

# 8616

Diag'd. on Diag. Ch. No. 8502-3

Form 504

## U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

### DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. CS-317 Office No. T-8616

#### LOCALITY

State Alaska

General locality Alaska Peninsula

Locality Port Wrangell & Agripina Bay

1941-'44

CHIEF OF PARTY

S.B.Grenell

LIBRARY & ARCHIVES

DATE

June 2 - 1949

B-1870-1 (1)

# 8616

## DATA RECORD

T-8616

Quadrangle (II):

Project No. (II): CS-317

Field Office:  
Seattle, Washington

Chief of Party: S. B. Grenell

Compilation Office:  
Baltimore Photogrammetric OfficeChief of Party: Louis J. Reed, Stereo-  
scopic Mapping Section,  
Washington, D.C.  
William F. Deane

Instructions dated (II III):

Copy filed in Descriptive

29 Feb. 1944 (Supp.); 18 Mar. 1944 (Supp.); 27 Feb. 1945; 21 Aug. 1946 (Supplemental); 30 Dec. 1946 (Memo Instructions); 31 Jan. 1947 (Supp.)

Completed survey received in office:

March 31, 1947

Reported to Nautical Chart Section: April 8, 1947

Partially applied to Chart 8851 - March 1948

Reviewed: Dec. 1948

Applied to chart No.

Date:

Redrafting Completed:

Registered: Jan. 11, 1949

Published:

Compilation Scale: 1:20,000

Published Scale:

Scale Factor (III): 1.000

Geographic Datum (III): N.A. 1927  
(Preliminary)

Datum Plane (III): M.S.L.

Reference Station (III): ASH, 1944 Vol. 5, pg. 32

Lat.:

Long.:

Adjusted  
Unadjusted  
(Preliminary)

State Plane Coordinates (VI):

X =

Y =

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>150° W. Meridian Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
* 6058-6060 inc.	8-5-41	1:50 P.M.	1:20,000	8.9' above MLLW
* 6126-6131 inc.	8-5-41	3:25 P.M.	1:20,000	5.4' above MLLW
10992 and 10993	9-5-42	1:47 P.M.	1:20,000	5.1' above "
10994	9-5-42	1:47 P.M.	1:20,000	5.1' above "

\* Rectified prints were also furnished

Tide from (III): Predicted Tide Tables for Pacific Ocean and Indian Ocean, 1941 and 1942. Reference Station: Kodiak, Alaska, with correction to Mean Range: 9.8' Diurnal Spring Range: Lees Cabins, Wide Bay 11.9'

Camera: (Kind or source)  
U.S. Coast and Geodetic Survey nine lens camera focal length 8 1/4"

Field Inspection by:  
Lt. Comdr. W.B. Grenell

date:  
June-August 1944

Field Edit by:

date:

Date of Mean High-Water Line Location (III): In general the same as the date of the photographs except for many short intermittent stretches of sandy shoreline too numerous to enumerate. These short stretches are shown as of the date of the field inspection in 1944.

Projection and Grids ruled by (III) S.R. (Washington) date: 4-4-46  
(Office)

" " " checked by: S.R. (Washington) date: 4-4-46  
(Office)

Control plotted by: F.J.Tarcza date: 4-8-46

Control checked by: H.R.Rudolph date: 5-3-46

Radial Plot by: F.J.Tarcza

date: 6-46

Contoured by Wm. D. Harris

date: 1-47

Contours inked by: Bernice Wilson

date: 1-30-47 to 2-6-47

Detailed by: George O. Fellers

date: 2-7-47 to 3-18-47

Reviewed in compilation office by: Joseph W.Vonasek

date: 3-19-47 to 3-24-47

Elevations on <sup>manuscript</sup> ~~field edit sheet~~

checked by: Joseph W.Vonasek

date:  
3-21-47

STATISTICS (III)

Land Area (Sq. Statute Miles): 54

Shoreline (More than 200 meters to opposite shore): 70 statute miles

Shoreline (Less than 200 meters to opposite shore): 10 miles

Number of Recoverable Topographic Stations established: 22

Number of Temporary Hydrographic Stations located by radial  
plot: 20

Leveling (to control contours) - miles:

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

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

Remarks: See heading No. 26 for explanation of correction from  
preliminary geographic position to corrected and adjusted position.

Preface to Descriptive Report T-8616

Project CS-317

Alaska Peninsula

T-8616 is one of six topographic maps in project CS-317 located on the south shore of the Alaska Peninsula between Cape Kummik and Wide Bay. These maps are not of standard quadrangle size.

The field inspection was accomplished from the Motor Vessel WESTDAHL, S. B. Grenell commanding, whose "Report of Field Inspection of Air Photographs, Alaska Peninsula, Wide Bay to Cape Kummik, 1944" is filed in the general files of the Division of Photogrammetry.

The radial plot for project CS-317 was made in the Baltimore Office using templates of nine-lens photographs on polyconic projection bases at 1:20,000 on the North American 1927 Datum. The shoreline was compiled by graphic methods on manuscript bases. All of the materials were then forwarded to the Washington Office where the contouring was compiled from rectified nine-lens photographs on the Reading Plotter, using a contour interval of 200 feet. The maps and materials were then forwarded to the Baltimore Office where the final compilation and inking of the manuscript were completed, after which they were again returned to the Washington Office where they were critically examined in the Stereoscopic Mapping Section, reconciling all discrepancies between hydrographic and topographic features.

A cloth-backed, advance, photographic print of the manuscript is registered with the descriptive report. When the map is printed a cloth-backed lithographic print will replace the advance photographic print. Depth curves and critical soundings are not shown on this map because the hydrography is very old and sketchy.

*S. V. Griffith*  
S. V. Griffith  
Chief, Review Section  
Div. of Photogrammetry

# FIELD REPORT

SURVEY NO. T - 8616

## 1. DESCRIPTION OF THE AREA:

T-8616 is one of six topographic surveys in Project No. CS-317 located on the south side of the Alaska Peninsula. Instructions for this project are dated:

29 February 1944 (Supplemental)  
18 March 1944 (Supplemental)

Instructions written for Project CS-279. Photogrammetric work changed to CS-317. These supplemental instructions were used as original instructions for the new project. <sup>B</sup>

Instructions to the compilation office are dated

27 February 1945  
21 August 1946 (Supplemental)  
30 December 1946 (Memo Instructions)  
31 January 1947 (Supplemental)

This survey includes the area from the northern limits of Agripina Bay on the north to Cape Providence on the south.

Refer to "Report of Field Inspection on Air Photographs - Alaska Peninsula, Wide Bay to Cape Kunmik, 1944" submitted by Chief of Party Lieutenant Commander S. B. Grenell.

## 2. COMPLETENESS OF FIELD INSPECTION:

Refer to the already mentioned field inspection report.

## 3. INTERPRETATION OF THE PHOTOGRAPHS:

No comment.

## 4. HORIZONTAL CONTROL:

Nine U.S.C. & G.S. horizontal control stations, all established in 1944, are within the limits of this survey. Pertinent data is shown in the following tabulated list:

STATION	IDENTIFIED	PRICKED ON PHOTO.	SKETCH	STEREOSCOPE USED
PINA, 1944	Yes	6128	Yes	Yes
LAGOON, 1944	No	---	---	---
ASH, 1944	Yes	6128	Yes	Yes
WRANG, 1944	No	---	---	---
RED, 1944 (Unmarked station)	Yes	6128	Yes	Yes
PORT, 1944	No	---	---	---
NEAVY, 1944	Yes	6130	Yes	Yes
PRO, 1944	Yes	6130	Yes	Yes
AIUGNAK, 1944	No	---	---	---

5. VERTICAL CONTROL:

Five of the horizontal control stations are also vertical control stations; namely, PORT, NEAVY, WRANG, ASH, AND LAGOON. These are class 2 stations; that is, their elevations were determined by reciprocal vertical angles.

6. CONTOURS AND DRAINAGE:

No identification.

7. MEAN HIGH WATER LINE:

Refer to "Report of Field Inspection on Air Photographs - Alaska Peninsula - Wide Bay to Kape Kunmik, 1944" submitted by Lieutenant Commander S. B. Grenell.

8. MEAN LOWER LOW WATER LINE:

Only several very short sections of the mean lower low water line have been identified.

9. WHARVES AND SHORELINE STRUCTURES:

None.

10. DETAILS OFFSHORE FROM THE MEAN HIGH WATER LINE:

Notes on details offshore from the M.H.W.L. have been made as complete as time permitted but only a few of the many rocks in the area have been noted. Detailed notes which have been omitted will have to be made at the time of the hydrographic survey.

11. LANDMARKS AND AIDS TO NAVIGATION:

None

12. HYDROGRAPHIC CONTROL:

None

18. GEOGRAPHIC NAMES:

No investigation.

19. SUPPLEMENTAL DATA:

A reconnaissance sheet, without projections was made by tracing the shoreline directly from photographs which showed detail on an approximate scale of 1:20,000. On this sheet many rocks and reefs were located or noted and other notes as to low water line, etc. were shown. These sheets

19. SUPPLEMENTAL DATA: (Continued)

should be referred to by the compiler when air photo compilation is made. *See par. 28 of the Compilation Report.*

Topographic Survey A-1944, scale 1:22,800, giving complete topographic coverage of Aiugnak Columns, was furnished. *Report attached.*

(Field report written in compilation office from information submitted by the field party.)

*George P. Fuller*  
Cartographer



## COMPILATION REPORT

MAP MANUSCRIPT, SURVEY NO. T-8616

### 26. CONTROL:

Refer to radial plot report for sketch showing layout of control in this area. RADIAL PLOT REPORT FILED IN GENERAL FILES OF THE DIV. OF PHOTOGRAMMETRY.

At the time of the radial plot only preliminary positions of the horizontal control stations were available. Adjusted positions were later obtained and an average made of the required corrections in order to determine the adjusted datum for the projection. In computing this average, the datum correction for station RED, 1944, was not used because the correction was too much in comparison with those computed for the other stations.

The projection lines should be redrawn with the meridional arcs moved 0.64 mm to the east and the arcs of parallel moved 1.01 mm to the north. (Computation sheet is attached to this report).

The final adjusted datum is shown on Survey No. T-8616 by ticks drawn with red ink at two minute intervals in the vicinity of the shoreline and at four minute intervals on the remainder of the manuscript.

For additional control information, see descriptive report submitted by G.C. Tewinkel and William D. Harris, which is attached to this report.

### 27. RADIAL PLOT:

Refer to the report for the radial plot covering Surveys T-8614 to T-8619 inclusive, submitted to the Washington Office 3 December 1946.

### 28. DELINEATION:

The compilation of this map is in accordance with instruction for Project CS-317.

The rectified prints which were furnished were used very little because of the poor definition of detail in comparison with the original prints. It was found possible to cut in sufficient detail points to facilitate use of the tilted pictures and thereby utilize their sharper definition of detail.

Field inspection was very inadequate for reasons explained in the field report.

Parts of the shoreline which were obscured on all photographs either because of shadow or excessive relief have been shown approximately

28. DELINEATION:(Continued)

with a dashed line accompanied by a note calling for further investigation.

For discussion of the contouring phase refer to the attached descriptive report submitted by Messrs. Harris and Tewinkel.

Aiagnak Columns, appearing as an insert on the map was not photographed. The details were traced from Topographic Sheet A-1944, South Side of Alaska Peninsula, submitted by the field party. Inasmuch as the Valdez Datum was used on this topographic sheet, it was necessary to compute the required amount of movement of the projection lines and redraw them on the topographic sheet in red ink in order to conform to the N.A. 1927 datum before being traced on the map. The vertical projector was used for tracing in order to change the scale from 1:22,800 as used on the topographic sheet to 1:20,000 scale of the map.

See "Descriptive Report to Accompany Topographic Sheet A-1944, South Side Alaska Peninsula, Project GS-279" submitted by Lt. Comdr. S.B.Grenell, a copy of which is attached to this report. ✓

The reconnaissance survey furnished by the field party was used to supplement data for offshore details. (See side heading No. 19 of this report.)

29. SUPPLEMENTAL DATA:

Refer to side heading No. 19 of this report.

30. MEAN HIGH WATER LINE:

Only short intermittent portions of the mean high water line were field inspected. The remainder was delineated by the compiler after stereoscopic examination.

31. MEAN LOWER LOW WATER LINE:

Only a few very short parts of the mean lower low water line were field inspected. No attempt was made to delineate the mean lower low water line elsewhere.

31A. SHOAL AND REEF LINES:

Shoal and reef lines visible on the photographs have been delineated.

32. DETAILS OFFSHORE FROM THE MEAN HIGH WATER LINE:

The approximate position of several kelp areas was taken from the reconnaissance survey furnished by the field party.

Rec. Topo Stations

P.9 1944 ..

Lump

Bon

Grip

Dub "

Tat "

H-4

H-2

H-1

Polt

Vel

For "

Dice "

7-8619-Hik

Ag

Vid

Leg

H-3

Mass

Sam "

Mid "

Sow

Can

33. WHARVES AND SHORELINE STRUCTURES:

None

34. LANDMARKS AND AIDS TO NAVIGATION:

None

35. HYDROGRAPHIC CONTROL:

*Form 524 cards submitted for 22 Rec.  
Topo. Stations. Filed in Div. of Photogr.  
General Files.*

Twenty hydrographic signal sites were selected in the compilation office. A list of these sites is attached to this report.

36. LANDING FIELDS AND AERONAUTICAL AIDS:

None

37. GEOGRAPHIC NAMES:

All geographic names were taken from Nautical Charts Nos. 8502 and 8851. A list of these names is attached to this report.

38. JUNCTIONS:

Satisfactory junctions have been made with T-8615 to the north and T-8617 to the west. All water areas lie to the east and south of this survey.

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

No comparison with the United States Geological Survey topographic map of Kanatak District, Alaska Peninsula, scale 1:250,000, published in 1935, was possible because the area common to both maps is shown as unsurveyed on the Geological Survey map.

45. COMPARISON WITH NAUTICAL CHARTS:

No comparison with the United States Coast and Geodetic Survey Chart No. 8502, scale 1:1,000,000, published August 1944, was made because of the wide scale difference. However, comparison was made with U.S.C. & G.S. Chart No. 8851, scale 1:80,000, published June 1945.

Details common to the chart and the map are in agreement, except for two small islets discussed in "b".

a. The following topographic information shown on T-8616 is of sufficient importance to warrant immediate application to the chart:

None.

45. COMPARISON WITH NAUTICAL CHARTS: (Continued)

b. The following topographic details above the plane of mean high water are not shown on this manuscript, but are believed to still exist and should be carried forward on the chart:

Two small islets in close proximity to each other, latitude 57 00' 18", longitude 156 31' 06" are shown on Chart No. 8851. These islets were not identified by the field party and are not visible on the photographs. These islets, if in existence, constitute a danger to navigation in that area.

c. Low water features are shown in part and will be completed by the hydrographic party.

d. This survey, in comparison with Chart No. 8851, shows minor changes in shoreline details, none of which need discussion here.

Respectfully submitted  
24 March 1947

George D. Fellen  
Cartographer  
Compilation and  
Compilation Report

Joseph W. Vonnack  
Photogrammetric Engineer  
Photogrammetric Office  
Reviewer

H. R. Rudolph  
Supervisor

Approved and forwarded  
31 March 1947

Thos B. B. B.  
Officer in Charge  
Baltimore Photogrammetric  
Office

## 28. Contouring Phase

*Reading Platter*

This is the first of six sheets in this project contoured by means of the ~~stereocartograph~~ in the Washington Office and also the first work in Alaska performed with this instrument.

The contour interval is 200 feet, with occasional 100-foot contours shown in long dashed lines in accordance with the enclosed memorandum. The topography is believed to conform to the standard map accuracy specifications for 200-foot contours. About one-third of the sheet in the south-west corner is believed to conform to standard accuracy for 100-foot contours, but no differentiation is indicated on the map.

### Control

The control for the sheet consists of ten horizontal stations, of which seven are also vertical stations. Two of the seven vertical stations (see attached list of vertical control) were not usable because of lack of identification. One of the remaining five vertical stations lay farther than one mile from shoreline, thus furnishing meager information for rectification. Consequently, contouring was generally limited in extent to the line of flight of the inner strip of photographs.

### Control Identification

The control identification was scarcely adequate. The stations selected were not good, from the standpoint of identification, probably because there existed few suitable sites. The identification was unusually difficult because (1) the steepness of the terrain made stereoscopic perception difficult and sometimes impossible and/or the photograph overlap was not sufficient in this type of terrain for stereoscopic examination, and (2) the images of narrow ridges and summits appeared too minute for positive identification. Item (1) may also be expressed by stating that the images of control stations on the separate photographs are dissimilar to such a marked degree that the human mental process is unable to fuse them into a single clear impression in three dimensions.

Several of the control points appeared to have been identified satisfactorily if they were viewed with an ordinary stereoscope, but with the measuring stereoscope of the plotting instrument they appeared to be in error

as much as one millimeter. Also, in several instances there appeared a point higher and more prominent than the nearby pricked point, which created some doubt as to the quality of identification. The identification of horizontal control is of equal or greater importance than vertical control since it affects the accuracy of the radial plot points which are used for rectification.

#### Procedure

The radial plot phase was done in the Baltimore Office. The contours were applied to the map manuscript in pencil in the Washington Office and the material returned to the Baltimore Office for completion.

Additional sea level points and elevated points were radial plotted by the plotter operators and their helpers to supplement the pass points of the main radial plot. The elevations of those additional elevated points were obtained from the plotter by orienting several pairs of unrectified photographs and the average of the several values was used for rectification in lieu of vertical control. The original radial templates were prepared in the usual manner for rectification, using the displacement-computer graph. Each photograph was set up and adjusted in the rectifying camera by the plotter operators or their helpers. Contouring was done in the usual manner except that a complete study of junction errors was not made. The extreme care usually exercised in drawing 20-foot contours was relaxed considerable to permit greater production. A more complete description of the operational procedure is included in the reports for T-8339 and T-8347.

#### Recommendations for Future Work

1. The forward overlap of the photographs should be between 80% and 85% (83% has also been suggested as a minimum) where contouring is to be done in mountainous terrain such as encountered in this project.
2. The flying height should be increased to the physical limits of the personnel and equipment where 200-foot contours are to be drawn, if the other uses for the photographs will permit the resulting small scale.
3. Vertical control should be established at intervals of three to five miles at unoccupied inland stations as far inland as contouring is required.

4. Improvement in the field identification of horizontal and vertical control should be achieved to maintain proper map accuracy and to reduce the waste of time and effort in each of the phases of map compilation. This may even necessitate the inclusion of a photogrammetrist with the field party.

5. An undefined top of a broad rounded hill or an undefined point in a broad flat area are found to be more desirable for vertical control stations than are sharp peaks or poorly defined points on sloping ground.

January 9, 1947

William D. Harris  
William D. Harris, Photogrammetrist

G. C. Tewinkel  
G. C. Tewinkel, Photogrammetrist



COMPUTATIONS SHOWING ADJUSTMENT REQUIRED TO CORRECT  
PROJECTION LINES TO N. A. 1927 ADJUSTED DATUM FOR  
SURVEY NO. T-8616

	OLD POSITION FORWARD METERS	NEW POSITION FORWARD METERS	DIFFERENCE METERS
PRO, 1944	1050.2 788.7	1029.9 801.2	-20.3 +12.5
PORT, 1944	1279.5 692.7	1259.0 705.4	-20.5 +12.7
WRANG, 1944	791.8 258.9	771.6 271.6	-20.2 +12.7
NEAVY, 1944	1353.1 252.8	1332.9 265.3	-20.2 +12.5
RED, 1944	114.8 97.3	88.5 116.8	-26.3) +19.5)
ASH, 1944	1159.5 520.2	1139.5 533.0	-20.0 +12.8
LAGOON, 1944	101.4 462.7	81.2 475.6	-20.2 +12.9
PINA, 1944	561.5 911.0	541.3 924.0	-20.2 +13.0

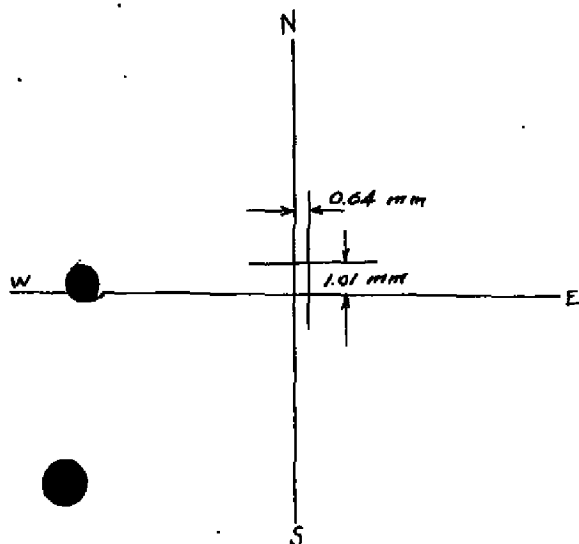
This position  
not used in  
average

Average:  $\phi$  = 20.229 m

= 1.01 mm

$\lambda$  = 12.729 m

= 0.64 mm



NOTES  
FOR  
HYDROGRAPHIC PARTIES  
ALASKA PENINSULA

MAP MANUSCRIPT - SURVEY NO. T-8616

PROJECT NO. CS-317

Recoverable topographic stations are shown on the manuscript with  $2\frac{1}{2}$  millimeter circles accompanied by a name, and hydrographic signal sites are indicated by  $1\frac{1}{2}$  millimeter circles accompanied by a number. Two copies of the list of descriptions of the signal sites have been furnished for your use.

The outline of shoal and reef areas are approximate and are for your advance information only. They are shown with short dashed lines and are designated by the note "Shoal" or "Reef".

No comparison with the United States Coast and Geodetic Survey Chart No. 8502, scale 1:1,000,000, published August 1944, was made because of the wide scale difference. However, comparison was made with U.S.C. & G.S. Chart No. 8851, scale 1:80,000, published June 1945.

Details common to the chart and the map are in agreement, except for two small islets discussed in "b".

a. The following topographic information shown on T-8616 is of sufficient importance to warrant immediate application to the chart:

None.

b. The following topographic details above the plane of mean high water are not shown on this manuscript, but are believed to still exist and should be carried forward on the chart:

Two small islets in close proximity to each other, latitude  $57^{\circ} 00' 18''$ , longitude  $156^{\circ} 31' 06''$ , are shown on Chart No. 8851. These islets were not identified by the field party and are not visible on the photographs. These islets, if in existence, constitute a danger to navigation in that area.

c. Low water features are shown in part and will be completed by the hydrographic party.

d. This survey, in comparison with Chart No. 8851, shows minor changes in shoreline details, none of which need discussion here.

Respectfully submitted  
24 March 1947

*George D. Feller*  
Cartographer

Approved and forwarded  
31 March 1947

*Thos B. Rand*  
\_\_\_\_\_  
Officer in Charge  
Baltimore Photogrammetric Office

# LIST OF HYDROGRAPHIC SIGNAL SITES

Site No.	Description	Pricked on Photo. No.
28	Center of rock	6131
29	Sharp corner of vertical bluff	6131
30	Center of top of column	6131
32	Top of rock	6130
33	Rocky point	6126
34	Angle in bluff	6126
35	Tip of ridge	6126
36	Wedge point	6126
37	Point of grass	6126
38	Projection	6126
39	Rocky point	6126
40	High point, end of rock	6130
40A	High point on knob on central part of island	10993
41	Tall spire	6128
42	Point of detached rock	6128
43	High point	6128
44	Point of bluff	6128
45	Center of rock	6128
45A	Low pointed rock	10993
46	High Point	10994

Listed by:

*George P. Teller*  
Cartographer

Checked by:

*Joseph W. Wozniak*  
Photogrammetric Engineer

LIST OF GEOGRAPHIC NAMES

- AGRIPINA BAY
- AIUGNAK COLUMNS
- ASHIIAK ISLAND
- CAPE PROVIDENCE
- DAVID ISLAND
- FLAT ISLAND
- LONE ROCK
- NAVY ISLAND
- POLTAVA ISLAND
- PORT WRANGELL
- Alaska Peninsula

Names preceded by "•"  
are approved. 12/15/48  
L. Heck

Division of Photogrammetry  
Review Report of  
Topographic Map Manuscript T-8616

Subject numbers not used in this report have been adequately covered in other parts of the Descriptive Report.

26. Control:

Horizontal control data form M-2388-12 listing all triangulation stations, within the limits of the map, on the N.A. 1927 adjusted datum is attached to the descriptive report. The form supplements the previous listing on the Preliminary N.A. 1927 datum.

Triangulation station PINA 1944, was not held in the radial plot. An examination of the photographs indicates the identification to be impracticable by direct pricking and it is presumed that the field identification was faulty.

Both the geodetic position and the radially plotted positions for PINA 1944 are being retained on the map manuscript, as an aid for future completion surveys.

28. Detailing:

The final review corrections and changes were made on the map manuscript to insure completeness and conformance with specifications.

The delineation of shoreline was carefully examined and compared with both the office and field inspection photographs. Even though the field inspection of the M.H.W.L. was very meager, the character of the steep rocky bluff shoreline and steep sandy beaches rigidly fix the line within very narrow limits; the same cannot be said of shoreline hidden by shadows, the limits of shallow areas, ledge lines and all other details offshore from the high water line. Such features are subject to change by the hydrographic party. The delineation of offshore features was based on the interpretation of the office compiler, and shown only as an aid to the hydrographer.

The contours were examined and compared with the photographs by stereoscopic methods. Areas where the contours were incomplete, were sketched, using a stereoscope. All sketched contours are shown on the map manuscript by the appropriate symbol.

29. Supplemental Data:

Aiognak Columns planetable sheet A 1944, referred to previously in the descriptive report and used to delineate Aiognak Columns, has been destroyed. Photostat copies of the planetable sheet ~~together with~~ the descriptive report, submitted by Lt. Comdr. S. B. Grenell, are filed in the Division of Charts as chart letter 112 (1945). A photostat copy of planetable sheet A 1944 and the original descriptive report are attached to descriptive report T-8619.

37. Geographic Names:

All Geographic Names shown on the map manuscript have been approved by the Geographic Names Section of the Division of Charts. Attached to the Descriptive Report is a list of approved geographic names.

47. Adequacy of compilation:

An examination of map manuscript T-8616 indicates it to be complete in all details as a base map for nautical charts and hydrographic surveys. From the U.S.M.S. inland, all delineated details are adequate for incorporating into standard quadrangle maps, of publication scale recommended not to be larger than 1:24,000 and the contour interval not to be less than 200 feet, except for the first 100 ft. contour.

48. Accuracy Tests:

Horizontal

No horizontal accuracy test was made. The combination of adequate nine-lens photographic coverage, nine-lens radial plot methods and adequate horizontal control, insures a horizontal accuracy equal to or better than National Map Accuracy Standards.

Vertical

Vertical accuracy tests have not been made on this map, nor have similar areas, mapped by similar methods been previously tested.

A consultation with the instrument operators indicates that contour errors have been minimized by the lack of woodland cover, and any discrepancies which occur, are caused by datum errors in the nine-lens chamber junctions. Such errors have been minimized by the presence of tide water as a basis for datum corrections at chamber junctions.

51. Application to Nautical Charts: T-8616 has been partially applied to chart 8851, prior to review.

Reviewed by:

Harland R. Gravatt  
Harland R. Gravatt  
Dec. 17, 1948

Approved by:

S. V. Griffith  
S. V. Griffith  
Chief, Review Section

H. C. Edmonston  
Chief, Nautical Chart Branch  
Division of Charts

K. T. Adams  
Chief, Division of  
Photography

W. M. Scifer  
Chief, Division of Coastal  
Surveys

DESCRIPTIVE REPORT  
TO  
ACCOMPANY  
TOPOGRAPHIC SHEET A-1944  
SOUTH SIDE ALASKAN PENINSULA  
PROJECT CS - 279

MOTOR VESSEL WESTDAHL

S. B. GRENELL, COMDG.

AUTHORITY: Instructions dated February 29, 1944.

SCALE OF SURVEYS: The scale of the survey of Aingnak Columns is 1-22800 due to the wrong talemeter being taken by mistake when the survey was made. Ugaiushak and Hydra Islands are scale 1-20800.

GENERAL DESCRIPTION: The few small islands and reefs laying along the south side of the Peninsula between Wide Bay and Sutuik Island which were not covered by the recent aerial survey in that vicinity.

Aingnak Columns are a scattered group of small steep sided islets and rocks lying off Cape Providence.

Ugaiushak and Hydra Islands lie about 7 miles off shore between Capes Kuyuyukak and Kunukik.

CONTROL: Triangulation control was established by a Geodetic party in this area at the time the topographic survey was executed.

METHOD OF SURVEY: Standard topographic survey methods were used through out this survey. The field work was completed at the same time as the triangulation and from the same vessel that was furnishing transportation for the triangulation party. At that time the geographic positions of the triangulation stations had not been determined.

The different surveys were started at the triangulation stations which were plotted on the blank sheet and all other points and all details of each separate area were connected to the starting point by directions and rod readings, both being used where possible.

On Ugaiushak Island the survey was started at HANK 1944, graphic triangulation being extended over the island, connecting points previously marked by flags. Station UGAI 1944 was contained in this graphic scheme and was located by cuts from HANK and several other points suitably situated. The located flags were then used as set up points and all details of the survey established by rod readings or by intersections. A suitable comparison in distance between the two triangulation stations and in their geographic positions was later made when the field geodetic computations were completed.

The meridians and parallels were placed on the projections when the geographic positions were available and after the field work was completed.

All elevations were determined by vertical angles.

No points on the island were marked with any degree of permanency except the two triangulation stations, however, all the points marked with red circles are natural features which are recoverable and can be used for control on a hydrographic survey. They are described on the topographic sheet and no other descriptions are considered necessary.



COMPARISON WITH PREVIOUS SURVEYS: No detailed comparison with Chart No. 8502 has been made due to the large difference in scale, however, some of the important details which are not shown on that chart are dangers to navigation and are listed below:

The large reef about 0.6 miles in length which is one mile south of Ugaiushak Island has several high points the highest being 60 feet in elevation and grass covered. The entire reef bares at the extreme minus tides.

The rock which is one-third mile southeast of the southeast end of Ugaiushak Island is a danger to any vessel rounding that point of the island. It bares 5 feet at mean lower low water and apparently is surrounded by fairly deep water as no kelp was seen growing in its vicinity.

LAND MARKS FOR CHARTS AND AIDS TO NAVIGATION:

There are no land marks or aids to navigation in the areas covered by this survey.

ANCHORAGE AND CAMP SITE:

The small bay on the north side of Ugaiushak Island could be used as an emergency anchorage for small vessels seeking shelter from southerly weather. Anchor in from 6 to 8 fathoms of water just outside the kelp beds in the center of the bay.

There is a possible camp site ashore for a hydrographic launch party as the launch could be anchored outside the kelp during normal weather and in the heavy kelp beds where the depth varies from 3 to 5 fathoms if the weather got troublesome. It could be anchored in the south bight during northerly weather. The main advantage to this camp site is the unoccupied house in fairly good repair with a drinking water supply close by.

STATISTICS:

Shoreline in statute miles - - - - - 11.0

Respectfully submitted.

/s/ Curtis Le Fever,

Curtis Le Fever,  
Lieut. Comdr., USCGS

Approved and forwarded:

/s/ S. B. Grenell

S. B. Grenell, Lt. Comdr., USCGS  
Comdg., WESTDAHL.

## NAUTICAL CHARTS BRANCH

SURVEY NO. 8616

### Record of Application to Charts

[illegible]

M-215B-1

**A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.**