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NOAA FORM 76-35

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

# DESCRIPTIVE REPORT

Type of Survey Coastal Zone Map
Job No. PH-7.113 Map No. TP00429
Classification No. Final Edition No
Field Edited Map
LOCALITY
State Florida
General LocalityQade .County
LocalityCutler.Ridge.to.Fender.Point
19 71 TO 1975
REGISTRY IN ARCHIVES
DATE

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

NOAA FORM 76-36A U. S. DEPARTMENT OF COMMERCE (3-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	TYPE OF SURVEY	SURVEY TP- 00429
	☑ ORIGINAL	MAP EDITION NO. (])
DESCRIPTIVE REPORT - DATA RECORD	RESURVEY	MAP CLASS Final
	nëvised	JOB PH-7113
PHOTOGRAMMETRIC OFFICE	<del></del>	ING MAP EDITION
Bookwills Manuland	TYPE OF SURVEY	JOB PH
Rockville, Maryland	ORIGINAL ORIGINAL	MAP CLASS
OFFICEMIN-CHARGE	RESURVEY	SURVEY DATES:
Cdr. James Collins	REVISED	19TO 19
I. INSTRUCTIONS DATED		
1. OFFICE General Instructions-OFFICE-NOS Cooperative	Aerial photograph	FIELD
Coastal Boundary Mapping, Job PH-7000, 12/9/75		
Supplement 1, 11/4/74	Supplement II, 3/	26/70
Supplement III, 10/24/74	Supplement IIÍ, 8	
NOTE:Office and field edit instructions(1975)		00 General Instruc-
incorporate applicable prior operational	tions for Florid	a Coastal Zone
instructions.	Mapping) 1973	
II. DATUMS		
1. HORIZONTAL: X 1927 NORTH AMERICAN	OTHER (Specify)	
MEAN HIGH-WATER	OTHER (Specify)	
MEAN LOW-WATER		
2. VERTICAL: MEAN LOWER LOW-WATER		
MEAN SEA LEVEL		
3. MAP PROJECTION		GRID(S)
Transverse Mercator	Florida	ZONE East
5. SCALE	STATE	ZONE
1:10,000		
OPERATIONS	NAME	DATE
J. AEROTRIANGULATION BY	McNeel/Raborn	10/73
METHOD: Analytic LANDMARKS AND AIDS BY	Inapplicable	
2. CONTROL AND BRIDGE POINTS PLOTTED BY	D. Phillips	11/73
метнор: Coradomat снескер ву	Inapplicable	
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY	Inapplicable	
COMPLATION CHECKED BY		
INSTRUMENT: CONTOURS BY	Inapplicable	
SCALE: CHECKED BY  4. MANUSCRIPT DELINEATION PLANIMETRY BY	S. Solbeck	9/74
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY	R. Rich	11/74
CONTOURS BY	Inapplicable	
METHOD: Graphic CHECKED BY		
SCALE: 1:10,000 HYDRO SUPPORT DATA BY	Inapplicable	
SCALE: 1:10,000 CHECKED BY		
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY	J.P. Battley,Jr.	12/74
6. APPLICATION OF FIELD EDIT DATA	R. Rich	7/75
CHECKED BY	P. Dempsey J.P. Battley,Jr.	7/75 7/75
7. COMPILATION SECTION REVIEW BY  8. FINAL REVIEW BY	D. Brant	1776
8. FINAL REVIEW BY 9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY	DI DIGIL	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY	D. Brant	2/76
11 MAD REGISTERED - COASTAL SURVEY SECTION BY	P. CATOR	2/76

NOAA FORM 76-36B (3-72)		,		N	ATIONAL OCEA	U. S. DEPA		OF COMMERCE
		_				NA	TIONAL	OCEAN SURVE
TP-00429		C	OMPILATIO	N SOU	RCES			
1. COMPILATION PH								
CAMERA(S) Wild			TYPE	TYPES OF PHOTOGRAPHY		TIME REFERENCE		ENCE
E&L 6" focal			LEGEND					
TIDE STAGE REFERE			(0) (0)	LOR	R	Eastern	,	X STANDAR
PREDICTED TIDE			(P) PA	NCHROM	ATIC	MERIDIAN		- ANDARI
TIDE CONTROLLE		нү	(I) IN F	RARED	B&W	75th & 6	0th	X DAYLIGH
NUMBER AND	TYPE	DATE	TIMI	<u> </u>	SCALE	ST	AGE OF T	IDE
73E(C)9026R-9	029R	6/16/73	0926		1:40,000	The stage	of ti	de is
	_				,	inapplica		
						color pho		
71L8574R-8580	ь ,	8/7/71	0914		1.25 000	0-5		11
71L8526R-8530		8/6/71	1526		1:25,000	Refer to:		rrowing
/ I LO	r.	0/0//I 	1520		1:25,000	page for informati		
*NASA photogr	anhs 270					Intormati	on.	
and 383	αρπ3 )/0	2/18/71	(not av	ailah	le) 1:60,0	nd		
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REMARKS								
*Photography	used for co	ompiling I	imits of	shoa I	west of F	eatherbed B	anks.	
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2. SOURCE OF MEAN		- · · <del>-</del> ·						
The source of		_		the t	ide-coordi	nated black	-and-w	hite
infrared phote	ography lis	sted in it	em I.					
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Where the sho				ion,	such as ma	ngrove, the		
apparent shor	eline symbo	ol was use	d.					
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SOURCE OF MEAN	LOW-WATER O	R MEAN LOWER	LOW-WATER	LINE:	·			
of	+ ho monu la					ومالموالية	المأداء المسا	<b>.</b>
he source of nfrared photo				e tio	е-соогатла	ted black-a	na-wni	ţe
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CONTENDODADY	WYDDOCD A PUIS	" CHOVEVE	4 mm/m /f					
CONTEMPORARY						r pnotogrammetric	survey info	ormation.)
SURVEY NUMBER	DATE(S)	SURVEY	OPY USED	SURVE	YNUMBER	DATE(S)	SURVEY	COPY USED
	1	ſ		ſ			ſ	

Inapplicable 5. FINAL JUNCTIONS EAST SOUTH west No contem-TP-00430 TP-00432 porary survey TP-00426 REMARKS 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 = 00429

	IP = 00429		
LOCATION AND PHOTOGRAPHY	TIDE STATIONS (In operation at time of photography)	STAGE OF TIDE	MEAN RANGE
INTERIOR WATERS (BISCAYNE BAY)			
7118574R-8580R	Cutler, Biscayne Bay	+0.12 MHW	2.00'
71L8526R-8530R	Cutler, Biscayne Bay	+0.10 MLW	
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#### REMARKS:

There is no tide information available for the NASA photography.

NOAA FORM 76_36C (3_72)		NATIONAL OCE	ANIC AND ATMOSPHERI	ENT OF COMMERCE C ADMINISTRATION AL OCEAN SURVEY
TP-00429	HISTORY OF FIELD	OPERATIONS		
I. X FIELD INSPECTION OPERATION	i *1971 ∑ FIEL:	D EDIT OPERATION	1975	
OPERATION	ON		NAME	DATE
1. CHIEF OF FIELD PARTY		R.R. Wagne	ar	,
	RECOVERED BY	R.R. Wagne		1/75
2. HORIZONTAL CONTROL	ESTABLISHED BY	None	<u> </u>	<del>  ''''</del>
	E-MARKED OR IDENTIFIED BY	None	<del></del>	<del></del>
	RECOVERED BY	R.R. Wagne	<u> </u>	1775
3. VERTICAL CONTROL	ESTABLISHED BY	None	<del></del>	
_	ETATED BY	R.R. Wagne	er	1775
RECOVE	RED (Triangulation Stations) BY	None		<del>                                     </del>
4. LANDMARKS AND	LOCATED (Field Methods) BY	None	<del></del>	<u> </u>
AIDS TO NAVIGATION	IDENTIFIED BY	None		<u> </u>
	TYPE OF INVESTIGATION			
5. GEOGRAPHIC NAMES	COMPLETE	}		}
INVESTIGATION	SPECIFIC NAMES ONLY			
	NO INVESTIGATION			
6. PHOTO INSPECTION CL	ARIFICATION OF DETAILS BY	R.R. Wagne	er	1/75_
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	Inapplicat		
II. SOURCE DATA				
1. HORIZONTAL CONTROL IDENTIFIE	ED	2. VERTICAL CO	NTROL IDENTIFIED	
PHOTO NUMBER S	TATION NAME	PHOTO NUMBER	STATION DE	SIGNATION
Defende Cin	1 d D	73E9029R	L318,V317,R710	(DC)
Refer to Fie	id Report	73L9027R	S317, N318	
3. PHOTO NUMBERS (Clarification of d	etails)	<u> </u>	<u> </u>	
73E9027R, 9029R, 71L8574	•			
4. LANDMARKS AND AIDS TO NAVIGA	TION IDENTIFIED			
There are no landmarks and	d non-floating aids o	on this map.		
PHOTO NUMBER C	BJECT NAME	PHOTO NUMBER	OBJECT	NAME
			!	
5. GEOGRAPHIC NAMES: RE	PORT X NONE	6. BOUNDARY AT	ND LIMITS: REPO	RT X NONE
7. SUPPLEMENTAL MAPS AND PLANS		1 2		<u> </u>
8. OTHER FIELD RECORDS (Sketch bo One page from sketchbook *The Field Report is bou	with cuts to wrecks.		Division)	

U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NOAA FORM 76-36D (3-72)TP-00429 **RECORD OF SURVEY USE** I. MANUSCRIPT COPIES COMPILATION STAGES DATE MANUSCRIPT FORWARDED DATE MARINE CHARTS HYDRO SUPPORT No map copies were furnished to the Marine Chart Division prior to final review. II. LANDMARKS AND AIDS TO NAVIGATION 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH CHART LETTER DATE REMARKS NUMBER NUMBER ASSIGNED FORWARDED There are no landmarks or non-floating aids on this map. 2. REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: 3. REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: III. FEDERAL RECORDS CENTER DATA I. WBRIDGING PHOTOGRAPHS; DUPLICATE BRIDGING REPORT; COMPUTER READOUTS. 2. CONTROL STATION IDENTIFICATION CARDS; FORM NOS 567 SUBMITTED BY FIELD PARTIES. 3. SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS: .

4. 🗆 🛭	ATA TO FEDERAL RECORDS C	ENTER, DATE FORWARDED	:	-	
IV. SURVEY	EDITIONS (This section shall b	e completed each time a new m	ap edition is .	registered)	
	SURVEY NUMBER	JOB NUMBER	Ti	TYPE OF	SURVEY
SECOND	TP(2)	PH		REVISED	RESURVEY
EDITION	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	7	MAP	CLASS
1			□n.	□ur. □rv.	UV. FINAL
	SURVEY NUMBER	JOB NUMBER .		TYPE OF	SURVEY
THIRD	TP - (3)	РН		REVISED	RESURVEY
EDITION	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	7	MAP	LASS
			<u> </u> □	□лі. □ю.	UV. FINAL
	SURVEY NUMBER	JOB NUMBER		TYPE OF	SURVEY
FOURTH	TP(4)	PH	,	REVISED	RESÜRVÉY
EDITION	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	7	MAP	CLASS
EDITION	1		`  □n.	□m. □w.	□v. □FINAL

#### SUMMARY

for TP-00427 thru TP-00430 TP-00432 thru TP-00436

Coastal Zone Map TP-00429 is one of nine (9), 1:10,000 scale (shoreline type) maps in Job PH-7113. These maps will not be published. Interior detail is limited to a narrow zone of planimetry usually back from the shoreline to and including the first road. Other maps in Job PH-7113 will be published with an orthophoto interior.

A layout for Job PH-7113 (revised since the aerotriangulation operation) will show the location of individual maps. A copy of this layout is included in this Descriptive Report.

These 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 1971, 1972, and 1973 on color and black-and-white infrared film. The black-and-white infrared film was tide coordinated.

The field operations consisted of the following: . .

- 1. Premarking of horizontal control for aerotriangulation.
- 2. Establishment of tidal datums.
- 3. 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.

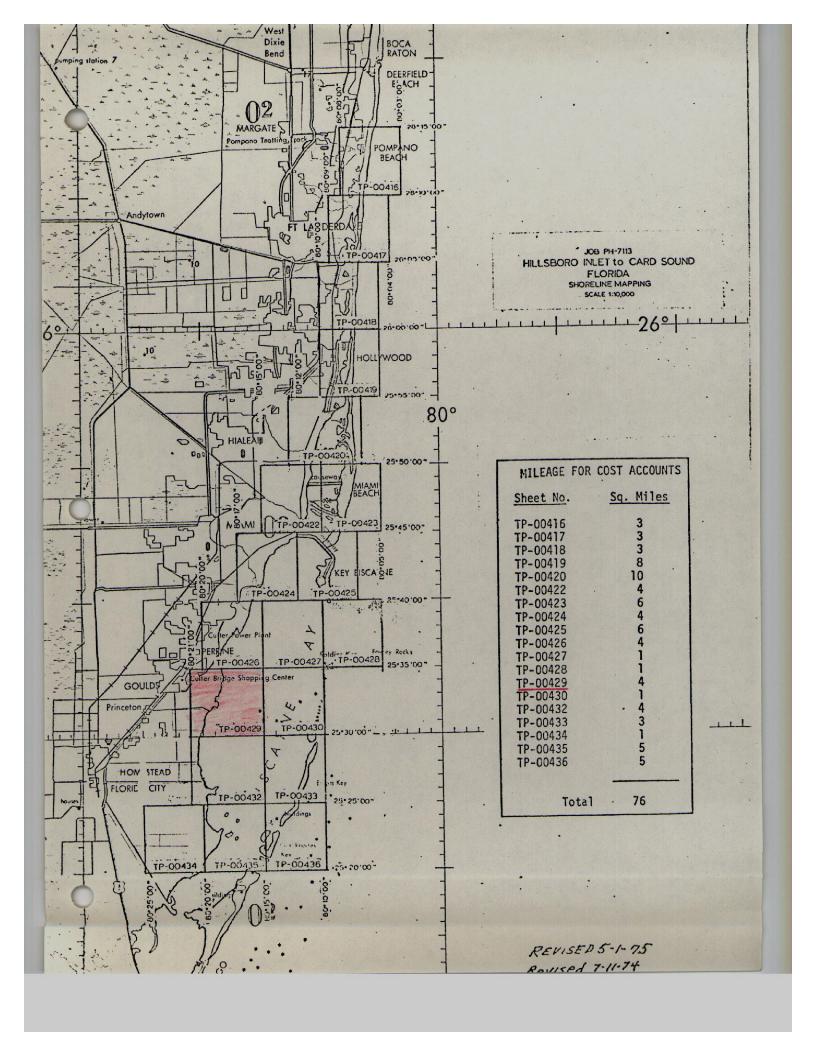
A registration copy of each map is prepared. The registration copy shows additional offshore details such as shoal and shallow lines used by the Marine Chart Division but not required on the Coastal Zone Maps. This copy of the map is labeled "Registration Copy" in the title block.

The following items will be registered in the NOS Archives.

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

All negatives are 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 REFOLT

#### JOBS FH-7010 and PH-7113

In accordance with Instructions - FIELD - PH-7010, Aerotriangulation Control, and Instructions - FIELD - Job PH-7113; Horizontal Control for Aerotriangulation and Field Support for Aerial Photography; Coastal Boundary Mapping, Florida, the following report is submitted.

# 1. HORIZONTAL CONTROL

The two jobs are treated as one for report purposes, targets on Job PH-7010 being replaced in approximate-ly the same positions as they were in November 1970.

Twenty-one stations were premarked for 1:30,000 scale color photography. Where feasible, Array No. 1 was used, being a 9-foot triangle with 3 runners or wing panels of 2 x 20 ft. dimensions. Several variations were used as the area is highly developed, particularly in the southern part, and space was not always available. The CSI cards are believed to be adequate to explain the variations but some discussion is in order.

From north to south the first 8 stations are Array No. 1 with varying degrees of angle between the wing panels.

POMPANO 1928 was marked by a triangle painted on the macadam (station is in a parking area) over the station mark. Paint used was Pittsburg flourescent TANGERINE (very close to what we call fire orange) and should show well on the color photographs. (This paint was used on two other stations and we would be interested to know how it turns out.) In addition, a white 9-ft. trianglewas placed on top of a nearby flat-roofed building approximately 10 feet high, which is a substation.

HALLAND 1928 was marked by a painted target substation placed on the light brown sand of a public beach. We used a white plastic target and painted it. No room was available for wing panels at this small beach.

CAPE FLORIDA OLD TOWER FINIAL 1883 was marked by a single white triangle. No room was available for wing panels.

CAUSEWAY 1934 was marked by a painted triangle placed on the west end of a bridge under construction. The bridge is real white and the color should show "like a light".

PAN ALERICAN 1935 was marked by 2 white triangles placed on the lower level of the 3-level, flat-topped building, one on the east side and one on the south. They are approximately 18 to 20 feet above ground. Two triangles were used "to be sure".

BLACK POINT 3 and NARROW POINT are in the water and approximately 50 feet offshore. Triangles were built over the station marks and about 3 feet above estimated mean high-water level. 8-foot squares were used as wing panels believing these would withstand more wind. The Commander of ESSA 88 reported these targets in good condition at time of bridging photography, only one wing panel being damaged.

All targets were taken up after photography except the two in the water. All were found in good condition, although we had to make repairs to a few during the period they were on the ground due to wind damage. Cn-ly station CLOISTER was vandalized and it was not bothered after it was replaced. This is rather remarkable considering some of the locations.

USGS quad maps showing approximate locations of targets have been submitted.

We were advised by the Commander of aircraft that Line 30-1, Job PH-7113, was photographed February 24 and the other lines on both Jobs on March 8.

# 2. TIDE COORDINATED PHOTOGRAPHY

As directed by telephone, the following nine tide

#### stations were manned.

- (1) Lake Worth, Atlantic Ocean
- (2) Andrews Avenue Bridge, Fort Lauderdale
- (3) Bahia Mar Yacht Club, Fort Lauderdale
- (4) Port Everglades
- (5) Biscayne Creek, North Miami
- (6) Biscayne Bay, Miama
- (7) Biscayne Bay, Cutler
- (8) Biscayne Bay, Turkey Point
- (9) Card Sound

Photography obtained was based on the first seven gages. Lines 30-5 and 30-6 would have been based on TURKEY POINT and CARD SOUND. These lines were not photographed. Also, high-water only was obtained for line 30-4, based on CUTLER.

Recordings entered in the tide volumes, Form 277, were at 5 minute intervals near and during photography; otherwise 15 minute interval. Wet staff readings—crest, trough and mean—were recordedwhile photography was in progress. Tolerances of ±0.3 ft. for mean high-water and ±0.1 ft. for mean low-water were observed. Eastern Standard Time was used.

Photography was obtained on 2 days: Low-water February 24 and high-water Harch 2. Lines 30-1, 30-2 and 30-3 were flown at low-water. Lines 30-1, 30-2, 30-3, and 30-4 were flown at high.

Low-water photography Feb. 24. (Time furnished by Photographer.)

- (1) Segment of Line 30-1 approximately 4 miles north and 4 miles south of Port Everglades inlet (or entrance) 1201 to 1210 hrs. based on PORT EVERGLADES staff reading of 1.7 ft.
- (2) Line 30-1, based on LAKE WORTH PIER, photographed in its entirety from 1228 to 1241 hrs. when the tide reading was 1.4/1.3 ft.
- (3) An 8 mile segment of line 30-1, based on BAHIA MAR YACHT CLUB, was photographed at 1444 to 1449 hrs. when the tide staff read 1.7 ft.

- (4) An 8 mile segment of line 30-1, based on ANDREWS AVENUE BRIDGE was photographed at 1511 to 1515 hrs., when the staff read 118 ft.
- (5) Line 30-2, based on BISCAYNE BAY, MIAMI, and flown south to north, was photographed at 1259 to 1305 hrs., when the staff read 2.2 feet.
  - (6) Line 30-3, based on BISCAYNE BAY, MIAMI and BIS-CAYNE CREEK, NORTH MIAMI, flown south to north, was photographed at 1319 to 1324 hrs, when the BISCAYNE Bay, Miami staff read 2.1 and the BISCAYNE CREEK staff read 3.1, both ends of the line being with tolerance.
- (7) Line 30-2 was then photographed again, based on BISCAYNE CREEK, NORTH MIAMI, and flown from north to south at 1330 to 1336 hrs when the staff reading was 3.1.

This ended the low-water photography.

# High-water photography, March 2.

- (1) Line 30-1, based on LAKE WORTH PIER, was photographed at 1039 to 1055 hrs., when the gage reading was 4.2 feet. However, we were advised that parts of this line were re-photographed at approximately 1144 to 1149 hrs. in the Miami Beach area and at 1242 to 1245 hrs. in the Hollywood area. Tide was within tolerance at all times.
- (2) A segment of line 30-1, based on ANDREWS AVENUE BRIDGE (as well as BAHIA MAR and PORT EVERGLADES) was photographed at 1103 to 1106 hrs. with the camera end overlap setting at 80%.
- (3) Line 30-2, based on BISCAYNE BAY, MIAMI and BISCAYNE CREEK, NORTH MIAMI, was photographed at 1254 to 1300 hrs. when the BISCAYNE BAY, MIAMI reading was 4.6 ft. and the BISCAYNE CREEK staff read 5.6 ft.
- (4) Line 30.3, based on the same stations, was photographed at 1305 to 1311 with the staff readings unchanged from line 30-2.
- (5) Line 30-4, based on BISCAYNE BAY, MIAMI and BIS-CAYNE BAY, CUTLER, was photographed at 1319 to 1325, when the MIAMI staff read 4.5 and CUTLER read 4.8 ft.

This ends the high-water photography.

# 3. FORESHORE PROFILES

Ten planetable beach profiles were run within the limits of Job PH-7113. They cover a linear distance of approximately 40 miles. The northerly one is at triangulation station POMPANO and the southernmost one is near the Cape Florida lighthouse on Key Biscayne. Mr. Phil Walbolt ran 7 of the 10 during the period of photography, basing tide stage on a nearby tide gage. The other 3 were similarly accomplished two or three days after photography, with information as to tide level being obtained from the Weather Service's remote recorder in Miami Beach via telephone, in 2 instances.

The procedure was to drive a stake to water level near shore and obtain the tide gage reading at that time by radio from a nearby gage. This elevation thus became the bench mark to determine the horizontal position of mean high— and mean low-water lines from a planetable setup. Points occupied were triangulation stations or recoverable photo—topo points. The planetable was oriented to magnetic north with andazimuth to an identifiable point. One variation from this is at profile No. 7 where no distant azimuth was visible and the profile was laid out to parallel a beach groin that should be clearly visible on the low-water photographs.

No profiles were run in Job PH-7010 since the infrared photography was obtained several months ago.

In addition to sketches at some of the occupied points, USGS quad maps show the approximate locations of the profiles along with premark target locations.

Submitted 3/25/71

William H. Shearouse
Chief. Photo Party 60

No plane table beach profiles were available at the time of compilation or raview.

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. Tie points were located in this area and tie 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 hotographs 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.

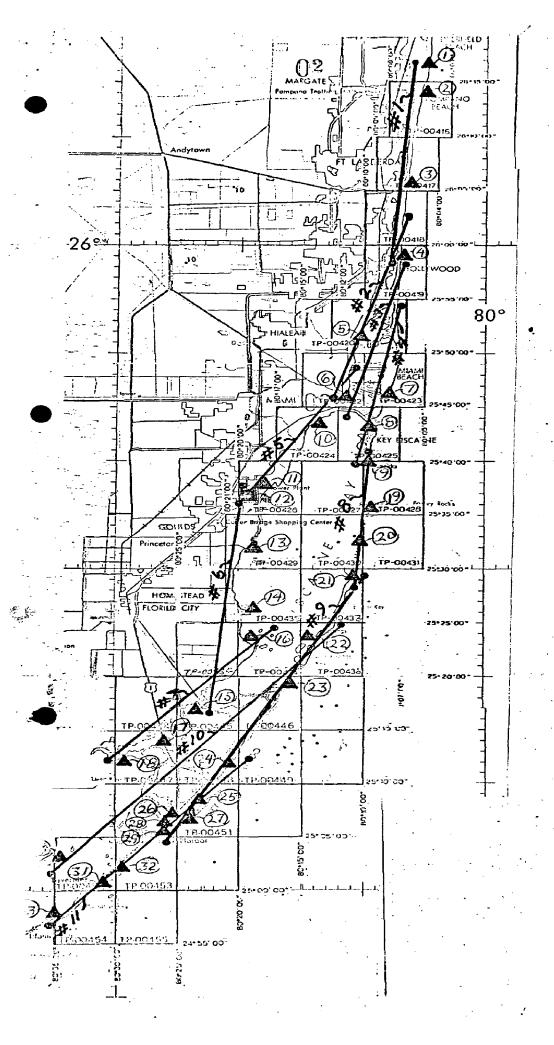
Respectfully submitted,

Victor McNeel

Approved and forwarded:

John D. Perrow, Jr.

Chief, Aerotriangulation Section



JOB PH-7113 AND JOB PH-7119

HILLSBORO INLET
TO
PLANTATION KEY,
FLORIDA

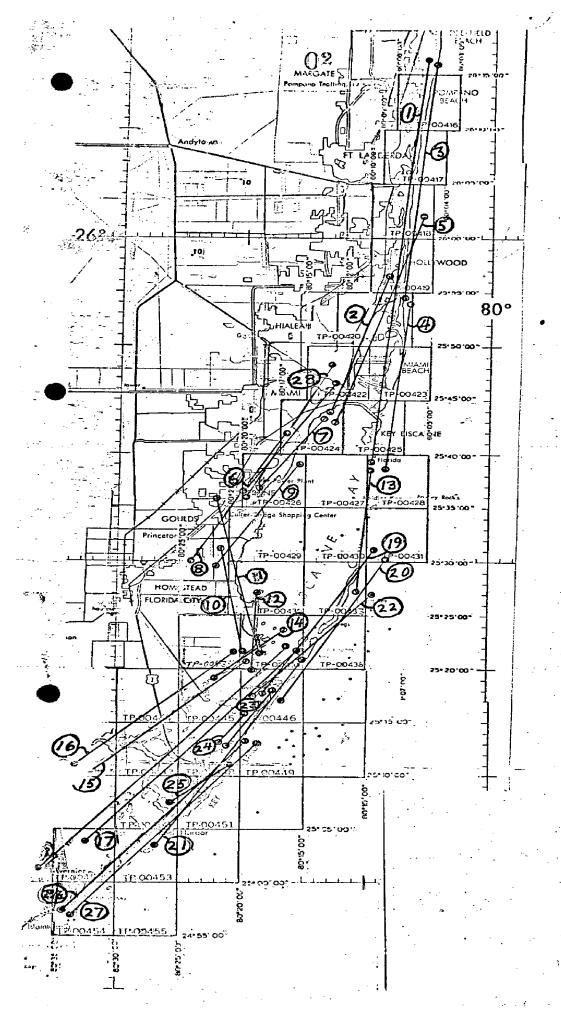
CONTROL STATIONS USED IN THE ADJUSTMENTS

# CONTROL STATIONS

		·		
		ا المحادث	residuals	
1.	(027100)	Turtle 1929	-0.706	-0.115
2.	(023102)	Pompano, 1928, subpoint B	1.488	-0.229
3.	(029100)	South Jetty, 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.	<b>(2</b> 04100)	Key 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,		
ē.		Target 2	0.000	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)	•		
	(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-		
1.0	(0=01.01.)	station	-0.215	-0.201
19.	(878101)	_ ,	0.687	-0.080
20.	(875102)	, , , ,	0.007	0.10-
22	(070101)	subpoint B	-0.826	0.125
21.	(872101)	Sands Cut RM 2, 1849-1947	0.006	0.040
22	(001100)	substation	0.296	-0.049
	(901100) (905101)	Rubi, 1930-1947, reset	-0.192	-0.134 -0.242
	(914101)	Angelfish Key RM 3, 1853	-0.303	=
-	(919100)	Knowlson, 1935 substation Hull Key, 1852	0.153 -0.053	-0.155 0.103
	(922100)	Rock Harbor 2, 1961	0.364	~0.284
27.	•	Lower Sound Point, 1853	0.304	70,204
27.	(OZZIOI)	substation **	<u>-</u>	
28.	(923101)		•	
-0.	()25202)	Visions Inc., Taller Mast,		
		1961 **		
29.	(924100)	Largo, 1962	-0.210	0.103

30.	(967101)	Low 2, RM 2, 1934	0.042	0.215
		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

INFRA-RED CONTACT PRINTS RATIOED FOR COMPILATION

# INFRA-RED CONTACT PRINTS

71K 5632R - 5660R MLW 71K 5662R - 5672R MLW-171K 5750R - 5766R MHW 71K 5795R - 5806R MHW 71K 5815R - 5829R MHW 6. 71L 8501R - 8509R MLW 71L 8512R - 8520R MLW 7. 8. 71L 8571R - 8580R MHW 71L 8523R - 8530R MLW 9. 71L 8783R - 8791R MHW 10. 71L 8584R - 8593R MHW 11. 12. 71L 8532R - 8537R MLW 13. 71L 9067R - 9080R MLW 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 71L 8697R - 8705R MHW 22. 23. 72K 6344R - 6350R MLW 72K 6253R - 6255R MLW 24. 72K 642 OR - 642 3R MHW 25.

72K 6501R - 6515R MHW

72K 6368R - 6382R MLW

71K 5847R - 5856R MHW

26.

27.

28.

	Tronzonal Como
Station	NOS Geodetic Data Reference for Description, Positions, Coordinates and Azimuths
BLACK POINT 2 1930	Book 424, P.1,29; GP Fla. Vol. 1 P.386; PC Fla. E. Zene P. 101
BLACK POINT 3 1930	Book 424, P. 1,2,29,35; GP Fla. Vol. 1 P.389; PC Fla. E. Zene P. 101
•	

# Compilation Report TP-00429 January 1975

#### 31. Delineation

The tidal datum lines were delineated from tide-coordinated black-and-white infrared photography. This photography was controlled by planimetric features common to the rectified color infrared photography and map points determined by aerotriangulation. The color infrared photography was used as an aid in the interpretation and delineation of cultural shoreline.

Interior details were compiled form the rectified color infrared photography.

#### 32. Control

Horizontal control was adequate. (See Photogrammetric Plot Report.)

#### 33. Supplemental Data - None

# 34. Contours and Drainage

Contours are inapplicable. Drainage was compiled from color infrared photography.

#### 35. Shoreline and Alongshore Detail

The tide-coordinated, black-and-white infrared photography was adequate for the delineation of the mean high water line and the mean low water line.

### 36. Offshore Details

Offshore details beyond the limits of photography will be located by field edit.

#### 37. Landmarks and Aids

No landmarks or non-floating aids were located during compilation.

#### 38. Control for Future Surveys - None

# 39. Junctions

Refer to Form 76-36B (Data Record).

# 40. Horizontal and Vertical Accuracy

This map complies with the accuracy standards as outlined by Project Instructions PH-7000 for the Florida Coastal Zone Mapping Program.

41. thru 45. Inapplicable.

# 46. Comparison with Existing Maps

A comparison was made with the following USGS quadrangle:

Perrine, Florida, 1:24,000 scale, 1956.

# 47. Comparison with Nautical Charts

A comparison was made with the following C&GS Charts:

848, 14th Edition, April 7, 1973, 1:40,000 scale; 849, 6th Edition, August 19, 1972, 1:40,000 scale.

Sifnificant differences were noted in the built-up areas along Black Creek and cultural enlargement of the Cutler Ridge and Franjo townships.

Approved and forwarded by:

J.P. Battley, Jr.

Chief, Coastal Mapping Section

### Field Edit Report Map TP-00429 Job PH-7113

#### 51. Methods

The shorelinerof Biscayne Bay was inspected from a small boat while cruising just offshore. Notes regarding apparent and fast shoreline, piers, and other shoreline features were made on the rectified photographs.

A number of uncharted wrecks were located. A wreck located approximately at latitude  $25^{\circ}33.3$ ' longitude  $80^{\circ}17.7$ ' was not fixed solid in the bottom of the bay and will move from its position as located on January 27, 1975.

A three-point fix was taken from the deck of a wreck located on Featherbed Banks. This fix was also used to locate wrecks on this manuscript and aids on the joining manuscripts. The data for the fix will be forwarded as part of one of the joining manuscripts. The fix was computed with a check of 0.3 ft.

There are no landmarks, aids, or tide gages on this manuscript.

Two triangulation stations were recovered.

Five geodetic bench marks were identified.

The field edit for this manuscript was completed in January 1975 except for the wrecks located by the 3-point fix on Featherbed Banks.

Field edit notes 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 by

Robert R. Wagner Chief, Photo Party 60

May 7, 1975

Remarks: Application of Field Edit, TP-00429

The six shoal areas located in the southeast portion of this map and the junction with TP-00430 were compiled from the NASA photography listed on Form 76-36B. A wreck located on this map and the non-floating aids (Featherbed Bank) on TP-00430 were used to control this photography. The positions of the wreck and non-floating aids were determined by field methods during field edit.

Interior details were compiled after the field edit operation and are from office interpretation of the color infrared photography.

# GEOGRAPHIC NAMES

# FINAL NAME SHEET

Ph-7113 (Biscayne Bay, Florida)

TP-00429

Biscayne Bay

Biscayne National Monument (protected area)

Black Creek

<del>Black Ledge</del>

Black Point

Cutler Ridge

Fender Point

Franjo

Goulds Canal

Approved by:

Chas. E. Harrington

Staff Geographer-C51x2

# Review Report Coastal Zone Map TP-00429 May 1976

#### 61. General

The map manuscript for Coastal Zone Map TP-00429 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

#### 62. Cartographic Comparison

Comparison was made with the following USGS quadrangle map at a scale of 1:24.000:

Perrine, Florida, dated 1956, photorevised 1969 Comparison was made with the following Nautical Charts:

C&GS848 (No. 11173) 15th edition, dated March 30, 1974, 1:40,000 scale.

Chart 848 shows rocks awash in the shoal areas in the vicinity of Featherbed Bank (TP-00430) and areas located in the northeastern portion of the map. These areas were investigated by the field editor and no rocks awash were found.

Photography did not cover the northeast portion of this map in the vicinity of Black Ledge. The field editor reported two areas that uncover at MLW. Since no photography was available and the limits were not furnished by the field editor they are not mapped.

63. thru 65. Inapplicable.

# 66. Adequacy of Results and Future Surveys

Coastal Zone Map TP-00429 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

# National Archives Data TP-00429

- 1 Discrepancy print
- 1 Field edit sheet (stable base)
- 1 Page sextant fixes

# Photography:

71L8574R

72K6406 73E9027R, 9029R