

# 5406

## ~~CONFIDENTIAL~~

Form 504  
Rev. April 1935  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

### DESCRIPTIVE REPORT

*Topographic* MAP DRAWING *T 5406*  
*Hydrographic* Sheet No. *1111*

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

APR 19 1938

Acc. No. \_\_\_\_\_

State ALASKA

LOCALITY

ALEUTIAN ISLANDS

UNALASKA ISLAND

CHERNOFSKI HARBOR

*Photos taken in 1934 by U.S. Navy.*

193 7

CHIEF OF PARTY  
A.M. Sobieralski, Commanding Officer  
U.S.C. & G.S. Ship SURVEYOR

U. S. GOVERNMENT PRINTING OFFICE

# 5406

## ~~CONFIDENTIAL~~

Inspected after review - Mr. G. - JRM 12/30/41

before being reported,

Applied to Confidential Chart 9022, Dec. 5, 1938, H.E. MacSwan

Applied to confidential chart 9020. May 1940. L.A.M.

" " " 8802 Nov. " D.M.A.

" " " (new) chart 9009 Feb-28-1942 - P.B.L.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

MAP DRAWING  
~~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 Letter <sup>1- CS 136M</sup> ~~1-CH~~

REGISTER NO. **T-5406** **T5406**State ALASKAGeneral locality UNALASKA ISLAND, ALEUTIAN ISLANDSLocality CHEENOEFSKI HARBOR

f=1.024

Air Photographs

Scale ~~1:5000~~ ~~f=0.968~~ Date of survey taken in 1934Vessel U.S.C. & G.S.S. SURVEYORChief of Party A. M. SobieralskiSurveyed by Single Lens CameraInked by J. C. EllerbaHeights in feet above M.H.W. to ground ~~to tops of trees~~~~Contour - Approximate contour~~ Form line interval 100 feetInstructions dated April 13, 19 34Remarks: This sheet is a map drawing compiled from singlelens camera air photographs taken by the U.S. NAVY in 1934.

STATISTICS  
on 1-65/36M  
SHEET, FIELD No. 1-CH

PHOTOGRAPHS, NO. 410 to No. 445

DATE OF PHOTOGRAPHS 1934 TIME \_\_\_\_\_

	BY	DATE FROM TO
ROUGH RADIAL PLOT _____	J.C.E.	<u>1/3/38</u>
SCALE FACTOR _____ (EAST SIDE OF SHEET: 1.024) (WEST SIDE OF SHEET: 0.968)	J.C.E.	<u>1/5/38</u>
SCALE FACTOR CHECKED _____	F.A.R.	<u>1/7/38</u>
PROJECTION _____	J.C.E.	<u>1/11/38</u>
PROJECTION CHECKED _____	F.A.R.	<u>1/11/38</u>
CONTROL PLOTTED _____	J.C.E.	<u>1/17/38</u>
CONTROL CHECKED _____		
SMOOTH RADIAL LINE PLOT _____	J.C.E.	
RADIAL LINE PLOT CHECKED _____		
DETAIL INKED _____	J.C.E.	
PRELIMINARY REVIEW OF SHEET _____		

AREA OF DETAIL INKED 3 Sq. Statute Miles (Land Area)

AREA OF DETAIL INKED 1 Sq. Statute Miles (Shoals in Water Area)

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

LENGTH OF SHORELINE (rivers, sloughs, etc.)  
5.0 Statute miles

LENGTH OF STREETS, etc. NONE Statute Miles

GENERAL LOCATION UNALASKA ISLAND, ALASKA

LOCATION CHERNOFSKI ENTRANCE

DATUM UNALASKA, 1901

STATION CHURN 1935 Latitude 53° 24' 29".780 920.6 m  
Longitude 167° 31' 46".144 852.4 m

unadjusted



DESCRIPTIVE REPORT

to accompany

MAP DRAWING No. I-CH <sup>7-5406</sup> ~~CS-136-11~~

Chernofski Harbor, Unalaska Island, Alaska

Season 1937

U.S.C.&amp;G.S.S. SURVEYOR

A. M. Sobieralski, Com'd'g.

EXTENT:

This sheet covers the entrance to Chernofski Harbor, <sup>Mutton</sup> East Cove, and the outer coast as far east as ~~Wedge~~ <sup>Ram</sup> Point.

GENERAL DESCRIPTION:

The entrance to Chernofski Harbor is a narrow canal like opening formed by two low rocky promontaries. These two ridges are rugged and broken but are grass topped. Along most of the shore is a narrow strip of gravel beach which is fringed with off lying rocks and reefs. The dashed line indicates the edge of the reefs or foul area. In some cases on the hydrographic sheet soundings are shown inside this dashed line as it was possible for the sounding launch to enter the narrow channels between the rocks.

<sup>Mutton</sup> East Cove has a shingle beach and the hills surrounding it are rolling and grass covered.

<sup>Mutton</sup> The narrow grassy strip of low land between East Cove and the outer coast is the site of the old native village of Chernofski. It has been abandoned except for several sheep herders who occupy some of the remaining shacks. The church mentioned in the Coast Pilot is no longer there.

All of the land areas in this vicinity are grass covered and are used for pasturage by the sheep ranch located in Chernofski Harbor.

CONTROL:

- (a) Triangulation executed in 1935. <sup>CS136M CS137M</sup>
- (b) 1937 Aluminum Control Sheets CH-37 and CI-37. (1:5,000 scale)

The control points on the aluminum sheet were scaled and the scaling checked.

A rough radial plot was then made, and the distances between the control points as plotted and as located on the control sheets were compared. It was found that the pictures, with the exception of one flight from West Point to a point about  $\frac{3}{8}$  mile south of the first point inside the bay, had a scale factor of 1.024. The excepted flight had a scale factor of 0.968. It was therefore found necessary to plot the pictures of that flight on a projection of corresponding scale.

The d.m.s and d.p.s of the control points were multiplied by the appropriate scale factor and were plotted on the celluloid projection from both directions. Only a rough check on the plotting was deemed necessary, and no discrepancies were noted.



FIELD INSPECTION OF PHOTOGRAPHS:

The field inspection of the photographs was made simultaneously with the execution of work on the Aluminum Control Sheets. Points which could be clearly identified were pricked on the photographs and then located on the control sheet by means of stadia. As there was little interior detail most of the points selected were along the shoreline. Notes regarding the shoreline and other features were recorded in a sketch book in rough form for use by the compiler.

RADIAL LINE PLOT:

The smooth radial line plot was accomplished according to instructions, and little difficulty was experienced with scale differences in the individual pictures. Due to differences in elevation on some pictures which had shoreline on two sides and higher ground between, a few of the radial points in the interior were not very definitely located, but it was considered advisable to obtain good intersections of radial lines along the beach and pay less attention to points of lesser importance inshore.

ELEVATIONS AND FORM LINES:

All elevations were transferred to the overlay sheet from the Aluminum Control Sheets by means of the projector.

Form lining was done for as much of the area as was possible with the elevations that were available. The general trend of the form lines was determined by viewing the photographs under the stereoscope. Also notes made in the field were helpful.

INTERPRETATION:

The photographs were clear and easily interpreted with exception of the high water line at West Point, which was rather indistinct. This area was scrutinized very closely under the stereoscope, however, and it is felt that a reasonably true delineation of the high water line was determined.

JUNCTIONS:

This sheet joins map drawing No. 2-GH-37 on the south at plotted control points. This junction was examined and found to be satisfactory.

On the east and on the west it joins topographic sheet ~~UF-36~~ <sup>T4937</sup>. Because of the difference in scale between this sheet and sheet ~~UF-36~~ <sup>T4937</sup> considerable overlap was necessary before a satisfactory junction was reached. Also with the additional elevations obtained in 1937 the form lines along the junctions had to be revised to some extent. The form lines and shore line appearing on the overlay sheet in pencil were transferred from sheet UF-36 by means of the projector. It is felt that the delineation of the high water line and the shapes of the offlying rocks as depicted on this survey should be accepted in preference to the topographic sheet, since, of necessity, a great deal of sketching was done on the latter, and because of the larger scale of this survey.

NAMES:

All names except the following suggested names appear on chart.  
No. 9196:

*Ram*

~~WEDGE~~ POINT: The promontory on which triangulation station  
WEDGE 1935 is located.

*Observatory*

~~COVE~~ POINT: The low shingle point at the southeastern end of the  
promontory forming the east side of Chernofski entrance. In the Coast  
Pilot this point is called Observatory Point while in the list of  
magnetic stations it is referred to as Cove Point. (See letter 40-OLH  
of June 28, 1937)

*Mutton*

~~EAST~~ COVE: That portion of the inner harbor off the Chernofski  
village site.

*See list of approved  
Geographic Names*

Respectfully submitted:

*F. A. Riddell*

F. A. RIDDELL

Jr. H.&G.E.

*John C. Ellerbe*

J. C. ELLERBE

Jr. H.&G.E.

Approved and Forwarded:

*A. M. Sobieralski*

A. M. SOBIERALSKI

Commanding Officer

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

T 5406

Remarks		Decisions
1		File No 530 675
2	Referred to USGB 5/26/39	" "USGB
3		" "
4		" "
5	USGB decision	" " USGB
6	Referred to USGB 6/26/39	" " USGB
7	" "	" " USGB
8	USGB decision	
9	" "	
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		



# GEOGRAPHIC NAMES

Survey No. T 5406

GEOGRAPHIC NAMES		On Chart No. 9196		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	
Name on Survey		A.	B.	C.	D.	E.	F.	G.	H.	K.							
<u>Chernofski Harbor</u>		✓															1
<u>Chernofski Point</u> ✓		East pt.															2
<del>Chernofski</del>		✓															3
<u>West Point</u> ✓		✓															4
<u>Observatory Pt</u> "																	5
<u>Mutton Cove</u> :																	6
<u>Ram Point</u> "																	7
<u>Unalaska I</u>		✓															8
<u>Bering Sea</u>																	9
																	10
																	11
																	12
																	13
																	14
																	15
																	16
																	17
																	18
																	19
																	20
																	21
																	22
<u>App'd by GHE</u>																	23
<u>5/26/39</u>																	24
																	25
																	26
																	27

M 234 ✓

DIVISION OF CHARTS

Section of Field Records

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5406  
Scale 1:5,000

Graphic Control Surveys.

C. S. 136 (1937) 1:5,000, (filed in Air Photo Unit).

The graphic control survey shows only hydrographic stations, elevations for form line control, magnetic declination, and several rocks awash which have been transferred to T-5406.

Previous Topographic Surveys.

None.

Hydrographic Surveys.

H-6414 (1937-38) 1:10,000 and H-6255 (1936-37) 1:20,000.

The hydrographic surveys were compared with T-5406 by the hydrographic verifier.

Junctions.

T-5406 (1:5,000) overlaps T-4937 (1:20,000) on both sides of the entrance to Chernofski Harbor. There are numerous differences in shore line details and form lines within this overlap. T-5406 has been extended into the area of T-4937 far enough to obtain a satisfactory junction. Within the area of overlap T-5406, because of its larger scale and better detailing, supersedes T-4937. A note has been made on T-4937 to that effect.

The junction with T-5730 is satisfactory.

Comparison with Chart 8802 (1938-11/3) Chart 9196 (1939-7/8),  
and Chart 9022 (Proof copy in progress of reproduction  
and Printing.

T-5406 shows considerable additional details in Chernofski Harbor for correction of Charts 8802 and 9196.

In applying T-5406 to Charts 8802 and 9022, T-5406 should supersede T-4937 where it overlaps that sheet at either side of the entrance to Chernofski Harbor.

T-5406 has been applied to Chart 9022 (confidential) prior to this review. No changes have been made in T-5406 which effect Chart 9022 except for the addition of hachures

to show extensive cliffs and steep slopes. It is recommended that these be added to the chart when it is taken up for correction.

General.

The hachuring of bluffs along the shore on T-5406 was not completed by the field compiler and has been completed during this review.

As received from the field T-5406 showed a 100 foot contour on the peninsula at Chernofski Pt. This was apparently sketched without elevations and has been removed. This contour was not shown on Chart 9022.

Drafting.

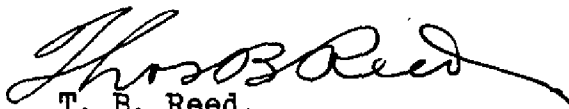
The original drawings for T-5730 consisted of shore line details on celluloid (scale 1:5,000) and form lines on a tracing paper overlay.

A new projection (1:5,000) was made on Whatman's paper in this office and all map details transferred thereto in pencil by R. E. Elkins, using the Map Projector. The pencil drawing was inked by the Philadelphia Office. The inked drawing was checked against the originals by R. E. Elkins.

Reviewed by - H. D. Reed, January 23, 1940.

Inspected by - B. G. Jones, January 24, 1940.


Examined and approved:



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



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.