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2088a

Diag. Lht. No 5902-1

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey	<i>Hydrographic</i>
Field No.	<i>2088a</i>
Office No.	<i>2088b</i>
LOCALITY	
State	<i>Oregon</i>
General locality	<i>Cape Mears</i>
Locality	
	<i>1891</i>
	<i>194</i>
CHIEF OF PARTY	
<i>J. M. Helm U.S.N.</i>	
LIBRARY & ARCHIVES	
DATE	

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2088<sup>a</sup>  
2088<sup>b</sup>

Western Division  
Coast of Oregon  
(41)

1891, July 5-22

U. S. COAST AND GEODETIC SURVEY.

*T. C. Mendenhall* Superintendent.

State: *Oregon.*

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DESCRIPTIVE REPORT.

*Hydrographic Sheets Nos. 2088<sup>a</sup>,  
2088<sup>b</sup>.*

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LOCALITY:

*Coast of Oregon.*  
*Cape Meares to*  
*Cape Kiwanda.*

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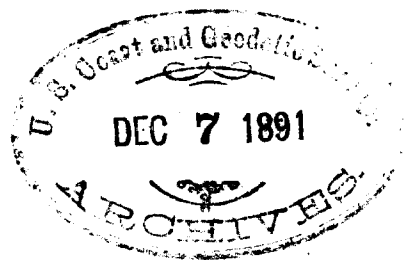
1891.

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CHIEF OF PARTY:

*Lieut. J. M. Helm, U. S. N.*

*b*  
2088<sup>a</sup>  
2088<sup>b</sup>



*Descriptive Report.*

*Section XI.*

*Hydrographic Sheets No. 1 and 1<sup>a</sup>.*

*Coast of Oregon.*

*Coast Survey Steamer Geoduc.*

*Lieut. J. M. Helms, U.S.N., Comdg.*

*1891.*

*Register Nos. 2088<sup>a</sup>, 2088<sup>b</sup>, 2088<sup>c</sup>.*

1.

The Shuts are Projection No. 1, Cape Means to Cape Kiwanda, Oregon, and Projection No. 1<sup>st</sup>, Off shore, Cape Means to Cape Kiwanda, Oregon. Statistics are appended on Form 11, Statistics of Field Work.

2.

The survey extended from Cape Means to Cape Kiwanda on the Oregon coast. In the neighborhood of Cape Means the shore is high and precipitous with an outlying group of rocks, a little to the Sd. and Wd. of the cape, of which the Three Arch Rocks are the most prominent. These are fully described in the Pacific Coast Pilot. From the mouth of Niantic Bay to Cape Lookout there is a long stretch of sandy beach with a backbone of low sand bluffs and dunes behind which lies the Bay.

Cape Lookout is high and very steep, the top wooded; from this cape south to Sand Lake the beach is backed by bluffs and hills, in the neighborhood of Sand Lake the shores are low and generally covered by heavy sand drifts. From here to Cape Kiwanda the sand beach has moderately high hills behind it the slopes of which in some places are partially cultivated by the scattered ranches.

About Cape Kiwanda the low hills are of sand with a

2

Scrubby growth of bushes over them, the formation of the Cape about the water line is rocky.

No sailing or steam vessels touch regularly at any point within the limits of this survey.

3.

The aspect of the coast on approaching from seaward is mountainous, well off shore in clear weather several ranges can be seen. The coast may be approached closely with perfect safety, the only outlying dangers being the group of rocks around the Three Arch Rocks. Small coasters going to the N'd., during the prevalence of the summer N.W. winds hug the beach for a lee, but must go to the N'd., of the Three Arch Rocks since the narrow channel between them and the mainland is obstructed by sunken rocks.

The general landmarks are the three Capes, the light-house on Cape Meares and the Three Arch Rocks and Haystack Rock. There is a passage between Haystack Rock and Cape Kiwanda.

4.

The only channel is the one leading into Metabo Bay, it is very narrow and has a depth of only five or six feet (see soundings when plotted). Dangers near this channel are sand spits and shoals on both sides of it. No vessel visited this Bay during our stay in the vicinity.

A pilot would be necessary for entering here, but there is none obtainable to my knowledge. There is no tow boat or harbor regulations.

5.

The Alaska Bay channel crosses a shifting bar, liable, I should think, to change. The bottom is sandy near the entrance and mud at the head of the bay. A vessel which could or would enter this bay could anchor anywhere in its channel inside. No harbor improvements are in progress. Sand Lake, to the N.W. of Cape Kuvavak is of no importance from a maritime standpoint, there not being sufficient water in the entrance or the lake itself.

In summer vessels can anchor under Three Arch Rocks, Cape Lookout and inside Haystack Rock, finding fair shelter against the prevailing winds, but a heavy swell will usually be found. In winter there are no anchorages.

6.

The tidal currents are moderate in the Bay. The coast currents are at times strong and irregular, their direction and force depending on the prevailing winds.

8.

The usual coast fogs prevail.

4  
9.

N.W. winds prevail in summer, S.E. winds in winter. The heaviest gales are from S.E. and S.W. (See under 5 for their effect on anchorages.)

10.

There is no life-saving station in the vicinity, no reliable information in regard to wrecks. There is no hospital available for seamen.

12.

There is no fresh water to be had outside of Etarte Bay and it is not practicable to get it from there to a vessel on account of breakers. There are no ship supplies, no facilities for repairing. During the summer fresh beef can be had by landing a boat and making arrangements with the ranches in the neighborhood of Three Arch Rocks, Cape Lookout and Cape Kiwanda.

13.

No wharves.

14.

No weather signals or cautionary signals.

15.

No station for reporting vessels, no branch hydrographic office, no special signals.

11/9/92



16.

None.

17.

No passenger steamers and no railroads. There is a post-office called *Atlatla* on the Bay, the mail is brought here twice a week from Tillamook on horseback. The ranches south of Cape Lookout get their mail from Woods post-office near the *Nestucca River*.

18.

There is no custom house.

19.

There are no settlements. Scattered ranches are found along the beach and there are several of them about the *Atlatla Bay* country. Communication is sustained by trail, horse and foot, a road leads from *Atlatla Bay* to Tillamook.

20.

The only keep seen was on the rocks, close to the shore.

*J. M. Nelson*  
Lt. U.S.N., Asst. Lt. Comdr.,  
Scondy.

Shuto No. 1 and No. 1<sup>a</sup>.

No. days on working grounds	18
No. days Hydrographic work done	14
No. days prevented by bad weather and other causes	3
to Sundays	3 (worked)
No. days engaged in signal building	1
No. signals built	13
No. signals occupied	8

Vessel	Number of Books					
	Sdg.	Angle	Tide	Fair Journals	Fair Angle Books	Fair Tide Books
Gedney	3			2		
St. Launch	2			1		
2nd w. boat	1			1		
<b>Totals</b>	6	1	1	4	1	1

Tide Stations, One in Nitate Bay

No. officers attached to party, 4, number of men 28

<u>Records</u>	<u>Leadsmen</u>	<u>Tide Observers</u>
M. W. Joyner, (Pay Sec)	E. Meyer, (M. at a.)	Alex. Flood, (sea)
P. N. Christiansen, (S. M.)	H. Dittich, (Q. M.)	Thos. Rowe, (sea)
A. E. Brownaw, (Q. M.)	Thos. P. Hilyard, (B. M.)	

Day Letters of Ship and boats:-

- Gedney, Capital Letters, Red.
- St. Launch, Small Letters, Blue.
- 2nd w. boat, Small Letters, Red.

Shuts No. 1 and No. 1<sup>s</sup>

Off coast of Oregon

Scale 1-20000

Began July 5, 1891

Area 237 sq. mi.

Lt. J. M. Helms, U.S.N.

ended July 22, 1891

In chg. of Party.

Date	Vessel	Letter	Book	Number of			Observations
				Miles	Soundings	Angles	
July 7	Geoduck	A	1	32.30	181	244	Lt. J. M. Helms
" 8	"	B	1	37.00	180	250	Ensign J. H. Gibbons
" 9	"	C	142	50.85	248	344	Ensign A. N. Mayer
" 10	"	D	2	21.00	189	176	Ensign J. M. Poyer
" 11	"	E	2	30.25	246	231	Pay Sec. W. W. Joyner
" 12	"	F	243	38.60	456	326	
" 14	"	G	3	38.00	105	199	
" 15	"	H	3	23.75	80	104	
" 17	"	J	3	38.00	25	50	
<b>Totals</b>			<b>3</b>	<b>309.75</b>	<b>1710</b>	<b>1924</b>	

Date	Vessel	Letter	Book	Number of			Observations
				Miles	Soundings	Angles	
July 13	Launch	a	1	23.50	802	256	Ensign A. N. Mayer
" 14	"	b	1	24.20	793	240	Ensign J. M. Poyer
" 15	"	c	2	18.15	669	200	
<b>Totals</b>			<b>2</b>	<b>65.85</b>	<b>2264</b>	<b>696</b>	

Date	Vessel	Letter	Book	Number of			Observations
				Miles	Soundings	Angles	
Jul 18	2nd vr. boat	a	1	1.50	153	36	Lt. J. M. Helms
" 19	"	b	1	10.00	893	154	Ensign A. N. Mayer
" 20	"	c	1	4.20	437	66	Ensign J. M. Poyer
" 21	"	d	1	1.75	157	22	Pay Sec. W. W. Joyner
" 18	"	e	1	3.00	137	26	
<b>Totals</b>			<b>1</b>	<b>20.45</b>	<b>1777</b>	<b>304</b>	

Statistics of Field Work executed by *Sicut. J.M. Allen, U.S.A.*

Date of beginning field work *Coast of Oregon, July 5, 1891*  
Date of closing field work *Coast of Oregon, July 22, 1891*

RECONNAISSANCE:

Area of, in square statute miles .....  
Lines of intervisibility determined as per sketch submitted .....  
Number of points selected for scheme .....

BASE LINES:

Primary, length of .....  
Secondary, length of .....  
Beach measurements, length of .....  
Number of days employed in measurements of base .....  
Number of days employed in re-measurements .....

TRIANGULATION:

Area of, in square statute miles .....  
Signal poles erected, number of .....  
Observing tripods and scaffolds built, number of .....  
Observing tripods and scaffolds built, heights of .....  
Days occupied in opening and verifying lines of sight, number of .....  
Stations occupied for horizontal measures, number of .....  
Stations occupied for vertical measures, number of .....  
Geographical positions determined, number of .....  
Elevations determined trigonometrically, number of .....

GEODESIC LEVELING:

Elevations determined by spirit-leveling of precision, number of .....  
Lines of geodesic leveling, length of .....

LATITUDE, LONGITUDE, AND AZIMUTH WORK:

Latitude stations occupied, number of .....  
Pairs of stars observed for latitude, number of .....  
Average number of observations on a pair .....  
Longitude stations, telegraphic, number of .....  
Longitude stations, telegraphic, number of nights on which signals were exchanged .....  
Longitude stations, chronometric, etc., number of .....  
Azimuth stations, number of .....  
Number of nights of observations for azimuth .....  
Number of stars observed for azimuth .....

GRAVITY DETERMINATIONS:

Number of pendulum stations occupied.....

MAGNETIC WORK:

Stations occupied for observations of the magnetic declination, number of.....

Stations occupied for observations of the magnetic dip, number of.....

Stations occupied for observations of the magnetic intensity, number of.....

TOPOGRAPHY:

Area surveyed in square statute miles.....

Length of general coast-line in statute miles.....

Length of shore-line of rivers in statute miles.....

Length of shore-line of creeks in statute miles.....

Length of shore-line of ponds in statute miles.....

Length of roads in statute miles.....

Topographic sheets finished, number of.....

Topographic sheets, scales of.....

Topographic sheets, limits and localities of:

.....

.....

.....

.....

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HYDROGRAPHY:

Area sounded in square geographical miles.....

Number of miles (geographical) run while sounding.....

Number of angles measured.....

Number of soundings.....

Number of tidal stations established.....

Number of specimens of bottom preserved.....

Current stations, number of.....

Hydrographic sheets finished, number of.....

Hydrographic sheets, scales of.....

Hydrographic sheets, limits and localities of:

Area sounded in square geographical miles.....	237
Number of miles (geographical) run while sounding.....	396.05
Number of angles measured.....	2924
Number of soundings.....	5751
Number of tidal stations established.....	1
Number of specimens of bottom preserved.....	50
Current stations, number of.....	0
Hydrographic sheets finished, number of.....	2
Hydrographic sheets, scales of.....	1-20000

Projection No. 1: Cape Meares to Cape Kivauda, Oregon.

Projection No. 1<sup>a</sup>: Off shore, Cape Meares to Cape Kivauda, Oregon

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PHYSICAL HYDROGRAPHY:

Number of soundings on cross-sections .....	
Current stations, number of .....	
Deep-sea current stations, number of .....	
Deep-sea surface current observations, number of .....	
Deep-sea sub-surface current observations, number of .....	
Number of observations of density of water .....	
Number of observations of temperature of water .....	
Tidal stations*established, number of .....	
Miles (geographical) run in deep-sea sounding .....	
Number of deep-sea soundings .....	
Number of specimens of bottom preserved .....	
Locality of work; results, how shown, etc.:	

*Recapitulation, Shots No. 1 and No. 1<sup>a</sup>*

<i>Vessel</i>	<i>Days</i>	<i>Number of</i>		
		<i>Miles</i>	<i>Soundings</i>	<i>Angles</i>
<i>Gidney</i>	<i>9</i>	<i>309.75</i>	<i>1710</i>	<i>1924</i>
<i>H. Launch</i>	<i>3</i>	<i>65.85</i>	<i>2264</i>	<i>696</i>
<i>Tud n. boat</i>	<i>5</i>	<i>20.45</i>	<i>1777</i>	<i>304</i>
<i>Totals</i>	<i>17</i>	<i>396.05</i>	<i>5751</i>	<i>2924</i>