

6572

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PURSUANT TO DOC SYSTEMATIC REVIEW
GUIDELINES AS DESCRIBED IN SECTION
3.3(a), EXECUTIVE ORDER 12356.
Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic }
Hydrographic } Sheet No. 2440
Reg 6572

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
OCT 23 1941

State S.W. ALASKA

LOCALITY

YUNASKA ISLAND

ALEUTIAN ISLANDS, ALASKA

193 40

CHIEF OF PARTY

J. H. Peters

6572

~~[REDACTED]~~

SP

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H6572

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

Field No. 2440

REGISTER NO. H 6572 (Confidential)

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

State S.W. Alaska

General locality Aleutian Islands

Locality Yunaska Island

Scale 1:20,000 Date of survey Aug. - Sept., 1940

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

Chief of Party J. H. Peters

Surveyed by P. C. Doran, E. B. Latham, & J. Bowie

Protracted by Robert W. Lowe, Oakland Processing Office

Soundings penciled by R. W. Lowe

Soundings in fathoms Feet

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by C.E. Dennis 2/25/42

Verified by " "

Instructions dated Febr. 3, 1938
Feb. 21, 1940

Remarks:

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO. FIELD NO. 2440

YUNASKA ISLAND

ALEUTIAN ISLANDS, ALASKA

SEASON OF 1940

1 0 1

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

J. H. Peters, Commanding

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO. FIELD NO. 2440

YUNASKA ISLAND

ALEUTIAN ISLANDS, ALASKA

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

J. H. Peters, Commanding

INSTRUCTIONS

Instructions for this survey were issued to the Commanding Officer by the Director, dated Feb. 21, 1940, Project HT-218. *Original instructions for Project HT 218 are dated Febr. 3, 1938*

SURVEY METHODS

This sheet was surveyed in accordance with instructions of Feb. 21, 1940; letter of May 6, 1940 from the Director relative to use of Portable Depth Recorders, and the Hydrographic Manual (Special Publication No. 143).

The EXPLORER'S launches, nos. 1, 2, 3, and 4, were used to complete the survey. All positions were determined by three point sextant fixes, using signals located by triangulation, topography and sextant cuts from the ship and launches. The latter positions are distinguished on the boat sheet by "blue" circles. Most of such signals were relocated by topography, in which instance, the usual "red" circle also appears on the boat sheet. For smooth sheet plotting, hydrographic location of signals are to be superseded by topographic locations.

The portable depth recording fathometers were used on all four launches giving excellent performances except in two instances. During the first working days in September, the fathometers in launches nos. 1 & 3, failed to give a distinct profile of the bottom, the return echo spark getting weaker and weaker and at times being entirely absent. New tubes, a general cleaning

and one broken wire replaced, corrected the deficiency and the fathometers returned to their earlier state of efficiency. It is thought that a rather inactive August, due to continual storms and bad weather, may have had something to do with the temporary failure of the fathometers.

The fathometer in launch no. 4 got wet, due to working in tide rips, causing a dark discoloration to the graph for that days work. Overnight drying and cleaning remedied the situation. It is recommended that the portable fathometers be made waterproof in order to prevent such occurrences.

Party organization, bar checks, R.P.M. counts and survey methods were the same as explained in reports on sheets completed earlier in the season.

Soundings were corrected for tide, index, echo, etc.

JUNCTIONS

~~H-6572~~⁽¹⁹⁴⁰⁾ ~~H-6568~~⁽¹⁹⁴⁰⁾
Sheet 2440 joins sheet 8140 on all sides, connecting with the hydrography of the EXPLORER E. of long. 170° 45' on the N. side of Yunaska Island and E. of long. 170° 39' on the S. side. Junctions with the ship's work was satisfactory. The same applies to the JONE'S work in so far as limits were available. On the W. end of the island, the launch limits were given to the JONES and they made the connection.

DISCREPANCIES

All cross lines gave excellent checks.

DANGERS

The most important submerged dangers are listed below:

- ✓ 1. ~~lat. 52° 36.24', long. 170° 35.48', 2 fathoms.~~ ³¹ ^{.50} *Kelp was read on bathogram*
- ✓ 2. lat. 52° 35.5', long. 170° 40.1', ~~2~~³ fathoms. A ~~five~~⁵ fathom spot ₄

is 200 meters to the E. There is no passage between here and the beach, 0.4 mi. to the NNE, as a heavy kelp bed extends over the shoal.

2583 ✓

- ✓ 3. lat. 52° ^{34.13} 34.1', long. 170° ^{44.35} 44.3', ^{3'} 3 fathoms. ✓
- ✓ 4. lat. 52° 40.7', long. 170° 44.7', a rock *awash*. ✓
- ✓ 5. lat. 52° 39.2', long. 170° 46.0', a sunken rock, estimated depth 4 feet under water. *at MLLW*. ✓
- ~~6. lat. 52° 35.2', long. 170° 50.6', a pinnaele, least depth 5 feet. *read help for obj.*~~
- ✓ 7. lat. 52° 35.6', long. 170° 50.6', a pinnacle, least depth 4 fathoms. ✓

CHANNELS

There are no channels on this sheet.

ANCHORAGES

Crater Anchorage - lat. 52° 39.5', long. 170° 46.0'. Anchorage fair, 18 fathoms. Protection from the E, SE and S. See (5) under DANGERS. ✓

South Anchorage - lat. 52° 35.5', long. 170° 41.2'. Anchorage fair, 15 fathoms, even bottom. Protection from the N and NW. Some protection from the W and NE. ✓

Cabin Anchorage - lat. 52° 41.5', long. 170° 41.6'. Good anchorage for one ship, 16 fathoms. Protection from the S and SE. ✓

East Cove - lat. 52° 39.8', long. 170° 33.4'. Fair anchorage for one ship, 10 fathoms. Protection from the W. ✓

A cove, lat. 52° 37.3', long. 170° 35.0'. Fair anchorage, 16 fathoms. Protection from the NW. ✓

Small boats, under 40 feet in length can obtain protection from the E, SE, S, SW and W, in Cabin Cove, 3 fathoms, sandy bottom, lat. 52° 40.9', long. 170° 42.65'. A trappers cabin is at the head of the cove, 100 feet up on top of a slip-bank cliff. ✓

Small boats, under 40 feet in length, can obtain protection from the NE, E, SE and S, in a small cove, 3 fathoms, boulder bottom, lat. 52° 35.75', ✓

long. $170^{\circ} 49.9'$. A narrow channel about 100 meters wide, leads through heavy kelp to the head of the cove.

COMPARISON WITH PREVIOUS SURVEYS

No previous surveys of this area have been made by the Coast & Geodetic Survey. Chart 8802 (Surveys to 1938 and other sources) is of such scale that any attempt for a detailed comparison would be questionable. This survey should supersede all charts of this area.

GEOGRAPHICAL NAMES

Yunaska Island - See U. S. Coast Pilot, Alaska, Part II, 4th edition, 1938, page 366, paragraph 1.

Crater Anchorage, Cabin Anchorage, East Cove, Cabin Cove and South Anchorage are names recommended for adoption. See paragraph under "ANCHORAGES".

LANDMARKS

Yunaska Pk. is located on the western part of the island, the center ^{of the island} is low and there are numerous peaks on the eastern part.

A 91 foot rock is located at lat. $52^{\circ} 37.9'$, long. $170^{\circ} 34.3'$. A smaller pinnacle, leaning inshore, is about 100 meters to the NW. Sig "PIPE"

STATISTICS

Positions	3,121
Soundings (fath)	12,467
Miles sdgs. (statute)	635.1
Area, sq. mi. (statute)	36.3

GENERAL DISCUSSION

Yunaska is a typical volcanic island, uninhabited with no vegetation except grass. Two trappers cabins are located on the island and a few foxes

seen. The beach is rugged with many offlying rocks and pinnacles. Heavy kelp extends several hundred meters offshore except off the sand beach at South Anchorage and a few other places where there is deep water off vertical lava cliffs. Heavy tide rips and strong currents were encountered off the points, especially at the NE and SW parts of the island.

25

A portable tide gage was established in Cabin Cove and another portable tide gage at East Cove. The standard gage was located at Dutch Harbor.

90% of the hydrography was completed in five working days between Sept. 4th and 12th, in none too favorable working conditions, by three launch parties. A two fathom saw tooth bottom profile appears on the graphs several of these days. The mean of the saw teeth was recorded for the soundings when the graphs were scrutinized. It is quite obvious to all of the officers of the EXPLORER, that this sheet would not have been completed this season if soundings had to be taken by hand lead and wire.

Developments of Cabin Anchorage, East Cove and another anchorage were made on a scale approximately 1/5,000, as soon as the EXPLORER went to Yunaska Island, in order to locate safe anchorages for the ship. These developments were later ~~transferred to~~ ^{plotted on} the regular 1/20,000 boat sheets.

Insert 1:10,000

All around the island, the bottom breaks off fairly sharp becoming more even as the 30 fathom curve is approached. Passing ships are advised to keep outside the 30 fathom curve.

25

Respectfully submitted,

John Bowie, Jr.
John Bowie, Jr.
Jr. H. & G. Eng'r.
U.S.C. & G.S.S. EXPLORER

Approved:

J. H. Peters
J. H. Peters,
Commanding Officer,
U.S.C. & G.S.S. EXPLORER.

SUPPLEMENT
to
DESCRIPTIVE REPORT
to accompany

HYDROGRAPHIC SHEET H-6572

U. S. C. & G. S. S. EXPLORER
YUNASKA ISLAND
Aleutian Islands, Alaska

This supplement contains additional information compiled after the completion of the smooth sheet in the Oakland Processing Office.

DANGERS

There are seven dangers to navigation listed in this report. It is recommended that the following be added to that list:

- 8. lat. 52 - ^{.13}35.93', long. 170 - ^{.55}50.6' least depth 2 ft. read help for s.d.g. 25 83
- 9. " 52 - ^{.03}35.13', " 170 - 50.6' " " 8 ft. read help for s.d.g.
- 10. " 52 - 38.50', " 170 - 33.4' " " 2 ⁴/₆ fms. ✓

SUMMARY COMMENT

The East Cove hydrography, a day (red), was smooth plotted on a sub-plan of 1:10,000 scale as well as on the 1:20,000 scale. This was done to obtain a clear picture of ~~this was done to obtain a clear picture of~~ this anchorage which could not have been obtained on the 1:20,000 scale. Only a few characteristic soundings were plotted on the 1:20,000 scale in this area.

All the required depth curves were not drawn on this sheet because of the very steep and jagged character of the bottom. However they were drawn wherever they would not obscure the soundings.

Due to the rough character of the bottom and the many submerged pinnacles off the west end of the island it is noted that a more accurate

picture of the bottom could be obtained on a 1:10,000 scale. The area mentioned here extends from triangulation station SPIRE to topographic signal WHITE and was thoroughly developed. However there was not enough room to plot all the characteristic soundings in this area on the 1:20,000 scale of the smooth sheet.

Corrections have been made in pencil on the original report after being checked with the smooth sheet. Most of these corrections were made on soundings after the final reducers were applied.

The soundings were plotted and the depth curves penciled by Robert W. Lowe in the Oakland Processing Office.

Respectfully submitted by

Robert W. Lowe, *Robert W. Lowe*
Engineering Draftsman.

Approved and forwarded by

Lt. S. B. Grenell *S. B. Grenell*

H. & G. Engineer

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GUIDELINES AS DESCRIBED IN SECTION
3.3(a), EXECUTIVE ORDER 12356.

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography:~~ October 29, 1941.

✓ Division of Charts: Attention: Mr. H. R. Edmonston.

Plane of reference approved in
14 volumes of sounding records for

HYDROGRAPHIC SHEET 6572

Locality Yunaska Island, Aleutian Islands

- Chief of Party: J. H. Peters in 1940
- Plane of reference is mean lower low water reading
- 4.3 ft. on tide staff at Applegate Cove
- 6.4 ft. below B. M. 1
- (1.4 ft. on tide staff No. 1 at Yunaska Island (N. side)
- (2.6 ft. on tide staff No. 2 at " " (" ")
- 9.8 ft. below B. M. 2
- 2.6 ft. on tide staff at Yunaska East Cove
- 13.2 ft. below B. M. 1

Height of mean high water above plane of reference is 3.7 ft. at Applegate Cove; 3.5 ft. at Yunaska I. (N. side); 3.0 ft. at Yunaska East Cove.

Condition of records satisfactory except as noted below:

Hamm

Acting Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. **H6572**

(Classification)

Name on Survey

**DECLASSIFIED BY NOAA
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GUIDELINES AS DESCRIBED IN SECTION
3.3(a), EXECUTIVE ORDER 12356.**

On chart No. 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

	A	B	C	D	E	F	G	H	K
East Cove									1
Yunaska Island									2
<u>Yunaska Peak</u>									3
Crater Anchorage									4
South Anchorage									5
									6
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Names underlined in red approved
by L. Heck 5/16/42

Remarks

Decisions

	Remarks	Decisions
1	Do not int pending U.S.G.B. decision	525705
2		" U.S.G.B
3	see p.4	"
4	" " " "	"
5	" " " "	"
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Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6572** (Confidential)

DECLASSIFIED BY NOAA
PURSUANT TO DOC SYSTEMATIC REVIEW
GUIDELINES AS DESCRIBED IN SECTION
5.3(a), EXECUTIVE ORDER 12356.

Records accompanying survey:

Boat sheets ⁽¹⁰⁾; sounding vols. ⁽¹⁴⁾; wire drag vols.;
bomb vols.; graphic recorder rolls ⁽⁴⁾;
special reports, etc.
.....

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	3121
Number of positions checked	577 ⁷²
Number of positions revised	51
Number of soundings recorded	12467
Number of soundings revised (refers to depth only)	105
Number of soundings erroneously spaced	0
Number of signals erroneously plotted or transferred	0
Topographic details	Time 3 hr.
Junctions	Time 43 43 1/2 by R.H. Carstens
Verification of soundings from graphic record	Time 20 hr.

Verification by C.E. Dennis Total time 136 1/2 hr Date 2/25/42
43 1/2 hr by R.H.C.
180 hrs

Review by R.H. Carstens Time 56 hrs Date May 5, 1942

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

DECLASSIFIED BY NOAA
 PURSUANT TO EXECUTIVE ORDER 12350
 3.3(a), EXECUTIVE ORDER 12350

No. H 16572

(Confidential)

received Oct. 23, 1941
 registered Oct. 25, 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			
22			
24			
✓ 25		<i>WSE</i>	<i>Pgs 2, 3, 4, 5, 8, 6</i>
26			
30			
40			
62			
63			
82			
✓ 83	<i>WSE</i>		<i>Pgs 2 & 3 & 6</i>
88			
90			

· RETURN TO

82	R. W. Knox
----	------------

WSE

H6572

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GUIDELINES AS DESCRIBED IN SECTION
3.3(a) EXECUTIVE ORDER 12356.
Date

1. The descriptive report was consulted and appropriate action taken. ✓
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude. ✓
3. All references to survey sheets mentioned in the descriptive report include the registry number and year. ✓
4. Geographic names of hydrographic features are in slanting lettering and of topographic features in vertical lettering. ✓
5. All items effecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken. ✓
6. All positions verified instrumentally were check marked in the sounding records. ✓
7. All critical soundings are clear and legible. ✓
8. The metal protractor has been checked within the last three months. ✓
9. The protracting and plotting of all bad crossings were verified. ✓
10. All detached positions locating critical soundings, rocks or buoys were verified. ✓
11. The boat sheet was compared with the smooth sheet. ✓
12. The spacing of soundings as recorded in the records was closely followed. ✓
13. The bottom characteristics were shown on outstanding shoals. ✓ *very few*
14. The reduction and plotting of doubtful soundings were checked. ✓

15. The transfer of contemporary topographic information was carefully examined. ✓
16. All junctions were transferred. ~~None~~ Done by reviewer
17. The notation "JOINS H " was added for all contemporary adjoining or overlapping sheets now registered.
18. The depth curves have been drawn to include the significant depths. ✓
19. All triangulation stations and transfer of topographic and hydrographic signals were checked by the field party. ✓
20. Heights of rocks were checked against range of tide. ✓
21. Rocks transferred from topographic survey have a dotted curve where shown thereon. ✓
22. Unnecessary pencil notes have been removed. ✓
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet. ✓
24. The low water line and delineation of shoal areas have been properly shown (see letter of October 20, 1934). ✓
25. Degree and minutes values and symbols have been checked. ✓
26. Source of shoreline and signals (When not given in report).
T-6750
T-6751
T-6752
27. Depth curves were satisfactory except as follows: ✓

28. Sounding line crossings were satisfactory except as follows: ✓

29. Junctions with contemporary surveys were satisfactory except as follows:

30. Condition of sounding records was satisfactory except as follows: ✓

31. The protracting was satisfactory except as follows: ✓

32. The field plotting of soundings was satisfactory except as follows:

33. Notes to reviewer: *G day (blue) of H-6568 (1940) has been plotted on this sheet. See Vol. 12 & 13 of H-6568 (1940) for recorded soundings.*

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3.3(a), EXECUTIVE ORDER 12356.

DIVISION OF CHARTS
SURVEYS SECTION
REVIEW OF HYDROGRAPHIC SURVEY

REGISTER NO. 6572
Field No. 2440

Aleutian Islands, Vanaska Island
Surveyed in August - September 1940, Scale 1:20,000
Instructions dated February 3, 1938 and February 21, 1940

Soundings: Portable Depth Recorder Control: Visual Fixes on Shore Signals

Chief of Party - J. H. Peters
Surveyed by - P. C. Doran, E. B. Latham and J. Bowie
Protracted by - R. W. Lowe, Oakland Processing Office
Soundings plotted by - R. W. Lowe
Verified and inked by - C. E. Dennis
Reviewed by - R. H. Carstens, May 5, 1942
Inspected by - H. R. Edmonston

1. Shoreline and Signals

The shoreline and the topographic signals originate with T-6750, T-6751 and T-6752 of 1940. One supplementary hydrographic signal was located. The cuts for its location are recorded in Vol. 8 of the sounding records.

2. Sounding line Crossings

Satisfactory.

3. Depth Curves

Satisfactory for 10 fms. and greater, but evidently kelp prevented a more complete development of the shoaler curves.

4. Junctions with Contemporary Surveys

A satisfactory junction was made with H-6568 (1940) which completely surrounds this survey. The hydrography in the overlap was plotted on H-6572 (1940) by fixes, and numerous soundings, not shown on H-6568 (1940) because of the small scale of that survey, were added in making the junction.

5. Comparison with Prior Surveys

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

6. Comparison with Chart 8802 (Latest print date 1-29-42)

No soundings nor aids to navigation within the area of this survey appear on the chart.

7. Condition of Survey

Satisfactory.

8. Compliance with Instructions for the Project

Compliance with instructions for the project was satisfactory except that very few bottom characteristics were secured - none in either of the two anchorages on the north side - and no attempt was made to check critical depths with the hand lead. The critical depths usually occurred on pinnacle rocks covered with kelp, which prevented a positive reading of the depth on the fathogram.

9. Additional Field Work Recommended


At a convenient time it is desirable that all critical depths be checked with the hand lead. Additional split lines should be run in Lat. $52^{\circ}32.75'$, Long. $170^{\circ}46.7'$, Lat. $52^{\circ}37.62'$, Long. $170^{\circ}33.22'$, Lat. $52^{\circ}41.35'$, Long. $170^{\circ}34.30'$, Lat. $52^{\circ}41.50'$, Long. $170^{\circ}34.60'$, Lat. $52^{\circ}41.3'$, Long. $170^{\circ}41.7'$ and Lat. $52^{\circ}38.9'$, Long. $140^{\circ}48.25'$.

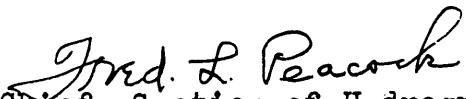
10. Superseded Surveys


None.

Examined and approved:


Chief, Surveys Section


Chief, Division of Charts


Chief, Section of Hydrography


Chief, Division of Coastal Surveys

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO NO.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

Applied to compilation 8861 Feb. 16, 1942 J.M.A.
" " " New Chart 9030 3/20/42 J.H.S.