

2634-2637-2469

2472a 2634a

2635, 2636

Diag. Ckt. No. 904-1

Form 501  
 U. S. COAST AND GEODETIC SURVEY  
 DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

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Type of Survey *Hydrographic*

Field No. \_\_\_\_\_ Office No. *2634*  
*2637*

LOCALITY *2469 A*  
*2472A*

State *Puerto Rico*

General locality *Vieques Sound*

Locality \_\_\_\_\_

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1903  
 CHIEF OF PARTY  
*R. D. Faris*

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2634-2637-2469a

2635, 2472a, 2636

2635  
PRIMARY AND ARCHIVES

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SHA  
2635

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Dissect No 904-1

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

*O. H. Tustmann*  
Superintendent.

State: *P. R.*

DESCRIPTIVE REPORT.

*Hydro* Sheet No *2635*

LOCALITY:

*See*

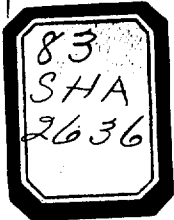
*2634*

*1903*

CHIEF OF PARTY:

*R. L. Paris*

2635



# 2636

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Form No. 1

Diag. Chart No. 904-1

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

*O. H. Tussmann*  
Superintendent.

State: *P.R.*

## DESCRIPTIVE REPORT.

*Hyd C* Sheet No. *2636*

LOCALITY:

*See*

*2634*

*1903*

CHIEF OF PARTY:

*R. L. Faris*

# 2636

2637

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Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

*O. H. Garrison*  
Superintendent.

State *P.R.*

DESCRIPTIVE REPORT.

*Hyd. C. Sheet No. 2637*

LOCALITY:

*See*

*2634*

1903

CHIEF OF PARTY:

*R. L. Faris*

2637

2469

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U. S. COAST AND GEODETIC SURVEY.

*H. S. Pritchett* Superintendent.

State: *Porto Rico*

DESCRIPTIVE REPORT.

*Hydrographic Sheet No. 2469*

LOCALITY:

*S. W. Coast of Culebra Id.  
with adjacent islands*

*See No 2468*

*See 2469 34*

CHIEF OF PARTY:

*W. C. Hodgkins*

2469



2469a

See 2634

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Diag. Cht. No. 904-1

Treasury Department,  
U. S. COAST AND GEODETIC SURVEY.

O H Tixmann

Superintendent.

State: PR

DESCRIPTIVE REPORT.

Hyd Sheet No. 2469A

LOCALITY:

Target Bay and  
Vicinity PR  
See 2634

1903

CHIEF OF PARTY:

R L Harris

2469a



See 2634

2472a

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Diag. Cht. No. 904-1

**Treasury Department,**  
**U. S. COAST AND GEODETIC SURVEY.**

*O H Litzmann*  
Superintendent.

State: *P R*

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**DESCRIPTIVE REPORT.**

*Hyd* Sheet No. *2472a*

LOCALITY:

*Great Hbr development*  
*Rock off Grosper Shoal*  
*Lulebra Island*  
*See 2634*

190 *3*

CHIEF OF PARTY:  
*R L Harris*

2472a

83  
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7634-37  
1903

2469A & 2472A

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Treasury Department,  
U. S. COAST AND GEODETIC SURVEY.

O. H. Pittmann

Superintendent.

State: P R

DESCRIPTIVE REPORT.

Hyd

Sheet No. 7634-37 &

2469A & 2472A

LOCALITY:

Vieques Sound etc

1903

CHIEF OF PARTY:

R L Paris

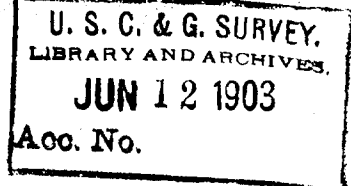




—1903—  
Descriptive Report

of

Vieques Sound, P.R. Hydrographic Sheet.



The locality of the work covered by this sheet lies to the eastward of Porto Rico, in Vieques Sound, between Culebra and Vieques Islands; the north coast of Vieques Island as far west as Port Mulas; a shoal to the westward of Mosquito Reef; one north of S.W. Cay, between S.W. Cay and Culebra; one at the entrance to Great Harbor; one at the entrance to Target Bay; "Blake" and "Hodgkins" Shoals and shoals at Point Arenas sand spit. The open part of Vieques Sound is from ten to twelve miles wide, north and south - and about sixteen miles long - east and west - with an average depth of about fifteen fathoms and with remarkably uniform bottom for this region. This part of the sound is free from all dangers to navigation, i.e. from outer Piraguas Rock to Great Harbor entrance. There is a slight shoal about three miles north of Caballo Colorado point with a least depth of 7-1/2 fathoms of water. I have named this shoal "Holiday" Shoal as it was discovered on a legal holiday and there was no other <sup>known</sup> name for it. This shoal was carefully developed and it is believed that it offers no danger to navigation. Blake and Hodgkins Shoals were especially and carefully developed with leads and channel sweep set at a depth of about two feet less than the least water expected on the shoals, and it is believed that the minimum depth on Hodgkins shoal is 27 feet and on Blake shoal 22 feet. Blake shoal is at present marked by a striped first class nun buoy which lies about 250 meters southeast of the shoalest water. The dangerous part of this shoal consists of a narrow ridge of about 350 meters in length extending about east and west. There is a good channel for any draft vessel between

(4 pages)

2

this shoal and Cordilleras reef.

Hermanos and Barrilles Passages were closely sounded out and five fathoms of water was the least depth found; Barrilles passage showing a little better depths. In going through these passages two parallel ridges (having the general trend of the reef) are encountered about 1/4 mile apart and having a least depth of from five to six fathoms of water, with an intervening trough of from ten to twelve fathoms in depth. Vessels of ordinary <sup>draft</sup> can sail very close to this reef along its entire length on either side. The north side of this reef is steep too, carrying fifteen fathoms within less than a quarter of a mile of the rocks, and this statement is practically true for the south side of the reef as far west as western side of Hermanos passage. From the character of the bottom in these passages it is not safe to say that five fathoms is the least water that exists as the bottom is very irregular and consists entirely of coral rock with small scattering spots of white coral sand. I think the survey developed the fact that these passages are safe for vessels under 24 feet draft.

Cape San Juan light is the only guide to navigation through the north side of the sound.

Vieques Sound is used principally by local coasting vessels of both sail and steam power. The eastern part in vicinity of Target Bay is now beginning to be used extensively by the Navy Department as a practice ground for war vessels for which purpose it is most excellently adapted. A considerable number of small vessels ply between Vieques, Culebra and Porto Rico, and most of the trade of the sound is carried on in these boats. But larger steamers often call at Port Mulas for cargoes of molasses, sugar and cattle, which are the only export products

of Vieques Island. A lighthouse at Port Mulas is the only aid to navigation on south side of the sound, this light serving as a guide along the north coast of Vieques Island and to Port Mulas Harbor. The north coast of Vieques Island to the eastward of Port Mulas is comparatively steep to, and free from all dangers to navigation outside of the line from Caballo Colorada Point to Cucaracha Rock. Vessels drawing over seven feet should not attempt to go between this rock and the mainland.

East of Port Mulas there are no harbors on the north coast of Vieques Island except for light draft vessels. Port Negro is a good harbor for small boats only. The entrance to this harbor through the outlying coral reefs is only about 100 meters wide and about two fathoms deep; the water inside shoals very rapidly. There is not much clear water in this harbor, at least half of it being foul ground and very uneven bottom. This harbor affords a good landing place on Vieques Island for small boats in almost any weather.

There is always a heavy surf along this coast except when the trade winds happen to veer much to the southward (which is unusual) and landing is impossible along the open part of the coast most of the time.

Port de Salina, near the east end of the island is the only other harbor along this coast. There is a good clear depth of water inside this harbor but the entrance is intricate and narrow and hence not feasible (unless well buoyed) except for light draft vessels. This harbor affords good shelter in any weather.

To the westward of Port Mulas there is an excellent anchorage immediately south of Mosquito reef in 6-1/2 fathoms of water, sandy bottom. This anchorage is well protected from the prevailing winds by the reef.

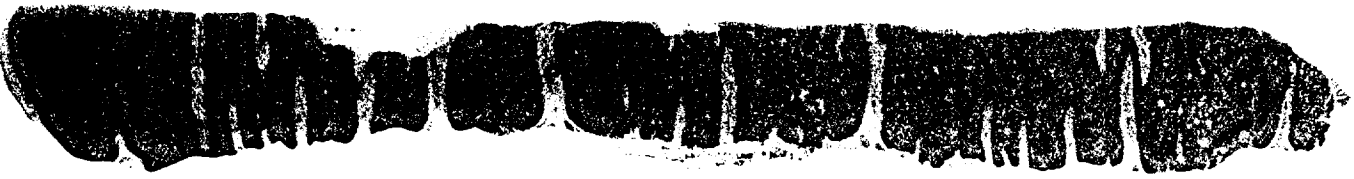
A strong tidal current sets around the east end of Vieques Island to S.E. and N.W. (current to southeast with flood tide)

There are no fogs occurring in this region; the prevailing winds are northeast which often makes the waters of the sound quite rough.

There are no life-saving stations, hospitals nor boarding stations in this vicinity. No fresh water stations, supplies and ship chandlers' stores, coal nor repair shops, the nearest place being St. Thomas or San Juan. No weather service, time-balls, hydrographic office, office for reporting vessels, special signals, ice codes, etc., docks nor marine railways. There is a small wharf at Isabel Segunda but only small boats can go alongside. There is a custom-house at Fajardo. The principal settlement is Isabel Segunda, Vieques Island. Here is a telegraph station. The nearest post-office of convenience is located at Fajardo. The principal industry of Isabel Segunda is cattle and sugar.

French steamers <sup>Sometimes</sup> stop here taking on board cattle and transporting them to Cuba. Fajardo is the only port of entry on the Sound.

R. L. Faris  
Asst. Comdr. U.S. Navy  
(June 8-1903)



Report  
on  
Hydrographic Sheet  
No. 2634.  
South Coast of Vieques Island,  
Port Real,  
P.R.  
Assistant Faris,  
1905.

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This sheet was verified and found correct.

F.C.Donn. (Signed).

*J*

REPORT ON  
HYDROGRAPHIC SHEETS  
Nos. 2635, 2636 and 2637.  
Assistant Paris,  
1903.

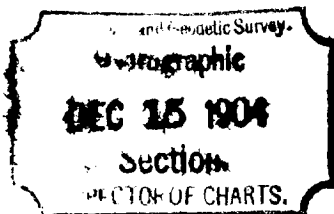
The opinion which I have obtained from handling these sheets, inking and verification, is that the work has been executed by expert surveyors.

The sounding books are in good shape, the angles plot satisfactorily, and, as a rule, the lines of soundings work remarkably well. I am especially impressed by the method employed of taking angles and soundings at regular time intervals, in this case, angles every three or three and one half minutes, soundings from two to four per minute ; it greatly facilitates the plotting and verification.

In two or three cases the shoreline obtained by the hydrographic party differs by 50 to 75 meters from that furnished by the topographic sheets, and I have no doubt that the first mentioned is the more trustworthy.

A. Lindenkohl. (Signed).

10/6/03.



2472<sup>a</sup>

Treasury Department

U.S. Coast and Geodetic Survey

C. N. Tittmann, Superintendent

U. S. C. & G. SURVEY.  
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JUN 12 1903  
Acc. No.

Hydrography of  
Entrance to Great Harbor, Portofino  
(Culebra Island)  
[ Special Survey ]

By the party in charge of

Grouped Shoal R. D. Jarvis

Admittance

Great Harbor

Development of Rock off  
Culebra Island  
West Indies

1903

Steamer Blake

Surveyed April 10 1903

Scale 1/5,000

Soundings plotted by F. B. Loran, Aid

Files at Port Mulas Tide Station

Department of Commerce and Labor

*Records were kept good.*

*H. L. Simmons*



2634

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JUN 12 1903  
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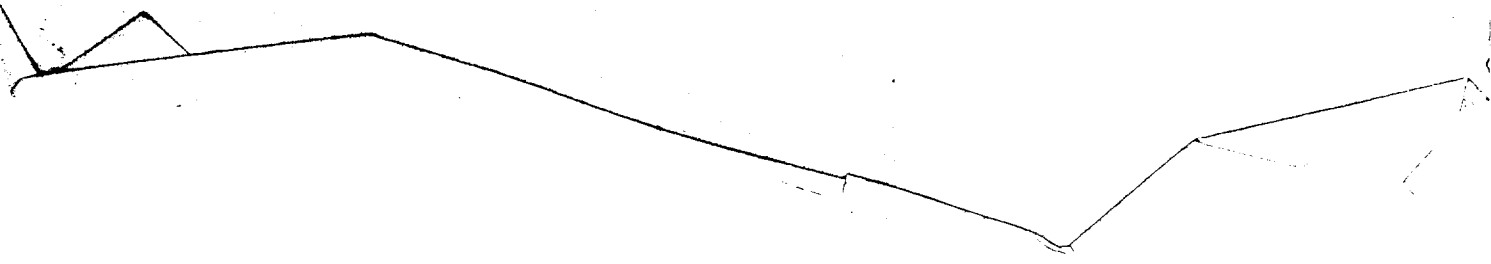
Treasury Department  
U.S. Coast and Geodetic Survey  
O. A. Pittman Superintendent

Hydrography  
of  
Vegues, Sound Porto Rico  
~~From~~  
~~Blake Shoal to Guapuc Shoal~~  
By the Party  
in Charge of R. L. Faris Assistant  
1903

Steamer Blake  
Begun Feb 3<sup>d</sup> 1903  
Ended May 25 - 1903  
Scale 1/40,000

Sounding lines plotted by R. L. Faris and  
J. L. Jenkins

Tides at Port Mulas, Tide Station



Note

It is the expressed desire of the Navy that the ranges and buoys in entrance to Great Harbor be not published as they were established only for the guidance of Navy vessels

R. L. Faris

Assistant C. & G. Survey

Statistics For Vieques Sound Sheet Porto Rico.

1903 Date	Boat	Let- ter	No. of Vol.	Number of			Remarks
				Miles	Sd'gs	Cn'gles	
Feb 11	Blake	A	1	14.1	357	126	
" 12	"	B	1	42.5	1095	374	
" 13	"	C	12	37.0	848	334	1 (14 314 120) 2 (23 534 214)
" 14	"	D	2	19.5	409	178	
" 16	"	E	293	36.1	973	302	
" 17	"	F	3	42.5	976	352	
" 18	"	G	394	38.9	921	320	
" 19	"	H	4	22.3	533	184	
" 20	"	J	4	28.0	698	240	
" 21	"	K	4	13.3	245	112	
" 23	"	L	495	44.8	1052	382	
" 24	"	M	5	32.7	770	290	
" 25	"	N	6	48.5	1085	374	
" 26	"	O	6	26.7	596	206	
" 28	"	P	6	17	56	16	
		Total		448.6	10614	3790	
March 3	"	Q	7	53.3	1125	400	
" 4	"	R	798	56.6	1177	414	
" 5	"	S	8	9.0	172	68	
" 9	"	T	8	23.5	413	170	
" 10	"	U	899	54.0	1091	416	
" 11	"	V	9	45.8	1038	380	
" 12	"	W	9910	55.2	1240	448	
" 13	"	X	10911	50.2	1163	430	
				347.6	7419	2726	

Statistics For Vieques Sound Sheet Porto Rico

1903 Date	Boat	Let- ter	Nos Vol.	Number of			Remarks
				Miles	Sigs	Circles	
March 14	Brought forward Blake	Y	11	347.6 14.5	7419 333	2726 126	
" 16	"	Z	"	47.0	941	368	
" 17	"	A'	11912	55.0	1150	414	
" 18	"	B'	12913	49.2	1198	420	
" 19	"	C'	13	47.5	1172	410	
" 20	"	D'	13914	47.5	1105	396	
" 21	"	E'	14	20.7	491	178	
" 26	"	F'	14	42.7	947	344	
" 27	"	G'	15	36.2	835	304	
" 28	"	H'	15	23.8	527	194	
" 30	"	J'	15416	37.6	902	314	
" 31	"	K'	16	47.5	1117	380	
		Total		816.8	18137	6574	
April 2	Blake	L'	16917	48.9	1162	396	
" 3	"	M'	17	47.0	1106	400	
" 4	"	N'	18	9.6	240	86	
" 9	"	O'	18	44.0	966	348	
" 10	"	P'	18919	35.4	797	314	
" 11	"	Q'	19	22.5	532	192	
" 13	"	R'	19	30.2	616	236	
" 14	"	S'	19920	37.8	766	318	
" 15	"	T'	20	59.0	821	348	
" 17	"	U'	20921	40.9	918	328	
" 18	"	V'	21	20.0	409	148	
				375.3	833.3	3114	

Statistics For Vieques Sound Sheet Porto Rico

1903 Date	Boat	Lat- ter	No. of Vol.	Number of			REmarks
				Miles	Sd'gs	Gauges	
Brought forward				375.3	1333	3114	
April 20	Blake	W'	21	24.6	561	200	
" 21	"	X'	21922	43.9	1001	352	
" 22	"	Y'	22	16.3	356	130	
" 23	"	Z'	22923	38.9	1050	322	
" 24	"	A"	23	36.2	794	300	
" 25	"	B"	23	22.4	540	190	
" 29	"	C"	23	8.2	208	84	
Total				565.8	12843	4692	
May 6	Blake	D"	24	20.8	510	173	
" 7	"	E"	24	23.3	592	224	
" 8	"	F"	24925	35.3	1001	358	
" 9	"	G"	25	19.8	583	198	
" 11	"	H"	25	29.2	748	284	
" 12	"	J"	26	34.4	880	302	
" 13	"	K"	26	24.3	721	282	
" 14	"	L"	26927	15.3	666	214	
" 15	"	M"	27	22.4	1117	332	
" 16	"	N"	28	14.0	641	188	
" 18	"	O"	28929	30.0	1421	378	
" 19	"	P"	29	<del>36.2</del> 16.7	<del>805</del> 423	<del>344</del> 156	
" 23	"	Q	29	16.7	423	156	
Total				321.7	10108	3433	
Total Amount				2152.9	51702	18489	148

Sheet 2634<sup>a</sup> & 2634<sup>a</sup>

The 24 ft. Curv is shown in Yellow  
30 " " " " Purple  
36 " " " " Scarlet  
60 f. " " " " Brown

Plotted & drawn by J. D. Grainger  
Verified & checked finished by F. C. Dorn

The work and records are  
all right

F. C. Dorn

Blake Shoal - 570

Scale  $\frac{1}{10000}$

Enlarged from Hyd. sheets  
Nos. 2490, 2527, 2586, 2634 and  
2673

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2634 x 2634<sup>a</sup>

Projected by field party  
Sounding plotted by Act. Granger  
Checked & verified by A.C. Down

Sheet 2634  
Sub-Sketch

Blake Shoal

Scale 1-10000

Enlarged from sheets 2490-2527-2586-2634-2673

Positions used in plotting sub-sketch

Sheet 2490 Shown in Green on Sub-Sketch

$21^F$  to  $27^F$  =  $56^E$  to  $60^E$  =  $105^G$  to  $109^G$  =  $127^G$  to  $133^G$

Sheet 2527 Shown in Blue on Sub-Sketch

$54^e$  to  $67^e$  =  $46^m$  to  $50^m$  =  $40^m$  to  $44^m$  =  $49^m$  to  $53^m$  =  $59^m$  to  $63^m$  =  $27^y$  to  $30^y$  =  $39^y$  to  $40^y$  =  $56^f$  to  $59^f$  =  $67^f$  to  $74^f$   
 $92^m$  to  $96^m$  =  $98^m$  to  $104^m$  =  $112^m$  to  $114^m$  =  $117^m$  to  $118^m$

Sheet 2586 Shown in Brown on Sub-Sketch

$110^B$  to  $182^B$

Sheet 2634 Shown in Red on Sub-Sketch

$74^D$  to  $77^D$  =  $80^D$  to  $83^D$  =  $28^E$  to  $31^E$  =  $165^m$  to  $166^m$  =  $1^N$  to  $94^N$  =  $1^B$  to  $10^B$

Sheet 2673 Shown in Yellow on Sub-Sketch

$183^L$  to  $185^L$  =  $17^m$  to  $20^m$  =  $38^m$  to  $40^m$  =  $90^m$  to  $94^m$  =  $68^y$  to  $72^y$  =  $76^y$  to  $81^y$  =  $104^y$  to  $109^y$

$113^y$  to  $118^y$  =  $137^y$  to  $141^y$  =  $144^y$  to  $150^y$  =  $22^w$  to  $25^w$  =  $28^w$  to  $32^w$  =  $57^w$  to  $60^w$  =  $153^y$  to  $155^y$