

TP-00470

TP-00470

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-00470.....  
Classification No. Final Edition No. 1.....

### LOCALITY

State ..... Florida.....  
General Locality .... Monroe County<sup>3</sup>.....  
Locality ..... Vaca Key.....

1972 TO 1976

### REGISTRY IN ARCHIVES

DATE .....

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
<b>DESCRIPTIVE REPORT - DATA RECORD</b>		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE  Rockville, Maryland		SURVEY TP. <u>00470</u>  MAP EDITION NO. <u>(1)</u>  MAP CLASS <u>Final</u>  JOB PH- <u>7120</u>	
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- <u>7120</u>  MAP CLASS <u>Final</u>  SURVEY DATES: 19__ TO 19__			
<b>I. INSTRUCTIONS DATED</b>			
<b>1. OFFICE</b>		<b>2. FIELD</b>	
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		Instructions-FIELD - July 6, 1972  Field Edit (PH-7000 General Instructions for Florida Coastal Zone Mapping) 1973	
<b>II. DATUMS</b>			
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 <u>Florida</u> ZONE <u>East</u> STATE _____ ZONE _____	
5. SCALE 1:10,000			
<b>III. HISTORY OF OFFICE OPERATIONS</b>			
OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: <u>Analytic</u>		BY <u>V. McNeel</u> LANDMARKS AND AIDS BY <u>Inapplicable</u>	<u>11/74</u>
2. CONTROL AND BRIDGE POINTS METHOD: <u>Coradi</u>		PLOTTED BY <u>J. Taylor</u> CHECKED BY <u>Inapplicable</u>	<u>5/75</u>
3. STEREOSCOPIC INSTRUMENT COMPILATION INSTRUMENT: SCALE:		PLANIMETRY BY <u>Inapplicable</u> CHECKED BY CONTOURS BY <u>Inapplicable</u> CHECKED BY	
4. MANUSCRIPT DELINEATION METHOD: <u>Graphic Rectified Photographs</u> SCALE: <u>1:10,000</u>		PLANIMETRY BY <u>C. Lewis</u> CHECKED BY <u>J. Battley, Jr.</u> CONTOURS BY <u>Inapplicable</u> CHECKED BY HYDRO SUPPORT DATA BY <u>Inapplicable</u> CHECKED BY	<u>3/76</u> <u>3/76</u>
5. OFFICE INSPECTION PRIOR TO FIELD EDIT		BY <u>J. Battley, D. Brant</u>	<u>3/76</u>
6. APPLICATION OF FIELD EDIT DATA		BY <u>J. Keating</u> CHECKED BY <u>J. Battley, Jr.</u>	<u>5/76</u> <u>5/76</u>
7. COMPILATION SECTION REVIEW		BY <u>C. Lewis</u>	<u>9/76</u>
8. FINAL REVIEW		BY <u>D. Brant</u>	<u>7/77</u>
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH		BY	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH		BY <u>D. Brant</u>	<u>9/77</u>
11. MAP REGISTERED - COASTAL SURVEY SECTION		BY <u>R. Cator</u>	<u>5/78</u>

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

TP-00470

## COMPILATION SOURCES

## 1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-8 "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) <u>COLOR IR</u> (P) PANCHROMATIC (I) <u>INFRARED B&amp;W</u>		ZONE Eastern	<input checked="" type="checkbox"/> STANDARD
				MERIDIAN 75th	<input type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
72L(C)8457R-8463R	8/12/72		1:20,000	The stage of tide is inapplicable for the color photography.	
72L7921R-2927R	7/28/72	1213	1:20,000	Refer to 76-36B(1) for tide information.	
72L7965R-7970R	7/28/72	1248	1:20,000		
72L8081R-8085R	7/30/72	0900	1:20,000		
72L8255R-8260R	8/08/72	1613	1:20,000		
74CR2358	11/12/74	1011	1:30,000		
74CR2624	11/22/74	0921	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, shoal, and shallow areas.

Where the MHWL was obscured by vegetation, such as mangrove, the apparent shoreline was delineated.

## 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
N/A					

## 5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
No survey	TP-00463	No Survey	TP-00469

REMARKS

Final junctions will be 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 - 00470

LOCATION AND PHOTOGRAPHY	TIDE STATIONS (In operation at time of photography)	STAGE OF TIDE	MEAN RANGE
FLORIDA BAY			
72L7965R-7970R	Vaca Key, North Side	0.00 MHW	0.66'
72L8081R-8085R	Vaca Key, North Side	+0.09 MLW	0.66'
STRAITS OF FLORIDA			
72L7921R-7927R	Duck Key	-0.01 MHW	1.35'
72L8255R-8260R	Duck Key	-0.08 MLW	1.35'
74CR 2358	Little Duck Key	+0.23 MHW	0.90'
74CR2624	Little Duck Key	+0.09 MLW	0.90'

## REMARKS:

Photos 74CR 2358 and 74CR2624 were used to delineate East Sister Rock. See item 31 of the Compilation Report.

## HISTORY OF FIELD OPERATIONS TP-00470

1. ☒ FIELD INSPECTION OPERATION \* Aug. 1972 ☒ FIELD EDIT OPERATION April 1976

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. R. Wagner	4/76
2. HORIZONTAL CONTROL	RECOVERED BY R. R. Wagner	4/76
	ESTABLISHED BY Inapplicable	
	PRE-MARKED OR IDENTIFIED BY Inapplicable	
3. VERTICAL CONTROL	RECOVERED BY R. R. Wagner	4/76
	ESTABLISHED BY Inapplicable	
	PRE-MARKED OR IDENTIFIED BY R. R. Wagner	4/76
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY Inapplicable	
	LOCATED (Field Methods) BY C. F. Lewis	4/76
	IDENTIFIED BY R. R. Wagner	4/76
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY C. F. Lewis	4/76
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 the Field Report	72L8457R 72L8459R 72L8462R	U 277 Tidal Sta 30A TBM 3, W 273 U 273
3. PHOTO NUMBERS (Clarification of details) 72L8457R thru 8462R; 74CR 2358 & 2624 REDI #36 & 37			
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
72L8462R	Radio Tower		
5. GEOGRAPHIC NAMES: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE		6. BOUNDARY AND LIMITS: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE	
7. SUPPLEMENTAL MAPS AND PLANS REDI photo prints numbered 36 and 37			
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.  6 pages of cuts			

## RECORD OF SURVEY USE TP-00470

## I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
1 stable base Class I	10/27/76	Special request from Requirements Branch		

## II. LANDMARKS AND AIDS TO NAVIGATION

## 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
		9/14/76	Three (3) digitized NOAA Forms 76-40 submitted as final report

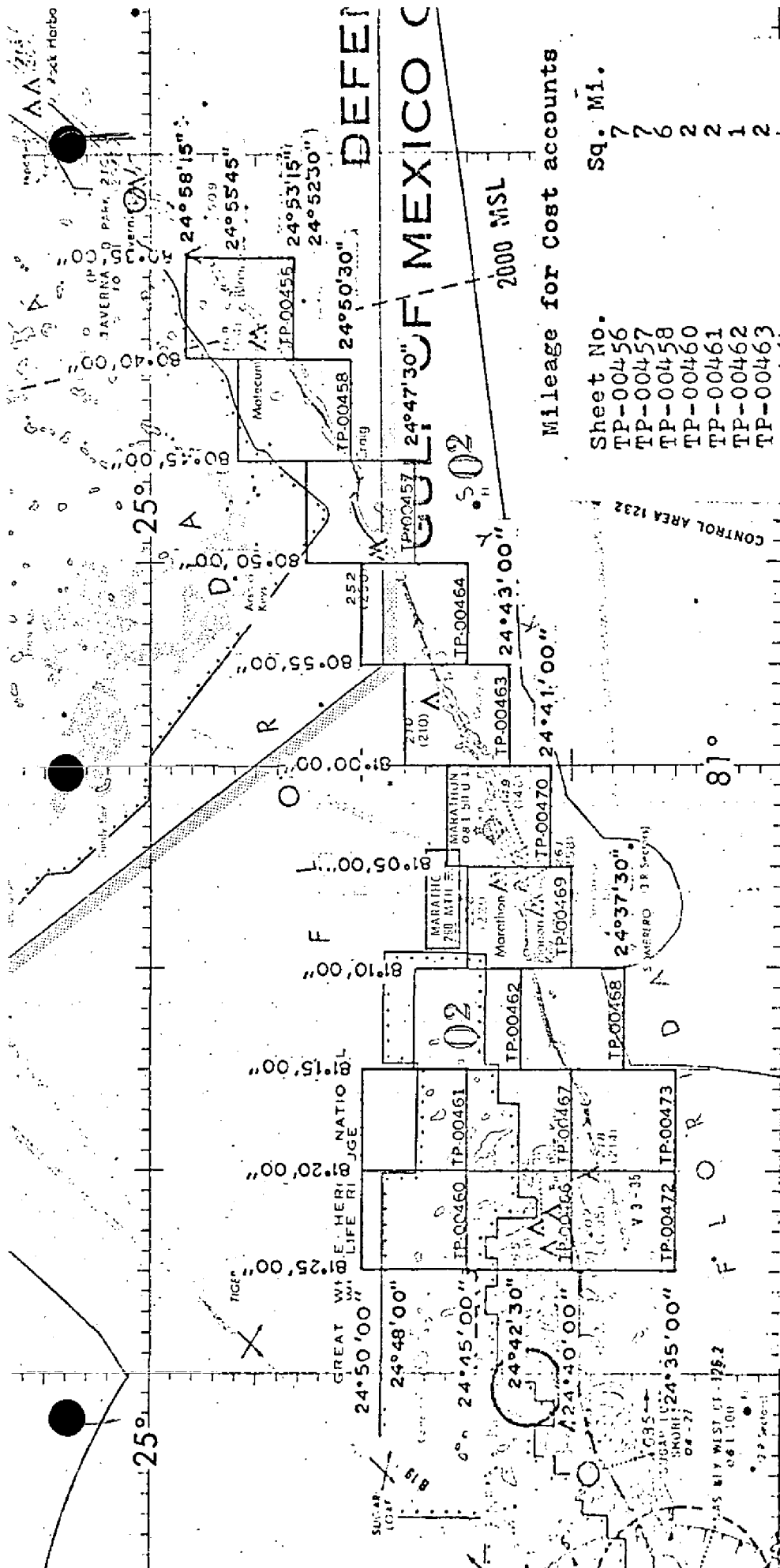
2. ☒ REPORT TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH. DATE FORWARDED: 9/14/76  
 3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: \_\_\_\_\_

## III. FEDERAL RECORDS CENTER DATA

1. ☐ BRIDGING PHOTOGRAPHS; ☐ DUPLICATE BRIDGING REPORT; ☐ COMPUTER READOUTS.  
 2. ☐ CONTROL STATION IDENTIFICATION CARDS; ☐ FORM NOS 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 10/9/74  
2/24/76

R A

Mileage for Cost accounts

Sq. Mi.

Sheet No.  
TP-00456  
TP-00457  
TP-00458  
TP-00460  
TP-00461  
TP-00462  
TP-00463  
TP-00464  
TP-00466  
TP-00467  
TP-00468  
TP-00469  
TP-00470  
TP-00472  
TP-00473

7  
7  
6  
2  
2  
1  
2  
4  
12  
5  
3  
5  
6  
8  
3  
Total 82

Total

## SUMMARY

For

TP-00456 thru TP-00458

TP-00460 thru TP-00464

TP-00466 thru TP-00473

Coastal Zone Map TP-00470 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.



8

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  $\pm 0.10$  foot for MHW and MLW and  $\pm 0.20$  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 reflown at 1225-1235 the same day. MLW Flown at 1605-1615 on 8 August and reflown 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 ~~XXXXXX~~ 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 MLW 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 ~~XXXX~~ 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 MLW 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 MLW. 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  
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.

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-8698R  
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
5. (698102) NAIL ND NM SUB. PT. B	+1.226	-1.084
6. (707802) TIE POINT	0.000	0.000
7. (425100) INDIAN KEY 2, 1934	-0.209	+0.088
8. (417101) BOWLEGS, 1934, Sub Point	+0.232	+0.097
9. (586802) TIE POINT	0.000	0.000
10. (418100) BUCHANAN, 1856	0.000	0.000
11. (440100) PARK, 1972	+0.235	-0.482
12. (443101) WATER, 1972, S.S.	-2.645	+2.829
13. (445100) JAWBONE, 1934	-1.162	+2.120
14. (446101) RESORT, 1972, S.S.	+0.369	-1.222
15. (449101) DICK, 1972, S.S.	-0.573	+0.489
16. (452100) GRASSY KEY, 1857	+2.561	-0.514
17. (454100) KEY 1935	+1.445	-0.055
18. (457101) BAMBOO, RM2	-1.118	-0.131
19. (464101) KNIGHT 2, 1936, S.S.	+0.071	+0.112

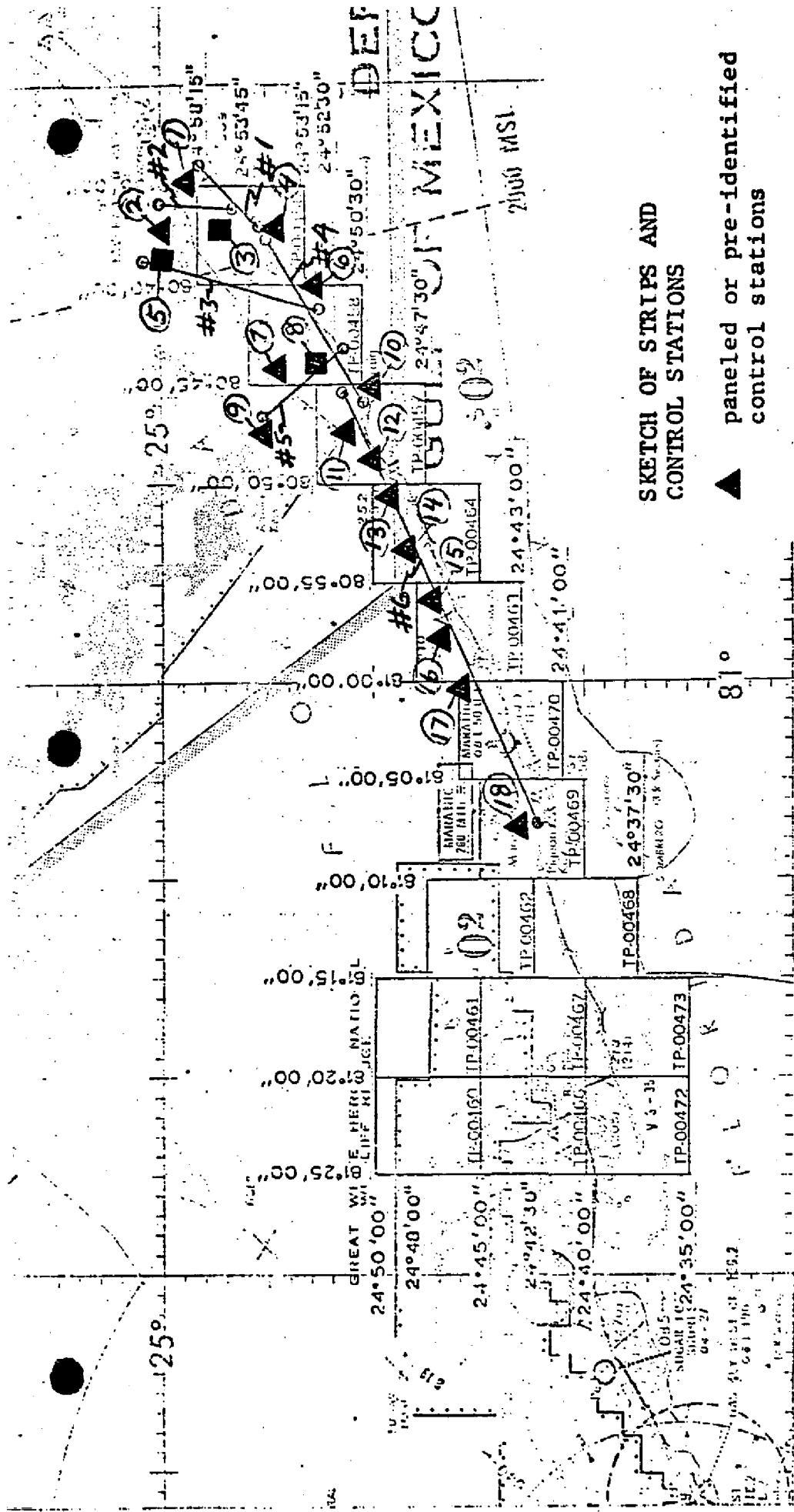


BAY SIDE BLACK AND WHITE  
INFRARED RATIO PRINTS

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



# SKETCH OF STRIPS AND CONTROL STATIONS

- | paneled or pre-identified control stations | tie points used as control |
|--|----------------------------|
| 1  | 1                          |
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| 100  | 100                        |

JOB FH-7120

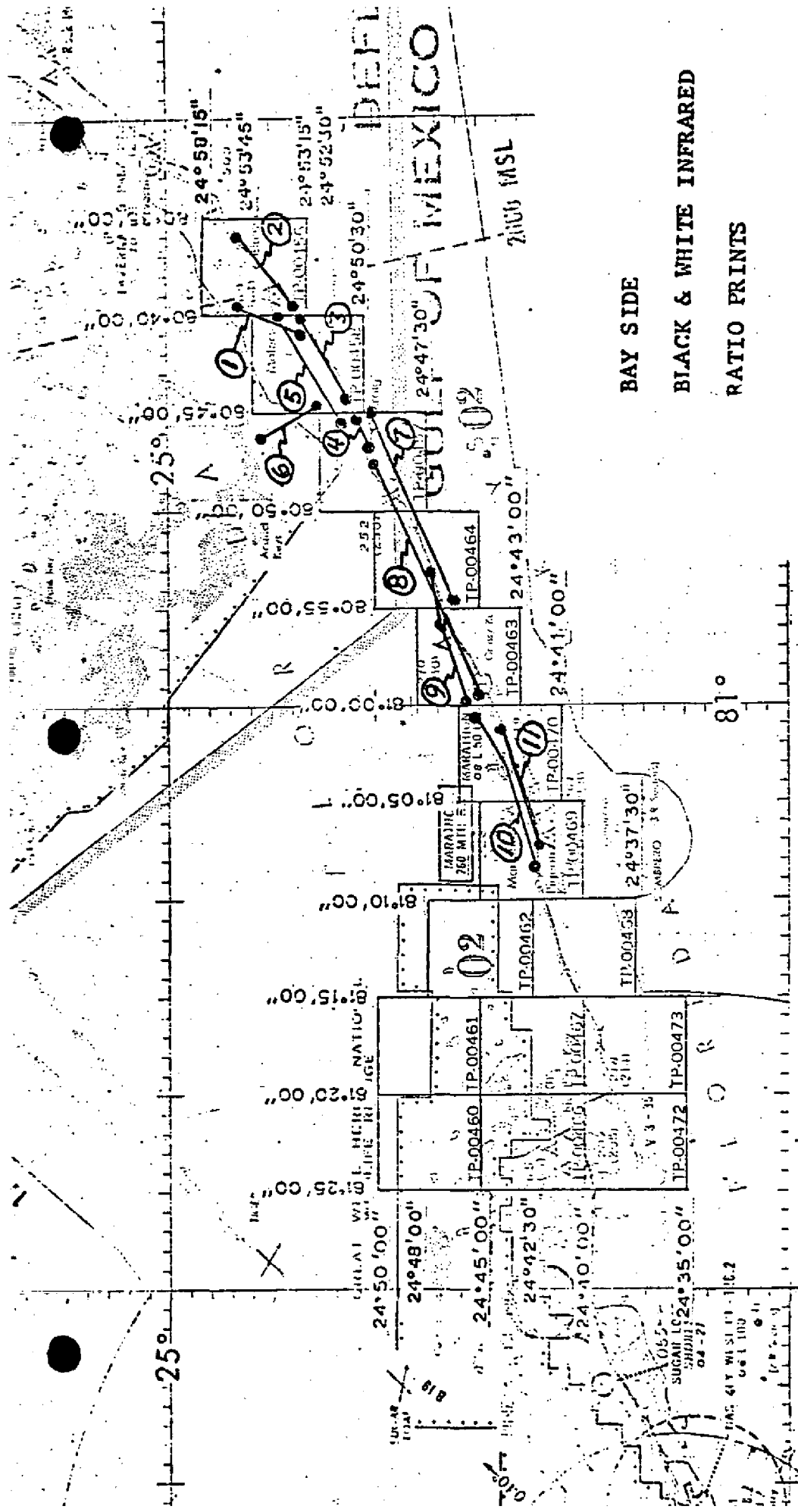
# PLANTATION KEY to BIG PINE KEY

FLORIDA

# SHORELINE MAPPING

REVISED 10/2/74

SCALE 1:10000



BAY SIDE  
BLACK & WHITE INFRARED  
RATIO PRINTS

JOB PH-7120

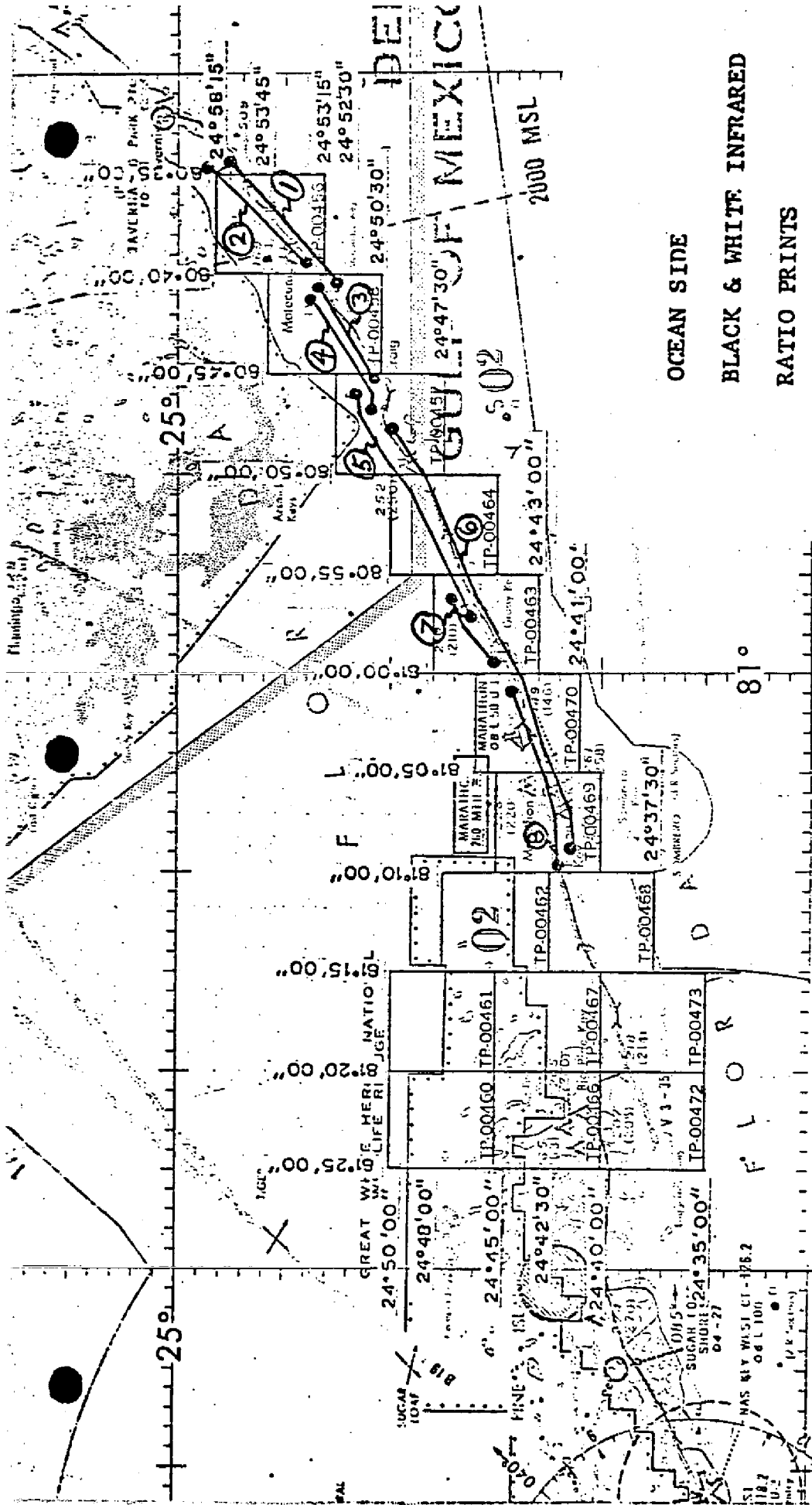
# PLANTATION KEY TO BIG PINE KEY

FLORIDA

SHORELINE MAPPING

REVISED 10/2/74

SCALE 1:10000



JOB PH-7120

# PLANTATION KEY TO BIG PINE KEY

FLORIDA

SHORELINE MAPPING

REVISED 10/3/74

SCALE 1:10000

OCEAN SIDE

BLACK & WHITE INFRARED

RATIO PRINTS

## HORIZONTAL CONTROL

Station	NOS Geodetic Data Reference for Descriptions, Positions, Coordinates and Azimuths
BAMBOO, 1857	Book 425, P. 18, 29, 30, 37; GP 373
STIRRUP, 1934	Fla. Vol. 1; PC P.95 Fla. E. Zone
	Book 425, P. 18, 29, 36, 39; GP 374
	Fla. Vol. 1; PC P. 95 Fla. E. Zone

Compilation Report  
TP-00470  
March 1976

31. Delineation

All features were delineated by graphic compilation. The 1972 rectified prints of the color infrared photography were controlled by map points determined by aerotriangulation and were used for compiling shoal and shallow areas, interior features, cultural shoreline, and limits of vegetation (where the 1972 tide-coordinated black-and-white infrared photography did not clearly show the shoreline).

The tidal datum lines were compiled from office interpretation of the ratioed tide-coordinated 1972 black-and-white infrared photography which was controlled by common detail compiled from the rectified prints of the color infrared photography & points located during bridging.

East Sister Rock was beyond the limits of the 1972 photography. The island was compiled from the ratio prints of the 1974 tide-coordinated infrared photography listed on form 76-36B. This photography was ratioed from control points transferred from the 1972 photography.

Some shoreline changes were made using the 1974 tide-coordinated ratio photographs 74CR2358 and 74CR2624. The areas of change were from 81°03' to 81°05'.

32. Horizontal Control

Horizontal control was adequate (See Photogrammetric Plot Report).

33. Supplemental Data - None

34. Contours and Drainage

Contours are not applicable. Ponds were compiled from rectified black-and-white prints of the color infrared photography.

35. Shoreline and Alongshore Detail

Office interpretation of the photography was adequate for delineating the shoreline and alongshore details.

36. Offshore Details

The Rachel Bank area in the NW corner of the sheet could not be compiled due to lack of photo coverage.

37. Landmarks and Aids to Navigation

Two landmarks were located during compilation and two landmarks were located photogrammetrically during bridging. All landmarks and aids to navigation will be located or verified during field edit.

38. Control for Future Surveys - None

39. Junctions - Refer to Form 76-368.

40. Horizontal Accuracy

This map complies with the National Map Accuracy Standards and with the accuracy requirements for the Florida Coastal Mapping Program as outlined by the Project Instructions for PH-7000.

41. thru 45. Inapplicable

46. Comparison with Existing Maps

Comparison was made with the following USGS Quads:

Bamboo Key, Fla., 1972, 1:24,000 scale  
Marathon, Fla., 1971, 1:24,000 scale

No significant differences were noted.

47. Comparison with Nautical Charts

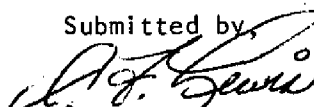
Comparison was made with the following Nautical Charts:

11449 (852) Aug. 23, 1975, 7th Ed., 1:40,000 scale  
11451 (141-SC) Aug. 16, 1975, 13th Ed., 1:80,000 scale  
11452 (1250) Jan 12., 1974, 19th Ed., 1:80,000 scale

Items to be Applied to Nautical Charts Immediately - None

Items to be Carried Forward - None

Submitted by,

  
C. F. Lewis

Approved:



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

TP-00470 - APPLICATION OF FIELD EDIT:

Several areas of new shoreline construction were compiled from two 1:10,800 scale photomaps, published by Real Estate Data, Inc., from photography taken January 1976. These maps, numbers 36 and 37, will be retained with all other field records.

The areas of change or additions are indicated on the maps in red by the field editor. They include, a large new development on the west shore of Key Vaca Cut, a small area extending the shoreline on the west shore of Stirrup Key, and several new piers.

All field angles were checked for accuracy of intersection and subsequent positioning of landmarks and aids.

The field editor utilized the 1972 color ratio prints, the 1972 and 1974 infrared prints, and the above mentioned REDI photomaps.

Submitted May 28, 1976 by:



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



30 Jan. 1976

## GEOGRAPHIC NAMES

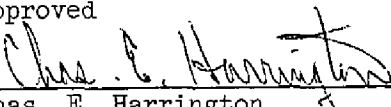
## FINAL NAME SHEET

PH-7120 (Florida Keys)

TP-470

Bamboo Key ✓	Tingler Island ✓
Coco Plum Beach ✓	Vaca Key ✓
East Sister Rock ✓	Vaca Key Bight
Fat Deer Key ✓	Vaca Key Rock ✓
Florida Bay ✓	
Key Colony Beach ✓	
Key Vaca Cut ✓	
Marathon ✓	
Marathon Airport ✓	
Marathon Shores ✓	
Rachel Bank ✓	
Rachel Key ✓	
Russel Key ✓	
Sandy Point ✓	
Straits of Florida ✓	
Stirrup Key ✓	

Approved

  
Chas. E. Harrington  
Staff Geographer - C51x2

Field Edit Report  
Map TP-00470, Job Ph-7120

51. Methods

The shoreline was inspected from a small boat while cruising just off shore. Notes regarding fast and apparent shoreline, piers and other along shore features will be found on the rectified photographs, field edit sheet, discrepancy print and REDI photo prints numbered 36 and 37.

REDI photo prints numbered 36 and 37 are submitted for new cuts and layout of roads that have been added since the 1972 photographs. The shoreline of these new cuts are steep and the position should be good.

There are two recoverable triangulation stations on this manuscript.

Four objects are recommended for landmarks.

All known aids were located. Rachel Bank Dybn 15 was computed and the angles will be submitted with TP-00469.

Two tidal stations are on this manuscript:

<u>Tide Station</u>	<u>Bench Mark</u>	<u>Photograph</u>
Marathon Shores	BM 3	72L8459R
Fat Deer Key	U 277	72L8457R

Field edit notes will be found on the photographs, Discrepancy prints, Field Edit sheet and REDI photo prints numbered 36 & 37.

52. Adequacy of Compilation

Adequate after application of field edit.

53. Map Accuracy

No test required.

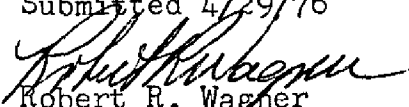
54. Recommendation

None.

55. Examination of Proof Copy

Not required.

Submitted 4/29/76

  
Robert R. Wagner  
Chief, Photo Party 66

REVIEW REPORT  
TP-00470

January 1978

61. General

The map manuscript for Coastal Zone Map TP-00470 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:

Marathon, Florida 1971  
Bamboo, Florida 1971

No significant changes were found.

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

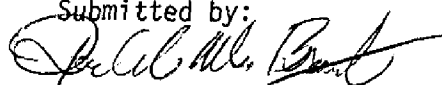
No significant changes were found.

63. thru 65. Inapplicable.

66. Adequacy of Results and Future Surveys

Coastal Zone Map TP-00470 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:



John D. Perraw Jr.  
Chief, Photogrammetric Branch



Chief, Coastal Mapping Division

76-40  
LISTING

PHOTOGRAMMETRIC BRANCH  
COASTAL MAPPING DIVISION

SIPL  
VERSION  
7/18/75

NATIONAL OCEAN SURVEY NOAA  
DEPARTMENT OF COMMERCE USA

\* SVY TP-00470 \* RPT UNIT CMD ROCKVILLE, MD. \* PAGE 1 OF 3  
\* JOB PH-7120 \* NONFLOATING AIDS FOR CHARTS \*  
\* PRJ R \* LOCALITY FLORIDA \*  
\* DTM NA 1927 \* DATE 08/17/76 \*  
\* \* \* \* \*  
\* \* \* \* \*

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

\* CHARTING\* RECORD REASON FOR DELETION \* POSITION \* METHOD AND DATE \*  
\* NAME \* PUT TRIANGULATION NAMES IN ( ) \* LATITUDE DM G-C \* OF LOCATION \* CHARTS \*  
\* \* \* \* \* LONGITUDE DP SEQ \* OFFICE \* FIELD \* AFFECTED \*

\* LONG KEY - MOSER CHANNEL \* \* \* \*

\* DYBN \* RACHEL BANK \* 24 44 44.64 1373.5 219 \* P-L-3-6 \* 11449 \*  
15 \* \* 81 4 38.56 1083.5 1 \* \* 04/12/76 \* 11451 \*

\* \* HAWK CHANNEL \* \* \* \*

\* DYBN \* FAT DEER KEY \* 24 41 28.32 871.3 219 \* P-L-3-8 \*  
48 \* \* 81 1 29.58 831.5 2 \* \* 04/06/76 \* DITTO \*

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\* TYPE OF ACTION \* NAMES OF RESPONSIBLE PERSONNEL \* ORIGINATOR \*

POSITIONS DETERMINED  
AND/OR VERIFIED BY  
FIELD AND OFFICE  
ACTIVITIES  
CHARLES LEWIS  
J. KEATING AND VERIFIED BY J. BATTLE  
RJBIN TORRES  
JAMES TAYLOR  
FIELD REPRESENTATIVE  
OFFICE COMPILER  
DIGITIZER  
DATA PROCESSER



75-40 PHOTOGRAMMETRIC BRANCH  
LISTINGS COASTAL MAPPING DIVISION

NATIONAL OCEAN SURVEY NOAA  
DEPARTMENT OF COMMERCE USA

SIPL  
VERSION  
18/75

\* SVY TP-00470 \* LANDMARKS FOR CHARTS \* RPT UNIT CMD ROCKVILLE, MD. \* PAGE 3 OF 3 \*  
\* JOB PH-7120 \* TO BE DELETED \* STATE FLORIDA \*  
\* PRJ R \* LOCALITY WACA KEY \*  
\* DTM NA 1927 \* DATE 08/17/76 \*  
\* ORIGINATING ACTIVITY \*  
\* COMPILATION \*

\* THE FOLLOWING OBJECTS HAVE BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS \*

\* CHARTING\* RECORD REASON FOR DELETION \* POSITION CODES\* METHOD AND DATE \* CHARTS \*  
\* NAME \* PUT TRIANGULATION NAMES IN ( ) \* LATITUDE DM C-C \* OF LOCATION \* FIELD \* AFFECTED \*

\* MICRO \* THERE IS NO TOWER AT THIS \* 24 43 42.00 1292.2 NOT \* 11449 \*  
\* TOWER \* POSITION \* 81 4 48.00 1349.0 DGTZD \* 11451 \*

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\* TYPE OF ACTION \* NAMES OF RESPONSIBLE PERSONNEL \* ORIGINATOR \*

\* OBJECTS INSPECTED FROM SEAWARD \*  
\* CHARLES LEWIS \* PHOTO FIELD PARTY \*  
\* POSITIONS DETERMINED \*  
\* AND/OR VERIFIED BY \* J. KEATING AND VERIFIED BY J. BATILEY \* FIELD REPRESENTATIVE \*  
\* FIELD AND OFFICE \* N/A \* OFFICE COMPILER \*  
\* ACTIVITIES \* JAMES TAYLOR \* DATA PROCESSER \*

NATIONAL ARCHIVES DATA  
TP-00470

December 1977

1 Discrepancy Print (paper)  
1 Field edit sheet (stable base)  
1 NOAA Form 76-36C (History of Field Operations)  
3 NOAA Forms 76-40 (Landmarks and Nonfloating Aids for Charts)  
6 pages sextant cuts

Photography:

Two prints (36 & 37) Real Estate Data, Inc., taken January 1976  
at a scale of 1:10,800.

72-L-8458 RC thru 8462 RC