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Form 504 Rev. April 1935	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. A-39 16746
U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES MAR 3 1941 Acc. No.	
State Alaska	
LOCALITY Aleutian Islands	
Islands of Four Mountains (Western portion) Chuginadak (Middle portion)	
1934	
CHIEF OF PARTY J. H. Peters	

U. S. GOVERNMENT PRINTING OFFICE 102221

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DECLASSIFICATION BY NOAA
PURSUANT TO DOC SYSTEMATIC REVIEW
GUIDELINES AS DESCRIBED IN SECTION
3.3 (a), EXECUTIVE ORDER 12356

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. A-39

REGISTER NO.

T6746

T6746

State Aleutian Islands, Alaska

General locality Islands of Four Mountains

Locality Chuginadak I. (Western Portion) (Middle Portion)

Scale 1:20,000 Date of survey June and July, 1940.

Vessel U.S.C. & G.S.S. EXPLORER

Chief of party J. H. Peters

Surveyed by J. H. Ellerbe, W. R. Jackson & H. A. Paton.

Inked by H. A. Paton

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

Contour, Approximate contour, Form line interval 100 feet

Instructions dated February 3, 1938.

Remarks: Applegate Cove survey by PIONEER in 1939. Roland D.

Horne, Commanding.

DESCRIPTIVE REPORT

TO ACCOMPANY

SHEET NO. A-39

CHUGINADAK ISLAND (MIDDLE PORTION

ISLANDS OF THE FOUR MOUNTAINS

ALEUTIAN ISLANDS, ALASKA

PROJECT NO. HT-218

- o -

U. S. C. & G. S. S. EXPLORER

J. H. Peters, Comdg.

Descriptive Report

to accompany

Sheet No. A-39

Chuginadak Island (Middle Portion)

Islands of the Four Mountains

Aleutian Islands, Alaska

U. S. C. & G. S. S. EXPLORER

J. H. Peters, Comdg.

Instructions:

The work on this sheet was done under authority granted by orders dated Feb. 21, 1940 which referred to instructions dated Feb. 3, 1938 issued to the Surveyor and Pioneer. ✓

Scope:

The area covered by this sheet consisted of the middle portion of Chuginadak Island. On the east it joins a survey made by U.S.C. & G.S.M.V. Jones, L.O. Wilder, Comdg., in 1940 along a line between Stations "Art" and "West Peak" and northerly to Signal "WEF". The shore line between Stations "Dak" and "Low" was done on sheet E-40 by Lieut.(j.g.) C.J. Wagner of the Explorer. This shore line was transferred to this sheet and is shown in pencil to serve as a guide for the form lines. All of the form lines for the central and west parts of the islands are shown on this sheet. ✓ T-6748(1940)

Control:

Twenty-five triangulation stations were used in the control of this survey. Stations Mount Cleveland and West Peak were not marked stations but the highest points of these peaks were sharp enough to give valuable assistance. No attempt was made to recover Stations "Pass" and "Cinder" in 1940. These hills were smooth and rounded on top so the highest point could not be used for control. A scheme of graphic triangulation was extended from Stations "Gin" and "Fuzz" up into the head of South Cove so that it was necessary to traverse only between Signals "Argu" and "Loo". ✓

Datum:

There is some uncertainty as to the correct name for the datum used. Lists of Geographic Positions furnished this party showed "Unalaska 1901" for the datum. Officers on the Pioneer thought "Unalaska Astronomic Datum 1896" was the correct term. The actual datum now in use by the Pioneer is a tentative partially adjusted value determined by the office in 1938. *Triangulation on Islands of Four Mts. and to the westward is based on this datum which is still designated as Unalaska Datum 1901 (unadjusted)*

Methods:

This survey was begun in 1939 by Lieut.(j.g.) J.C. Ellerbe and Ensign W.R. Jackson on the U. S. C. & G. S. S. Pioneer. They completed the shore line on the north side of the island from Signal ^{52°53.1' 169°51.2'} "Dim" to Station ^{52°51.8' 169°57.0'} "Gate" and traced the form lines for the adjacent area. The remainder of the shore line and form lines were done by the undersigned.

On the south shore the survey was begun before all the signals had been built in the area between Station "Dak" and Signal ^{52°48.6' 169°53.3'} "Ole". A traverse was run which had a closure of eleven meters in distance. Station "Art" was then occupied and cuts were taken to the signals which corrected the error. The remainder of the south shore was done after the signals had been built and all signals could be located by graphic triangulation or short traverses with no closing errors. The form lines adjacent to the south shore were located by plane table in the usual method.

On the north west shore a traverse was begun at Station "Gate" and extended to Signal ^{52°54.9' 169°59.7'} "Rep" where a strong three point problem indicated there was no error. At Signal ^{52°51.8' 169°57.0'} "Par" another three point fix was obtained which indicated an error of two meters. The form lines adjacent to the shore in this section were obtained by plane table. Farther back toward the peak they were located by sextant cuts taken from the ship.

The north east shore was located by a dangling traverse. The 1939 location of Signal "High" was assumed to be correct and a strong orientation obtained on Station "Ear", and the traverse extended to the east to Signal ^{52°51.8' 169°57.0'} "Wef". The form lines behind this section of the shore were located by sextant cuts taken from the ship.

Lieut. Wagner had located several elevations and a considerable amount of the form lines adjacent to the shoreline on his sheet, all of which was transferred to this sheet and served as valuable assistance. All additional work in this area was done from the ship.

Closures:

The closure at Station ^{52°47.5' 169°55.3'} "Dak" has been discussed under "Methods." On the west between Station "Low" and Signal ^{52°50.3' 169°58.2'} "Slide" a satisfactory junction was made on a definite rocky point. The current work joined the previous years work at Station ^{52°51.8' 169°57.0'} "Gate" without error. The traverse which ended at Signal ^{52°52.8' 169°49.0'} "Wef" joined with the work of Lieut.(j.g.) R.C. Bolstad satisfactorily. This signal is a waterfall and his location depended on a traverse of only about 300 meters from Station "Bus," which falls just off the eastern limit of this sheet. The short traverse between Signals ^{52°49.7' 169°56.1'} "Argu" and "Loo" closed without appreciable error.

The elevations shown were all obtained by the topographers. Two points had been determined by the triangulation parties with the following results:

Point	Elevation by Triangulation	Topography
Mt. Cleveland	5675	5680
West Peak	3585	3560

Comparison with Previous Surveys:

There were no detailed surveys of these islands previous to 1939. The information shown on Chart No. 8802 was probably obtained from old Russian maps, and the shore line is from one to three miles in error. It shows Applegate Cove as being smaller than South Cove, the opposite of which is true. The elevation of Mount Cleveland was found to be 5680 feet instead of 8156 as shown on the chart.

The work done in 1939 was not duplicated this year and no test of its accuracy was deemed necessary. The small bight at Signal "Ges" had been sketched in tentatively in 1939 and an opportunity to locate it accurately was obtained in 1940.

52-52.8
169-51.6

Description of Shoreline:

Chuginadak Island is shaped like a dumb-bell. On the west end is the tall symmetrical cone known as Mount Cleveland, 5680 feet in height. On the east end is a group of peaks, the westerly one of which is found on the east edge of this sheet. The upper part of these peaks are covered with snow during most of the year. In the narrow neck connecting the two ends of the island is a low wind-swept pass with several low bare hills. The action of the wind thru this pass hampers the growth of grass and large areas are covered with shifting black sand. At the edge of the grass areas is found a steep bluff about five to ten feet high.

The sides of Mount Cleveland are made up of a series of lava flows, the older ones being partially covered with grass and moss in their lower reaches. Some of the recent flows have branched and re-joined leaving islands of grassy slopes between. Most of these are found on the south side of the cone. The entire cone is probably very porous for no streams of water reach the shore, whereas there are many prominent waterfalls around the east end of the island. There is a small crater in the top of Mount Cleveland from which a small plume of smoke issues at nearly all times. Upon a few occasions in 1940 a dim glow could be seen at night over the crater.

There are no trees on this island and practically no bushes. In some places there is a thick carpet of grass and moss. There are a few native red fox on this island but very few kinds of wild life other than these.

In unfavorable weather there are no good places to land. In moderate weather one can land to the southeast of Signal "Dim", in the coves northwest of Station "Apple", at the tide gage site east of Station "Dos", and in the two coves northeast of Station "Eagle". The north easterly one of these two coves is a fair launch anchorage and camp site except there is no drinking water in the vicinity.

In South Cove it is generally possible to land near Signal "Loo", either on the sand north of the rock or on the rocky shore south of the station. This rock is a possible tide gage site though a better one is behind Signal "Want". Signals "Wat", "Mid", and "East" are prominent waterfalls. Signal "Mid" has a peculiar white deposit at the top of the fall that can be seen for twenty miles on clear days.

52-53.6, 169-51.2
52-52.7, 169-51.4
52-52.0, 169-52.0
52-50.9
170-00.2

The best place in the area covered by this sheet for a small boat to obtain water is at Signal "Wat". A small boat can pass behind the 140 foot pinnacle rock near this signal. There are no houses on this island. An old barabara in ruins was found on shore just east of Signal "Loo". Signal "Cave" is a large but shallow cave in the face of the cliff along the southeast end of the hill on which Station "Pass" is located. ^{52-50.0, 169-52.9}

Geographic Names: ✓

The following people were interviewed in an effort to obtain geographic names:

Henry H. Swanson, fox farmer and local pilot in the Aleutian Islands for twenty years, now jailer in Unalaska.

Paul Willis, fox farmer on Uliaga and Kagamil, now dock superintendent in Dutch Harbor. Has lived in Aleutian Islands eight years.

Many other inhabitants of Dutch Harbor and Unalaska were interviewed but they all referred to the above men as the best source of information.

There are no regular inhabitants in the Islands of the Four Mountains. Occasionally a trapper will spend a winter on Herbert, Carlisle, Kagamil or Uliaga but conditions are not favorable for fox farming on Chuginadak.

For these reasons there is a dearth of local names. The following are shown on Chart No. 8802: Chuginadak Island, Carlisle Island, and Mount Cleveland. The Coast Pilot mentions Applegate Cove for the anchorage on the north side of the island. All of the sources interviewed were in agreement on the use of these names.

Only one new name is recommended: South Cove, the anchorage on the south side of the island opposite Applegate Cove. This name is in use by all sources interviewed and was constantly used by the Survey parties.

Dangers:

There are no dangers very far off shore on this sheet. A few rocks awash are found close inshore along most of the beaches and cliffs and these are generally bordered by a line of kelp. At Station "Will" ^{52-51.6, 169-52.1} the kelp extends 500 meters or more off shore. There are a few rocks to the east of Signal "Trip" ^{52-49.0, 169-52.8} and the kelp extends a few hundred meters beyond these. There is a sunken rock 160 meters south of Signal "Ball" ^{52-48.7, 169-48.8} which breaks in a moderate swell.

Weather:

Unfortunately the two anchorages on this sheet, Applegate Cove and South Cove, have the most unfavorable weather conditions. The wind draws through the low pass between the high peaks so that a higher velocity will be logged there than in other near by places. The fog seems to hang over them frequently when both ends of the islands will be moderately clear.

An interesting condition was frequently noted in the lee of Mount Cleveland. A clear patch of sky would be found there when all other places were heavily overcast. The barometer would register as much as .08 of an inch lower when this clear spot was crossed.

Statistics:

Statute miles of shore line	19.4
Area in square statute miles	34.6

Respectfully submitted,

Hubert A. Paton

H. A. Paton
Lieut. C. & G. S.

August 24, 1940.

Approved and forwarded:

J. H. Peters

J. H. Peters,
Chief of Party, C. & G. S.
Commanding Ship EXPLORER.

*Forwarded
S. L. Bean*

Officer in Charge,
Seattle Processing Office.

Remarks.

Decisions

1		525695
2		525700
3	OK to ink pending U.S.G.B. decision	"
4		525695 U.S.G.B.
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GEOGRAPHIC NAMES
Survey No. **T6746**

GEOGRAPHIC NAMES											
Survey No. T6746											
Name on Survey											
	A,	B,	C,	D,	E,	F,	G,	H,	K,		
<u>Applegate Cove</u>											1
<u>Carlisle Island</u>											2
<u>Carlisle Pass</u>											3
<u>Chuginadak Island</u>											4
<u>Chuginadak Pass</u>											5
<u>Mt. Cleveland</u>											6
<u>South Cove</u>											7
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<u>Islands of Four Mountains</u>											9
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Names underlined in red approved

by L. Heck on 6/18/42

M 234

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE

Dutch Harbor, Alaska

1940

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.

J. H. Patera

Chief of Party.

[illegible]

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.

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

~~No. 11~~
~~No. 11~~

No. T

T6746

(Confidential)

received Mar. 3, 1941
registered Mar. 3, 1941
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			
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RETURN TO

82	T. B. Reed
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✓ *T.B.R.*

CONFIDENTIAL

DIVISION OF CHARTS

SURVEYS BRANCH

REVIEW OF TOPOGRAPHIC SURVEY

REGISTRY NO. 6746

Field No. A-39

Aleutian Islands, Islands of Four Mountains
Chuginadak Island (Western Portion)
Surveyed June - July 1940; Scale 1:20,000
Instructions dated Feb. 3, 1938 and Feb. 21, 1940

Plane Table Survey

Aluminum Mounted

Chief of Party - J. H. Peters
Surveyed by - H. A. Paton; J. H. Ellerbe; W. R. Jackson
Inked by - H. A. Paton
Reviewed by - R. H. Carstens
Inspected by - H. R. Edmonston, February 19, 1943

1. Adjoining Surveys

The present survey joins T-6748 (1940) on the southwest and T-6745 (1940) on the east.

2. Comparison with Prior Surveys

No prior surveys of the area have been made by this Bureau.

3. Comparison with Chart 8802 (latest print date 1-18-43)

a. Topography

The charted topography originates with the present survey and, because of the small scale of the chart, only a general outline of the shoreline is shown.

b. Aids to Navigation

There are no charted aids to navigation within the limits of the present survey.

4. Condition of Survey

Satisfactory, except that rocks baring at MLLW and definitely located on the sheet were not encircled with a dotted line.

5. Compliance with Instructions for the Project

Satisfactory, except that no report of standardization of the declinatoires was submitted as part of the Descriptive Report.

6. Additional Field Work Recommended

None.

7. Superseded Surveys

None.

Examined and approved



Chief, Surveys Branch



Chief, Division of Charts



Chief, Section of Hydrography



Chief, Division of
Coastal Surveys