v_ 31 ...

NOAA FORM 76-35

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

Type of Survey Coastal Boundary
Job NoPH-7119 Map NoTP-00448
Classification No.Final Edition Nol Field Edited Map
LOCALITY
StateFlorida
General Locality Monroe County
Locality . Main Key to
Rattle Snake Key
19 72 TO 19 75
REGISTRY IN ARCHIVES
DATE

☆ U.S. GOVERNMENT PRINTING OFFICE: 1974-762-901

NOAA FORM 76-36A (3-72) NATIONAL	U. S. DEPARTMENT OF COMMERCE OCEANIC AND ATMOSPHERIC ADMIN.	+	YPE OF SURVEY	SURVEY	тр- <u>00448</u>	
is 72)	OCEANIC AND ATMOSPHERIC ADMIN.		ORIGINAL	MAP EDIT	ON NO. (L	1
DESCRIPTIVE REP	ORT - DATA RECORD		RESURVEY	MAP CLAS	s Final	
DESORII II VE KEI	OKI - DATA KEGOKO		REVISED		PH7119	_
PHOTOGRAMMETRIC OFFICE			LAST PRECES			
	•	ļ ,	YPE OF SURVEY		PH	_
Rockville, Maryla	nd		ORIGINAL	MAP CLAS	s	_
OFFICER-IN-CHARGE			RESURVEY	SURVEY D		
• Commander James C	ollins		REVISED	19TQ I	9	
I. INSTRUCTIONS DATED						
1. (FFICE		2,	FIELD		
General-Instructions	-OFFICE-NOS Cooperative		Aerial photogr	aphy 9/2/	'69	
	ping, Job PH-7000, June		Supplement I,	1/28/70		
19, 1973			Supplement II,			
OFFICE-Supplement 1,			Supplement III			
	ld Edit Instructions (19 le prior operational		Field Edit (PH Instructions f	-		
instructions.	re brior obergriousi		Zone Mapping)		a Coastal	
OFFICE-Supplement II	. Sopt. 24, 1973					
II. DATUMS		OTHE	R (Specify)			
I. HORIZONTAL:	XX 1927 NORTH AMERICAN		(apoolity)			
	XX MEAN HIGH-WATER	ОТНЕ	R (Specify)			
a MERTICAL.	MEAN LOW-WATER	Mean	n water level			
2. VERTICAL: MEAN LOWER LOW-WATER		Ref	er 76-36 B-1:	Remarks		
3. MAP PROJECTION	MEAN SEA LEVEL					
		STAT		GRID(S)		
Traverse Mercator		Flo	orida	East		
1:10,000		STAT	E	ZONE		
III. HISTORY OF OFFICE OPERA	TIONS	<u> </u>		l		
OPE	RATIONS		NAME		DATE	•
1. AEROTRIANGULATION	ву	V.	McNeel		6/74	
METHOD: Analytic	LANDMARKS AND AIDS BY	-			 	
2. CONTROL AND BRIDGE POIN METHOD: Calcom	TS PLOTTED BY CHECKED BY		Robertson applicable		2/75	
3. STEREOSCOPIC INSTRUMENT	······································		applicable			
COMPILATION	CHECKED BY		INDITION IC			
INSTRUMENT:	CONTOURS BY	Ina	applicable			
SCALE:	CHECKED BY				 	
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	P.	Gibson Lewis		4/75 4/75	
	CHECKED BY		applicable		1 3/ /3	
метноо: Graphic	CHECKED BY					
SCALE: 1 30 000	HYDRO SUPPORT DATA BY	Ina	applicable			
scale: 1:10,000	CHECKED BY	<u> </u>				
5. OFFICE INSPECTION PRIOR 1			Battley - D. McClure	Brant	4/75 11/75	
6. APPLICATION OF FIELD EDI	T DATA CHECKED BY		Lewis		11/75	
7. COMPILATION SECTION REVI		<u> </u>	Battley		12/75	
8. FINAL REVIEW	ВУ		Brant		6/76	
9. DATA FORWARDED TO PHOTO						
10. DATA EXAMINED IN PHOTOGI	RAMMETRIC BRANCH BY	D.	Brant		7/76	
I 11. MAP REGISTERED - COASTAL	SURVEY SECTION BY	b	CATOR		9/26	

NOAA FORM 76-36B (3-72)
TP-00448
1. COMPILATION P
CAMERA(S)
Wild RC-8 TIDE STAGE REFER
PREDICTED TID
REFERENCE ST
TIDE CONTROL
NUMBER AN
72E(C) 509
73L(C)2959R-
73L(C)2911R-
72K6318R
72K6552R-655
72K6343R-634

U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY

COMPILATION SOURCES

CAMERA(S) Wild RC-8 E, K,L Cameras Tide stage reference PREDICTED TIDES REFERENCE STATION RECORDS TIDE CONTROLLED PHOTOGRAPHY			PHOTOGRAPHY Egend	TIME RE	FERENCE
		(C) COLOR (P) PANCHE (I) INERAR	ROMATIC	Eastern MERIDIAN 75th	X STANDAR
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE	OF TIDE
72E(C) 509	2/14/72	1230	1:30,000	The stage o	f tide is
73L(C)2959R-2960R	3/18/73	1042	1:40,000	inapplicable	e for the
73L(C)2911R-2917R	3/18/73	0945	1:20,000	color photography.	
72K6318R	2/14/72	1243	1:30,000	Refer to NO	AA Form
72K6552R-6555R	2/20/72	0933	1:30,000	76 B1	
72K6343R-6345R	2/14/72	1340	1:30,000		
72K6368R-6369R	2/14/72	1406	1:30,000		
72K6513R-6515R	2/16/72	1107	1:20,000		
72K6253R-6255R	2/12/72	1112	1:30,000		

2. SOURCE OF MEAN HIGH-WATER LINE:

The source of the MHW and the MWL links is the black-and-white, tide-coordinated infrared photography listed under item 1. The shoreline on this map is symbolized with theMHW symbol except for the shoreline along Blackwater Sound and Lake Surprise that is symbolized with theMWL symbol. Refer to NOAA Form 76-36 B 1 "Remarks" for explanation the MWL datum.

Where the line is obscured by vegetation, the apparent shoreline was mapped.

3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

The source of the MLW line is the tide-coordinated, black-and-white infrared photography listed under item 1.

4.	CONTEMPORARY HYDROGRAPHIC SURVEYS	(List only those surveys that are sources for photogrammetric survey informa-	ition.)

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DA I E(S)	SURVEY COPY USED
Inapplicable					
S EINAL HINCTIONS			-		

S. FINAL JUNCTIONS							
NORTH	EAST	SOUTH	WEST				
TP=00446	TP-00449	TP-00451	TP-00447				
DEMARKS							

Final junctions were made in the Coastal Mapping Section.

NOAA FORM 76-36B(1) (7-75) U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY

TIDE - COORDINATED PHOTOGRAPHY

TP ... 00448

TP <u></u> 00448						
LOCATION AND PHOTOGRAPHY	TIDE STATIONS (In operation at time of photography)	STAGE OF TIDE	MEAN RANGE			
ATLANTIC OCEAN 72K5513R-6515R	Ocean Reef	-0.04MHW	At tide statio 2.33			
72K6343R-6345R	11 11	+0.03MLW				
72K6368R-6370R	11 11	+0.09MLW				
BARNES SOUND						
72K6318R	Basin Hills	+0.29MHW	0.43			
72K6513R-6515R	11 11	-0.22MHW				
72K6554R-6555R	11 11	+0.15MLW				
72K6253R-6255R	11	+0.66MLW				
BLACKWATER SOUND						
72K6319R-6320R 72K6369R-6370R	Barnes Sound	+0.31MWL +0.03MWL				
•	·		•			
,						
			,			
<u>. </u>		ı	1			

REMARKS: The periodic tide on TP-00448 (Blackwater Sound) was masked by non-tidal forces and the mean range was substantially less than two-tenths of a foot. In this situation the mean high/low water datums converge, and for mapping purposes, the mean high and low water lines are indistinguisable. As a consequence, special treatment was given to the portrayal of the shoreline on this map: the mean water level line was mapped in lieu of the mean high water line and shown by a distinative symbol.

NOAA FOR (3-72)	м 76-36D	U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION						
ТР •	-00448	•	RECO	RD OF SURVE	Y USE			
	RIPT COPIES							
	<u> </u>	MPILA	ATION STAGE	s			DATE MANUSCE	RIPT FORWARDED
	DATA COMPILED		DATE	RE	MARKS		MARINE CHARTS	HYDRO SUPPORT
No fir	map copies of TP- nal review.	-0044	18 were f	urnished to	Marine	Chart	Division p	rior to
					,		9/9/76	
II. LANDM	ARKS AND AIDS TO NAVIG	ATION						
1. REP	ORTS TO MARINE CHART D	IVISIO	N, NAUTICAL	DATA BRANCH				
NUMBER	CHART LETTER NUMBER ASSIGNED	È	DATE DRWARDED		•	REM	ARKS	
		1/	27/76	Two (2) die	gitized,	Forms	.76-40 were	submitted
				to Marine	Chart Di	visio	n as final n	eport.
	,		r					
								•
			,					
2. X	REPORT TO MARINE CHAR	T DIVI	SION, COAST	PILOT BRANCH.	DATE FORM	VARDED:	1/27/76	
	REPORT TO AERONAUTICA		RT DIVISION	, AERONAUTICAL	_ DATA SECT	TION. D.	ATE FORWARDED	: <u>.</u>
1. [] 2. []	BRIDGING PHOTOGRAPHS; CONTROL STATION IDENT SOURCE DATA (except for 6	IFICA"	TION CARDS;	FORM NO	S 567 5UBMI	TTED BY	FIELD PARTIES	
4. 🔲	DATA TO FEDERAL RECO							
IV. SURVE	Y EDITIONS (This section	shall b	e completed et		p edition is re) TYPE OF SURVEY	
SECOND	TP.	_ (2)	РН			RE		SURVEY
EDITION	DATE OF PHOTOGRAP	HY	DATE OF FI	ELD EDIT	□n.	□ m.		
	SURVEY NUMBER	(8)	JOB NUMBE	R		_	TYPE OF SURVEY	SURVEY
THIRD EDITION	DATE OF PHOTOGRAP	_ (3) _	PH	ELD EDIT	□ H.	□ RE.	MAP CLASS	FINAL
	SURVEY NUMBER		JOB NUMBE	R			TYPE OF SURVEY	
FOURTH	тР	_ (4)	РН			REV		SÜRVÉY
EDITION	DATE OF PHOTOGRAP	нү	DATE OF FL	ELD EDIT	□ 11.	□m.	MAP CLASS □IV. □V.	FINAL

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
73L2916R	Jewfish Cr. Daybn. 32	73L2917R	Tower
73L2917R	Jewfish Cr. Daybn. 34	73L2917R	Tower
			•
		Ì	
5. GEOGRAPHIC N	AMES: REPORT XX NONE	6. BOUNDARY AN	D LIMITS: REPORT XX NONE

None

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

Sketch Book Pages

Refer to Field Reports bound in this Descriptive Report.

SUMMARY for TP-00444 thru TP-00454

Coastal Zone Map TP-00448 is one of eleven (11), 1:10,000 scale (shoreline type) maps in Job PH-7119. These maps will not be published. Interior detail is limited to a narrow zone of planimetry usually back to and including the first road.

A layout of Job PH-7119 (revised since the aerotriangulation operation) will show the location of the individual maps. A copy of this layout is included in this Descriptive Report.

The maps are intended for planning purposes for the State of Florida and for the construction and maintenance of NOS nautical charts.

The area is covered by aerial photography taken in 1972 and 1973 on color and black-and-white infrared film. The infrared film was tide coordinated.

The field operations consisted of the following:

- 1. Premarking of horizontal control for aerotriangulation.
- 2. Establishment of tidal datums.
- Field Edit.

Horizontal control was extended by analytical aerotriangulation method using the STK stereocomparator.

The shoreline and alongshore details were compiled from tide-coordinated, black-and-white infrared photography using a B-8 stereoplotter and/or graphic methods. The rectified color photography was used as an aid in interpreting cultural features and compiling the limits of vegetation. The interior details were compiled from a stereoscopic examination of the color photography without field edit.

All line work is scribed, approved symbols are shown in the marginal data of the map.

A registration copy of each map is prepared. The registration copy shows additional offshore details such as shoal and

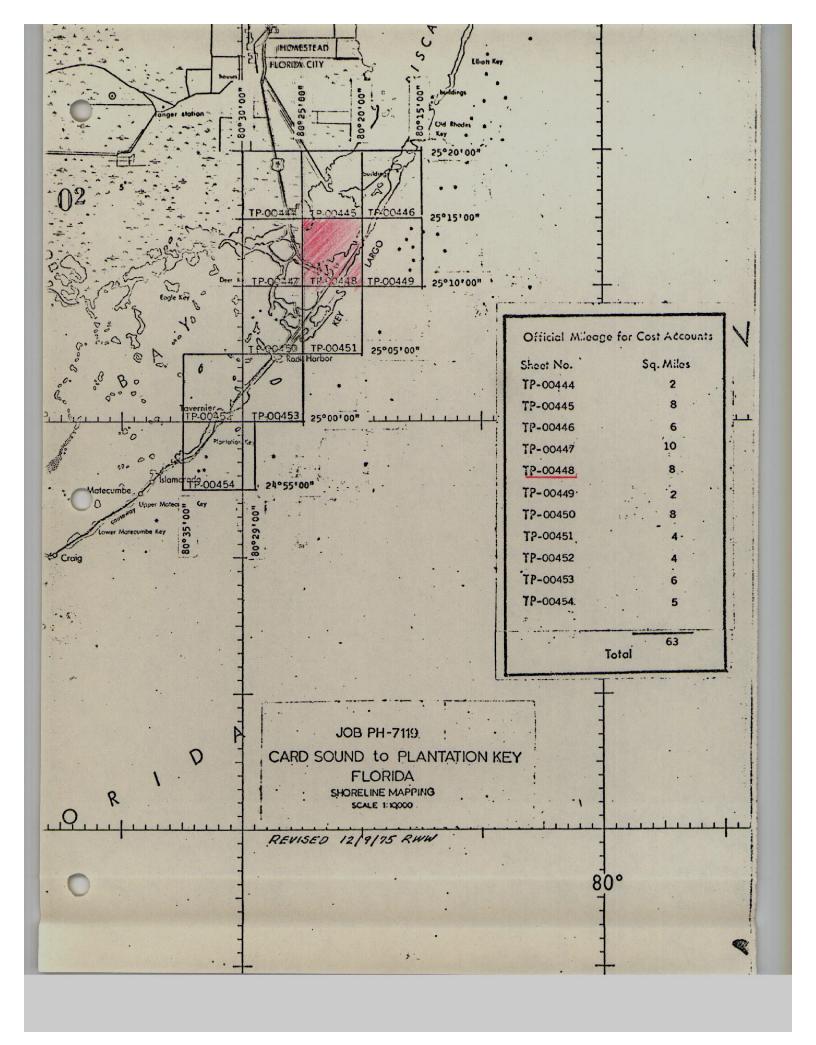
shallow lines used by the Marine Chart Division but not required on the Coastal Zone Maps. This copy of the map is labeled "Registration Copy" in the title block.

The following items will be registered in the NOS Archives:

- 1. A stable base copy of the Registration Copy.
- 2. The Descriptive Report.

The negative of the Registration Copy is filed in the Reproduction Division.

Field records such as field edit sheets, discrepancy prints, field edit photographs, and other field records are filed in the National Archives.



FIELD REFORT

. JOB PH-7119

This report is on work done in accordance with Instructions-field-Job PH-7119; Horizontal Control for Aerotriangulation and Field Support for Aerial Photography; Coastal Boundary Mapping, Card Sound to Plantation Key, Florida. The field work was done during the period 20 July - 7 September 1971.

1. PREMARKING OF CONTROL

One control station, IRVING 1971, was established on Soldier Key. Eighteen stations were paneled for 1:30,000 scale photography. The deviations from the job diagram and target specifications were recommended in the field by Mr. Saperstein, Photogrammetrist and authorized by the Chief, Surveys Planning Branch. The locations of the paneled stations are shown on the chart section accompanying this report.

2. BRIDGING PHOTOGRAPHY

Flight lines are shown on the accompanying chart. Bridging photography was accomplished on March 8, 1971 for lines 30-4, 30-5, and 30-6 under Job PH-7113. Line 30-6 was redesignated 30-1 for Job PH-7119. Line 20-1 was photographed on Aug. 4 and all other lines on Aug. 11 - the only suitable day in the period 4-26 August. This photography was unacceptable and will be rescheduled for February 1972.

3. TIDE-COORDINATED PHOTOGRAPHY

Locations of the tide staffs are shown on the accompanying chart. Lines 30-4 and 30-5 carried over from Job PH-7113 were completed. Lines 20-2 and 30-3 (Outside) were also completed. Clouds throughout the period prevented completing all lines and the job except for 30-4 and 30-5 will be rescheduled for February 1972. The times are summarized below in case the pictures will be used to supplement the future February work.

Recordings entered in the tide volumes, Form 277, were at 5 minute intervals during photography and at 15 minute intervals near photography. Telerances of ± 0.3 ft. for NHW and ± 0.1 ft. for NHW were observed. Wet staff readings - crest, mean, and troughwere recorded while photography was in progress. Eastern Standard Time was used.

Line 30-4. Flown for MHW on March 2, 1971 at 1319-1325 when both MIAMI BISCAYME PAY and CUTLER were in range. The north end-

was flown for MLW at 1325-1335 on August 6 when the MIAMI BISCAYNE BAY staff read 2.3 and 2.2. The south end was flown for NLW at 1425-1435 on August 6 when the CUTLER staff read 2.75 and 2.69.

Line 30-5. MHW North half flowr at 805-815 on August 7 when CUTLER staff read 4.5 to 4.7. South half flown at 1220-1235 on August 7 when the TURKEY POINT staff read 3.15 to 3.05. MHW North half was flown at 1430-1435 on 6 August when the CUTLER staff read 2.73 to 2.69. South half flown at 850-855 on August 11 when the TURKEY POINT staff read 1.65. This was flown at a reduced altitude of 14,000 fact to get under some clouds. A triplicate was flown at 855-900 to get outlying islands which might not have been covered at the reduced altitude.

Line 20-2. MHW The northern two-thirds were flown at 802-815 on August 9 when the OCEAN REEF staff read 4.58 to 4.70. The remainder was flown at 830-840 on August 10 when the ctaff read 4.25 to 4.35. MLW Due to clouds this was flown in three parts. The NE end to the Ocean Reef Club was flown at 1328-1342 on August 7 when the staff read 2.25 to 2.11, the Ne end was flown at 1530 on August 6 when the staff read 2.2, and the south part flown at 955-1001 on 16 August when the staff read 2.30.

Line 30-3 (Outside) NHW Flown at 939-947 on August 11 when the TAVERNIER HAWK CHANNEL staff read 4.00 to 4.12, MLW Flown at 1315-1322 on August 4 when the staff read 2.1.

Line 30-3 (Inside) No photography. Clouds and seasonal high tides during the rest of the period prevented it.

Line 20-1. MHW No photography. MLW Line was flown at 927-945 on August 16 when the RAGGED KEYS staff read 1.8 to 1.75.

Line 30-1. MHW The middle third was flown at 1020-1025 on August 4 when the CARD SOUND staff read 3.7 and the MANATEE CREEK staff read 3.5. The remainder was flown at 1110-1115 the same day when the CARD SOUND staff read 3.6 and the MANATEE CREEK staff read 3.5. MLW No photography.

Line 30-2. Line was flown at 835-842 on August 9 when the CARD Sound staff read 3.6 and the MANATEE CREEK staff read 3.75. Line was unacceptable because of clouds in the middle segment and possible smoke in the northern third. This and the LLW photography were not accomplished due to clouds and seasonal high water.

4. ADDITIONAL PHOTOGRAPHY

Tide coordinated photography was taken on a small shoul about one

mile NNE of the Molasses Reef light. The shoal was photographed at about 0900 on August 10 when the TAVERNIER HAWK CHANNEL staff was in MHW range. It was flown at 1206 on August 16 when the staff read 2.31. This shoal was also photographed in color and false color, but the times were not obtained from the photographer.

FORESHORE PROFILES

Four planetable beach profiles were run within the limits of the job by Mr. Dale Fuller during the photography period. A brief report accompanies the profile sheet.

FIELD RECORDS

All CSI cards, recovery notes, profiles and the original field records for IRVING 1971 were forwarded to 03413 on 1 March 1972. Form 277, Tides Volumes for the MIANI BISCAYNE BAY, TURKEY POINT, and CUTLER Tide staffs were also forwarded on 1 March. The 277's for the other staffs will be forwarded with the report for the February 1972 photography.

Submitted 29 February 1972

John L. Vecelenak John C. Veselenak

Chief, Photo Party 65

FIELD REPORT

JOB PH-7119

This report is on work done in accordance with Instructions-Field-Job PH-7119; Horizontal Control for Aerotriangulation and Field Support for Aerial Photography; Coastal Boundary Mapping, Card Sound to Plantation Key, Florida, dated January 31, 1972. The field work was done during the period 7-23 February 1972.

1. PREMARKING OF CONTROL

Four stations were paneled for 1:30,000 scale-photography. The locations are shown on the chart section accompanying this report.

2. AEROTRIANGULATION PHOTOGRAPHY

Flight lines are shown on the chart. Color photography was accomplished on February 19, 1972 between the approximate times of 1045 and 1230 hours. The skies were exceptionally clear for this area and the ground winds was from the north-west at 20-25 knots all morning. These lines were also flown on February 14, but the photography was unacceptable because of a bad film emulsion.

3. TIDE-COORDINATED PHOTOGRAPHY

Locations of the tide staffs are shown on the chart. The job was completed; photography taken on the 12, 14, 15, 16, and 20, of February. Lines 20-2 and 30-3 were also photographed and portions of the other lines were also partially photographed during August 1971.

Recordings entered in the tide volumes, Form 277, were at 5 minute intervals during photography and at 15 minute intervals near photography. An exception to this is the readings for the MANATEE CREEK and BARNES SCUND staff where the tide varies only a few hundredths of a foot per day. Tolerances of ±0.30 foot for MHW, ±0.20 foot for MWL, and ±0.10 foot for MHW were observed. Wet staff readings - crest, mean, and trough - were recorded while photography was in progress. Eastern Standard Time was used.

Line 20-1. MHW Completed at 1050 on February 14 when the RAGCED KEYS staff read 3.38-3.26. MLW Completed at 1500 on February 14 when the staff read 1.80.

Line 20-2. MHW Flown at 1035-1052 on 16 February when the OCEAN REEF staff read 4.75-4.61. This line was also flown at 1006 on February 15, but the pilot recommended it be rescheduled. MLW Flown at 1338-1350 on February 14 when the staff read 2.31-2.32.

Line 30-1. This line is controlled by three staffs, the WANATEE CREEK staff has a MWL datum and the EAST ARSENICKER and CARD SOUND staffs have mean high and mean low datums. MHW The line was flown at 1120-1142 on 14 February. At this time the EAST ARSENICKER staff read 3.95-3.86 and the MANATEE CREEK staff read 3.54-3.57(MWL). The line was flown again at 1445 on 14 February when the CARD SOUND staff read 3.8 and the MANATEE CREEK staff read 3.60. MLW Was flown at .945-1000 on 20 February when the CARD SOUND staff read 3.2 and the EAST ARSENICKER staff read 2.78-2.81.

Line 30-2. MHW It was completed at 1250 on February 14 when the TAVERNIER, FLA. BAY staff read 3.05 (MWL Range), the BARNES SOUND staff read 3.92, the MANATEE CREEK staff read between 3.6 and 3.5, the CARD SOUND staff read 4.0 and the EAST ARSENICKER staff read 3.65. MLW Completed at 0945 on February 20 when the CARD SOUND staff read 3.20 and the EAST Arsenicker staff read 2.77-2.78.

The BARNES SOUND staff read 0.31 foot higher than its 3.61 Mean Water Level. Since the shoreline in this area is overhung with mangrove this section of the line was not rescheduled.

Line 30-3 (ATLANTIC SIDE). MHW Completed at 1107 on February 16 when the TAVERNIER, HAWK CHANNEL staff read 4.62-4.43. MLW Completed at 1412 on February 14 when the staff read 2.30-2.28.

Line 30-3 (Florida Bay Side). MWL The north side was completed on February 12 at 1150 hrs. when the BARNES SOUND staff read 3.78 and the TAVERNIER, FLA. BAY staff read 2.72. The south end was in range at 1412 on February 14 when 30-3(ATLANTIC SIDE) MLW was flown. The south half was also in range at 1107 on February 16 when 30-3 NHW was flown although the staff was not manned at that time.

4. ADDITIONAL PHOTOGRAPHY

Special photography over Florida's test area was flown between 1005 and 1240 on 20 February with various films. The staff at the EAST ARSENICKER gage was observed and its value recorded at 5 minute intervals during this period. The staff at the

mouth of the northern cut (MANGROVE POINT) was observed and its value recorded at 5 minute intervals from 1135 to 1300 hours. The latter staff values are listed in the EAST ARSENICKER Form 277.

5. FORESHORE PROFILES

Four planetable beach profiles were run within the limits of the job during the photography period of August 1971. The few small beaches found for the profiles were of coral, and since erosion is not considered a problem, these profiles were not rerun.

6. MONITORING OF TEMPORARY TIDE STAFFS IN THE JOB AREA

On February 15 verbal instructions were received from the Chief, Tidal Datum Planes: Temporary staffs were to be put in at 11 selected locations and observed every 12, 15, or 30 minutes through one high and one low water. All 11 need not be observed simultaneously and the actual location could be varied slightly. Four were observed on the 16th, two on the 17th., 1 on the 20th., and four on the 21st. The chart accompanying this report shows the exact location of each staff.

7. FIELD RECORDS

All CSI cards, Form 277's and a copy of the records from the 11 tide staffs were sent to C3413 on 13 March 1972. The original field records for the 11 staffs were forwarded to C3311 on 23 February 1972. Profiles and recovery notes were sent to C3413 on 1 March 1972 with the report for work done on this job in August 1971.

Submitted 14 March 1972

John C. Veselenak

Chief, Photo Party 65

John C. Veselenah

Photogrammetric Plot Report
Hillsboro Inlet to Card Sound, Florida
Job PH-7113

and

Card Sound to Plantation Key, Florida Job PH-7119

21. Area Covered

This report covers an area on the east coast of Florida immediately south of Hillsboro Inlet to the southwestern end of Plantation Key. Job PH-7113 and Job PH-7119 are combined in this one report because the southern portion of Job PH-7113 is included in the block adjustment of Job PH-7119.

Job PH-7113 consists of twenty (20) 1:10,000 scale sheets: TP-00416 through TP-00420, and TP-00422 through TP-00436.

Job PH-7119 consists of twelve (12) 1:10,000 scale sheets: TP-00444 through TP-00455.

Subsequent to the initial bridging in this area, three small areas were re-bridged using new photography. The reports are attached:

- (1) Port Everglades, Florida
- (2) Miami to Mangrove Point, Florida
- (3) Hollywood to Miami Beach, Florida

22. Method

Eleven (11) strips of photography were bridged using aerotriangulation methods. The points were made between strip No. 1 of PH-7113 and strip No. 2 of the Jupiter Inlet to Hillsboro Inlet, Florida report to the north of this area.

Due to the placement of control in relation to flight lines and due to large areas of water coverage, two block adjustments were made. Strip No. 2, No. 3, and No. 4 comprised one block. Strip No. 7, No. 9, No. 10, and No. 11 comprised the other block. Attached is a sketch showing the location of the strips and the blocks.

Image points were located to rectify photographs for orthophoto, nautical, and small craft charts. All points were drilled by the PUG method. Closure to control has been noted on the read-outs. A sketch is attached which shows the control used in the strip and block adjustments. All points were plotted on the Florida East Zone Plane Coordinate System using the Coradomat Plotter or the Calcomp Plotter.

Ratio points were located on twenty-eight (28) strips of infrared contact prints. Additional ratio points were located on contact prints which have a large portion of water coverage so that they could be individually enlarged to scale. A sketch showing the location of the infrared photographs is attached.

23. Adequacy of Control :

The control was adequate. Horizontal control was pre-marked on strip No. 1, No. 2, No. 3, No. 4, No. 5, and No. 6. Because of the placement of flight lines in relation to control, it was necessary to extend Strip No. 5 one model past its terminal control station in order to have an area of common coverage with strip No. 6. The points were located in this area and the point 544801 was used as a terminal control point for strip No. 6.

Most of the horizontal control for Strip No. 7, No. 8, No. 9, No. 10, and No. 11 was pre-marked for color photography which was flown on August 4, 1971, and August 11, 1971. This photography was not used for bridging. The positions of the pre-marked control stations were transferred, using PUG methods, to color infrared photography which was flown on March 5, 1973, and March 18, 1973.

The following control station positions were transferred from photographs 71L(C)8370 through 71L(C)8382:

Irving 1971
Mangrove (USE) 1930 Sub Point A
Sands Cut RM2, 1849-1947 Sub station

The following control station positions were transferred from a roll of color photography which was not indexed (Spot No.100-691A) LC-20:

Rubi, 1930-1948 Reset
Man, 1930
Angelfish Key RM3, 1853
Narrow Point, 1854
Long Sound 1961
Snipe Pt., 1934, substation
Knowlson, 1935, substation
Hull Key, 1852
Rock Harbor 2, 1961
Lower Sound Point, 1853 substation
Sub Station, Key Largo Cable Visions Inc., Taller Mast, 1961
Largo, 1962
Low 2, RM2, 1934
Planter 2, RM4

The following control station positions were transferred from photographs 72L(C)8691R thru 72L(C)8698R:

Tavernier 1935 Snake 1934 Sub. Sta.

Turkey Pt. 2, RM2 was transferred from photograph 71E(C)9595.

Cape Florida Old Tower Finial Sub Station A was transferred from photograph 71E(C)9201.

Lower Sound Point 1853 sbu. station was not used in the adjustment because the field party advised that it was questionable and should be used with caution. Sub. station Key Largo Visions, Inc., Taller Mast, 1961, could not be used because one of its azimuth stations (Key Largo Cable Visions, Inc. Shorter Mast) appears to have a bad published position. To date, this has not been resolved by the Geodesy Division. Turkey Point 2, RM2 was a very poor point to transfer, and, therefore, it was not used as control in the block adjustment in that area.

Part-way through the compilation phase of this project, it was determined that the published control positions in the area of this report were in error approximately - 4 feet in X and -10 ft. In Y. Therefore, Strip No. 1, No. 2, No. 3, No. 4, No. 5, No. 6, and No. 8 are adjusted to the old published control positions. This area includes T-sheets TP-00416 through TP-00420 and TP-00422 through TP-00432.

Strip No. 7, No. 9, No. 10, and No. 11 are adjusted to new preliminary control positions which were furnished by Geodesy on May 29, 1974. Geodesy Division stated this preliminary control will be within one (1) foot of the final adjustment. They also said to base non-main scheme stations on the nearest main scheme stations. This was approved by the Coastal Mapping Division.

Since stations established in 1971 and later have positions which were determined by a different adjustment than stations which were established before 1971, it was necessary that the corrections for non-main scheme stations of 1971 and later be based on the new preliminary control of the nearest main scheme stations of 1971 and later. In like manner, pre-1971 non-main scheme stations are based on the amount of change of the nearest pre-1971 main scheme station.

The compiler was advised to make a graphic adjustment on TP-00430 so it will junction well with TP-00433. Also, TP-00432 should be graphically adjusted so it will junction well with TP-00433, TP-00434, and TP-00435.

A listing of closures to control is included on an attached sheet of control stations. The station with the largest residual is Narrow Point 1854, with 1.808 feet in X and 1.267 feet in Y.

24. Supplemental Data

USGS Topographic Quadrangles and NOS Nautical Charts were used to obtain vertical control for bridging.

25. Photography

The following RC-8 color photography was used for bridging:

1:20,000 scale

Strip No. 4 71E(C)9201-9215 Strip No. 8 73L(C)2871-2884R Strip No. 9 73L(C)2893-2924R

1:30,000 scale

Strip No. 1 71E(C)9120-9135 Strip No. 2 71E(C)9562-9574 Strip No. 3 71E(C)9576-9586 Strip No. 5 71E(C)9536-9545 Strip No. 6 71E(C)9588-9602

1:40,000 scale

Strip No. 7 73L(C)2935-2945R. Strip No. 10 73L(C)2952-2968R Strip No. 11 73L(C)2785-2797R

The quality and definition of the photography was adequate.

Respectfully submitted,

Victor McNeel

Approved and forwarded:

John D. Perrow, Jr.

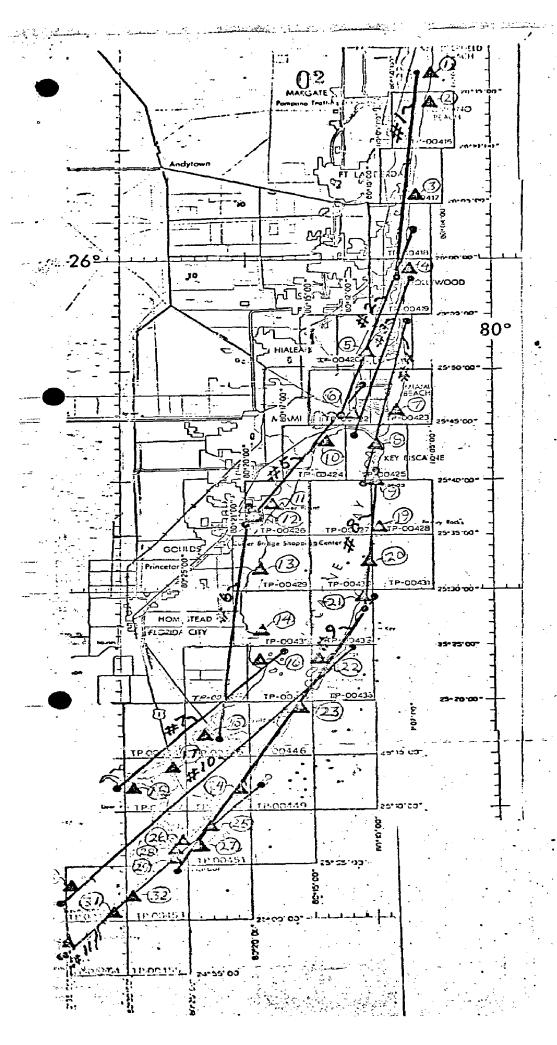
Chief, Aerotriangulation Section

CONTROL STATIONS

•		4,		•
			<u>residuals</u>	
i.	(027100)	Turcle 1929	-0.706	-0.115
2.	(023102)	Pompano, 1928, subpoint B	1.488	-0.229
3.	(029100)	South Jetry, 1938	-1.134	0.176
4.	(034101)	Halland, 1928	0.317	-0.007
5.	(567101)	Causeway, 1934	0.027	-0.012
6.	(562101)	Point View, 1934	0.000	-0.181
7.	_(207100)	Base, 1934	0.112	0,142
- 8.	(204100)	Kev Biscayne North Base,		
-	•	1849	-0.158	0.033
9.	(201101)	Cape Florida Old Tower		
	•	Finial, subpoint A	-0.156	0.002
10.	(538102)	Pan American, 1935,		
	•	Target 2	0.0 00	0.000
11.	(534101)	Naco 1934, subpoint A	0.000	0.000
12.	(544801)	Tie point from strip #5		
	•	used as control for strip#6		0.025
13.	(591100)	Black Point 3	0.351	-0.066
14.	(595101)	Turkey Point No. 2, 1930,		
		RM No. 2	-0.229	0.073
15.	(940100)	• <u>-</u>		
	(602100)	Narrow Point 1854	-1.808	1.267
16.	(944100)	Man 1930.	0.222	-0.009
17.	(960100)	Long Sound, 1961	-0.168	-0.075
18.	(936101)	Snipe Point, 1934, sub-	0.015	0 0 01
. .		station	-0.215	-0.201
19.	(878101)	Irving, 1971, substation	0,687	-0.080
20.	(875102)	· · · · · · · · · · · · · · · · · · ·	0.007	0 100
0.1	(0701 01 \	subpoint B	-0.826	0.125
21,	(872101)	Sands Cut RM 2, 1849-1947	0.2 96	0 0/.0
22	(001100)	substation	-0.102 · ·	-0.049
	(901100)	Rubi, 1930-1947, reset	-0.303	-0.134
	(905101)			
		Knowlson, 1935 substation Hull Key, 1852	-0.053	0.103
	•	Rock Harbor 2, 1961	0.364	
		Lower Sound Point, 1853	0.304	-0,204
41,	(022101)	substation **		
28.	(923101)			
20,	(343101)	Visions Inc., Taller Mast,		•
		1961 **	•	
29.	(924100)	Largo, 1962	-0.210	0.103
	\		·	

30.	(967101) Low 2, RM 2, 1934	0.042	0.215
	(692100) Tavernier, 1935	0.308	-1.325
32.	(793101) Planter 2, RM 4	-1.476	1.087
33.	(695101) Snake,:1934, subpoint	0.128	0.174

** means not used in adjustments



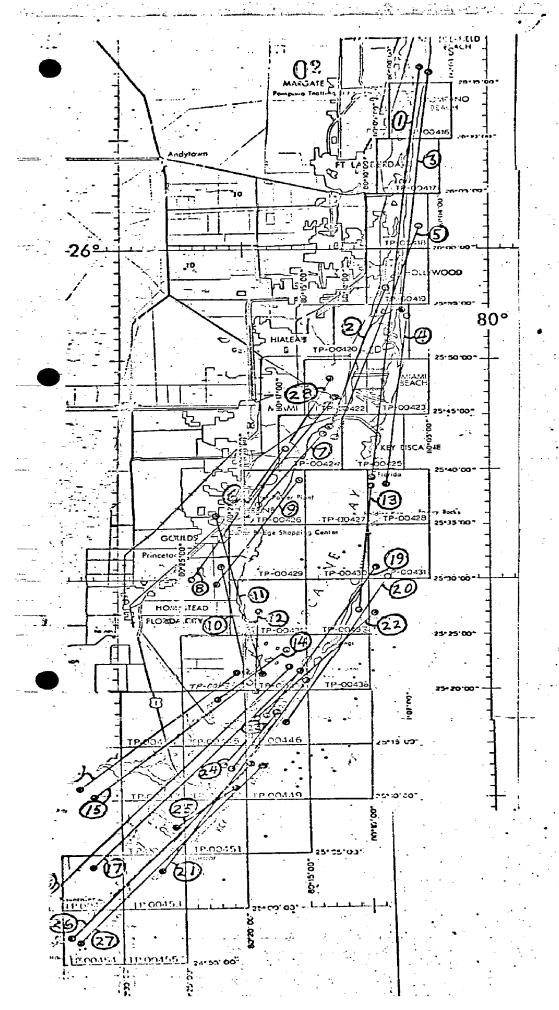
JOB PH-7113 AND JOB PH-7119

HILLSBORO INLET
TO
PLANTATION KEY,
FLORIDA

CONTROL STATIONS USED IN THE ADJUSTMENTS

INFRA-RED CONTACT PRINTS

- 71K 5632R 5660R MLW 1.
 - 71K 5662R 5672R MLW -2.
 - 71K 5750R 5766R MHW
 - 71k 5795R 5806R MHW 4.
 - 71K 5815R 5829R MHW 5.
 - 71L 8501R 8509R MLW 6.
 - 71L 8512R 8520R MLW 7.
 - 71L 8571R 8580R MHW 8.
- 71L 8523R 8530R MLW . 9.
- 71L 8783R 8791R MHW 10.
- 71L 8584R 8593R MHW 11.
- 12. 71L 8532R - 8537R MLW
- 71L 9067R 9080R MLW
- 13.
- 71L 8337R 8341R MHW 14.
- 72K 6287R 6298R MHW 15.
- 72k 6572r 6584r MLW 16.
- 72K 6546R 6563R MLW 17.
- 18. 72k 6311r - 6330r MHW
- 71L 8544R 8559R MLW 19.
- 71L 8648R 8662R MLW 20.
- 21. 72K 6480R - 6499R MHW
- 22. 71L 8697R - 8705R MHW
- 72K 6344R 6350R MLW 23.
- 24. 72K 6253R - 6255R MLW
- 72k 6420r 6423r MHW 25.
- 26. 72K 6501R - 6515R MHW
- 72K 6368R 6382R MLW 27.
- 71K 5847R 5856R MHW 28.



JOB PH-7113 AND JOB PH-7119

HILLSBORO INLET
TO
PLANTATION KEY,
FLORIDA

INFRA-RED CONTACT PRINTS RATIOED FOR COMPILATION

FLORIDA – NOAA Coastal Boundary Mapping Program

Horizontal Control

Map TP- 00448

Station	NOS Geodetic Data Reference for Description, Positions, Coordinates and Azimuths
KNOWLSON 1935	Book 424 P. 15, 28, 31, 33; GP 323, Fla. Vel 1; PC Fla. E. Zone P. 79
UPPER SOUND POINT 1853	Book 424 P. 16, 31, 38; GP 360 Fla Vol 1; PC Fla. E. Zone P. 90
	•

FLORIDA – NOAA Coastal Boundary Mapping Program Vertical Control – Geodetic Map TP – 00448

Geodetic	Elevations (feet)	
Bench Mark	SLD 1929	Condensed Description
M 274		C&GS disk stamped N 274 1966; set vertically in the SW face of a 6X10 foot concrete block for water line.
R 274×		C&GS disk stamped R 274 1966; set in top of the north corner of a 7 ft. concrete base with manhole for water line.
Z 316 [^]		C&GS disk stamped Z 316 1970; set in top of the east corner of the concrete b ase for a 10 ft. high concrete tank.
TIDAL STA- TIDAL BM 1	1	C&GS tidal disk stamped NO1 1935; set in a sidewalk, 26 ft. SW of center line of road leading NW.
E 275 ×		C&GS disk stamped E 275 1966; set in top of the SW wall of a 5 ft. square concrete box with wooden cover, 25 ft. SE of center line of highway.
Knowlson >		C&GS tringalation disk stamped KNOWLSON 1935 1961; 53.5 ft. NE of power pole #219, 2.3 ft. SE of a metal witness post.
F 275 ×		C&GS disk stamped F 275 1966; in top of the W corner of a 5.5 ft. square concrete box with wooden cover.

TP-00448 Compilation Report April 1975

31. Delineation

The tidal datum lines were compiled graphically from office interpretation of the tide-coordinated, black-and-white infrared photography. This photography was controlled by common planimetric detail compiled from the color photography and map points determined by aerotriangulation.

The rectified color infrared photography was used as an aid for interpreting culture features and compiling and channel lines, shoal, shallow lines, and small scattered mangrove islets.

The rectified color photography was also used for the compilation of the interior details.

32. Control

See Photogrammetric Plot Report.

33. Supplemental Data - None.

34. Contours and Drainage

Contours are inapplicable. Drainage was compiled from a stereoscopic examination of the color printons and graphically compiling from the rectified color photography.

35. Shoreline and Alongshore Features

The photography was adequate for the interpretation of the shoreline and alongshore features.

36. Offshore Details

No unusual problems were encountered.

37. Landmarks and Aids

All landmarks and aids to navigation will be located or verified during field edit. Two landmarks and one light were located during bridging, and will be verified in field edit.

38. Control for Future Surveys - None.

39. Junctions

Refer to NOAA Form 76-36B for final junctions.

40. Horizontal and Vertical Accuracy.

- This map complies with the accuracy requirements for the Florida Coastal Zone Mapping Program.
 - 41. thru 45. Inapplicable.
 - 46. Comparison with Existing Maps

A comparison was made with the following U.S.G.S. quads:

Blackwater Sound, Florida 1947, P.R. 1969, 1:24,000. Garden Cove, Florida, 1947, P.R. 1969, 1:24,000.

Significant differences were noted on the west side of Key Largo between 25°13'00" and 25°15'00".

47. Comparison with Nautical Charts:

A comparison was made with the following Nautical Charts:

11451, 1:80,000, 12th Edition, September 1974; 11463, 1:40,000, 7th Edition, August 1974; 1249, 1:80,000, 12th Edition, April 1973.

Significant differences were noted on the west shore of Key Largo where new channels along the shoreline have been constructed.

Respectfully submitted,

Peter N. Gibson

Approved & forwarded:

Jeter P. Battley, Jr.

Chief, Coastal Mapping Section

FIELD EDIT SHEET, MAP TP-00448, JOB PH 7119

51. METHOD

The shoreline was inspected from a small boat while cruising just off shore. Notes regarding apparent and fast shoreline and along shore details were made on the photographs and discrepancy print.

Two traingulation stations were recovered.

Seven bench marks were recovered and identified.

Three tide gages fall within the limits of this manuscript. Basin Hills tide gage is not in place at this time and no tidal bench marks were recovered. the area is under construction and has been filled. Barns Sound gage is also not in place, but one tidal gage was identified. Photo Party 65 installed a gage at Garden Cove at the time of field edit. this gage was identified on 73L2917R with a tidal bench mark.

Two Towers are recommended for landmarks.

All known aids were located or identified.

All field edit data will be found on the discrepancy print, field edit sheet and the photographs.

52. ADEQUACY OF COMPILATION

Adequate after application of field edit.

53. MAP ACCURACY

No test required.

54. RECOMMENDATION

None.

55. EXAMINATION OF PROOF COPY

Not required.

Submitted 3/22/75

Robert R. Wagner

Chief, Photo Party 60

ADDENDUM 1, TP-00448 PH 7119

Main Key, Barnes Sound Tide Gage was installed after field edit. It along with Tidal Bench Mark 1 was identified on photograph 73L2959R.

8/20/75 Submitted

Robert R. Wagner Chief, Photo Party 60

Review Report TP-00448

July 1976

61. General

The map manuscript for Coastal Zone Map TP-00448 was inspected as a Class III map (compilation, discrepancy print, and report) and reviewed as a Class I map by the Quality Control Group. The review consisted of an examination of the map manuscript, the field edit and its application, the reproduction negatives, and the Descriptive Report.

The proof copy of this map was edited by the Quality Control Group before making final copies. This edit comprised a thorough inspection of map details to verify the accuracy of reproduction with reference to the map manuscript and the quality of reproduction. In addition, the proof copy was examined by the following sections:

Coastal Mapping - map details Staff Geographer - geographic names Coastal Surveys - horizontal and vertical control

The field reports dated February and March 1972 state that four (4) plane-table beach profiles were run. One (1) of these profiles is within the limits of TP-00448 and was used to verify the tidal datum lines.

62. Cartographic Comparison

Comparison was made with the following USGS quadrangle maps:

Blackwater Sound, Florida, 1947, photorevised 1969, 1:24,000 scale.

Garden Cove, Florida, 1974, photorevised 1969, 1:24,000 scale.

Comparison was made with the following nautical chart:

11463 (formerly C&GS 849), 7th Edition, dated August 3, 1974, 1:40,000 scale:

Significant changes were noted on the quadrangle and chart between latitudes 25°13' and 25°15'. These changes are due to construction in the area.

Copies of the Field Editors' notes about a wreck andMLW area shown on the chart but not shown on TP-00448 are attached to the Chart Maintenance Print.

63. thru 65. Inapplicable.

66. Adequacy of Results and Future Surveys

Coastal Zone Map TP-00448 complies with the Instructions for NOS Cooperative Boundary Mapping, Job PH-7000, and the National Standards of Map Accuracy.

Submitted by:

Donald M. Brant

Approved and Forwarded:

Chief, Photogrammetric Branch 🎉

Chief, Coastal Mapping Division

27 Jan. 1975

GEOGRAPHIC NAMES

PH-7119 (Card Sound to Plantation Key, Florida)

TP-00448

Atlantic Ocean

Barnes Sound

Big Cove \

Blackwater Sound *

Cormorant Rookeries -

Cove Point \

Cross Key≺

Everglades National Park $^{ imes}$

Garden Cove

Garden Cove (water body) \times

Gulfstream Shores ∧

Hawk Channel

Jewfish Creek

John Pennekamp Coral Reef State Park

Key Largo 📉

Lake Simmons >

Lake Surprise *

Lake Surprise Estates 🚩

Approved by:

Staff Geographer-C51x2

Largo Point X

Main Key√

Manatee Bay

Ocean Isle Estates ×

Point Mary ×

Rattlesnake Key $\hat{\xi}$

Sexton Cove

Snake Point

Thursday Cove *

Thursday Point

Upper Sound Point +

	14-600	STATO SNILLED					# CO		
SVY TP- JOB PH- PRJ R	8 * NONFLOA	AIDS FOR E CHARTED	* * * * SEC	PT UNI STAT OCALIT	MD R LORI ATTL	CKV IL	MO.	PAGE 1 GINATING	OF AC
103 3H2	TEO SWING	NOT BEEN I	NSPECTED :	101	A20 TO			307VA &	SHOWN
CHARTING	RECORD REA	CRIPTION SON FOR DELETION ATTON NAMES IN ()	TAU I	F0 SITI	E G C C	C+C+++++++++++++++++++++++++++++++++++		OD AND DATE LOCATION E * FIELD	* CHARTS *AFFECTED
* *	BISCAYNE Long Key		* *			*			1
6HT *	1 A A A A A A A A A A A A A A A A A A A	0 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		8 6	60 • 2.9 •	2002		-L-8-7/16	ij or in c
**************************************					1785.3	21.9		01110 +	+ 11463 + DITTO
> M	DITTO		40	7 4 4	676 139	1.9		DITTO	* 01110
* * NG X:0	t F i t ⊨		1 1 1 1 1	36.t	26.	1		07/17/7	* 01TTO
¥ 4 4 4 4	ITTO		11.0	10.5	8 2 4	6.1	 	07/11/77	* DITTO
0 Y B N . *	NO ON THE	0	* 25 11 * 80 23	1 70	1388.3 690.0	21.9		73LC2917R * P-L-8-3 * 07/17/75	* OITTO
i i i i i i i i i i i i i i i i i i i	DITTO		* 25 T	25.00	392.0 624.2	21.9		1110 *	* DITTO
11GHT #	01110		* * 80 23	• (1849 9 996 6	200 +		OIIIO *	3201110
0 1 0 1 0 1 0 1 0 0			* *					*	
	TYPE OF ACTION	4Z	MES OF RE	SPONSIBL	E PERS	OXNEL	*	ORIGINAT	00
		* *					* * *		
POSITIONS AND/OR A FIELD A ACTI	TONS DETERMINED FOR VERIFIED BY LD AND OFFICE ACTIVITIES	* * * *	ROB CLURE AND	VERIFIED I. HAAS J. TAYLO	AGNER BY J.	BATTLEY	* * * *	JELD REPRESENTA OFFICE COMPILEI DIGITIZER DATA PROCESSE	TATIVE LER SER

76540 LISTING	COASTAL	MAPPING DIVISI	ON PARTH	ENT OF CO	MERCE		
> a 7 2	* * * *	ARKS FOR CHAR O BE CHARTED	* 2PT U	801121	ILLE, MO KE KEY	* 0RIGI	O F
CHARTING*	FOLLOWING OBJECTS HAVE BEEN * DESCRIPTION NG* RECORD REASON FOR DELETION * PUIT TRIANGULATION NAMES IN (# LATITUDE	A&D TO DET	H H O H H H H H H H	FIR VALUE AS L HOD AND DATE F LOCATION CE # FIELD	ANDMARKS * CHARTS * A CHARTS
TOMER	OVERHEAD CABLE HT=136 FT. A90VE	TOWERS E WATER	25 11 41 80 23 13.28	371.8	6 +73LC29	178 * V-VIS	5 + 11451
TOWER *	EAD CABLE 5 FT. ABOV	N A	5 11 5. 0 23 26.		6 *73LC29	V-VIS 7/17/7	11
						*	*
						* * *	8 8 8 9
				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			*
•					 		4
					* *	* *	; * *
*					1		* * * * * * * * * * * * * * * * * * * *
# 					*	* !	*
* *					* *	*	+ #
*				1 1 1 1 1 1 1 1	* 1	* 1	† † † †
• •				•	* *	* *	* *
	TYPE OF ACTION	EAN	ES OF RESPONSIBL	E PERSONNE		ORIGINA	T 0R
OBJECTS	S NOW 3 OSIDERS NI	* CEAMARD *	RO3ERT R	AGNER	1 * *	FIFI	1
H 0	US DETERMINE VERIFIED BY	* 4 * MCCL	FRI B.	AGNER 3Y J. BAF	* * * * * * * * * * * * * * * * * * *	OO 3	SENTATIVE MPILER
1	ON V	*	I HAAS		*	DIGITIZE	OZ.

National Archives Data TP-00448

- 1 Discrepancy print (paper copy)
- 1 Field edit sheet (stable base copy)
- 1 NOAA Form 76-36 C (History of Field Operations)
- 2 NOAA Forms 76-40 (Nonfloating Aids or Landmarks for Charts)
- 2 Pages of sextant fixes

Photography:

72K6343, 6344, 6513 73L2912R, thru 2917R, 2960R (two of 2912)

į