Original

9621

9621

FORM C&GS-504

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

DESCRIPTIVE REPORT

Type of Survey Shoreline (Photogrammetric)

Field No. *Office No.* T-9621

LOCALITY

State Alaska

General locality Prince of Wales Island

Locality Protection Head to East Rock

1953-1954

CHIEF OF PARTY

Curtis LeFever, Chief of Field Party
E. H. Kirsch, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE

USCOMM-DC 37022-P66

DATA RECORD

T-9621

Project No. (II): Ph-87 Quadrangle Name (IV):

Field Office (II): Ship LESTER JONES Chief of Party: Curtis LeFever

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

Instructions dated (II) (III):
Office: 17 Dec. 1953
6 Aug. 1954
Field: 28 Dec. 1953

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): 1.0

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

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

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

Geographic Datum (III): 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): SUMNER 2, 1915 - 1927

Lat.: 56° 21' 33.952"(1050.2m) Long.: 133° 36' 58.884"(1011.1m) Adjusted
~~Unadjusted~~

Plane Coordinates (IV): State: Zone:

Y= X=

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

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

M-2618-12(4)

DATA RECORD

Field Inspection by (II): Howard A. Garcia — Date: June 1954 thru Oct. 1954

Planetable contouring by (II): None — Date:

Completion Surveys by (II): None Refer to page 24 of this report. SGB — Date:

Mean High Water Location (III) (State date and method of location): 1953, date of photography Field Inspection (1954)

Projection and Grids ruled by (IV): A. Riley — Date: 12/21/53

Projection and Grids checked by (IV): H. D. Wolfe — Date: 12/29/53

Control plotted by (III): J. Steinberg — Date: 9/8/54

Control checked by (III): E. L. Williams — Date: 9/24/54

Radial Plot or Stereoscopic Control Extension by (III): E. L. Williams — Date: 9/30/54

Stereoscopic Instrument compilation (III): Planimetry — Date:

Contours — Date:

Manuscript delineated by (III): J. B. Phillips — Date: 10/18/54

Photogrammetric Office Review by (III): R. Glaser — Date: 10/25/54

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

Camera (kind or source) (III): U.S.C. & G. S. nine-lens, 8¼" focal length

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
41618 - 41624	8/22/53	1245	1:10,000	10.8' above MLLW
41553 - 41554	8/22/53	1129	1:10,000	10.4' above MLLW

Tide (III)

From predicted tables:

Reference Station: SITKA, ALASKA

Subordinate Station: Port Protection

Subordinate Station:

Diurnal

Ratio of Ranges	Mean Range	~~Spring~~ Range
	7.7	9.9
1.4	10.4	12.7

Washington Office Review by (IV): Leo F. Bevgnet, Atlantic Marine Center Date: May 1968

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): 3.2 sq. mi.

Shoreline (More than 200 meters to opposite shore) (III): 16.0 mi.

Shoreline (Less than 200 meters to opposite shore) (III): 1.5 mi.

Control Leveling - Miles (II): none

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

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

Number of Recoverable Photo Stations established (III): * see below

Number of Temporary Photo Hydro Stations established (III): 80

Remarks:

*Ten triangulation stations were established, and identified in 1954.

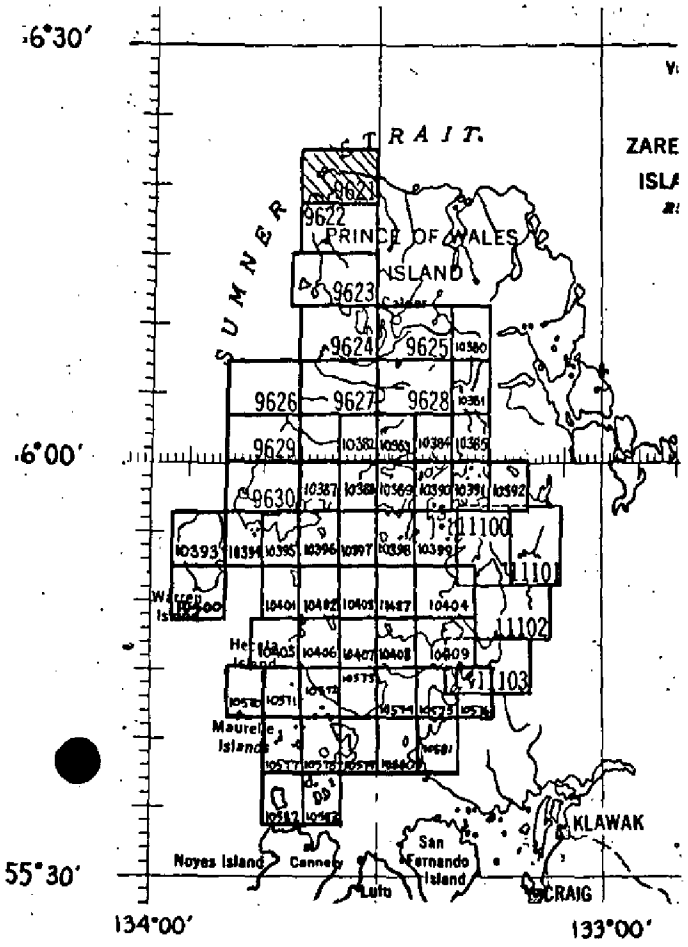
* Refer to page 8, heading 3; page 22 heading 38; Page 23 A, heading 49. 150

T-9621

COMPILATION RECORD	COMPLETION DATE	REMARKS
Compiled (ADVANCE)	October 1954	SUPERSEDES
Final Review	April 1968	

SHORELINE MAPPING PROJECT PH- 87

Prince of Wales Island, Alaska



Project Ph-87
Official Mileage for Cost Accounts

Sheet No.	Area Sq.Mi.	Lin. Mi. Shoreline
9621	12	10
9622	16	11
9623	15	7
9624	17	12
9625	21	11
9626	4	5
9627	15	15
9628	14	2
9629	5	6
9630	7	6
11100	32	16
11101	9	8
11102	18	10
11103	16	15
10380	6	4
10381	5	10
10382	8	2
10383	6	8
10384	7	5
10385	4	8
10386	9	1
10387	6	7
10388	3	6
10389	7	12
10390	6	16
10391	4	12
10392	8	7
10393	12	10
10394	2	4
10395	5	8
10396	2	4
10397	1	1
10398	3	5
10399	4	11
10400	6	8
10401	1	2
10402	2	3
10403	3	6
11427	1	1
10404	5	10
10405	2	2
10406	8	1
10407	8	2
10408	5	7
10409	10	10
10570	1	1
10571	1	1
10572	5	6
10573	8	2
10574	3	4
10575	2	5
10576	7	2
10577	1	1
10578	2	2
10579	4	6
10580	2	2
10581	12	9
10582	2	6
10583	2	5
TOTAL	412	378

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT T-9621

Shoreline survey T-9621 is one of 58 similar surveys in Project PH-87. It covers part of the shoreline of Prince of Wales Island in the vicinity of Point Baker and Port Protection.

This survey was originally compiled as a preliminary manuscript. In 1954 additional horizontal control was established and identified and shoreline inspection was accomplished. Fixed aids to navigation were located by triangulation. In September 1954 a new radial plot was made, the manuscript re-drafted and classified Advance. There was evidently no actual Field Edit of the Advance manuscript. Changes in the MHWL, made by the hydrographer directly on the boat sheet, were applied to the manuscript by the Final Reviewer.

Compilation was at 1:10,000 scale by graphic methods using the 9-lens photography obtained in August 1953. A blueline tracing was furnished for transfer of the shoreline to the boat sheet. A cronaflex copy of the manuscript along with specially prepared photographs and ozalid prints were furnished for location of hydro signals and field edit use.

The manuscript is a vinylite sheet 3 3/4 minutes in latitude by 10 minutes in longitude, which was smooth drafted and reproduced on cronaflex. One cronaflex positive and one cronar negative are provided for record and registry.

2. Areal Field Inspection

The area inspected for boat sheet LJ 1154 (covered by manuscript T 9621) is on the northwest side of Prince of Wales Island from about two miles east of Point Baker to the north point of Protection Head including the settlement at Point Baker, the settlement in Protection Cove, and the northern half of Port Protection. The south side of Strait Island was included in the hydrographic survey, but it was not adequately covered by photography and was not field inspected. About two miles of shoreline east of the eastern limits of LJ 1154 was covered by photography and was field inspected.

The area inspected for boat sheet LJ 1254 (covered by manuscript T 9621, T 9622, T 9623) includes the southern half of Port Protection. The west side of Protection Head, Labouchere Bay, Hole-in-the-Wall and the shoreline south to the northern sector of the Barrier Islands.

The area inspected for boat sheet LJ 1354 (covered by manuscripts T 9623, T 9624) includes most of the Barrier Islands, and the shoreline south to the first point of land on the northwest side of Shakan Bay.

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

Green and red waterproof ink was used on the field photographs exclusively. Red ink was used to delineate the high water line, offshore rocks and cultural features not readily discernable on the photographs; green ink was used to delineate the limits of kelp patches and the approximate low water line. Attention is called to photograph 41620 on which the small boat channel through Point Baker is shown with special symbol as described in a legend at the top of the photograph.

Strait Island was not included in the photogrammetric plot, but was part of the hydrographic survey. It was therefore necessary to sketch an approximate shoreline from one photograph on which the island appeared on an oblique section. Several hydrographic stations with computed positions and triangulation stations on the island were approximately identified on the photograph and the shoreline sketched on the boat sheet holding to these positions. The shoreline thus determined proved adequate for the purposes of the hydrographic survey.

The photographic coverage consisted of nine lens photographs at a scale of 1:10,000 and nine lens photographs at a scale of 1:20,000. The 1:10,000 photographs were used throughout with the exception of the identification of triangulation station SID 1915 which could only be positively identified on one 1:20,000 photograph. The photography was generally good, and areas where vertical or near vertical sections were

poor due to reflection, overhang of trees, or shadows, oblique sections of adjacent photographs were used to complement the field inspection. The principal difficulty encountered was due to shadows cast by trees on the northerly and northwesterly sides of islands. Field photographs were cut and the sections joined with tape to fold into compact 25" x 20" units for convenient handling in the field. The photographs were cut to embody the vertical lens and its immediate area on one large uncut section and the oblique areas in two flaps on either side. Vast water areas were eliminated and all useful shoreline preserved in order to expedite handling in the field.

Photographs and pertinent data were transmitted to the Washington Office on the 27 July 1954, and the 12 August 1954, and the remainder of the completed photographs and data are being submitted as of the date of this report.

3. Horizontal Control

(a) Horizontal control established by second order triangulation

ASPEN 1954	FRANK 1954	JAPAN 1954	MINK 1954	PLOVER 1954	SANDY 1954
CABOT 1954	GLASS 1954	KAPOK 1954	NICHE 1954	QUEEN 1954	SHELL 1954
DEBIT 1954	HERON 1954	LOTUS 1954	OCTET 1954	RAVEN 1954	STRAIT 1954
EAGLE 1954	INGOT 1954	MANOR 1954	PATIO 1954	RIDER 1954	WOLF 1954

Horizontal control with computed positions established with third order accuracy.

Ago (dm)	Cod	End (dm)	Gal (dm)	Cat (dm)
Bib (dm)	Con (protection	Era (dm)	How (dm)	Eat (dm)
Bob	day beacon)	Few	Nav (Protection	Fix
	Dim		light)	Tin (dm)
Was (m)	Hamilton Is. Day Beacon			
	Station Is. Nav. Lt.		(m) marked topo Station	

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

(c) All control is established, computed and adjusted by the Coast and Geodetic Survey.

(d) Existing triangulation stations were recovered in accordance with Paragraph 12, Supplemental Instructions, Project CS 347. Additional triangulation was established and carried into Port Protection and Labouchere Bay; to Strait Island; and to intervals along the west side of Prince of Wales Island to Shakan Bay, more than satisfying minimum spacing requirements. All triangulation thus recovered and established were identified on the office photographs wherever the station fell within good photographic coverage in accordance with Photo-

grammetry Instruction No. 22. A washable yellow ink was used throughout on the office photographs. All signals were identified on as many overlapping photographs as they were clearly distinguishable.

(e) All marked Coast and Geodetic Survey stations were recovered within the survey limits. The following are unmarked topographic stations identified in the plot which were not recovered because no description was available.

Gun, Twin, Tre, (All three stations are located on map T-9621)

(f) Control Station Identification cards were made for every station that was identified on the photographs, and have been transmitted to the Washington Office or will be submitted as of the date of this report.

Office identified control verified by field inspection proved to be quite accurate in most cases. Notation was made on the Control Station Identification Cards as to the amount of error determined by field inspection. The office identified position for Ship 2 1915 was not changed, and the positions for Sumner 2 1915, Fly 1886, and New 1922 were changed only slightly. Shakan 1886 was found to be in considerable error; however, it was evidently not used as a control point, but merely as a pass point in the preliminary plot.

4. Vertical Control

Tidal benchmarks located in Port Protection are the only old benchmarks found in the project. One additional bench mark was established at the Port Protection gage site, and new sites were established at Point Baker and Hole-in-the-Wall, each containing three benchmarks. Tidal benchmarks were not used to establish elevations of vertical control points, and were not identified on the photographs.

The Mt. Calder Cairn is the only elevation observed by trigonometric leveling. It was observed from three horizontal control stations whose elevations were estimated in feet above the mean high water level. There were no vertical control stations required by the project instructions for stereoscopic mapping.

5. Contours and Drainage - Inapplicable

6. Woodland Cover

The islands are almost entirely covered by a dense stand of coniferous (spruce, cedar, hemlock) trees. There are a few isolated areas in which slides or cut timber have given rise to a new growth of Aspen and Alder trees. At very high elevations as on Mt. Calder, and at the heads of bays as in Hole-in-the-Wall and Calder Bay, the tree cover ends, and grass and low foilage cover the open area. In many instances the tree line reaches the waters edge and partially overhang making identification of some signals very difficult or impossible.

7. Shoreline and Alongshore Features

(a) Shoreline and alongshore features were inspected from a skiff equipped with an outboard motor running close inshore. The high waterline is generally definable in most places, but is obscured in others, usually by shadows and overhanging trees. The high waterline and other features were sketched on the photographs in places where they were not clearly distinguishable. Easily interpreted images were verified with an occassional dashed line. The high waterline transferred from the blue line manuscript to the boat sheet was revised occassionally on the boat sheet during the course of inshore hydrography and noted in black ink; otherwise, all changes were noted on the field photographs.

(b) An approximate low waterline was shown on the field photographs in green ink. In cases where the bottom could be seen from the boat, its low water position was estimated and outlined on the image appearing on the photograph. If no image was evident, a position was indicated in reference to the surrounding topography.

(c) On most of the open coast the foreshore has very little horizontal displacement, and is almost invariably of a monolithic limestone composition. Where it uncovers as a rocky ledge, it is usually evidenced on the photographs by foam and breakers. At the inshore end of large bights and bays the foreshore is usually quite wide and uncovers as a muddy flat often with sand or gravel near the high water edge. Particularly is this situation true at the heads of Port Protection, Labouchere Bay, Hole-in-the-Wall, and Calder Bay.

(d) Bluffs and cliffs are indicated on the field photographs with an estimated height for each. There are two outstanding light colored, vertical, rock cliffs situated directly on the shoreline that have usefulness as landmarks. One is on the west side of Protection Head about 200 meters north of triangulation station DEBIT. The other is about a half mile south of the entrance to the Hole-in-the-Wall. In other places steep bluffs and deep narrow ravines are covered with tree mantle overlaying the extensive limestone bedrock that characterizes the region.

(e) Shoreline structure consists principally of floats in the few habitated areas. These are located in Point Baker and Wooden Wheel Cove in Port Protection where permanent settlements reside. In the course of the seasons work a float was built by the Ship LESTER JONES near a water source in a protected bight on the west side of Port Protection. It is not probable that the float will endure unless it is maintained by local inhabitants.

(f) The only other shoreline structures located so far in the project are a few abandoned or stored fish traps beached in the south end of Port Protection.

8. Offshore Features

All offshore features were field inspected for possible identification on the field photographs. In practically all instances rocks located could be identified on the photographs and their relative height was estimated above the surface at the time of inspection. The time and date was shown on the photograph for each rock, or a group of rocks were bracketed for an interval of time. Submerged rocks and rocks awash but covered at the time of inspection were given an estimated depth below the surface. Images appearing on the photographs in the likeness of rocks but not found were thusly noted as "not visible" or "no rock". Breakers shown on the photograph were inspected to find any evidence of rocks or shoals. Kelp patches of any significance were delineated - - described as to density, and were investigated for possible rocks. The following are abbreviations used on the field photographs.

Rock - rk Rk	* uncovered - uncov ✓	not visible - not vis
Awash - aw	covered - cov ✓	heavy - hvy
Feet - ft ✓	submerged - sub Subm	light - lt Lt.

* some high water rocks were also described as bares _ ft

All important offshore rocks that fell within the area surveyed were located directly by a field inspection party taking sextant fixes on or near the rock; by theodolite or sextant cuts from nearby stations; or by the launch hydrographic party. These records are entered in the horizontal direction volumes, sounding volumes for the skiff, and sounding volumes for the launch, respectively. In cases where a rock was transferred to the boatsheet as it appeared on the manuscript and its location determined directly, a note was made to that effect on the boatsheet. A few dolphins and piles were located directly by the hydrographic party. (2)

9. Landmarks and Aids

(a) Landmarks for nautical charts - See 7 (d).

(b) The most extent-interior landmark is the spire on Mount Calder which rises about a thousand feet above the tree line, and can be seen from practically every direction in the surrounding water area. The north face of the spire is extremely precipitious and contains a vertical crevass that retains a column of snow almost year round. Horizontal directions were observed from three triangulation stations to the cairn on the summit.

A very marked feature of lesser significance is a slide area on the west slope of the mountain which appears as an elongated cut in the trees. The slide is no longer active and is covered with a light colored growth of trees.

(c) Aeronautical Aids. Inapplicable

(d) Fixed Aids to Navigation listed on Form 567 to be forwarded to the Washington Office.

(e) Floating Aids to Navigation - See Hydrographic Descriptive reports

10. Boundries and Monuments. Inapplicable

11. Other Control

All recoverable topographic stations have computed G.P.'s and are listed under side heading 3, Horizontal Control. Topographic stations were established along the coast in compliance with spacing requirements of paragraph 10 of project instructions.

All hydrographic signals that could be identified were pricked on the office photographs, and transferred to the acetate manuscript. All triangulation stations and computed topographic stations that could be identified were similarly located on the acetate manuscript, thus establishing a uniform datum for the two systems of control. The computed stations were plotted on the boat sheet projection in their true positions and the manuscript oriented on the projection by matching corresponding stations. It was found that on the north end of the project from Port Protection to the eastern limits of the sheet, the plot was quite accurate in both azimuth and scale; therefore, the passpoint method was used to transfer positions from the office photographs to the acetate manuscript, thence signals were pricked directly through to the boat sheet. In order to check the accuracy of signals located on the north side, triangulation station BARRIE 2 1915 on the opposite side of Sumner Strait was occupied and theodolite cuts taken to all observable signals. BARRIE 2 1915 was plotted on a dogear off of the projection, and the cuts were laid off on a steel protractor. The photohydro signals checked in this manner were proved to be essentially correct.

As the survey moved progressively south the same system was employed for location control, but it became evident that there was some distortion in the manuscript through the middle portion of Port Protection and Labouchere Bay where no previous control existed, Other methods were utilized to complement photogrammetric means to maintain a uniform geodetic datum. Fortunately, triangulation was carried into these areas and provided a rigid network from which other signals could be cut in. If a signal had three or more triangulation cuts, the intersection position was used in preference to a photographic position. In most other cases the photographic location was used, and theodolite cuts and sextant cuts from nearby stations were used as an overall check. Some signals could not be identified on the photographs and were located entirely by sextant cuts from from adjacent stations or by the hydrographic launch using three point fixes.

From Labouchere Bay south considerable distortion persisted in the manuscript, and thereafter the radial plot method was used to keep the proper internal relationship between control. Along the open coast

Note: This refers to use of Preliminary Photogrammetric Manuscripts in accord with Photogrammetry Inst. 45. Copies of T9621 & T9630 furnished Lester Jones in spring of 1954 were preliminary manuscripts. BGG

strong triangulation intersection were used whenever possible, and photographic locations adjusted to these. In instances where a photographic location was thought to be out of position, it was checked or relocated by the hydrographic party. It is probable that in the controlled radial plot, most photohydro signals necessarily relocated in the field will fall in their correct relationship. A few signals were misidentified in the field, but all have been detected, and another method used for their final location.

A comprehensive list of all control and their method of final location (excepting triangulation stations listed in side heading 3) is attached at the end of this report. Theodolite cuts are recorded in the horizontal direction volumes, and sextant cuts are recorded in the sounding volumes for the launch, and skiff.

12. Other Interior Features.

The village of Point Baker has about 20 year-round residents, but during the summer fishing seasons this number is greatly increased by transient and summer resident fishermen. There is a fish buying station and a combined store and postoffice. Point Baker is served by Alaska Coastal Airlines which makes a scheduled mail stop at least once a week during the summer. The Point Baker store is equipped with a licensed radio transmitting station.

The village of Port Protection in Wagon Wheel Cove has about four resident families, a fish buying station and store. The store, known as the B. S. Trading Post, has recently become a chart distribution agency for the Coast and Geodetic Survey. It also is equipped with a radio transmitter that can be utilized in emergencies.

Practically all other isolated dwellings in the area are abandoned fox farms or mink trapping camps used in special seasons. There are no roads, bridges, cables, or landing fields in the area field inspected.

13. Geographic Names

A special report on geographic names will be prepared and forwarded to the Washington Office at the earliest date possible.

14. Supplemental Data Forwarded to the Washington Office

Item	Transmitting Letter Date
Field Photographs	27 July 1954
Office Photographs	"
Control Station Identification Cards	"
Geographic Positions for Triangulation located stations	"
List of Photohydro Signal Names	"
Field Photographs	12 August 1954
Office Photographs	"
Control Station Identification Cards	"
Field Photographs	2 November 1954
Office Photographs	"
Control Station Identification Cards	"

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE — COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT — CONTROL RECORD

MAP T-9621 PROJECT NO. Ph-87 SCALE OF MAP 1:10,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
~~SID, 1915~~	G-609 p.203	N.A. 1927	~~56 20 40.110~~			~~1240.6 (615.2)~~	Not on this sheet
			~~133 29 20.853~~			~~358.2 (672.4)~~	S.W.
CLU, 1915	p.212	"	56 20 55.223			1708.1 (147.7)	
			133 32 05.637			96.8 (933.7)	
GUN, 1915	p. 212	"	56 21 10.606			328.0 (1527.8)	Not plotted - See
			133 34 17.212			295.6 (734.8)	Δ ERA, 1954
TWIN, 1915	p. 213	"	56 21 32.244			997.3 (858.5)	Not plotted - See
			133 36 00.158			2.7 (1027.5)	Δ TIN, 1954
SUMNER 2, 1915 - 1927	p. 203	"	56 21 33.952			1050.2 (805.7)	
			133 36 58.884			1011.1 (19.2)	
LON, 1915	p. 212	"	56 21 24.866			769.1 (1086.7)	
			133 37 45.352			778.8 (251.5)	
PAL, 1915	p. 212	"	56 20 55.477			1715.9 (139.9)	
			133 38 11.682			200.7 (829.9)	
PART, 1915	p. 213	"	56 19 42.299			1308.3 (547.5)	
			133 39 13.721			235.8 (795.3)	
WASH, 1915	p. 213	"	56 19 18.94			585.8 (1270.0)	
			133 37 41.69			716.6 (314.7)	
TRE, 1915	p. 212	"	56 18 50.36			1557.6 (298.2)	Not plotted - not
			133 36 38.54			662.5 (368.9)	described
SIK, 1915	p. 213	"	56 18 49.896			1543.3 (312.5)	
			133 39 47.054			808.9 (222.6)	
FRANK, 1954	Field Comp. p. 1	"	56 20 40.814			1262.4 (593.4)	
			133 38 04.302			73.9 (956.7)	

1 FT. = .3048006 METER

COMPUTED BY: L. A. Senasack DATE 19 January 1954

CHECKED BY: J. C. Cregan DATE 21 January 1954

COMM-DC-57843

FORM 164
(4-23-54)

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

MAP T-9621 PROJECT NO. Ph-87 SCALE OF MAP 1:10,000 SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE			DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
GLASS, 1954	Field Comp. p. 1	N.A. 1927	56	19	45.738				1414.7	(441.1)		
			133	38	53.272				915.4	(115.6)		
INGOT, 1954	"	"	56	19	27.349				845.9	(1009.9)		
			133	36	24.734				425.1	(606.1)		
JAPAN, 1954	"	"	56	20	16.163				499.9	(1355.9)		
			133	37	17.732				304.6	(726.2)		
HERON, 1954	"	"	56	19	18.068				558.8	(1297.0)		
			133	36	53.395				917.8	(113.5)		
LOTUS, 1954	"	"	56	19	11.415				353.1	(1502.7)		
			133	37	33.291				572.2	(459.1)		
MANOR, 1954	"	"	56	19	38.938				1204.4	(651.4)		
			133	37	00.883				15.2	(1015.9)		
OCTET, 1954	"	"	56	19	24.377				754.0	(1101.8)		
			133	37	51.750				889.4	(141.8)		
PORT 1 PROTECTION BN (BEACON, 1957) (PORT PROTECTION DAY BN.)	G-10728 p. 4	"	56	20	15.986				494.4	(1361.4)		
			133	38	01.194				20.5	(1010.3)		
PORT PROTECTION LIGHT, 1954 (PORT PROTECTION NAVIGATION LIGHT)	"	"	56	19	35.983				1113.0	(742.8)		
			133	36	39.184				673.4	(357.7)		
TIN, 1954	p. 6	"	56	21	32.260				997.8	(858.0)	See Compilation Report by J.B. Phillips - dated 10 Jan, 1955	
			133	36	00.275				4.7	(1025.5)		
ERA, 1954	p. 6	"	56	21	11.082				342.8	(1513.0)		
			133	34	21.018				361.0	(669.5)		
BOB	p. 8	"	56	19	29.253				904.8	(951.0)		
			133	39	26.264				451.4	(579.8)		

1 FT. = .3048006 METER

COMPUTED BY: J. Steinberg DATE 12 August 1954 CHECKED BY: H. R. Rudolph DATE 3 December 1954

COMM-DC-57843

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD sheet 3 of 3

MAP T- 9621 PROJECT NO. Ph-87 SCALE OF MAP 1:10,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE ° ' "	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
CAT	G-10728 p. 8	N.A. 1927	56 19 10.855			335.7 (1520.1)	See Compilation
			133 39 40.462			695.5 (335.8)	Report by J.B.
FIX	"	"	56 18 45.669			1412.5 (443.3)	Phillips dated
			133 39 47.592			818.2 (213.3)	10 Jan. 1955

1 FT. = .3048006 METER

COMPUTED BY: H. R. Rudolph DATE 3 December 1954 CHECKED BY: F. W. Wisiecki DATE 9 December 1954

COMM-DC-57843

PHOTOGRAMMETRIC PLOT REPORT
Project Ph-87
Surveys T-9621 and T-9622

21. AREA COVERED

This radial plot covers all the area of shoreline Survey T-9621 and part of Survey T-9622. It extends from Point Baker at the north end of Price of Wales Island easterly to the limits of Survey T-9621 and southerly to the southern point of Labouchere Bay.

22. METHOD - RADIAL PLOT

Map Manuscripts:
Vinylite sheets with polyconic projections in black at a scale of 1:10,000 were furnished by the Washington office.

All the control was plotted on the vinylite sheets using a meter bar and beam compass.

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

Photographs:
All photographs used were nine-lens prints on positype paper, scale approximately 1:10,000.

Thirteen (13) photographs were used, numbered as follows:
41617 thru 41624
41651 thru 41654

Templets:
Vinylite templets were made from all photographs. A master templet was used to correct for errors due to paper distortion and chamber displacements.

Closure and Adjustment to Control:
The radial plot was constructed on vinylite base sheets to which all control had been transferred from the map manuscripts.

The plot was laid starting with photograph 41653 and then laying the remainder of that flight. To this flight two (2) flights to the east were added. A satisfactory and fairly rigid plot was obtained but only 12 of the 19 stations identified could be held in the plot. The principal reason that difficulty was encountered in adjusting to control was that all nineteen (19) of the stations identified in the field were pricked direct by using reference measurements. No substitute stations were used. The reference points used by the field men are indicated on the pricking card but not on the photograph. In most cases the reference points are indefinite points on the mean high water line and are not identifiable on the office photographs.

22. METHOD - RADIAL PLOT (cont'd)

Transfer of Points:
The vinylite map manuscripts were placed over the finished plot and oriented by holding the control which had been transferred to the base sheets. Then the pass points and centers were picked off on the map manuscript.

23. ADEQUACY OF CONTROL * Refer to page 26, heading 66 and page 29 item "G"

There was adequate control except at the northeastern end of the plot. There the field man had identified SID, 1915 on a 1:20,000 scale photograph because he could not see the point on the 1:10,000 scale photographs; probably, because it fell in the shadows and tree lay-over. A pass point was picked close by on the 1:10,000 photographs but didn't help prove the plot to be either right or wrong.

The stations not held in the plot are:

FRANK, 1954 - The radially plotted position is 5.0 meters NE of the station. The point identified is indefinite on most photographs and under trees on photograph 41623. It is possible to reprick the point and hold it in the plot. This was not done because the new point would be no more definite than the original, which can be used as a pass point for delineation.

JAPAN, 1954 - The radially plotted position is 2.5 meters east of the station.

OCTET, 1954 - The radially plotted position is 7.0 meters southeast of the station. This station is in deep shadow and no detail is visible on any photograph.

LOTUS, 1954 - The radially plotted position is 7.0 meters east of the station. This station is also in deep shadow.

GLASS, 1954 - The radially plotted position is 4.0 meters south east of the station. This station is described on Form M-2226-12 as being 1½ meters from overhanging limbs of adjacent tree. This group of trees hides the point on the photograph.

SANDY, 1954 - Radially plotted position is 4.5 meters north of the station.

EAGLE, 1954 - Radially plotted position is 2.0 meters west of the station.

Topographic station TIN was identified and falls about on triangulation station TWIN, 1915, which was not identified in the field.

23. ADEQUACY OF CONTROL (cont'd)

The stations which were held in the plot are no better as photogrammetric points than those which did not hold. However, note should be made that of the seven stations which did not hold, two (EAGLE, 1954 and JAPAN, 1954) are only out by 2.0 meters and that two others (LOTUS, 1954 and OCTET, 1954) are such manifestly poor points that they can be disregarded. This leaves three stations (GLASS, 1954; FRANK, 1954 and SANDY, 1954) which were not held in the plot and in all three the point might be repricked to agree with the plot as it is, although not with the field man's identification.

The point identified as SUMMER 2, 1915 by the field man fell in the trees on all photographs. Therefore, from information on the pricking card a substitute station was plotted on the manuscript 9.5 meters east of the station. This was held in the plot. The greatest weakness of this point would be in azimuth because no angle was measured.

There were no descriptions available for 1954 stations, nor recovery notes on any old stations.

CON (PROTECTION NAVIGATION BEACON), 1954, which was not identified in the field, was identified in the office after the radial plot was completed. The identified point held the 1954 position, proving that the radial plot was accurate in this area.

24. SUPPLEMENTAL DATA

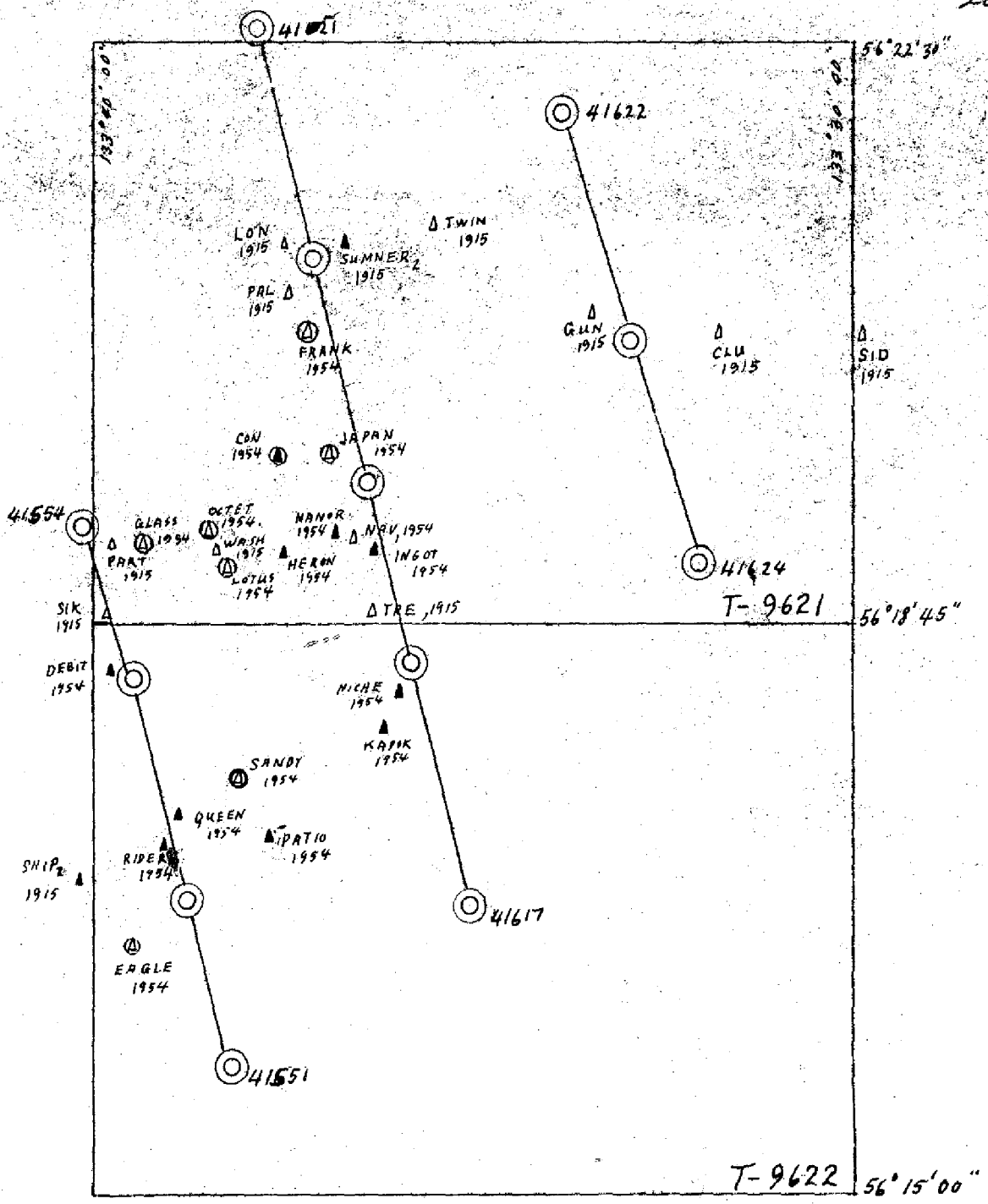
None

25. PHOTOGRAPHY

The photographic coverage and definition of the photographs used in the plot was good.

Respectfully submitted
September 30, 1954

E. L. Williams,
Carto. Photo. Aid



LAYOUT SKETCH
PROJECT PH 87

◎ 9- Lens Office Photographs
▲ Control Held In Plot
△ Control Not Identified
Ⓐ Control Identified But Not Held In Plot
◭ Office Identified Control Held In Plot

COMPILATION REPORT
Survey No. T-9621

Field Inspection Report:

Refer to field report for Project CS-347 (Ph-87), Ship LESTER JONES, 1954 season, submitted by Curtis LeFever.

31. DELINEATION

This manuscript was delineated by graphic methods.

32. CONTROL

Refer to the Photogrammetric Plot Report which is part of this report.

33. SUPPLEMENTAL DATA

The boat sheet for Survey No. H-8149 was received after the manuscript was compiled. It was used for purposes of comparison.

34. CONTOURS AND DRAINAGE

Contours: Inapplicable.

Drainage: No comment.

35. SHORELINE AND ALONGSHORE DETAILS

Shoreline inspection was adequate. The MLLW lines were based on data furnished by the field party. With reference to paragraph 7 (a) of the field report, it was noted that wherever the boat sheet calls for a correction to the shoreline, the shoreline has been identified on the field photographs.

36. OFFSHORE DETAILS

The limits of kelp areas were furnished by the field party on the field photographs.

37. LANDMARKS AND AIDS

Form 567 is submitted for three non-floating aids to navigation.

Card lost at time of final review

38. CONTROL FOR FUTURE SURVEYS

Stations ERA, 1954, CAT, 1954 and TIN, 1954 have been shown with triangles because third-order positions were available for them. Form * 524 was available only for CAT, 1954. Stations BOB, 1954 and FIX, 1954 were shown with circles because they were neither marked nor described.

See paragraph 49 for the listing of 80 photo-hydro stations located on the manuscript. The pricking of these stations on the office photographs by the field party was verified and corrected in a few instances using the identification on the field photos. They were then cut in on the manuscript. Descriptions of the points pricked by the field party would have been useful in verifying the pricking.

39. JUNCTIONS

Junction has been made with Survey T-9622 to the south and is in agreement.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41 - 45. Inapplicable.

46. COMPARISON WITH EXISTING MAPS

None were available in the compilation office.

47. COMPARISON WITH NAUTICAL CHARTS

This manuscript has been compared with Nautical Chart No. 8174, scale 1:20,000 published Dec. 1931, corrected to 5/26/52.

Items to be applied to Nautical Charts immediately: None.

Items to be carried forward: None.

Respectfully submitted
10 Jan. 1955

Jacqueline B. Phillips
Carto. Photo. Aid

Approved and Forwarded

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

GEOGRAPHIC NAMES
FINAL NAME SHEET

PH-87 (Sumner Strait, Alaska)

T-9621

East Rock
False Island
Joe Mace Island
Merrifield Bay
Point Baker (Point)
Point Baker (Village)
Port Protection (Body of water)
Port Protection (Village)
Prince of Wales Island
Protection Head
Sumner Strait
West Rock
Wooden Wheel Cove

Approved by:
A. Joseph Wraight
A. Joseph Wraight
Chief Geographer

Prepared by:
Frank W. Pickett
Frank W. Pickett
Cartographic Technician

49. NOTES FOR THE HYDROGRAPHER

Station ERA, 1954; CAT, 1954 and TIN, 1954 have been shown with triangles because third-order positions were available for them. Stations BOB, 1954 and FIX, 1954 were shown with circles because they were neither described nor marked.

Eighty photo-hydro stations are shown and the names are listed as follows:

ABE	CUE	HAG	*KEN	*NIL	USE
*ACE	DAY	HAT	KID	OAK	VEX
ACT	DOG	HEM	LAD	OBI	WAD
ANN	DOT	HEX	*LAY	*OFF	WAN
AVE	DUD	HID	LEO	ORA	WIT
BAC	EGO	HOE	LIT	PEG	WOL
BAT	ELF	ICE	LIZ	PIN	YAK
BED	*ERG	INN	LOW	POD	YES
BOA	FAR	IRK	MAL	PUT	ZAG
BON	FEZ	*ITS	*MOP	QUO	ZIG
BUC	FIN	JAR	MUM	RAM	
CAB	GAD	*JAW	NAT	SHE	
CAM	GEM	JOE	NER	SOL	
CAR	GUS	KED	NIG	TUB	

*ACE - pricked on field photo. in the shadows.
*ERG - " " " " " " "
*ITS - " " " " " " " - only two cuts.
*JAW - " " " " " " " " " " " "
*KEN - " " " " " " " " " " " "
*LAY - " " " " " " " " " " " "
*MOP - " " " " " " " " " " " "
*NIL - only two cuts
*OFF - only two cuts

Form T-2

50-

PHOTOGRAMMETRIC OFFICE REVIEW

T- 9621

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

4a. Classification label ✓

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 alongshore cultural features ✓

PHYSICAL FEATURES

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

CULTURAL FEATURES

27. ~~Roads~~ _____ 28. Buildings ✓ 29. ~~Railroads~~ _____ 30. Other cultural features ✓

BOUNDARIES

31. ~~Boundary lines~~ _____ 32. ~~Public land lines~~ _____

MISCELLANEOUS

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

40. R. Glaser
Reviewer

_____
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.

Leo F. Bergquist
Compiler

_____
Supervisor

43. Remarks: Field edit consisted of changes in the shoreline made by the hydrographer. These changes were applied to the manuscript by the Final Reviewer.

See page 29 of this Report

M-2623-12

REVIEW REPORT T-9621
SHORELINE
May 15, 1968

61. GENERAL STATEMENT:

See Summary accompanying the Descriptive Report.

There is no Field Edit Report or Field Edit Sheet for this survey. Although page 2 of the Data Record indicates that the field inspection was accomplished from June 1954 thru October 1954, there is no evidence on the field photographs that any of the inspection was made in October. It is believed that all of the inspection for this survey took place in June.

Paragraph G of the Hydrographer's Report states that isolated revisions to the shoreline based on the hydrographer's interpretations were made during hydrography. No other reference to a field edit or other corrections to be applied to the manuscript could be found by the Final Reviewer.

The photography of the area was obtained at or near the time of high water. This along with large areas of kelp, flotsam, and foam on the water surface obscured many of the rocks and prevented their being located photogrammetrically.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Comparison was made with copies of T-1755, 1:10,000 scale, made in 1886; T-3549, 1:20,000 scale, made in 1915; and T-5536, 1:20,000 scale, made in 1915. These surveys show extensive ledges along the shore, but very few of the alongshore rocks. Passage of time has made these maps obsolete.

Survey T-9621 supersedes the above surveys for nautical chart purposes.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

Comparison was made with USGS PETERSBURG (B-5), ALASKA, 15 X 20 minute quadrangle, scale 1:63,360, edition of 1949 with minor revisions in 1963. Because of the difference in scale of the two surveys only a visual comparison was made. The two surveys appear to be in good general agreement with the exception of alongshore rocks, all of which are not shown on the USGS quadrangle.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

Comparison was made with copies of H-8149 and H-8150. The shoreline of the surveys are in good agreement. Because of kelp, flotsam, and foam

at the time of photography all rocks located by the hydrographer could not be verified photogrammetrically. All rocks located by the hydrographer which can not be seen on the photographs, have been noted on the Comparison Print.

65. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with Chart 8174, 1:20,000 scale, 8th Edition, October 18, 1965.

West Rock Light, latitude 56° 21' 14", longitude 133° 38' 09"; Point Baker Light, latitude 56° 21' 33", longitude 133° 37' 00" and the daybeacon at latitude 56° 21' 22", longitude 133° 37' 03" were established subsequent to field work for this survey.

Two dolphins located at latitude 56° 20' 44", longitude 133° 38' 11" and 56° 21' 16" - 133° 37' 00" respectively, are not visible on photography of the area.

All differences between the chart and this survey have been noted on the Comparison Print.

66. ACCURACY OF RESULTS AND FUTURE SURVEYS:

This survey complies with instructions and meets the National Standards of Map Accuracy.

67. PHOTOGRAPHY:

Field inspection notes for this survey are found on photographs as follows:

41553 and 41554
41618 thru 41620
41622 and 41623

In addition to the above photographs, which were examined at the time of final review, the following office photographs were also examined:

41553 and 41554
41618 thru 41623

Reviewed by:

Leo F. Beugnet

Leo F. Beugnet

Approved by:

For J. Bull

J. Bull, RADM, USESSA
Director, Atlantic Marine Center

Approved by:

Chief, Photogrammetric Branch

Chief, Photogrammetry Division

Chief, Nautical Chart Division

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~OR LANDMARKS FOR~~ CHARTS

TO BE CHARTED
~~TO BE DELETED~~ } STRIKE OUT ONE

Baltimore, Maryland October, 1954

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

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

Comdr. E. H. Kirsch, *Chief of Party.*

STATE	ALASKA		POSITION									
			LATITUDE*		LONGITUDE*			METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
CHARTING NAME	DESCRIPTION	SIGNAL NAME	° ′	″ D.M. METERS	° ′	″ D.P. METERS	DATUM						
LIGHT	POINT BAKER ANCHORAGE LIGHT	LIT	56 21	21.43 663	133 37	02.50 43	N.A. 1927	Photo. Plot	1954	x			8174
DAYBEACON	PORT PROTECTION DAYBEACON (△ (PORT PROTECTION DAYBEACON, 1954)	CON	56 20	15.986 494.4	133 38	01.194 20.5	"	Tri	"	x			"
LIGHT	PORT PROTECTION LIGHT (△ (PORT PROTECTION LIGHT, 1954)	NAV	56 19	35.983 1112.99	133 36	39.184 673.57	"	"	"	x			"
	(This form originates at Baltimore Photogrammetric Office)												

28

This form shall be prepared in accordance with Hydrographic Manual pages 800 to 804. Positions of charted landmarks and ~~nonfloating~~

E. SMOOTH SHEET:-

The smooth sheet projection was made in the Washington Office by ruling machine. Shoreline and signals are to be transferred by the processing office. This work is not yet begun as of the date of this report.
Shoreline on smooth sheet inked from T-9621 and T-10,709; both advance manuscripts (also, note Sec. "G", par 3, below)

F. CONTROL STATIONS:-

Triangulation control was obtained from surveys by L.O.Colbert in 1915, and by this party in 1954. Computed positions were determined for all recoverable topographic stations from Theodolite observations.

The majority of non-recoverable topographic stations are photo-hydro stations located by photogrammetric methods on manuscript T-9621 from 1954 field data.

Other non-recoverable topographic stations are located by computed geographic positions, theodolite cuts, and sextant cuts. All theodolite directions observed on control signals are recorded in the lists of directions; all sextant cuts are indexed in Vol. 1, H-8149, and Vol. 25, H-8150.

Topographic stations with computed positions, and covered by manuscript T-9621 are noted in the "List of Stations on H-8149", sounding volume 1 as "T-9621 (G.P.)". Topographic stations with computed positions and not covered by manuscript T-9621 are noted as "H-8149".

Hydrographic stations were located by conventional methods. Data is indexed in sounding Volume No. 1.

Three aids to navigation were located for control on this survey sheet. Two were located as triangulation intersection stations, and the third by photogrammetric means. Corrections for Form 567 and triangulation records are as below.

NAME OF AID	TRIANGULATION NAME	HYDRO NAME
Port Protection Light	Protection Light 1954	NAV
Port Protection Daybeacon	Protection Beacon 1954	CON
Point Baker Anchorage Light*		LIT

*The geographic position for longitude was incorrectly entered on Form 567. Correction: Long. 133°-37'-46.0 meters. Light moved. See N.M. 16/64 # 1988
West Rock Light has been installed subsequent to this survey.

G. SHORELINE AND TOPOGRAPHY:-

Shoreline and topographic details are from advanced photogrammetric compilations of manuscript T-9621 from 1954 field inspection data.

Shoreline for Strait Island was furnished by the Washington Office by photostat on scale 1:10,000 and from a section of survey No. T-3307 (1912), scale 1:20,000. For boat sheet shoreline see Field Inspection report. see P.O. notes # "G"

Isolated revisions to the shoreline based on the hydrographic interpretations were made during hydrography, while running close inshore. The changes were sketched in in black india ink distinguishable from the rest of the shoreline which was delineated in yellow ink.

Rock symbols transferred to the boat sheet from bromoil prints were investigated and positions verified.

H. SOUNDINGS:-

All soundings on sounding lines were measured with echo sounding equipment listed in side heading C. VESSELS AND EQUIPMENT. See the report on fathometer corrections attached at the end of the report.

H-8149
30

PROCESSING NOTES TO ACCOMPANY THE REPORT FOR H-8149
(LJ--1154)

2. CONTROL STATIONS

1. Photo locations for signals WOL, ZAG, BUC, and YES, in [illegible] gave a distortion to the hydrography at and close [illegible] boat floats. The signals were replotted from the photo [illegible] to agree with the sextant angles at INGOT 1954, recorded [illegible] page 8, Vol. # 25 (H-8150.)

2. The hydro cuts to station HEX and the theodolite cut from BARRIE 2, 1915, gave a location which produced poor crossings. The photo location was used.

3. The photo location of signal DOT gave poor crossings. The signal was replotted from a combination of sextant cuts and a computed cut from BARRIE 2, 1915.

4. Signal GAM was not located on the manuscript. It was plotted from a group of check angles locating rocks in the general area.

5. Signals REV and SIS were not located on the manuscript. Hydrography using these signals was plotted by time and course and [illegible] sheet locations.

6. Signal REEF 2, 1915 was used in the hydrography only [illegible] or three times. It was trimmed off the completed smooth sheet.

3. SHORELINE AND TOPOGRAPHY all shoreline detail was transferred to room body of survey as shown on T-9521

The location and shape of the boat floats at both POINT BAKER [illegible] Office and BUCKSKIN TRADING POST were only shown on the [illegible]rts, scale 2,500, of these areas. Shoreline was transferred [illegible] T-6921 and T-4330. (Shoreline from T-4330 was left in pencil. This sheetline was removed and new shoreline was inked from T-10709 May 1958 Photos. (incomplete manuscript)

4. DANGERS AND SHOALS

Numerous kelp notes could not be plotted because of the density of soundings and sounding lines over shoals and along the shoreline.

5. COMPARISON WITH CHARTS

C&GS Chart 8174 (Oct 31/55 - corrected to 23 June 1958)

1. The sounding of 34 fms in Lat. 56° 21' 39", Long. 133° 33' 47", falls out of the sounded area.

2. The rock awash in Lat. 56° 21' 03", Long. 133° 35' 08", plots 20 meters NE.

SECTION OF REVIEW REPORT → H-8149 631

1. Description of the Area

This survey covers the area of Summer Strait from Port Protection to the southern shore of Strait Island. The survey includes Point Baker and Helm Rock. The bottom is rocky and irregular. In the area of this survey Summer Strait varies from a depth of about 146 fathoms to 27 fathoms at Helm Rock. Closer inshore are shoals and pinnacles rise from about 50 fathoms to the rock awash at the daybeacon in Port Protection. All shoreline is steep, and is bounded by rocky ledge.

2. Coastline and Shoreline

The source of the control is adequately described in the Descriptive Report.

The shoreline originates with unrevised advance photogrammetric manuscripts T-9621 and T-10,969.

3. Hydrography

Sounding line crossings are in good agreement. Standard depth curves are adequately delineated. Shoals and peaks are emphasized by arcing. The development of the bottom configuration and determination of least depths is considered adequate.

4. Condition of the Survey

The Descriptive Report, and the field plotting, ~~and the~~ sounding records are adequate and conform to the require-