

11565

Diag. Cht. No. 8863-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Shoreline

Field No. Ph-34 Office No. T-11565

LOCALITY

State Alaska

General locality Andreanof Islands

Locality Adak Island - Bay of Islands

1954

CHIEF OF PARTY

S.B.Grenell, Chief of Field Party
L.W.Swanson, Div. of Photo. Wash., D.C.

LIBRARY & ARCHIVES

DATE June 24, 1958

B-1870-1 (1)

11565

T-11565

M.2618-12(4)

Not Applicable

Areas contoured by various personnel
 (Show name within area)
 (II) (III)

DATA RECORD

Field Inspection by (II): Shoreline Inspection by H. G. Conerly Date: 1954 Season
C. W. Clark J. D. Walker

The field inspection report is bound with the Descriptive
Report for T-11324 (1:20,000 Scale)

Planetable contouring by (II): - Date:

Completion Surveys by (II): - Date:

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

See Paragraph 31, Compilation Report
Field Inspection - 1954 Season
Date of photography, 1954

Projection and Grids ruled by (IV): A. Riley Date: 11/12/54

Projection and Grids checked by (IV): A. Riley Date: 11/12/54

Control plotted by (III): Date:

Transferred from graphic control boards
EX-A-1954 EX-B-1954 C.D.J. Dec. 1954
5-28-54

Control checked by (III): J.C.T. Date: 5-28-54

Radial Plot or ~~Stereoscopic~~ S. G. Blankenbaker Date: Dec. 1954
~~Control extension by (II):~~

Planimetry Date:

Stereoscopic Instrument compilation (III): -
Contours Date:

Manuscript delineated by (III): S. G. Blankenbaker Date: Jan. 1955

Photogrammetric Office Review by (III): R. J. French Date: Jan. 6, 1955

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

Camera (kind or source) (III):

PHOTOGRAPHS (III)				
Number	Date	Time	Scale	Stage of Tide
54 W 2837	9/6/54	3:50	1/10,000	
2838	"		"	
2839	"		"	2.8 above MLLW
2840	"		"	
2845	"	to	"	
2846	"		"	
2847	"		"	2.8 " "
2848	"	3:59	"	
2821	"	3:39	"	
thru		to		
2827	"	3:42	"	2.7 " "

Tide (III)

Reference Station: Sweeper Cove, Adak I, Alaska
Subordinate Station: Bay of Islands, Adak
Subordinate Station:

Diurnal

Ratio of Ranges	Mean Range	Range Range
.9	-	3.7
	-	3.3

Washington Office Review by (IV):

Date:

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III):

Shoreline (More than 200 meters to opposite shore) (III): 19

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

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 8

Recovered: 8

Identified: 1

Number of BMs searched for (II):

Recovered:

Identified:

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks:

Summary to accompany Shoreline Survey T-11565

Shoreline survey T-11565 was accomplished as part of project 6034. It is the eastern one of two 1:10000-scale shoreline surveys covering the Bay of Islands on the western shore of Adak Island of the Aleutian Islands.

The surveys were accomplished to furnish shoreline and alongshore details in conjunction with Hydrographic Survey 8147 (1:10000 scale) and to provide shoreline and alongshore details for Topographic Surveys 11324 and 11325.

Graphic control surveys EX-A-54 and EX-B-54 furnished control for the hydrographic and photogrammetric surveys.

1954 field work includes identification of control and inspection of alongshore features. Office photo interpretation was used in delineating the MHW line. Photographs used for field inspection include the following: (1) 1953 C&GS 1:20000 scale 9-lens; (2) 1954 "W" camera 1:10000 scale single lens; (3) 1943 Air Force 1:25000 scale single lens. The manuscript was graphically compiled using the 1:10000 scale "W" camera office photographs.

No field edit was accomplished.

Items registered under T-11565 will consist of a cloth-backed print of the map manuscript and the descriptive report.

The MHW line and other details were applied to the hydrographic smooth sheet (H-8147) prior to the Washington Office review. Only one major change was made during review (see 64) and this already applied to H-8147 by Nautical Charts Branch.

PHOTOGRAMMETRIC PLOT REPORT
ADAK ISLAND
(Bay of Islands)
1:10,000 Scale

21. AREA COVERED:

This plot covers the Bay of Islands area of Adak Island, and includes manuscripts T-11564 and T-11565.

22. METHOD:

The map manuscripts were ruled at 1:10,000 scale with polyconic projections and UTM zone 1, 1,000 meter grids.

The photographs were taken with the "W" camera at a scale of 1:10,000.

A correction templet was used for drawing the radial lines on the templets.

The overall closure and adjustment to control was good and the plot meets the horizontal accuracy requirements.

23. ADEQUACY OF CONTROL: ** The control (triangulation) was supplemented with planetable, hydro (theodolite) and Nine Lens plot positions*

** There were not enough identifiable control points of greater than 3rd order accuracy, nor were these points suitably located to properly control the radial plot. Seven triangulation stations were field-identified, three of which were considered identified as horizontal control. The whitewashed position of station Old, 1925-1954, showed clearly on the photographs and, while the direct identification of the remaining six stations was good for the 1:20,000 photography, sub-stations would have provided greater accuracy on the 1:10,000 photography. These triangulation stations are on the tops of small rounded hills and it was expected that they would hold within .3 to .5 mm in the 1:10,000 scale radial plot. The following stations did not hold within 0.2 mm: Rot (USN), 1933 - .5 mm; Lon (USN), 1933 - .3 mm; Careful, 1954 - .5 mm. Better identified hydro stations and pass points common to the nine-lens plot assembled previously were held in the immediate vicinity of these stations.*

The field party considered the whitewashed planetable and theodolite hydro stations suitable to control the single-lens plot and to serve as supplemental control for the nine-lens plot. In addition, it was believed that pass points established by the single-lens plot would serve as control for the nine-lens plot. However, the nine-lens plot was scheduled first and good closure on control was obtained. Only the triangulation stations and topo stations were considered in the nine-lens plot with the exception of hydro stations Box and Via which were scaled from the planetable survey EX-A-54.

Control for the single-lens plot consisted of the following: (1) Seven field identified triangulation stations; (2) One topo station; (3) Thirty-four hydro stations - 8 theodolite and 26 planetable positions; and (4) Twenty-eight detail points obtained from the nine-lens plot.

Good intersections of radials were obtained in the final assembly on all points including azimuths.

18 out of 26 planetable hydro points were "held". Of the 8 points not held only two points (Box and Cow) indicate any sizable error (.7 mm).

5 of the 8 theodolite stations considered were held and the other 3 "held" within 0.3 mm.

Topo station Tuna, 1954, was considered "held" in this plot although the only direction obtainable was from one photograph.

The common detail points were balanced out and held within 0.5 mm.

No checks were made on additional hydro stations other than the 32 stations mentioned above.

24. SUPPLEMENTAL DATA:

Graphic control surveys EX-A-54 and EX-B-54, 1/10,000 scale, 1954.

The only sizable discrepancies noted between the graphic control positions and the photogrammetric positions are in the positions of hydro stations Box and Cow. These are apparently local errors. A complete check was not made on all hydro station positions.

25. PHOTOGRAPHY:

The photography was adequate for radial plotting.

26. CONTROL FOR FUTURE SURVEYS:

The horizontal positions were established for 14 field identified photo hydro stations which fall outside the limits of the 1:10,000 scale manuscripts. They are shown on manuscript T-11324 (1:20,000 scale).

Approved:

Respectfully submitted:

R. J. French
for
Roscoe J. French
Supervisory Cartographer

Samuel G. Blankenbaker
Samuel G. Blankenbaker
Cartographer

HORIZONTAL CONTROL
(RADIAL PLOT REPORT)

ADAK ISLAND
(Bay of Islands)
1:10,000 Scale

1. TRIANGULATION:

*OLD, 1925-1954	held
CAREFUL, 1954	0.5 mm
ROT (USN), 1933	0.5 mm
FITZ (USN), 1933	held (thin cuts)
*NOR (USN), 1933	held
*LOW (USN), 1933	0.3 mm
DIM (USN), 1933	held

*Considered field identified for horizontal control. The others were identified.

2. TOPO (Theodolite):

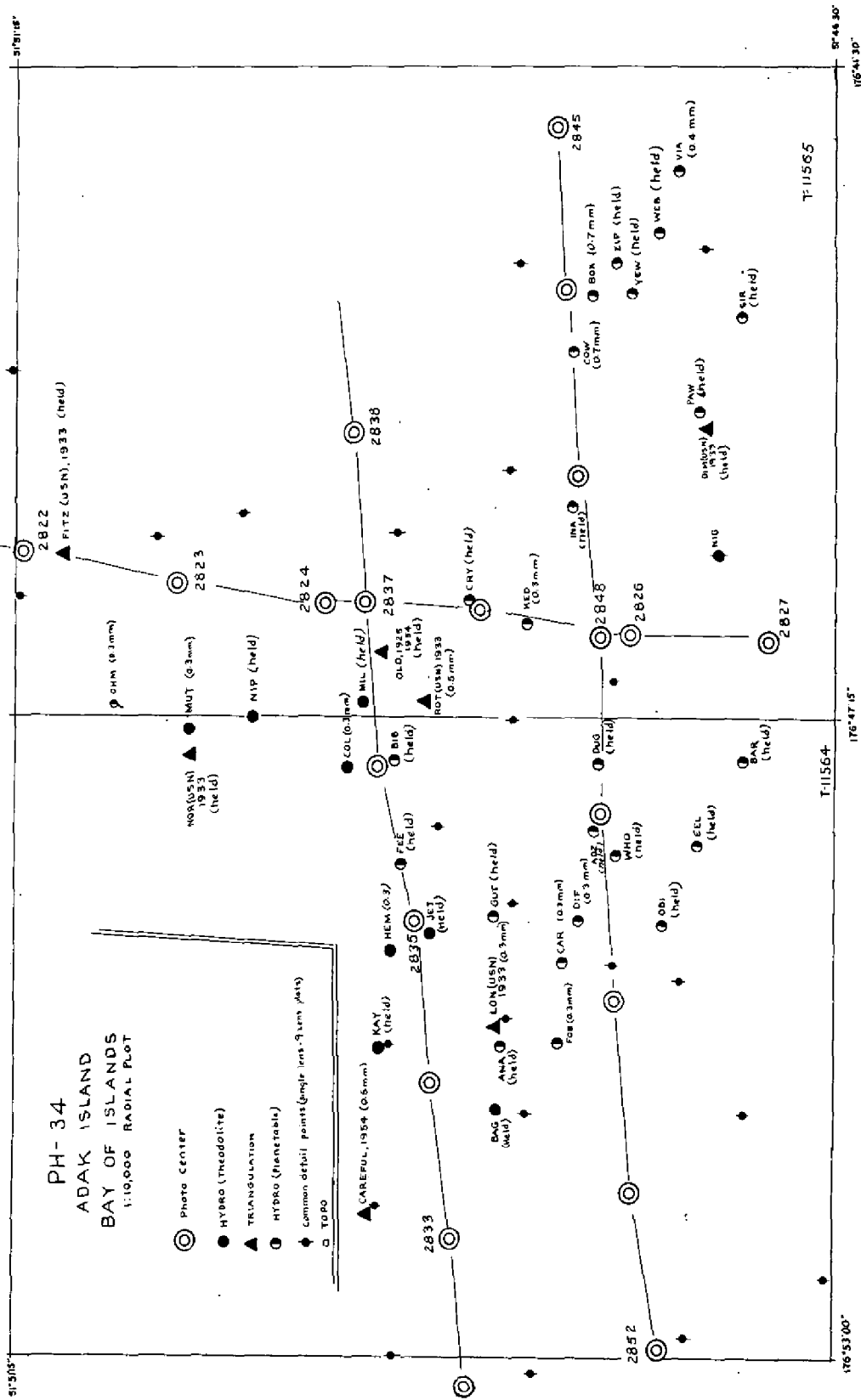
KAY, 1954	
BAG	
JET, 1954	
NIP	
MIL	
TUNA, 1954 - held with an only cut.	
HEM	0.3
MUT	0.3
COL	0.3

3. HYDRO (planetable positions, 1/10,000):

CRY	held
INA	"
YEW	"
ZIP	"
WEB	"
PAW	"
SIR	"
NIG	"
GUT	"
BAR	"
DUG	"
EEL	"
ADZ	"
OBI	"
ANA	"

HYDRO (planetable positions, 1/10,000) (Continued):

FEE	held
BIB	"
WHO	"
KED	0.3 mm
BOX	0.7 mm
COW	0.7 mm
VIA	0.4 mm
DIF	0.3 mm
CAR	0.3 mm
FOB	0.3 mm



MAP T-11565..... PROJECT NO. PH-34..... SCALE OF MAP 1:10,000..... SCALE FACTOR 1.0.....

[illegible]

M-2388-12

1 FT. = 3048006 METER

COMPUTED BY: N. Schultz

DATE 2/5/54

CHECKED BY: L. C. Lande

DATE February, 1954

COMPILATION REPORT, T-11565
ADAK ISLAND
(Bay of Islands)

31. DELINEATION:

The manuscript was compiled by graphic methods; from field inspection and office interpretation.

The field inspection was not completed in all of the area of the Bay of Islands. The inspection of shoreline extends from Ina Island, eastward through Gannet Cove and westward around Expedition Harbor to the western limits of the manuscript. In addition, there is field inspection on the south shore of Staten Island.

Those features shown in "red" on the manuscript were detailed from the planetable survey. See Paragraph 33 for details.

32. CONTROL:

The horizontal control, as a whole, is adequate with reference to identification of control. The use of sub-stations would have provided greater accuracy for some of the triangulation station identified "direct".

If one includes the hydro stations (those of less than third order accuracy) the horizontal control is adequate with reference to density and placement. As mentioned in the radial plot report the overall horizontal accuracy of the radial plot is dependent upon hydro stations and detail points common with the nine-lens radial plot.

33. SUPPLEMENTAL DATA:

Graphic control survey EX-A-54 was used for positions of horizontal control and hydro stations. Rocks, foul areas and other offshore details taken from EX-A-54 are delineated in red on the manuscript. The manuscript was compared with hydro survey EX-1154, boat sheet, which served as an aid in delineating offshore information.

34. CONTOURS AND DRAINAGE:

Inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS:

As mentioned in Section 31 of this report, all of the shoreline inspection was not completed. The photographs were taken near the time of high water making a good interpretation of the MHW line possible. Some sections of shoreline are in heavy shadow on the photographs.

36. OFFSHORE DETAILS:

Offshore details shown on graphic control boards EX-B-54 and EX-A-54 were transferred to the manuscript in red ink. Sextant fix positions of rocks were symbolized in black ink with a 2.5 mm red circle on the back of the manuscript.

As mentioned in the radial plot report the only area where sizable discrepancies were noted between the graphic control positions and the photogrammetric positions is at the NE end of Expedition Harbor. The radial plot positions of hydro stations Box and Cow differ from their graphic control board positions by 0.7 mm. These two stations are not "off" in the same direction. Most of the rocks shown on the manuscript in this area were transferred from the graphic control board. No accurate photogrammetric check can be made on the horizontal positions of these rocks.

It should be noted that there are discrepancies between graphic control board and ^{theodolite} ~~planetable~~ positions of rocks in this area. This is indicated by the row of four rocks (3 located by the Graphic Survey and 1 theodolite position) situated to the NW of station Box.

The rock shown on the manuscript between the two small islands east of Dora Island is not shown on the boat sheet. Soundings were apparently taken over or near the rock. The rock shows clearly on the photographs and is apparently somewhere near the high water line in elevation.

It is thought that the northermost of two small rocks between hydro station Nip (on North Island) and Adak Island is off in horizontal position on the graphic control board. The photogrammetric position was used with the graphic control board elevation.

37. LANDMARKS AND AIDS:

Inapplicable.

38. CONTROL FOR FUTURE SURVEYS:

None, except as mentioned elsewhere in this report for radial plot location of photo hydro control.

39. JUNCTIONS:

(1) T-11364 (2) T-11325

40. HORIZONTAL AND VERTICAL ACCURACY:

Vertical accuracy inapplicable. The horizontal accuracy is believed to comply with the National Standards of Accuracy.

46. COMPARISON WITH EXISTING MAPS:

None.

47. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with Nautical Chart No. 9120 (1:12,000 scale).

Items to be carried forward - none.

There is no topographic information of sufficient importance to warrant immediate application to the chart.

Approved:

K. N. Maki
for
Roscoe J. French
Supervisory Cartographer

Respectfully submitted:

Samuel G. Blankenbaker
Samuel G. Blankenbaker
Cartographer

48. GEOGRAPHIC NAMES:

EXPEDITION HARBOR
GANNET COVE
VINCENNES POINT
STATEN ISLAND
BEVERLEY COVE
INA ISLAND
ARGONNE ISLAND
DORA ISLAND
RANGE POINT
WHITE FALLS
NORTH ISLAND ANCHORAGE
CLIFF POINT
ADAK ISLAND

Beverley Point

Names approved 25-56
L. Heck

Review Report
Shoreline Survey T-11565
19 July 1956

62. Comparison with Registered Topographic Surveys:

T-4142 Reconnaissance 1925 1:20000

This survey is to be superseded by T-11565 for nautical charting.

63. Comparison with Maps of Other Agencies:

Adak Island (No. 4 of 10) AMS, 1:25000, 1943

Allowing for the difference in datum--local datum is basis of AMS Map--there is generally good agreement. Shoreline and foreshore features are better defined on T-11565.

64. Comparison with Contemporary Hydrographic Surveys:

H-8147 1:10000 1954

As mentioned in the Review Summary, the subject photogrammetric survey was used in compiling the hydrographic survey smooth sheet (H-8147) prior to final review. The only significant change made applies to an island off the southeastern shore of Staten Island. This change was not in conflict with depth curves or soundings on H-8147 and correction applied by Nautical Chart Branch.

Some rocks, foul areas and other offshore details were transferred from Graphic control survey EX-A-54 and delineated on the manuscript in red ink.

Contact prints for 1954 survey: 51926, 51927 from a preliminary photogrammetric survey, cover only a small portion of shoreline and offshore features of T-11565 (from Cliff Point north) and there is a lack of good agreement.

With the exception of more extensive detailing of kelp on hydrographic survey H-8147, this and map manuscript T-11565 agree in all detailing.

65. Comparison with Nautical Charts:


9120	1:12000	April 1955
9121	1:20000	1947, corrected to 52-8/25
9193	1:120000	1953, corrected to 54-7/5

Differences in alongshore features exist.


66. Adequacy of Results and Future Surveys:


This survey is adequate for Bureau requirements. No significant deficiencies in accuracy and adequacy were indicated.

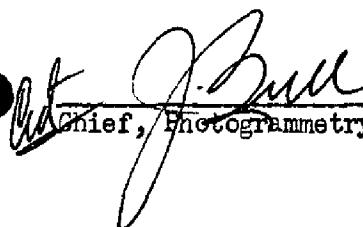
Reviewed by:

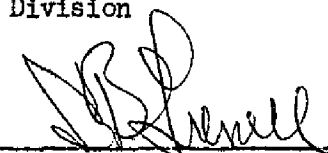

Josef J. Streifler

APPROVED BY:


Chief, Review and Drafting Section
Photogrammetry Division


Chief, Nautical Chart Branch
Charts Division


Chief, Photogrammetry Division


Chief, Coastal Surveys Division