

3225

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic } *Sheet No.* 3225
Hydrographic }

State Florida

LOCALITY

Florida Reefs

Marguesas and Boca Grande Keys

1931

CHIEF OF PARTY

W. C. Hodgkins

U. S. GOVERNMENT PRINTING OFFICE: 1934

L. & A.

2.27.12

Mr. Brown:

These have three
2 shirts put in tube with
type. # 3225 and oblige

E. J. Lamm

Top'c. sheet 3225

Department of Commerce and Labor

Comparison of the triangle North Mark Saw, as plotted on the sheet, with the result of the computation of azimuth and distances, partially from geogr. positions, showed the line Saw-North to be in length nearly the computed distance and for azimuth practically correct. The projection in pencil over the Marquesas Keys was constructed over the line Saw-North. -

The parallel and Meridian on Boca Grande Key were obtained from the "shape" and position of this Key on Chart 1252. -

Both locations and orientations are sufficiently approximate to truth to be sufficiently accurate for charting purposes.

Feb'y. 2nd '12

E. J. Sommer

POSITION COMPUTATION, SECONDARY TRIANGULATION.

a		to			
\angle		&			
a	3	Mark	to 1	Law	18 26 14.9
Δa					19.80
					180 00 00.00
a'	1	Law	to 3	Mark	198 25 55.1

φ	24	35	09.446	3	Mark	λ	82	06	10.310
$\Delta\varphi$		2	10.680	$s =$	4238.5	$\Delta\lambda$			47.627
φ'	24	32	58.766	1	Law	λ'	82	06	57.937

$\frac{1}{2}(\varphi + \varphi')$	24 34 04.1	$\cos a$	3.60 4291	$\sin^2 a$	6.25 447	h^2	
		B	8.51 1912	C	1.06 630	D	
1st term	130.678	h	2.11 6203		7.32 077		
2d and 3d terms	+ .002						
$-\Delta\varphi$	130.680						

3.12 7233	s	3.12 7233		3.62 7176
3.60 4291	$\sin a$			3.12 7233
9.52 2942	A	8.50 9472	$\Delta\lambda$	1.67 7853
	$\sec \varphi'$	0.04 1148	$\sin \frac{1}{2}(\varphi + \varphi')$	9.61 8853
		1.67 7853		1.29 6.706
	$\Delta\lambda$	47.627	$-\Delta a$	19.80
				3.62 7176

N. B.—Take out A from table for φ' .

Do not write in this margin.

POSITION COMPUTATION, SECONDARY TRIANGULATION.

a	to			
\angle	&		+	
a	2	Saw	to 1	North
Δa				
			180	00
				00.00
a'	1	North	to 2	Saw
			342	37
				50.7

Third Angle of Triangle

ϕ	24	32	58.766	2	Saw	λ	82	06	57.937
$\Delta\phi$		2	50.185	$s=$	5487.35	$\Delta\lambda$			58.193
ϕ'	24	35	48.951	1	North	λ'	82	07	56.130

$\frac{1}{2}(\phi+\phi')$	24	34	23.86	s	3.719008	s^2	6.42817	h^2	
				$\cos a$		$\sin^2 a$		D	
				B	8.511914	C	1.06563		
1st term			170.188	h	2.230922		7.49380		
2d and 3d terms			+ .003						
$-\Delta\phi$			-170.185						

3.214085	s	3.214085		3.739263
3.719008	$\sin a$			3.214085
9.495077	A	8.509473	$\Delta\lambda$	1.764871
	$\sec \phi'$	0.041313	$\sin \frac{1}{2}(\phi+\phi')$	9.618944
		1.764871		1.383815
	$\Delta\lambda$	58.193	$-\Delta a$	24.20
				3.739363

N. B.—Take out A from table for ϕ' .

11-627

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