DECLASSIFICATION BY NOAA
Pursuant to Doc Systematic Review
Guidelines as described in Section 3.3 (a), Executive Order 12356
Applied to Chart Comp. 9020 (prior to survey) Dec 21, 1932
Applied to chart Comp. 9020 June 1940 L.A.M.
8802 Nov. 3 M.A.

Inspected after review - No Cn - JF 12/30/41
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

AIR PHOTO COMPIRATION
TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. T-5270

REGISTER NO.

State: ALASKA

General locality: ALEUTIAN ISLANDS

Locality: UNALASKA ISLANDS--NORTH COAST

Scale: 1:20000

Date of survey: U.S. Navy in 1934


Chief of party: A. M. SOBERALSKI

Surveyed by: U.S. NAVY 5-LENS-CAMERA AIR PHOTOGRAPHS

Inked by: J.C. TISON, Jr.

Heights in feet above

Mean High Water to

ground top of trees

Contour: Approximate contours, Form line interval 100 feet

Instructions dated: APRIL 13, 1934

Remarks:

...
DESCRIPTIVE REPORT
TO ACCOMPANY
AIR PHOTO COMPILATION No. 2
UNALASKA ISLAND, ALASKA—NORTH COAST
SEASON 1936
PROJECT HT-176

U.S.C. & G.S.S. SURVEYOR

A. M. SOBIERALSKI, COMMANDING

1. GENERAL DESCRIPTION OF COAST AND CHARACTER OF COUNTRY.

The area covered by this compilation is mountainous, distinguished
by ridges of mountains extending in a general east and west direction with
comparatively low valleys between. The coastline along Bering Sea
is very irregular with Bays or Bights forming indentations at the west-
ern end of each valley. Large streams and lakes of various sizes exist
in the valleys and empty into the sea at the heads of Bays or Bights.
The land area is all grass covered with large marshy area in the valleys.
All mountains except those adjacent to the head of Pumicestone Bay are
free from snow in the summer months and generally grass covered.

The shoreline is rocky with steep rocky cliffs or grassy bluffs
rising directly back of the high water line. Rocky and boulder strewn
beaches are found everywhere except at the heads of Bays where the
ground is low and the beaches consist of sand and pebbles. The area
between the high and low water line consists of a flat rocky reef or
ledge, evidently the result of lava flow, and this ledge is usually
strewed with boulders.

2. GENERAL DESCRIPTION OF COAST AND CHARACTER OF COUNTRY: (cont.)

The most precipitous land formations are in the vicinity of Pumice-
stone Bay, Eastward of the turn in this Bay the shoreline consists of steep
rocky slopes rising directly from the water with no beaches at the base.
The mountains in this vicinity are rugged and the numerous jagged peaks
are difficult to identify individually.

The large lakes lying inland adjacent to Kashega Bay appear to be
quite deep.

3. CONTROL: Control for the photographs consisted largely of points
located by means of the planetable on the aluminum control sheets cover-
ing the area. A well spaced system of second and third order triangula-
tion provided control for the planetable surveys.

Most triangulation stations in the area were so situated as to make
it impossible to locate them on the photographs with any degree of accuracy,
and for this reason a series of clearly identifiable control points was
established by topography. These points were located with the same
accuracy prescribed for the location of topographic stations, and
carefully transferred to the compilation from the aluminum sheets. No
appreciable error in the control was evidenced in the making the compila-
tion.
4. RADIAL LINE PLOT:

The standard radial line plot method was used with no particular difficulties encountered. A scale difference was noted in the photographs when passing directly over high ridges, causing bad radial line intersections for points near the top of the ridges, but by adjusting the plot it is believed that such points were located with sufficient accuracy.

5. PHOTOGRAPHS: The photographs are clear and distinct except where fog banks blotted detail entirely in the area around the head of Pumicestone Bay. The shoreline on the north side of Kashega Point was also blotted out by an over hanging cliff. The shoreline in both of these areas, that is at the head of Pumicestone Bay and on the north side of Kashega Point, was rodded in on the aluminum control sheet No. UB-36. T 6516

There was no evidence of excessive tilt in the photographs.

6. ELEVATIONS: Elevations were determined with the planetable on the aluminum control sheets, and those used for form lining transferred temporarily to the compilation and then shown on the overlay sheet constructed for the compilation. Where a single cut with vertical angle was obtained to some distant peaks visible from a planetable set-up, it was first recorded on the aluminum sheet, then later transferred to the compilation; and if the peaks could be identified, its elevation was computed. Elevations which appear on the overlay sheet for the compilation and are not shown on aluminum control sheets were determined in this manner.

7. FORM LINES: Form lining was done for as much of the area covered by the compilation as possible, with the elevations that were available. The form lines were first drawn on the compilation itself with india ink then transferred to the overlay sheet.

8. JUNCTIONS: This compilation joins compilation No. 1 in the north along the parallel 53° 34' N. and joins topographic sheet UB 35 on the west and south west. All junctions were checked and found satisfactory. 2640 m.

9. COMPARISONS WITH OTHER SURVEYS: A careful comparison was made with all hydrographic sheets and aluminum control sheets included in the area of this compilation. No large discrepancies were noted and in instances of small discrepancy adjustments were made by the compiler, they being due to faulty interpretation of the photographs.

10. NAMES: For list of names in this area see descriptive reports for Aluminum Control sheets Nos. UB-36, UC-36, UE-36. T 6546 T 6547 T 6548 at back.

11. FIELD INSPECTION OF PHOTOGRAPHS: The field inspection of photographs was carried on simultaneously with the execution of the plane table.
works on Aluminum control sheets. Points chosen for control of the compilation, other than triangulation stations which could be identified on the photographs, were in all cases directly visible on the photograph and could be pricked in the field. Notes regarding shoreline or other features were either recorded directly on the field prints or in a sketch book in rough form for use by the compiler.

12. INTERPRETATION: No difficulty was encountered in interpreting detail on the photographs. The fact that the compiler had executed the aluminum control sheet surveys and done the field inspection, greatly facilitated interpretation.

13. MISCELLANEOUS: Form lining for the point of land forming Hague Cape was done on this compilation to the shoreline on the east and north sides of Middle Bay. Streams in this area are also shown on the compilation, while the shoreline was located on Topographic Sheet #UE*36. (76x51)

The easterly end of the radial plot for this compilation is very weak due to the absence of control where fog blots out all detail on the photographs. This end of the plot was used only for locating inland streams and lakes of little importance, and for form lining in the vicinity of the head of Pumice Stone Bay. The plot is believed to be accurate enough for use in locating such detail.

Streams and other inland detail was compiled for the area adjacent to Kulliamak Bay on the south side of Unalaska Island but no attempt was made to compile the shoreline of the Bay itself, due to absence of control. It was deemed advisable to compile as much inland detail as possible, regardless of accuracy, to facilitate form lining in that area when a topographic survey is executed there.

14. ACCURACY: Well defined and important detail as shown on this compilation is believed to be compiled with a probable error of not more than 10 meters; while less well defined detail, appearing a considerable distance out on the wing prints and in areas of little control, is believed to be compiled with a probable error of not more than 30 meters.

Respectfully submitted,

[Signature]

James C. Tison, Jr.

Approved & Forwarded
A. M. Sobiersalski
Commanding Officer

A. M. Sobiersalski

* These points were located by plottable and transferred to the ellipsoid for the radial plot. They were erased from the plottable sheet (graphite control sheet) and from the ellipsoid before the sheet was forwarded to the office. The points are shown on the photographs.
- STATISTICS -

on

SHEET, FIELD NO. 2, REG. NO. __________

PHOTOS, NO. 1871 TO NO. 1890 (Acc. #680)

DATE OF PHOTOGRAPHS ___________ TIME ___________

BY

ROUGH RADIAL PLOT J. C. Tison, Jr. 1/29/37 2/1/37
1:20,000 scale

SCALE FACTOR (.723) J. C. Tison, Jr. 2/1/37 2/1/37

SCALE FACTOR CHECKED J. C. Ellerbe 2/2/37 2/2/37

PROJECTION J. C. Tison, Jr. 2/5/37 2/5/37

PROJECTION CHECKED J. C. Ellerbe 2/5/37 2/5/37

CONTROL PLOTTED J. C. Tison, Jr. 2/6/37 2/8/37

CONTROL CHECKED J. C. Ellerbe 2/8/37 2/8/37

TOPOGRAPHY TRANSFERRED J. C. Tison, Jr. 2/10/37

TOPOGRAPHY CHECKED J. C. Ellerbe 2/10/37

SMOOTH RADIAL LINE PLOT J. C. Tison, Jr. 2/11/37 2/28/37

RADIAL LINE PLOT CHECKED J. C. Ellerbe 3/1/37

DETAIL INKED J. C. Tison, Jr. 3/2/37 4/15/37

PRELIMINARY REVIEW OF SHEET A. M. Sobierski 4/8/37

AREA OF DETAIL INKED 65 sq. Statute Miles (Land Area)

AREA OF DETAIL INKED ___ sq. Statute Miles (Shoals in Water Area)

LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore) 44 Statute Miles

LENGTH OF SHORELINE (rivers-and-sloaks less than 200 m. wide) 100 Statute Miles

LENGTH OF STREETS, ROADS, TRAILS, RAILROADS, etc. 6.5 Statute Miles

GENERAL LOCATION Aleutian Islands, Alaska

LOCATION Unalaska Island—North Coast.

DATUM North-American 1927 Unalaska Datum 1901

Latitude 53° 29' 00.33" (04.3m.)

STATION Lake 1935

Longitude 167° 07' 59.400" (1095.4)
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<td>2</td>
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<td>4</td>
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<td>5</td>
<td>535670</td>
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<td>6 In Kashega Bay</td>
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<td>7</td>
<td>&quot;</td>
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<td>8 Kashega Bay, south Buck Island</td>
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<td>9 Not Middle Bay</td>
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<td>10 Omit word village</td>
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<td>12 Between Kashega Bay and Kismaliuk Bay</td>
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<td>Kashega Pinnacles</td>
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L. Heck 12/18/39
DIVISION OF CHARTS
Section of Field Records

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5270
Scale 1:20,000

Graphic Control Surveys.

T-6546 (1936) 1:20,000.
T-6547 (1936) 1:10,000.

These graphic control surveys were made for the location of hydrographic control, location of control for the photo plots, location of elevations for form lines drawn from the photographs, and the location of rocks awash and shore line details not clear on the photographs. T-6546 and 47 are complete and adequate for the purpose for which they were made.

All details on the graphic control surveys within the area of T-5270 have been transferred to T-5270 with the exception of hydrographic stations and the magnetic declinations.

Previous Topographic Surveys.

None.

Hydrographic Surveys.

H-6175 (1936) 1:20,000.
H-6183 (1936) 1:10,000.
H-6212 (1936-37) 1:20,000.

The above hydrographic surveys were compared with T-5270 by the hydrographic reviewer.

Comparison with Chart 8802 (38-11/3), 9022 (not yet published).

T-5270 was applied to chart 9022 December 21, 1938, prior to this review. No changes have been made in T-5270 since that date except for redrafting as stated in the following paragraphs of this review.

Only a general comparison was possible between T-5270 and Chart 8802 due to the small scale of 8802.

Junctions.

These have been checked and are satisfactory.
Low Water Line.

The dashed line on T-5270 is the limit of rock ledge visible on the photographs. The time of the photography and stage of tide are not known and the field inspection has furnished no information as to how nearly this line may approximate actual low water. The line has been carried forward as a dashed line on the hydrographic surveys.

Form Lines.

These are controlled by the elevations, shown on the sheet, which were determined by the graphic control surveys. Form lines were drawn by viewing the photographs under the stereoscope and sketching on the celluloid in much the same manner as done on the plane table surveys.

Redrafting.

T-5270 will not be published. The original compilation, on a celluloid sheet with form lines on a tracing paper overlay, was made at a scale of about 1:30,000. These drawings were transferred by projector in this office to a projection on Whatmans paper and inked in the Philadelphia office, scale 1:20,000. The new drawing has been carefully checked against the original for completeness of detail and accuracy of copy.

General.

T-5270 is complete except for information regarding the dashed line (low water line?)

It would have been preferable had the form lines been drawn directly on the celluloid with black celluloid ink. These could be inked either on the back or front of the sheet. The tracing paper overlay on which the form lines for T-5270 were shown has shrunk more than the celluloid and for this reason some additional work has been necessary in this office in transferring the form lines.

Photograph. Flight lines for this sheet and T-5269 were rather widely spaced for form lining. On future air photographic surveys in Alaska, it is anticipated that Coast and Geodetic Survey photographs will be available and that flight lines will probably be better spaced. In this case it will be possible to improve the form lines and reduce the amount of plane table work by determining additional
elevations from the photographs. Where the photography is done sufficiently in advance it will also probably be practical to locate most of the hydrographic signals by the photographic plots.

Reviewed by - H. D. Reed, December 1939.

Inspected by - B. G. Jones, December 1939.

Examined and approved:

T. B. Reed, Chief, Section of Field Records.

K. T. Adams, Chief, Division of Charts.

Raymond C. Edman, Chief, Section of Field Work.

Chief, Division of H. & T.