

6412
6412

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3.5.4, EXECUTIVE ORDER 13526.

U. S. COAST & GEODETIC SURVEY
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Additional work

6412

Additional work 1939

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
L. O. Colbert, Director

Alutian Islands
State: ALASKA

DESCRIPTIVE REPORT

Sheet No. 21 P

LOCALITY
OF FOUR MOUNTAINS
ISLANDS - ALASKA

Carlisle Island

1938

CHIEF OF PARTY
Roland D. Horne H. & G. Engr.

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
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Acc. No. _____

REG. NO.

HYDROGRAPHIC TITLE SHEET

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. 21-P

REGISTER NO. H 6412

State ~~ALASKA~~ Alutian Islands

General locality ~~ALEUTIAN ISLANDS~~ Islands of Four Mountains

Locality ~~ISLANDS OF THE FOUR MOUNTAINS~~ East of Carlisle Island

Scale 1:20,000 Date of survey Aug. 9-17, 1938

Vessel PIONEER

Chief of Party ROLAND D. HORNE

Surveyed by ROLAND D. HORNE

Protracted by Roswell C. Bolstad

Soundings penciled by Roswell C. Bolstad

Soundings in fathoms Rect

Plane of reference M L L W

Subdivision of wire dragged areas by _____

Inked by R. H. Carstens

Verified by R. H. Carstens

Instructions dated February 3, 1938, 1938

Remarks: Sheet incomplete. Additional work required to fill in blank areas, also additional development (See Descriptive Report.)

FINAL FATHOMETER CORRECTIONS

for

Hydrographic Sheet, Field No. 2133

H 6412 (1733)

For Fast Dial Speed

(No slow dial speed readings taken on this sheet.)

<u>DEPTH</u> <u>Fms</u>	<u>CORR.</u> <u>Fms</u>
0 - 10.9	+1.0
11 - 34.9	+0.5
35 - 59.9	0.0
60 - 83	-0.5

FINAL FATHOMETER CORRECTIONS

for

Hydrographic Sheet, Field No. 2139

H 6412 (1932)

For Fast Dial Speed

(No slow dial speed readings taken on this sheet.)

<u>DEPTH</u> <u>Fms</u>	<u>CORR.</u> <u>Fms</u>
0 - 10.9	+1.0
11 - 34.9	+0.5
35 - 59.9	0.0
60 - 85	-0.5

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SHEET

FIELD NO. 21-P H 6412 (1938)

Season of 1938

U.S.C. & G.S.S. PIONEER

ROLAND D. HORNE, COMMANDING.

LOCALITY

This survey covers a portion of the area north of Chuginadak Island between Uliaga and Carlisle Islands, Islands of the Four Mountains, Aleutian Ids., Alaska.

DATE OF INSTRUCTIONS

This survey was made under the Director's instructions dated February 3, 1938.

SURVEY METHODS

The survey was done from the Ship PIONEER using Three-point fixes on triangulation stations located by this party. The soundings were obtained by the Fathometer. No deviations from standard methods were used.

DISCREPANCIES

Positions of signals on the boat sheet were plotted from graphic intersections prior to complete observations at all triangulation stations and before the positions were computed. There is therefore some slight shifting of the lines on the smooth sheet with respect to the boat sheet. This did not effect the pattern of development when plotted on the smooth sheet.

The reduced soundings were plotted only to the nearest fathom (tenths dropped) and therefore crossings may actually be better by one-half fathom than is apparent on the sheet. The following crossings show slight deviation in depths; the uneven bottom would allow such tolerance and no rejections have been made.

2E (Lat. $52^{\circ} 54.7'$, Long. $169^{\circ} 47.3'$) The sounding of 47 fms. (actually $47\frac{1}{2}$ fms.) of position 2E was plotted in place of the 48 fm. reduced sounding midway between positions 12 and 13c.

3-4E (Lat. $52^{\circ} 55.1'$, Long. $169^{\circ} 47.3'$) A sounding of 47 fms.

(actually $47\frac{1}{2}$ fms.) crosses a 48-48 sounding between positions 72-73C.

6-7E (Lat. $52^{\circ} 55.7'$, Long. $169^{\circ} 47.3'$) A sounding of 48-48 fms. (actually $48\frac{1}{2}$ fms.) crosses a 47-47 (actually $47\frac{1}{2}$ fms) sounding between positions 160-161C.

17-18E (Lat. $52^{\circ} 58.0'$, Long. $169^{\circ} 47.8'$) The 37-37 (actually $37\frac{1}{2}$ fms.) soundings cross 36-35 (actually $36\frac{1}{2}$ - $35\frac{1}{2}$) sounding between positions 137-138E.

25-26E (Lat. $52^{\circ} 55.8'$, Long. $169^{\circ} 47.1'$) The 45-45 (actually $45\frac{1}{2}$ fms.) soundings cross 44-44 (actually $44\frac{1}{2}$ fms.) sounding between positions 79-80E.

60-61E (Lat. $52^{\circ} 55.8'$, Long. $169^{\circ} 45.7'$) The 40-40 (actually $40\frac{1}{2}$ fms.) soundings cross 39-39 (actually $39\frac{1}{2}$ fms) soundings between positions 74-75F.

81-82-E (Lat. $52^{\circ} 56.0'$, Long. $169^{\circ} 47.8'$) the 48-48 (actually $48\frac{1}{2}$ fms.) soundings cross a 49 (actually $49\frac{1}{2}$ fms.) sounding at position 95F.

86-87E (Lat. $52^{\circ} 57.8'$, Long. $169^{\circ} 47.8'$) The 38 (actually $38\frac{1}{2}$ fms.) sounding is crossed by 39-39 (actually $39\frac{1}{2}$ fms.) soundings between position 146-147E.

87-88E (Lat. $52^{\circ} 58.4'$, Long. $169^{\circ} 47.9'$) The 42-45 (actually $42\frac{1}{2}$ - $45\frac{1}{2}$ fms.) soundings cross 43-43 (actually $43\frac{1}{2}$ - $43\frac{1}{2}$ fms.) soundings between position 135-136E.

101-102E (Lat. $52^{\circ} 56.0'$, Long. $169^{\circ} 48.4'$) The 51-51 (actually $51\frac{1}{2}$ fms.) soundings cross 50-50 (actually $50\frac{1}{2}$ fms.) soundings between positions 96-97F.

112-113E (Lat. $52^{\circ} 58.7'$, Long. $169^{\circ} 48.8'$) The 44-45 (actually $44\frac{1}{2}$ - $45\frac{1}{2}$ fms) soundings cross 46-46 (actually $46\frac{1}{2}$ fms.) soundings between positions 133-134E.

121-122E (Lat. $52^{\circ} 55.9'$, Long. $169^{\circ} 48.7'$) The 50-50 (actually $50\frac{1}{2}$ fms.) soundings cross 51-52 (actually $51\frac{1}{2}$ - $52\frac{1}{2}$ fms) soundings between positions 96-97F.

48-49F (Lat. $52^{\circ} 55.0'$, Long. $169^{\circ} 55.4'$) The 72 fm. sounding is crossed by 73-74 fm. soundings between position 34-35D.

50-51F (Lat. $52^{\circ} 54.6'$, Long. $169^{\circ} 54.8'$) The 64-64 fm. soundings cross 63-63 fm. sounding (actually $63\frac{1}{2}$ fms.) between positions 61-62A.

51-52F (Lat. $52^{\circ} 54.5'$, Long. $169^{\circ} 54.5'$) The 63-63 soundings cross 62-62 (actually $62\frac{1}{2}$ fms.) soundings between positions 44-45A. The 63-63 fm. sounding cross 62-62 (actually $62\frac{1}{2}$ fms.) sounding between positions 27-28A.

165-166E (Lat. $52^{\circ} 55.1'$, Long. $169^{\circ} 53.4'$) The 61 fathom sounding falling in the vicinity of deeper sounding shows some bottom irregularity. No comment was made in the sounding record by the fathometer operator.

65-66F (Lat. $52^{\circ} 54.3'$, Long. $169^{\circ} 46.7'$) The 38-38 (actually $38\frac{1}{2}$ fms.) soundings cross a 37-36 (actually $37\frac{1}{2}$ - $36\frac{1}{2}$ fms.) soundings between 68-69F.

68-69F (Lat. $52^{\circ} 54.5'$, Long. $169^{\circ} 46.7'$) The 36-38 (actually $36\frac{1}{2}$ - $38\frac{1}{2}$ fms.) soundings cross 39-39 fm. soundings between positions 42-43C.

69-70F (Lat. $52^{\circ} 54.8'$, Long. $169^{\circ} 46.5'$) The 39-41 (actually $39\frac{1}{2}$ - $41\frac{1}{2}$ fms.) sounding cross 44-43 fm. soundings between positions 11-12C. The 43-44 (actually $43\frac{1}{2}$ - $44\frac{1}{2}$ fms) sounding cross 46-45 fm. soundings between positions 27-28B.

108-109F (Lat. $52^{\circ} 54.8'$, Long. $169^{\circ} 53.1'$) The 67-68 fm. soundings cross 65-65 (actually $65\frac{1}{2}$ fms.) soundings between positions 13-14B.

DANGERS AND REQUIRED FUTURE DEVELOPMENT

No dangers to surface navigation were found. However, additional development is required in several localities where depth curves could not be satisfactorily drawn, and areas indicated by shoal soundings:

1. Lat. $52^{\circ} 54.6'$, Long. $169^{\circ} 43.8'$. The soundings of 18, and to southward of 22 and 20 fathoms, require future development. To the south, between positions 31-32F opposite the 31 fathom sounding in the record the note is made "strays 20-22 fathoms". This should be investigated. The heavy tide rips in this area are undoubtedly influenced by the irregular bottom.
2. Lat. $52^{\circ} 54.5'$, Long. $169^{\circ} 44.9'$. The sounding of 24 fathoms requires future development. This is also in the area of strong tide rips.
3. Lat. $52^{\circ} 54.2'$, Long. $169^{\circ} 49.6$. The soundings of 24 and 25 fathoms on adjacent lines requires development. On the 24 fathom sounding the fathometer recorder noted in the record "jumping badly; very erratic". On the adjacent line to the north the 32 fathom sounding indicates the bottom irregularity as extending to this vicinity. Also about 200 meters east the 27 and 26 fathom soundings, together with a miss, require investigation; the fathometer operator entered the note "strays from 18-22 fathoms" in the record at this vicinity. Just to the south between positions 36-37F the fathometer operator made the note "strays at 24 fathoms" opposite the 34 fathom sounding. There may be an abrupt shoaling in this area; it should be investigated.
4. Lat. $52^{\circ} 56'$, Long. $169^{\circ} 55.5'$. The soundings of 48 fathoms to the north and south indicate some shoaling.
5. Lat. $52^{\circ} 55.5$, Long. $169^{\circ} 50.4'$. The sounding of 37 fathoms and the sounding of 34 fathoms on the adjacent line about 300 meters south-east require additional investigation. The fathometer recorder made a note in the record book opposite the 37 fathom sounding "Probably shoaler, but missed".

rechecked
12/19/59

6. Lat. 52° 54.3', Long. 169° 47.0'. Opposite the soundings of 34 fathoms the note "erratic" has been entered in the record book. This should be investigated.

~~Lat. 52° 55.5'; Long. 169° 50.4'. In the sounding record opposite the 37 fathom sounding, between positions 134-135C is entered the note "probably shoaler but missed". This required further investigation.~~ *Same. Shoal sdg. as noted in par 5.*

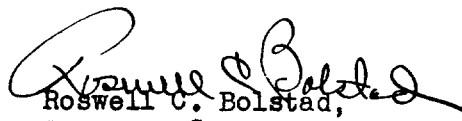
All boundary lines defining tide rips shown on this sheet are approximate; they were defined by observations during the course of the seasons work, therefore under varying conditions of current and winds they may show considerable change in limits. ✓

ANCHORAGES

During the course of the 1938 season's work the PIONEER anchored frequently in Applegate Cove at Latitude 52° 51.8', Longitude 169° 53.7', in about 17 fathoms of water. The bottom is black sand (volcanic ash) and pebbles and possesses good holding qualities. This anchorage offers no protection from northerly seas; also strong winds seem to build up and sweep through from the low pass on Chuginadak Island. ✓

COMPARISONS WITH PREVIOUS SURVEYS

There are no previous surveys of this area.


Roswell C. Bolstad,
Jr. H. & G. Engineer,
USC & GSS PIONEER.

CHIEF OF PARTY'S NOTE

This sheet, reports, and records accompanying it have been examined and are forwarded approved.

Additional work is recommended as noted in the report.



Roland D. Horne,
H. & G. Engr., C&GS,
Chief of Party,
Commanding Ship PIONEER.

TABLE OF STATISTICS

Sheet Field No. 21-P. *46712 (1138)*

USC & GSS PIONEER

1938

Roland D. Home, Cmdg.

Date	Day Letter	Position Nos.	Soundings		Statute Miles of Sounding Lines
			Fath.	V. C.	
Aug 9	A	69	271	1	24.8
Aug 11	B	39	165	1	11.2
Aug. 13	C	175	729	1	46.0
Aug 15	D	79	317	4	19.8
Aug 16	E	166	718	4	50.6
Aug 17	F	118	528	3	39.7
TOTALS		646	2728	14	192.1

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 20, 1939.

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. E. P. Ellis.

Plane of reference
~~Tide Records are~~ approved in
2 volumes of sounding records for

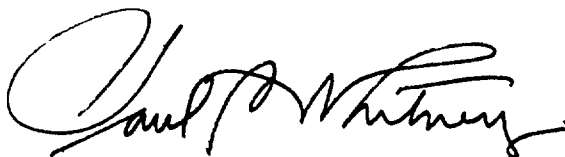
HYDROGRAPHIC SHEET 6412

Locality East of Carlisle Island, Islands of Four Mountains,
Aleutian Islands.

Chief of Party: R. D. Horne in 1938.
Plane of reference is mean lower low water reading
2.5 ft. on tide staff at Applegate Cove.
6.3 ft. below B.M. 1

Height of mean high water above plane of reference is 3.6 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. **H6412**

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
	On Chart No. 8202	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			
<u>Islands of the Four Mountains</u> ✓			}							1	
✓ <u>Chuginadak I</u> ✓											2
✓ <u>Carlisle I.</u> ✓						See Form A 712					3
✓ <u>Kagamil I</u> ✓						525 695 (Alaska)					4
✓ <u>Applegate cove</u>						525 700 "					5
Uliaga Island ✓										6	
										7	
										8	
					Names underlined in red approved for H6412					9	
					by L Hock on 1/30/39					10	
										11	
										12	
										13	
										14	
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										26	
										27	

Remarks

Decisions

	Remarks	Decisions
1	Title only	File No. 525695
2	USGB decision	525695 525695
3		" 525700
4		" 525695
5	C.P. (1931) p. 291	" 525695
6	off limit of survey	" 530695
7		
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27		

Field Records Section (Charts)

H6412
HYDROGRAPHIC SHEET NO.

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

Number of positions on sheet	.646
Number of positions checked	...16.
Number of positions revised	...3.
Number of soundings recorded	2728
Number of soundings revised	...3.
" " " respaced	2
Number of signals erroneously plotted or transferred	...0.

Date: 2/21/39

Verification by R.H. Carstens

Time: 21² hrs

Review by

Leo Straw

Time: 8 hours.

HYDROGRAPHIC SURVEY NO. H-6412

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 2 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol.#1

Landmarks for Charts (Form 567) None

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service None
(Circular Nov.30, 1933)

Hydrography: Total Days 6 ; Last Date August 17, 1938

Remarks _____

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT } No. H-6412
~~PHOTOSTATS OF~~ } ~~No. H-~~

{ received Jan. 13, 1939
 { registered Jan. 16, 1939
 { 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			
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62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
----	------------

✓ TBR

Verifying Report for H-6412 (1938)

1. The field records were neat and complete and conform to the requirements of the General Instructions.
2. The field plotting was accurate and was completed to the extent prescribed in the Hydrographic Manual. The only drafting done over by the verifier is shown on the statistics sheet.
3. The 50 fm. curve can be satisfactorily drawn. The 20 fm. curve needs more development on the shoals in lat. 52-54.5, long 169-43.8 in order to be accurately shown.
4. There are no contemporary adjacent sheets in this area registered as yet so no junctions could be made.
5. No shoreline was transferred to this sheet as there are no topographic maps of this area registered.

Respectfully submitted
F. H. Carstens

2/21/39

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6412 (1938) FIELD NO. 20P.

Islands of Four Mountains, East of Carlisle Island, Aleutian Islands.
Surveyed in August, 1938, Scale 1-20,000
Instructions dated Feb. 3, 1938 (PIONEER)

Fathometer Soundings.

3 point fixes on shore signals.

Chief of Party - R. D. Horne.
Surveyed by - Officers of the PIONEER.
Protracted by - R. C. Bolstad.
Soundings plotted by - R. C. Bolstad.
Verified and inked by - R. H. Carstens.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual.

The Descriptive Report is satisfactory.

2. Compliance With Instructions for the Project.

The survey, in general, conforms to the requirements of the instructions.

3. Shoreline and Signals.

No shoreline is shown on this survey. The signals consist of 1938 triangulation stations and two hydrographic signals, TER and WAT, which are recorded in Volume 1 of the sounding records.

4. Sounding Line Crossings.

The sounding line crossings are satisfactory.

5. Depth Curves.

The depth curves can be satisfactorily drawn except in Lat. $52^{\circ} 54.5'$ Long. $169^{\circ} 43.8'$ and $52^{\circ} 54.5'$ Long $169^{\circ} 48.75'$ where additional lines are necessary. (See par. 10 of this Review).

6. Junctions with Contemporary Surveys.

No surveys join the present survey at this time.

7. Comparison With Prior Surveys.

This Bureau has made no prior surveys in this area.

8. Comparison With Chart No. 8802 (New Print dated Nov. 3, 1938)Hydrography.

The authority for the three soundings, charted within the limits of the present survey, could not be readily ascertained. These soundings are not in agreement with the present depths, and since their origin is uncertain, and their accuracy very questionable, they should be replaced on the chart by the soundings of the present survey.

9. Field Plotting.

The field plotting was well done.

10. Additional Field Work Recommended

When field work is resumed in the areas adjacent to this survey, split lines should be run to completely develop several localities listed as follows:

- a. The 18 and 20 fathom soundings in Lat. $52^{\circ}54.8'$ Long. $169^{\circ}43.75'$.
- b. The 24 fathom sounding in Lat. $52^{\circ}54.55'$ Long. $169^{\circ}44.85'$.
- c. The 24, 25, and 32 fathom soundings in Lat. $52^{\circ}54.2'$ to Lat. $52^{\circ}54.5'$ and approximate Long. $169^{\circ}49.5'$. *Additional lines run in 1939*
- d. The 26 fathom sounding in Lat. $52^{\circ}57.7'$ Long. $169^{\circ}46.75'$ (Not mentioned in the Descriptive Report by the field party). *Add'l lines run in 1939*
- e. A holiday of about 5 square miles exists in Lat. $52^{\circ}57'$ Long. $169^{\circ}51'$, This area should be surveyed. *Area surveyed in 1939.*
- f. The 34 fathom soundings in lat. $52^{\circ}54.2'$, long. $169^{\circ}47'$. The sounding record at these soundings states that the fathometer was erratic and there were strays of 24 fathoms.
- g. Obtain bottom characteristics on shoals.

Note: a, b, d and f not developed in 1939.


11. Superseding Old Surveys.


There are no prior surveys made by this Bureau within the area of the present survey.


12. Reviewed by Leo S. Straw, Mar. 4, 1939.

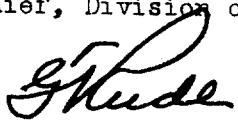
Inspected by, E. P. Ellis.

Examined and approved:


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


K. T. Adams
Chief, Division of Charts.


Fred. R. Peacock
Chief, Section of Field Work.


G. H. Hude
Chief, Division of H. & T.

*See Review of 1939 work (Additional).
L. S.S.*

Additional work 1939

U. S. COAST & GEODETIC SURVEY
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NOV 29 1939

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

Acc. No. _____

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
L.O. Colbert, Director

State: Alaska

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. Reg. 6412
Hydrographic }

LOCALITY

~~Aleutian Islands~~ *Islands Of Four Mountains*
East of Carlisle
~~North side, Chuginadak Island~~

1939

CHIEF OF PARTY

Roland D. Horne, H. & G. E.

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Additional work 1939

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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. 21 P- 39

REGISTER NO. 6412

State ~~Alaska~~ Alutian Islands

General locality ~~Alutian Islands~~ Islands of Four Mountains

Locality ~~Applegate Cove~~ East Carlisle
~~North side of Guginadak Island~~

Scale 1:20,000 Date of survey July-August, Sept, 1939

Vessel U.S.C. & G.S.S. PIONEER

Chief of Party Roland D. Horne

Surveyed by Roland D. Horne and members of party

Protracted by Roland D. Horne, - John C. Ellerbe; J.W. Vonasek (office)

Soundings penciled by John C. Ellerbe & J.W. Vonasek (office)

Soundings in fathoms ~~rock~~

Plane of reference MLLW

Subdivision of wire dragged areas by -----

Inked by G. B. Littlepage Jr.

Verified by G. B. L. Jr.

Instructions dated February 3, 1938, -19-

Remarks: Continuation of work begun in season 1938 - sheet still unfinished - work will be continued in 1940

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET
Register No. 6412-39
Project # 218
U.S.C. & G.S.S. PIONEER
1939

DATE OF INSTRUCTIONS -

The work on this sheet was executed in accordance with instructions for Project # 218, U.S.C. & G.S.S. PIONEER. Dated Feb. 3, 1938.

CONTROL -

The control for this sheet was triangulation stations located by the party of Roland D. Horne in 1938-39, and topographic signals. It will be noted that the section of this sheet submitted in 1938 was controlled by triangulation executed in 1938, the positions of the stations being unadjusted. Subsequently, a partial adjustment of the scheme to the eastward was made, and the positions of stations on this sheet were recomputed, using the partially adjusted base as a starting point. Therefore, in order to make the hydrography done in 1938 conform to the present season's work, it should be replotted on sheet 6412-39. It is felt that replotting of the 1938 work will eliminate a few inconsistencies found in the comparison of the two seasons work.

SURVEY METHODS -

The work on this sheet was done by both ship and launch.

The sounding apparatus on the former was the fathometer, supplemented by a number of vertical casts and comparisons. A separate report on fathometer corrections has been submitted.

On the launch, the handlead and sounding machine (wire) were used. Leadline corrections were obtained for each day's work and are recorded in the records as is customary. The sheave on the sounding machine was checked regularly during the progress of the work and corrected when necessary. Thus no sheave correction is indicated.

Three-point fixes on triangulation and topographic stations ashore were used as control for the ship and launch positions on the sounding lines.

The work on this sheet is a continuation of work begun in this area by this vessel in 1938 (sheet field No. 21-P) and is still incomplete. This sheet is being submitted, however, because it embodies a complete survey of Applegate Cove, the only protected anchorage in this vicinity, and ^{with the exception of two lines,} of the pass between Chuginadak and Carlisle Islands. Continuation of the work on this sheet is contemplated for the season 1940.

DISCREPANCIES

With the following exceptions, a satisfactory junction was made with the work done in 1938 -

1. In lat. 52° 55.5, long. 169° 50.5, a sounding of 37 fathoms was obtained in 1938. Development of the area surrounding this sounding was accomplished during 1939, but the depth in question was not checked. However, this was probably due to inability to pass directly over the position of this shoal

sounding , on account of very strong currents encountered. A sounding of 41 fathoms , 5 to 6 fathoms shoaler than surrounding depths, was obtained about 50 meters south of the 37 fathom spot. Therefore, it is recommended that this sounding be accepted. *37 fathom sounding accepted L.S.S. ✓*

2. In lat. 52°54.2, long. 169°49.7, a sounding of 24 fathoms was obtained in 1938. A note was entered in the record at the time that the fathometer was "jumping badly and very erratic". Investigation in 1939 disclosed no evidence of a depth so shoal. It is recommended that this sounding be regarded as a stray flash and discarded. *24 fm of 1938 rejected. ✓*

3. In lat. 52°54.2, long. 169°49.2, a sounding of 27 fathoms was obtained in 1938. A number of stray flashes, from 18 to 22 fathoms, were obtained at the same time. Investigation in 1939 disclosed the presence of a shoal in this locality, but the least water found was 29 fathoms. It is possible that the 27 fathom sounding is correct, as there may be a small pinnacle present, which would be practically impossible to find again with ordinary methods. However, it is felt that this should be regarded as the shoalest depth at this spot, and the 18 to 22 fathom flashes disregarded. Replotting of the 1938 positions, using adjusted positions of the triangulation stations involved may also change the position of the 27 fathom sounding and place it beside the 29 fathom sounding which is now about 100 meters to the westward of it. *18 & 22 fm flashes disregarded L.S.S. ✓*
27 fm retained.

4. In lat. 52°52.0, long. 169°55.5, a sounding of 16 fathoms was obtained in 1938. This sounding was apparently, from tracings aboard this vessel, obtained on a continuation of a line after a position (25 fm.), and obviously should be about 100 meters to the southward of its present position. Replotting of the position involved, using adjusted positions of the triangulation, may correct the position of this sounding. It is recommended that these possibilities be investigated in the office. *Practically no change in position when adjusted with adjusted L.S.S. ✓*
16 fm. rejected.

5. In lat. 52°52.5, long. 169°55.9, two soundings of 48 and 53 fathoms were obtained in 1938. These soundings fall on soundings of 46 and 48 fathoms, respectively, obtained in 1939. It is thought that the two soundings obtained in 1938 are out of position, due to the use of unadjusted positions of triangulation stations in plotting the fixes concerned. It is recommended that the fixes involved be replotted, using adjusted positions of the triangulation. *48 and 53 fm soundings of 1938 rejected. L.S.S. ✓*

Small discrepancies of one fathom were noted in various places, at changing depths on the sheet, but it is felt that these will be smoothed out by replotting of all 1938 work on the 1939 datum. Therefore, no specific explanation for each individual discrepancy is offered. *sounding line crossings are satisfactory.*

6. In lat. 52°51.8, long. 169°59.8, a sounding of 26 fathoms was obtained in 1939. It will be noted that soundings of 30 fathoms were obtained to the eastward. However, since this sounding is on the edge of a bank of considerable slope, it is felt that a small hump may be present, and the sounding should be accepted. Ground conditions on Chuginadak Island, about 1/2 mile distant, bear out this contention, it being safe to assume that these conditions extend offshore from the island, *26 fm sounding and others on same line in good agreement with surrounding depths when plotted correctly.* *L.S.S. ✓*

7. In lat. 52°57.0, long. 169°50.7, a sounding of 57 fathoms was obtained in 1939. This sounding is surrounded by depths of from 61 to 64 fathoms. Due to irregularities of the bottom elsewhere on the sheet, it is felt that this sounding is correct, and that a small mound probably exists here. It is recommended that the sounding be accepted. *57 fm. accepted L.S.S. ✓*

8. In lat. 52°52.5, long. 169°52.8, positions 78-80 H-day(ship), it will be

noted that all soundings from the second after position 78 to the second before position 80 appear from one to two fathoms deep when compared with the wire soundings taken by the launch in the same area. It is possible that the fathometer reader allowed the fathometer to run fast for a short time before noting same, and the depths read were erroneously deepened. It is recommended that the soundings in question be rejected, or else corrected to conform with the nearby wire soundings. *Soundings from 78N to 80N exclusive rejected.* ✓

At a few of the crossings at various places on the sheet, discrepancies of one fathom were noted. However, methods of reading the fathometer and reducing the soundings may account for most of these, the fathometer being read to half fathoms, and reducers applied to the nearest half fathom. In plotting, the reduced soundings were plotted to the nearest fathom, thus half fathom differences at crossings would appear as one fathom. Also, small irregularities in the bottom contour in this area probably account for some of the small discrepancies in the soundings obtained. For the above reasons, it is felt that where such small discrepancies appear, they should be disregarded. ✓

DANGERS -

There are no important dangers in the area covered by this survey. ✓

CHANNELS -

In lat. 52°52', long. 170°00' (approximately), a narrow pass lies between Chuginadak and Carlisle Islands. A mid-channel course through this pass will carry 28 to 32 fathoms in the shoalest part. The depth increases very quickly, to 80 and 90 fathoms, at either end of the narrower section. The areas toward shore on either side of mid-channel shoal rapidly, but no dangerous waters exist until about 500 meters from the shoreline. The currents in this channel are strong (maximum 5 to 6 knots), and current rips and swirls are of moderate intensity. Small boats should avoid the center of the channel to clear the worst of these. ✓

ANCHORAGES

The only anchorage in the area covered by this sheet is Applegate Cove, on the north central side of Chuginadak Island. Large vessels will find fair anchorage in 16 to 20 fathoms, in about the center of the cove. The bottom is sand and cinders. This cove affords protection from all weather except that from the north and northeast. Winds of great intensity are almost constantly encountered, however. The prevailing wind is southerly, and the pass between Mt. Cleveland and West Peak, extending through the center of the island in a north-south direction, appears to act as a wind-tunnel, causing the winds to be of much greater intensity than would normally be expected. ✓

Small craft should anchor in from 7 to 9 fathoms, sand and cinder bottom, well into the inner end of the cove, at about the center of the sand beach. ✓

COMPARISON WITH PREVIOUS SURVEYS

No previous surveys of any reliability exist in this area, therefore no comparisons were attempted. ✓

GEOGRAPHIC NAMES

Applegate Cove -

A small cove on the north central side of Chuginadak Island. This cove is the only fair anchorage in the vicinity. ✓

The name is well established locally and is referred to in the Coast Pilot; therefore, it is recommended for official adoption.

TOPOGRAPHIC SURVEYS -

The topographic sheet covering this area is uncompleted, and it is planned to continue work on it next season. Therefore, in lieu of submitting the sheet, a tracing of the topography transferred to the hydrographic sheet is attached herewith. The tracing covers only that part of the topography pertinent to the hydrographic survey.

25 ✓

MAGNETICS -

A partial magnetic survey with the compass declinometer was made. A separate report on magnetics covers this part of the work.

BOTTOM CHARACTERISTICS -

The bottom in this area, where not rocky, is essentially cinders and volcanic ash mixed with sand or gravel. The letter "C" was used on the sheet to denote cinders, as the Hydrographic Manual gave no abbreviation for this material.

✓
"C" was used on sheet.
✓

STATISTICS -

Statute miles of hydrography -	ship - - - - -	223.0
	launch (h.l.) - - -	36.9
	launch (wire) - - -	52.9
	TOTAL - - - - -	312.8
Number of positions obtained -	ship - - - - -	694
	launch - - - - -	734
	TOTAL - - - - -	1428
Number of soundings obtained -	ship (f'm't'r.) -	2727
	ship (wire) - - - -	43
	launch (h.l.) - - -	1274
	launch (wire) - - -	798
	TOTAL - - - - -	4842

Respectfully submitted:

John C. Ellerbe
John C. Ellerbe,
Jr. H. & G. Engr.,
Coast & Geodetic Survey.

Forwarded, approved: ✓

Roland D. Horne
Roland D. Horne,
H. & G. Engr.,
Cmdg. PIONEER.

LCC
HRC

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 31, 1940

Division of Hydrography and Topography:

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

Plane of reference approved in
5 volumes of sounding records for

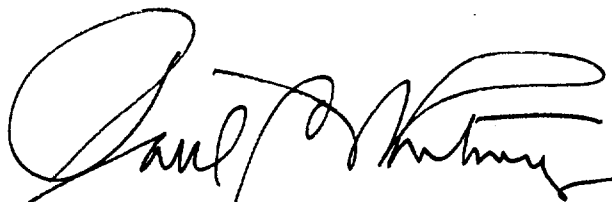
HYDROGRAPHIC SHEET 6412

Locality North of Chuginadak Island, Island of Four Mountains,
Aleutian Islands,

Chief of Party: R. D. Horne in 1939
Plane of reference is mean lower low water reading
4.3 ft. on tide staff at Applegate Cove
6.3 ft. below B. M. 1

Height of mean high water above plane of reference is 3.6 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. 6412

Addl. Wk. 1939

Name on Survey	A, On Chart No.	B, On previous survey No.	C, On U. S. quadrangle Maps	D, From local information	E, On local Maps	F, P. O. Guide or Map	G, Rand McNally Atlas	H, U. S. Light List	K
Carlisle Island									1
Chuginadak Island									2
Applegate Cove									3
									4
									5
									6
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*See name list
for H-6412*

Remarks.

Decisions

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M 23*		

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6412** (Add. W.C. 1939)

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

Number of positions on sheet	2074
Number of positions checked	36
Number of positions revised	2
Number of soundings recorded	7570
Number of soundings revised	49
Number of soundings erroneously spaced	8
Number of signals erroneously plotted or transferred	—

Date:

Verification by *GB Kullpage*

Time: 92 hrs *Included verification of 1938 work which was replotted on this sheet.*

Review by *Lobman*

Time: 132 hr 3/12/40

HYDROGRAPHIC SURVEY NO. 6412 (Addl. Wk.)

Smooth Sheet Yes

Boat Shoet 3

Records; Sounding 5 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals vol. #1 (No new list of signals)

Landmarks for Charts (Form 567) None

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service None
(Circular Nov.30, 1933)

Hydrography: Total Days 4 ; Last Date Sept. 18

Remarks _____

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT } No. H-6412
~~PHOTOSTAT OF~~ } ~~No. T~~

{ received Nov. 29, 1939
 registered Dec. 1, 1939
 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	✓	HL	Page 3 of report for 1939 work
26			
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88			
90			

RETURN TO

82	T. B. Reed
----	------------

✓ *TBR*

Verification Report for H-6412 (1938+1939)

1- Condition of Records ✓

Satisfactory

2. Shoreline and Signals

The topographic sheet covering this area is not complete. ✓
The shoreline shown on the hydrographic sheet was transferred by means of a tracing of topo. sheet "A" which accompanies the hydro sheet. The signals used apparently originated from the same source.

3- Sounding Line crossings

The agreement at crossings was generally good, except in Lat. 52°-52.5', Long 169°-52.8' positions 78-80 H day (ship).

The soundings from the second position after 78 H & the second position before 80 H were not plotted, as recommended in the

Descriptive Report (see paragraph 8 page 3 DC)

soundings from 78 & 80 H
exclusive rejected.
A.S.S.

4- Complete depth curves could be drawn

5- Junctions with contemporary surveys

There are no contemporary surveys in this area ✓

6- Aids to navigation

There are no aids to navigation in this area. ✓

7- The field plotting was accurate and completed to the extent prescribed by the Hydrographic Manual

8- Doubtful Soundings

a) In Lat $52^{\circ} 52'$ Long $169^{\circ} 55.5$ between positions 48D and 49D ✓
a sounding of 16 fathoms obtained in 1938 was not plotted due to the uncertainty of the actual location. Investigation lead to the belief that this sounding is rather far around on the turn. If the sounding were plotted according to the time in the ^{16 fms} records ^{rejected.} it would plot in an apparently erroneous position.

(See D.R. paragraph 4, page 2)

b) - In Lat $52^{\circ} 54.2$ Long $169^{\circ} 49.2$, 27 fathom sounding between ✓
39F and 40F. Recommendation of Descriptive Report accepted
(See D.R. paragraph 3 page 2) 27 fms sounding retained.

c) - In Lat. $52^{\circ} 54.2$ Long $169^{\circ} 49.7$ a sounding of 24 fathoms obtained in ✓
1938 was not plotted as recommended in descriptive report # 2 page 2 ^{24 fms} ^{rejected.}

d) - In Lat $52^{\circ} 51.8$ Long $169^{\circ} 54.8$ a sounding of 26 fathoms obtained ✓
in 1939 was found to be out of position. (refer to # 6 page 2 D.R.)
The position 85 E was erroneously plotted and by replotting 85 E according to the right angle and time the sounding in question is in good agreement with the surrounding depths.

e) - Sounding referred to in # 7 page 2 of D.R. accepted as recommended. ✓

9. Bottom Characteristics

En was used as abbreviation for center

Respectfully Submitted
3/5/40 *SB Kittipong*

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6412 Additional Work 1939,
FIELD NO. 21 P-39

Islands of Four Mountains, East of Carlisle Island,
Aleutian Islands.

Surveyed in August - September 1939, Scale 1:20,000
Instructions dated February 3, 1938 (PIONEER)

Soundings;
Hand Lead, Machine,
and Fathometer.

Control:
Three point fixes on shore signals.

Chief of Party - R. D. Horne.
Surveyed by - Officers of the PIONEER.
Protracted by - R. D. Horne, J. C. Ellerbe,
and J. W. Vonasek (office).
Soundings plotted by - J. W. Vonasek (1938 work).
Verified and inked by - G. B. Littlepage, Jr.
Reviewed by - Leo S. Straw.
Inspected by - H. R. Edmonston.

1. Shoreline and Signals.

The shoreline from long. 169°51.35' to 169°57.0' on the north side of Chuginadak Island originates with topographic survey Field No. "A" which has not as yet been received in the office.

The signals are from topographic survey Field No. "A", hydrographic signal SCAR (Vol. 6 sounding volumes) and triangulation.

The triangulation stations on this survey are marked 1938 but are plotted from the values of the 1938 stations recomputed in 1939.

2. Depth Curves.

Except for the 18 fathom curve in lat. 52°52.0', long. 170°00.06', the usual depth curves west of long. 169°48.3' are satisfactorily delineated, but east of this longitude additional lines are necessary.

3. Sounding Line Crossings.

The sounding line crossings are satisfactory.

4. Junctions with Contemporary Surveys.

The additional work done in 1939 makes a satisfactory junction with the 1938 work. No other work joins the present survey at this time.

5. Comparison with Prior Surveys.

The additional work in the area, Lat. $52^{\circ}54'$ to $52^{\circ}56'$, long. $169^{\circ}49'$ to $169^{\circ}51'$ satisfactorily develops the submarine features indicated by the 1938 work. This Bureau has made no surveys in this area prior to 1938.

6. Comparison with Chart 8802(Latest print dated Dec. 21,1939).

Within the area of H-6412 (1938-39) the soundings charted are from the work done in 1938.

The 24 fathom sounding charted in lat. $52^{\circ}54.2'$, long. $169^{\circ}49.7'$, and the 16 fathom sounding charted in lat. $52^{\circ}52'$, long. $169^{\circ}55.5'$, were disproved by the additional work in 1939 and should be expunged from the chart. (See par. 2 and 4 of the descriptive report 1939).

7. Condition of Survey.

- a. The records conform to the requirements of the Hydrographic Manual.
- b. The field plotting and the descriptive report were satisfactory.
- c. The work done in 1938 has been replotted in the office on the smooth sheet submitted by the field party in 1939 on which the triangulation stations are plotted in accordance with the values obtained from a recomputation of the scheme in 1939. The smooth sheet on which the 1938 work was first submitted has been destroyed.
- d. The shoreline on both sides of the pass between Carlisle Island and Chuginadak Island will be added to the present survey when the topography is received from the field.

8. Compliance with Instructions for the Project.

Satisfactory.

9. Additional Field Work Recommended.

Part of the additional work recommended in the descriptive report and review of H-6412 (1938) has been accomplished. The remaining localities to be further developed are as follows:

- a. "The 18 and 20 fathom soundings in lat. $52^{\circ}54.8^5'$, long. $169^{\circ}43.75'$."
- b. "The 24 fathom sounding in lat. $52^{\circ}54.55'$, long. $169^{\circ}44.85'$."

- c. "The 26 fathom sounding in lat. $52^{\circ}57.7'$, long. $169^{\circ}46.75'$ (not mentioned in the descriptive report by the field party)."
*Developed
Ad.wk. 1340
PIONEER*
- d. "The 34 fathom soundings in lat. $52^{\circ}54.2'$, long. $169^{\circ}47'$. The sounding record at these soundings states that the fathometer was erratic and there were strays of 24 fathoms."
- e. Additional lines are desirable in the pass between Carlisle Island and Chuginadak Island just outside of the 18 fathom curve next to Carlisle Island.

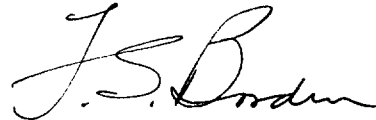
10. Superseded Old Surveys.

There are no previous surveys made by this Bureau in this area prior to 1938.

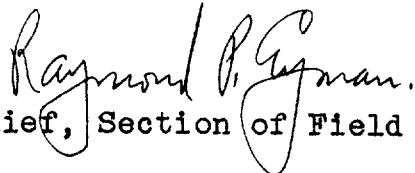
Examined and approved:



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



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.

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

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY NO. 6412 (1940) Ad. Work
FIELD NO. H-6412 (1939)

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

Aleutian Islands, Islands of Four Mountains, Kagamil Island
Surveyed September 8, 1940, Scale 1:20,000
Instructions: Review of H-6412 (1939) Ad. Work, Par. 9c

Soundings:
Dorsey Fathometer No. 3

Control:
3-Point Fixes on Shore Signals

Chief of Party - Roland D. Horne
Surveyed by - Roland D. Horne
Protracted by - S. B. Grenell
Soundings plotted by - S. B. Grenell
Verified and inked by - G. B. Littlepage
Reviewed by - Harold W. Murray, December 30, 1940
Inspected by - H. R. Edmonston

1. Purpose of Additional Work

The purpose of this additional work was to investigate a 26-fathom sounding in Lat. $52^{\circ} 57.7'$, Long. $169^{\circ} 46.75'$ obtained on H-6412 (1938).

2. Results of Additional Work

The additional development revealed a number of 24- to 26-fathom depths where formerly depths of 26 to 30 fathoms were indicated. The immediate vicinity of the 26 was not intensely developed but such depths as were obtained tend to indicate that the present development is adequate.

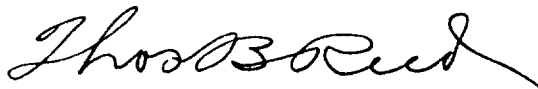
3. Additional Field Work Recommended

Of the additional work called for in the 1938 and 1939 reviews of this sheet, investigation of the following items remains to be accomplished:

1. The 18- and two 20-fathom soundings in Lat. $52^{\circ} 54.5'$, Long. $169^{\circ} 43.75'$.
2. The 24-fathom sounding in depths of 27 fathoms in Lat. $52^{\circ} 54.55'$, Long. $169^{\circ} 44.85'$.

3. The 33- and 34-fathom soundings in Lat. $52^{\circ} 54.2'$, Long. $169^{\circ} 47'$. The record states that the fathometer was erratic and there were strays at 24 fathoms.
4. Additional lines are desirable in the pass between Carlisle Island and Chuginadak Island to develop the area between the center of the pass and the 20-fathom curve off Carlisle Island.

Examined and approved:



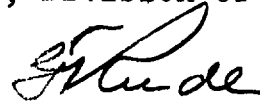
Chief, Surveys Section



Chief, Division of Charts



Chief, Section of Hydrography



Chief, Division of Coastal Surveys

add'l work 1939 applied to 8802 prior to review. F.M.A. 10-31-40
applied to new chart 9030 G.H.S. 3/27/42 ~~G.H.S.~~

Applied to chart 8802 J.M.A. 9/19/39
" " new chart 9030 G.H.S. 3/27/42

6412

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

OCT 28 1940

Additional work 1940

Acc. No.

~~CONFIDENTIAL~~

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

DEPARTMENT OF COMMERCE

State: ~~ALASKA~~ *Aleutian Is.*

11-5613

DESCRIPTIVE REPORT.

SUPPLEMENT TO
HYDRO. Sheet No. H-6412

LOCALITY:

KAGAMIL ISLAND

ISLANDS OF FOUR MOUNTAINS

1940

CHIEF OF PARTY:

Roland D. Horne

6412

DECLASSIFIED 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

HYDROGRAPHIC TITLE SHEET

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

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. Supplement to

REGISTER NO. H-6412 Additional Work 1940

State -Alaska- Aleutian Islands

General locality Islands Of Four Mountains

Locality Kagamil Island.

Scale 1:20,000 Date of survey Sept. 8, 19 40

Vessel PIONEER

Chief of Party Roland D. Horne

Surveyed by Roland D. Horne

Protracted by S. B. Grenell

Soundings penciled by S. B. Grenell

Soundings in fathoms XXXX

Plane of reference MLLW

Subdivision of wire dragged areas by _____

Inked by Photostat boat sheet only *MB Tuttlepage*

Verified by *MB Tuttlepage*

Instructions dated Paragraph 9c. Hydro.Review, June 21, 1940

Remarks: Additional work done in accordance with pp 9c.

of Hydro. Review of sheet H-6412 (1939)

DESCRIPTIVE REPORT
for
ADDITIONAL WORK ON SHEET H-6412 (1959)²

September 8, 1940

U. S. C. & G. S. S. PIONEER

ROLAND D. HORNE, COMMANDING.

AUTHORITY: The additional work was executed in accordance with instructions in Paragraph No. 9c of Hydrographic Review for H-6412 (1939) dated June 21, 1940.

Other items listed under Paragraph No. 9 have been taken up by the Ship EXPLORER and will be submitted in a separate report by that vessel.

SURVEY METHOD: The survey was controlled by sextant angles to signals located by either triangulation or topography. The geographic positions of the signals used are listed on page 2 of the sounding volume. All soundings were taken on the Dorsey 3 fathometer aboard the ship PIONEER.

REDUCERS: The velocity reducers were taken from the records of the Ship EXPLORER for their 1940 work in the vicinity of this survey. These values check the values used on the original Survey H-6412 (1939).

The tide reducers were secured from the records of the Ship EXPLORER for the gage at Yunaska I. The gage operated earlier in the season at Applegate Cove, Chuginadak I. had been discontinued prior to this survey. The values for the Yunaska I. gage were used direct, as the time and range corrections were approximately zero.

There is an accompanying sheet of reducer computations.

PLOTTING: A photostat of the smooth plot of H-6412 was used as a boat sheet with the additional signals transferred from the records of the Ship EXPLORER. A section of the photostat is attached with the reduced soundings smooth plotted thereon.

No smooth sheet was constructed for this work as it is assumed the additional soundings will be transferred to the original smooth plot of H-6412 in the Washington Office. *Transferred in office.*

Respectfully submitted,

Roland D. Horne

Roland D. Horne,
Chief of Party.

COMPUTATION OF REDUCERS
FOR
ADDITIONAL WORK ON HYDRO. SHEET 6412

Work executed Sept. 8, 1940.

TIME	WIRE		FATHOM.		VEL. COR.	RED. FOR	INDEX		
	fm.	ft.	fm.	ft.	ft.	VEL.	CORRN.		
14-20-30	36	4	34	4	- 5	33 5	(REJECT)	Drifting from Pos 1A toward Pos. 2A. See page 4 of Sdg. Vol.	
	36	5	37	5	"	37 0	- 1		
	37	5	38	0	"	37 1	+ 4		
"	37	5	38	1	"	37 2	+ 3		
	36	4	37	5	"	37 0	- 2		
	37	3	38	0	"	37 1	+ 2		
	37	4	38	4	"	37 5	- 1		
14-32-00	38	0	38	4	"	37 5	+ 1		
Mean Value - - - - -								+ 0.9 ft.	
"B"	20	2	21	4	- 3 ft.	21 1	- 5	At anchorage in Applegate Cove. See page 12 of Sdg. Vol.	
	20	3	21	4	"	21 1	- 4		
	20	4	21	5	"	21 2	- 4		
	20	5	21	4	"	21 1	- 2		
	21	0	21	4	"	21 1	- 1		
	20	4	21	3	"	21 0	- 2		
Mean Value - - - - -								- 3.0 ft.*	
<p>* Note: Use station "B" index correction because this value was secured under excellent conditions while section "A" was taken while the ship was drifting rapidly over uneven bottom.</p>									
					REDUCERS				
fm.	ft.	fm.	ft.	Vel. Cor.*	Index Cor.	FINAL CORRN.			
11	0	to 17	5	- 2 ft.	- 3 ft.	- 5 ft.			
18	0	26	5	- 3	- 3	- 6			
27	0	34	5	- 4	- 3	- 7			
35	0	43	5	- 5	- 3	- 8			
<p>* Note: The above velocity correction was taken from the computations of the EXPLORER, 1940. The values agree with those used in 1939 on the original of Sheet H-6412.</p>									

(SR)

LAC
HRC.

TIDE NOTE FOR HYDROGRAPHIC SHEET

November 28, 1940

Division of Hydrography and Topography:

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

Plane of reference approved in
1 volume~~s~~ of sounding records for

HYDROGRAPHIC SHEET 6412 (add. wk. 1940)

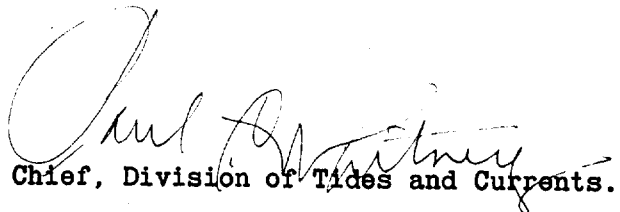
Locality Kagamil Island, Islands of Four Mountains,
Aleutian Islands.

Chief of Party: R. D. Horne in 1940

Plane of reference is mean lower low water reading
2.6 ft. on tide staff at Ynaski I., North side (Tide reducers
12.6 ft. below B. M. 1 corrected for vicinity of Kagamil I.)

Height of mean high water above plane of reference is 3.6 feet.

Condition of records satisfactory except as noted below:


Chief, Division of Tides and Currents.

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

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6412** Add'l. Wk. 1940


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

Number of positions on sheet	..4.2
Number of positions checked	...3...
Number of positions revised	...0...
Number of soundings recorded	..197
Number of soundings revised	...2...
Number of soundings erroneously spaced	...3...
Number of signals erroneously plotted or transferred	...0...

Date:

12/27/40

Verification by

G.B. Fullpage

Time: 4 hrs.

Review by *Harold W. Murray*

Time: 1 "

Smooth Sheet No

Boat Sheet Yes

Records; Sounding 1 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals ----

Landmarks for Charts (Form 567) No

Statistics No

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service None
(Circular Nov.30, 1933)

Hydrography: Total Days 1 ; Last Date Sept. 8, 1940

Remarks _____

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

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. H **H6412**
Add'l. Wk. 1940
~~No. H~~ [REDACTED]

received Oct. 28, 1940
registered Oct. 28, 1940
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		
26		
30		
40		
62		
63		
82		
83		
88		
90		

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

RETURN TO

82	T. B. Reed
----	------------

✓ *TBR*

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H - 6412 (1940) add. WIC.

Verified and Inked by

W. Stullpage

Date 12/27/40

- ✓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.
- ✓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.
- ✓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).
- ✓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:
A 25 fm sdg. questioned in the records page 6 pos. 11-12
was plotted Accepted, other 25's not far distant. H.V.M.

Applied prior to plotting on smooth sheet Nov. 1940 F.M.A.
Ch. 8802 Inspected after " " " " Nov 1941 - J.W.
applied to new chart 7030 G.H.S. Mar. 27, 1942