Original ✓

TP-00435

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 No. PH-7113 *Map No.* TP-00435

Classification No. Final *Edition No.* 1

Field Edited Map

LOCALITY

State Florida

General Locality Dade & Monroe County

Locality West Arsenicker to Palo Alto Key

1972 TO 1975

REGISTRY IN ARCHIVES

DATE

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

TP-00435

NOAA FORM 76-36A (3-72) — U. S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY
- [x] ORIGINAL
- [ ] RESURVEY
- [ ] REVISED

SURVEY TP-00435
MAP EDITION NO. (1)
MAP CLASS Final
JOB PH-7113

PHOTOGRAMMETRIC OFFICE: Rockville, Maryland

OFFICER-IN-CHARGE: Commander James Collins

LAST PRECEEDING MAP EDITION
TYPE OF SURVEY
- [ ] ORIGINAL
- [ ] RESURVEY
- [ ] REVISED

JOB PH-
MAP CLASS
SURVEY DATES: 19__ TO 19__

I. INSTRUCTIONS DATED

1. OFFICE	2. FIELD
General Instructions-OFFICE-NOS Cooperative Coastal Boundary Mapping, Job PH-7000, 12/9/75 Supplement 1, 11/4/74 Supplement III, 10/24/74 Note:Office and field edit instructions (1975) incorporate applicable prior operational instructions.	Aerial Photography 9/2/69 Supplement I, 1/28/70 Supplement II, 3/26/70 Supplement III, 8/10/72 Field Edit (PH-7000 General Instructions for Florida Coastal Zone Mapping) 1973

II. DATUMS

1. HORIZONTAL:	[x] 1927 NORTH AMERICAN	OTHER (Specify)
2. VERTICAL:	[x] MEAN HIGH-WATER [x] MEAN LOW-WATER [ ] MEAN LOWER LOW-WATER [ ] MEAN SEA LEVEL	OTHER (Specify)
3. MAP PROJECTION: Transverse Mercator		4. GRID(S): STATE: Florida; ZONE: East
5. SCALE: 1:10,000		STATE: ; ZONE:

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: Analytic	BY	V.E. McNeel	6/74
	LANDMARKS AND AIDS BY	Inapplicable	
2. CONTROL AND BRIDGE POINTS METHOD: Calcomp	PLOTTED BY	R. Robertson	8/74
	CHECKED BY	Inapplicable	
3. STEREOSCOPIC INSTRUMENT COMPILATION	PLANIMETRY BY	Inapplicable	
	CHECKED BY		
INSTRUMENT:	CONTOURS BY	Inapplicable	
SCALE:	CHECKED BY		
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	P. Gibson	2/75
	CHECKED BY	J.P.Battley,Jr.	2/75
	CONTOURS BY	Inapplicable	
METHOD: Graphic	CHECKED BY		
	HYDRO SUPPORT DATA BY	Inapplicable	
SCALE:	CHECKED BY		
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	J.Battley,Jr.	3/75
6. APPLICATION OF FIELD EDIT DATA	BY	S. Solbeck	6/75
	CHECKED BY	C. Lewis	7/75
7. COMPILATION SECTION REVIEW	BY	J. Battley,Jr.	11/75
8. FINAL REVIEW	BY	D. Brant	1/76
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY		
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	D. Brant	2/76
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY	R. CATOR	7/76

NOAA FORM 76-36A — SUPERSEDES FORM C&GS 181 SERIES

* U.S. G.P.O. 1972-769382/582 REG.#6

NOAA FORM 76-36B
(3-72)

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

TP-00435

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S): "L" & "K" 6" focal length

TYPES OF PHOTOGRAPHY LEGEND
(C) COLOR R
(P) PANCHROMATIC
(I) INFRARED

TIME REFERENCE
ZONE: Eastern — [X] STANDARD
MERIDIAN: 75th — [ ] DAYLIGHT

TIDE STAGE REFERENCE
[ ] PREDICTED TIDES
[ ] REFERENCE STATION RECORDS
[X] TIDE CONTROLLED PHOTOGRAPHY

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
73L(C)2943R-2944R	3/18/73	1020	1:40,000	The stage of tide is inapplicable for the color photography.
73L(C)2953R-2954R	3/18/73	1538	1:40,000	
72K6584R-6586R	2/20/72	0956	1:30,000	Refer to the following page for tide information
72K6545-6547R	2/20/72	0926	1:30,000	
72K6354-6355R	2/14/72	0345	1:20,000	
72K6384-6386R	2/14/72	1436	1:30,000	
72K6310-6312R	2/14/72	1246	1:30,000	
72K6436-6437R	2/15/72	1005	1:20,000	

REMARKS

2. SOURCE OF MEAN HIGH-WATER LINE:

The source of the MHW line is the tide-coordinated black-and-white infrared photography listed in item 1. The rectified color photography was used as an aid for interpreting culture features and compiling the limits of vegetation.

Where the shoreline was obscured by vegetation, the apparent shoreline symbol was used.

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 information.)*

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED
Inapplicable					

5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
TP-00432	TP-00436	TP-00446	TP-00434

REMARKS: Final junctions will be made in the Coastal Mapping Section.

* U. S. GOVERNMENT PRINTING OFFICE: 1974-768-078

NOAA FORM 76-36B(1)
(7-75)

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

TIDE - COORDINATED PHOTOGRAPHY

TP - 00435

LOCATION AND PHOTOGRAPHY	TIDE STATIONS *(In operation at time of photography)*	STAGE OF TIDE	MEAN RANGE
ATLANTIC OCEAN			
72K6436-6437R	Ocean Reef	0.00 MHW	2.33
72K6354-6355R	Ocean Reef	+0.03 MLW	
BISCAYNE BAY			
72K6310-6312R	East Arsenicker, Card Sound	+0.05 MHW	0.91
72K6384-6386R	East Arsenicker, Card Sound	-0.34 MHW	
72K6545-6547R	East Arsenicker, Card Sound	+0.02 MLW	
72K6584-6586R	East Arsenicker, Card Sound	+0.04 MLW	

REMARKS:

The stage of tide tolerance is greater than +0.30 ft. specified in the instructions for some of the photography used in compiling portions of the MHW line. These lines will be inspected and verified during field edit.

NOAA FORM 76-36C
(3-72)

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

TP-00435

HISTORY OF FIELD OPERATIONS

I. [X] FIELD INSPECTION OPERATION * [X] FIELD EDIT OPERATION

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		R.R. Wagner	
2. HORIZONTAL CONTROL	RECOVERED BY	R.R. Wagner	4/75
	ESTABLISHED BY	Inapplicable	
	PRE-MARKED OR IDENTIFIED BY	Inapplicable	
3. VERTICAL CONTROL	RECOVERED BY	R.R. Wagner	4/75
	ESTABLISHED BY	Inapplicable	
	PRE-MARKED OR IDENTIFIED BY	R.R. Wagner	4/75
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (*Triangulation Stations*) BY	Inapplicable	
	LOCATED (*Field Methods*) BY	R.R.Wagner.	4/75
	IDENTIFIED BY		
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION: [ ] COMPLETE [ ] SPECIFIC NAMES ONLY [X] NO INVESTIGATION — BY		
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	R.R. Wagner	4/75
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	Inapplicable	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME
	Refer to field report

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION DESIGNATION
73L2953	TOTTEN KEY tidal BM2
73L2954	EAST ARSENICKER tidal BM1

3. PHOTO NUMBERS (*Clarification of details*)
72K6354,6436,6585
73L2943R,2953R,2954R

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED
No landmarks were located. Non-floating aids were verified or located by sextant fix.

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: [ ] REPORT [X] NONE

6. BOUNDARY AND LIMITS: [ ] REPORT [X] NONE

7. SUPPLEMENTAL MAPS AND PLANS

8. OTHER FIELD RECORDS (*Sketch books, etc.* **DO NOT** *list data submitted to the Geodesy Division*)
Two pages from sketchbook with sextant cuts, discrepancy print, field edit sheet, and photographs listed under item 3.
*The field report is bound with this report.

* U.S. G.P.O. 1972-769381/567 REG.#6

NOAA FORM 76-36D
(3-72)

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

TP-00435

RECORD OF SURVEY USE

1. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	AIDS SUPPORT

[redacted]

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

Coastal Zone Map TP-00435 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.

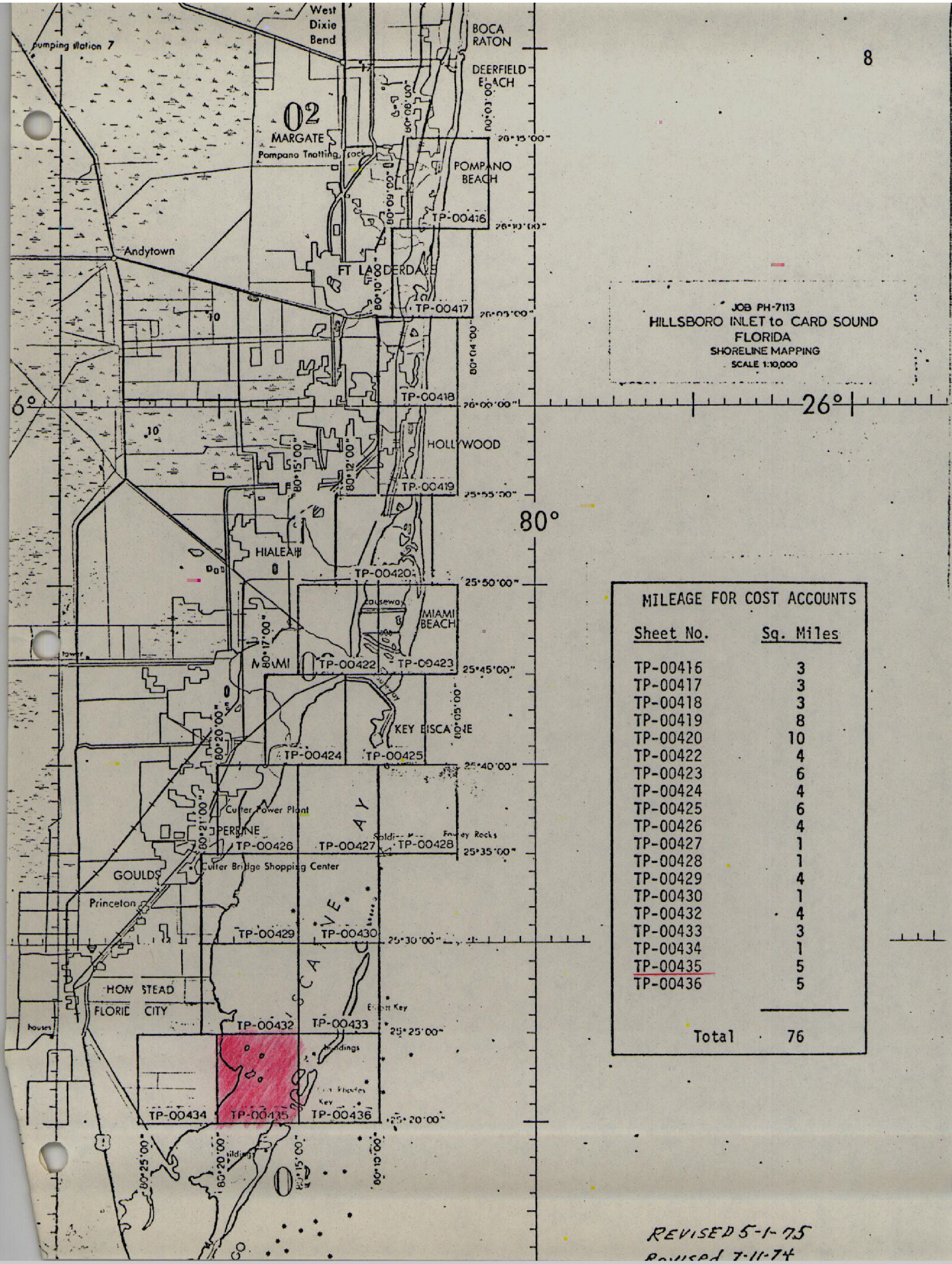
The following items will be registered in the NOS Archives.

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.



MILEAGE FOR COST ACCOUNTS	
Sheet No.	Sq. Miles
TP-00416	3
TP-00417	3
TP-00418	3
TP-00419	8
TP-00420	10
TP-00422	4
TP-00423	6
TP-00424	4
TP-00425	6
TP-00426	4
TP-00427	1
TP-00428	1
TP-00429	4
TP-00430	1
TP-00432	4
TP-00433	3
TP-00434	1
TP-00435	5
TP-00436	5
Total	76

REVISED 5-1-75
Revised 7-11-74

FIELD REPORT

JOBS PH-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 approximately 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 AMERICAN 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. Only 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, Miami
(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 March 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 1.8 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 BISCAYNE 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

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 an azimuth 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
William H. Shearouse
Chief, Photo Party 60

No planetable beach profiles were available at the time of compilation or review.

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. Tie 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:

[redacted]

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

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.

[redacted]

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

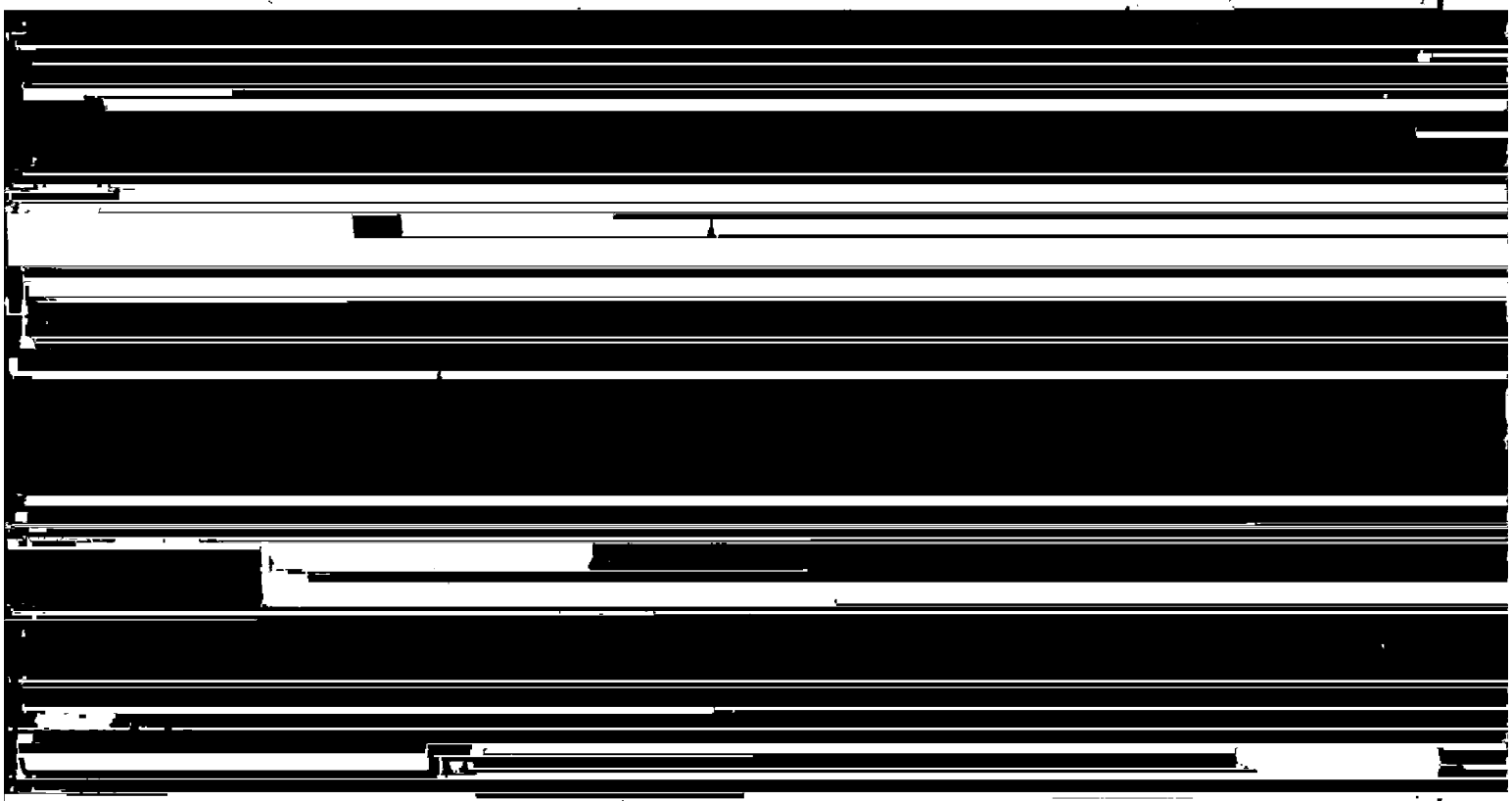
The quality and definition of the photography was adequate.

Respectfully submitted,

Victor McNeel

Approved and forwarded:

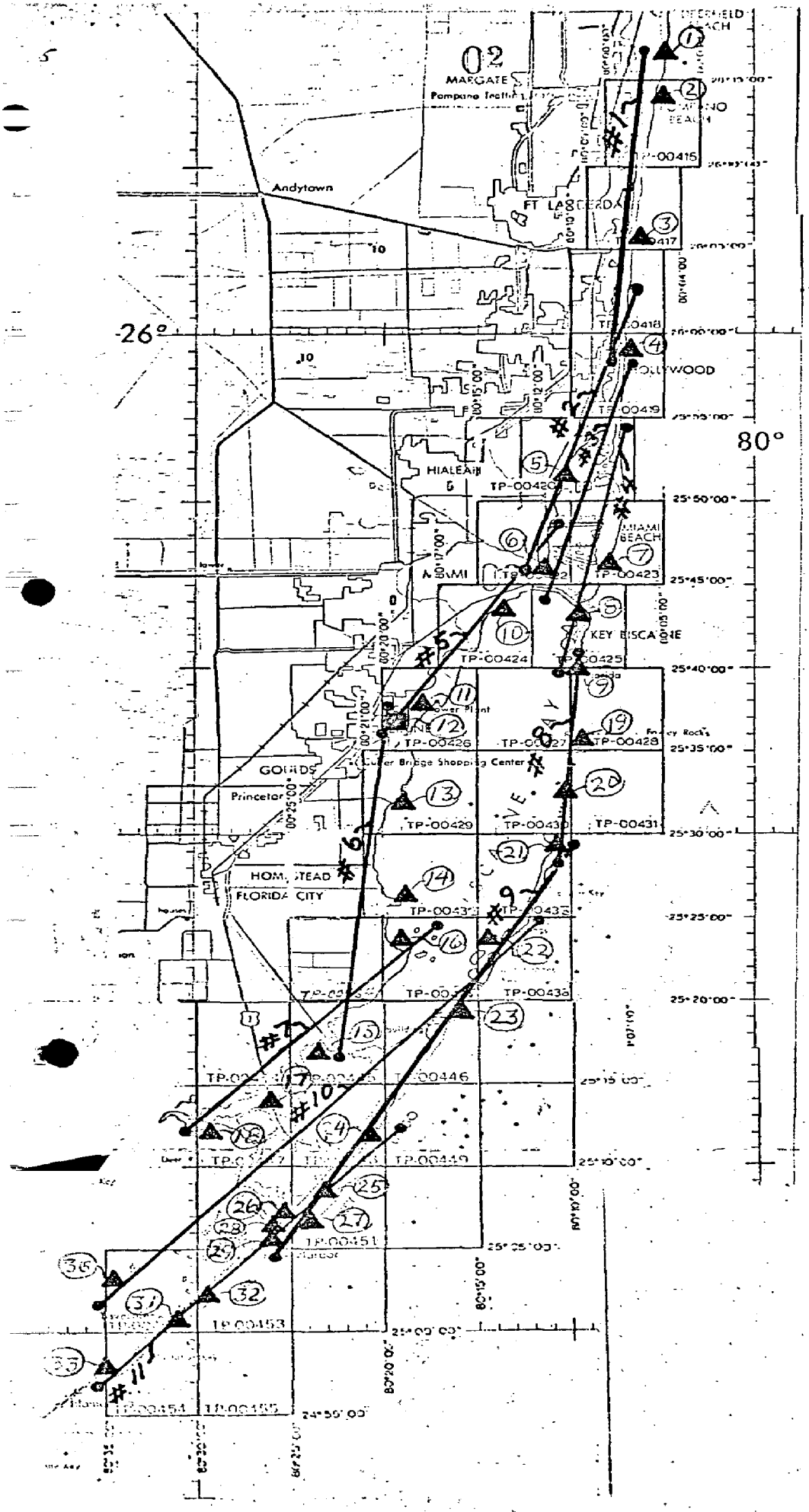
John D. Perrow, Jr.
Chief, Aerotriangulation Section



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.	(204100)	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, 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	-0.157	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-station	-0.215	-0.201
19.	(878101)	Irving, 1971, substation	0.687	-0.080
20.	(875102)	Mangrove (USE), 1930, subpoint B	-0.826	0.125
21.	(872101)	Sands Cut RM 2. 1849-1947		

30.	(967101)	Low 2, RM 2, 1934	0.042	0.215
31.	(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

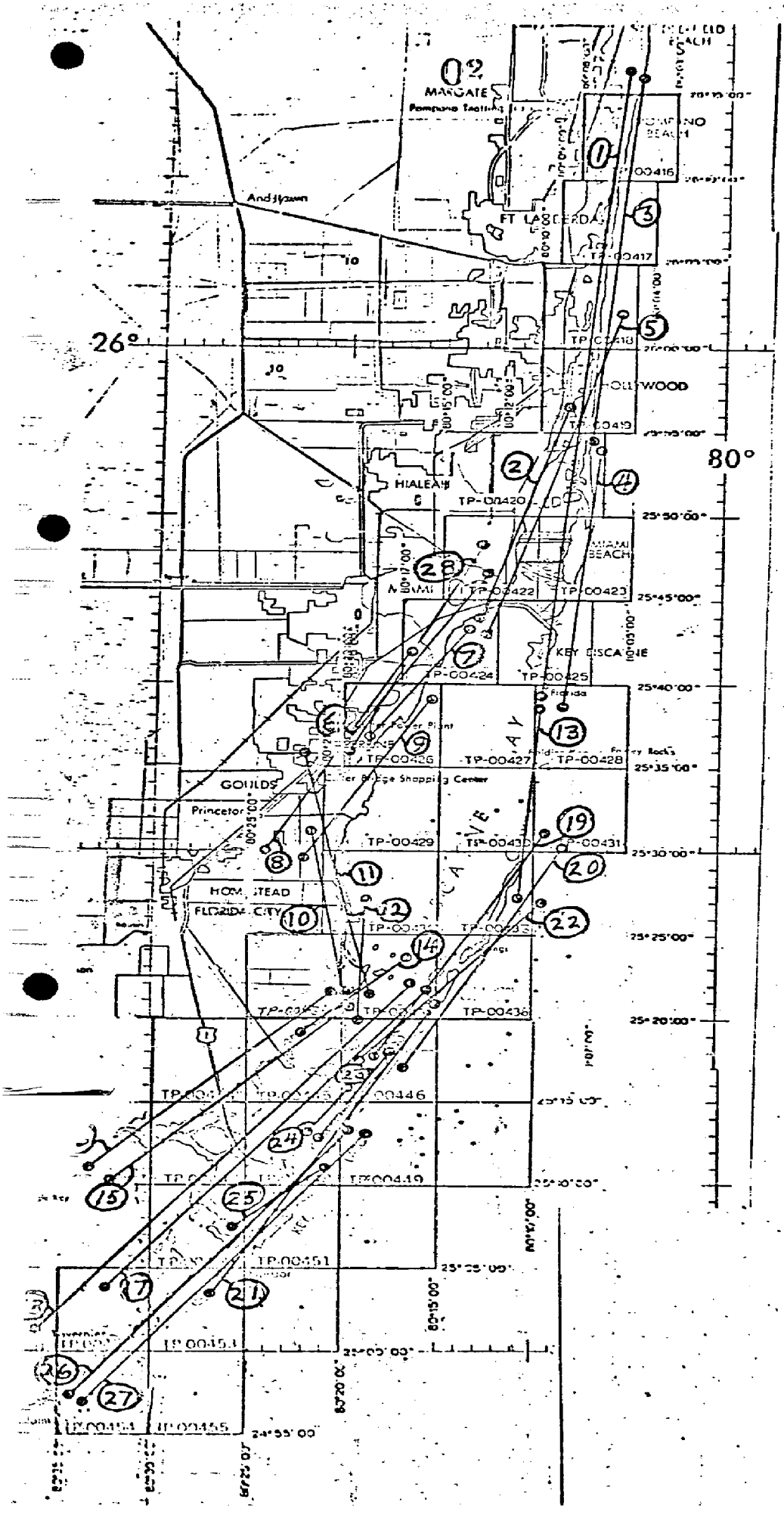
HILLSBORO INLET
TO
PLANTATION KEY,
FLORIDA

CONTROL STATIONS
USED IN THE
ADJUSTMENTS

INFRA-RED CONTACT PRINTS

1. 71K 5632R - 5660R MLW
2. 71K 5662R - 5672R MLW
3. 71K 5750R - 5766R MHW

[redacted]



JOB PH-7113
AND
JOB PH-7119

HILLSBORO INLET
TO
PLANTATION KEY,
FLORIDA

INFRA-RED CONTACT
PRINTS RATIOED FOR
COMPILATION

Station	NOS Geodetic Data Reference for Description, Positions, Coordinates and Azimuths
MCCUFF 1972	Unadjusted field data used
PAL 1930	Book 424, P 8,30, GP Vol.1 P 392, PC Fla. E Zone P 102
MAM 1930	Book 424, P 8,30,36, GP Vol. 1 P 391, PC Fla. E Zone P 102
NICK 1930	Book 424, P 8,36, GP Vol.1 P 391, PC Fla. E Zone P 102

31. Delineation

The tidal datum lines on this map were compiled by graphic methods from the tide-coordinated black-and-white infrared photography. This photography was controlled by map points determined by aerotriangulation and planimetric detail compiled from the rectified prints of the color infrared photography.

The rectified prints of the color photography were used for the compilation of manmade shoreline, interior details, and offshore details such as shallow and shoal areas.

32. Control

The coordinate positions for horizontal control stations are preliminary values and are subject to change when a final adjustment is made by the National Geodetic Survey. (See Photogrammetric Plot Report.)

33. Supplemental Data - None

34. Contours and Drainage

Contours are inapplicable. Drainage was compiled from rectified prints of the color infrared photography.

35. Shoreline and Alongshore Features

The photography was adequate for the interpretation of the shoreline and alongshore features. The field edit will verify the interpretation of the photography.

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. Some of these features were located during bridging and compilation, however, a field edit will be needed to verify these positions.

38. Control for Future Surveys - None

39. Junctions

To the North - TP-00432; to the East - TP-00436; to the South - TP-00446; to the West - TP-00434.

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 USGS quads:

Arsenicker Keys, Florida	1956	(PR1969)	1:24,000
Card Sound, Florida	1956	(PR1969,1973)	1:24,000

No significant differences were noted.

47. Comparison with Nautical Charts

A comparison was made with the following Nautical Charts:

11451	1:80,000	12th Edition	September 1974
849	1:40,000	6th Edition	August 1972

Several significant differences were noted in the extensiveness of the low water areas surrounding Long Arsenicker, East Arsenicker, and Palo Alto Keys.

Submitted

Peter N. Gibson
Carto (Photo)

Approved and Forwarded:

Peter P. Battley Jr.

[redacted]

FIELD EDIT REPORT, MAP TP-00435 JOB PH 7113

51. METHODS

The shoreline was inspected from a small boat while cruising just offshore. Notes regarding apparent and fast shoreline were made on the rectified photographs.

Four triangulation stations were recovered.

Two tide gages were identified along with a bench mark for each. TOTTEN KEY TIDE GAGE and BM 2 were identified on photograph 73L2953. EAST ARSENICKER TIDE GAGE and BM 1 were identified on photograph 73L2954.

No geodetic vertical control falls on this manscript.

RUBICON KEY LIGHT 8, CUTLER BANK LIGHT 9 and CUTLER BANK LIGHT 14 positions as located in bridging were vertified. CUTLER BANK DAYBEACONS 11, 12, 13, 15, and 15A were located by sextant cuts. ANGELFISH CREEK LIGHT 14 was relocated by sextant cuts. The light has been rebuilt since the 1973 photographs. ANGELFISH DAYBEACONS 8, 10 and 12 were located by sextant cuts.

Field edit notes will be found on the photographs, discrepancy print and the field edit sheet.

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 4/17/75

Robert R. Wagner
Chief, Photo Party 60

Review Report
Coastal Zone Map TP-00435
April 1976

61. General

The map manuscript for Coastal Zone Map TP-00435 was inspected in its Class III stage prior to field edit. This inspection comprised of an examination of the manuscript, photography, discrepancy print, and Descriptive Report (partial).

The review for Coastal Zone Map TP-00435 consisted of an examination of the Class I manuscript, the field edit and its application, the reproduction negatives, and the Descriptive Report.

The proof copy of the Coastal Zone Map TP-00435 was examined and 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 Quadrangles:

Arsenicker Keys, Fla., 1956, photorevised 1969 and 1973, scale 1:24,000
Card Sound, Fla., 1956, photorevised 1969 and 1973, scale 1:24,000

No significant changes were found.

Comparison was made with Nautical Chart 11463 (formerly C&GS849), 7th edition, dated Aug. 3, 1974, 1:40,000 scale.

The black-and-white tide-coordinated (MLW) infrared photography did not indicate any MLW between Long Arsenicker and East Arsenicker which is shown on Nautical Chart 11463. This area on the Coastal Zone Map is shown as shallow and was compiled from the rectified color photography. Also, Nautical Chart 11463 shows small areas of MLW along Cutter Bank and Broad Creek which the tide-coordinated (MLW) infrared photography did not indicate.

63. thru 65. Inapplicable

66. Adequacy of Results and Future Surveys

Coastal Zone Map TP-00436 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

GEOGRAPHIC NAMES
FINAL NAME SHEET
PH-7113 (Biscayne Bay, Florida)

TP-00435

Angelfish Creek
Angelfish Key
Arsenicker Key
Biscayne Bay
Biscayne National Monument
Broad Creek
Broad Key
Card Sound
Crane Creek
Cutter Bank
East Arsenicker
Key Largo
Linderman Creek
Linderman Key
Little Totten Key
Long Arsenicker
Mangrove Key
Mangrove Point
Middle Creek
Midnight Pass
Model C Canal
Old Rhodes Channel
Palo Alto Key
South Broad Creek
Sugar Shack
Swan Key
Totten Key
West Arsenicker

Approved by:

Charles E. Harrington
Staff Geographer-C51x2

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- ☐ HYDROGRAPHIC PARTY
- ☐ GEODETIC PARTY
- ☐ PHOTO FIELD PARTY
- ☒ COMPILATION ACTIVITY
- ☐ FINAL REVIEWER
- ☐ QUALITY CONTROL & REVIEW GRP.
- ☐ COAST PILOT BRANCH

(See reverse for responsible personnel)

☒ TO BE CHARTED
☐ TO BE REVISED
☐ TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office): Rockville, MD

STATE: FLORIDA

LOCALITY: WEST ARSENICKER TO PALO ALTO KEY

DATE: 2/14/75

The following objects HAVE ☐ HAVE NOT ☒ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.:

JOB NUMBER: PH-7113

SURVEY NUMBER: TP-00435

DATUM: N.A. 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
LIGHT 8	BISCAYNE BAY - LONG KEY RUBICON KEYS LIGHT 8	25 23	59.97 1845.31	80 15	19.71 550.91	73L(C)2953R 3/18/73	P-8-3-V 4/10/75	849 11451
LIGHT 9	CUTTER BANK LIGHT 9	25 23	5.83 179.39	80 16	0.04 1.12	"	"	"
DYBN 11		25 22	45.51 1400.37	80 16	16.94 473.57		P-8-3-L 4/15/75	"
DYBN ~~12~~ 13		25 22	15.57 479.10	80 16	40.76 1139.54		P-8-3-L 4/10/75	"
DYBN ~~13~~ 12		25 22	16.23 499.40	80 16	42.33 1183.43		"	"
DYBN 15		25 22	9.52 292.93	80 16	45.65 1276.27		"	"
LIGHT 14		25 22	4.67 143.70	80 16	51.43 1437.88	73L(C)2953R 3/18/73	P-8-3-V 4/10/75	"
DYBN 15A		25 22	0.65 20.00	80 16	52.28 1461.66		P-8-3-L 4/10/75	"

27

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	R. Wagner	FIELD ACTIVITY REPRESENTATIVE
	P. Dempsey	OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64,

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS
Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.
EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED
Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field Identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.
EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.
EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED
When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.
EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH
Enter 'V-Vis.' and date.
EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1974-665-073/1030 Region 6

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- ☐ HYDROGRAPHIC PARTY
- ☐ GEODETIC PARTY
- ☐ PHOTO FIELD PARTY
- ☒ COMPILATION ACTIVITY
- ☐ FINAL REVIEWER
- ☐ QUALITY CONTROL & REVIEW GRP.
- ☐ COAST PILOT BRANCH

(See reverse for responsible personnel)

☒ TO BE CHARTED ☐ TO BE REVISED ☐ TO BE DELETED	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
	Rockville, MD	FLORIDA	WEST ARSENICKER TO PALO ALTO KEY	2/14/75

The following objects HAVE ☐ HAVE NOT ☒ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
	PH-7113	TP-00435	N.A. 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° / // D.M. Meters	POSITION LONGITUDE ° / // D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
	HAWK CHANNEL ANGLEFISH CREEK					
LIGHT 14		25 20 7.85 241.55	80 16 49.72 1390.45	73L(C)2905R 3/18/73	P-8-3-L 4/10/75	11451 849
DYBN 8		25 20 1.91 58.77	80 15 19.82 554.28		"	"
DYBN 10		25 20 3.14 96.62	80 16 14.61 408.58		"	"
DYBN 12		25 20 5.86 180.31	80 16 41.98 1174.00		"	"
						28

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	R. Wagner	FIELD ACTIVITY REPRESENTATIVE
	P. Dempsey	OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64,

OFFICE

1. OFFICE IDENTIFIED AND LOCATED OBJECTS
   Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.
   EXAMPLE: 75E(C)6042
   8-12-75

FIELD

1. NEW POSITION DETERMINED OR VERIFIED
   Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field Identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

   A. Field positions* require entry of method of location and date of field work.
   EXAMPLE: F-2-6-L
   8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

   B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.
   EXAMPLE: P-8-V
   8-12-75
   74L(C)2982

II. TRIANGULATION STATION RECOVERED
   When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.
   EXAMPLE: Triang. Rec.
   8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH
   Enter 'V-Vis.' and date.
   EXAMPLE: V-Vis.
   8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1974-665-073/1030 Region 6

National Archives Data
TP-00435

1 Discrepancy Print

1 Field Edit Sheet (stable base)

2 Forms 76-40 (Field)

1 Form 76-36C

2 Pages sextant cuts

Field photographs:

73L 2953 and 2954, 2945R
72K6585, 6454, and 6436