

2217-2218-2219

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

W. W. Duffield
Superintendent.

State: *Fla*

DESCRIPTIVE REPORT.

Hyd Sheet No. *2217-19*

LOCALITY:

Pensacola Bay

1896
190

CHIEF OF PARTY:

Lieut. R. G. Beck

2217-2218-2219
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2218

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

W W Duffield
Superintendent.

State: *Fla*

DESCRIPTIVE REPORT.

Hyd.? Sheet No. *2218*

LOCALITY:

Pensacola Bay

See SHA 2217

1895
190

CHIEF OF PARTY:

R G Peck

83
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2219
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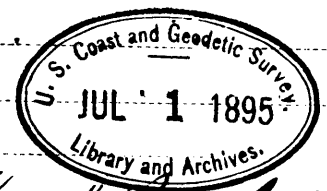
<p>Department of Commerce and Labor COAST AND GEODETIC SURVEY</p> <p><i>W W Duffield</i> Superintendent.</p> <p>State: <i>Fla</i></p>
<p>DESCRIPTIVE REPORT.</p> <p><i>Hyd. C.</i> Sheet No. <i>2219</i></p>
<p>LOCALITY:</p> <p><i>Pensacola Bay</i></p>
<p><i>See SHA 2217</i></p>
<p>1895 190</p> <p>CHIEF OF PARTY:</p> <p><i>R G Beck</i></p>

JUN 29 1895 026286

Write me at: *Navy Yard, New York*

Telegraph me at:

My Express Office is: *Assistant in Charge*



U. S. Coast and Geodetic Survey, *Stmr. "Dache",*

Hydrographic Inspector *Navy Yard, New York,*

June 28, 1895.

2-511

Descriptive Report, 2217, 2218, 2219

To the Superintendent,
U. S. Coast and Geodetic Survey,
Washington, D.C.

Sir:-

I have the honor to submit the following Descriptive report of hydrographic work executed by the party under my command in the vicinity of Pensacola, Florida, under your instructions dated Dec. 19, and the detailed instructions of the Hydrographic Inspector dated Dec. 28, 1894.

For the execution of this work there were sent to me from the Office four projections on a scale of 1/10 000, numbered 2, 4, 5 and 7 respectively, covering Pensacola Bay and entrance, and East Bay; also a rough projection of a portion of Pensacola Bay for special development, the latter being a sheet executed during

the early part of 1894 by the "Blake," and numbered 3 on the original scheme for the re-survey of these waters. All of these sheets have been completed except no. 2 which is the one including the bar and entrance. This sheet was not begun for lack of time.

Scheme of lines.

In laying out the work, it was believed that the best results would be obtained by lines giving right-angled intersections, one system being normal to the general shore line and the second or check system at right angles to the first. Owing to the very regular character of the bottom, it was believed that a distance between the lines of 175 metres would be quite close enough to ensure good work, due regard being paid to the fact that in work of this character it is safer to err on the side of fullness. Additional lines were run wherever special developments seemed necessary or desirable, and particular attention was paid to the investigation and re-locating of all shoal soundings handed down from the former surveys.

Tide Stations.

Two tide stations were established and from these all the tidal reductions for the "Bach's" work were obtained.

Tide Gauge No. 1 was set up at Wittich's Wharf on the water front of the City of Pensacola, and the plane of reference, M. L. W., was obtained by two months' continuous observations of tides, the observations being carried through day and night.

Bench Marks :- B. M. No. 1 is the lower side of square cap-piece resting on top of pile to which gauge was secured, near angle between Wittich's and Central wharves, and is 4.46 ft. above M. L. W., the plane of reference. P. of Reference reads 3.34 ft. on gauge.

B. M. No. 2 is the upper edge of black stone set in the brick work at south-east corner of Creary & McClintock's Machine Shop on west side of Palafox St. near head of wharf, and is 11.8 ft. above M. L. W., the plane of reference.

Tide gauge No. 2 was established at the lower lighted beacon in East Bay and the plane of reference, M. L. W., of this gauge was determined by careful comparisons with tide gauge no. 1, as follows :-

Comparison of Tide Gauges for Difference of Elevation of Zeros.

Date	Tide	Tide Gauge No. 1 - Pensacola				Tide Gauge No. 2 { Lower Beacon, East Bay.				Diff. Time		Diff. Ready		Mean Diff. elev
		Time	Ready	Range	Stand	Time	Ready	Range	Stand	H.W.	L.W.	H.W.	L.W.	
1895														
Feb 25	H.W.	11.45 P.M.	4.15			^(26th) 12.30 A.M.	3.82			+45	m.	.33		.43
" 26	L.W.	7. A.M.	3.53	.62		7. " "	3.00	.82			0		.53	
" 27	H.W.	1. " "	4.12			12.30 " "	3.81			-30		.31		
" 27	L.W.	7.45 " "	3.75	.37		7.45 " "	3.25	.56			0		.50	.40 1/2
Mar 6	L.W.	5.15 " "	2.90			5.15 " "	2.40				0		.50	
" 6	H.W.	6.00 P.M.	4.80	1.90		6.30 P.M.	4.50	2.10		+30		.30		.40
" 12	H.W.	12.30 " "	4.38			11.45 A.M.	4.08			-45		.30		.40
" 12	L.W.	7.15 " "	3.70	.68		7.15 P.M.	3.20	.88			0		.50	.40
" 13	L.W.	10.00 " "	3.65			12.00 " "	3.05				-		.60	.42 1/2
" 14	H.W.	12. " M.	5.15	1.50		12. " M.	4.90	1.85		0		.25		
" 14	L.W.	12. " P.M.	3.65			12.30 A.M.	3.05				+30		.60	.41
" 15	H.W.	12.30 " "	5.12	1.47		12.45 P.M.	4.90	1.85		+15		.22		
" 19	L.W.	4.45 A.M.	3.40			3.30 A.M.	2.95				-75		.45	.42
" 19	H.W.	6.00 P.M.	4.95	1.55		5.00 P.M.	4.56	1.61		-60		.39		
" 26	H.W.	11.15 A.M.	4.18			11.15 A.M.	3.83			0		.35		.40
" 26	L.W.	6.15 P.M.	3.55	.63		6.45 P.M.	3.10	.73			+30		.45	
" 27	H.W.	11.45 A.M.	4.46			11.15 A.M.	4.10			-30		.36		.42
" 27	L.W.	7.30 P.M.	3.58	.88		8.15 P.M.	3.10	1.00			+45		.48	
" 29	H.W.	12. " M.	4.96			12.15 " "	4.60			+15		.36		.43 1/2
" 29	L.W.	11. " P.M.	3.56	1.40		10.45 " "	3.05	1.55			-15		.51	

1.1
1.3
10) 4.145
 .4145

The zero of Gauge No. 2 is above the zero of Gauge No. 1 .41
 " " " " " 1 " below M.L.W. (by 2 mo's. continuous obsns) 3.34
 " " " " " 2 " " " " 2.93
 Reading of Plane of Reference on gauge no. 2, 2.93 feet.
Bench Marks :- The top of S.E. pile (cleared of cement) of Lower Beacon, East Bay, is 3.97 ft. above M.L.W., the plane of reference. B.M. No. 2, three copper nails in horizontal line in lower horizontal plank of Beacon frame and just above B.M. no. 1, is 5.07 ft. above M.L.W.

All the work on the two sheets covering East Bay was referred to tide gauge no. 2, and on the sheet extending from the city to the entrance of East Bay and the Blake's special development sheet, to tide gauge no. 1.

One of the Bench Marks selected for tide gauge no. 1 was the same as that used the preceding year by the Blake, and was chosen because the best adapted to the purpose of any that could be found in this vicinity. Referred to this bench mark, the plane of reference of the Blake differs from that of the Baehle by .41 ft., the former making this mark 11.39 ft., and the latter 11.80 ft. above M. L. W. The work of leveling from gauge to B. M. was done by myself and great care was exercised and the work carefully checked. I therefore feel entire confidence in its accuracy. It is my belief, however, that the results of observations of different months and probably of different years differ quite largely from one another, and it is doubtless chiefly due to this fact that the differences above stated are to be ascribed.

Shoal off White Point.

Off White Point, East Bay, there is a shoal consisting of rocks said to have been caused by the wreck some years ago of a rock-laden schooner which gradually broke up and left her cargo on the bottom. Being very near the shoal water of the point, it is only dangerous to small vessels. It is now marked by a beacon which appears on our sheets as \odot Rocks and is distant from the shoal about 33 metres.

Full information with regard to the city and harbor of Pensacola having been given under recent date in answers to "Coast Pilot Interrogatories" all such information is omitted from this report.

Very respectfully,
 J. G. Beck,

Lieut., U.S.N., Ast. C. & G. Survey,
 Comdg. "Bache".

Enclosures, six sheets of statistics relating to the work.

Hydrography:- Pensacola Bay, Florida; Winter and Spring, 1895.

U.S. Coast and Geodetic Survey Steamer "A. D. Bache",

Lieut. Robert G. Peck, U.S.N., Asst. C. and G. Survey, Chief of Party.

Projection No. 4.

(Reg No 2217.)

Date, 1895.	Day letter	Vol.	Number of -			Vessel.	Observers.
			Angles	Soundings	Nautil. Miles		
April 13	A	1	58	364	6.40	Ship	Lt. Robert G. Peck, & Lt. E. H. Tillman, U.S.N.
" 15	B	1	44	257	6.40	"	" " " " " " " " " " " "
" 18	C	1	104	572	13.00	"	" " " " " " " " " " " "
" 19	D	1-2	258	2195	33.50	"	" " " " " " " " " " " "
" 20	E	2	32	258	4.25	"	" " " " " " " " " " " "
" 22	F	3	256	2143	31.00	"	" " " " " " " " " " " "
" 24	G	2	98	840	12.35	"	" " " " " " " " " " " "
Total for Ship			850	6629	106.90	"	" " " " " " " " " " " "
March 8	a	14	60	547	9.75	Oil Launch	Ensigns H. K. Hines and A. H. Davis, U.S.N.
" 9	b	14	98	595	13.50	"	Lt. E. H. Tillman, Ensigns " " " " " "
" 11	c	14	60	334	6.50	"	" " " " " " " " " " " "
" 18	d	25	52	396	6.50	"	" " " " " " " " " " " "
" 30	e	25	44	319	6.50	"	" " " " " " " " " " " "
April 8	f	25	46	394	6.25	"	Ensigns H. K. Hines " " " " " "
" 13	g	25	42	310	4.00	"	" " " " " " " " " " " "
" 15	h	14	54	334	6.60	"	" " " " " " " " " " " "
" 20	i	14	44	242	5.30	"	" " " " " " " " " " " "
" 22	k	25	58	331	6.50	"	" " " " " " " " " " " "
" 24	l	25	86	434	5.85	"	" " " " " " " " " " " "
" 26	m	36	260	1302	25.50	"	" " " " " " " " " " " "
" 27	n	47	62	305	6.80	"	" " " " " " " " " " " "
" 29	o	3-56	282	1605	33.20	"	" " " " " " " " " " " "
" 30	p	47	266	1435	30.20	"	" " " " " " " " " " " "
May 1	q	58	250	1400	26.50	"	" " " " " " " " " " " "
" 2	r	47	112	636	12.60	"	" " " " " " " " " " " "
" 3	s	69	176	774	15.20	"	" " " " " " " " " " " "
" 4	t	58	38	185	2.30	"	" " " " " " " " " " " "
" 6	u	69	46	171	3.10	"	Ensigns G. W. Kline and F. M. Russell " " " " " "
Total, Oil Launch			2136	12049	232.65	"	" " " " " " " " " " " "
March 8	a	10	144	667	17.80	Map Launch	Ensigns G. W. Kline & F. M. Russell, U.S.N.
" 9	b	10	12	88	2.50	"	" " " " " " " " " " " "
" 11	c	10	86	687	12.40	"	" " " " " " " " " " " "
" 18	d	10	22	160	2.75	"	" " " " " " " " " " " "
" 30	e	10	20	172	2.70	"	" " " " " " " " " " " "
April 19	f	21	76	472	7.75	"	" " " " " " " " " " " "
" 20	g	21	76	542	9.75	"	" " " " " " " " " " " "
" 22	h	31	320	2087	34.50	"	" " " " " " " " " " " "
" 23	i	21	150	944	15.00	"	" " " " " " " " " " " "
" 24	k	413	234	1303	21.50	"	" " " " " " " " " " " "
Total, Map Launch			1140	7122	126.65	"	" " " " " " " " " " " "

Hydrography: - Pensacola Bay, Florida, - Winter and Spring, 1895.

U.S. Coast and Geodetic Survey Steamer "A. D. Bache",

Lieut. Robert G. Peck, U.S.N., Asst. C. and G. Survey, Chief of Party.

Projection No. 4 (Continued).

Date 1894.	Day Letter.	Vol.	Number of -			Vessel.	Observers.
			Angles.	Soundings.	Naut. Miles.		
April 13	a	1	14 46	627	4.25	Whaleboat	Ensg's G. W. Kline & F. M. Russell, U.S.N.
" 15	b	1	14 116	1571	12.90	"	" " " " " "
" 18	c	2	5 96	1000	7.20	"	" " " " " "
" 26	d	2	5 146	1479	11.50	"	" " " " " "
" 27	e	3	16 32	401	3.00	"	" " " " " "
Total, Whaleboat			436	5078	38.85	"	" " " " " "

uv 16

Recapitulation.

Ship	850	6629	106.90	Ship
Oil Launch	2136	12,049	232.65	Oil Launch
Naph. "	1140	7,122	126.65	Naph. "
Whale boat	436	5,078	38.85	Whale boat
Total on Sheet	4,562	30,878	505.05	

505.2

Hydrography: - Pensacola Bay, Florida; - Winter and Spring, 1895.

U.S. Coast and Geodetic Survey Steamer "A. D. Bache".

Lieut. Robert G. Peck, U.S.N., Asst. C. and G. Survey, Chief of Party.

Projection No. 5 - East Bay. (Req No 2218)

Date 1895.	Day Letter	Vol.	Number of -			Vessel.	Observers.
			Angles.	Soundings	Naut. Miles.		
March 13	a	1	176	1109	19.50	Oil Launch	Lt. F. H. Tillman & Ensigns A. H. Davis, U.S.N.
" 15	b	2	142	955	16.50	"	" " " "
" 18	c	1-3	204	1479	22.50	"	" " " "
" 19	d	3	160	1214	15.00	"	" " " "
" 25	e	2	178	1269	25.50	"	" " " "
" 26	f	3	32	218	3.25	"	" " " "
" 28	g	4	161	1179	23.00	"	" " " "
" 29	h	4-5	294	2137	42.00	"	" " " "
" 30	i	3	63	447	7.60	"	" " " "
April 1	k	5	88	716	12.60	"	Ensigns H. K. Hines " " " "
" 2	l	6	162	1393	21.50	"	" " " "
" 4	m	5-7	254	1573	26.75	"	" " " "
" 5	n	7	110	697	13.00	"	" " " "
" 8	o	7	88	609	10.50	"	" " " "
" 9	p	6	142	1037	16.00	"	" " " "
" 10	q	8	182	1292	21.25	"	" " " "
" 11	r	9	262	1628	29.00	"	" " " "
" 12	s	8	188	1086	18.90	"	" " " "
" 13	t	9	72	447	6.85	"	" " " "
" 15	u	10	128	764	13.00	"	" " " "
" 16	v	11	190	1241	17.75	"	" " " "
" 17	w	10	176	1074	16.50	"	" " " "
" 18	x	10-12	136	821	10.75	"	" " " "
" 19	y	11	206	1170	21.00	"	" " " "
" 20	z	7	32	165	1.60	"	" " " "
" 22	a'	12	92	379	3.85	"	" " " "
" 24	b'	12	38	285	2.60	"	" " " "
May 6	c'	12	28	108	.80	"	Ensigns G. W. Kline & " F. W. Russell, "
Total, Oil Launch			3,984	26,492	439.05	"	" " " "
April 23	a	1	186	1676	13.85	Whale boat	Ensigns H. K. Hines & A. H. Davis
" 24	b	2	48	323	2.55	"	" " " "
Total, Whale boat			234	1,999	16.40	"	" " " "
Recapitulation.							
Oil Launch			3,984	26,492	439.05	Oil Launch	
Whale boat			234	1,999	16.40	Whale boat.	
Total on Sheet			4,218	28,491	455.45		

Hydrography: Pensacola Bay, Florida; - Winter and Spring, 1895.

U.S. Coast and Geodetic Survey Steamer "A. D. Bache,"

Lieut. Robert G. Peck, U.S.N., Asst. C. and G. Survey, Chief of Party.

Projection No. 7 - East Bay.

(Req. No 2219)

Date, 1895.	Day letter	Vol.	Number of -			Vessel.	Observers.
			Angles	Soundings	Naut. miles.		
March 18	a	1	150	1422	21.50	Naph. Launch	Ensg's G. W. Kline & F. M. Russell, U.S.N.
" 19	b	2	168	1306	20.40	"	" " " " "
" 22	c	1	130	1056	14.70	"	" " " " "
" 25	d	2	148	1223	19.00	"	" " " " "
" 26	e	3	120	1061	16.80	"	" " " " "
" 28	f	3	46	350	5.00	"	" " " " "
" 29	g	3-4	264	2069	33.50	"	" " " " "
" 30	h	5	76	641	10.25	"	" " " " "
April 1	i	4	130	1195	19.00	"	" " " " "
" 2	k	6	164	1407	22.00	"	" " " " "
" 4	l	5-7	274	2206	35.50	"	" " " " "
" 5	m	6	54	441	8.00	"	" " " " "
" 8	n	6-7	110	942	13.00	"	" " " " "
" 9	o	8	146	1138	14.80	"	" " " " "
" 10	p	7	52	189	1.90	"	" " " " "
" 19	q	7	142	660	7.75	"	" " " " "
May 6	r	8	36	146	1.00	"	" " " " "
Total, Naph. Launch			2,210	17,452	264.10	"	" " " " "
April 11	a	1	158	1242	9.50	Whale boat	" " " " "
" 12	b	2	124	1335	11.25	"	" " " " "
" 16	c	1	38	431	4.10	"	" " " " "
" 17	d	2	128	963	8.00	"	" " " " "
Total, Whale boat			448	3,971	32.85	"	" " " " "

Recapitulation.

Naph. Launch	2,210	17,452	264.10	N. Launch
Whale boat	448	3,971	32.85	Whale boat
Total on Sheet	2,658	21,423	296.95	

*Hydrography: - Pensacola Bay, Florida; - Winter and Spring, 1895.
 U.S. Coast and Geodetic Survey Steamer "A. D. Bache",
 Lieut. Robert G. Peck, U.S.N., Asst. C. and G. Survey, Chief of Party.
 Examination of Pensacola Harbor (Blake's Sheet).*

Date, 1895	Day letter	Vol.	Number of -			Vessel	Observers -
			Angles	Soundings	Naut. miles		
April 30	a	1	58	251	5.70	Naph. Launch	Emsg's G.W. Kline & F.W. Russell, U.S.N.
May 1	b	1	246	813	20.25	"	" " " " " "
" 2	c	1	78	240	3.00	"	" " " " " "
" 3	d	1	120	403	5.70	"	" " " " " "
Total			502	1,707	34.65	"	" " " " " "

Recapitulation - by Projections - of Work on Pensacola Bay, 1895.

Projection No. 4	4,562	30,878	505.05	Proj. No. 4 - Opposite Pensacola, to E. Bay
" " 5	4,218	28,491	455.45	" " 5 - East Bay.
" " 7	2,658	21,423	296.95	" " 7 - " "
Exam. of Harbor	502	1,707	34.65	"Blake's" Sheet.
Grand total	11,940	82,499	1,292.10	

Recapitulation - by Boats.

Ship	850	6,629	106.90	
Oil Launch	6,120	38,541	671.70	
Naph. Launch	3,852	26,281	425.40	
Whale boat	1,118	11,048	88.10	
Grand Total	11,940	82,499	1,292.10	

Hydrography - Gulf Coast of Florida; Winter and Spring, 1895.
 U.S. Coast and Geodetic Survey Steamer "A. D. Bache";
 Lieut. Robert G. Peck, U.S.N., Asst. C. and G. Survey, Chief of Party.
Recapitulation of the Season's Work.

<i>Locality of the Work.</i>	<i>Number of Angles.</i>	<i>Number of Soundings.</i>	<i>Number of Naut. Miles.</i>
<i>Entrance to Tampa Bay, - Palatine Shoal.</i>	110	566	4.50
<i>Pensacola and East Bays</i>	11,940	82,499	1292.10
<i>Entrance to Charlotte Harbor - Boca Grande</i>	260	2,301	43.90
<i>Grand Total for the Season</i>	12,310	85,366	1,340.50

Number of days on Station, and how employed: - Jan'y 25 to May 17.

<i>Number of days on which hydro work was done</i>	61,
<i>" " " " " " " " " prevented by bad weather</i>	28,
<i>" " " " " " " " " other causes</i>	9,
<i>" " Sundays</i>	15,
<i>Total number of days on Station</i>	113.

Signals.

<i>Erected</i>	<i>Occupied</i>	<i>Determined</i>	<i>Used.</i>
43	44	67	64.