

Original

TP-00469

TP-00469

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-7120 Map No. TP-00469

Classification No. Final Edition No. 1

LOCALITY

State Florida

General Locality Monroe County

Locality Marathon to Pigeon Key

1972 TO 1976

REGISTRY IN ARCHIVES

DATE

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
DESCRIPTIVE REPORT - DATA RECORD		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Rockville, Maryland		SURVEY TP-00469 MAP EDITION NO. (1) MAP CLASS Final JOB PH-7120	
OFFICER-IN-CHARGE Commander James Collins		LAST PRECEDING MAP EDITION TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB PH- MAP CLASS SURVEY DATES: 19__ TO 19__	
I. INSTRUCTIONS DATED			
1. OFFICE General Instructions-OFFICE-NOS-Cooperative Coastal Boundary Mapping, Job PH-7000, December 9, 1975 Supplement I, November 4, 1974 Supplement III, October 24, 1974 NOTE: Office and field edit instructions (1975) incorporate applicable prior operational instructions		2. FIELD Instructions-FIELD-July 6, 1972 Field Edit (PH-7000 General Instructions for Florida Coastal Zone Mapping) 1973	
II. DATUMS			
1. HORIZONTAL:		<input checked="" type="checkbox"/> 1927 NORTH AMERICAN OTHER (Specify)	
2. VERTICAL:		<input checked="" type="checkbox"/> MEAN HIGH-WATER <input checked="" type="checkbox"/> MEAN LOW-WATER <input type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL OTHER (Specify)	
3. MAP PROJECTION Transverse Mercator		4. GRID(S) STATE Florida ZONE East STATE ZONE	
5. SCALE 1:10,000		STATE ZONE	
III. HISTORY OF OFFICE OPERATIONS			
OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: Analytic LANDMARKS AND AIDS BY		R. Kelly Inapplicable	10/75
2. CONTROL AND BRIDGE POINTS METHOD: Coradomat PLOTTED BY CHECKED BY		B. Maynard Inapplicable	2/76
3. STEREOSCOPIC INSTRUMENT COMPILATION INSTRUMENT: SCALE:		PLANIMETRY BY CHECKED BY CONTOURS BY CHECKED BY	Inapplicable Inapplicable Inapplicable
4. MANUSCRIPT DELINEATION METHOD: Graphic SCALE: 1:10,000 HYDRO SUPPORT DATA BY CHECKED BY		PLANIMETRY BY CHECKED BY CONTOURS BY CHECKED BY Inapplicable	C. Lewis, P. Dempsey J. Battley Inapplicable Inapplicable
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY		J. Battley	4/76
6. APPLICATION OF FIELD EDIT DATA CHECKED BY		J. Schad C. Lewis	8/76 9/76
7. COMPILATION SECTION REVIEW BY		C. Lewis	2/77
8. FINAL REVIEW BY		D. Brant	3/77
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY			
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		D. Brant	12/77
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		R. Carter	3/78

NOAA FORM 76-36B
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

COMPILATION SOURCES

TP-00469

1. COMPILATION PHOTOGRAPHY

CAMERA(S) WILD RC-8 C&L 6" Focal Length		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE <input type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input checked="" type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY		(C) COLOR IR (P) PANCHROMATIC (I) INFRARED B&W		ZONE Eastern MERIDIAN 75th & 60th	
				<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT	
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
74C(C)8362, 64, 66	3/16/74	1451	1:30,000	The stage of tide is inapplicable for the color photography. Refer to 76-36B(1) for tide information.	
72L(C)8463R	8/12/72	1520	1:30,000		
74C(C)8472, 74	3/16/74	1525	1:30,000		
72L7917R-7920R	7/28/72	1212	1:20,000		
74CR2355-2357	11/12/74	1007	1:30,000		
74CR2187-2188	11/8/74	1343	1:30,000		
72L7961R-7965R	7/28/72	1247	1:30,000		
72L8260R-8263R	8/3/72	1614	1:20,000		
72L8078R-8081R	7/30/72	0900	1:30,000		
74CR2624-2626	11/11/74	0922	1:30,000		

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 cultural features and compiling the limits of vegetation and shoal and shallow areas.

Where the shoreline is obscured by vegetation, such as mangrove, the apparent shoreline symbol was used.

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

The source of the MLWL is the black-and-white, tide-coordinated 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

5. FINAL JUNCTIONS

NORTH	No contemporary survey	EAST	TP-00470	SOUTH	No contemporary survey	WEST	TP-00462 TP-00468
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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 - 00469

LOCATION AND PHOTOGRAPHY	TIDE STATIONS (In operation at time of photography)	STAGE OF TIDE	MEAN RANGE
72L7917R-7920R	Duck Key	-0.01 MHW	1.35'
74CR2355-2357	Little Duck Key	+0.23 MHW	0.90'
74CR2187-2188	Little Duck Key	-0.04 MHW	0.90'
72L7961R-7965R	Vaca Key, N. Side	0.00 MHW	0.66'
72L8260R-8263R	Duck Key	-0.08 MLW	1.35'
72L8078R-8081R	Vaca Key, N. Side	+0.09 MLW	0.66'
74CR2624-2626	Little Duck Key	+0.09 MLW	0.90'

REMARKS:

HISTORY OF FIELD OPERATIONS TP-00469

I. ☒ FIELD INSPECTION OPERATION* Aug. 1972 ☒ FIELD EDIT OPERATION May 1976

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R.R. Wagner	5/76
2. HORIZONTAL CONTROL	RECOVERED BY R.R. Wagner ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	5/76
3. VERTICAL CONTROL	RECOVERED BY R.R. Wagner ESTABLISHED BY XXXXXXXXXXXX IDENTIFIED BY R.R. Wagner	5/76
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY R.R. Wagner LOCATED (Field Methods) BY R.R. Wagner IDENTIFIED BY R.R. Wagner	5/76
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY BY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY R.R. Wagner	5/76
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY Inapplicable	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
	Refer to field report	74C8472 74C8364 72L8463R	V 278 R 273 E 327

3. PHOTO NUMBERS (Clarification of details)

72L8463R; 74CR2625; 2626; 74C8362, 8364; 74C8472

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

Landmarks and nonfloating aids for charts were either verified or located by field methods.

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
74C8364 74CR2624	Tower Radio Towers (WFFG) (South, 1 of 4)		
72L8463R	MICRO Tower, Radio Towers (south, 1 of 3) Radio Tower		

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

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

* The field report is bound with this Descriptive Report.

1 Form 251 (not for Geodesy)

10 pages of Sextant fixes

RECORD OF SURVEY USE TP-00469

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
OFFICE - Class III	4/29/76	Special Request from Requirements Branch		
FIELD Edit - Class I	7/22/76	" " "	11/8/76	

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
		12/07/76	Four (4) digitized NOAA Forms 76-40 submitted as final report.

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: 12/07/763. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

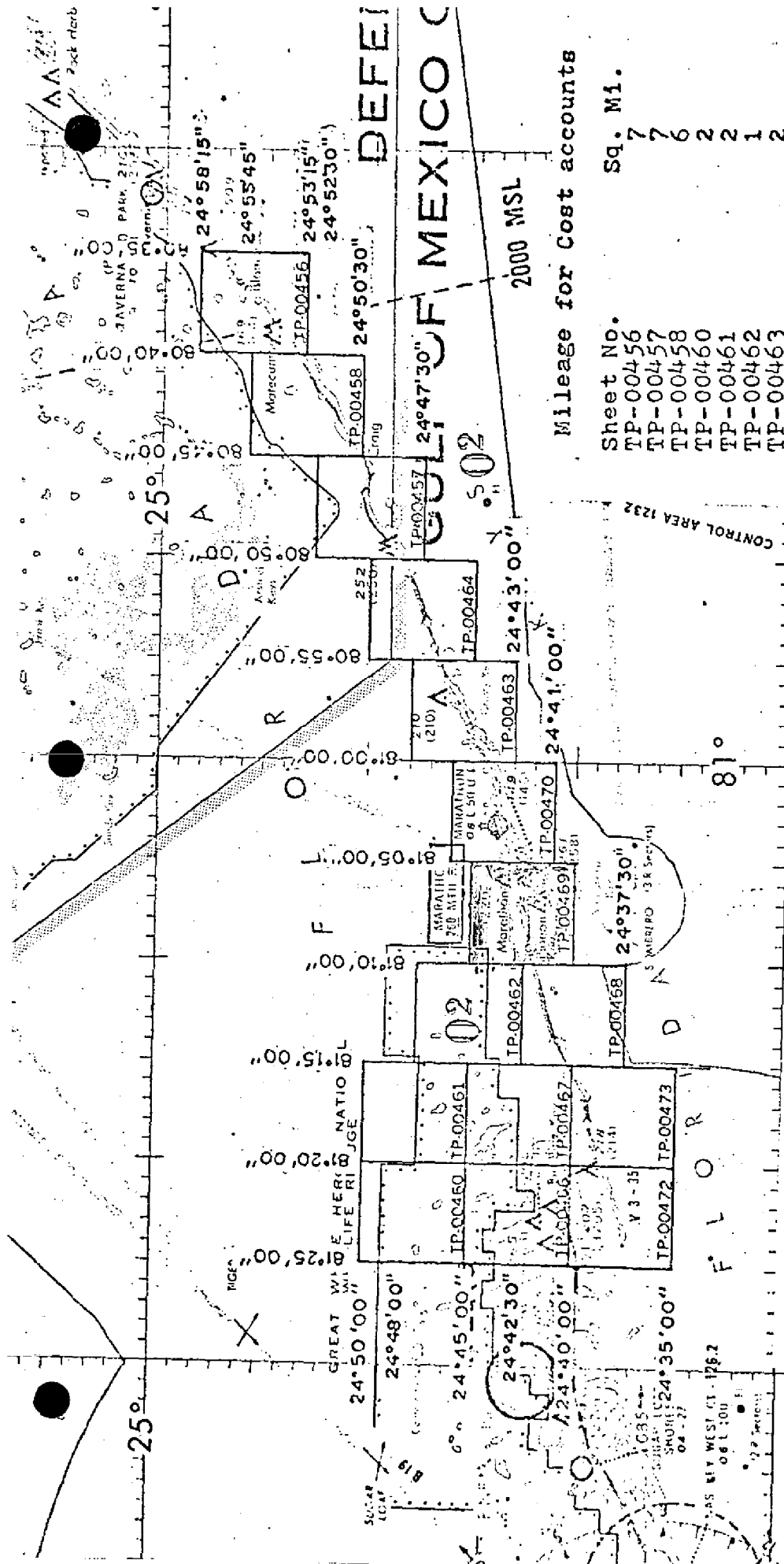
III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☐ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
 2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS ⁷⁶⁻⁴⁰ ~~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. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)

SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	



JOB PH-7120

PLANTATION KEY TO BIG PINE KEY FLORIDA

SHORELINE MAPPING

SCALE 1:10000

REVISED 10/3/74
2/24/76

R A

Mileage for Cost accounts

Sheet No.	Sq. M1.
TP-00456	7
TP-00457	7
TP-00458	6
TP-00460	2
TP-00461	2
TP-00462	1
TP-00463	2
TP-00464	4
TP-00466	12
TP-00467	5
TP-00468	3
TP-00469	5
TP-00470	6
TP-00472	8
TP-00473	3
Total	82

DEFERRED
GULF OF MEXICO

2000 MSL

SUMMARY

For

TP-00456 thru TP-00458

TP-00460 thru TP-00464

TP-00466 thru TP-00473

Coastal Zone Map TP-00469 is one of fifteen (15) 1:10,000 scale (shoreline type) maps in Job PH-7120. 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.

The layout for Job PH-7120 (revised since the aerotriangulation operation) will show the location of the individual maps. A copy of the 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 (Job PH-7120) is covered by photography taken in 1972 and 1974 on color, color infrared, and black-and-white infrared film. The black-and-white infrared film was tide-coordinated at MHW and MLW datums.

The field operations consisted of the following:

1. Premarking of horizontal control and photographing the area.
2. Establishing tidal datums
3. Field edit

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

The interior details shown on the shoreline type maps were stereoscopically compiled from the rectified prints of the color or color infrared photography.

The tidal datum lines (MHWL and MLWL) and offshore details were compiled from tide-coordinated, black-and-white infrared photography by graphic methods. This photography was controlled by points determined by aerotriangulation and map detail compiled from the rectified photography. The rectified color or color infrared photography was also used as an aid to interpret culture and apparent shoreline.

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

A registration copy for each map was prepared. The registration copy shows additional offshore details such as shoal and shallow areas 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

Three (3) eight-time (210mm) reduction negatives will be made for each registered map and they will be filed in the following locations:

1. One (1) with Reproduction Division
2. Two (2) with the Photo Map and Imagery Information Section

This report is on work done in accordance with Instructions - FIELD - Job PH-7120; Horizontal Control for Aerotriangulation and Field Support for Aerial Photography; Coastal Boundary Mapping, Plantation Key to Big Pine Key, Florida, dated 7/6/72. Work began on June 19, 1972 and ended August 15, 1972.

All modifications to the instructions were approved by Mr. Ron Brewer. Instructions to Air Photo Mission 2 changed the tolerance on MHW from 0.3 foot to 0.1 foot. Verbal instructions from Mr. Brewer cancelled flight lines 30-6, 30-7, and 30-8 and corresponding premark work because tidal information was not available.

1. PREMARKING OF CONTROL

18 stations were paneled in accordance with the job diagram. A second order traverse with tellurimeters establishing 12 stations was run to supplement the existing control. A position was established on Pigeon Key and successfully used to recover MOSER 1935.

2. AEROTRIANGULATION PHOTOGRAPHY

This photography was completed. In addition, individual photographs of each paneled station were taken at a low altitude. Panels were completely removed after notified by the Chief, Mission 2 that the film was successfully developed.

3. TIDE COORDINATED PHOTOGRAPHY

Locations of the tide staffs are shown on the job diagram accompanying this report. Photography was taken on July 28 and 30 and August 8, 11, 12, and 13. Recordings entered in the tide volumes, Form 277, were at 5 minute intervals during photography and at 15 minute intervals near photography. Tolerances of ± 0.10 foot for MHW and MLW and ± 0.20 foot for MWL were observed. Wet staff readings - crest, mean, and trough - were recorded while photography was in progress. Eastern Standard Time was used. Time checks were made with WWV, Fort Collins, Colorado.

Line 20-1 Atlantic Side MHW Flown at 1211-1225 on 28 July when the DUCK KEY staff read 3.50-3.35. Was re flown at 1225-1235 the same day. MLW Flown at 1605-1615 on 8 August and re flown at 1619-1632 the same day when the staff read 2.01-2.14.

Line 20-1 Florida Bay Side. Line was divided into 3 parts. South 1/3 controlled by the VACA KEY, NORTH SIDE staff, the mid 1/3 by the GRASSY KEY, NORTH SIDE staff, and the north 1/3 by the LOWER MATECUMBE KEY, FLA. BAY and GRASSY KEY, NORTH SIDE staffs. South 1/3 MLW Flown at 857-903 on 30 July when the VACA KEY staff read 2.95-3.00. South 1/3 MHW Flown at 1245-1250 on 28 July when the VACA KEY staff read 3.55. Reflown the same day at 1335-1345 when the staff read 3.75-3.80.

Mid 1/3 MHW Flown at 1335-1345 and reflowed at 1350-1500 on 28 July when the staff at GRASSY KEY read 3.50-3.70. Mid 1/3 MLW South $\frac{1}{2}$ of this line flown at 915-920 on 30 July when the GRASSY KEY staff read 2.80. North $\frac{1}{2}$ was flown on 12 August at 937-944 when the staff read 2.65. North 1/3 MHW Flown at 1335-1345 on 28 July when the GRASSY KEY staff read 3.50-3.56. Flown at 1250-1300 on 28 July when the LOWER MATECUMBE KEY, FLA. BAY staff read 3.29 - 3.27. North 1/3 MLW Flown at 937-944 on 12 August when the GRASSY KEY staff read 2.65. Flown at 1516-1521 on 11 August when the LOWER MATECUMBE KEY, FLA BAY staff read 2.45-2.41.

Line 15-1 Atlantic Side MHW Flown at 1327-1333 on 30 July when the LOWER MATECUMBE KEY, HAWK CHANNEL staff read 3.90-3.86. MLW Flown at 1548-1555 on 8 August when the staff read 2.08-2.10. Florida Bay side MHW Flown on 30 July at 1030-1040 and reflowed the same day AT 1040-1100 when the LOWER MATECUMBE KEY FLA. BAY staff read 3.22-3.29. The south end of this line was also flown at 1315-1322 on 28 July when the staff read 3.18-3.12. MLW Flown on 11 August at 1504-1510 when the staff read 2.49-2.47

Line 30-1 Atlantic Side MHW Flown on 12 August at 959-1005 when Tavernier Hawk Channel staff read 4.29-4.30 and again at 1034-1036 when the staff read ~~4.40-4.43~~ 4.40-4.43. MLW Flown on 8 August at 1534-1540 when the staff read 2.25-2.38. Florida Bay Side The northern 2/3 of this line was controlled by TAVERNIER, FLA. BAY MWL It was flown on 12 August at 1637-1641 when the staff read 2.68. The south end of the line was lengthened about 2 miles. MHW Flown at 1355-1401 on 13 August when the UPPER MATECUMBE KEY, FLA. BAY staff read 2.58 and on 30 July at 1305-1318 when the staff read 2.76-2.77. MLW Flown on 8 August at 1534-1540 when the staff read 2.34-2.32.

Line over the ISLAMORADA, WHALE CHANNEL tide staff. A 4 mile line centered on the staff was flown for MHW AND MLW at 1:20,000 scale. MHW Flown on 12 August at 1019-1022 when the staff read 3.40-3.43. MLW Flown at 1636-1640 on 11 August when the staff read 2.17-2.15.

Line 30-4. MHW Flown at 1045-1047 on 12 August when the LOWER MATECUMBE KEY, FLA. BAY staff read 3.15-3.17. Reflowed on 13 August at 1120-1122 when the staff read ~~3.10~~ 3.10. MLW Flown on 11 August at 1534-1537 when the staff read 2.40 and reflowed 1545-1548 the same day when the staff read 2.39-2.37.

Line 30-3 MWL Flown on 11 August at 1602-1606 when the staff at TAVERNIER, FLA. BAY read 2.67. Reflowed on 12 August at 1621-1624 when the staff read 2.68.

Line 30-2. North half controlled by TAVERNIER, FLA. BAY MWL. Flown on 11 August at 1556-1601 when staff read 2.68-2.67. Reflowed on 12 August at 1627-1630 when the staff read 2.68. MHW Southern end. Flown at 1407-1410 on 13 August when the UPPER MATECUMBE KEY, FLA. BAY staff read 2.58. Tide at this location had not reached the 0.1 foot tolerance on high water for several days. MLW Flown at 1556-

1601 on 11 August when the staff read 2.27-2.26. Reflown on 12 August at 1059-1101 when the staff read 2.33-2.35.

4. FORESHORE PROFILES

Beach areas were inspected from the ground, by boat and airplane. It was decided that profiles were not needed and none were taken.

5. BRIDGE AZIMUTHS

The azimuths of two long bridges in the project area were obtained and are included in the field data.

6. FIELD RECORDS

All field records and computations were forwarded to C3413 on 2 October 1972.

John C. Veselenak

John C. Veselenak
Chief, Photo Party 65

PHOTOGRAMMETRIC PLOT REPORT
Boot Key to Key West, Florida
Job PH-7201
October 1975

21. Area Covered

This report covers twenty-five 1:10,000 sheets, TP-00474 thru TP-00489, TP-00460 thru TP-00462, TP-00466, TP-00467, TP-00468, TP-00472, and TP-00473, from Boot Key to Key West, Florida. TP-00469

22. Method

Three strips of 1:60,000 photography were bridged by analytic aerotriangulation methods and adjusted to ground on the Florida State Plane Coordinate System, East Zone. The three strips were also adjusted as a block. The attached four sketches shows the placement of horizontal control, closures to control used in the block adjustment, mean high and mean low water photography, and photography to be used for compilation. Bridge points were drilled on the 1:30,000 scale color photography and measured on 1:60,000 color bridging photography to control the setting of models on the B-8 for compilation. Bridge points were also pricked on the infrared photography and measured on the 1:60,000 color bridging photography for ratioing photographs to be used in the compilation of the mean high and mean low water line.

23. Adequacy of Control

The horizontal control provided was adequate except for DUCK 2, 1937 Substitute Station and DUCK 2, 1937 ARRAY (panel). These two stations held the same in the block adjustments as they did in the strip adjustment with 15 feet error in the Y direction. There was no apparent reason for the error. All other control held within the accuracy required by National Standards of Maps. Accuracy at 1:10,000.

24. Supplemental Data

Local shoreline was used to provide elevations for vertical adjustments of the bridges.

25. Photography

RC-8 color film positives were adequate as to coverage, overlap, and definition.

Submitted by,

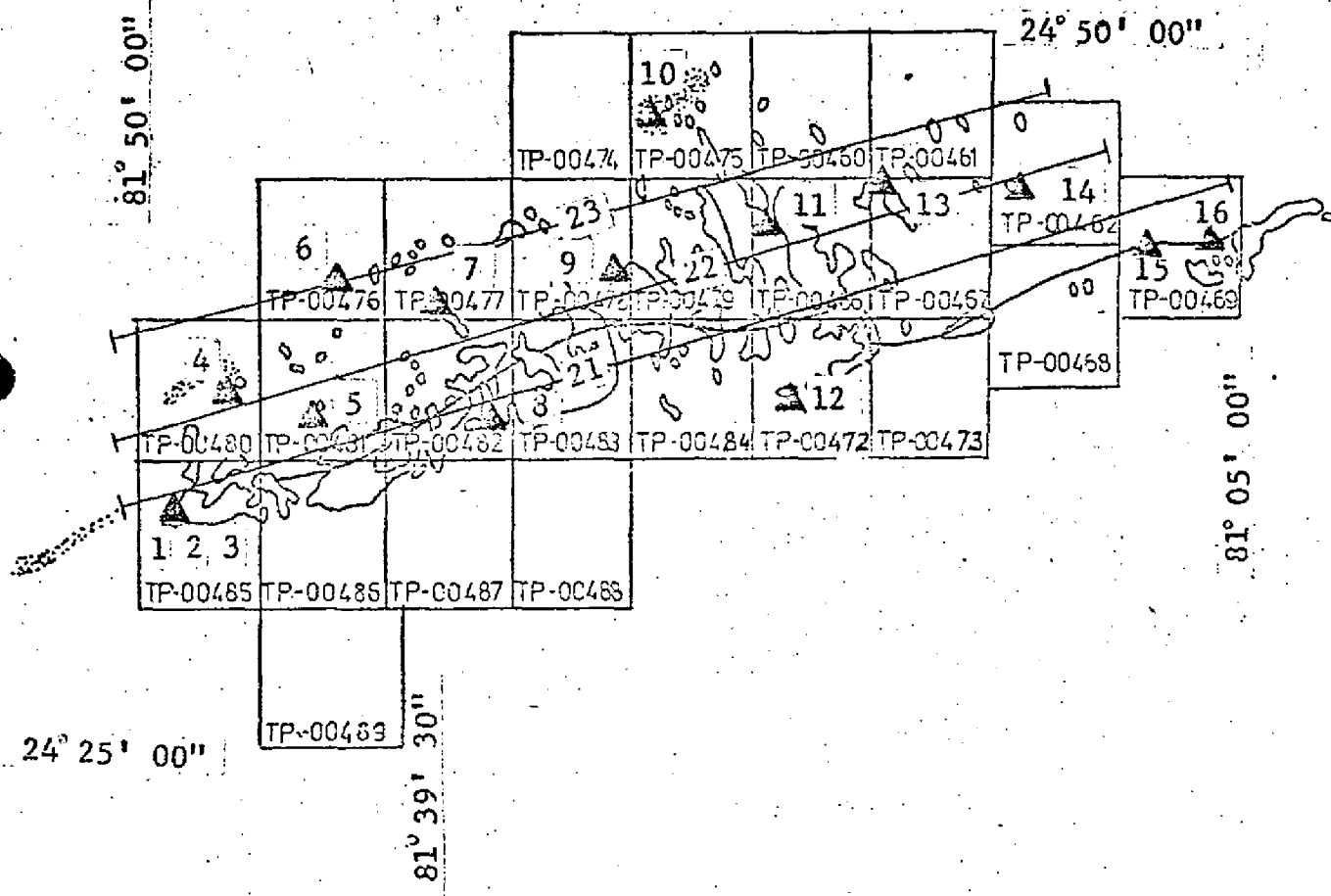
Robert B. Kelly
Robert B. Kelly

Approved and Forwarded:

John D. Perrow Jr.

John D. Perrow, Jr.
Chief, Aerotriangulation Section

JOB CM-7201
 BOOT KEY TO KEY WEST
 FLORIDA
 SHORELINE MAPPING
 BRIDGING PHOTOGRAPHY



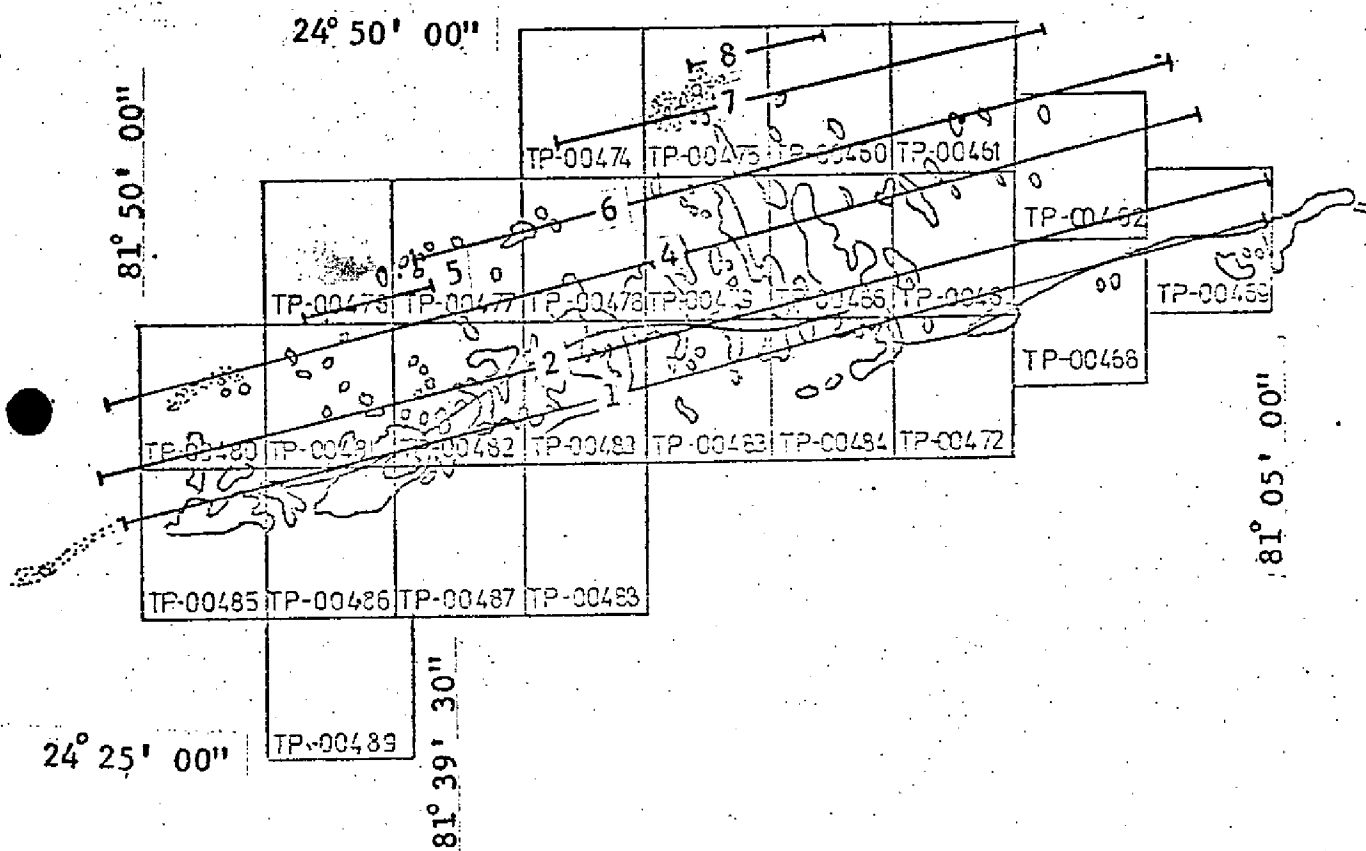
INDEX TO STRIPS OF PHOTOGRAPHS

21	74C(c)	8113-8141	Renumbered	101-114
22	"	8082-8108	"	201-214
23	"	8147-8171	"	301-313

CLOSURES TO CONTROL (BLOCK ADJUSTMENT)

1	Key West Naval Monument	(3.314, -1.519)
2	Key West Naval Station Tank, 1956	(0.003, 0.000)
3	Key West Lighthouse, 1849	(-2.592, -0.574)
4	Bay Key, 1934 Sub. Sta. 1	(1.309, -0.804)
5	Channel Key 2, 1934	(-1.066, 0.413)
6	Mud Key 2, 1934	(-1.631, -0.194)
7	Pek, 1934	(-0.056, 0.039)
8	Bunch, 1934	(-1.207, 1.886)
9	Cud, 1934	(-0.125, -0.134)
10	Content 2, 1935	(0.046, 0.286)
11	Pinkey, 1935	(0.180, 0.617)
12	Newfound, 1920	(0.020, -0.384)
13	Span, 1935	(0.046, -0.016)
14	Trade, 1935 Sub. Sta. 1	(-0.043, -0.001)
15	Moser, 1935 Sub. Sta. 1	(-0.210, 0.256)
16	Knight 2, 1936	(-0.499, -0.718)

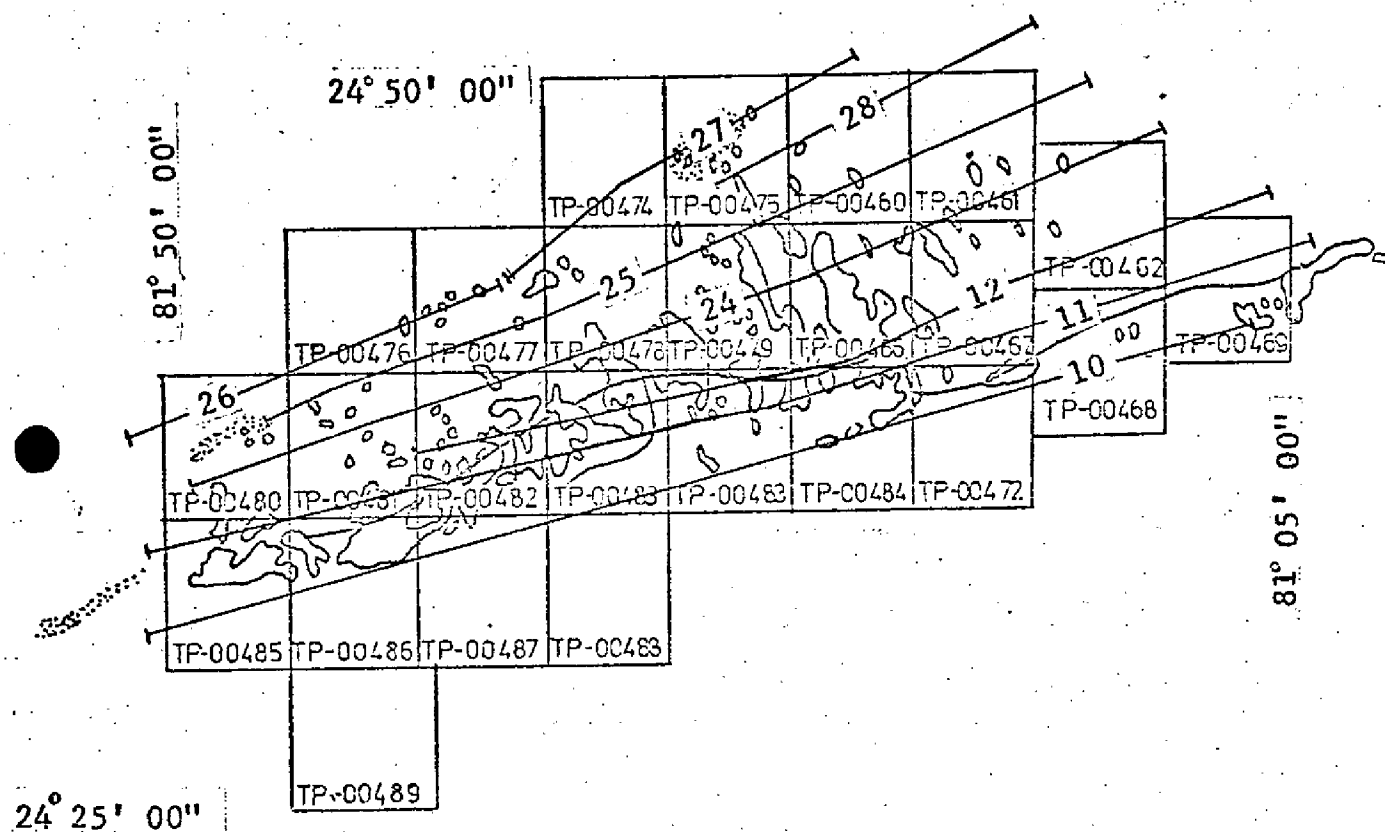
JOB CM-7201
 BOOT KEY TO KEY WEST
 FLORIDA
 SHORELINE MAPPING
 COMPILATION PHOTOGRAPHY



INDEX TO STRIPS OF PHOTOGRAPHS

1	74C(c)	8362-8418
2	"	8419-8475
4	"	8274-8328
5	"	8228-8232
6	"	7408-7446
7	"	7518-7544
8	"	7484-7491

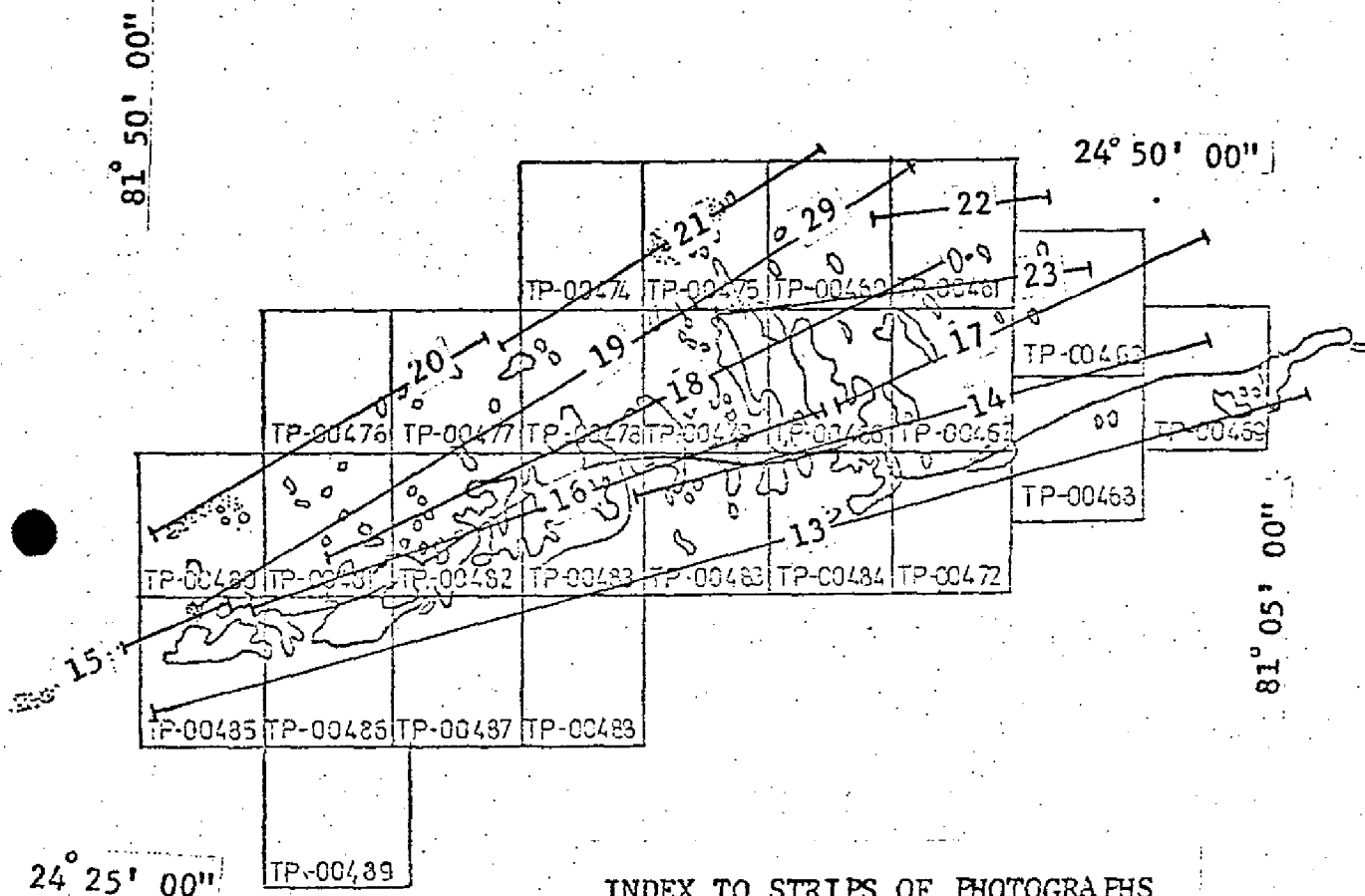
JOB CM-7201
 BOOT KEY TO KEY WEST
 FLORIDA
 SHORELINE MAPPING
 MEAN LOW WATER PHOTOGRAPHY



INDEX TO STRIPS OF PHOTOGRAPHS

10	74C	2624R-2653R
11	"	2655R-2685R
12	"	2744R-2757R
24	"	2769R-2795R
25	"	2846R-2868R
26	"	2823R-2833R
27	"	2566R-2576R
28	"	2524R-2532R

JOB CM-7201
 BOOT KEY TO KEY WEST
 FLORIDA
 SHORELINE MAPPING
 MEAN HIGH WATER PHOTOGRAPHY



INDEX TO STRIPS OF PHOTOGRAPHS

13	74C	2329R-2358R
14	"	2187R-2202R
15	"	2387R-2390R
16	"	2450R-2465R
17	"	2475R-2485R
18	"	2290R-2207R
19	"	2214R-2228R
20	"	2510R-2519R
21	"	2550R-2559R
22	"	2246R-2250R
23	"	2313R-2322R
29	"	2259R-2265R

PHOTOGRAMMETRIC PLOT REPORT
Plantation Key to Big Pine Key, Florida
(Eastern two-thirds)

Job PH-7120
November 1974

21. AREA COVERED

This report covers an area in the Florida Keys southwest from Plantation Key to Vaca Key. The area encompasses approximately the eastern two-thirds of the area originally included in Job PH-7120: Plantation Key to Big Pine Key, Florida. The remaining portion of PH-7120, as of this date, is expected to be included in Project CM-7201.

The Job consists of six (6) 1:10,000-scale sheets: TP-00456, TP-00458, TP-00457, TP-00464, TP-00463, and TP-00470. ~~TP-00469~~

22. METHOD

Six (6) strips of photography were bridged using aerotriangulation methods. Attached is a sketch showing the location of the strips. Tie points were made between strip No. 1 of PH-7120 and Strip No. 11 of PH-7119. As well, points were selected which can be used as tie points between strip No. 6 of PH-7120 and the adjacent strip of Project CM-7201.

Image points were located to rectify photographs for orthophoto, nautical, and small craft charts. All points were drilled by the PUG method. A sketch is attached which shows the control used in the strip adjustments and closure to control has been noted. All points will be plotted on the Florida East Zone Plane Coordinate System, using the Coradomat Plotter or the Calcomp Plotter. Ratio points were located on 19 strips of infrared contact prints so that they can be individually enlarged to scale. Sketches showing the location of ocean side and bay side mean high water and mean low water infrared black and white photography are attached.

The positions of all landmarks and aids to navigation which were visible on the photography were established.

23. ADEQUACY OF CONTROL

The control was adequate. Horizontal control was pre-marked. Due to placement of flight lines in relation to the control,

it was necessary in several instances to use tie points as control; tie points from Strip No. 1 were used as control on one end of Strip No. 2, tie points from Strip No. 2 were used to control one end of Strip No. 3, and tie points from Strip No. 4 were used as control for one end of Strip No. 5. These tie points are shown on the attached sketch of strips and control stations.

The strips are adjusted to new preliminary control positions which were furnished by Geodesy Division on May 29, 1974. Geodesy Division stated that 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 station 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.

A listing of closures to control is included on an attached sheet of control stations. The station with the largest residual was Snake, 1934, sub point, with +3.024 feet in X and -1.570 feet in Y when it was used to control strip No. 2.

The positions of photo point A(446410) and photo point B(442410) established in the bridging of Strip No. 6 are only very rough approximations, and should be used with caution. These points did not show up well at all on the photography.

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.

1:15,000 scale

Strip No. 4, August 12 72L8583R - 8594R

1:20,000 scale

Strip No. 6, August 12 72L8440R-8465R.

1:30,000 scale

Strip No. 1, 13 Aug. 72L 8695R-8693R
Strip No. 2, 13 Aug. 72L 8704R-8707R
Strip No. 3, 12 Aug. 72L 8425R-8431R
Strin No. 5, 12 Aug. 72L 8415R-8418R

The quality and definition of the photography was adequate.

Respectfully submitted,

Victor E. McNeel
Victor McNeel

Approved and forwarded:

John D. Perrow, Jr.
John D. Perrow, Jr.
Chief, Aerotriangulation
Section

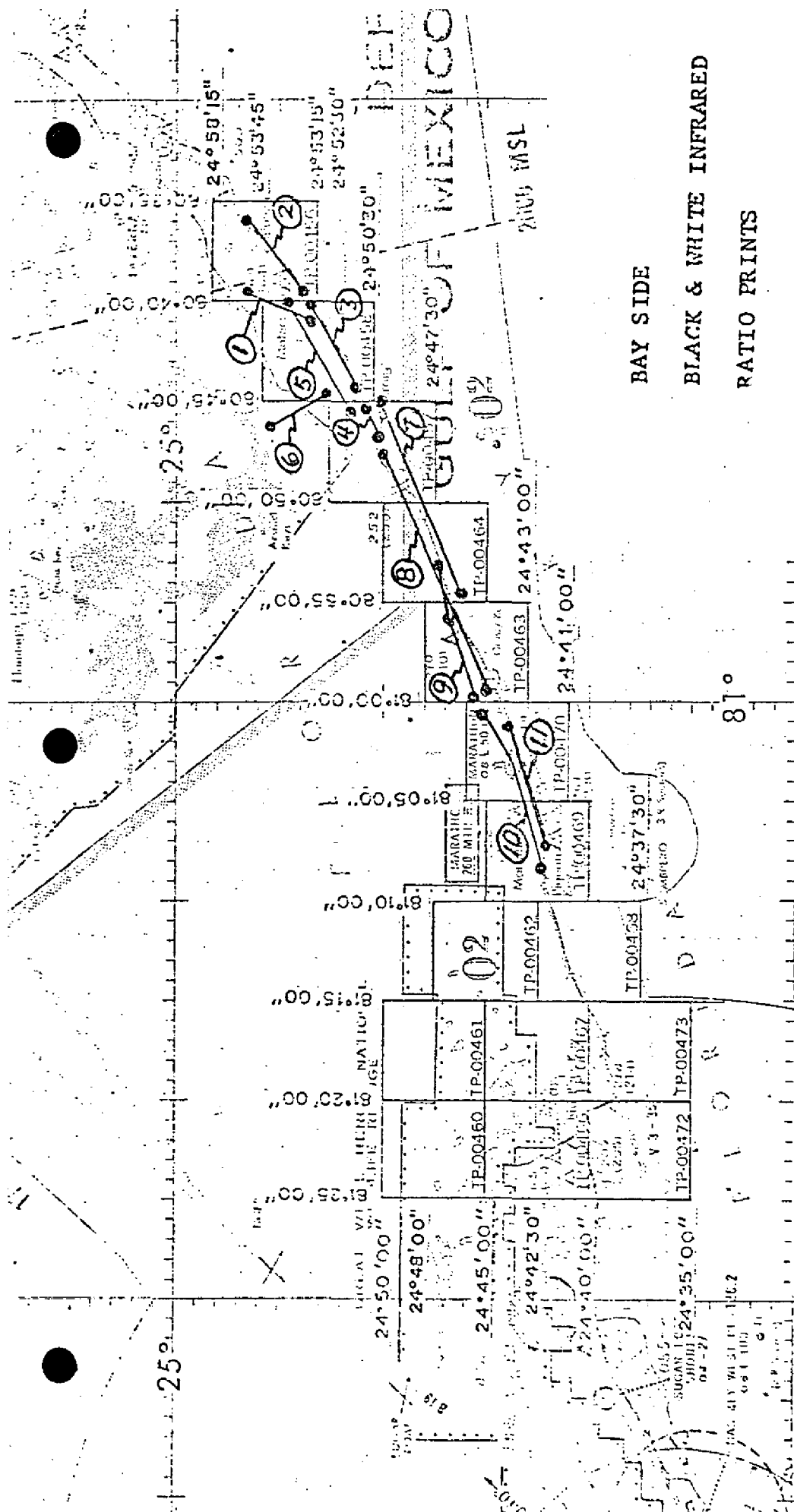
<u>CONTROL STATIONS</u>	<u>RESIDUALS</u>	
	<u>X</u>	<u>Y</u>
1. (695101) SNAKE, 1934, Sub Point	+3.024	-1.570
2. (707101) EAST, 1859, RM1	0.000	0.000
3. (697801) TIE POINT	0.000	0.000
4. (698101) NAIL ND NM SUB. PT. A	-0.246	+0.994
(698102) NAIL ND NM SUB. PT. B	+1.226	-1.084
5. (707802) TIE POINT	0.000	0.000
6. (425100) INDIAN KEY 2, 1934	-0.209	+0.088
7. (417101) BOWLEGS, 1934, Sub Point	+0.232	+0.097
8. (586802) TIE POINT	0.000	0.000
9. (418100) BUCHANAN, 1856	0.000	0.000
10. (440100) PARK, 1972	+0.235	-0.482
11. (443101) WATER, 1972, S.S.	-2.645	+2.829
12. (445100) JAWBONE, 1934	-1.162	+2.120
13. (446101) RESORT, 1972, S.S.	+0.369	-1.222
14. (449101) DICK, 1972, S.S.	-0.573	+0.489
15..(452100) GRASSY KEY, 1857	+2.561	-0.514
16. (454100) KEY 1935	+1.445	-0.055
17. (457101) BAMBOO, RM2	-1.118	-0.131
18. (464101) KNIGHT 2, 1936, S.S.	+0.071	+0.112

BAY SIDE BLACK AND WHITE
INFRARED RATIO PRINTS

1. 72L 8522R - 8524R MLW
2. 72L 8670R - 8673R MHW
3. 72L 8148R - 8154R MHW
4. 72L 8005R - 8006R MHW
5. 72L 8330R - 8338R MLW
6. 72L 8365R - 8367R MLW
7. 72L 8343R - 8354R MLW
8. 72L 8037R - 8051R MHW
9. 72L 8092R - 8098R MLW
10. 72L 7961R - 7970R MHW
11. 72L 8078R - 8085R MLW

OCEAN SIDE BLACK AND WHITE
INFRARED RATIO PRINTS

1. 72L 8491R - 8496R MHW
2. 72L 8206R - 8211R MLW
3. 72L 8183R - 8189R MHW
4. 72L 8223R - 8231R MLW
5. 72L 7930R - 7942R MHW
6. 72L 8241R - 8264R MLW
7. 72L 7945R - 7949R MHW
8. 72L 7917R - 7926R MHW



BAY SIDE

BLACK & WHITE INFRARED

RATIO PRINTS

JOB PH-7120

PLANTATION KEY to BIG PINE KEY

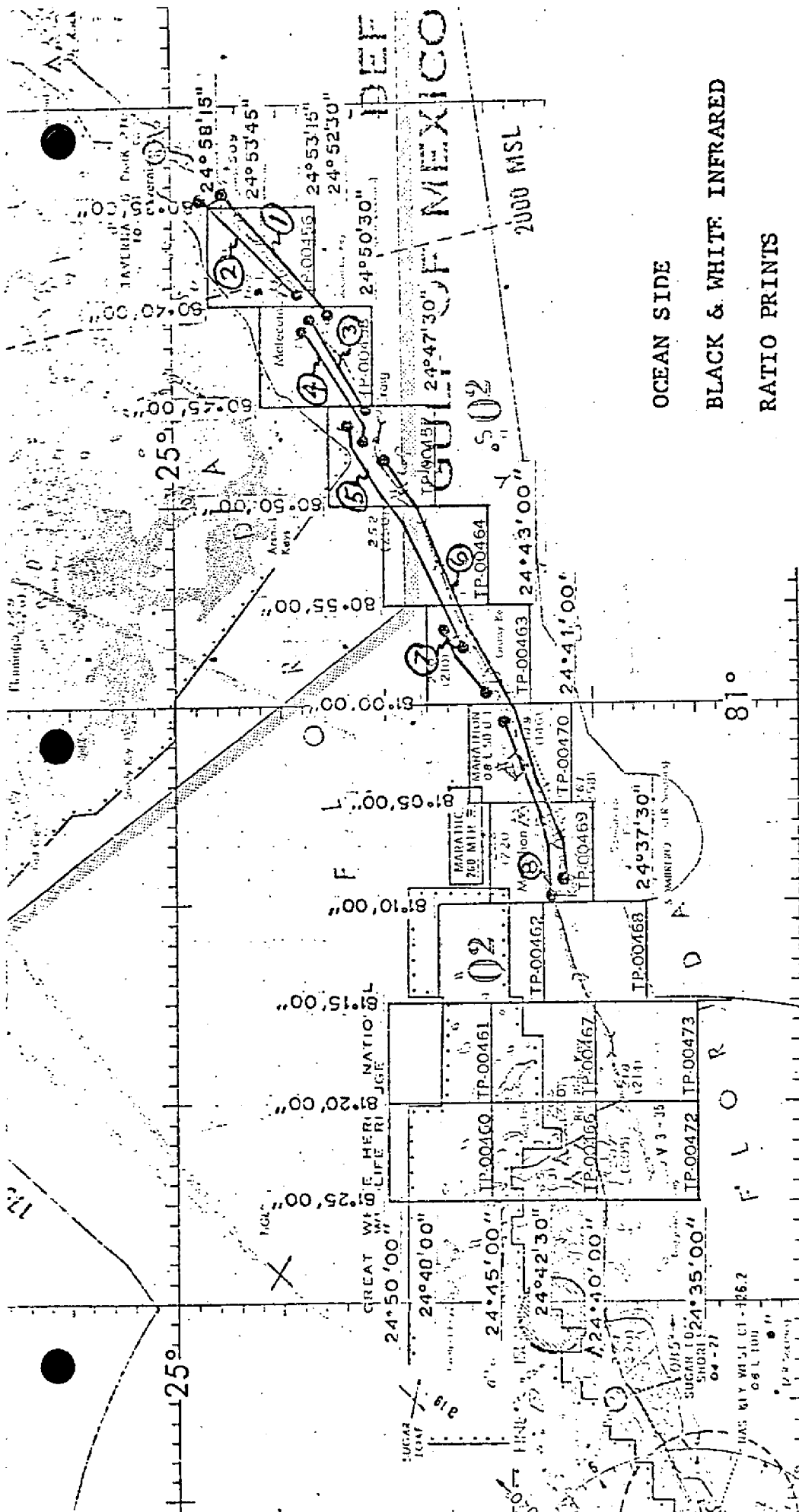
FLORIDA

SHORELINE MAPPING

Revised 10/3/74

SCALE 1:10,000

1



FLORIDA-NOAA Coastal Boundary Mapping Program

HORIZONTAL CONTROL TP-00469

Station	NOS Geodetic Data Reference for Descriptions, Positions, Coordinates and Azimuths
✓ MOSER 1935	Book 425, P.20,27,29,34,39; G.P. Fla. Vol. I P. 326; PC Fla. E. Zone P. 80*
✓ KNIGHT 2 1936	Book 425 P. 20,33,38; G.P. Fla. Vol. I P. 544; PC Fla. E. Zone P. 140 * Mr. Rolland D. Sveum, Maintenance Engr., set two RM's 3/76. Add his descriptions when published.

Compilation Report
TP-00469
April 1976

31. Delineation

The tidal datum lines and offshore features on this map were compiled from office interpreted black-and-white tide-coordinated infrared photography. This photography was controlled by common planimetric features compiled from the rectified prints and map points determined by aerotriangulation.

The rectified color photography was used as an aid for interpreting culture features and compiling shallow and shoal areas for Nautical Charts. Interior features, which consisted of main roads and public roads leading to the MHWL, were also compiled from the rectified color photography.

32. Horizontal Control - See Photogrammetric Plot Report

33. Supplemental Data - None

34. Contours and Drainage

Contours are not applicable. Drainage is stereo examination of the color contact prints and graphically compiled from the rectified photograph.

35. Shoreline and Alongshore Detail

The black-and-white tide-coordinated infrared photography was adequate for the delineation of the MHWL.

Two strips of black-and-white tide-coordinated infrared photography were furnished for the coast side. One strip had a tide gage reading of +0.09 and the other -0.08. The difference in penetration was noticeable. A combination of both strips was used to arrive at the best definition.

A field edit of this map is requested for the verification of the interpretation of the photography.

36. Offshore Details

Shoal and shallow lines were delineated from the rectified prints of the color photography.

37. Landmarks and Aids

All landmarks and aids will be located or verified during field edit.

38. Control for Future Surveys - None

39. Junctions

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

40. Horizontal Accuracy

This map complies with the accuracy requirements for the Florida Coastal Mapping Program as outlined in the project instructions for PH-7000.

41. thru 45. Inapplicable.

46. Comparison with Existing Maps

Comparison was made with the following USGS quadrangles:

Marathon, FL., 1971, scale 1:24,000
Sevenmile Bridge, FL, 1972, 1:24,000 scale

No significant differences were found.

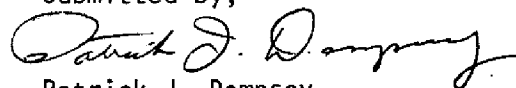
47. Comparison with Nautical Charts

Comparison was made with the following Nautical Charts:

11451, 1:80,000, 12th Edition, Sept. 7, 1974
852, 1:40,000, 5th Edition, Dec. 25, 1971
1250, 1:80,000, 10th Edition, Jan. 12, 1974

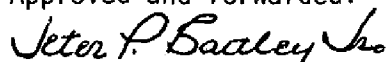
No significant differences were found.

Submitted by,



Patrick J. Dempsey
Carto.

Approved and forwarded:



J. P. Battley, Jr.
Chief, Coastal Mapping Section

FIELD EDIT REPORT MAP TP-00469, JOB PH 7120

51. METHODS

The shoreline was inspected from a small boat while cruising just off shore. Notes regarding apparent and fast shoreline, piers and other along shore details were made on the rectified photographs and field edit sheet.

Two triangulation stations were recovered.

Three vertical control stations were recovered and identified.

The data for seven aids located on TP-00462, TP-00469 and TP-00470 are submitted with this manuscript. Because of the location of these aids, it was necessary to determine their position by triangulation methods using triangulation and photo point stations. The computations should be checked in the Rockville office. Sextant fixes or cuts to aids located by graphic methods will be found on Form 251 and 10 pages of sextant cuts or fixes.

Six tide stations were identified.

Station	Bench Mark	Photograph
✓ Pigeon Key, Fla. Inside ✓	V 278 ✓	74C8472
✓ Pigeon Key, Atlantic Side ✓	V 278	74C8472
✓ Knight Key Chan. Fla. ✓	KNIGHT 2 1936 ✓	Plotted
✓ Vaca Key, Fla. Bay, Fla. ✓	R 273 ✓	74C8364
✓ Vaca Key, North Side, Fla. ✓	E 327 ✓	72L8463R
RKB → Boot Key Harbor	TBM1	74C8362

5/24/76 Field edit notes will be found on the discrepancy print, field edit sheet and the rectified photographs.

52. ADEQUACY OF COMPILATION

Adequate after application of field edit.

53. MAP ACCURACY

No test required.

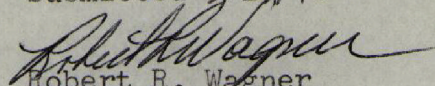
54. RECOMMENDATION

None.

55. EXAMINATION OF PROOF COPY

Not required.

Submitted 5/19/76


Robert R. Wagner
Chief, Photo Party 66

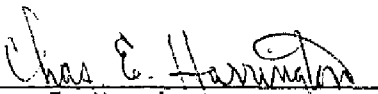
November 1977

GEOGRAPHIC NAMES
FINAL NAME SHEET
PH-7120 (Florida Keys)

TP-00469

Bethel Bank	Straits of Florida
Boot Key	Vaca Key
Boot Key Harbor	West Sister Rock
Fanny Keys	Seven Mile Bridge
Great White Heron National Wildlife Refuge	
Gulf of Mexico	
Hog Key	
Knight Key	
Knight Key Channel	
Marathon	
Palm Island	
Pigeon Key	
Pigeon Key Banks	
Pretty Joe Rock	
Sister Creek	

Approved


Chas. E. Harrington
Staff Geographer - C51x2

REVIEW REPORT
TP-00469

December 1977

61. General

The map manuscript for Coastal Zone Map TP-00469 was inspected before field edit and reviewed as a Class I manuscript by the Quality Control Group. This 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 for distribution to the state of Florida. 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 maps, 1:24,000 scale:

Seven Mile Bridge, Florida, 1972
Marathon, Florida, 1971

No significant changes were found.

Comparison was made with nautical chart 11449 (formerly C&GS 852), 8th Edition, dated August 20, 1977.

Chart 11449 shows ruins and submerged piles at lat. $24^{\circ} 42.5$ and long. $81^{\circ} 06$. These features are not visible on the photography and were not found during field edit. A copy of the field notes are attached to the Chart Maintenance Print.

63. thru 65. Inapplicable.

66. Adequacy of Results and Future Surveys

Coastal Zone Map TP-00469 complies with the Instructions for NOS Cooperative Boundary Mapping, Job PH-7000 and the National Standards of Map Accuracy.

Approved and Forwarded:

Chief, Photogrammetric Branch

Submitted by:

Donald M. Brant

Chief, Coastal Mapping Division

76-40

LISTING

PHOTOGRAMMETRIC BRANCH

COASTAL MAPPING DIVISION

NATIONAL OCEAN SURVEY

DEPARTMENT OF COMMERCE USA

NOAA

STPL

09/18/75

VERSION

SVY TP-00469

PH-7120

PRJ R

DTM NA-1927

* NONFLOATING AIDS FOR CHARTS

* TO BE CHARTED

* RPT UNIT

* CMD ROCKVILLE, MD.

* STATE

* FLORIDA

* LOCALITY

* MARATHON, VACA KEY

* DATE

* 12/07/76

* PAGE

* 3 OF

* 4

THE FOLLOWING OBJECTS HAVE NOT BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS

CHARTING*

RECORD REASON FOR DELETION

DESCRIPTION

POSITION

DM

DP

CODES*

C-C

SEQ

METHOD AND DATE

OF LOCATION

FIELD

CHARTS

NAME

PUT TRIANGULATION NAMES IN ()

LONGITUDE

OFFICE

AFFECTED*

HAWK CHANNEL

BOAT KEY HARBOR

EAST

DYBN

WFFG EAST OBST. DAYBEACON

24

40

50.47

1552.8

219

16

P-L-4-8

05/18/76

11449

11451

WEST

DYBN

WFFG WEST OBST. DAYBEACON

24

40

56.05

1724.5

219

17

P-L-4-8

05/18/76

DITTO

LONG KEY-MOSER CHANNEL

BETHEL BANK

24

43

42.96

1321.8

200

20

P-L-3-6

04/07/76

DITTO

KNIGHT KEY

24

42

54.11

1664.8

200

21

P-L-3-6

04/07/76

DITTO

HAWK CHANNEL

MOSER CHANNEL

24

41

39.98

1230.1

NOT

DGTZD*

04/20/76

DITTO

35

TYPE OF ACTION

NAMES OF RESPONSIBLE PERSONNEL

ORIGINATOR

POSITIONS DETERMINED

AND/OR VERIFIED BY

FIELD AND OFFICE

ACTIVITIES

ROBERT R. WAGNER

PATRICK J. DEMPSEY

MICHAEL W. JOHANIK

JAMES H. TAYLOR

FIELD REPRESENTATIVE

OFFICE COMPILER

DIGITIZER

DATA PROCESSER

SVY	TP-00469	LANDMARKS FOR CHARTS TO BE CHARTED	RPT UNIT	CMD	ROCKVILLE, MD.	PAGE	4 OF 4
JOB	PH-7120		STATE	FLORIDA			
PRJ	R		LOCALITY	MARATHON, VACA KEY	*ORIGINATING ACTIVITY*		
DTM	NA-1927		DATE	12/07/76	*COMPILATION*		
THE FOLLOWING OBJECTS HAVE BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS							
CHARTING*	RECORD REASON FOR DELETION	DESCRIPTION	LATITUDE	DM	POSITION	CODES*	METHOD AND DATE
NAME	PUT TRIANGULATION NAMES IN ()		LONGITUDE	DP		C-C	OF LOCATION
						SEQ	OFFICE
							FIELD
							AFFECTED
CONCRETE TOWER AT FARO BLANCO							
TOWER	HT=60 FT. ABOVE MHW		24 42 40.01	1231.0		86	P-5
			81 6 19.32	543.0		22	05/05/76
							74CC8364
RADIO VOICE OF AMERICA							
TOWER	HT=255(261) (SOUTH 1 OF 3)		24 41 52.50	1615.3		86	P-5
			81 5 18.73	526.5		23	05/05/76
							72LC8463R
RADIO STATION WFFG							
TOWER	HT=180(185) (SOUTH 1 OF 4)		24 41 28.77	885.2		86	P-5
			81 6 29.65	833.5		24	05/05/76
							74CR2624
MICRO SOUTHERN BELL							
TOWER	HT=224(230)		24 42 39.45	1213.8		86	P-5
			81 5 44.85	1260.6		25	05/05/76
							72LC8463R
RADIO AT FLORIDA D.O.T.							
TOWER	HT=150(156)		24 42 42.98	1322.4		86	P-5
			81 5 36.10	1014.7		26	05/05/76
							72LC8463R

TYPE OF ACTION	NAMES OF RESPONSIBLE PERSONNEL	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD	ROBERT R. WAGNER	PHOTO FIELD PARTY
POSITIONS DETERMINED AND/OR VERIFIED BY FIELD AND OFFICE ACTIVITIES	ROBERT R. WAGNER PATRICK J. OEMPSEY MICHAEL W. JOHANIK JAMES H. TAYLOR	FIELD REPRESENTATIVE OFFICE COMPILER DIGITIZER DATA PROCESSER

NATIONAL ARCHIVES DATA
TP-00469

December 1977

- 1 Discrepancy print (paper copy)
- 1 Field edit sheet (stable base copy)
- 1 NOAA Form 76-36C (History of Field Operations)
- 3 NOAA Forms 76-40 (Nonfloating Aids and Landmarks for Charts)
- 10 pages of sextant cuts
- 1 Book of observations of horizontal directions

PHOTOGRAPHY:

72-L-8463R

- Portions of the following photos:

74-C(R) 2624 thru 2626

74-C8362, 8364, and 8472