

6811

OTC
A. J. J. J. J.

6002-2

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic

Hydrographic

Sheet No. F-40

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

APR 16 1941

Acc. No.

State Washington

LOCALITY

Grays Harbor, North Bay

West Side

1940

CHIEF OF PARTY

Charles Pierce

U. S. GOVERNMENT PRINTING OFFICE 102221

1100

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. F-40

REGISTER NO. **T6811**

State Washington

General locality North Bay, Grays Harbor

Locality West shore, North Bay

Scale 1:10,000 Date of survey Dec. 20, 1940, 19

Vessel Discoverer

Chief of party Charles Pierce

Surveyed by J. T. Jarman

Inked by J. T. Jarman

Heights in feet above ---- to ground to tops of trees

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

Instructions dated April 13, 26, 1939, 19

Remarks: Project HT 235

DESCRIPTIVE REPORT

To Accompany

Topographic Sheet F

Project 235

West Shore of North Bay

Grays Harbor, Wash.

INSTRUCTIONS

The work on this sheet was done in accordance with instructions dated April 13, and 26, 1939. Field work was begun on December 6, 1940, and completed December 20, 1940.

LIMITS

The area covered by this sheet extends along the west shore of North Bay from Point Brown, (known locally as Damon Point) to latitude $46^{\circ} 59.82$, longitude $124^{\circ} 08.22$. Some additional work was done on Pt. Brown due to construction activities of the Columbia Construction Co. which has the contract for the construction of North Jetty.

JUNCTIONS

This sheet joins sheet A-39 on the south and sheet G-40 on the north. The junction with sheet A-39 is satisfactory. As has already been mentioned, the topographer accomplished some additional work on sheet A-39 due to construction activities of the Columbia Construction Co.. The shoreline at the tip of the sandspit to the east of Pt. Brown was rerun, and found to have added some 78 meters to itself. The stretch of shoreline just west and immediately adjacent to triangulation station North Jetty as shown on sheet A-39, appeared to be the storm water line to the present topographer. It was rerun, and since the highwater line is indefinite, it is shown with the marsh symbol in accordance with Field Memorandum No. 1, 1938. The junction with Sheet G-40 on the north



"1" - Looking north from Δ Lone Tree at low water.



"2" - Looking north from Δ Lone Tree at $3/4$ tide.



"3" - Looking north from a Point at low water.



"4" - Looking south from a Point at low water.

is satisfactory.

CONTROL

The control for this survey is furnished by triangulation executed in 1939 and 1940 by this party, and the party of W. M. Scaife. It includes the following stations; North Jetty 1909-1939, and Marsh 1911-1939 which are main scheme stations of second order accuracy; Lone Tree 1939, Point 1940, Drift 1940, Minard 1940, and Goose 1940 which are intersection stations of third order accuracy.

Station Lone Tree 1939 is not the old original station Lone Tree, which was a large isolated tree. At present, only a 12' stump remains over which the U. S. E. D. have built a large tripod tower. The top of this tower, which is about 2 meters N. W. of the stump, is the point located by the party of Wm. M. Scaife in 1939. Cuts on the top of this tower by the topographic party from stations Minard, North Jetty, and Goose intersect about five meters south of the plotted position of Lone Tree 1939. Since only the geographic position of the station was available to this party, there was no way to check the accuracy of the triangle or geographic position computations. The cuts obtained have been left on the sheet in pencil. The only topography affected by this station are the locations of signals Tank and Grays Harbor Bar Range Front, which were shifted slightly to the southward to agree with the position of the station as indicated by the cuts.

METHODS

Standard Coast Survey methods were used throughout this survey. There was sufficient control so that no traverses were necessary. At the time this survey was in progress the tides were high, and there was little opportunity to locate the M.L.L.W. line. The M.L.L.W. line shown on the sheet with a short dashed pencil line is approximate. It was obtained on two successive days with a tide of $1\frac{1}{2}'$ and $1'$ respectively above

M. L. L. W., and a rough estimate was made to allow for the tide. The M.L.L.W. line shown at the southern end of the sheet with the longer penciled dash was sketched and not rodged in.

Points along the shore at which rod readings were taken are indicated by black dots in accordance with Field Memorandum No. 1, 1935. However, in areas where the shoreline was very irregular, it was impossible to show all of the rod readings secured, and some of them were inked over.

It was realized that no hydrography would be done in the area covered by this survey during the present field season. Therefore, an effort was made to mark enough stations so that hydrography could be accomplished at a later date without additional topography. Descriptive cards, form 524 have been submitted for for all marked stations and for any other stations likely to be recovered.

Locations of Grays Harbor Bar Range Rear and "the S.W. gable of house", which is about 150 meters S.E. of the former, are from Sheet A-39 (Grays Harbor entrance), and have been left in pencil. These two objects were not relocated, but their position was verified by inspection.

The offshore limit of marsh shown outside the highwater line was located by rod readings, and the light pencil line defining these limits has been left on the sheet for possible use by air photo compilers.

CHARACTER OF THE TERRAIN

The extremities of the shoreline shown on this sheet are marshy in character, while the center section is mostly fast land.

The stretch of marsh at the southern extremity has an edge or berm which is not too definite, and there is considerable marsh existing offshore from the highwater line. The latter is mostly flooded at high water with some grass showing. The outer stretches of marsh inshore from the indefinite berm are covered with about 2' of water at mean high

water. It is sometimes completely flooded at extreme high water.

Most of the fast land beach is sandy in character. The section extending north from triangulation station Marsh borders a ridge of fast land, which is dike like in character, and inshore of which there is marsh. This section is eroding somewhat, but at a very slow rate. A comparison of the 1911 description of station Marsh with the 1939 recovery note indicates that the shoreline has not receded over 4 meters since the former date.

The northern extremity of marsh beach has a definite edge or berm, the outer extremities of which are flooded with about 3" of water at mean high water. This section has a high rate of erosion, having receded as much as 30 meters in places.

Goose Island is a small, low lying, irregular shaped, sand island about $2\frac{1}{2}$ miles N.E. of Point Brown. The central portion which surrounds triangulation station Goose, 1940 has an average elevation of about 5', and is covered with low lying grass covered sand dunes. It is believed the outer limits of the island, which have a much lower average elevation, shift with each passing storm.

Shore line on this sheet has been inked in accordance with instructions contained in Field Memorandum No. 1, 1938.

Officials of the Columbia Construction Co. estimate that work on the north jetty will be in progress about two years. When work has been completed, the railroad rails and tanks on the lower extremities of Pt. Brown will be removed, but trestles and buildings will be left in place.

GEOGRAPHIC NAMES

North Bay, Goose Island, and Armstrong Bay are geographic names shown on both chart 6195 and the U. S. Geological Survey map, Ocosta

Quadrangle. They are in local use.

Point Brown shown on both of the above sources is known locally as Damon Point. (See descriptive report for topographic sheet A-39, Grays Harbor Entrance)

COMPARISON WITH PREVIOUS SURVEYS

No copies of previous surveys are available on this ship. A comparison with chart 6195 indicates that the shoreline is receding north of triangulation station Point 1940, the erosion rate being slow between triangulation station Point and topographic signal Do, and rapid north of the latter. The shoreline around Armstrong Bay appears to be building up slightly. The sand spit on the east side of Armstrong Bay is building up at present, 78 meters having been added to its tip during the past year. The shoreline of Goose Island is altogether different from that shown on the chart, and in the opinion of the topographer, this shoreline shifts with each passing storm.

MAGNETIC MERIDIANS

Magnetic meridians were determined with declinoire No. 199 at stations Minard, 1940, Marsh 1911-1939, North Jetty 1909-1939, and Goose 1940. The values shown on the sheet are uncorrected scaled values. Declinoire No. 199 was standardized at the Lincoln Park Magnetic station at the beginning of the 1940 field season, and at the end of the season at the Seward Park magnetic station. All standardization data has been forwarded to the Washington office.

A value of the magnetic declination was secured at North Jetty 1909-1939 with the transit magnetometer, and should be used in lieu of the values obtained with the declinoire.

COAST PILOT NOTES

On page 224, (U. S. Coast Pilot, Pacific Coast) line 16, which

reads "About half of the buoys in North Bay were gone in 1933" should be deleted and the following substituted "All of the buoys in North Bay were gone in 1940".

LANDMARKS FOR CHARTS

The U. S. E. D. have constructed permanent, large tripods of heavy timbers at triangulation stations Lone Tree 1939, North Jetty 1909-1939, and Goose 1940. These tripods have slatted white boards on three sides and appear as white, tripod, beacons from the seaward. Topographic stations Nor and Con are towers on either side of the ferry landing, which is just north of the sand spit extending to the eastward from Point Brown (Damon Pt.). These towers are constructed of piling and are about 40' high. Geographic positions of the above are being submitted on form 567.

Topographic station Tank, Lat. 46 59.8, Long. 124 08.4 is an elevated boiler shaped tank, about 30' high. This tank is very prominent to ships passing from Grays Harbor to the seaward, but it is not visible to ships approaching Grays Harbor from the seaward because of the tree background. It is temporary in nature, and will probably be dismantled after a period of two years, or at the end of construction of North Jetty. Its geographic position is not being submitted on form 567.

LIST OF PLANE TABLE POSITIONS

Descriptions and locations of all topographic signals located on this sheet have been submitted on form 524.

AIDS TO NAVIGATION

No floating aids to navigation were located on this sheet. Only two fixed aids to navigation appear on the sheet. Grays Harbor Bar Range Rear was located on topographic sheet A-39 (Grays Harbor Entrance). It is in the same position and was not relocated. Grays Harbor Bar Range Front was located during the course of this survey. It is built on

skids, and is moved to a new location each time the bar channel shifts. ✓
 The scaled value of Grays Harbor Bar Range at the time of this survey
 was 62° 59'. 25

STATISTICS

Statute Miles of shoreline	4.8
Roads, railroads, and sloughs	4.0
Square statute miles	1.5

Respectfully submitted,

J. T. Jarman
 J. T. Jarman
 Jr. H. & G. E.

Approved

Charles Pierce
 Charles Pierce
 H. & G. E.

Forwarded

L. D. Graham
 L. D. Graham
 Commanding Ship Discoverer.

Remarks

Decisions

1		469240-241
2	Omit intring pending USGB decision	"
3		"
4		"
5		"
6		"
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. **T6811**

GEOGRAPHIC NAMES											
Survey No. T6811											
Name on Survey											
	A, On Chart No.	B, On previous survey No.	C, On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K		
<u>Armstrong Bay</u>											1
Damon Point											2
<u>Goose Island</u>											3
<u>Grays Harbor</u>											4
<u>Grays Harbor Bar Range</u>											5
<u>North Bay</u>											6
			Names underlined in red approved								7
			by L. Heck on 8/18/41								8
											9
											10
											11
											12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

M 234

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PROTESTATION~~

~~No. 6811~~

No. T 6811

received April 16, 1941
registered April 29, 1941
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	✓	NBC	Pages 3 to 7
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
----	------------

✓ JBR