

6593

U. S. COAST & GE
SURVEY

APR 11 1938

Acc. No.

6593

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

DESCRIPTIVE REPORT

Topographic } Sheet No. CC - 1937
Hydrographic }

State SOUTHEAST ALASKA

LOCALITY

STEPHENS PASSAGE

HORSE AND COLT ISLANDS

1937

CHIEF OF PARTY

H. ARNOLD KARO, H. and G. E.

U. S. GOVERNMENT PRINTING OFFICE

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Applied to drawing of Chart 8235, Nov. 14, 1938 - J.F.W.

" " " " 8302 July 28, 1939 J.C.L.

Applied to reconstruction of Chart 8235 Jan. 1, 1940 C.R.B./r.

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. CC - 1937

REGISTER NO.

State..... SOUTHEAST ALASKA

General locality..... STEPHENS PASSAGE

Locality..... HORSE AND COLT ISLANDS

Scale 1:10,000 Date of survey AUGUST, 1937

Vessel..... WESTDAHL

Chief of Party..... H. ARNOLD KARO

Surveyed by..... GEORGE E. MORRIS, JR.

Inked by GEORGE E. MORRIS, JR., J. H. S. BILLMYER

Heights in feet above M.H.W. to ground ~~to tops of trees~~

Contour, Approximate contour, Form line interval..... feet

Instructions dated MAY 24, 1937

Remarks:..... FORM LINES ON SHEET EE - 1937

DESCRIPTIVE REPORT TO ACCOMPANY SHEET CC - 1937 (T-6593)

STEPHENS PASSAGE, ALASKA

Work was done under instructions dated May 24, 1937, Project HT - 216.

- (a) Horse and Colt Islands are two small heavily wooded, (maximum height to top of trees is 125 feet), islands connected at low water. Colt Island has a rocky ledge on its northern end. Horse Shoal about 0.6 mile east of Horse Island is several rocky patches one half mile apart northwest and southeast.

A small reef lies 0.6 mile northwest of triangulation station BIB 1890.

- (b) There are no important landmarks in the area.
- (c) ^{First} ~~Second~~ and third order triangulation control established in 1917 and 1937 ^{respectively were} ~~was~~ used. ^{change by TSB.}
- (d) Enough triangulation control was available so that it was unnecessary to run any traverse.
- (e) The rocky patches between triangulation station MARE 1937 and signal HIT; the patches comprising Horse Shoal; the patches off signal CUM; the patches and rocks northwest of signal HOG; the rock in latitude $58^{\circ} 16.'6$ longitude $134^{\circ} 44.'2$; and the reef in latitude $58^{\circ} 17.'0$ longitude $134^{\circ} 44.'2$ were all located at low water by sextant positions taken on each of the patches. Sufficient positions were taken at each patch to accurately delineate its limits.

The edge of the ledge northwest of Horse Island and the edge of the ledge between signal NUT and the edge of the sheet in longitude $134^{\circ} 46.'0$ was delineated by standard plane table methods. The limits of all other ledges and the low water line were transferred from

hydrographic sheet 1437 (H-6269)

(f) Form lines for this area are shown on sheet EE - 1937. F-4941(0937)

(g) The survey was executed as a complete new survey of the area. The previous survey (sheet F-3681) was consulted and all differences checked in the field.

It is believed that the differences do not indicate an actual change in the area but are due to the greater detail of the present survey.

The maximum height to the top of the trees on Horse and Colt Islands was 125 feet. The maximum elevation of the ground is approximately 40 feet. The two elevations of 190 and 140 shown on the previous survey are excessive.

All off-lying dangers shown on the chart and the previous surveys and mentioned in the Coast Pilot were searched for. In order to take full advantage of the minus tides, both topographic and hydrographic parties searched for and located off-lying dangers. All reefs, rocks and ledges exposed at M.L.L.W. are shown on the sheet. See Descriptive Report for sheet 1437 (H-6269) for additional explanation.

(h) The work is complete and shows the conditions that existed at the time of the survey.

(i) Standard plane table methods were followed except in locating off-lying dangers. These were located by sextant positions taken at the danger because low water and minus tides occurred for only short periods during the time of survey and it was necessary to locate all dangers as rapidly as consistent with the requirements for accuracy to insure locating all of them.

(j) Junction was made with sheet 73848 at triangulation station GROUSE 1917 and triangulation station CLEARING 1917.

(k) All geographic names shown are from the published chart of the *GHE* area.

(n) See (g) above.

(o) The area outside high water line north of signal FOUR is firm sandy soil covered with grass. The stages of the tide at which the various sections of it are covered is shown on the sheet.

There is 12.3 statute miles of high water line and approximately 2.0 square statute miles of area.

The declinoire needle error was obtained from the mean value of two comparisons with observations taken with the compass declinometer at triangulation station SCULL₂ 1917 and triangulation station BIB 1890.

The high water line, the outside limits of all off-lying dangers, and the outside limits of the low water line were inked by the topographer. The lettering and conventional signs were inked by a crew member under close supervision of the topographer.

Respectfully submitted,

George E. Morris, Jr.
George E. Morris, Jr.,
Jr. H. and G. E.

Approved and forwarded,

H. Arnold Karo
H. Arnold Karo, H. and G. E.,
Chief of Party.

Sheet inspected and approved,

H. Arnold Karo
H. Arnold Karo, H. and G. E.,
Chief of Party.

Remarks

Decisions

1		see H-6268
2		see H-6269
3		" "
4		" "
5		" "
6		" "
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GEOGRAPHIC NAMES

Survey No. T-6593

Name on Survey	On Chart No. <i>8235 8202</i>		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,
✓ <u>Stephens Passage</u>	✓										1
✓ <u>Horse Shoal</u>	✓										2
✓ <u>Colt Island</u>	✓										3
✓ <u>Horse Island</u>	✓										4
✓ <u>Admiralty Island</u>	✓										5
✓ <u>Mansfield Peninsula</u>	✓										6
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Names underlined in red approved										25	
by <i>SHS</i> on <i>5/25/38</i>										26	
											27

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOGRAPHIC~~

~~No. 11~~

No. T-6593

received April 11, 1938
registered May 20, 1938
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
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RETURN TO

82	T. B. Reed
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✓ *TBR*

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 6593 (1937) FIELD NO. CC

Horse and Colt Islands, Stephens Passage, Southeast Alaska,

Surveyed in August 1937, Scale 1:10,000.

Instructions dated May 24, 1937 (WESTDAHL)

Plane Table Survey.

Aluminum Mounted.

Chief of Party - H. A. Karo.

Surveyed by - G. E. Morris, Jr.

Inked by - G. E. Morris, Jr. and J.H.S. Billmyer.

1. Condition of Survey.

The survey is neat and legible and conforms to the requirements of the topographic Manual except as follows:

- a. Nearly all of the low water line was transferred from H-6269 (1937). It is not the accepted practice to transfer the low water line from Hydrographic to contemporary topographic surveys, as the former are subject to office revision and changes cause differences with transferred low water line on topographic surveys. (Par. 16a and page 70 of the Topographic Manual).
- b. Inasmuch as the declinoire had a needle error of $1^{\circ}15'$ W (noted on smooth sheet) the note "Magnetic meridians are uncorrected for needle error", has been added to the sheet in the office so as to avoid confusion in its interpretation.

The Descriptive Report is clear, comprehensive and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project.

3. Junctions with Surveys.

The junctions on the north with T-3681 (1917) and on the south with T-3848 (1921) are satisfactory for charting purposes. The sizable overlap with the former is discussed in par. 4c, this review. Form lines within the limits of the present survey were determined on the 1:60,000 scale survey T-4941 (1937) which contains no original information other than form lines.

4. Comparison with Prior Surveys.

- a. H-1602a (1884) scale 1:40,000 (Contains Topography).

This is a reconnaissance survey with no standard projection and shows a sketchy shoreline of Colt Island and the adjacent shores of Douglas Island and Mansfield Peninsula, Horse Island is not shown and apparently was mistaken for the shore of

Mansfield Peninsula. Within the common area with the present survey, H-1602a should be disregarded in future charting.

b. T-2017 (1890) scale 1:80,000 and T-2170 (1894) Scale 1:200,000.

(1) Shoreline and Associated Details.

Portions of each of these small scale surveys entirely cover the area of the present survey. Because of the small scales, an adequate comparison is not possible, however, the essential features are borne out by the present survey.

(2) Form Lines.

No form lines are shown on T-2017 (1890).
Form lines shown on T-2170 do not come within the limits of the present survey.

c. T-3681 (1917) Scale 1:20,000.

(1) Shoreline and Associated Details.

This survey covers the area of the present survey from the south end of Horse Island to about $\frac{1}{2}$ mile northwestward of Colt Island.

The main features conform very well to the present survey, however it is noted that the sand spit off the southwest portion of Horse Island does not extend as far westward as shown on the old survey.

There are no rocks or reefs shown on the old survey that are not shown in more detail on the present work. Because of the larger scale and special efforts of both the Hydrographic and Topographic parties to locate off-lying dangers at MLLW, the present survey, within the common area should supersede T-3681 (1917) for charting purposes.

(2) Form Lines.

The form lines shown on T-3681 (1917) represent the height from MHW to the top of the trees (see page 9 of the Descriptive Report T-3681 (1917)).

The maximum elevation of the ground on Horse and Colt Islands is 40 feet, (par "g" page 2 of Descriptive Report T-6593). The estimated height of trees below 1500 feet elevation in this region is 75 feet (see title page of Descriptive Report T-4941 (1937)), therefore the elevation of the ground at the 100 foot form line shown on T-3681 (1917) is about 25 feet. Since there are no ground elevations of 100 feet or more within the area of the present survey, no form lines are shown.

5. Comparison with Chart 8235 (New Print dated August 3, 1937).
and Chart 8302 (New Print dated Sept. 22, 1938).

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and on chart letter No.191 (1936) which contains revision information concerning rocks and ledges south of Horse Island. The present survey, because of its greater accuracy, should supersede this information in future charting.

6. Field Drafting.

The inking of the shoreline, topographic features and lettering is very good.

7. Additional Work Required.

This survey is complete and no additional work is necessary.

8. Superseded Old Surveys.

In so far as the topography actually included on the present survey is concerned, it supersedes the following surveys for charting purposes.

H-1602 (1884) in part (contains topography)
T-2017 (1890) in part
T-2170 (1894) in part
T-3681 (1917) in part

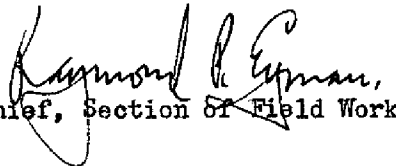
9. Reviewed by Leo S. Straw, October 20, 1938.

Inspected by J. A. McCormick,

Examined and approved:



Thos. B. Reed
Chief, Section of Field Records



Chief, Section of Field Work



Chief, Division of Charts



Chief, Division of Hydrography
and Topography.