6480 WIRE DRAG

[redacted]

6480 WIRE DRAG

[redacted]

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } *Sheet No.* H6480

wire drag

State Southwest Alaska

LOCALITY

Kodiak Island

193 9

CHIEF OF PARTY

G.C.Jones

U. S. GOVERNMENT PRINTING OFFICE

Form 537
Ed. Dec. 1930

REG. NO.

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.

Wire Drag
Field No. 539A

REGISTER NO. H6480 **H6480**

State SOUTHWEST ALASKA

General locality Kodiak Island

Locality St.Paul Harbor, ~~English Bay,~~ and Womens Bay

Scale 1:5,000 Date of survey July 14-25, 1939

Vessel DISCOVERER

Chief of Party Lieut.Cmdr. G.C.Jones

Surveyed by Lieut.Cmdr. G.C.Jones

Protracted by L.S.Hubbard

Soundings penciled by L.S.Hubbard

Soundings in ~~fathoms~~ feet feet

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by L.S.Hubbard

Inked by

Verified by H.F.Stegman

Instructions dated ~~22-AB,1995,DI 1~~ Jan.25,1939, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE

[redacted]

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SHEET H6480 (wire drag)

Project 229

AUTHORITY

This survey was executed in accordance with the Director's Orders, 22-AB,1995 DI 1,dated January 25,1939.

LOCALITY

The area surveyed by wire drag includes Womenss Bay, ~~English Bay~~, and the western part of St.Pauls Harbor;Kodiak Island,Southwest Alaska.

LIMITS

This survey makes a junction and overlap with the St.Paul Harbor wire drag work of 1933,executed on sheet H5441b.

HYDROGRAPHIC SURVEYS

St.Paul Harbor and the eastern end of ~~English~~ Womens Bay were surveyed in 1907 on sheet H2929.

St.Paul Harbor, ~~English Bay~~, and Womens Bay were surveyed in 1933 on sheets H5440 and H5441A.

The western part of St.Paul Harbor, ~~English Bay~~ and Womens Bay were again surveyed in 1939,on sheets H6479 and H6481.

SURVEY METHODS

The starboard motor launch and the motor whale boat of the Ship DISCOVERER were used on this survey to tow the drag. Standard dimension floats and weights,as specified in the wire drag manual, (Spec.Pub.#118) were used in executing this survey.

The Ship DISCOVERER anchored near the locality where it was planned to drag. The drag was assembled on the quarterdeck of the ship and payed out over the stern. One launch towed an end of the drag until the entire length was in the water. The other launch then hooked on to the other end of the drag. Both launches then proceeded to the starting positions of the drag strip.

A drag 2000 feet long, consisting of five sections, each 400 feet long, was used throughout the survey. For the first two days of dragging both launches used towlines 95 meters long. The end launch (motor whale boat) continued to use a towline 95 meters long for the remaining days of dragging. The guide launch, however, in order to increase her maneuverbility in restricted shoal areas, shortened the towline to a length of 65 meters, from the third day of dragging to the finish of the survey.

Wooden floats were used on the bottom wire. It is possible that they were slightly waterlogged, for during drag depth tests, a slight sag was found several times, but never was any lift found.

The positions of the wire drag strips were determined by the "dual control" method, each launch determining its own position and that of the adjacent end buoy.

A motor dory was used as a tender. The chief of party supervised all operations from the tender. The tender made changes in depth hook-ups, made effective depth tests, and investigated groundings.

CONTROL

A triangulation scheme, based on the Chiniak base line of 1907, and extended in 1933 and 1939, formed the control for the location of topographic signals in 1939.

Topographic signal SHAN (ecc) requires special mention. It was used one day only, July 22, 1939. On this day a magnetic party observed at this station and it was necessary for the wire drag party to sight upon an eccentric object. The position of the eccentric object was determined by the magnetic party, by measurement with a steel tape, from station SHANNON, along a known range.

SHORELINE

The shoreline shown on the smooth sheet was traced from topographic sheets T6693, 6694, and 6695. The shoreline on the south side of ~~English~~ Womens Bay was surveyed on a scale of 1:10,000. The scale of the wire drag sheet is 1:5,000. The shoreline on the south side of ~~English~~ Womens Bay was omitted, because a precise method of enlarging the scale of the shoreline was not available in the field. Added in office.

PILES

Piles of a more or less temporary nature were driven by the U.S. Navy in ~~English Bay and~~ Womens Bay as markers for proposed dredging operations. The signals marked Tail, Staff, End, and Mad, are such piles.

BUOY SPACER

A special buoy spacer was used in plotting the drag depth strips on the smooth sheet. The spacer was constructed of split BB shot strung on a thread. The shot were spaced to conform with the scale of the smooth sheet. The end shot of this spacer, or minature drag, were guided

along the paths of the end buoys. The intermediate shot traced the paths of the intermediate buoys.

CURRENTS

Currents were not measured by this party. In ~~English~~ Womens Bay the currents follow the general direction of the channel, flowing southwest on the flood tide, and northeast on the ebb tide, with a velocity of about $\frac{3}{4}$ of a knot.

Div. of T. & C. Notified

A blue print of current observations, made by the U S Navy is forwarded with this sheet.

B.P. 33718 filed in library.

Wire drag operations were planned so that the drag was towed with the current as much as possible.

TIDES

A standard automatic tide gage was maintained at Kodiak throughout the period of the hydrographic survey, as a basic tide station.

Portable tide gages were maintained at High Island in ~~English~~ Womens Bay, and at the northeast end of Womens Lagoon, in Lat. 57^{0}-43.9', Long. 152^{0}-31.2'. These two locations represented two ends of the working ground between which tidal waves pass. Both stations were similar in tidal constants. They differed a few minutes at the most in times of high and low waters.

Tide reducers for the wire drag records were obtained from the marigrams of the High Island tide station.

Depth changes due to tide were made at the minute there was an actual change in tide reducer. This seemed advisable because of the large scale of the sheet and of the considerable amount of area between buoy positions. The practice also seemed justified because of the close proximity of the tide gages and accurate knowledge of the stage of the tide.

CORRECTIONS IN RECORDS TO WIRE DRAG HOOK-UPS

At position #87.8b changes in the drag depth were made. In the original record the change in length of upright was from "F" to "3", but the "3" has been overwritten by a "2". It appears that the "3" with a length of upright of 28 feet, directly below the first "3", is the one which was intended to be changed, The smooth record has been altered with red crayon to comply with the original intent of the record.

At position #58c, the length of uprights were changed, according to the record, as follows:-"F" to "4", 48 feet: - to "N", 44 feet. It appears that one figure was inadvertently left out and that the record should read- "F" to "4", 48 feet: "3" to "N", 44 feet. The length of time taken to make the depth changes and the prevailing depths over which the drag was towed, would indicate this. The smooth record has been filled in with red crayon to comply with the original intent of the record.

GROUNDINGS See par. 3a, review.

1. Pos 17a and 28a. The wire drag, set to an effective depth of 26 feet, grounded on a 25 foot spot (pos 3A), two times, once ending the drag at Pos 17a, and again ending it at pos. #28a. On the third time over this rock (positions 24a to 28 a) the drag was set to an effective depth of 24 feet and it cleared the spot without grounding.

57° 44.80'
157° 27.88'
Falls in 30 to 32 ft. on H-6481

1. Pos. 34a. At position 34a, the wire drag grounded on a 33 foot spot (pos 6A). Bouy #3, which was set at an effective depth of 32 feet, was close to the spot where the wire grounded. This spot was later cleared by the drag when set at an effective depth of 29 feet (pos 15b to 21b).

57° 44.47'
157° 27.39'

3. Pos.17b. Between positions 17b and 18b, while passing Discoverer Rock, the "N" buoy, set to an effective depth of 29 feet, dragged on bottom. The wire did not catch, and the drag is continuous. 57° 44.33' 152° 27.51' Grounding of 29 ft. plotted.

4. Pos.31b/ At position 31b, the wire drag grounded simultaneously on two shoals, a 26 foot spot (pos 3B) and a 34 foot spot (pos.1B). These spots are about 18 meters apart. They were later passed over by the drag set at an effective depth of 24 feet (pos.35b to 45 b). 57° 44.00' 152° 26.84' ✓

5. Pos.79b-80b. Between positions 79b and 80b the "N" weight dragged on the bottom. The N buoy was tilted and bobbing slightly, but the wire did not catch on any obstruction. The drag is considered continuous. The N buoy was set to an effective depth of 16 feet. Soundings of 16 feet and 14 feet were later obtained on H-6481, 5 meters and 10 meters inshore from the path of this buoy. 57° 43.57' 152° 28.71' No grounding shown. Depths on H-6481 satisfactory.

6. Pos. 90b. At position 90b, the N buoy, set to an effective depth of 21 feet grounded on a shoal 18 feet deep. When the N buoy upright was raised to 17 feet, the drag cleared the rock. Immediately afterward on positions 91b and 92b, the drag grounded on two rocks having depths of 16 feet and 13 feet, located about 25 meters apart. The 13 foot shoal was later cleared by the drag set to an effective depth of 11feet (pos.23e to 25e). The 16 foot shoal was later cleared by the drag set to an effective depth of 14 feet (pos.2c to 5c). 57° 43.25' 152° 29.67' All soundings obtained on H-6479.

7. Pos. 46c. At position #46c, the weight of buoy #2, set to an effective depth of 42 feet, dragged on muddy bottom in 41 feet of water for a minute, until the upright was raised to a shoaler hook-up. The drag line was continuous. 57° 41.95' 152° 32.01' No grounding plotted.

8. Pos.48c. At position #48c, the weight of buoy #3, set to an effective depth of 42 feet, dragged for a minute on muddy bottom in 41 feet of water. The upright was immediately raised to a shoaler hook-up. The drag line was continuous. 57° 42.02' 152° 32.04' No grounding plotted. on H-6479

9. Pos. 51c. Near position #51c, the weight of buoy #2, set to an effective depth of 35 feet, touched on muddy bottom near soundings of 36 feet and 37 feet. The upright was immediately raised to a shoaler hook-up. The drag line was continuous. 57° 41.97' 152° 32.73' No grounding plotted. 35 ft.

10. Pos.71c. At position #71c, the weight of the N buoy, set to an effective depth of 37 feet, dragged on the bottom in 35 feet of water. It was freed immediately upon raising the upright to an effective depth of 33 feet. The drag line was continuous. 57° 47.77' 152° 21.01' No grounding plotted. on H-6479.

11. Pos. 86c. At position #86c, the weight of N buoy, set to an effective depth of 26 feet, dragged on the bottom at a point about midway between soundings of 29 feet and 23 feet. The weight was freed immediately upon raising the upright to a shoaler hookup. 57° 43.51' 152° 29.81' Grounding not plotted.

17. Pos. 89 C. At position #89c, the F buoy weight, set to an effective depth of 24 feet, grounded on a spot between soundings of 24 feet and 22 feet. The weight cleared upon the upright being raised to a shoaler hook-up. 57° 43.50' 152° 29.35' No grounding shown. Depths on H-6479 sufficient.

13. Pos. 90c At position #90c, the #2 buoy weight, when set to an effective depth of 19 feet, grounded on a shoal, between soundings of 19 feet and 16 feet. The weight cleared when the upright was raised to a shoaler hook-up. (Effective depth at #2 was actually 26 ft - shoaler sections on each side. H.T.L.) 57° 43.57' 152° 29.60' Grounding not plotted.

14. Pos. 94c At position #94c, the F buoy weight, set to an effective depth of 12 feet, dragged on the bottom, sounded to 14 feet. The weight came free upon raising to a shoaler hook-up. This spot was previously 57° 43.63' 152° 29.08' 12 ft. grounding shown.

dragged to an effective depth of 11 feet (pos.80b to 85b).

15. Pos.95.8c At position #95.8c, the F buoy weight touched bottom in 13 feet of water, as the hook-up was lowered. The weight immediately dragged into deeper water and cleared. Effective depth of 11 ft plotted as grounding. 57°43.74' 152°28.97'

16. Pos. 119c. At position #119c, the drag, set to an effective depth of 25 feet, grounded on a 22 foot rock. This rock was later passed over without grounding by a drag set at 22 feet (pos.61e to 65e). 22 was obtained on H-6481 (1939). 57°44.39' 152°27.75'

17. Pos. 5d. At position #5d, the weight of the F buoy, set to an effective depth of 25 feet, dragged on a shoal located between soundings of 23 feet and 28 feet on H-6479. The weight cleared upon raising 1 foot. It was then dropped again. The line was continuous. No grounding plotted. 57°42.44' 152°33.04'

18. Pos. 8d. At position #8d the wire drag, set to an effective depth of 40 feet, grounded near the #3 buoy on a 30 foot shoal. The #3 buoy was raised to an effective depth of 30 feet, and the wire drag pulled off the shoal. Since the shoal was mud bottom, the launches were not stopped, but continued dragging. This shoal was later dragged to an effective depth of 27 feet. (pos.90d to 95d) and (pos 105e to 111e). Tender sdg of 30 ft falls 50 meters SW of #3 buoy at pos 8d. 57°42.59' 152°31.88'

19. Pos. 9d. At position #9d, the N buoy, set to an effective depth of 40 ft, hung up temporarily on a shoal close to soundings of 39 feet. A little after position #10d the drag pulled over the shoal, but at #11d the N buoy and #1 buoy hung up in 31 feet of water, smooth bottom. The uprights of these buoys were shortened. As they were shortened the drag moved off and continued. The 31 fathom spot was later covered by the drag set to an effective depth of 24 feet. (pos.128d to 131d) on H-6479 No grounding plotted. 57°42.78' 152°31.74'

20. Pos.25 d. At position #25d, the N buoy set to an effective depth of 20 feet, grounded on a spit near a sounding of 18½. A minute later, the on H-6479. 57°43.74' 152°31.41'

N buoy was free, evidently having pulled over the spit. ✓ No grounding not plotted.

11. Pos.26d At position #26d the #1 buoy, set to a depth of 20 feet, grounded on the same spit. In addition, at pos.#26 d, the weight of F buoy, set to a depth of 42 feet touched bottom near a 40 foot sounding, but was instantly pulled off. ✓ 57°43.75' 157° 31.43' Groundings not plotted. on H-6479 ✓

12. Pos.27d At position #27d, the #1 buoy had dragged free over the spit, but at position #27.8d the #2 buoy, set to an effective depth of 28 feet, grounded on the slope of the same spit near a sounding of 27 feet on H-6479. The weight of #2 buoy dragged along the slope of this spit until it was lifted at position #32. ✓ 57°43.75' 157° 31.43' Grounding ✓ not plotted.

13. Pos.33½d. At position #33½d the weight of N buoy, set at an effective depth of 20 feet, touched bottom on the slope of another spit near a sounding of 19 feet on H-6479. At position #35d the weight of the N buoy dragged off the spit and was free. ✓ 57°43.79' 157° 31.61' Grounding not plotted.

14. Note; Pos.26d-36d Between pos. #26d and 36d, the wire drag was being reversed. Due to the frequent groundings over the sand spits during this time, there is uncertainty as to the exact depth the wire drag was towed. The depth of the shoalest hook-up, 16 feet, is therefore used on the smooth sheet for the whole of this area. ✓ 57° 43.5' 157° 31.9'

The following is a quotation from the wire drag volume 2, page 11; "Grounds as noted beginning at 10:35 (pos.25d) are in mud and are due to being unable to maneuver drag in such small area. Drag was raised only enough to clear in each case and drag did clear each time showing no rocks. Drag line is continuous. G.C.J." ✓

At position #36d the bight of the wire drag was again forming a normal catenary, so the drag depths indicated on the effective depth diagram are again used on the smooth sheet. ✓

25. Pos. 59e. At position 59e the drag, set to an effective depth of 7 feet, fouled in the heavy kelp over Discoverer Rock and hung up. Because of the kelp it was impossible to drag across this rock. This rock was investigated early in the season and again in July. The motor whale boat drifted over the area, feeling for the least depth with a hand lead. The least depth obtained was 8 feet. (pos.134j. of H-6481 (1939)) 57° 44.31' 152° 27.61'

26. Pos. 70e. At position #70e, the N buoy, set to an effective depth of 22 feet dragged on the bottom, between soundings of 27 feet and 11 feet. The upright was shortened to 12 feet and the drag came free. The N buoy passed over a 11 foot spot (Pos.2E) while the upright was being shortened. It was probably lifted temporarily enough to clear this rock. 57° 44.64' 152° 28.19'

Note: Pos. 2E corrected by verifier. 11 ft sdg falls just outside of N buoy path. HFS

27. Pos. 72e. At position #72e, the N buoy, set to an effective depth of 12 feet, fouled in kelp near soundings of 11 feet and 13 feet. At positions #73e and 74e, the drag set to 12 feet grounded between buoys N and #1 on a 12 foot rock (pos.1E). The heavy kelp prevented redragging over this shoal area. The motor whale boat located a second 11 foot spot (between pos. 86d and 87d of H-6481 (1939)). All three spots were in the same kelp patch. 57° 44.68' 152° 28.13'

28. Pos. 93e. At position #93e, the weight of the N buoy, set to an effective depth of 22 feet, dragged on the bottom near soundings of 22 feet and 18 feet on H-6479? At position #94 e, N buoy dragged into deeper water and came free. The line was continuous. 57° 43.05' 152° 30.97' No grounding plotted.

29. Pos. 108½e. At position #108½e, the drag near N buoy, set to an effective depth of 27 feet dragged on the bottom near soundings of 20 feet and 22 feet on H-6479. It continued to drag until position #109.2e, when it came free. At pos.#110e the #1 buoy, also set at 27 feet 57° 42.5' 152° 32.1'

dragged over the same shoal. The #1 buoy came free at position #110.6e. At position #111e, the wire drag was grounded and taut on these 20 foot and 22 foot shoals, as well as on the 26 foot shoal on H-6479 near the #3 buoy. The drag strips end on these shoals.

DANGERS

The dangers in this area are described in detail in the descriptive reports accompanying sheets #6479 and #6481. These should be consulted.

ANCHORAGES

Anchorages in this area are described in descriptive reports accompanying sheets #6479 and #6481.

Approved and Forwarded:

J. M. Smook,
Lieutenant US. C&G Survey
J. M. Smook, Lieut. U.S.C. & G. Survey,
Officer in Charge,
Seattle Processing Office.

Respectfully Submitted:

L. S. Hubbard
Lieutenant US. C&G Survey

H6480

STATISTICS

Wire Drag Sheet H6480

Date	Day Letter	Volume	Drag Length	Positions	Miles, Statute	Soundings
7/14/39	a	1	2000 feet	34	2.5	6
7/15/39	b	1	2000 feet	92	3.5	3
7/16/39	c	1	2000 feet	108	7.0	0
	c	2	2000 feet	11	0.7	1
7/22/39	d	2	2000 feet	135	7.5	5
7/23/39	e	2	2000 feet	111	8.5	2
TOTALS --	5 days	2 volumes		491 pos.	29.7 miles	17sdgs.

Area wire dragged---- $3\frac{1}{2}$ square miles (statute)

LCC
7412.

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 29, 1940

Division of Hydrography and Topography:

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

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 6480

Locality St. Paul Harbor, English Bay, Womens Bay, Kodiak Island.

Chief of Party: G. C. Jones in 1939
Plane of reference is mean lower low water reading
4.1 ft. on tide staff at High Island
13.3 ft. below B.M. 1-1933
4.2 ft. on tide staff at Womens Lagoon
10.9 ft. below B.M. 1-1939

Height of mean high water above plane of reference is 7.6 ft.

Condition of records satisfactory except as noted below:

Paul A. Whitney

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

GEOGRAPHIC NAMES

Survey No. H 8480

Wire Drag

Name on Survey	On Chart No. 8545 A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Kodiak Island *	✓									1
St. Pauls Harbor	St. Paul Hbr.									2
English Bay										3
Womens Bay *	✓									4
Zaimka	✓				Deccson		6-11-41			5
High Island										
Cliff Island	✓									6
Discoverer Rock										7
										8
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										16
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Names underlined in red approved by GFE on 4/17/40										23
										24
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										26
										27

M 234 VR

	Remarks	Decisions
1	* - USGB decisions	575 520
2		575 520
3		
4		575 525
5		575 520
6	OMIT NAME FOR THIS SURVEY	575 520
7	Not approved because of Discovery Rocks nearby (see Ch. 8545)	575 520
8		
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M 234

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H6480 Wire Drag

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

Number of positions on sheet	491
Number of positions checked	35
Number of positions revised	1
Number of soundings recorded	17
Number of soundings revised	0
Number of soundings erroneously spaced	0
Number of signals erroneously plotted or transferred	0

Date: 3/25/40

Verification by H.F. Stegman Time: 53 hrs.

Review by J. A. Mc Cormick 4/5/40 Time: 14 hr.

2629

HYDROGRAPHIC SURVEY NO. H6480 Wire Drag

Smooth Sheet Yes

Boat Sheet 2

Records; Sounding 1 Vols., Wire Drag 5 Vols., Bomb ___ Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) No

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) NO

Special Chart for Lighthouse Service (Circular Nov.30, 1933) No

Hydrography: Total Days 5 ; Last Date July 23, 1939

Remarks

3776

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. H H6480
Wire Drag

~~No.~~

received
registered
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	✓	ABC	Pages 5 to 11
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T.B.Reed

Verification Report
on H-6480 (1939) W.D.

CONDITION OF RECORDS:

Records are neat and legible, and conform to the instructions of the Wire Drag Manual except that:

1. Wire drag positions are in lower case, and soundings in capitals. ✓

2. There are no check angles on sounding fixes. ✓

3. Some soundings do not have a recorded bottom characteristic. (Pos. 6A and others) ✓

4. There were not a sufficient number of notes on the position of the drag bight at the beginning and ends of strips. ✓

5. In subdividing strips the slope of inclined sections was shown in excess of 2½%. (Pos. 846)

6. The length of the end launch towline on A & B days was not entered in the records. It is given in the Descriptive Report. ✓

SHORELINE AND SIGNALS

Shoreline and signals originate with the following planetable surveys:

T-6693 (1939) T-6695 (1939) T-6697 (1939) ✓
T-6694 (1939) T-6696 (1939)

COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

Soundings and groundings from H-6480 W.D. were transferred in green to H-6479 (1939) and H-6481 (1939). ✓

In cases where the drag grounded in depths already located on H-6479 and H-6481 (and known to be shoaler than the effective depth of the drag), the soundings were transferred to H-6480 WD, in color. ✓

JUNCTIONS

The eastern limit of H-6480 (1939) WD joins H-5441b (1933). The limits of the latter sheet are shown on H-6480 WD. There are no discrepancies between the two sheets. ✓

FIELD PLOTTING

Field plotting was neat and carefully done. Numerous small corrections to subdivisions were made by the verifier. ✓

A pencil tracing of areas and depths was made by the verifier. To be destroyed when survey is approved. ✓

The tender position 2d, ϕ-57°-43.8 λ-152°-31.3 (depth 16 ft) falls near a depth of 24 ft on H-6479. As the bottom is mud it appears that there may be an error in one of the fix angles of position 2d. An increase of one degree in the left angle would move the position into agreement with the soundings of H-6479. As recorded the position falls outside of the drag strip. 16 rejected.

Mar. 25, 1940

Respectfully submitted

Harold F. Stegman

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO.6480(1939)W.D. FIELD NO. 539A

Southwest Alaska, Kodiak Island,St. Paul Harbor and Womens Bay
Surveyed in July 1939, Scale 1:5,000
Instructions dated January 25, 1939 (DISCOVERER)

Wire Drag — Dual Control

Chief of Party - G. C. Jones.
Surveyed by - G. C. Jones.
Protracted by - L. S. Hubbard.
Subdivision of wire dragged areas by - L. S. Hubbard.
Soundings plotted by - L. S. Hubbard.
Inked by - L. S. Hubbard.
Verified by - H. F. Stegman.
Reviewed by - J. A. McCormick, April 5, 1940.
Inspected by - H. R. Edmonston.

1. Shoreline and Signals.

Shoreline and topographic signals are from T-6693 to T-6697, inclusive, of 1939.

2. Junctions with Wire Drag Surveys.

The junction with H-5441b (1933) W.D. on the northeast is satisfactory.

3. Results of Survey.

a. Groundings.

The descriptive report, pages 5 to 11, gives a detailed account of the numerous groundings of the drag during the course of the survey. Few of the groundings were hard and fast hang-ups. Mostly they resulted from the weights dragging along the mud bottom and in such cases it was possible to continue the strip without a break by raising a single upright one or two feet while tension was kept on the drag. Usually these momentary groundings occurred in sounded depths no greater than the effective depth of the drag and were omitted from the smooth sheet because of their relatively uncertain depths and positions. Some of the groundings retained might have been omitted but they were border line cases and were carried in order to be on the side of safety.

b. Splits.

There are three small splits on the survey. One in lat. 57°44.3', long. 152°27.6' was caused by inability to drag through the kelp covering an 8 foot shoal; the second in lat. 57°43.7', long. 152°29.0' is around a marker pile; the third in lat. 57°42.9', long. 152°32.0', is at the inshore limits of the survey and close to a reef. None are sufficiently important as to require coverage.

c. Effective Depths.

Effective depths on the inshore portions of the strips are in most cases eminently satisfactory as the groundings discussed above will bear out. From an inspection of the hydrographic surveys, effective depths of at least 50 feet would seem feasible in much of the mid-channel area now covered at 20 to 45 feet. There are no conflicts with depths on latest hydrographic surveys H-6479 and H-6481 of 1939. The pile in lat. 57°44.17', long. 152°28.01' on H-6481 was placed after the area was dragged.

4. Comparison with Chart 8545 (New Print of June 20, 1938).

Principal drag soundings have been charted from advance information furnished in letters from the field party. Such information is subject to minor corrections in depth and position. There are no conflicts between charted depths and effective drag depths.

5. Condition of Survey.

The drag records were deficient in part as regards the following information:

a. Check angles on shoal locations.

b. Bottom characteristics on shoals.

c. Direction of bight.

d. Length of end launch towline.

Field plotting and descriptive report were satisfactory.

6. Compliance with Instructions for the Project.

Satisfactory with possible exception noted in par. 3c concerning effective depths.

7. Additional Field Work Recommended.

None.

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.