

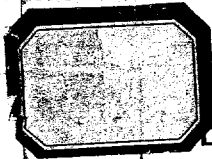
4143

4143

4143

(Additional work)

4143



Form 504

DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY L. & A.

JAN 3 1921
Exp. No.

State: *S.E. Alaska*

11-5013

DESCRIPTIVE REPORT.

W. D. Sheet No. 4143

LOCALITY:

*Friedrich Id.
Stephens Passage
Cape Fanshew and
Pyhus Bay to
Holkhorn Bay Entrance*

1920

CHIEF OF PARTY:

N. H. Heck

4143

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4143 (WIRE DRAG)

State Alaska, S. E.

General locality Stephens Passage and Frederick Sound

Locality Cape Fanchaw to ~~P. H. Hugh~~ and Puyuso Bay to Belkham Bay Entrance

Chief of party H. H. Heck

Surveyed by H. H. Heck and G. C. Jones

Date of survey May 10 to Sept. 24, 1920.

Scale 1 to 40,000

Soundings in Feet

Plane of reference Mean lower low water

Protracted by A. M. Weber . Soundings in pencil by A. M. Weber

Inked by A. M. Weber Verified by Soundings by A. Baer
Drag-work by R. L. Johnston

Records accompanying sheet (check those forwarded):

Des. report, Tide books, Marigrams, Boat sheets,

Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

Remarks: Field No. A.

DESCRIPTIVE REPORT TO ACCOMPANY

SHEET A.

Season - - 1920.

N.H.Heck, H.& G.E., Chief of Party, Comdg. EXPLORER.

Limits of sheet.

The sheet embraces the area from Cape Fanshaw and Round Rock on the south to Point Astley and Midway Point on the north with the exception of the area at the southern end, extending as far north as Sall Island, which was covered by a field party in a previous seasons work.

Plotting methods.

In plotting, the effective depth dragged is shown in the prescribed colors with numbers to indicate the amount to be added. Orange is used to indicate an effective depth of 85 feet or over. The greater part of the area was dragged to a considerable excess depth but no attempt was made to indicate same in plotting.

The shoreline was transferred from the topographic sheets (1-20,000) to the wire drag sheets (1-40,000) with an improvised ~~planimeter~~ ^{Pantograph}. It is believed to be sufficiently accurate.

The datum used is that of the primary triangulation party of S.W. Eickleberg (1917).

Control was very poor off Pybus Bay owing to work extending beyond limits of triangulation.

Dangers.

Two miles southeast of Point Hugh, where at present $8\frac{1}{2}$ fathom is charted, 37 feet was found. Otherwise the dragged area was proven clear of dangers to navigation.

A hydrographic development of the shoal lying to the eastward of Gambier Island disclosed a rock covering 6 feet (190°) 3240 meters from Gambier Point Light (signal GAM) which position is to northward of that showing at the present 15 feet and where fourteen was found. -10° (A.B.)

The rock off Gambier Light was shown by topographic development to be in reality a ledge extending 370 meters - 330° from Gambier Point Light.

The rock between Twin Islands reported during the season was found to be part of a ledge extending northeast from the West Twin.

Development of shoal areas.

Considerable area with less depth than charted was found between The Brothers and Pybus Bay, though no dangers to navigation was found. Additional soundings were necessary for the control of the drag work.

No dangers were found in the vicinity of Storm Island except a few rocks inside the limits of the group of ledges.

Currents.

Very meager information as to currents was secured while dragging. The direction and time of ebb and flood varies with the range of tide, and the currents are seldom fair with the channel especially in the vicinity of McDonald Rock.

In the vicinity of Point Hughes the currents are of considerable strength even on small tides, but here also on account of their variability sufficient data on which to base positive statements was not secured. Between Brothers Island and Point Pybus the current runs fair with the channel flooding to northward. Currents in this vicinity attain a speed of two knots. Off Pybus Bay currents are very confused and very strong.

A noticeable feature of the currents in general is the undertows which were found in varying degrees of strength over the whole working ground. The effect of the undercurrents was especially noticeable in setting out.

Survey methods and apparatus.

The gear with which the seasons work was started was defective and considerable time was lost on that account.. After a major portion of that gear had been lost in futile attempt to make use of it a substitute drag, completely described in the seasons report, was developed with which far more could be accomplished than with the original, but the latter was not on an efficient working basis in time to completely finish the work outlined. A list of uncompleted areas on this sheet follows:

The southwest and east points and the north side of Brothers Island..

Along the shore from two miles southwest of Point Pybus to three miles north of Point Gambier.

From a point in the entrance of Seymour Canal three miles south of Point Hugh to signal SEN one mile north of Pt. Hugh.

Two small splits, developed in plotting, one 3 miles east and one 5 miles southeast of Point Hugh.

Around Sunset Island and between Sunset Island and the shore.

Small areas close around McDonald Rock and Twin Islands.

The entrance to Hobart Bay.

From Walpole Point north to signal BART on Hobart Point, including two splits of the entrance to Port Houghton.

A small split four miles east of Sail Island.

The north side of sail Island including the charted six fathom shoal in that area.

Total area about 19 square miles. At least one attempt was made to cover each of the above.

In the course of development of the above drag one was used without support and much delay was caused by its catching on the rocky ridge extending from Ft. Hugh to McDonald Rock.

The shore line was dragged much closer than in past seasons work; on abrupt shores 100 to 200 meters off and on less abrupt shores to average of 200 meters.

The hydrography called for in the instructions is incomplete as this was left until topography and wire drag should be finished. In completing work next season the needed hydrography should be done, though in places where drag passed very close to shore it will provide little additional information useful to navigation.

See Coast Pilot Notes for additional information in regard to region covered by this sheet.

TIDAL NOTES.

All soundings in feet, plane of reference M.L.W.

Wood Spit, Holkham Bay. Cleveland Passage. Hobart Bay.

Highest tide observed, reading on gauge.	21.4	20.7	22.1
---	------	------	------

Lowest tide observed, reading on gauge.	3.6	5.8	7.5
--	-----	-----	-----

Plane of reference, reading on gauge.	4.2	3.8	7.1
--	-----	-----	-----

Windham Bay.

Pybus Bay.

Gambier Bay.

Highest tide observed, reading on gauge.	24.8	17.2	20.8
---	------	------	------

Lowest tide observed, reading on gauge.	4.8	4.2	-0.1
--	-----	-----	------

Plane of reference, reading on gauge.	6.0	2.9	4.3
--	-----	-----	-----

Records show tide staff used on
each day.

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Statistic Sheet for Hydrographic Sheet A

Date 1920	Letter	Volume	Positions	Soundings	Miles, statute	Miles, square	Vessels
May 10	A	1	18		4.7	6.3	Explorer & Scandinavia
11	B		13		3.6	5.0	via
21	C		19		5.5	5.6	
24	D		26		4.8	1.5	
27	E		26		8.0	4.5	
28	F		10		2.9	2.4	
June 8	G		34		11.5	12.0	Explorer & Helianthus
9	H		33		10.6	8.0	
10	J		22		8.4	6.0	
11	K		12		1.8	1.0	Helianthus & Scandinavia
12	L	1 & 2	22		10.3	5.0	
14	M	2	34		12.5	8.0	Explorer & Helianthus
15	N		11		4.6	3.0	
16	O		29		10.5	6.0	
17	P		18		5.5	3.0	Explorer & Scandinavia
18	Q		11		4.5	0.8	
21	R		28		12.5	1.5	Explorer & Helianthus
22	S		5		0.8	0.8	Helianthus & Scandinavia
23	T		30		11.5	7.5	
24	U		37		15.8	10.1	
July 8	V	2 & 3	36		11.7	8.0	

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Statistic Sheet for Hydrographic Sheet A

Date 1920	Let- ter	Vol- ume	Posi- tions	Soundings	Miles, statute	Miles, square	Vessels
July 9	W	3	20		6.0	3.0	Helianthus & Scandinavia
10	X		30		8.0	3.7	
12	Y		23		11.0	5.7	
13	Z		20	18	2.5	1.0	
14	A'		19	1	1.8	1.0	
15	B'		36		13.6	9.7	
16	C'		14		4.7	5.2	Helianthus, Scandin- avia, & M Tender
21	D'		23	3	5.2	2.5	Helianthus & Scandinavia
22	E'		20	20	5.8	2.3	
23	F'	3&4	33		8.4	1.5	
24	G'	4	19	3	6.8	1.6	
26	H'		30	4	5.7	0.8	
Aug. 6	J'		36	8	15.8	7.6	
9	K'		42		17.1	15.5	
10	L'		44		15.4	15.3	
17	M'		23		5.8	11.4	
18	N'		15		6.1	7.2	
19	O'	5	14	1	3.5	3.4	
20	P'		22		7.3	1.6	
21	Q'		24		9.6	3.7	
Sept. 10	R'		34		11.5	4.7	Explorer & Scandinavia

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS OFFICE:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Statistic Sheet for Hydrographic Sheet A

Date 1920	Letter	Volume	Positions	Soundings	Miles, statute	Miles, square	Vessels
Sept. 11	S'	5	21		6.3	5.0	Helianthus & Scandinavia
13	T'		33		11.9	16.1	
14	U'		32		9.1	7.3	
15	V'		40		16.5	5.3	
16	W'	6	28	1	7.2	1.5	Explorer & Helianthus Helianthus & Scandinavia
17	X'		21		5.2	5.8	
20.	Y'		26		11.0	5.2	
21	Z'		11	18	3.4	0.5	
22	A''		33	2	8.4	2.4	
23	B''		43		12.0	4.5	
24	C''		17		5.2	1.0	
			1320	79	436.8	269.0	

AND REFER TO NO. 41/VFB

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON February 26, 1921.

Division of Hydrography and Topography: ✓

Division of Charts:

Tidal reductions are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 4143

Stephens Passage, Pybus Bay and
Gambier Bay, S. E. Alaska.
N. H. Heck in 1920

Plane of reference is
Mean lower low water, reading

6.6 ft.	on	tide	staff	at	Taku Harbor
4.3	"	"	"	"	Gambier Bay
2.9	"	"	"	"	Pybus Bay
4.2	"	"	"	"	Holkam Bay
7.1	"	"	"	"	Hobart Bay
6.0	"	"	"	"	Windham Bay

Condition of records: Satisfactory.



Chief, Division of Tides and Currents.

COPY FOR FIELD RECORDS.

41/VFB

February 26, 1921.

Division of Hydrography and Topography:

Division of Charts:

Tidal reductions are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 4143

Stephens Passage, Pybus Bay and
Gambier Bay, S. E. Alaska.
H. H. Heck in 1920

Plane of reference is
Mean lower low water, reading

5.6 ft.	on	tide	staff	at	Taku Harbor
4.3	"	"	"	"	Gambier Bay
2.9	"	"	"	"	Pybus Bay
4.2	"	"	"	"	Holkam Bay
7.1	"	"	"	"	Hobart Bay
6.0	"	"	"	"	Windham Bay

Condition of records: Satisfactory.



Chief, Division of Tides and Currents.

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

SECTION OF FIELD RECORDS.

Report on Wire Drag Sheet No. 4143, a and b.

Surveyed in 1920, 1921 and 1922.

Chiefs of Party: N. H. Heck and J. H. Hawley

Surveyed by: N. H. Heck and J. H. Hawley. Instructions dated March 2, 1920
and Feb. 13, 1922.

Protracted and inked by A. M. Weber, W. J. Chowan.

Verified and Area and Depth Sheet by: R. L. Johnston.

1. The depth of dragging satisfies the specific instructions. The extent of dragging satisfies the specific instructions with the single exception of the small area southwest of Sail Island, dragged by Hawley in 1922, where he hung up and did not investigate. * See end of review.
2. The least water was found on all shoals discovered except the 50 foot shoal to the westward of the small island between Round Rock and The Brothers.
3. The supplemental hydrography is suitable for correcting the charts.
4. The overlaps are sufficient except in the one case as shown on the Area and Depth Sheet.
5. The soundings on 4143 were inked by the field party and were very poorly executed. The numbers were entirely too small and instead of being inked exactly where they plot they were shown below the pin-hole.
6. There are several splits on this sheet, all of which are shown on the Area and Depth Sheet, the most important ones being just west of the small island between Round Rock and The Brothers as mentioned in paragraph 2. This could be dragged at the same time that the 42 foot spot east of the same island and mentioned in the review of H-3994, is dragged. Another very important area that should be dragged is that southwest of

AND REFER TO NO. 9-DRM

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

Sail Island as mentioned in paragraph 1. The area at the entrance to Hobart Bay where the drag caught and not investigated should be dragged. When opportunity affords the bight north of Cape Fanshaw should be dragged as well as Cleveland Passage. The numerous bays and anchorages within this locality should be dragged at some future time. This sheet is therefore not considered as complete.

7. Rating of work (a. Character and scope of drag operations : excellent.
(b. Field drafting; 4143, fair; 4143 a and b, good.
8. Reviewed by: A. L. Shalowitz, August, 1922.

*

Jan. 10, 1923.

The area southwest of Sail Island has been dragged by Hawley in 1922 and plotted as additional work on 4143-b. No obstructions were found, so this area is now complete.

A. L. Shalowitz

The two splits north of Five Finger Island on W.D. 3994 have been covered by the additional work by Hawley in 1922, which has also been plotted on 4143-b.

A.L.S.

Hyd. 4143

This sheet showing the wire drag survey of 1920, was protracted, plotted and inked by the field party. The soundings were verified by Mr. Baer and the drag work by myself. The field party also prepared an Area and Depth tracing for this work. This tracing of the 1920 work was revised to include the 1921 and 1922 work, shown on Hyd 4143^a and Hyd 4143^b and a new tracing made showing the combined results of the three sheets.

Some of the soundings on this sheet were inked on the smooth sheet just below the pin hole where they protract and could not be erased because of the poor quality of the paper. These are shown in their correct position on the tracing.

All orange areas on this sheet on which no depth figures are shown, have been dragged to a depth of eighty five feet or over.

R L Johnston

4143^a

C. & G. SURVEY
L. & A.

DEC 1- 1921

AGE No.

4143^a

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

11-5613

State: *S. E. Alaska*

DESCRIPTIVE REPORT.

Wire Drag
Hydro Sheet No. *4143^a*

LOCALITY:

Stephens Passage
Cape Fanshaw to
Asklham Bay

24
101

CHIEF OF PARTY:

N. H. Heck

CD

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: SE Alaska

11-5613

DESCRIPTIVE REPORT.

Hyd. Sheet No. A

LOCALITY:

Cape Fanshaw to Holkham Bay

Stephens Passage

19121

CHIEF OF PARTY:

N. H. Heck

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

Wire Drag

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4143^a

State . . . Southeastern Alaska

General locality . Cape Fanshaw to Holkham Bay

Locality . . *Stephens Passage*

Chief of party . . . N. H. Heck, H. and G. Engineer.

Surveyed by . . various officers. G. C. Jones, chiefly.

Date of survey May- July, 1921.

Scale 1/40000

Soundings in feet at Mean Lower Low Water-- also Effective depths.

Plane of reference Mean Lower Low Water

Protracted by *N. J. Chovan*. . Soundings in pencil by . Chovan.

Inked by . . Chovan. . . . Verified by . . . N. H. Heck *P. L. G.*

Records accompanying sheet (check those forwarded):

Des. report, 1 Tide books, 3 Marigrams, _____ Boat sheets,

_____ Sounding books, 1 Wire-drag books, 3 Photographs.

Data from other sources affecting sheet

Remarks:

Purpose of the work on this sheet was to complete the area left unfinished on sheet no. 4173 of the same extent, on which work was done in the season of 1920, but which was not finished on account of the deficiencies of the drag equipment available that season.

East shore.

Work was completed to meet all requirements except in a few places. Soundings were carried along part of this shore. When the bays adjoining this area are dragged, certain fragments of work not finished, though several attempts were made this season, should be dragged. These include: investigation of shoal north of West Twin Id.; Dragging between the Twin Ids.; Examination of place where sweep caught in entrance to Hobart Bay; Cover small holiday off Storm Island.

Middle of channel.

Area of McDonald Rock should be dragged. This was planned on several occasions but weather prevented. Area remaining is all shoal but there is always danger of less depth existing on rock to make it dangerous for Light house tender to shift the buoy.

Area near Sail Id. completely finished except that area on southwest corner left unfinished by Mr. Joachims should have been dragged for completeness. Note that a 55 foot pinnacle not indicated in any way on the chart was found. 41 feet was least depth found on charted 6 1/2 fathom shoal.

Vicinity of Brother Ids. Line of soundings was carried around group except along south side which was considered finished. Drag and sweep work covered the area in a satisfactory manner except that it would have been desirable to pass drag closer to western shore of western island. There was no opportunity after the soundings were taken and it was not practicable before. This shore should however be given a good berth even by small craft. Note the rock, bearing 3 feet, lying well offshore near north end of island.

West shore.

Addition work was done between Pybus and Gambier Bays, two holidays from last years work were covered. Soundings were taken. A point lying halfway between signals Bus and Bar was found to have an offlying shoal which was developed. Shoal near False Point Pybus was developed.

Shoal ridge in entrance to Gambier Bay where nothing less than 20 fathoms was charted was found to be extensive with 33 feet as least depth.

Shoal east of Gambier Id. was not covered with drag but 51 feet was found with tender. This is least depth on this rock but rocks of less depth may occur in vicinity.

Area off Pt. Hugh on which soundings were taken last year was covered with drag drawing 34 feet.

With reference to drag depths it should be stated that drag tests showed lift to be less than one foot. For safety, lift was taken as 2 feet giving a margin of safety but at the same time making it appear that the wire passed further above the shoals than it did.

Above criticism of unfinished areas is rigid and is intended to state what is required to make work perfect. Under circumstances it was not practicable to do more and the standard of completion obtained is fully up to or better than that of previous seasons.

	Plane table positions-				Port Snettisham.		Description
	secs		in meters		secs in met.		
Kris	57°	57 ⁸	110 ²	133 ⁶	51 ⁶	150	Tri. standard disc set in drill hole in rock.
Sned	57	58	597	133	53	310	Tri. standard disc, set in drill hole in rock.
Shack	58	10	1175	133	45	499	Front gable lone shack.

Kris is on highest point of small detached rock on south side of entrance to Port Snettisham.

Sned is on the inner end of point at north entrance to Port Snettisham and is the most westerly point that sees Mist Island. The station is on the top of a pinnacle rock just inside the high water line.

Triangulation marks were placed because it was expected that the points would be determined by intersection in the course of the precise triangulation. Directions were obtained from Twin Point and are recorded in the precise triangulation records but none from any other triangulation point.

Other stations were not marked, a return to the region for this purpose having been prevented by bad weather at the end of the season. Whitewashes will remain and points could be readily marked next season if thought advisable.

Date: Letter Length of Drag GL EL Miles No. Angles Miles Remarks

Date	Letter	Length of Drag	GL	EL	Miles	No. Angles	Miles	Remarks
5-19	A	7500	21	24	2.5			
5/20	B	12000	103	93	16.0			
5/21	C	12000	35	42	3.4			
5/24	D	12000	69	51	7.7	34	74	9.2 A day SR
5/25	E	8000-9500	167	120	19.0			
5/26	F	6000-10000	114	81	8.2	1	2	
6/24	G	8000-4500	58	38	5.0	1	2	
6/25	H	4500	60	12	3.0	37	72	5.0 B day SR
6/27	J	4000-8000	199	54	12.0	57	114	5.0 C " SR
6/28	K	4500-6000	181	77	12.3	31	58	2.0 D " SR
6/29	L	4500-4000	160	31	10.3	50	92	9.0 E " SR
6/30	M	3000	13	2	2.2	1	2	F " SR
7/1	N	3000	108	68	9.6			
Summary								
		No. of angles		2397				
		" " miles dragged		111.2				
		" " " sds		30.2				
		" " "		212				
		" " sq. miles		24.7				

C.A.K.

COPY TO FIELD RECORDS.

March 1, 1922.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in and 3 vols. of wire-drag records for
~~One~~ volumes of sounding records for

HYDROGRAPHIC SHEET 4143a.

Locality: Cape Fanshaw to Holkam Bay, Stephens Passage, S.E. Alaska.

Chief of Party: N. H. Heck in 1921.
Plane of reference is mean lower low water, reading

<u>6.6</u>	ft. on tide staff at	<u>Taku Harbor.</u>
<u>6.0</u>	" " " " "	<u>Windham Bay.</u>
<u>5.7</u>	" " " " "	<u>Hobart Bay.</u>
<u>4.3</u>	" " " " "	<u>Gambier Bay (Good Island); 4.1 ft. (Cannery)</u>

Condition of records satisfactory except as checked below:
~~For reduction of soundings,~~

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
- ✓ 8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
- ✓ 12. Legibility of record could be improved.
13. Remarks.



G. V. ...

Chief, Division of Tides and Currents.

Hyd 4143^a

This sheet showing the drag work of 1921 is supplemented to the survey of 1920 shown on Hyd 4143.

- The eighty one foot sounding, northeast of S Fal, which is apparently passed by a deeper drag depth, is
- O. Noted by Capt. Heck.

The point where the sweep caught, in the entrance to Hobart Bay, is recommended for further examination.

All orange areas on which no depth units are shown, have been dragged to a depth of eighty five feet or more.

The A. & D. tracing shows the combined results of Hyd 4143, Hyd 4143^a and Hyd 4143^b.

R L Johnston

4143^b

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *P. E. Alaska*

11-5613

DESCRIPTIVE REPORT.

W.D. Sheet No. *4143^b*

LOCALITY:

Stephens Passage

Vicinity of

Hobart Bay

(Additional work)

1922

CHIEF OF PARTY:

J. W. Hawley

4143^b

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4143^b

State S.E. Alaska

General locality Stephens Passage

Locality Vicinity of Hobart Bay

Chief of party J.H.Hawley

Surveyed by J.H.Hawley and G.C.Jones

Date of survey April 1922

Scale 1/40000

Soundings in Feet

Plane of reference M.L.L.W.

Protracted by A.M.Weber Soundings in pencil by A.M.Weber

Inked by A.M.Weber Verified by

Records accompanying sheet (check those forwarded):

Des. report, Tide books, Marigrams, Boat sheets,

Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

Remarks:

For 1922 work only

COPY TO FIELD RECORDS.

May 18, 1922.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in

1 volume~~x~~ of sounding records ~~for~~ and 1 volume of wire-drag records for

HYDROGRAPHIC SHEET 4143^b/_x

Locality: Stephens Passage, S. E. Alaska

Chief of Party: J. H. Hawley in 1922

Plane of reference is mean lower low water, reading
5.6 ft. on tide staff at Hobart Bay.

For reduction of soundings,

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

Chief, Division of Tides and Currents.

DESCRIPTIVE REPORT

Relative to work done in 1922 on Hydrographic Sheet 4143a.

The work on this sheet was executed in accordance with paragraph 13 of instructions dated February 13, 1922. The work comprised drag and sweep work at four different points as follows:

The small split in former work off Storm Islands was covered with the wire sweep using the ship and the launch Scandinavia.

The unfinished area southwest of Sail Island was covered with the wire sweep. After passing over this area the sweep caught on an obstruction south of the island. As this obstruction was in area that had been previously dragged, it was not investigated. The bight of the sweep when plotted from the point where the wire caught to the ship shows the southerly end of the area as barely covered. The ship, however ran far enough beyond the last position so that the wire led in a straight line to the obstruction and was strained enough to part the towline. The wire was therefore a considerable distance south of the previously unfinished area.

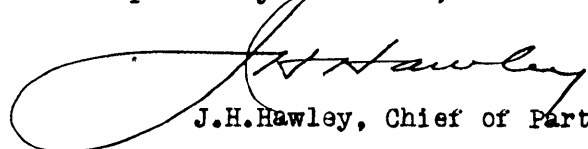
The wire drag was taken as close as possible around McDonald rock and was caught on the rock, a least depth of 23 feet being obtained. Further work was impracticable on account of the buoy marking the rock.

The required work in the vicinity of Twin Islands was done with the drag. The 68 foot sounding north of Station Twin was investigated and a least depth of $21\frac{1}{2}$ feet obtained. This sounding marks the end of a rocky ridge extending out from the north end of the island. This ridge gradually shoals as it nears the island.

Tidal observations for the reduction of drag work were obtained in Hobart Bay on the staff established in 1921 which was still in place. This staff was re-leveled to the bench marks to guard against any change in it's position during the winter.

When the drag was towed by the Scandinavia and the tender, it was controlled from the guide launch. When the drag or sweep was towed by the ship and launch, position angles were taken on both vessels and corresponding positions are entered opposite each other in the record.

Respectfully submitted,


J.H. Hawley, Chief of Party.

Sheet 4143 a.

Date 1922	Letter	Length of Drag	No. of Angles		Miles	Soundings		Remarks
			G.L.	E.L.		No.	Angles	
		4000						
4/6	A	2000	70	14	2.5	4	8	
		3000						
4/7	B	2500 2000	100	20	4.9	4	8	
4/8	C	3500	75	14	3.5	1	4	
4/9	D	3500 2500	63	73	6.2	5	8	
4/11	E	2500	24	24	1.4	3	6	
Totals -----			332	145	18.5	17	34	

Hyd 4143^b

This work of 1922 further supplements Hyd. 4143.

The point where the sweep caught in the Entrance to Hobart Bay was not examined.

The A. & P. tracing of Hyd 4143 and Hyd 4143^a was revised to include the results of this survey.

R L Johnston

(Additional work)

4143^b

REV 1922
ACC. NO.

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State S. E. Alaska

11-5613

DESCRIPTIVE REPORT.

W. D. Sheet No. 4143^b

LOCALITY:

Stephens Passage
South of Sail Island

1922

CHIEF OF PARTY:

J. H. Hawley

(Additional work)

4143^b

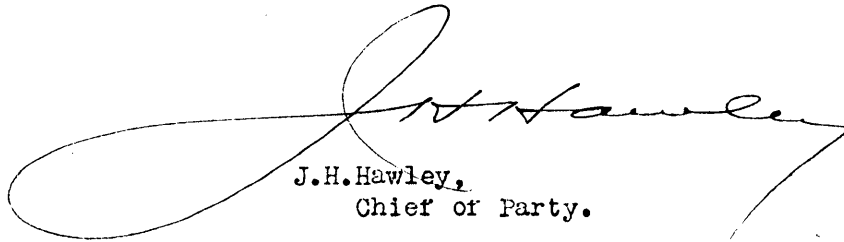
SUPPLEMENTAL DESCRIPTIVE REPORT

Hydrographic (Wire Drag) Sheet No. 4143b

In addition to the work done on this sheet in the spring of 1922, one days work was done on September 20, 1922 in accordance with instructions dated August 21, 1922 modified by letter dated August 24, 1922.

This work consisted of the dragging of two splits in previous work southeast of Sail Island and a point south of Sail Island where the drag and a sweep caught during previous work.

The two splits were covered to an effective depth of from 68 to 70 feet and the spot south of Sail Island was dragged with an effective depth of 83 to 84 feet. No obstructions extending above these depths were found.



J.H. Hawley,
Chief of Party.

Statistics for Sheet No. 4143 b

Date	Letter	Vol.	Positions	Miles	Sdgs.
Sept. 20	F	2	27	7.0	

3
Dec. 29, 1922.

Division of Hydrography and Topography: (N)

Division of Charts:

Tide reducers are approved in
one volume of ~~records~~ ^{wire drag} records for

HYDROGRAPHIC SHEET 4143 B

Locality: Stephens Passage, S. E. Alaska.

Chief of Party: J. H. Hawley in 1922.
Plane of reference is Mean lower low water, reading
5.7 ft. on tide staff at Hobart Bay.

For reduction of soundings
Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

J. H. Hawley
Acty Chief, Division of Tides and Currents.

Jan. 10, 1923.

Unification of Wire Log sheet 4143 b (additional work)

The ~~work~~^{areas} prescribed for this sheet were well covered, and no
obstructions were developed. The area is shown on the sheet that
includes work of 4143, 4143 a + b.

A. L. Shalantzy
Cartographer
