangulation or sextant positions for some of the stations as determined during the 1954 season. The sextant fixes and approximate triangulation positions should be plotted and used to assist in the location of stations or to check the photogrammetric location.

6. Please keep in touch with me on this work. I want to come to Baltimore, or have Mr. Jones come over, after you get into it far enough to know what we can do.

L. W. Swanson, Chief,
Div. of Photogrammetry

cc: 73,78,711

*On second thought I am a little afraid that you may have warped your radial plot in attempting to hold the graphic control stations, and you should consider this possibility when you examine or check the plot.

L.W.S.

(2)

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
NORTHWESTERN DISTRICT HEADQUARTERS
705 - FEDERAL OFFICE BUILDING
SEATTLE 4, WASHINGTON

REFER TO FILE: C-12
GWM/et

1954 OCT 29 AM 9:43 October 1954.

To: The Director
U. S. Coast & Geodetic Survey
Washington 25, D. C.

Thru: The Supervisor, Northwestern District C.P. (V)

Subject: Surveys by HODGSON in 1953 Field Season

This refers to letters 22 September, 7, 12 and 18 October on this subject. This letter is a specific answer to paragraph 6 of Director's letter 22/MEK, D-1-W of 7 September. *october*

A conference was held this day between Commanders Gossett and Hicks and members of the Processing Office. Members of the crew of the HODGSON were not consulted because the officers of the ship were of the opinion that no useful information could be obtained from them. The other two officers that were on the HODGSON, namely, Campbell and Glover were not available for this conference.

In general the signals along the south side of the Barrier Islands are white washes or cloth covered tripods and should show up on the photographs. Those on the northern side are generally smaller and are likely not to show.

The fact that the relationship between FAR, 1909 and JAR on graphic control Sheet B and manuscript T-11305 is different may indicate a source of trouble on signal locations either on the manuscript or on the graphic control sheet. Comdr. Hicks feels that FAR is in the wrong place as to shoreline on the manuscript. He believes the station is right close to the shoreline. The surf washed over and knocked down the first pole that was put up. JAR and possibly FAR, 1909 should show on the 9-lens photos.

Signals WAN, LUX, BAH, WAG and TAP are believed not to be the detail point which plot close by.

Signals YEA, CUE, ONE, SIP, GIN are the rocks that plot in close proximity.

Signal BOB was put in after the photos were taken.

The graphic location of AXE is not very good.

Signal GOB is probably the pass point that plots nearby.

Signal NED is about in the center of small peninsula in the vicinity. *This has been plotted on the manuscript from the resection points given in attached letter of 12 October. Rechecked position looks good (has angles) and direction of approach has been checked. Signal falls to one side rather than in center of peninsula.*
Signal ROT is at the detail point that plots nearby.

Where angles are shown at a signal these angles are the authentic data and are to be used in preference to the plotted position.) ?

Signal ODD is the high point of the center of small island and it is a white wash.

Signal LAM is the center of a rock and it was not white washed.

Signal FRY is a tree on the high point and at about the center of the island.

Signal ODD should show well upon the photos.

Signal OFF should show on the photo's near the west side of a small rock.

Triangulation station BLACK was located after the middle of the season.

Commanders Gossett and Hicks because of their first hand knowledge of the area might be able to office identify a number of hydro signals on the photographs that someone not familiar would not be able to do.

The HODGSON in the 1954 season moved some of the 1953 season signals in the vicinity of junctions. Fortunately they did not move any that were actually used in the 1953 hydrography.

Glenn W. Moore
Glenn W. Moore
OIC, Seattle Processing Office

Handwritten notes and initials:
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U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
NORTHWESTERN DISTRICT HEADQUARTERS
705 - FEDERAL OFFICE BUILDING
SEATTLE 4, WASHINGTON

3

OCT 19 PM 4 34

18 October 1954.

REFER TO FILE: C-12
GWM/et

VIA AIR MAIL

To: The Director
U. S. Coast & Geodetic Survey
Commerce Building
Washington 25, D. C.

Through: The Supervisor, NW District

Subject: Surveys by HODGSON in 1953 Field Season

This refers to letters 22 September, 7 October and 12 October on this subject.

Transparencies of the HODGSON 1953 graphic control sheets have been compared with transparent manuscript copies.

A number of detail points fall near hydro signals. This office wonders if it is possible that some of these detail points could possibly be hydro signals that are displaced either on the graphic control sheets or upon the manuscripts.

The circles for detail points and photo hydro signals are the same size on the manuscripts. The photo hydro signals are identified by name and year. A number of photo hydro signals are displaced either upon the graphic control sheets or upon the manuscripts. A number of detail points by virtue of position or descriptive data are unidentified photo hydro signals and are displaced either upon the graphic control sheets or on the manuscripts.

The comparison between the graphic control sheets and the manuscripts with no reference to the hydrography leads one to suspect the location of the following list of signals. Several of these signals were listed as questionable signals in letter of 12 October 1954. They are identified by name on the graphic control sheets.

JAR ✓	VIM ✓	BOB	BAH
YAM ✓	ADD ✓	GET ✓	RAM
OFF ✓	BED ✓	BIB ✓	PAR
WAG ✓	WAN ✓	CAW ✓	AXE ✓
TAP ✓	LUX ✓	WAR	CUE ✓
VAL ✓	YEA ✓	YES	GIG
ZAG ✓	LEG	MAL ✓	SIP ✓

GOB ✓
GIN ✓

IVY ✓
TRY

PAD
DOG

ONE



for Glenn W. Moore
OIC, Seattle Processing Office

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
NORTHWESTERN DISTRICT HEADQUARTERS
705 - FEDERAL OFFICE BUILDING
SEATTLE 4, WASHINGTON

OCT 15 AM 9 39

12 October 1954

REFER TO FILE: C-12
GWM/et

(A)

VIA AIR MAIL

To: The Director
U. S. Coast & Geodetic Survey
Washington 25, D. C. *WJG*

Through: The Supervisor, NW District *CP*

Subject: Surveys by HODGSON in 1953 Field Season *CP*

In compliance with the 4th paragraph of your letter file 22/MEK, D-1-NW, 7 October 1954, there follows a list of questionable signals and approximate locations;

	Lat.	Long.	
NED ✓	54 46.60	132 24.33	
OFF ✓	46.98	24.72	
DEB ✓	46.20	25.65	
LIP ✓	44.80	21.65	
BED ↑	47.37	28.06	
EBB	47.24	27.67	
BAT ✓	46.88	27.18	
CAR	46.77	26.62	
YEA ✓	46.48	26.72	
PAL ✓	47.27	24.72	
JUG	46.48	29.42	
FED	46.56	29.37	
ACT	46.59	29.22	
ART	46.68	29.77	
CRY	46.95	29.89	
CAT	47.05	29.45	
AXE ✓	47.30	19.97	and signals in this vicinity
RAM	52.7	21.8	
BAG	49.6	21.0	
SOW	49.7	20.45	
BAY	51.4	20.8	
EST	46.98	30.06	
DUD	46.96	30.07	
OWL	46.74	30.18	
KIM	46.89	30.34	
FRO	47.18	29.98	
WHY ✓	48.0	28.6	
NIL	48.7	28.1	
ALP ↑	47.3	28.7	
BED ↑	47.5	28.1	

	Lat.	Long.
LEG	54 48.8	132 28.8
RIO	48.5	27.7
SIC	48.2	27.5
TOY	48.0	27.5
JOB	49.3	28.7
ARM	47.7	27.7
BUM	46.8	29.6
BAH	53.4	23.6

The cartographer of sheet H-8065 suspects all signals west of Longitude 132-21-30, some of which are included in the list of questionable signals preceding.

Recently the HODGSON was requested to obtain a firm location of NED. Angles taken at NED follow:

MEX	1909	80 45
BLACK 2	1953	17 12
DEWEY 2	1953	
BLACK-DEB		19 40
" -CAR		55 12
" -BAT		57 42
" -OFF		108 49
LAM-BLACK		109 42

The position of NED computed from the 3-point fix is Lat. 54-46 plus 1122.9 meters; Long. 132-24 plus 1123.0 meters, which is considerably different from the graphic control sheet location.

September 22, 1954 a wire was sent to the HODGSON requesting firm locations of DEB, LIP and BAH. This information has not been received. Perhaps the field work was done and the ship is bringing the information down.

In Volume 9 of sheet H-8065 the hydrographer took some angles at BUM as follows:

EBB	DEP	35-09
LEG	ARM	43-01
ALP	EBB	30-48
EBB	BLACK	42-24
BAT	EBB	18-10

Reference sheet H-8066 the hydrographer took a round of angles at BAY, page 43, volume 3:

SOW	10-05
RHEA	44-47
CREEK	
RHEA-BAG	01-52
" -CAB	07-10

RHEA-CLEO 22-45
 " -NAY 58-50
 " -BIRD 108-41
 " -CREEK 111-43

The officers and men familiar with the field work will be consulted concerning the approximate positions of the questionable signals in relation to the surrounding terrain when the HODGSON returns to Seattle.

There are discrepancies between the graphic control sheets and the shoreline manuscripts. There are several places where detail radial points on the manuscript differ from the graphic locations of objects which could only be the same point. For instance a rock at 54-48.95, 132-26.50 on which CAW is located, about 20 meters difference E&W. A rock at 54-49.5, 132-24.65 on which MAL is located, about 20 meters difference N&S. Apparently all of the "dated" points on the manuscripts vary from the control sheet locations by varying distances and directions. It appears that the graphic control sheets and the air photo plot were not compared in the office. The smooth sheets were well advanced prior to the receipt of the manuscripts.

There seems to be some question about Triangulation Station PET 1909 on the manuscripts. There are two dots inside the triangle and a note "Radially plotted position" perhaps referring to the SE'ly dot.

Glenn W. Moore
 Glenn W. Moore
 OIC, Seattle Processing Office

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70 fws
71 MUR
711-51
22/MEX
D-1-NW

7 October 1954

AIR MAIL

To: Supervisor, Northwestern District
U. S. Coast and Geodetic Survey
705 Federal Office Building
Seattle 4, Washington

(45)

Subject: Surveys by HODGSON in 1953 Field Season

HO-A 19

This is in reply to letter of 22 September 1954 from the Officer in Charge of the Seattle Processing Office on the same subject.

The HODGSON was instructed to locate hydrographic signals with graphic-control surveys during the 1953 field season because adequate photographs for the location of signals by photogrammetric methods were not available prior to the beginning of the field season. Nine-lens photographs of the project area were obtained during the summer of 1953 and were immediately sent to the HODGSON for use in field inspection of control stations. During the field inspection a few of the hydrographic signals were located on the photographs in addition to the control stations.

We will have work to do here.

During the winter of 1953-54 shoreline maps were compiled for the area in which the HODGSON worked during the 1953 field season. With the photographs and maps now on hand it is a simple matter to locate signals by photogrammetric methods if they have been field-inspected on the photographs.

If this office had been informed of the difficulty the Processing Office was having with the signals on the HODGSON'S surveys, some of the signal positions could have been rectified by the use of data now available in this office, and the remainder of the discrepancies could have been resolved by having the HODGSON locate questionable signals on the photographs during the past field season. The latter would have taken a relatively short period of time and would have eliminated the present situation.

Processing the 1953 HODGSON surveys shall be suspended pending further word from this office. It is possible that the information available in this office will permit better locations for some of the questionable signals. In order to make these locations we will need to know which signals are in question, and to have available any information concerning these signals that may be in the hydrographic records. The approximate positions of the questionable signals should be furnished to assist in the location of the signals on the graphic-control sheets.

- 2 -

It will be helpful if information can be obtained from officers and men familiar with the field work concerning the approximate position of the questionable signals in relation to the surrounding terrain. What is desired is information that will help the office compiler to locate the signals on the photographs.

The information requested in this letter shall be furnished at an early date.

(Signed) R.F.A. Studds

Director.

cc. Chief, Photogrammetry Division
Commanding Officer, Ship HODGSON

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY
NORTHWESTERN DISTRICT HEADQUARTERS
705 - FEDERAL OFFICE BUILDING
SEATTLE 4, WASHINGTON

22 September 1954

REFER TO FILE:

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22 OCT 4 - 1954
HRT

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To: The Director
U. S. Coast and Geodetic Survey
Dept. of Commerce Bldg.
Washington 25, D. C.

Through: Supervisor, NW District

Subject: HODGSON 1953 Hydrographic and Graphic control sheets

The purpose of this letter is to explain the delay in the plotting of the subject hydrographic sheets, some of the problems that have been confronted with, the way some of them have been resolved and how it is proposed to resolve problems that have recently come up.

During February a cartographer was assigned the smooth plotting of H-8065. After the signals had been plotted on the smooth sheet, a comparison with the boat sheet revealed that DEWEY 2 was erroneously plotted on the boat sheet. The signal was plotted to the westward of meridian 132° 29' 00" and should have been plotted to the eastward.

Director's letter 71-aal, 3 March 1954, pointed out a blunder in the construction of the projection on graphic control sheet HO-A(1953). Upon discussion and advice of the topographer, the cartographer made an adjustment of eight hydrographic signals, the average movement was about eight meters. It was an arbitrary adjustment done as suggested by the topographer. After this adjustment about 300 positions were replotted on the smooth sheet to conform. The adjusted plot was better.

When the cartographer began the plotting of lines in Eureka Channel he noticed that the lines would not run on time and course and would not make good crossings. Upon examining the boat sheet he discovered that the recorded positions as shown in the record would not plot on the boat sheet. The cartographer pointed out this difficulty to the officer in charge and asked for help. The officer in charge after thoroughly examining the difficulty decided that he and the cartographer should ask the help and advice of the ship's officers who did the work. A conference was held with the Commanding Officer and Executive Officer of the Ship HODGSON. The difficulty was not resolved at this conference.

22 September 1954

The Washington Office had instructed the ship to run splits in the general area and the ship's officers decided to run additional hydrography in Eureka Entrance, hoping that this new hydrography would resolve the difficulty.

When the cartographer smooth plotted this 1954 hydrography very similar jumps in hydrography and poor crossings were still present. This fact indicated that the difficulty was not in hydrography but in the signal locations. By this time the sheet was about 98 percent smooth plotted.

The cartographer tried to analyze the work to determine which signals might be in error and could not come to any definite conclusion but strongly suspected signal NED. The cartographer was instructed to complete the plotting, adjusting as best he could. The sheet was completed in this manner and the adjustments necessary were completely described in the Processing Office notes.

The comparison between H-8065 and H-8064 showed disagreement in the area principally off Eureka Channel. The comparison indicated that station NED was in error. The Supervisor sent a telegram to the HODGSON requesting a firm relocation of the signal. The relocation of NED changes the position about 30 meters. An extra angle taken at NED to signal OFF misses that signal about 15 meters. This gives reason to suspect that OFF is out of position about the same distance as NED. The Supervisor has sent a telegram to the HODGSON requesting rounds of angles and firm locations of OFF as well as for two other suspected signals DEB and LIP.

Sheet H-8065 as it stands today is completely smooth plotted using one and perhaps several incorrect signals. The junction with H-8064 is unsatisfactory. There are about 800 positions that involve NED that will have to be replotted. In addition there are several hundred other positions that will have to be replotted because of adjustments made by the cartographer for agreement in time and course, crossings, etc. It is the cartographer's opinion that the most economical and satisfactory solution is to make a new smooth sheet and replot some 2500 positions of the western half of the sheet. Already over 800 hours have been spent in the attempted plotting of this sheet and the numerous errors that have been found makes the writer suspect that there are others. It is believed that graphic control sheets A, B, and C are not up to the usual Coast Survey standards for this type of work.

Work on H-8065 has been temporarily suspended pending relocations of OFF, DEB, and LIP and advice from your office.

Sheet H-8064 which is a 1:20,000 ship sheet was plotted without much difficulty. Ten graphic control signals are common with H-8065 as follows: LIT, ODD, JAR, DEB, BAT, EBB, RIG, ACT, and LUX.

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Many of these were used only a few times. Nothing developed during the plotting to indicate any of these signals to be out of position. The sheet has been completed and forwarded to your office.

Sheet H-8067 has been smooth plotted. The Director's letter formerly referred to in this letter pointed out the incorrect plotting of triangulation station KLINK, 1909 on HO-D. The Commanding Officer of the Ship HODGSON made no mention of this in his reply. There is a difference in the location of BAH on HO-E and HO-D of about 15 meters. The Supervisor has wired the HODGSON requesting the checking of this signal.

There were some discrepancies on this sheet that were resolved by rejecting some angles on signals BAH and RAM.

Graphic Control sheets A, B, and C are not within the area of this sheet.

The smooth plotting of H-8066 has progressed to the point where difficulty has been encountered with signals from graphic control sheet HO-A. A series of detached positions on rocks have check angles that do not agree varying from about 25 minutes to 2 degrees. Directions from these positions to rocks located by topography do not agree. These discrepancies have not been resolved. It is quite probable that there are some signals in error in the northern part of graphic control sheet HO-A. At this writing there is nothing to indicate that the northern portion of graphic control sheet HO-B is in error. It is believed that H-8066 will be plotted without to much difficulty.

Sheet H-8065 has been and is yet the problem sheet. One way to solve it, certainly the surest way, perhaps the most expensive way, would be to check the locations of the graphic hydro signals, first. The season is fast drawing to a close and there is little possibility of accomplishing that this year. Another way is to go ahead and replot that part of the sheet which is affected by the changed locations.

Glenn W. Moore
Glenn W. Moore
OIC, Seattle Processing Office

cc: CO, HODGSON

1st Indorsement Northwestern District 1 September 1954
To: Director, U.S.Coast and Geodetic Survey, Washington, DC

1. Forwarded with request for comment and advice.
2. Upon arrival of the Hodgson and additional information on correctness of positions of signals CFF, DEB and LIP, you will be advised.

Charles Pierre
Charles Pierre
Supervisor NW District

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

COAST PILOT SECTION

NONFLOATING AIDS ~~FOR~~ **REVISIONS** FOR CHARTS

TO BE CHARTED
~~TO BE DELETED~~

STRIKE OUT ONE

Baltimore, Maryland

February

19 54

I recommend that the following objects which have ~~been~~ been inspected from seaward to determine their value as landmarks be charted on ~~charts~~ the charts indicated.

The positions given have been checked after listing by R. Glaser

E. H. Kitchin
E. H. KITCHIN
Chief of Party

STATE	ALASKA	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION						METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
					LATITUDE #		LONGITUDE #		DATUM							
					°	'	°	'								
			Guide Rocks Daybeacon	CAB	54	49	34.67	1072	132	21	N.A.	1927				8145
			Turn Island Daybeacon (TURN 1909)	TURN	54	52	09.694	299.8	132	23	"	"				8120, 8145 & 8147
			Hunter Bay Daybeacon		54	52	24.58	760	132	20	"	"				8120 ✓ 8145 & 8147
			ROUND ISLANDS LIGHT		54	46	43.114	1333.2	132	30	"	"				8145 & 8147
			Eureka Pass Daybeacon *	JAR	54	46	53.91	1667	132	23	"	"				8145
			Center Island Reef Daybeacon	ZAG	54	48	10.02	310	132	22	"	"				8145
			* See new Position													

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

