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U. S. COAST & GEODETIC SURVEY  
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Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: Florida

DESCRIPTIVE REPORT

~~Topographic~~  
~~Hydrographic~~  
~~Altimetric~~

Sheet No. **A** 4561

LOCALITY

East Coast of Florida

Biscayne Bay

Soldier Key to Rubicon Key

1930

CHIEF OF PARTY

Charles Shaw

U. S. GOVERNMENT PRINTING OFFICE: 1928

Graphic Control

Applied to chart 848 Nov. 30, 1936. HMC

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

Acc. No.	REG. NO.
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The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field Letter A

REGISTER NO. 4561

State Florida

General locality East Coast of Florida, Biscayne Bay

Locality Biscayne Bay - Soldier Key to Rubicon Key

Scale 1:20,000 Date of survey 10-30-30 to 12-3-30

Vessel RANGER

Chief of Party Charles Shaw

Surveyed by W. M. Gibson

Inked by W. M. Gibson

Heights in feet above - to ground to tops of trees

Contour Approximate contour Form line interval - feet

Instructions dated 7-15-30, letter 9-19-30, ref. 10-RWS9

Remarks: None

Graphic Control  
DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET "A"

Florida Keys, October- December 1930

Ship RANGER, Charles Shaw, Commanding

AUTHORITY:

Director's Orders dated July 15, 1930 and letter dated September 19, 1930 reference 10-RWS.

CONTROL:

Second, third and fourth order triangulation stations. Fowey Rocks Lighthouse, Soldier Key 3, Sand and Rubi are second order stations. Stations Bed, Mangrove U.S.E.D., Sands Point U.S.E.D., Ell and Ott are third order. The remainder of the stations are fourth order. The beacons in Biscayne Bay and  $\Delta$  Bed were used extensively for resection.

The old triangulation on the east coast of the Keys south of Ragged Keys is believed not adequate for topography. Altho stations were not searched for as field work had not progressed that far when the season ended.

LIMITS:

This sheet was intended to cover that area of the Keys extending from Soldier Key to Rubicon Key. It was laid out to include Fowey Rocks Lighthouse and the beacons in Biscayne Bay so as to furnish plenty of control for the work.

The sheet joins on to Topographic Sheet "C" on the south.

PURPOSE:

1. Furnish control for aerial photographs.
2. Supply topography of that area missed by aerial photographs.
3. Furnish planetable locations of small signals for hydrography.

SCOPE:

The sheet includes the following:

The entire shoreline of Soldier Key and Ragged Keys.

Topography of Sand's Cut.

Shoreline in vicinity of triangulation stations Sand and Sand Point, U.S.E.D. to facilitate plotting them on the aerial photographs.

Shoreline from signal "Will" to signal "Bar" that was missed by the aerial photographs.

Shoreline in vicinity of triangulation station "Rubi" to facilitate plotting on the aerial photographs.

Planetable locations of such small signals as were necessary for hydrography.

The outer shoreline south of Ragged Keys was left until a later date when control is established.

INSIDE COAST:

GENERAL DESCRIPTION OF COAST:

North of Sands Key the islands are all barely above high water and covered with mangrove and a few scattering palm trees. The southernmost and largest of Ragged Keys is owned by Mr. F. A. Seiberling and is being slowly developed. A small boat harbor has been dredged and part of the shoreline bulkheaded.

Sands Key and southward the land is slightly higher and covered by dense growth of tropical trees including some hardwood. For the most part the shoreline is a jagged coral ledge 2 or 3 feet high and lined with mangrove or with mangrove growing in the water outside of it.

In the vicinity of Caesar Creek the land is lower and fringed with dense growth of mangrove and in many places deep boggy mud. At the west side of Reid Key there is a narrow dredged channel with soft spoil bank on either side, slightly above high water. Caesar Key, the larger round island in the middle of Caesar Creek, is quite high. Soldier Key has a tree which stands out far above the others and makes a good landmark. Also a palm tree which is much higher than anything else in the vicinity marks the 4th small island north of Sands Key.

A group of tall Australian Pine stand out on Adams Key. Caesar Key appears from a distance as a half round black dome. On the south end of Adams Key is located the famous Cocolobo Cay Club.

SURVEY METHODS:

Usual planetable traverses were run and positions checked by frequent resections from beacons and signals in Biscayne Bay.

All traverse error of closures were within the allowable limit and adjusted proportionally.

TRAVERSE	DISTANCE (miles)	CLOSING ERROR(meters)
Mangrove U.S.E.D. to West Gable House	1-1/4	0.0
△ Ell (1930) to △ "Ded"	1-3/4	Checked exactly by resection from Fowey Rocks L.H. and Mangrove U.S.E.D.
△ Sand (1930) to △ "Sta"	3/4	Checked by 3 point fix
△ Ell to △ Ott	2	5.0
△ Ott to △ Rubi	4.5	30.0
△ Rubi to △ "Be"	1.0	5.0 *
*This traverse was checked by transferring last planetable position to Sheet "C" and making three point solution.		

A large number of small signals were established in the vicinity of Caesar Creek for a future 1:10,000 scale sheet here. Some of these signals were located on this sheet for a possible extension of the hydrography of Biscayne Bay in the Creek.

Beacon "4" southwest of Fowey Rock Lighthouse was located by inter-sections.

Magnetic Meridian was drawn on the sheet at Soldier Key 3 with the Declinatoire.

SHORELINE:

There is 9.1 statute miles of shoreline surveyed on this sheet.

LANDMARKS:

There are no landmarks sufficiently prominent or permanent for charting that show toward Biscayne Bay.

January 10, 1931.

*W M Gibson*

W. M. Gibson,  
Jr. H. & G. Engineer;  
U. S. C. & G. Survey.

## LIST OF PLANE TABLE POSITIONS

## TOPOGRAPHIC SHEET "A"

Signal	Lat. & Long.		Seconds in meters		Remarks
Use	25 35		192 m	1654 m	Small tripod on shoal.
	80 09		1215 m	460 m	
"4"	25 34		563 m	1283 m	Beacon about 3 miles S.W. of
Beacon	80 08		94 m	1582 m	Fowey Rocks. L. H.
Out	25 32		1836	10	Small tripod on shoal
	80 10		59	1616	
Stump	25 32		959	887	Small stump on point
	80 10		367	1308	
Tag	25 32		371	1475	Small black tripod most N'y pt. of
	80 10		356	1319	Ragged Key No. 2
Pal	25 32		271	1575	Tallest palm tree on island
	80 10		410	1265	
Bac	25 31		1787	58	Black target tripod most N'y pt.
	80 10		454	1221	of Ragged Key No. 3
Lap	25 31		950	896	Prominent palm tree at turn in
	80 10		810	865	bulkhead.
Sav	25 31		881	965	Small cross banner nailed to
	80 10		975	700	bulkhead.
Pil	25 31		739	1107	Two small piles in water near
	80 10		1131	544	entrance to harbor Rag. Key #5
Ban	25 31		684	1162	Cloth banner in trees most E'y
	80 10		586	1089	pt. Ragged Key No. 5
Sign	25 31		662	1184	Small "Posted" sign S. W. of small
	80 10		1036	639	creek on W. shore of Rag. Key #5
Bulk	25 31		499	1347	W. end of row of piling S. end of
	80 10		1059	616	Ragged Key No. 5.
Head	25 31		468	1378	East end of same.
	80 10		909	766	
Gir	25 30		160	1586	Dead root in water (mangrove) off
	80 11		708	966	most westerly pt. Sands Key.
Tak	25 29		1142	704	Small stake near shore
	80 10		1496	180	
Wat	25 29		1136	710	Dead tree in water
	80 10		1205	471	
Ded	25 29		1079	767	Outermost dead tree
	80 10		1083	593	
Red	25 29		989	857	North gable red roof
	80 10		1134	542	
Ake	25 29		978	868	Bush stake in water
	80 10		1544	132	
Rut	25 29		896	950	Cloth banner in mangrove
	80 10		11449	227	
Alm	25 29		761	1085	Tallest of several palms in
	80 10		1152	524	cluster
Rop	25 29		796	1050	Small group of stakes in water
	80 10		1636	40	
So	25 29		1508	338	Cloth banners on mangrove trees
	80 11		631	1045	

Signal	Lat. & Long.		Seconds in meters		Remarks
Lit	25	29	1222	624	Cloth banner on mangrove tree
	80	11	97	1579	
Sta	25	29	1099	747	Bush stake in water
	80	11	322	1354	
Chan	25	29	794	1052	Channel marker with pointer
	80	11	280	1396	
Bo	25	29	268	1578	Cloth banner on mangrove tree
	80	11	24	1652	
Ho	25	28	1756	90	Cloth banner on mangrove tree
	80	11	384	1292	
Will	25	28	1434	412	do do do do
	80	11	553	1123	
Ner	25	28	951	895	do do do do
	80	11	637	1039	
Wist	25	28	70	1776	Small twisted tree leaning over
	80	11	899	777	water.
Dog	25	27	1530	316	Banner on mangrove
	80	11	1047	629	
Al	25	27	1279	567	Largest of several <sup>dead</sup> trees growing a
	80	11	1025	651	few yds. back from shore.
Got	25	27	1052	794	Banner on mangrove
	80	11	1094	582	
Gest	25	27	1016	830	Largest of two palms.
	80	11	1089	587	
Lean	25	27	796	1050	Small tree leaning over water
	80	11	1211	465	
Nab	25	27	731	1115	Banner on mangrove
	80	11	1274	402	
Gib	25	27	440	1406	do do
	80	11	1379	297	
Lon	25	27	144	1702	Northerly of two lone palms
	80	11	1392	284	
Tug	25	26	1692	154	Cross banner on tree
	80	11	1514	163	
Aus	25	26	494	1352	Australian pine
	80	12	301	1376	
Wit	25	26	183	1663	Banner on mangrove.
	80	12	422	1235	
Abe	25	25	1178	668	Slat cross banner in tree
	80	12	1278	399	
Tab	25	25	1137	709	Top of tree showing clear of tree
	80	12	1254	423	line from north, having oblong shape
Bar	25	25	686	1160	Barrel on a tree
	80	12	1031	646	
Est	25	25	429	1417	Tallest slender Australian Pine
	80	12	1067	610	
Ear	25	25	406	1440	Banner <sup>of</sup> cross slats.
	80	12	1081	596	
Lie	25	24	1742	104	do do do
	80	12	902	775	
Lat	25	24	1424	422	do do do
	80	12	1125	582	
Tod	25	24	1127	719	do do do
	80	12	1463	214	

Signal	Lat. & Long		Seconds in meters		Remarks
Dan	25	24	870	978	Tallest of several palms
	80	12	1209	488	and largest
Die	25	24	647	1199	Cross slats in tree
	80	13	564	1113	
Beak	25	24	603	1243	Beacon at entrance to Caesar Creek
	80	13	1476	201	with slat superstructure.
Mar	25	24	536	1310	White post at entrance to Caesar
	80	13	1419	258	Creek with channel pointer.
Bun	25	24	364	1482	Cross slat on tree on small island
	80	14	193	1483	
Car	25	24	293	1553	Banner on mangrove
	80	13	1260	417	
Kan	25	24	82	1784	do do do
	80	14	244	1433	
Ade	25	23	1766	80	do do do
	80	14	293	1384	
Bog	25	23	1718	128	Cloth banner on mangrove
	80	14	985	692	
Dun	25	23	1642	204	do do do do
	80	14	322	355	
Sot	25	23	1648	198	do do do do
	80	14	815	862	
Club	25	23	1520	328	Brick chimney of east house
	80	14	204	1473	
Muk	25	23	1628	220	Cloth banner on mangrove
	80	14	1199	478	
Slim	25	23	1482	364	do do do do
	80	14	1418	259	
Ooz	25	23	1290	556	do do do do
	80	14	1442	235	
Slak	25	23	1272	574	do do do do
	80	14	1382	295	
Hom	25	23	1028	818	do do do do
	80	14	1273	404	
Nig	25	23	1028	820	Slat cross banner on mangrove
	80	14	1617	60	
Inn	25	23	1002	844	Cloth banner on mangrove
	80	14	1344	333	
Gay	25	23	447	1399	S. W. gable of house
	80	14	1339	338	
Let	25	23	422	1424	Slat cross banner on mangrove
	80	14	1549	128	
Us	25	23	232	1614	do do do do do
	80	15	77		
Be	25	22	1661	185	do do do do do
	80	15	480		