

6686

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic }
~~Hydrographic~~ } Sheet No. T-6686

U. S. COAST & GEODETIC SURVEY
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MAR 18 1940

Acc. No. _____

State Washington

LOCALITY

North End of Skagit Bay and Similk
Bay, Washington.

1939.

CHIEF OF PARTY

Robert W. Knox

U. S. GOVERNMENT PRINTING OFFICE

Applied to Chart	6380	Feb. 27/41	S.R.
"	6300	Mar. 20/41	S.R.
"	6376	Aug. 9, 1944	gdr

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

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

Field No. "E"

T6686

REGISTER NO. T-6686

State..... Washington

General locality..... Puget Sound

Locality..... North End of Skagit Bay and Similk Bay

Scale..... 1:10,000 Date of survey..... June & July, 1939.

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

Chief of party..... Robert W. Knox

Surveyed by..... Joseph E. Waugh, Jr.

Inked by..... Joseph E. Waugh, Jr.

Heights in feet above M.H.W. to ground ^{Heights of trees above ground in parentheses near ground elevations} ~~to tops of trees~~

~~Contours, Approximate contours.~~ Form line interval 100 feet

Instructions dated..... April 12,, 1939.

Remarks:

DESCRIPTIVE REPORT

TO ACCOMPANY

TOPOGRAPHIC SHEET T-6686

NORTH END OF SKAGIT BAY AND SIMILK BAY

WASHINGTON

PROJECT HT-233

1 9 3 9

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Robert W. Knox, Chief of Party, C. & G. S.

DESCRIPTIVE REPORT
TO ACCOMPANY
TOPOGRAPHIC SHEET T-6686
PROJECT HT-233

1 9 3 9

INSTRUCTIONS:

The topography on Sheet T-6686, is a part of Project HT-233, the instructions for which were dated April 12, 1939, and were interpreted by letter of June 24, 1939. ✓

LIMITS AND SCALE:

This sheet was surveyed on a scale of 1:10,000. It covers all of Skagit Bay north of Latitude $48^{\circ}23.6'$, Similk Bay, and all of Hope, Skagit, and Kiket Islands. ✓

CONTROL AND SURVEY METHODS:

The control consisted of six second order and eight third order triangulation stations, both main scheme and intersection. The second order stations are from Jack Senior's triangulation executed in 1934. The third order work is from R. B. Derickson's triangulation executed in 1907. It was necessary to connect three of his stations to the second order scheme in order to have all triangulation on the same datum. One new station was established, "Kik - 1907", was not recovered until the topography was done in this area. ✓ All triangulation is on the North American, 1927 datum. In addition two National Park Service stations were recovered. These two stations are not connected directly to this Bureau's triangulation. Three point fixes were taken with the plane-table at each station. They are shown on the sheet as triangulation stations but no date is given after the name. The data necessary to tie these stations into the triangulation has been forwarded to Washington and when the computations are made they will become part of the scheme in this area.

The usual plane-table survey methods were used. The plane-table positions were obtained by three point fix and resection methods. ✓

There are two traverses on the sheet. The first is from signal "Ty", to signal "Sam" and from "END 2", to a point near the grade crossing on the northeast end of the sheet and return. The first had an error of two meters and the second an error of four meters. ✓ Proper field adjustments were made.

No extra set-ups were made to obtain features back of the high water line. ✓

The wooded areas are sketched. The limits of the wooded areas back from the beach are approximate only. It is known that there are numerous clearings well back of the high water line in this area. It was impossible to locate them from the beach. Clearings are indicated in those areas where they extend down to the water. The exact location, size, and shape of all clearings can be obtained from the air photographs of this area. ✓

There is submitted in connection with this sheet and sheets T-6688a and T-6688b, several blueprints of the National Park Service's survey of Hoypus Point, Skagit Island and Hope Island. B.P.'s 34,223 to 34,227, inc.

The only one of these sheets that was available for field comparison was the master sheet on a scale of five hundred feet to one inch. The other blueprints were obtained after the field season had closed. This survey has been compared with the existing topography and found to be accurate enough for the detail back of high water in Deception Pass Park. The park area was surveyed by plane-table and supplemented in part by a tape and transit. In compiling the master sheet the roads, shore line, property lines, etc., outside the park area were obtained from different sources and are shown on this sheet in their approximate position only. In the park, all detail and form lines were drawn from an actual survey of the area. However, the high water line as shown was transferred from Coast and Geodetic Survey charts when not accessible from the land side. ✓ Therefore it is felt that while this N.P.S. survey is accurate enough for the detail back of the high water line in the Park area, it should not be considered as accurate in the water areas or outside the limits of the Park. ^{RP} The low water line shown on the sheet was rodded in at predicted mean lower low water. It is shown on the sheet mainly to show the character of the beach. In no case should this line as shown be given preference over the hydrographic low water and in all cases where the two are in disagreement the hydrographic low water line should govern.

FORM LINES:

The elevations shown on this sheet are ground elevations above mean high water. Where elevations of the tops of trees were determined the estimated heights of the trees are shown in parenthesis near the elevation concerned. The amounts deducted for heights are based on several actual measurements of the heights of the trees in this area. ~~The penciled 308 foot and 146 foot elevations southeast~~

~~of triangulation station "ALA 2", were transferred from sheet T-6885b.~~

It is felt that the contours of the N.P.S. survey of Hoypus Point, Skagit Island, and Hope Island are more accurate than any form lines that could be drawn by the topographer. This area is wooded and therefore the elevations would depend on estimated heights of the trees. ✓

It is recommended that the contours on the N.P.S. sheets be used for form lining Hoypus Point, Skagit Island, and Hope Island. Your attention is invited to the fact that the elevations on the N.P. S. sheets are above mean sea level while the elevations on this sheet are above mean high water. ✓

GENERAL DESCRIPTION OF TOPOGRAPHIC FEATURES:

This area, except in the places indicated, has trees and brush growing down to the high water line. In most of these places the limbs of the trees hang out over the high water line. From off-shore the land gives the appearance of a sharp rise just back of the high water line and then a gentle uniform rise to the ridge line. The places marked field or clearings are the only places where clearings are visible from the water. There are numerous clearings back of the beach that cannot be seen from the water. It was impractical for the topographer to locate them. ✓

This area back from the water is rolling and for the most part wooded. The trees are second growth timber intersperced with tall snags and first growth timber, the remains of the original forest. ✓ 25

Bluffs are shown between signals "Hub" and "Limb"; back of signal "Nel"; north of signal "Wet"; off the north end of the dock north of signal "Nox"; and north of triangulation station "TRAP". The vegetation at these places recedes back from the high water line slightly and a vertical clay bluff is exposed. ✓

A rocky bluff is shown on the southwestern end of Skagit Island, along the northwest side of Kiket Island, and along the south side of Hope Island. ✓

The railroad shown in Similk Bay is on a wooden trestle. Logs are dumped into the water and log rafts are made up. The logs are secured between the pilings until needed in making up rafts. They are then towed out as the rafts are completed. This log dump is owned and operated by the Puget Sound and Baker River Railway Company. ✓

The snags shown on the sheet are the remains of an old fish trap. The piles were broken off a foot or two above the bottom. ✓

when the traps were removed. The snags still remain. ✓

The two lagoons shown are filled at high water and run dry at low water. The southernmost one was used for storing material used to construct fish traps before they were outlawed. There is a small marshy island as shown in the northernmost one. ✓

The ferry slip shown off Hoypus Point has been abandoned. The piling are old and about to give way. The small black line indicates the concrete abutment. ✓

There is a float extending from the wharf in Ala Spit, out to the double row of piling, then between the piles for fifteen meters. ✓

MARSHES:

There are four marshes shown on the sheet. The first is east of the lagoon in Latitude $48^{\circ}24.4'$, Longitude $122^{\circ}33.2'$. It is low and covered at high water. ✓

The second marsh is in Latitude $48^{\circ}24.65'$, Longitude $122^{\circ}33.05'$. It is a high grass covered knob on the beach and is covered at high tide. ✓

The third marsh is on the northern end of Similk Bay. It is covered at high water to the road across the marsh. North of the road the marsh symbol is used to indicate low soft ground. This area is used as a meadow and is covered only on storm tides or during the rainy season when the creek overflows. ✓

The fourth marsh is in Latitude $48^{\circ}26.9'$, Longitude $122^{\circ}33.0'$. It is covered at high water. ✓

COMPARISON WITH OLD SURVEYS:

A field comparison between sheet T-2856 and this sheet was made. The present survey is in fair agreement with the old work. The following list gives the more pertinent differences: ✓

1. The shore line south from signal "Sex" to Ala Spit has built out. Ala Spit has changed in size. ✓
2. The shore line from signal "Hub" westward has built out. ✓
3. The shape of the shore line around signal "Put", is different. ✓
4. The shore line around signal "Mas" has built out. ✓
5. The western end of Kiket Island is of different size and shape. T-2856 shows island connected to Fidalgo by high ground. ✓

25
The marsh area shown back of the HWL in lat. $48^{\circ} - 24'$ is below MHW. The beach has built up between it and the high water line. The marsh is covered by salt water on storm high water.

6. No evidence of the sunken rock between Skagit Island and Kiket Island was seen by the topographer. The detail between the islands was rodded in at a minus tide and all of the reefs and rocks showing were located. *Disregard. Shoal water with rocks nearby.*

7. The shore line back of the twelve foot rock ^{north}~~south~~ of signal "Nub", has built out. 48°24'
122°32'

8. The reef south of signal "Nub", is of different size and shape.

9. The shore line east of triangulation station "CENTRE" is farther south than shown.

10. The island off the southeast end of Hope Island is smaller than shown.

11. The northeast end of Hope Island is farther east than shown.

12. The form lines in general are in poor agreement. Generally the present survey gives a higher elevation than the old work.

13. The charted 60 foot elevations on Kiket and Skagit Islands are not high enough. The height of the highest part of these islands as determined by this party is ~~133~~¹⁹⁴ and ~~194~~¹¹³ feet respectively.

MAGNETIC MERIDIAN:

The magnetic meridian was determined at seven places on the sheet. Ala 2, Tide, End 2, and Kik-R.M. 1, were also occupied with the declinometer. "Tide" was occupied after the survey in this area was completed. This was necessary to localize the local attraction found at triangulation station "SAW". (See report for sheet T-6688a).

Standardization of Declinatoire No. 246 was made at Seattle (Lincoln Park) on May 3, 1939, at 14:41. The ~~error~~^{correction} found was plus ten minutes (no diurnal variation correction *applied*).

Your attention is invited to the low value at triangulation station "CABLE". This is probably due to the presence of a large amount of steel cable around the station.

DECLINATOIRE OBSERVATIONS

<u>Station</u>	<u>Date</u>	<u>Time</u>	<u>Scaled value</u>
GIB	June 29	9:35	23°57' ✓
END 2	June 28	15:30	23°46' ✓
CRACK	June 28	10:00	23°08' ✓
KIK	June 20	16:00	22°50' ✓
CABLE	June 13	13:40	22°09' ✓
POINT	June 9	15:00	22°48' ✓
TRAP	June 9	9:45	22°37' ✓

DECLINOMETER OBSERVATIONS

ALA 2	June 28	8:18	22°50.9'
		8:30	22°52.4'
		8:46	22°50.8'
TIDE 1907	Aug. 25	15:11	24°14.8'
		15:20	24°13.3'
		15:30	24°14.9'
		15:38	24°15.2'
END 2	June 28	13:20	24°06.9'
		13:32	24°08.5'
		13:46	24°06.1'
		13:54	24°04.1'
KIK R.M. 1	Aug. 17	15:47	23°18.7'
		15:56	23°19.9'
		16:04	23°19.3'
		16:12	23°19.8'

These values do not include the diurnal variation or the declinatoire error. ✓

SIGNALS: *Topographic signals outside h.w. line:*

<u>Name</u>	<u>Description</u>
Aam	Whitewashed stump.
Hub	Whitewashed 3' rock.
Mat	Banner.
Mil	Pile.

<u>Name</u>	<u>Description</u>
Pól	Pile.
Tank	Elevated tank on platform at log dump.
Tee	Whitewashed face of 4' rock.
Ty	Sign on oyster bed.
Yam	Whitewashed end of dilapidated shanty.

The following triangulation stations are outside the highwater line:

CRACK	Standard disc on top of 2' rock.
GIB	Standard disc on top of 1' rock.
TIDE	Standard disc on top of rock bearing 8° at M.L.L.W.
TRAP	In boulder on beach awash at M.H.W.

JUNCTION:

This sheet joins sheet T-6684b, on the south and sheet T-6688a, at Hoypus and Yokeko Points. Satisfactory junctions were obtained in all cases.

LANDMARKS:

There are no prominent landmarks to charts on this sheet.

AIDS TO NAVIGATION:

There is one permanent aid to navigation on this sheet. It was located by triangulation. Hope Island Lt.

GEOGRAPHIC NAMES:

The following is a list of the geographic names shown on the sheet:

<u>Name</u>	<u>Source</u>	<u>Recommendation</u>
Ala Spit	Chart 6380	Be retained.
Dewey	Charts 6380 & 6300	Be retained.
Hope Island	Charts 6380 & 6300	Be retained.
Hoypus Point	Charts 6380 & 6300	Be retained.
Hunot Point	Chart 6380	Be retained.
Fidalgo Island	Charts 6380 & 6300	Be retained.

<u>Name</u>	<u>Source</u>	<u>Recommendation</u>
Kiket Island	Charts 6380 & 6300	Be retained.
Similk Bay	Charts 6380 & 6300	Be retained.
Skagit Bay	Charts 6380 & 6300	Be retained.
Skagit Island	Charts 6380 & 6300	Be retained.
Tosi Point	Charts 6380 & 6300	Be retained.
Turners Bay	Chart 6380	Be retained.
Whidbey Island	Charts 6380 & 6300	Be retained.

The land plat of the area around Dewey and Gibraltar calls the place Fidalgo City. However all of the development in this area is known locally as Dewey. It is recommended that Gibraltar be deleted from the charts and the settlement be charted as Dewey.

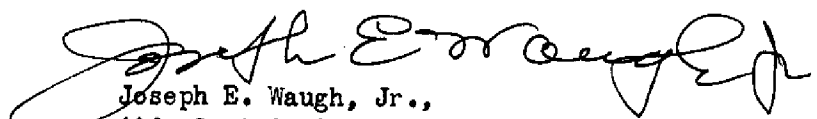
COAST PILOT:

This is the subject of a separate report by the Chief of Party. ✓


STATISTICS:

Statute miles of shore line	19.5
Area, in square statute miles	12.5

Respectfully submitted,


Joseph E. Waugh, Jr.,
Aid, C. & G. S.

APPROVED AND FORWARDED:


Robert W. Knox,
Chief of Party, C. & G. S.

Remarks

Decisions

1		484225
2		"
3		"
4		"
5		
6		"
7		"
8		"
9		"
10		484226
11		482 226
12		483 224
13		483225
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GEOGRAPHIC NAMES

Survey No.

T6686

Name on Survey

	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
A,	B,	C,	D	E	F	G	H	K	
<u>Fidalgo Island</u>									1
<u>Similk Bay</u>									2
<u>Turners Bay</u>									3
<u>Swinomish Indian</u>									4
<u>Reservation</u>									5
<u>Kiket Island</u>									6
<u>Tosi Point</u>									7
<u>Hunot Point</u>									8
<u>Skagit Island</u>									9
<u>Hoypus Point</u>									10
<u>Whidbey Island</u>									11
<u>Skagit Bay</u>									12
<u>Hope Island</u>									13
<u>Dewey</u>									14
<u>Ala Spit</u>									15
									16
									17
									18
									19
									20
									21
									22
									23
									24
									25
									26
									27

Names underlined in red approved

by L. Heck on 4/23/40

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

~~No. 11~~

No. T

T6686

received March 18, 1940
registered April 9, 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	✓	HBC	Pages 3 and 4
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T.B. Reed
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✓ JBR

DIVISION OF CHARTS

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 6686 (1939) FIELD NO. E

Washington; Puget Sound;
North End of Skagit Bay and Similk Bay
Surveyed in June - July 1939, Scale 1:10,000
Instructions dated April 12, 1939 (EXPLORER)

Plane Table Survey

Aluminum Mounted

Chief of Party - R. W. Knox.
Surveyed and inked by - J. E. Waugh, Jr.
Reviewed by - J. A. McCormick, November 7, 1940.
Inspected by - H. R. Edmonston.

1. Junctions with Contemporary Surveys.

Satisfactory junctions were made with T-6684b (1939) on the south and T-6688a (1939) on the west.

2. Comparison with Prior Surveys.

T-2856 (1908) 1:20,000.

Agreement of T-2856 with the present survey is, in general, fair. True, there are many differences (see descriptive report, pages 4 and 5), some of which may be due to natural changes and others to lesser accuracy on the older survey, but the general picture presented by T-2856 is reasonably similar to that of the present survey. T-2856 is superseded in the common area.

3. Comparison with Chart 6380 (New Print of April 13, 1940)

Topography charted in this area is from T-2856, discussed in preceding paragraph. Hope Island Light is charted substantially as shown on the present survey.

4. Condition of Survey.

Satisfactory.

5. Compliance with Instructions for the Project.

Satisfactory.

6. Additional Field Work Recommended.

None.

7. Superseded Surveys.

T-2856 in part.

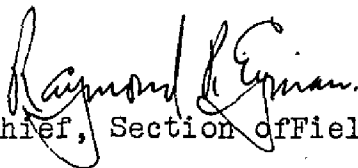
Examined and approved:



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



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.