

5777

Diag. Cht. No. 8861-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey AIR PHOTOGRAPHIC, SHORELINE

Field No. No. II Office No. T-5777

LOCALITY

State ALASKA-ALEUTIAN ISLANDS

General locality AMCHITKA ISLAND

Locality CONSTANTINE HARBOR

194 5

CHIEF OF PARTY

R. W. Knox

LIBRARY & ARCHIVES

DATE Oct-18-1951

B-1870-1 (1)

5777



## DATA RECORD

T5777

Quadrangle (II): T-5777

Project No. (II):

Field Office:

Chief of Party: L. C. Wilder

Compilation Office:  
Washington, D. C.

Chief of Party: R. W. Knox

Instructions dated (II III):  
Informal instructions~~Copy filed in Descriptive  
Report No. T- (VI)~~Completed survey received in office: *Mar. 1945*Reported to Nautical Chart Section: *Mar. 1945*  
CompilationReviewed: *D. L. Greene* Applied to chart No. *9123* Date: *4-7-45*  
*R. N. MARKI 9-13-50*

Redrafting Completed:

Registered: *10-4-51*

Published: \_\_\_\_\_

Compilation Scale: 1:10,000

Published Scale: \_\_\_\_\_

Scale Factor (III): 1.0

Geographic Datum (III): Unalaska Datum Plane (III): M.H.W.

Reference Station (III): \_\_\_\_\_

Lat.: \_\_\_\_\_

Long.: \_\_\_\_\_

Adjusted  
Unadjusted

State Plane Coordinates (VI):

X =

Y =

*None*

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
V5-20 to V5-23, incl.	8/26/44		1:10,000	
V3-10 to V3-15, incl.	8/26/44	Unknown	1:10,000	Unknown
5V3-18 to 5V3-24, incl.	10/4/44		1:10,000	
5V4-25 to 5V4-27, incl.	10/4/44		1:10,000	

Tide from (III):

Mean Range: 2.0'

Diurnal  
~~Spring~~ Range: 3.6'

Camera: (Kind or source) Unknown

Field Inspection by: L. C. Wilder

date: Aug.-Sept.  
1944, 1945

Field Edit by: None

date:

Date of Mean High-Water Line Location (III):

Date of field inspection

Projection and Grids ruled by (III)

date:

" " " checked by:

date:

Control plotted by: D. L. Greene

date: Jan., 1945

Control checked by: C. Hanavich

date: Jan., 1945

Radial Plot by: D. L. Greene & C. Hanavich

date: Jan.-Feb.  
1945

Detailed by: C. Hanavich

date: Feb.-March  
1945

Reviewed in compilation office by: *D.L. Greene*

date:

~~Elevations on Field Edit Sheet  
checked by:~~

~~date:~~

STATISTICS (III)

Land Area (Sq. Statute Miles):

Shoreline (More than 200 meters to opposite shore):

Shoreline (Less than 200 meters to opposite shore):

Number of Recoverable Topographic Stations established:

Number of Temporary Hydrographic Stations located by radial plot:

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:

Summary to Accompany T-5777

Shoreline map T-5777 covers the area of Constantine Harbor and Kirilof Point on Amchitka Island, from latitude  $51^{\circ}22.5'$  to  $51^{\circ}25.5'$  and longitude  $179^{\circ}15'$  to  $179^{\circ}21.5'$ .

Material relative to this map is filed as follows:

1. Division of Photogrammetry General Files
  - a. Map Manuscript
2. Bureau Archives
  - a. Descriptive Report
  - b. Cloth-backed lithographic print of T-5777 at manuscript scale.

## COMPILATION REPORT

SHEET T-5777

26. Control: The following U. S. Coast and Geodetic Survey horizontal control stations were held to during the radial plot, except for Joan, 1944:

Bay (USED), 1943; Baw 2 (SED), 1943;  
Reef (USED), 1943; "Baker" Control Tower;  
and "Charlie" Control Tower.

These control stations were identified in the field on the photographs except for the last two stations listed; it was possible to identify the positions of these two stations on the photographs from their descriptions. Although Joan, 1944, was picked on the photographs from the description of this station, it could not be held in the radial plot. Since this station is not a natural object, its office identification on the photographs was not certain merely from a description of this station.

Isle, 1944, was not used in the radial plot since no field identification of this station was made.

In addition, several topographic stations, which were identified in the field on photographs, were used to supplement the control. The positions of these topographic stations were scaled from topographic sheets T-6967a and T-6967b (scale 1:5,000; Datum - Preliminary Astro, 1944) adjusted to the Unalaska Datum, and plotted on sheet T-5777. The topographic stations are as follows:

Cor, Ner, Short (NE cor. of dk.), Big, High,  
Bust, Hap, Zig, and Nix

The remaining topographic stations which were shown on topographic sheets T-6967a and T-6967b were not used for control purposes since their positions could not be identified on the photographs. However, three of these stations were plotted on the sheet because of their importance; the stations are:

Dock (USED) Trav. Sta., Rear Range, and Front Range.

The control was sufficient to establish a strong radial plot. No radial plot point is believed to be in error by more than 0.5 mm.

27. Radial Plot: A radial line plot was laid in which 20 celluloid templates were used. The control was satisfactorily spaced and adequate. The radial line

intersections of all secondary points were good; the azimuths between the photo centers were held. The secondary points are shown on the sheet with large red circles. Detail points are shown with small blue circles except where the detail points were located by only two intersecting cuts; these points are denoted by small green circles.

28. Detailing: The area covered by this compilation embraces Constantine Harbor and a portion of the coastline along Kiriloff Bay, which are located at the southeastern end of Amchitka Island. The terrain is broken and rugged. The inshore detail extends inland from 1 to 1.5 miles.

The compilation of this sheet was done in accordance with the instructions. The detail was compiled from single lens ratio prints, scale 1:10,000, supplemented in part by field inspection prints and topographic sheet T-6967a and T-6967b.

The single lens ratio prints (1:10,000) were comprised of two flights. The first and second flights of photographs, which were flown on 8/26/44 and 10/4/44 respectively, are as follows:

First flight: V5-20 to V5-23, incl., and  
V3-10 to V3-15, incl.

Second flight: 5V3-18 to 5V3-24, incl., and  
5V4-25 to 5V4-27, incl.

It was necessary to enlarge the original contact photographs, which were furnished by the Army, of the two flights as follows: First flight - ratio 1:2.48, second flight - ratio 1:1.20. The effect of this was seen in the poor contrast of the photographs. Where any difficulty was found in the delineation of the detail, it was necessary to refer to the original contact prints. Surprisingly, no appreciable error in tilt or scale was found. When any discrepancy in detail between photographs of the two flights was found, the later photo was used; only a few minor discrepancies were noted.

The field inspection of details offshore and along the high water line was very limited; in view of this, most of the area was compiled through office interpretation. In the descriptive report submitted by the field inspection party,

The photostat copies of the surveys of the resident Engineer mentioned on the opposite page are filed in the Nautical Chart Branch as blueprint 39228, and are referred to in Chart Letter 29 (1945). This material was brought to the attention of the compiler after completion of the manuscript. A casual examination indicates that it is of little value as control for T-5777. The engineer surveys are based on the coordinate system and no information is given as to geographic position and orientation. The shoreline on the engineer surveys for the most part is a dashed line with few details.

The engineer surveys do contain contours for the limited area covered, whereas T-5777 shows planimetry only. The engineer surveys also show runways at the airfield. The runways were purposely omitted from T-5777.

reference is made to large scale topographic maps prepared by the Resident Engineer, U.S.E.D., Amchitka, Alaska, which was to be used to facilitate the field inspection work. Since these topographic maps were not available at this office, it is suggested that a comparison be made of this sheet with the topographic maps, when they do become available. Attention is called to the small section of the indefinite high water line on the north side of the jetty, east of Kiriloff Bay and just south of Kiriloff Point. This section of the high water line was made indefinite since it was noted on the field inspection contact print of this area that the jetty had been rebuilt and that the topographic maps, mentioned above, should be referred to. *See note on opposite page.*

The small amount of offshore and high water detail shown on topographic sheets T-6967a and T-6967b was transferred directly from film positives (reduced to scale of 1:10,000) of these topographic sheets to the map drawing by holding to control stations. No displacement in control or detail was noted except the following:

- (1) Northwest of triangulation station Reef (USED) 1943, and about 30 to 100 meters west of topographic station Bust, the shoreline was interpreted by the compiler since the planetable topography and photo inspection interpretations of this area did not agree.
- (2) About 1100 meters north of station Reef (USED) 1943, two rocks about 50 meters apart were inaccurately located on topographic sheet T-6967b; these two rocks were relocated in their correct positions on the map drawing.

A sufficient number of detail points were located to facilitate the progress and the accuracy of the work in detailing. In detailing, the detail points located by two cuts, because of insufficient photo coverage, were used with caution, and controlled by those with three or more cuts. The stereoscope was used extensively for interpreting offshore, inshore, and shoreline details.

29. Supplemental Data: Topographic sheets T-6967a and T-6967b were used to supplement the photographs. See item 28 with reference to the discrepancies found between these sheets and the compilation.

30 Mean High-Water Line: The mean high-water line was interpreted stereoscopically in the office by the compiler, in which a small portion of this interpretation was facilitated by field inspection photos. Those portions of the high-water

line shown on the graphic control sheets were transferred directly to this compilation, and checked by stereoscopic observation of these areas. See item 28.

31. Low Water and Shoal Lines: The procedure was analogous with that of item 30.

32. Details Offshore from the High-Water Line: The offshore details as shown on the graphic control sheets were transferred to the compilation. Although the field inspection and graphic control surveys did not cover but a portion of the area of this sheet, they were of benefit in interpreting the remaining area for offshore details such as kelp, rocks, ledges, etc. The interpretation of these offshore details was facilitated, also, by referring to the nautical chart (9123) of this area.

33. Wharves and Shoreline Structures: Wharves and shoreline features were transferred to this compilation from the graphic control sheets. All other features were detailed through stereoscopic interpretation in the office.

34. Landmarks and Aids to Navigation: There were no landmarks or non-floating aids to navigation recommended for charting by the field party.

35. Hydrographic Control: Not applicable.

36. Landing Fields and Aeronautical Aids: Three landing strips, which are located within the limits of this sheet, were not detailed in accordance with the instructions. No information was available on the existence of aeronautical aids.

37. Drainage: The drainage in this area was determined by stereoscopic methods, and the streams were indicated as perennial or intermittent at the discretion of the compiler.

38. Geographic Names: Nautical chart (9123) was used as the source of place names for this area; they are as follows:

1. Constantine Harbor
2. Kirilloff Bay
3. Kirilloff Point
4. Constantine Point

39. Roads, Buildings, and Structures: All major roads and trails were shown; they were detailed and classified at the discretion of the compiler by stereoscopic interpretation. The same condition holds true for buildings and structures. All the buildings were shown just inland from the shore; only the larger buildings and structures were shown in the interior.

44. Comparison with Existing Topographic Quadrangles:  
A visual comparison of this sheet was made with the Amchitka Island No. 7 quadrangle, prepared under the direction of the Chief of Engineers, U. S. Army, 1943. A detailed comparison was not made because of the difference in scale. It was noted that the drainage system was in fair agreement, and scattered instances of agreement in the indication of bluffs and ledges.

45. Comparison with Nautical Charts: A direct comparison was made with chart 9123 (scale 1:10,000). Displacements were prevalent within the entire area of the chart. In addition many roads and structures have been constructed within recent years that are now shown on the chart. This, also, holds true for item 44 above.

A print of this compilation is being forwarded to Seattle, Washington to be used on the hydrographic smooth sheet.

Respectfully submitted,

Charles Hanavich  
Charles Hanavich

Descriptive report and compilation  
under direction of Dwight L. Greene.

Inspected by:

Dwight L. Green

T-5777 (Supplemental Corrections)

The northwest shoreline of Kirillof Point, Constantine Harbor, was corrected to conform with the most recent field inspection data of 1945. This field inspection data are furnished on single lens photographs 1-V6-24 and 1-V6-25 of a scale of 1:22,600 approximately.

The topographic stations were transferred directly to the map manuscript from graphic control sheet ~~T-6988a~~ and ~~T-6988b~~, scale 1:10,000, and shown in red acid ink with the station name shown in black acid ink. The shoreline was transferred from the photograph to the map manuscript with the vertical projector by holding to the topographic stations identified in the field. The stations held quite well.

*not registered  
destroyed  
2/15/65*

All corrections to shoreline, additional rocks, etc., are shown in red acid ink.

The area at Constantine Point has field inspection photographs (1046 and 1048, five lens) identifying topographic stations. No field delineation of shoreline has been made and the shoreline as now shown is based on office interpretation.

Submitted:

*K. N. Maki*

K. N. Maki

July 30, 1946

Approved:

*L. C. Lande*

L. C. Lande

GEOGRAPHIC NAMES

Survey No.

T-5777

Name on Survey

	A	B	C	D	E	F	G	H	K
	On Chart No.	On previous survey No.	On U. S. Quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
<u>Alaska</u>									1
<u>Aleutian Islands</u>									2
<u>Amchitka Island</u>								USGB	3
<u>Constantine Harbor</u>								"	4
<u>Constantine Point</u>									5
<u>Kirilof Point</u>								USGB	6
<u>Kirilof Bay</u>								"	7
									8
									9
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Names underlined in red are approved. 3-12-50. L. Heck

Review Report T-5777  
Shoreline Map  
13 September 1950

62. Comparison with Registered Topographic Surveys.-

<del>T-6988</del> <i>Not registered</i>	1:10,000	1945
T-6967 a, b	1:5,000	1944

T-5777 supersedes these surveys for nautical charting purposes. Refer to compilation report concerning application of these surveys to T-5777. T-5599, topographic project Ph-34, surveyed in 1948 supersedes T-5777 and all other previous topographic surveys.

63. Comparison with Maps of Other Agencies.-Amchitka Island, Corps of Engineers, 1:25,000, 1943 (Sheets 7 and 8 of 8). Refer to note opposite page 3 of compilation report on additional supplemental material.

64. Comparison with Contemporary Hydrographic Surveys.-

H-7007	1:5,000	1944-5
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T-5777 was used as a base for shoreline and topography for hydrographic sheet H-7007.

65. Comparison with Nautical Charts.-

9123	1:10,000, Corr. to 4-20-46
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Many offshore rocks, in addition to those shown on T-5777, are shown on the chart. Positions of individual rocks or groups of rock are not in agreement between T-5777 and the chart, particularly in the area west of Constantine Point and in the approximate longitude of triangulation station Reef.

Shoreline on the chart is more generalized in that it does not show the smaller irregular characteristics as shown on T-5777. Buoys and aids to navigation shown on the chart do not appear on T-5777.

66. Adequacy of Results and Future Surveys.-T-5777 is considered adequate as a preliminary base for hydrographic surveys and for nautical chart construction.

Reviewed by:

*K. N. Maki*

K. N. Maki

Approved;

A. V. Griffith  
Chief, Review Section *K.H.M.*  
Div. of Photogrammetry

H. Edmouler  
Chief, Nautical Chart Branch  
Division of Charts

O. S. Reading  
Chief, Div. of Photogrammetry  
*A.R.7*

W.M. Scaife  
Chief, Div. of Coastal Surveys  
*B.H.*

Preliminary application of a few details to chart 9123 J.M.A. 4-7-45