6737

6737

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic | *Sheet No.* E-39-40
~~Hydrographic~~

State Washington

LOCALITY

San Juan Islands
Lopez Sound, south end
~~South end Lopez Sound~~

1939-1940

CHIEF OF PARTY

Ray L. Schoppe

U. S. GOVERNMENT PRINTING OFFICE 102231

Page 1

Applies to Chart 6380 (Pre-reviewed) Mar. 11/41 B.R.
" " " 6300 " " 20/41 "
" " " 6382 Aug. 2, 1941 J.M.Q.

Form 537a
Ed. Nov. 1929

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-39-40

REGISTER NO. T6737

State Washington

General locality San Juan Islands

Locality ~~South end Lopez Sound~~ Lopez Sound, south end of

Scale 1:10,000 Date of survey Dec. 1939--Jan., 1940

Vessel SURVEYOR

Chief of party Ray L. Schoppe

Surveyed by H. J. Oliver, C. R. Reed, W. R. Tucker

Inked by H. J. Oliver

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

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

Instructions dated Sept. 22, 1939

Remarks: Field Number "E" of this sheet is correctly listed as "F" on layout sheet — (H.S.T.)

GPO

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET, FIELD NO: E-39-40

REGISTER NO: T-6737 (1939-40)

South end, Lopez Sound

San Juan Islands

Washington

Scale 1:10,000

U.S.C.& G.S.S. SURVEYOR

Ray L. Schoppe, Comd'g.

Project HT-241

1940

AUTHORITY

This survey was accomplished in accordance with the Director's instructions dated September 22, 1939.

LIMITS AND SCALE

The scale of this sheet is 1:10,000. It extends over the shoreline of the south end of Lopez Sound, San Juan Islands, Washington, from Latitude 48° 26.7', to Latitude 48° 31.0', between Longitude 122° 48.8' and Longitude 122° 52.4'.

CONTROL

The control consists of second-order triangulation stations and intersection stations executed in the winter season of 1939-40 and computed on the North American 1927 datum.

SURVEY METHODS AND PARTY ORGANIZATION

The work on this sheet was accomplished by a topographer and four men basing on the Ship SURVEYOR and working from a motor dory. The signals were first located by cuts from triangulation stations. The shoreline was rodded in from setups on or near hydrographic signals and supplementary traverses. No traverses of any length were extended on which sufficient error was accumulated to adjust.

The field work was extended by three different officers. Most of the signals, the shoreline on the west side north of triangulation station ROCK 1889, and the shoreline on the east side north of Lopez Pass, were located by Mr. C. R. Reed. The shoreline on the west side between triangulation station ROCK 1889 and topographic signal SIX was extended by Mr. H. J. Oliver, who later inked the sheet. The balance of the shoreline was extended by Mr. W. R. Tucker. The shoreline was located for use of the hydrographic party and in the course of concentrating on this work it was not possible to obtain sufficient elevations to show the contours. Such elevations as were obtained

were to the estimated ground.

The low water line was rodded in at such times as available and sketched in from predicted tides and estimated tidal heights at other times.

GENERAL DESCRIPTION OF TOPOGRAPHIC FEATURES

In general the shoreline is rock outcrop backed by rock cliffs varying from a few feet to 150 feet in height. In the west side of Lopez Sound from the north end of the sheet to signal LEM the beach is of sand, gravel and boulders. The cliffs are clay and gravel and without vegetation. The balance of the sheet is as described above. The hills back of the shoreline are wooded with second growth pine and deciduous trees. A much larger portion of the land area is cultivated than would appear from the water.

Many of the docks and dwellings which once existed in the area of the sheet are in bad repair and may disappear entirely.

JUNCTIONS

A satisfactory junction was made with sheet Field No. T-6804(1939) D-1939-40 at Lopez Pass Light 1939 and signal KIT. On the north the sheet joins incomplete work of the revision surveys.

MAGNETIC MERIDIANS

Magnetic observations were made with Declinatoire No. 236 which gave a magnetic declination of 23° 01' at 2:08 P.M. April 28, 1939 at Lincoln Park, Washington, Magnetic Station.

Declinatoire observations were taken as follows:

At signal UMP	24°	18'
At triangulation station FORTRESS	24°	16'
" " " SHALE	24°	12'
" " " ROCK	23°	42'
" " " NOB	24°	10'

COMPARISON WITH PREVIOUS SURVEYS

An accurate comparison with Chart 6380 was impossible due to the difference in scale, but the important features appear to be unchanged.

The previous survey of this area was made on sheet No. 1953 in 1889 on a scale of 1:10,000. The only difference noted was between signals ~~OX~~ XO and AXE at the southeast end of the sound. The new work indicates the shoreline to be about 30 meters north of the location on the old work. This difference seems large in comparison with the exact agreement with detail over the balance of the sheet. It was not noted in sufficient time to make a field examination during the winter season. It is suggested that this difference might justify an investigation at some future time.

Present survey accepted. H.W.M.

SIGNALS

The hydrographic signals largely consisted of whitewashes on rocks, but there were also a large number of signals of white cloth nailed on trees, buildings, piles, etc. While some of these are of a semi-permanent nature they were not considered of sufficient permanence to list as recoverable stations.

Many of the 1889 triangulation stations were recovered and located by topography. Descriptions of these stations were enclosed with the triangulation data. The following is a list of these stations and their topographic positions:

Name	Year	Latitude °	'	Meters	Longitude °	'	Meters
FURROW	1889	48	29	(293)	122	51	227
MUD BAY	"	48	27	(95)	122	50	1216
BRACE	"	48	27	281	122	50	14
CENTER	"	48	29	535	122	50	117
GRANT	"	48	29	1197	122	49	873
SLOPE	"	48	29	856	122	48	1097
REED	"	48	29	1836	122	49	199
TRUMP	"	48	30	395	122	50	392

Adjusted 1927 values not available H.W.M.

Triangulation station CHUTE 1939 is outside the highwater line. The station is the corner of a sand chute extending over the highwater line.

The following is a list of topographic signals outside the highwater line:

Station	Description
Alf	Pile Dolphin.
Gull	S.E. corner of old grist mill.
Quiz	Whitewashed boulder, about 8 ft. high. (I'MHW)
Tri	S. E. corner of rotten barge.
Hus	S. E. corner of boathouse.
Rot	Signal cloth on pile.
Op	" " " "
Pier	Outside end of rotten pier.
Tis	Pile at inshore end of pier.
Wiz	Whitewash on driftwood.
Rit	Whitewash on boulder, bare 3 ft. M.H.W.
BRACE 1889	Drill hole in boulder (not a hydrographic signal).
Pot	Pile.
Nor) Lux)	Pile.
REED 1889	Drill hole in boulder (not a hydrographic signal).
Fee	Whitewashed boulder, bare 3 ft. M.H.W.
Cul	Whitewashed rock, about 13 ft. high. MHW

AIDS TO NAVIGATION AND PERMANENT LANDMARKS FOR CHARTS

The above subject is taken up in separate report by the Chief of Party.

GEOGRAPHIC NAMES

Name	Where obtained	Recommendation
Lopez Sound	Chart 6380	Be retained
Lopez Island	"	"
Hunter Bay	"	"
Mud Bay	"	"
Lopez Pass	"	"
Ram Island	"	"
Center Island	"	"
Decatur Island	"	"
Trump Island	"	"

STATISTICS

Statute miles shoreline.....23.3
Statute miles roads..... 1.6
Area in square statute miles..... 6.8
Number of hydrographic signals..... 151

Respectfully submitted,

H. J. Oliver, Jr.H.& G.E.
U.S.C.& G. Survey.

Approved and forwarded:

A. M. Sobieralski, Comdr.,
Officer in Charge,
Seattle Processing Office.

	Remarks.	Decisions
1		484 228
2		485 228
3		484 228
4		484 228
5		"
6		485 228
7		484 228
8		"
9		"
10		485 228
11	For title	485 229
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M 234

GEOGRAPHIC NAMES

Survey No. T6737

Name on Survey	On Chart No. 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	
Center Island										1
Decatur Island										2
Hunter Island Bay										3
Lopez Island										4
Lopez Pass										5
Lopez Sound										6
Mud Bay										7
Ram Island										8
Small Island										9
Trump Island										10
San Juan Islands										11
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Names underlined in red approved by L. Heck on 9/12/40

M 234

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

~~Xxxxxx~~
No. T T6737

received July 24, 1940
registered July 25, 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
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RETURN TO

82	T. B. Reed

✓ JBOR

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF TOPOGRAPHIC SURVEY NO. 6737 (1939-40) FIELD NO. E(F)

Washington, San Juan Islands, Lopez Sound, South End
Surveyed in December 1939 - January 1940, Scale 1:10,000
Instructions dated September 22, 1939 (SURVEYOR)

Plane Table Survey — Aluminum Mounted

Chief of Party - Ray L. Schoppe
Surveyed by - H.J.Oliver, C.R.Reed, and W.R.Tucker
Inked by - H.J.Oliver
Reviewed by - Harold W. Murray, July 8, 1941
Inspected by - J. A. McCormick

1. Junctions with Contemporary Surveys

The junction on the east at Lopez Pass with T-6804 (1939) is satisfactory.

The junctions on the north will be considered when that work is received from the field.

2. Comparison with Prior Surveys

a. H-333 (1852), scale 1:214,240

This early reconnaissance hydrographic survey contains sketched shoreline. No details are shown which need specific consideration in this review.

b. T-1953 (1889), T-1955 (1889), and T-2302 (1897), Scales 1:10,000

These surveys taken together entirely cover the present survey. General agreement of shoreline detail is excellent. An exception noted in the Descriptive Report, page 4, is a 600-meter strip of smooth shoreline in Lat. 48° 27.6', Long. 122° 49.6' which, as located on the present survey, is as much as 35 meters farther offshore than as shown on T-1953.

Four rocks were carried forward on the present survey. Because of the remarkable agreement with

other rock detail it seems quite probable that the topographer would have located the rocks if the tide were low enough or if he had been able to distinguish small detail on the bromide copy of the old survey from actual photographic defects. Rocks shown on the old survey and not verified on the present survey but subsequently located on H-6645 (1939-40) were accepted as located on the hydrographic survey. An example is the rock in Lat. 48° 27.96', Long. 122° 49.85'. In Lat. 48° 29.5', Long. 122° 51.7', T-1953 shows several bare rocks. The present survey encloses these rocks with a low water line and shows only two rocks awash close inshore. The bare rocks may therefore be only exaggerated boulders. The present survey has been accepted particularly because the hydrographer of H-6645 was in the immediate vicinity during a 2.5-foot tide and makes no mention of any specific rocks. No information could be found on the old surveys which would confirm the reported rock (P.D.) in Lat. 48° 29.5', Long. 122° 49.16'.

Differences of 60 to 80 feet are common between the inland elevations determined on the present survey and the contours on the old surveys. The Descriptive Report of T-1953 states that the greater portion of the area had been sketched and the forms indicated do not pretend to be even of approximate accuracy.

The present survey with the indicated additions supersedes the shoreline details on these older surveys. The formlines as shown on the old surveys are acceptable for charting purposes until such time as it will be practical to resurvey the inland areas.

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

a. Topography

The charted topography originates with surveys discussed in the preceding paragraphs.

b. Magnetic Meridians

The magnetic meridian determinations agree closely with the charted values.

4. Compliance with Instructions for the Project

The survey satisfies the instructions for the project.

Formlines were omitted because of the shortness of the season.

5. Condition of Survey

a. The inking of topographic detail is very good.

b. The Descriptive Report is clear and satisfactorily covers all items of importance. The list and description of all signals falling outside the high-water line is a commendable addition.

6. Additional Field Work Recommended

This is an excellent survey.

Formlines were omitted on the present survey and on T-6803 (1940) and T-6804 (1939) because of the shortness of the season. Formlines on the old surveys are quite generalized and it is desirable that these formlines be redetermined when convenient to do so.

7. Superseded Surveys

H- 333 (1852)	In part,	topography only
T-1953 (1889)	" " ,	shoreline details only
T-1955 (1889)	" " ,	" " "

Examined and approved:

Chief, Surveys Section

Chief, Division of Charts

Chief, Section of Hydrography

Chief, Division of Coastal Surveys