[redacted]

6862

Diag. Cht. No. 1255

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic
~~Hydrographic~~ Sheet No. T-41

State Alaska

LOCALITY

Aleutian Islands

Amukta Island

1941

CHIEF OF PARTY

F. R. T. Siems

U. S. GOVERNMENT PRINTING OFFICE 102221

[redacted]

6862

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300

OFFICIAL BUSINESS
RETURN AFTER FIVE DAYS

PHOTOGRAPHS

Photographs loaned by USN, See Letter attached dated Aug. 27, 1942

Applied to drawing of Chart 8861 - Feby 2 1, 1944 - January
" " " " 8802 July 29, 1942. U.S.

Form 537a
Ed. Nov. 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. B-41

REGISTER NO. T6862 Confidential

State ~~Alaska~~ Aleutian Islands

General locality ~~Aleutian Islands~~ Amukta Pass

Locality Amukta Island

Scale 1 : 20,000 Date of survey June-July, 19 41

Vessel EXPLORER

Chief of party F.B.T.Siems

Surveyed by H.A.Paton : E.B. Brown : K.S.Ulm

Inked by C.J.Wagner.

Heights in feet above M H W to ground ~~to tops of trees~~

~~Contour, Approximate contour~~, Form line interval 100 feet

Instructions dated April 3, 1940, 19

Remarks:

GPO

25-MER

CONFIDENTIAL

August 27, 1942

To: Lieutenant Colonel R. M. Cutts, U.S.M.C.
Section F-11, Office of Naval Intelligence
Navy Department
Washington, D. C.

From: The Director
U. S. Coast and Geodetic Survey

Subject: Confidential survey sheets and photographs

Complying with your verbal request, the following photostat copies of topographic survey sheets of Chagulak, Amukta and Seguam Island are transmitted herewith:

T-6861 (Part)	—	Chagulak Island	
T-6862		Amukta Island	
T-6861 (Part)	—	Amukta shoreline bordering Chagulak Pass	
T-6866	"	— Seguam Island, Moundhill Cape to Finch Cape	
T-6868	"	— " "	Finch Cape to ⁄ Brown
T-6868	"	— " "	⁄ Brown to Saddleridge Point
T-6867	"	— " "	Saddleridge Point to @ Zed
T-6867	"	— " "	@Zed to ⁄Burn
T-6869	"	— " "	⁄Burn to Ora
T-6869	"	— " "	@Ora to Lava Point
T-6866	"	— " "	Lava Point to Moundhill Cape

It is requested that the receipt for the above data be accomplished on the attached carbon copy of this letter.

Request is acknowledged of one photostat copy of each of the topographic sheets listed in this letter. Date_____ _____.

Director

Descriptive Report

to accompany

Topographic Sheet B-41 T-6862

U.S.C. & G.S.S. EXPLORER F.B.T. Siems, Chief of Party.

INSTRUCTIONS DATED: April 3, 1940 and others.

LIMITS:

This Topographic Sheet covers most of the shoreline of Amukta Island, Aleutian Islands, Alaska, and all the form lines of the interior of the island. This sheet joins Sheet A-41 T-6861 on the NE shore of Amukta Island, near Triangulations Stations MUKA 1941 and TOTEM 1940. The shoreline from Sheet A-41 T-6861 was transferred to this sheet in pencil as a guide during the process of the formlining.

GENERAL DESCRIPTION OF THE COAST:

Amukta Island is a small, almost round, island surmounted by a volcanic cone, with crater in the top. This cone rises to an elevation of 3450 feet above MHW. At about the 1000 foot level is the base of the cone proper. Below the base there is a change in the slope. To the east and west of the cone there are almost flat ridges extending to the high bluffs and hills just back of the shore. To the north and south the land slopes from the cone to the low lava bluffs back and at the shore.

The island is generally covered with lava and cinders, and is black in general appearance. There are some grassy areas on the ridges on the west side of the island, in the area to the south of the cone, and small areas on the east side.

At the base of the cone on it's southeast side there are several reddish knolls.

The southeast and southwest points of the island are formed by prominent ridges.

LANDMARKS:

See copy of Form 567 inclosed.

CHARACTER OF CONTROL USED:

Triangulation stations from the scheme by the Ship EXPLORER, executed in 1941, were used to control this survey.

TRAVERSE RUN AND HOW ADJUSTED:

See next paragraphs.

AUXILIARY SURVEYING METHODS:

When this topography was in progress, the only triangulation stations available for control were AMUKTA and TOTEM 1940, In order to expedite the work and get control for the launch hydrography, random traverses were resorted to, and oriented on the boat sheets with relation to key points by extensive sextant cuts, carefully taken from the ship. In this way the launch hydrography could be carried on without waiting for the control and days of good weather, seldom occuring and otherwise lost to the party, could be utilized for small boat work.

A scheme of triangulation was run around the west side of the island, from Station TOTEM 1940, west, south, and east to the Station AMUKTA 1940. Most of the stations were necessarily high and not accessible to the topographer nor visible from the shore. Some of the stations were placed so as to be visible from the ship when about 1 mile off-shore, and were used in sextant fixes for locating key points along the shore.

Lieut. (jg) E. B. Brown ran a random traverse, starting at station TOTEM 1940 and ending at or near station AMUKTA 1940. This traverse is shown, as actually run, on the reverse side of sheet A-41. This traverse was controlled in the transfer and orientation to the sheet by the positions of stations TOTEM, AMUKTA and BOX 1940 and by topo. stations Double, Stack, Rock, Doll, Head, Top, Line and Lint. These latter stations were located by sextant fixes plotted on a master sheet described later. This traverse was carefully transferred and oriented on the sheet. The transfer showed the traverse to be without appreciable error, there being practically perfect agreement in relative location among the various points as determined by the topographer and as determined by the triangulation and sextant work, making necessary only an orientation with respect to azimuth.

The traverse from Topographic Station AKE (A-41) south to station NIP was run by Lieut. H. A. Paton on the reverse side of sheet F-41. This section is shown as run on the back of sheet E-41. This traverse was oriented and transferred to this sheet, using the positions of AKE and Mush from A-41 and sextant fixes and cuts, based on the triangulation stations on the high land along the west shore, to topo. stations MOON, NUB, COX, PAT, ZIP, IDA, SEAL, and NIP. The transfer showed an error in the section between AKE and COX of about 8 meters. This was adjusted in the transfer, by straight line method. From COX to NIP the traverse required no adjustment after orientation. The positions AKE and MUSH are from sheet A-41, and the location of these two stations is shown on that sheet. As these are close to triangulation station MUKA 1941 and as the position of AKE was checked by topographic cuts from points on Chagulak Island, their position is considered exact.

For plotting the fixes and cuts to locate the two above mentioned traverses a 42" x 54" sheet of Paragon white mounted paper was carefully cemented with rubber cement to the top of one of the Explorers drafting tables. A projection scale of 1-20000 was carefully drawn on this sheet and the triangulation stations plotted thereon. Then the fixes were carefully plotted after the angles were reduced for slope or elevation on this sheet and cuts drawn to the various signals. These cuts, of which there was generally a large number to each station, intersected in a point or nearly so. The sextant work was done from the ship. The ship was brought to a still position and angles were taken simultaneously. It is believed that the positions determined by sextant cuts are shown on this sheet with a proboble error of less than 5 meters in position and an actual error of less than $2\frac{1}{2}$ meters.

The section from station Spike to Station Nip was run on the bakk of this sheet and transferred to this side. No adjustment of distance was needed in affecting the transfer.

The section from station Spike to between station Ned and Station Sun was run on the back of the sheet. Before preceeding with the field work of this section, the theodolite angle observed at Tri. Sta. Amukta between Tri. Sta. Spike and Tri. Sta. South Rock was carefully plotted by protracter and by means of computed intercepts, one checking the other. The distance between Amukta and Spike as approximately determined by sextant cuts was laid down, thus establishing positions of these two stations together with a direction to South Rock on the reverse dide of the topographic sheet. In the field a cut was taken from a plane table location near Spike to Tri. Sta. South Rock to establish the position of the latter with true relation to the other two but on a scale related to the standard scale corresponding to the ratio of the unknown distance with respect to the approximate distance used. As the section comprises a cove which lends itself to plane table triangulation, that method, based on Spike, South Rock and Amukta, was used in locating the signals in this area. The intervening short sketches of shore line between signals were located by rod readings based on the standard scale. Any errors resulting were hot accumulative and these in themselves were considered immaterial, assuming that a close approximation was had of the relatively long distance between Spike and Amukta. Since the assumed approximate distance was found to differ from its later determination by triangulation this section was out of scale. It was reduced proportionally in scale and transferred to this sheet. Only a slight adjustment of the shoreline was necessary between the adjusted positions of the topo signals.

The section from Signal Lint to junction with above section was done on this sheet, using sextant cuts to Hum, Leg, Square and Sun to assist in the control.

Copies of the sextant fixes are inclosed, pages 10-16

See copy of Report on Random Traverses (included), page 7

Prominent Features

The rock off the South shore of the island is prominent from West & East as a very sharp top pinnacle rising from a flat rock. The pinnacle is gray in color. From the South the rock blends in with the shore.

The Stations Middle Finger and South Finger mark a jagged ridge with rock pinnacles along the top.

Just West (about 6 feet) from Station Totem 1940 there is a rock pinnacle, other pinnacles West of this one make a very jagged rock backbone to the ridge. This is prominent from the North and Northwest.

Station Box 1940 is a square rock peak on the ridge and is prominent from any direction that has the sky for a background. It can usually be identified even when it has the island for a background.

Form Lining

The formlining of the section of the island, approximately triangular, with North Amukta Peak, Spike and Station Hum as apexes, was accomplished by Lieut. H. A. Paton while in camp at Trader's Cove accomplishing the triangulation. Some of the ravines, slopes and prominences directly along the shore were outlined by the topographer. The remainder of the island was formlined by observations using sextants fixes, cuts and vertical angles from launches. These fixes were taken, plotted and elevations computed in the launch and formlines drawn immediately after. Usually three cuts intersecting in a point or very small triangle established the location and a mean of the two or three vertical angles established the elevation. Generally, the agreement between elevations to the same point from different fixes differed by from 5 to 10 feet only.

List of Planetable Positions

See forms 524.

Photographs

Photographs ~~and Negatives~~ are included.

T6862 [redacted]

Statistics

Statute miles of shoreline	16.6
Area in sq. statute miles	26.6

Respectfully submitted

Clifton J. Wagner
Jr. H. & G. E.

Approved & Forwarded

H. Williams

Approval By Chief of Party

T-6862

Topographic Sheet B-41 has been inspected and is hereby approved. The field work and office work was accomplished under my immediate supervision. No additional work is considered necessary.

F.B.T. Siems
Chief of Party

RANDOM TRAVERSES

In the topographic surveys of Amukta and Seguam Islands, plane-table traverses in advance of the triangulation were run along strait-a-way or rounded sections of the coast. Control schemes, partly established at the time, covered interior areas adjacent to these sections with stations along the shore ridges generally inaccessible to the topographer and often invisible from the shore. By reason of this, the triangulation control eventually had to be carried to signals along the shore by sextant observations from the ship. The completion of an appreciably usable part of the control could not be effected, under existing circumstances within a moderate period of time.

In order to employ units of the party to the best advantage and also to utilize the few favorable opportunities afforded for landing, it was considered urgently necessary that the topographic work should proceed in advance of the delayed control.

Signal building of course preceded the topographic work. A suitable station along the shore was selected for starting the traverse. Its corresponding position on a blank, aluminum mounted sheet was assumed. The plane table was placed in an assumed orientation which was held during the progress of the traverse. All set-ups of the traverse were marked semi-permanently so that if any question arose as to the correctness of any part of the work in later adjusting it to the control, a field investigation could be made readily.

The shores of Amukta and Seguam Islands for the most part do not lend themselves to plane table triangulation or other graphic methods of breaking down the control. This is the case particularly along those sections covered by the advanced topographic surveys; here, there are no pronounced bays or coves nor offlying islets or neighboring islands, and the interior regions are obstructed from view by elevated land adjacent to the shores. Only the immediate vicinity and a limited stretch along the shore are available to the topographer from his traverse stations and the plane table survey is confined mainly to the location of signals, and the delineation of the shoreline.

Hence it did not involve any complex adjustment in the transfer of the independently mapped stretches of shore topography to a master projection, on which the subsequent control was plotted. As previously stated the control consisted mainly of sextant locations along the shore based on elevated triangulation stations. Sextant locations of topographic signals about one mile apart along the shore formed an accurate framework on which the traverse work was assembled.

Special care was exercised in securing accurate sextant locations of the topographic signals. The ship was brought to a still position for the sextant observations. A fix was based on four rather than three triangulation stations whenever possible. The angles for the fix and for cuts to various topographic signals were taken simultaneously, with observers grouped close to one another. The reading of the sextant in each case was verified by a second person. Generally the fix and the same cuts were taken a second time from approximately the same position. A large number of cuts for each location was observed. Elevation angles of the stations and signals were observed for reduction of inclined angles to the horizontal plane. Indirect rather than direct measurement of an inclined angle was made when this increased the accuracy in reduction to the horizontal.

Special care was also exercised in the plotting of the sextant work. For this purpose, a sheet of "Paragon" linen-backed drawing paper was secured to the top of one of the EXPLORER's drawing tables with rubber cement and with a large number of fine wire staples along the edges of the sheet. In some cases where great accuracy was deemed necessary, the three-point fix was computed and plotted, rather than protracted on the sheet, and the cuts were plotted as azimuths using computed intercepts.

F. B. T. Sloan,
Commanding Officer,
U.S.C. & G.S.S. EXPLORER.

Form 567
Rev. March 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE
~~TO BE DELETED~~

Seattle, Washington October 8, 193 /41

I recommend that the following objects which have ~~(have not)~~ been inspected from seaward to determine their value as landmarks, be charted on ~~(deleted from)~~ the charts indicated.

The positions given have been checked after listing.

Chief of Party.

GENERAL LOCALITY: Aleutian Islands NAME AND DESCRIPTION	POSITION: LATITUDE ° ′	LATITUDE D. M. METERS	LONGITUDE ° ′	LONGITUDE D. P. METERS	DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
CRATER Pos. given for North Amukta Peak 1940 (on Rim)	52	29 1778.3	171	15 350.9	Unalaska Astro. 1896	✓ Triang	1940				~~8861~~
Following to be charted only if chart on scale 1:80,000 or larger is published.											
SPIKE, Spike 1941 (chart shape only)	52	27 203.0	171	15 322.9	"	✓ "	1941				
SOUTH ROCK, South Rock 1941	52	26 1454.8	171	16 979.0	"	✓ "	1941				
SQUARE PEAK, Box 1940	52	27 984.6	171	14 387.7	"	✓ "	1941				
CINDER PEAK, Cinder Hill	52	30 268.9	171	13 675.3	"	✓ A-41 Topo	1941				T-6861

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE 69675

SEXTANT FIXES

1.	Nac	95-01		
	Totem		V.A.	1°42'
	Amukta	53-58	V.A.	1°26'
	Totem - Double	24-20-10		
	Totem - Stack	42-23		
	Totem - Lint	57-33		
	Totem - Rock	51-53		
2.	Nac	31-09		
	Totem		V.A.	0°33'
	Amukta	55-28	V.A.	1°40'
	Totem - Double	6-12		
	Totem - Stack	19-05		
	Totem - Line	56-41		
	Totem - Rock	24-52		
3.	Nac	22-19		
	Totem		V.A.	0°42'
	Amukta	79-51	V.A.	3°07'
	Totem - Double	4-27-50		
	Totem - Stack	18-24		
	Totem - Line	82-46		
	Totem - Rock	23-50	V.A. Rock	0°07'
			V.A. S. Amukta Pt.	9°35'
			V.A. Red Cinder Hill	5°32
4.	Nac	19-57		
	Totem		V.A.	0°41'
	Amukta	83-44	V.A.	3°33'
	Totem - Hum	94-09-10		
	Totem - So.Rk.	96-51		
	Totem - Lint	92-37		
	Totem - Hay	19-28	V.A. Hay	0°44'
5.	Nac	16-55		
	Totem		V.A.	0°28'
	Amukta	48-23	V.A.	2°42'
	Totem - Hum	54-32-30		
	Totem - So.Rk.	76-52		
	Totem - Lint	51-54		
	Totem - Rock	10-31		
			V.A. Hay	0°05'

6.	Nac	14-03		
	Totem		V.A.	0°30'
	Amukta	44-20		
	Totem - Square	58-29-10		
	Totem - Spike	78-08		
	Totem - Line	42-10		
	Totem - Leg	53-24	V.A. Leg	0°05'
7.	Totem	18-05		
	Amukta		V.A.	3°35'
	So.Rk.	64-46		
	Totem - Hum	16-20	V.A. Totem	0°29'
	Totem - Leg	32-41		
	Totem - Line	11-22		
	Totem - Square	42-30		
8.	Totem	12-41		
	Hum			
	So.Rk.	59-48		
	Needle - So.Rk.	18-18-20		
	Leg - So.Rk.	46-00		
	So.Rk. - Spike	6-17		
	Square - So.Rk.	37-44		
9.	Totem	74-14		
	Hum			
	So.Rk.	28-43		
	Hum - Sun	12-28-50		
	Hum - Spike	23-16		
	Hum - Leg	-00-		
	Hum - Square	6-38		
10.	Nac	15-52	V.A.	0°31'
	Totem			
	Hum	94-22		
	Hum - So.Rk.	6-23		
	Hum - Spike	-00-		
11.	Nac	16-17		
	Totem			
	Hum	94-52		
	Spike - Hum	0-44		
	Hum - So.Rk.	5-37		
12.	Totem	42-36		
	Hum			
	So.Rk.	39-40		
	Hum - Spike	39-22		
	Hum - Sun	22-48		

13.	Totem	39-42	
	Hum		
	So.Rk.	42-43	
	So.Rk. - Spike	-00-	
	Hum - Sun	25-08	
14.	Totem	12-10	
	Hum		
	So.Rk.	41-59	
	Hum - Sun	25-54	
	Hum - Spike	49-25	
15.	Totem	11-11	
	Hum		
	So.Rk.	42-32	
	Hum - Tex	32-07	
	Hum - Ned	29-47	
16.	Hum	62-38	
	So.Rk.		
	Spike	20-16	
	Sun - So.Rk.	24-44	
	Tex - So.Rk.	13-18	
	Ned - So.Rk.	18-12	
			Two pictures taken of So.Rk. bearing 355^0 and 356^0.
17.	Hum	54-14	
	So.Rk.		
	Spike	46-56	
	Sun - So.Rk.	20-59	
	Tex - So.Rk.	4-20	
18.	Hum	55-04	
	So.Rk.		
	Spike	43-49	
	Sis - So.Rk.	32-29	
	Ned - So.Rk.	13-02	
19.	Hum	54-48	
	So.Rk.		
	Spike	43-48	
	Leg - So.Rk.	43-10	
	Square - So.Rk.	38-34	
20.	Amukta	46-11	V.A. $2^0 12'$
	So.Rk.		V.A. $0^0 40'$
	Spike	34-38	V.A. $0^0 49'$
	So.Rk. - Ulm	35-26	
	Hum - So.Rk.	51-44	

21.	Amukta	46-09	
	So.Rk.		
	Spike	34-42	
	So.Rk. - Ulm	35-32	
	Hum - So.Rk.	51-44	
22.	Amukta	45-52	
	So.Rk.		
	Spike	33-50	
	So.Rk. - N.W'ly rock	16-56	* Bears about 5'
	So.Rk. - S.E'ly rock	13-07	* Bears about 2'
			* (at 11:30 A.M., June 9, 1941)
23.	Hum	11-29	
	So.Rk.		
	Spike	38-36	
	So.Rk. - Ulm	38-14	
	So.Rk. - Red	57-54	
24.	Hum	11-05	
	So.Rk.		
	Spike	41-54	
	So.Rk. - N.W'ly rk.	27-47	
	So.Rk. - S.E'ly rk.	20-00	
25.	Hum	11-20	Red - Sea Lion Rk. ~~-00-~~
	So.Rk.		
	Spike	45-36	
	Red - SeaL. Rk.	63-10	
	So.Rk. - Fan	54-50	
26.	Left Limb Sun - Hum	93-34	
	Alt. - Sun	60-20-30	
	Hum - So.Rk.	0-31	
	Hum - Spike	20-36	
	Hum - Zip	66-06	
27.	Amukta - Yunaska Pk.	7-19	
	Yunaska Peak - Zip	56-18	
	Spike - Zip	30-01	
	So.Rk. - Zip	60-53	
28.	Amukta - Yunaska Pk.	7-28	
	Yunaska Pk. - Zip	55-53	
	Spike - Zip	30-39	
	So.Rk. - Red	57-47	
29.	Amukta - Yunaska Pk.	7-31	
	Yuhaska Peak - Zip	55-14	
	Spike - Zip	31-17	
	So.Rk. Zip	60-24	
	So.Rk. - Red	57-04	

30.	Amukta - Unaska Pk.	7-39			
	Uanaska Pk. - Zip	54-45			
	Spike - Zip	31-47			
	So.Rk. - Red	60-07			
	So.Rk. - Ulm	27-40			
	So.Rk. - Bone	38-54			
31.	Amukta - Tom	55-48	V.A.	1°20'	
	So.Rk. - Tom	52-38	V.A. Tom	2°12'	
	So.Rk. - Ulm	26-45			
	So.Rk. - Nip	48-04			
	So.Rk. - Seal	55-40			
32.	Amukta - Tom	55-05	V.A.	1°18'	
	So.Rk. - Tom	51-25	V.A. Tom	2°08'	
	So.Rk. - Ulm	26-30	V.A. So.Rk.	0°20'23"	
	So.Rk. - Nip	46-59			
	So.Rk. - Seal	54-22			
33.	Amukta - Tom	54-09	V.A. Amukta	1°18'	
	So.Rk. - Tom	49-31	V.A.	2°07'30"	
	So.Rk. - Spike	26-48	V.A. So.Rk.	0°18'	
	So.Rk. - Nip	45-35	V.A. Spike	0°47'	
	So.Rk. - Red	50-50			
	So.Rk. - Seal	52-32			
34.	Amukta - Tom	50-00	I.C. -2' V.A. Amukta	1°09'	H.I.-30'
	So.Rk. - Tom	49-31	V.A. Tom	2°05'	
	So.Rk. - Break	47-54	V.A. Break	1°48'	
	So.Rk. - Spike	17-41	V.A. Spike	0°38'	
	So.Rk. - Zip	53-18	V.A. So.Rk.	0°15'	
35.	Amukta - Tom	48-52	I.C. -2' V.A. Amukta	1°05'	
	So.Rk. - Tom	48-08	V.A. Tom	1°59'	
	So.Rk. - Break	46-25	V.A. Break	1°46'	
	So.Rk. - Spike	17-07			
	So.Rk. - Ida	49-27			
36.	So.Rk. - Break	55-06	V.A. Break	2°08'	
	So.Rk. - Glee	56-03	I.C.+ 3' V.A.	2°03'	
	So.Rk. - Nip	38-03			
	So.Rk. - Tom	58-42	V.A. Tom	2°22'	
	So.Rk. - Spike	12-46	V.A. So.Rk.	0°15'	
	So.Rk. - Zip	62-35	V.A. Spike	0°42'	
37.	So.Rk. - Break	60-51	V.A.	2°26'	
	So.Rk. - Glee	63-53	V.A.	2°15'	
	So.Rk. - Zip	70-10	V.A. So.Rk.	0°14'	
	So.Rk. - Tom	66-05	V.A.	2°40'	
	So.Rk. - Nip	36-50			
	So.Rk. - Spike	8-00	V.A.	0°47'	

H.I. 30'

38.	So.Rk. - Break	64-43	V.A. Break	2°55'
	So.Rk. - Glee	70-43	V.A. Glee	2°29'
	So.Rk. - Zip	76-29		
	So.Rk. - Tom	72-21	V.A. Tom	3°02'
	So.Rk. - Nip	31-25		
	So.Rk. - Spike	2-28	V.A. So.Rk.	0°16'
39.	So.Rk. - Break	33-46	V.A. Break	1°17'
	So.Rk. - Nord	56-25		
	So.Rk. - Zip	44-26		
	So.Rk. - Tom	45-03	V.A. Tom	2°15'
	So.Rk. - Nip	12-07		
	So.Rk. - Spike	0-39	V.A. So.Rk.	0°08'
40.	So.Rk. - Break	35-02	V.A. Break	1°52'
	So.Rk. - Nord	56-22		
	So.Rk. - Zip	45-51		
	So.Rk. - Tom	46-14	V.A. Tom	2°18'
	So.Rk. - Nip	12-49		
	So.Rk. - Spike	0-53	V.A. So.Rk.	0°09'
	So.Rk. - Glee	49-34	V.A. Glee	2°01'
41.	Spike - Break	42-57	V.A. Break	3°36'
	Spike - Nord	86-51		
	Spike - Zip	64-20		
	Spike - Tom	67-38	V.A. Tom	4°19'
	Spike - Glee	75-23	V.A. Glee	3°21'
	Spike - Nip	7 -54	V.A. Spike	0°15'
	Spike - Seal	34-29		
	Spike - Cox	84-51		
42.	Spike - Break	43-23	V.A. Break	3°41'
	Spike - Nord	87-57		
	Spike - Zip	65-27		
	Spike - Tom	68-46	V.A. Tom	4°24'
	Spike - Nip	7-30		
	Spike - Glee	76-43	V.A. Glee	3°25'
	Spike - Seal	34-34	V.A. Spike	0°20'
	Spike - Cox	86-18		
43.	Break - Nord	82-12	V.A. Break	3°26'
	Try - Nord	18-51	V.A. Try	2°44'
	Zip - Nord	67-55		
	Tom - Nord	52-42	V.A. Tom	5°58'
	Pat - Nord	31-01		
	Glee - Nord	31-18	V.A. Glee	4°48'
	Seal - Nord	90-46		
	Cox - Nord	17-11		

H.I. 30'

44.	Break - Nord	82-11	V.A. Break	3°24'
	Try - Nord	18-48	V.A. Try	2°44'
	Zip - Nord	67-55		
	Tom - Nord	52-37	V.A. Tom	5°54'
	Pat - Nord	31-00		
	Cox - Nord	17-10		
	Glee - Nord	31-14	V.A. Glee	4°44'
	Seal - Nord	90-48		
45.	Break - Nord	113-53	V.A. Break	2°48'
	Try - Nord	42-22	V.A. Try	4°30'
	Zip - Nord	115-38		
	Tom - Nord	99-37	V.A. Tom	6°12'
	Pat - Nord	84-06		
	Glee - Nord	67-34	V.A. Glee	6°51'
	Moon - Nord	30-44		
	Cox - Nord	53-00		
46.	Break - Nord	113-45	V.A. Break	2°48'
	Try - Nord	42-09	V.A. Try	4°31'
	Zip - Nord	115-22		
	Tom - Nord	99-23	V.A. Tom	6°34'
	Pat - Nord	83-40		
	Glee - Nord	67-17	V.A. Glee	6°44'
	Moon - Nord	30-41		
	Cox - Nord	52-38		
47.	Amp - Nord	100-03	V.A. Amp	4°44'
	Muka - Nord	49-23		
	Try - Nord	89-18	V.A. Try	4°05'
	Glee - Nord	104-39	V.A. Glee	4°40'
	Moon - Nord	75-22		
	Zip - Nord	127-01		
	Pat - Nord	118-21		
	Cox - Nord	108-36		
48.	Amp - Nord	95-36	V.A. Amp	4°28'
	Muka - Nord	48-21		
	Moon - Nord	72-01		
	Glee - Nord	99-52	V.A. Glee	4°24'
	Zip - Nord	122-38		
	Pat - Nord	112-59		
	Cox - Nord	102-31		

	Remarks.	Decisions
1		525 710 U.S.G.B
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M 234

GEOGRAPHIC NAMES

Survey No. T6862

Confidential

Name on Survey	On Chart No. A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Amukta Island										1
Amukta Pass										2
										3
										4
										5
				L Heck 3/20/42						6
										7
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M 234

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

~~No.~~

No. T T6862

received February 17, 1942
registered February 20, 1942
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
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83			
88			
90			

RETURN TO

82	R. W. Knox

RWK

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF TOPOGRAPHIC SURVEY — REGISTER NO. 6862
Field No. B

Aleutian Islands, Amukta Island
Surveyed June - July 1941; Scale 1:20,000
Instructions dated February 3, 1938 (SURVEYOR)
and April 3, 1941 (EXPLORER)

Plane Table Survey — Aluminum Mounted

Chief of Party - F. B. T. Siems
Surveyed by - H. A. Paton, E. B. Brown and K. S. Ulm
Inked by - C. J. Wagner
Reviewed by - Harold W. Murray
Inspected by - H. R. Edmonston, September 3, 1942

1. Junctions with Contemporary Surveys

The junction of shoreline details on the northeast with T-6861 (1941) is very good.

2. Comparison with Prior Surveys

No prior surveys have been made by this Bureau in this area.

3. Comparison with Chart 8802 (New Print date 1-29-42)
9102 (New Print date 7- 2-42)

a. Topography

(1) Chart 8802

The charted topography on this chart originates with old miscellaneous information prior to the year 1893 (1st Ed., Chart 8800) and differs materially in outline. The charted elevation of the top of the island, 3738 feet, is 275 feet greater than the present survey determination of 3463 feet. The present survey is sufficiently adequate to supersede this miscellaneous information. The sunken rocks off the east and southeast sides of the island were disposed of in the review of H-6695 (1941).

(2) Chart 9102

The present survey was applied to this chart prior to review. The charted elevation of 3450 feet should be changed to 3463 feet. The 3450 value is the elevation of triangulation station NORTH AMUKTA PEAK which was established 250m. northeast of the highest elevation of 3463 feet.

b. Magnetic Meridians

Four magnetic observations were made and all vary 2 to 4-1/4 degrees less than the interpolated charted value of 12-1/4 degrees East. An additional observation of 10-1/2 degrees on this island was made on T-6681 (1941) at triangulation station MUKA in Lat. 52°32', Long. 171°15'. A local attraction of about 2 degrees (Declinatoire No. 252, correction plus 4 minutes) is indicated within a 1-1/2-mile section on the northwest side of the island (Lat. 52°30.4', Long. 171°18.4'). At signal ZIP a reading of 10 degrees decreases 2 degrees in changing to 8° at signal PAT (0.9 mile N.W.) and again changes back about 2-1/4 degrees at signal COX (1/2 mile N.W. of PAT) where an observation of 10-1/4 degrees was noted.

The declinatoire corrections were noted on the sheet by the reviewer and obtained from the Descriptive Reports of the contemporary surveys T-6861 (1941), page 3 and T-6869 (1941), page 3. The above magnetic information has been referred to the Division of Terrestrial Magnetism and Seismology.

4. Compliance with Instructions for the Project

Satisfactory.

5. Condition of Survey

Satisfactory.

6. Additional Field Work Recommended

None.

7. Superseded Surveys

No prior surveys by this Bureau have been made in this area.

Examined and approved:

Robert W King
Chief, Surveys Section

F. C. Borden
Chief, Division of Charts

L P Raynor
Chief, Section of Hydrography

G Rude
Chief, Division of Coastal Surveys