

7035 a

Diag'd. on Diag. Ch. No. 8863-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. DE-C-46 (a) Office No. T-7035 a

LOCALITY

State Alaska - Aleutian Islands

General locality Adak Island

Locality Head Rock to Cape Adagdak

1946

CHIEF OF PARTY

I. E. Rittenburg

LIBRARY & ARCHIVES

DATE MAR 6 1947

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. DE-C-46 (a)

REGISTER NO. T-7035 a

State Alaska - Aleutian Islands

General locality Adak Island

Locality Head Rock to Cape Adagdak

Scale 1:10,000 Date of survey August, 1946

Vessel Ship DERICKSON

Chief of party I. E. Rittenburg

Surveyed by F. B. Quinn

Inked by F. B. Quinn

Heights in feet above seas to ground to tops of trees

Contour, Approximate contour, Form line interval --- feet

Instructions dated 17 March, 1946

Remarks: _____

T7035a

DESCRIPTIVE REPORT

To Accompany

Topographic Survey T-7035 a(Field No. DE-C-46-a)

Scale 1:10,000

Head Rock to Cape Adagdak, Adak I., Alaska

I. E. Rittenburg, Chief of Party

USC&GSS DERICKSON

August 1946

AUTHORITY: (A) Director's revised Instructions for Project CS-218, dated 16 April 1943 and 1 February 1944.

(B) Instructions from F.B.T. Siems, C&GS/17ND, for Project 23 (Supplement I) -- ADDITIONAL HYDROGRAPHY, KULUK BAY AREA, dated 17 March 1946.

(C) Further instructions by Capt. Siems to investigate position difference between signal DIM (1945) on Topographic Sheet 7000(a) and small rocky islets (1943) on Topographic Sheet 6930(a).

GENERAL: From the southern limit of the sheet to signal ACE, the shoreline is rocky and rugged, and there are some offshore rocks.

From signal ACE to signal NEW, the beach is sand and gravel with numerous small boulders at the waterline and in the water close to shore. Clam Lagoon lies a short distance west of this beach, separated from it by a low, narrow neck of land.

From signal NEW to Cape Adagdak at the northern limit of the sheet, the shoreline is narrow and strewn with boulders from the steep slopes back of it. Many boulders have rolled into the water a considerable distance and appear as rocks awash or as sunken rocks.

A large, dense kelp field lies offshore in the vicinity of signals SHE and RUM at Cape Adagdak. A narrow, broken kelp patch fringes the beach for nearly the full length of the sheet, varying from contact with the beach to a distance of 50 to 100 meters offshore. This kelp is apparently attached to boulders on the bottom.

LANDMARKS: No new landmarks are recommended. Complete coverage was made in 1943 and 1945.

CHARACTER OF CONTROL USED: Triangulation stations HED (USN) 1933-34, NORTH (USN) 1934, SOUTH (USN) 1934, and WATER TOWER 1945 were used and found to be in good agreement. They are all on the Unalaska datum.

DESCRIPTION OF SURVEYING METHODS: This sheet is primarily a graphic control sheet, and standard methods were used throughout. Strong planetable triangulation rigidly controls the positions of signals from the southern limit of the sheet to signals SET and LOW, as indicated by the pencil intersections left on the sheet. The order of setups has also been left on the sheet in pencil.

For the area north of signals SET and LOW, long azimuth lines were plotted by planetable to most of the signals from triangulation station HED and other stations at the southeast part of the sheet; and stadia was carried ahead with forward and backward distances being read in most cases, and a few skip setups being found necessary. Progressive azimuth cuts were projected ahead as the stadia work was accomplished. Good agreement was found between the azimuths and the stadia distances over the entire distance.

The positions of signals JAP, GUS and ACE, which were not visible from all planetable setups, were strengthened and verified by one sextant cut each taken from a boat offshore.

* not registered
in Wash. office

Offshore sextant cuts on ship hydrography sheet DE-3146^{*} verify the positions of signals INN and YEL, which fall on the northern limit of the survey where no triangulation was available.

A triangulation check on signals just west of signal INN was planned with stations in the vicinity of the north end of Andrew Lagoon.

All circled offlying rocks were rodded from nearby signals. Those shown uncircled indicate unusually heavy grouping near the steep slopes back of the beach, but they have not been rodded in.

AIR PHOTO INSPECTION: A separate report covers air photo inspection of this area. The following signals were identified, with the aid of a magnifying glass, on AAF photos when the planetable was setup on or near the stations: INN, YEL, SHE, RUM, OAK, MAX, SET, JAP, NEW, ICE, and triangulation station NORTH.

None of the topographic signals were marked, but it is believed that the whitewashes on them will last for a year or two in the areas where additional hydrography is required. JAP and SET are, respectively, the fronts of a small shack and a Quonset hut, as indicated on the sheet. Many of the rock signals can be recovered with the aid of the air photos, some being prominent offshore rocks.

FORMLINE VERIFICATION: No elevations were taken.

CHANGES IN FEATURES AND SHORELINE: No changes were noted.

COMPARISONS WITH PREVIOUS SURVEYS: Sheet T-7000(a), scale 1:10,000, 1945, joins this sheet at the southern limit. Sheet T-6930(a), scale 1:20,000, 1943, covers the entire area.

Signal BOT was located independently on all three sheets and excellent agreement was obtained. Signal LES was also determined independently in 1945 and 1946 with excellent agreement.

Signal DIM originally located in 1945 falls on a rock located in 1943, but the Processing Office at Seattle found it fell off the rock when the two years' data were combined. This signal was re-located in 1946 and the rocks resurveyed. The position of the rocks appeared to check satisfactorily, but the position of the signal differed about 8 meters. It is thought that an erroneous cut was used in plotting the 1945 position on the topographic sheet, because another cut found passing through the signal circle fitted the 1946 position. The 1946 position appearing on Sheet DE-C-46 (a) supercedes the 1945 position. T-7035a

Good agreement exists between the positions of the other offshore rocks appearing on the 1943 and 1946 sheets.

NEW NAMES: No new names are recommended. the names HEAD ROCK and CAPE ADAGDAK, used in this report, appear on USC&GS Chart 9193.

PHOTOGRAPHS: No photographs were taken to supplement this survey or to illustrate equipment used.

STATISTICS:

Statute Miles of Shoreline (Graphic Control) --- 7.2
Days of Field Work ----- 3
Dates of Survey ----- 9, 15, 16 August 1946

Francis B. Quinn

Francis B. Quinn,
Lt. Comdr., USC&GS

Approved and Forwarded,

I. E. Rittenburg

I. E. Rittenburg,
Lt. Comdr., USC&GS,
Chief of Party.

This graphic control survey has been compared with contemporary hydrographic surveys. No further review by the Hydrographic Surveys Section is necessary at the present time.

V. A. Winsmore

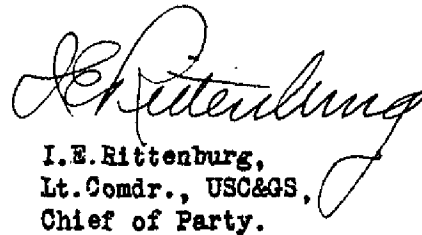
11/10/47

APPROVAL SHEET

2 December 1946

Topographic Sheet DE-C-46 (a) and the basic control used on it are approved.

The sheet was examined in the field and found to be complete and adequate. The descriptive report covers all pertinent details.


I.E. Rittenburg,
Lt. Comdr., USC&GS,
Chief of Party.

7035 b

Restricted

RESTRICTED

7035 b

Diag'd. on Diag. Ch. No. 8863-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. DE-C-46 (b) Office No. T-7035 b

LOCALITY

State Alaska - Aleutian Islands

General locality Great Sitkin Island

Locality Sand Bay

1946

CHIEF OF PARTY

I.E. Rittenburg

LIBRARY & ARCHIVES

DATE MAR 6 1947

B-1870-1 (1)

7035 b

RESTRICTED

Revised foreshore to show rocky
reef instead of sand N side of Sand
bay for a distance of about 400 yds.

Applied to charts 9139 L.S.S.
8/1/51

no correction to scale of 9193 2m-a.

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. DEAC-46 (b)

REGISTER NO. T-7035 b

State Alaska - Aleutian Islands

General locality Great Sitkin Island

Locality Sand Bay

Scale 1 : 5000 Date of survey June & July, 1946

Vessel Ship DERICKSON

Chief of party I. E. Rittenburg

Surveyed by F. B. Quinn

Inked by F. B. Quinn

Heights in feet above seawater to ground to tops of trees

Contour, Approximate contour, Form line interval --- feet

Instructions dated 26 June, 1946

Remarks: Part of detail CONFIDENTIAL. See Descriptive Report.

77035 b

DESCRIPTIVE REPORT

To Accompany

Topographic Survey T 7035-b (Field No. DE-C-46-b)

Scale 1:5000

Sand Bay, Great Sitkin I., Alaska

I. E. Rittenburg, Chief of Party

USC&GSS DERICKSON

June-July 1946

AUTHORITY: Instructions by USC&G Survey Officer, 17ND, NOB Adak, Alaska, Serial #54., dated 26 June 1946. ✓

PURPOSE OF SURVEY: To locate additional piers and mooring buoys; and to establish control for a large-scale hydrographic survey in Sand Bay, in accordance with a request of the U. S. Navy. ✓

CAUTION: The preliminary chart compiled from this topographic sheet and Hydrographic Sheet*DE-05146 was classified "CONFIDENTIAL" by the 17ND. The names of piers and buildings, and the locations of pipelines, shown on this sheet are given as a matter of record but should be omitted from any charting of the area. *H-7183(1946) ✓

GENERAL: The shoreline, except at both ends of the surveyed area, consists of gently-sloping, wide sand beach, with a grass-line indicated by a solid black line above the highwater line. At the northwestern limit of the sheet, westward from signal DIF, the shoreline is rocky with a low grassy bluff. The southern limit, southward from signal RAT, is rocky. ✓

A small valley extends northeastward from the vicinity of the Administration Building, and the stream that crosses the beach near signal JOB originates in it. A second valley extends northward from the vicinity of signals GAS and FUN, and is the source of the stream terminating between them. ✓

LANDMARKS: A separate list of CONFIDENTIAL Landmarks for Charts has been prepared. In addition to the objects listed, the numerous fuel tanks on the hillside and in the valley back of the Administration Building show prominently when the bay is approached. ✓

CHARACTER OF CONTROL USED: The control of this sheet is based on two recovered topographic stations, RADIO RANGE (1945) and ICE (1943). Positive recovery of both stations was assured because no alterations of the Radio Range pole had been made since its location in 1945 and whitewash placed on station ICE in 1945 was still in fair condition when the survey was started in 1946. ✓

The position of RADIO RANGE determined by the USC&GSS PATTON in 1945 was used as given in attached letter to the Commandant, Seventeenth Naval District, Adak, Alaska. The position plotted was: Latitude $51^{\circ} 59' 12.48''$.; Longitude $176^{\circ} 07' 26''$. (Unalaska Datum)

The position of ICE given on the 1943 description by G. C. Mattison, USC&GSS EXPLORER, and shown on Topographic Sheet "C" of that year, was corrected to the Unalaska Datum by applying (plus) 307m. to the Latitude and (minus) 327m. to the Longitude. These corrections were obtained by proportioning geographically the differences between the Navy Datum and the Unalaska Datum from triangulation stations GREAT SITKIN (USN) 1934 and ASUKSAK (USN) 1934 as shown in attached letter from the Commandant, SEVENTEENTH Naval District. The position plotted was: Latitude $51^{\circ} 58' 69.1''$. Longitude $176^{\circ} 05' 18.1''$.

This survey is therefore co-ordinated within itself.

It was hoped that a further azimuth check could be obtained by projecting and using as an azimuth orientation line the azimuth between GREAT SITKIN and RADIO RANGE, but it was found that the line was obstructed to planetable work.

DESCRIPTION OF SURVEYING METHODS: All topographic signals were located by the method of planetable triangulation, supplemented by check rod readings from nearby set-ups. Shoreline and structural details were largely obtained from subsequent set-ups at or near the control points established. The positions of the major set-ups have been indicated on the sheet in pencil.

The Low Water Line is correct within one to two meters, since it was obtained entirely at low tide with frequent checks against two tide staffs for which the values of mean lower low water were known.

No air photographs were available for field inspection, but it is believed sufficient objects have been located on the sheet to facilitate the orientation of later photographs.

FORMLINE VERIFICATION: No elevations were taken.

CHANGES IN FEATURES: The position of the stream outlet between signals FUN and GAS is a new location, having been cut through by the U. S. Navy about two weeks before the survey was made. Further change in the shoaling off this stream may be expected.

COMPLETENESS AND RELIABILITY OF THIS SURVEY: This survey is considered complete and reliable.

DEVIATION FROM STANDARD METHODS: No deviations were made.

COMPARISONS WITH PREVIOUS SURVEYS: The previous survey in 1943 was signal locations only, so no comparison could be made. ✓

NEW NAMES: No new or additional place names are recommended. ✓

PHOTOGRAPHS: No photographs were taken to supplement this survey or to illustrate equipment used. ✓

CHANGES IN COASTLINE: Reference is made to the change described in the previous paragraph on CHANGES IN FEATURES. ✓

STATISTICS:

Statute Miles of Shoreline ----- 3.0
Days of Field Work ----- 2½ ✓

Francis B. Quinn
Francis B. Quinn,
Lt. Comdr., USC&GS

Approved and Forwarded,

I. E. Rittenburg
I. E. Rittenburg,
Lt. Comdr., USC&GS,
Chief of Party.

This graphic control survey has been compared with contemporary hydrographic surveys. No further review by the Hydrographic Surveys Section is necessary at the present time.

J. A. Winsmore
3/8/48

(Copy of letter from The Commandant, SEVENTEENTH Naval District)

Address reply to
Commandant

and refer to
ND17/H2-20(A)
FETS/hs
Serial 01806

Headquarters

SEVENTEENTH NAVAL DISTRICT

Fleet Post Office,
Seattle, Washington

August 16 1945

C O N F I D E N T I A L

From: The Commandant, SEVENTEENTH Naval District.
To: The Commanding Officer, USCGSS PATTON.
Subject: Radio Range, Sand Bay, Great Sitkin Island.
Enclosures: (A) 709th AAF Base Unit ltr. No. 413.44 of 10
August 1945.
(B) Print of Hydrographic Survey 1943, Sand Bay,
Great Sitkin Island.

1. At such time when you have sufficient data available (including prepared topographic projection), and when it will least interfere with the progress of the work assigned; you will proceed to Sand Bay, Great Sitkin, and locate the center pole, highest one of five, supporting the antennae of the Radio Range established near the north-east shore of Sand Bay.

2. The position of the Radio Range, reported in paragraph 2 of enclosure (A), is in question; it is probably referred to USN datum rather than Unalaska datum.

3. The geographic positions of stations GREAT SITKIN and ASUKSAK referred to the USN datum and Unalaska datum are as follows:

	Latitude	Longitude	
*GREAT SITKIN (USN datum)	51° 59' 51.823	176° 11' 31.097	Corr. from USN to Unalaska
GREAT SITKIN (Unalaska datum)	52 00 01.757	176 11 13.970	
diff.	plus 09.934	minus 17.127	
*ASUKSAK (USN datum)	51° 55' 54.771	176° 06' 31.294	
ASUKSAK (Unalaska datum)	51 56 04.688	176 06 14.141	
diff.	plus 09.917	minus 17.153	

(*From USN Triangulation Diagram)

The descriptions of these stations are given in "Alaska No. 72" (lithographed) pamphlet entitled KASATOCHI ID to KANAGA ID, transmitted to you 26 May 1945.

August 16 1945

C O N F I D E N T I A LSubject: Radio Range, Sand Bay, Great Sitkin Island, (Cont'd)

4. Enclosure (B) apparently is based on the two triangulation stations (USN datum) and a graphic control. The Washington Office has been requested to furnish a copy of the topographic sheet of this area as well as the descriptions of recoverable topographic stations.

5. A determination of the position of the range of accuracy within ± 0.5 second of Latitude and ± 1 second of Longitude of their respective true values is acceptable. This accuracy is considered attainable by graphic triangulation, based on recoverable topographic stations in Sand Bay. However, a reconnaissance may indicate that a simple triangulation based on stations GREAT SITKIN and ASUKSAK would be practicable and provide a more economical method for locating the range.

6. The position determined shall be expressed in geographical coordinates, both USN and Unalaska datum; together with scaled or computed azimuth and distance from triangulation station GREAT SITKIN.

F. B. T. SIEMS,
USC&GS Officer
by direction

cc: Director, USC&GS (3)
DCO

(Copy of letter to The Commandant, Seventeenth Naval District)

USS PATTON, c/o Fleet Post Office, Seattle 4, Washington.

RFAS/dd

DEPARTMENT OF COMMERCE

U.S. Coast and Geodetic Survey

CONFIDENTIAL

19 September 1945

To: Commandant, Seventeenth Naval District
Adak, Alaska.

Subject: Radio Range, Sand Bay, Great Sitkin Island

Reference: (A) Commandant's ltr. ND17/H2-20(A), FBTS/hs, Serial
01806, dated 16 August 1945.

Enclosure: (A) Army Airways Communication System, 709th AAF
Base Unit ltr. 413.44 of 10 August 1945.

In accordance with above reference (A), the center pole, highest one of five, supporting the antennae of the Radio Range, near the northeast shore of Sand Bay, Great Sitkin Island, was located on 12 September 1945.

Method of Location:

A projection, scale 1:20,000 was made on an aluminum mounted sheet and the following signals plotted on Navy Datum:

Triangulation Station	GREAT SITKIN
Topographic Station	PIN (described)
"	"
"	OWL
"	"
"	ICE
"	"
"	HIL (scaled)

B-H & T Recoverable
Cards filed

Stations GREAT SITKIN, OWL and ICE were occupied by plane-table. Recovery of each station was assured by checking orientation on each plotted station. Cuts were taken to the pole from the three stations occupied, the three cuts intersecting exactly in a point.

Results:

The position of the pole, as thus determined is:

Navy Datum: Latitude $51^{\circ} 59' 30.41''$ (940m.)
Longitude $176^{\circ} 07' 18.34''$ (350m.)

Unalaska Datum: Latitude $51^{\circ} 59' 40.38''$ (1248m.)
Longitude $176^{\circ} 07' 01.36''$ (26m.)

} Radio Range
Plane table
position

C O P Y

Radio Range - 2

Azimuth from Station GREAT SITKIN: N $97^{\circ} 49'$ E.

Distance from Station GREAT SITKIN: 4,864 meters.

It is obvious from the above results that the position of the pole as given in paragraph 2 of Enclosure (A) is on Unalaska Datum.

R. F. A. Studs
Lt. Comdr., C&GS
Cmdg., USS PATTON

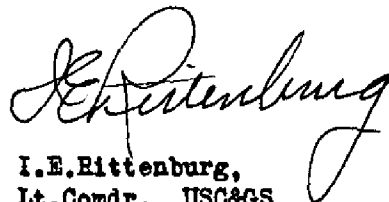
C.C. Dist. Com Office, Com 17

APPROVAL SHEET

22 November 1946

Topographic Sheet DE-C-46 (b) and the basic control used on it are approved.

The sheet was examined in the field and found to be complete and adequate. The descriptive report covers all pertinent details.

A handwritten signature in cursive script, reading "I.E. Rittenburg".

I.E. Rittenburg,
Lt. Comdr., USC&GS,
Chief of Party.