

13109

13109

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Shoreline
Field No.	Office No. T-13109
LOCALITY	
State	Florida
General locality	Florida Coast
Locality	Eden
1956- 67 -68	
CHIEF OF PARTY	
LIBRARY & ARCHIVES	
DATE	

USCOMM-OC 5087

DESCRIPTIVE REPORT - DATA RECORD

T -13109

PROJECT NO. (II):

PH-6710

FIELD OFFICE (III):

CHIEF OF PARTY

PHOTOGRAMMETRIC OFFICE (III):

Washington Science Center

OFFICER-IN-CHARGE

V. Ralph Sobieralski

INSTRUCTIONS DATED (II) (III):

Office: April 6, 1967; April 27, 1967

METHOD OF COMPILATION (III):

Stereoscopic - B-8 stereoplotter

MANUSCRIPT SCALE (III):

1:20,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):

20,000

DATE RECEIVED IN WASHINGTON OFFICE (IV):

DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.

DATE:

DATE REGISTERED (IV):

HORIZONTAL DATUM (III):

N.A. 1927

VERTICAL DATUM (III):

MEAN SEA LEVEL EXCEPT AS FOLLOWS:

*Elevations shown as (25) refer to mean high water**Elevations shown as (5) refer to sounding datum**i.e., mean low water or mean lower low water*

REFERENCE STATION (III):

Walton, 1930

LAT.:

27°18'02.393"

LONG.:

80°15'27.423"

☐ ADJUSTED☐ UNADJUSTED

PLANE COORDINATES (IV):

STATE

ZONE

Y = 1,079,137.74

X = 741,096.51

Florida

East

ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (II) FIELD PARTY, (III) PHOTOGRAMMETRIC OFFICE,
OR (IV) WASHINGTON OFFICE.

WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.

DESCRIPTIVE REPORT - DATA RECORD

T-13109

FIELD INSPECTION BY (II):

None (See remarks below)

DATE:

MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):

Office interpretation Nov. 1966 - Feb. 1967

Field Edit - May 1968

PROJECTION AND GRIDS RULED BY (IV):

A. E. Roundtree

DATE

11-3-66

PROJECTION AND GRIDS CHECKED BY (IV):

R. Glaser

DATE

11-15-66

CONTROL PLOTTED BY (III):

J. Taylor

DATE

5-15-67

CONTROL CHECKED BY (III):

R. A. Youngblood

DATE

5-15-67

RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):

R. B. Kelly

DATE

May-Oct. 1967

STEREOSCOPIC INSTRUMENT COMPILATION (III):

PLANIMETRY

DATE

May 1967

R. A. Youngblood

CONTOURS

DATE

MANUSCRIPT DELINEATED BY (III):

R. A. Youngblood

DATE

May 1967

SCRIBING BY (III):

DATE

PHOTOGRAMMETRIC OFFICE REVIEW BY (III):

J. P. Battley, Jr.

DATE

March 1969

REMARKS:

Field Edit by:

R. S. Tibbetts - May 1968

DESCRIPTIVE REPORT - DATA RECORD

T-13109

CAMERA (KIND OR SOURCE) (III):

"L" 6" focal length camera (color) "S" RC-8 camera (infrared)

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
66-L(C)-8725-8728	11-26-66	9:38	1:40,000	1.1' above MLW
67-S-8263-8266R	2-24-67	9:11	1:40,000	1.0' above MLW

** based on predicted tides*

TIDE (III)

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: <u>Miami Harbor Entrance</u>		2.5	3.0
SUBORDINATE STATION: <u>Sewall Point, St. Lucie River</u>	.40	1.0	1.2
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV):

J. P. BATTLE

DATE:

NOV. 1969

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):

RECOVERED:

4

IDENTIFIED:

NUMBER OF BM(S) SEARCHED FOR (II):

RECOVERED:

IDENTIFIED

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

REMARKS:

Summary to Accompany Descriptive Report
T-13100 through T-13117, T-13141 and
T-13218

PH-6710
December 1969

This project is comprised of thirteen shoreline manuscripts compiled at 1:20,000 scale, (T-13100 through T-13112), four manuscripts compiled at 1:10,000 scale, (T-13113 through T-13115) and three 1:5,000 scale manuscripts, (T-13116 through T-13117). The area covered is the east coast of Florida from Cape Kennedy to just south of Jupiter Inlet. The maps were compiled as a base for hydrographic survey operations and to update marine charts of the area. Two manuscripts, (T-13218 and T-13141) were added to the project after hydro operations were begun and are discussed in this summary.

Field inspection was accomplished during Sept.-Oct. 1966 and was limited to the recovery and premarking of control.

The project area was flown in November 1966. Infrared and color photography was taken.

Stereoplanigraph bridging of the color photography was begun in April 1967 and continued through October 1967. To support hydrographic survey operations, the bridging data was supplied the Washington compilation section as each of nine strips were bridged. Strips #2 through #8 were bridged by stereoplanigraph methods. Strip #1 was bridged analytically. All bridging photography was 1:40,000 scale. Some difficulty was experienced in bridging the project area - (see the Plot Report for details).

The manuscripts were compiled as bridging was received from April 1967 through February 1968. Ratio photographs were prepared in the usual manner for photo-hydro support use. The photographs prepared were both infrared and color. The field ratio prints, cronaflex copies of the manuscripts and discrepancy ozalids were sent to the field, as completed, to expedite hydro activities. Two new manuscripts were added to the project after hydro operations were begun to develop

more of the Loxahatchee River which empties into Jupiter Inlet (T-13141, 1:10,000 scale), and T-13218, 1:5,000 scale to further develop the Ft. Pierce harbor area. This accounts for compilation activities extending to June 1968. In the area of the 1:10,000 scale manuscripts - 1967 1:30,000 scale color and infrared photography was available for compilation. In the area of the two 1:5,000 scale manuscripts (T-13116 and T-13117), 1:15,000 scale color photographs were available. T-13218 (1:5,000 scale) was compiled at 1:10,000 scale on the B-8 stereoplotter from 1:40,000 scale photography and then enlarged to 1:5,000 for a hydro support manuscript. This manuscript is thus considered somewhat substandard in accuracy. All compilation was achieved on the B-8 stereoplotter.

Field edit operations were begun in November 1967 and were completed in 1968. To resolve some landmark and aid problems, provide hydro support, and to further clarify differences in compiled features for Marine Charts, additional field work was accomplished in February 1969. Field edit operations required the location of most of the daybeacons throughout the project area and verification of compiled features.

The application of field edit corrections and/or additions was accomplished in the Washington compilation office as received from the field with some interruption for higher priority projects. Field edit application and final review was completed in November 1969. As field edit corrections were applied to each T-sheet and checked for completeness, a cronaflex copy was ordered for the Marine Chart Division. Hydro verification was being accomplished at the same time of final review and close liaison was maintained between sections.

A Registration Manuscript Copy will be registered in the Bureau Archives under their respective T-numbers.

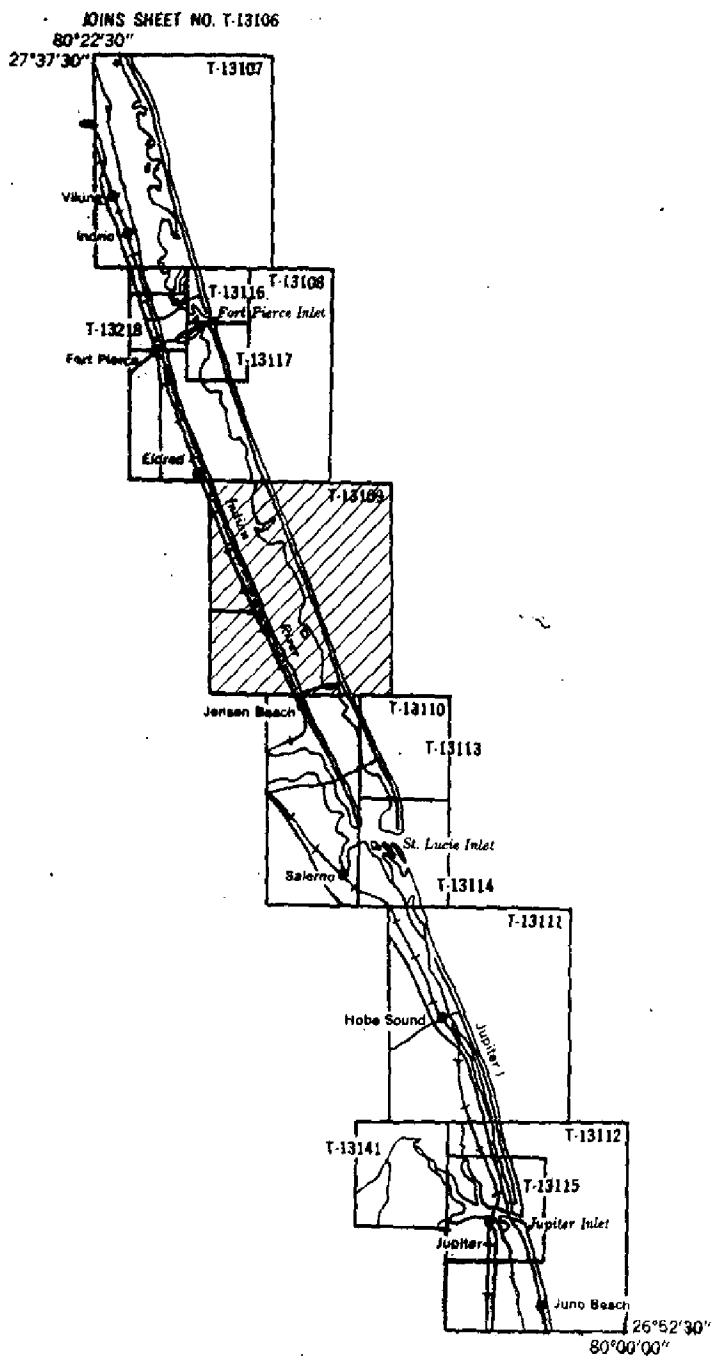
Submitted by,

Jeter P. Battley Jr

J. P. Battley, Jr.

PROJECT DIAGRAM

INDEX TO ADJOINING SHEETS PH-6710.



PHOTOGRAMMETRIC PLOT REPORT

Job PH-6710

Cape Kennedy to Jupiter Inlet, Florida

October 27, 1967

21. Area Covered

This report covers the bridging of the Florida east coast from Cape Kennedy to Jupiter Inlet. Included in this area are T-sheets T-13100 thru T-13112 at 1:20,000 scale, T-13113 thru T-13115 and T-13141 at 1:10,000 scale and T-13116, T-13117 and T-13218 at 1:5,000 scale.

22. Method

Eight strips were bridged by stereoplanigraph methods and one strip (Strip #1) by STK methods. All were adjusted by the IBM-1620 method. Strip #1 (66-L(C)-8716 thru 8731) was bridged holding six stations as control and three stations plus tie points as checks. Strip #1-C (66-L(C)-8708 thru 8716) was adjusted holding five control stations with two stations as checks. Strip #2 (66-L-8822 thru 8832) was adjusted on four stations. Strip #3 (66-L(C)-8696 thru 8702) was adjusted on four stations with tie points as checks. Strip #4 (66-L(C)-8738 thru 8748) was adjusted on four stations with tie points as checks. Strip #5 (66-L(C)-8768 thru 8799) was adjusted on five stations with two stations and tie points as checks. Strip #6 (66-L(C)-8782 thru 8797) was adjusted on five control stations with tie points as checks. Strip #7 (66-L(C)-8773 thru 8779) was adjusted on three stations. Strip #8 (66-L(C)-8804 thru 8821) was adjusted on three stations with tie points as checks.

All plates were drilled by the PUG method. Tie points between strips were averaged.

23. Adequacy of Control

Horizontal control complied with project instructions. Most of the control stations were premarked with additional sub-stations selected on color photos taken with a hand-held camera. These photos were used before the strip photography was available. Many of the images selected on the hand-held photographs could not be determined on the strip photography. In some cases the premarked stations could not be seen clearly in the strip photography.

Stations which could not be held within National Map Accuracy Standards and the probable reasons for the source of error are as follows:

STRIP #1

BET, 1967, SS "A" and SS "B" - Could not be clearly seen on the 1:40,000 scale photography.

POLE (TEMP), BASE PT. "C", 1967, Panel, SS "A" and SS "B" - The positions of this station and its substations were determined by a short baseline method. With the small angle involved and the evidence of bridging residuals, this station was treated as a passpoint between Strips #1 and #8.

PIERCE 2, 1963 - Only the 1:40,000 scale target was considered as a good point in Strip #1. All other substations were dropped from the adjustment.

STRIP #2

RADAR, 1955, SS "A" was a very poor image point on this strip and was dropped from the adjustment.

STRIP #5

VALKARIA, 1960 (Target) and TURKEY CREEK, 1877 (Target) gave large residuals in the adjustment phase and were dropped. The substations for these stations were used in place of the targets and showed good residuals in the adjustment.

STRIP #6

TRIPOD 3, 1963, SS "A" - No reason could be determined for this substation not holding in the adjustment. It was dropped from the bridge.

STRIP #7

ARTESIA, 1953, SS "A" - No reason could be determined for the error in this station. Since two companion points held, the substation was dropped.

STRIP #8

POLE (TEMP), BASE PT. "C", 1967 - See note under Strip #1.

24. Supplemental Data

Local USGS quads were used for elevations during bridging operations.

25. Photography

Photography was adequate as to coverage, overlap, definition and quality.

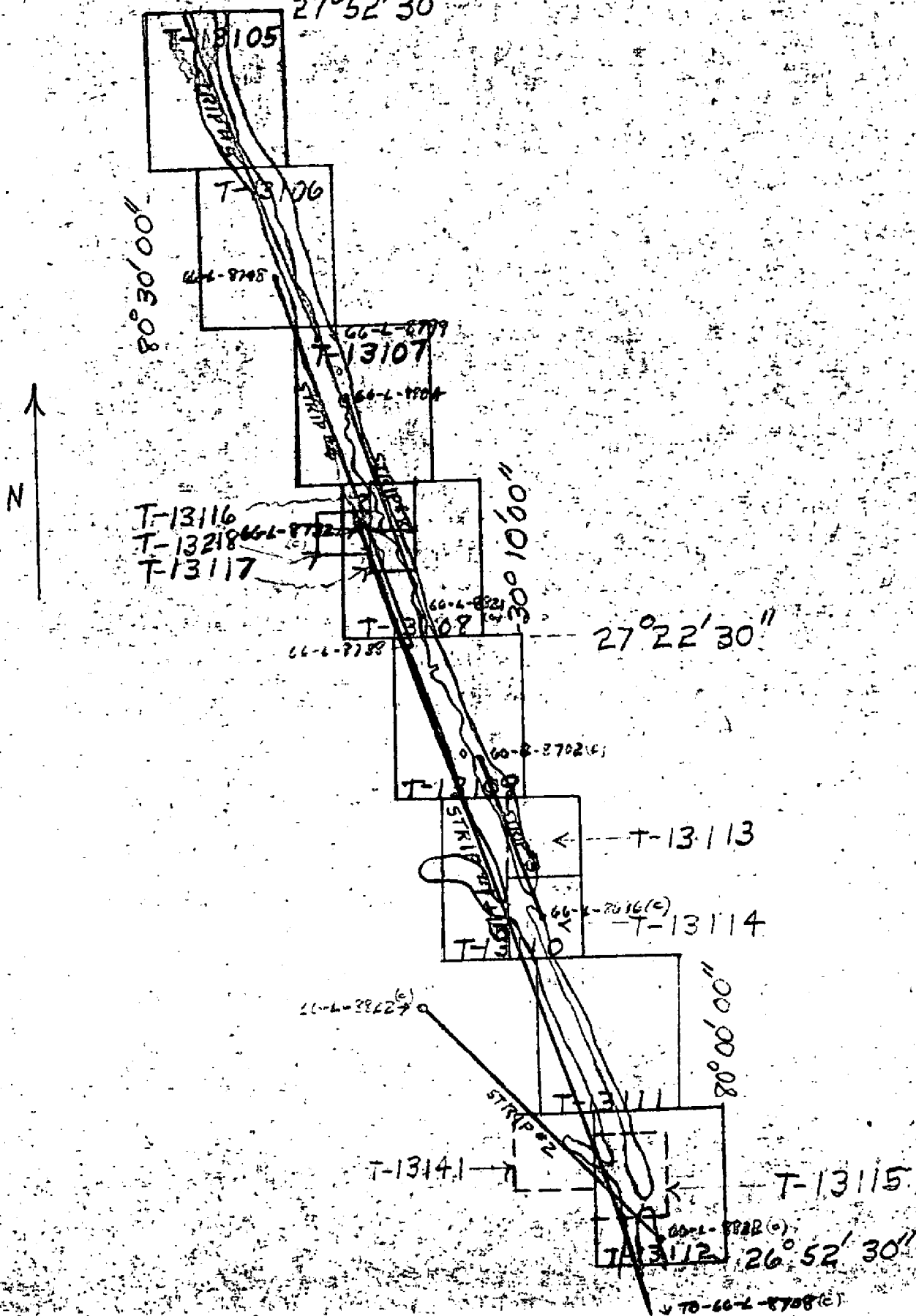
Submitted by:

Robert B. Kelly

Approved by:

John D. Perraw Jr.

27°52'30"



Compilation Report
Project PH-6710
T-13109
May 1967

31. Delineation

This manuscript was compiled at a scale of 1:20,000 on the B-8 stereoplotter using 1:40,000 color plates. Infrared photographs ratioed to manuscript scale were used for a graphic refinement of the MHWL.

Points were positioned along the shoreline to facilitate hydrographic signal location and cronapaque ratio prints of the photography were resected to the manuscript in the standard manner for photo hydro support.

This manuscript was also delineated according to Marine Chart specifications to provide a new base for Chart 845-SC.

32. Control

Identification, density and placement of control was adequate.

33. Supplemental Data

Small-craft chart 845-SC at 1:40,000 scale dated August 1966 was used as an aid in locating Lts. Daybeacons, and landmarks in the area. Geological Survey Quads., Ankona, Florida, and Eden, Florida, each dated 1950 and at a scale of 1:24,000 were used for the Geographic Names Standard.

34. Contours and Drainage

Inapplicable.

35. Shoreline and Alongshore Details

Delineation of the shoreline and alongshore details was accomplished by office interpretation of the photographs.

36. Offshore Details

No comment.

37. Landmarks and Aids

Eighteen aids to navigation were located on this sheet. No landmarks were evident.

38. Control for Future Surveys

No comment.

39. Junctions

Junction has been made and is in agreement to the North with T-13108 and to the South with T-13110 (1:20,000) and T-13113 (1:10,000).

40. Horizontal and Vertical Accuracy

No comment.

41.-45. Inapplicable

46. Comparison with Existing Maps

Comparison has been made with Geological Survey Quads., Ankona, Florida, and Eden, Florida, each dated 1950 and at a scale of 1:24,000.

47. Comparison with Nautical Charts

Comparison has been made with nautical charts #1247, scale 1:80,000, revised to 3-6-67 also 845-SC, scale 1:40,000, dated August 20, 1966.

Submitted by,

R. A. Youngblood

R. A. Youngblood

Approved by,

K. N. Maki

K. N. Maki
Chief, Compilation Section

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6710 (Cape Kennedy to Jupiter Inlet)

T-13109

Ankona

Atlantic Ocean

Big Mud Creek

Blind Creek

Eden

Henderson Pond

Herman Bay

Hutchinson Island

Indian River

Intracoastal Waterway

Jensen Beach

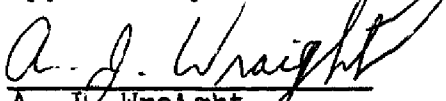
Lake Eden

Nettles Island

The Savannahs

Walton

Approved by:


A. J. Wraight
Chief Geographer

Prepared by:


Frank W. Pickett
Cartographic Technician

FIELD EDIT REPORT

JOB PH-6710

MAPS T-13106 thru T-13109

In accordance with Instructions - Field Edit - Job PH-6710;
Chart Topography, Cape Kennedy to Jupiter Inlet, Fla. (1413)

51. METHODS

The mean high-water line along the ocean front was verified by visual inspection and measured distance from the folage line, at approximately one mile intervals, the measurement being recorded on the Color transparencies.

Compiled shoreline along the Indian River was visually verified from a small boat. Requests for corrections, additions and deletions are indicated on a Cronaflex copy of the manuscript, labeled PLANE TABLE SHEET with reference to the photograph by number on which the information is shown.

Streets and roads were travelled to verify existence and classification.

No landmark building, other than those mapped were noted during field edit.

Landmarks and aids to navigation for the most part were verified by Plane table, those not verified by Plane table were close to shore, and were verified by visual inspection. Aids located by Plane table have been circled on the PLANE TABLE SHEET in violet ink, and identified by their respective number. The plotted positions have not been scaled. Form 567 is submitted for only those aids located by Plane table and those that are identified on the photographs (transparencies). Form 567 is submitted for all landmarks.

Additions, deletions and corrections have been noted on the Cronaflex for each map labelled PLANE TABLE SHEET with crossreferencing to the photographs.

Violet ink was used for all field edit notes.

52. ADEQUACY OF COMPILATION

After application of field edit corrections, additions and deletions, compilation will be adequate for Chart Topography.

53. MAP ACCURACY

A large number of daybeacons, piling and piers were located by ground survey methods (Plane table). During location, Compiled objects such as lights, pier ends, tanks, etc., were used as or to determine Plane table positions, thus providing a test of the features used to be accurate.

54. RECOMMENDATIONS

None offered.

55. EXAMINATION OF PROOF COPY

Not required.

submitted 5/15/68

Robert S. Tibbetts
Robert S. Tibbetts

Review Report T-13109
Shoreline Mapping
March 1970

61. General Statement

(See Summary)

62. Comparison with Registered Topographic Surveys

Comparison was made with surveys T-8846 and T-8847, scale 1:20,000, compiled from aerial photographs of April, 1946. These surveys are superseded for nautical charting and shoreline mapping by the new survey.

63. Comparison with Maps of Other Agencies

See paragraph 46 of Compilation Report.

64. Comparison with Contemporary Hydrographic Surveys

T-13109 was used as a base for new hydrography. The new hydrographic surveys H-8957 and H-8958, scale 1:20,000 dated 1967 were used for comparison.

65. Comparison with Nautical Charts

Comparison was made with Chart 1247, 4th Edition, scale 1:80,000, dated Feb. 17, 1969, and 845-SC, scale 1:40,000 8th Edition, dated August 30, 1969. All differences noted on the discrepancy print between the published charts and the new survey were resolved in field edit. The discrepancy print was prepared in 1968 and was compared with the latest editions of the above charts at that time. T-13109 was used as a base in updating chart 1247 and 845-SC.

66. Adequacy of Results and Future Surveys

T-13109 complies with the project instructions and is within the National Standards of Accuracy.

Reviewed by,

Jeter P. Battle Jr

Approved by,

R. H. Houlston

Chief, Photogrammetry Division

Charles L. Hume

Chief, ~~Marine Chart Division~~

Photogrammetric Branch

JMB

MAP T-13109 PROJECT NO. 6710 SCALE OF MAP 1:20,000 SCALE FACTOR

[illegible]

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
~~NOT TO BE CHARTED~~
~~NOT TO BE CHARTED~~

Rockville, Md. Oct. 24, 1968

I recommend that the following objects which have ~~(xxxxxx)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(xxxxxx)~~ the charts indicated.

The positions given have been checked after listing by R. A. Youngblood

V. Ralph Sobleralski

Chief of Party

CHARTING NAME	STATE	Florida	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED	
					LATITUDE*		LONGITUDE*								DATUM
					° ' "	D.P. METERS	° ' "	D.P. METERS							
			Intracoastal Waterway						T-13109						
			Eau Gallie-St. Lucie Inlet												
			Indian River (South Section)												
Dybn 200			"		27 22	06.8	80 16	51.6	NA	Plane	3/5/68	X		845-SC	
Dybn 201			"		27 21	209.2	80 16	1418.0	1927	Table	"	X		"	
Lt 202			"		27 21	43.8	80 16	38.3	"	Photo	"	X		"	
Dybn 203			"		27 21	1348.1	80 16	1052.6	"	Plot	"	X		"	
Dybn 205			"		27 21	18.0	80 16	29.9	"	"	"	X		"	
Dybn 206			"		27 21	554.0	80 16	821.8	"	Plane	"	X		"	
Dybn 207			"		27 20	19.4	80 16	27.5	"	Table	"	X		"	
Dybn 208			"		27 20	597.1	80 16	755.8	"	"	"	X		"	
Lt 209			"		27 20	54.7	80 16	14.5	"	Photo	"	X		"	
Dybn 210			"		27 20	1683.6	80 16	398.5	"	Plot	"	X		"	
Dybn 211			"		27 20	29.8	80 16	03.3	"	Plane	"	X		"	
Dybn 212			"		27 20	917.2	80 16	90.7	"	Table	3/6/68	X		"	
			"		27 20	06.8	80 15	48.6	"	"	"	X		"	
			"		27 19	209.3	80 15	1336.0	"	"	"	X		"	
			"		27 19	42.4	80 15	38.3	"	"	"	X		"	
			"		27 19	1305.0	80 15	1052.8	"	Photo	"	X		"	
			"		27 19	16.4	80 15	21.4	"	Plot	"	X		"	
			"		27 19	504.7	80 15	588.4	"	Plane	"	X		"	
			"		27 18	51.3	80 15	10.2	"	Table	"	X		"	
			"		27 18	1578.9	80 15	280.4	"	"	"	X		"	
			"		27 18	26.4	80 14	54.4	"	"	"	X		"	
			"		27 18	812.6	80 14	1495.8	"	"	"	X		"	
			"		27 18	00.1	80 14	42.5	"	"	"	X		"	
			"		27 18	03.0	80 14	1168.6	"	"	"	X		"	

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

TO BE CHARTED
XTO BE REVISEDX
XTO BE DELETEDX

Rockville, Md. Oct. 24 1968

I recommend that the following objects which have ~~been~~^{been} inspected from seaward to determine their value, as landmarks be charted on ~~the~~^{the} charts indicated.

The positions given have been checked after listing by R. A. Youngblood

V. Ralph Sobieralski

Chief of Party.

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-35, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

TABULATE SECONDS AND METERS

