

13102

13102

<p>Form 504</p> <p>U. S. DEPARTMENT OF COMMERCE</p> <p>COAST AND GEODETIC SURVEY</p> <h2 style="text-align: center;">DESCRIPTIVE REPORT</h2>	
<p><i>Type of Survey</i> <u>Shoreline</u></p>	
<p><i>Field No.</i> <i>Office No.</i> <u>T-13102</u></p>	
<p>LOCALITY</p>	
<p><i>State</i> <u>Florida</u></p>	
<p><i>General locality</i> <u>Brevard County</u></p>	
<p><i>Locality</i> <u>Satellite Beach</u></p>	
<p><u>19 66-67</u></p>	
<p>CHIEF OF PARTY</p>	
<p>LIBRARY & ARCHIVES</p>	
<p>DATE</p>	

DESCRIPTIVE REPORT - DATA RECORD

T-13102

PROJECT NO. (II): PH-6710	
FIELD OFFICE (II):	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):
GRAPHIC DATUM (III): N.A. 1927	VERTICAL DATUM (III): MEAN SEA LEVEL EXCEPT AS FOLLOWS: <i>Elevations shown as (25) refer to mean high water</i> <i>Elevations shown as (5) refer to sounding datum</i> <i>i.e., mean low water or mean lower low water</i>
REFERENCE STATION (III): TRIPOD 3, 1963	
LAT.:	LONG.:
<input type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED	
PLANE COORDINATES (IV): = 1,402,983.80 x = 630,570.85	STATE Florida
	ZONE 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-13102

FIELD INSPECTION BY (II): See remarks		DATE:
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): Office interpretation November 1966- ^{Nov.} February 1967 (Field Edit)		
PROJECTION AND GRIDS RULED BY (IV): A. E. Roundtree	DATE 11-8-66	
PROJECTION AND GRIDS CHECKED BY (IV): R. Glaser	DATE 11-9-66	
CONTROL PLOTTED BY (III): H. Lucas	DATE 7-20-67	
CONTROL CHECKED BY (III): J. Mooney	DATE 7-20-67	
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): R. Kelly	DATE 5-67 11-67	
STEREOSCOPIC INSTRUMENT COMPILATION (III): H. Lucas	PLANIMETRY	DATE 8-1-67
	CONTOURS	DATE -----
MANUSCRIPT DELINEATED BY (III): H. Lucas	DATE 8-67	
SCRIBING BY (III):	DATE	
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): J. Battley	DATE 9-68	
REMARKS: Field Edit by: W. H. Shearouse ^{Nov.} October 1967		

DESCRIPTIVE REPORT - DATA RECORD

T-13102

CAMERA (KIND OR SOURCE) (III):

6" focal length

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
66-L-8930R - 8934R	11/27/66	10:10	1:40,000	2.1' above MLW
66-L-8786 - 8790 (color)	11/26/66	10:40	1:40,000	1.1' above MLW

* based on predicted tides

TIDE (III)

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: Miami Harbor Entrance	-	2.5	3.0
SUBORDINATE STATION: Cape Canaveral	-	3.5	4.1
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV):

J. P. BATTLE

DATE:

SEPT 1968

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^{ies} will be registered in the Bureau Archives under their respective T-numbers.

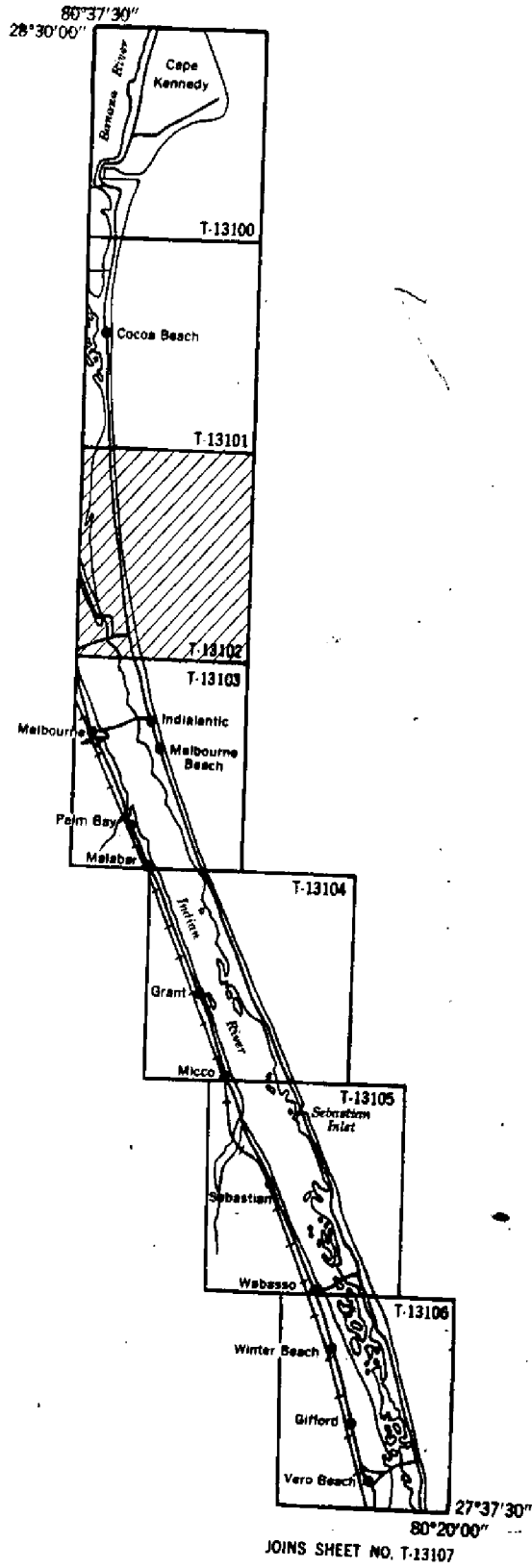
Submitted by,

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.

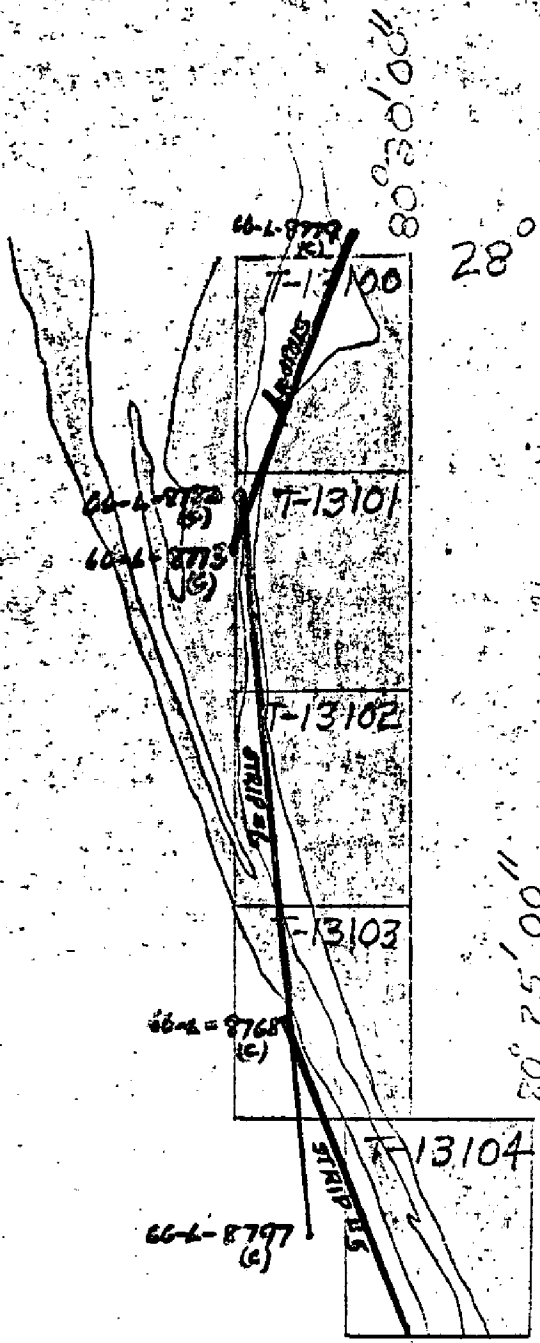
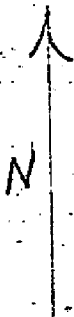
Submitted by:

Robert B. Kelly

Approved by:

John D. Perraw Jr.

PH-6710
FLORIDA COAST



80° 30' 00"

28° 30' 00"

80° 25' 00"

27° 52' 30"

COMPILATION REPORT
PROJECT PH-6710
T-13102
AUGUST 1967

31. Delineation

This manuscript was compiled on the Wild B-8 Stereoplotter at a scale of 1:20,000 using 1:40,000 color photography. Mean high-water 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

See Project Report.

33. Supplemental Data

Geological Survey Quad., Tropic, Florida, scale 1:24,000, dated 1951 was used for the geographic names. Ratioed color photographs with field edit notes were used for shoreline adjustments, landmarks and identification of other details helpful to the map.

34. Contours and Drainage

Inapplicable.

35. Shoreline and Alongshore Details

Delineation of the shoreline and alongshore details was accomplished by office interpretation and later aided with field edit photographs.

36. Offshore Details

Daybeacons and transmission lines were interpreted from stereomodels and/or color ratio photos.

2.

37. Landmarks and Aids

Landmarks and aids have been applied in accordance with field edit photographs and recorded on 567 cards.

38. Control for Future Surveys

See Bridge Report.

39. Junctions

Junctions have been made with the following map manuscripts; North with T-13101 and South with map manuscript T-13102.

40. Horizontal and Vertical Accuracy

See Bridging Report.

41. thru 45.

Not applicable.

46. Comparison with Existing Maps

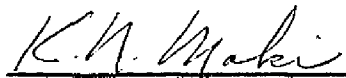
A comparison was made C&GS Nautical Chart 1246, scale 1:80,000, Nautical Chart 845-SC and USGS Quad., Tropic, Florida, dated 1951, scale 1:24,000 contour interval 5 feet.

47. Comparison with Nautical Charts


A comparison was made with charts 845-SC, scale 1:40,000, dated August 1967 and 1246, scale 1:80,000, dated July 1967.

Approved by:

Submitted by:



K. N. Maki
Chief, Compilation Section



Henri Lucas
Compilation Section

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6710 (Cape Kennedy to Jupiter Inlet)

T-13102

Atlantic Ocean

Banana River

Carters Cut

Eau Gallie

Indian Harbor Beach

~~Eau Gallie Beach~~

Indian River

Intracoastal Waterway

Merritt Island

Tropic

Satellite Beach

Canova Beach

Approved by:

A. J. Wraight

A. J. Wraight
Chief Geographer

Prepared by:

Frank W. Pickett

Frank W. Pickett
Cartographic Technician

FIELD EDIT REPORT

JOB PH-6710

MAPS T-13100, T-13101 & T-13102

In accordance with Instructions--FIELD EDIT--Job Ph-6710;
Chart Topography, Cape Kennedy to Jupiter Inlet Fla. (C1413)

51. METHODS

Measurements were made from identifiable objects to verify the mean high-water line on the ocean front. The point was pricked and indicated by leader on the photographs and cross-referenced on the Field Edit Sheet to the photo number. The offshore distance (to mean high-water line) was recorded but the actual distance was not set-off on the photograph. It is requested that this be done by the compiler, thereby verifying the compiled mean high-water line.

From approximate latitude $28^{\circ} 17'$ in T-13101, where compilation of the river shoreline began, southward, the shoreline was visually verified from a small boat running close to shore.

Streets and roads were travelled to verify existence and classification.

Landmark buildings were inspected and indicated as being correct if compiled; those to be added are circled on the photographs. It is requested that many buildings be deleted from Map manuscript T-13102. In light of Section 7 of Photogrammetric Instruction 54, Revised September 22, 1961, it appears that the buildings X-ed off on the Field Edit Sheet should not be mapped. Only those evaluated as being of actual landmark value for nautical charts have been okayed.

Landmarks and aids to navigation were visually verified as to existence. Form 567 is submitted for all landmarks, but is submitted for only those aids to navigation which were not located during compilation. These have been identified on photographs, the number being recorded on the Field Edit Sheet.

Additions, deletions and corrections have been noted on the FIELD EDIT SHEET-DISCREPANCY PRINT with cross-referencing to the photographs.

Violet ink was used for all field edit notes.

In addition to the Field Edit Sheet for each map, field edit information will be found on color ratio photographs 66L8775, 8776, 8777, 8778, 8783, 8784, 8785, 8786, 8787, 8788, 8789, 8790; and on transparencies 66L8789 and 8790.

52. ADEQUACY OF COMPILATION

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

53. MAP ACCURACY

No tests were specified.

54. RECOMMENDATIONS

None offered.

55. EXAMINATION OF PROOF COPY

Not required.

GEOGRAPHIC NAMES

Deletion of the name EAU GALLIE BEACH (Map T-13102) is recommended. It has lost its identity in the fast-growing area of the Cape Kennedy vicinity. No one contacted knew the name.

New names recommended are the cities of INDIAN HARBOUR BEACH and SATELLITE BEACH for which city maps are submitted, and the unincorporated area of CANOVA BEACH. All are undisputed and widely known. All three lie within Map T-13102. The names are shown on the Field Edit Sheet.

Submitted 11/8/67

William R. Shearouse
Chief, Photo Party 60

REVIEW REPORT T-13102
SHORELINE MAPPING
MARCH 1970

61. General Statement

(See Summary)

62. Comparison with Registered Topographic Surveys

Comparison was made with T-8882, scale 1:20,000, compiled from aerial photographs of December 1947. This survey is superseded for nautical charting by the new survey. The area east of the Banana River has undergone extensive development making the prior survey obsolete for shoreline mapping.

63. Comparison with Maps of Other Agencies

See paragraph 46 of Compilation Report

64. Comparison with Contemporary Hydrographic Surveys

There is no contemporary hydrographic survey. Comparison was made with H-5034, scale 1:40,000, dated 1930.

65. Comparison with Nautical Charts

Comparison was made with Charts 1246, scale 1:80,000 5th Edition, dated October 7, 1968; 845-SC, scale 1:40,000, 8th Edition, dated August 30, 1969; and 843-SC, scale 1:40,000, 7th Edition, dated August 23, 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 1967 and was compared with the latest editions of the above charts at that time.

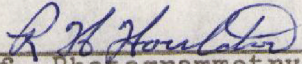
A landmark tank at latitude 28°11'34" located in 1967 field edit should be applied to Charts 1246 and 845-SC.

2.

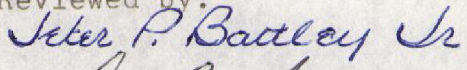
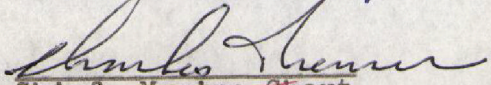
66. Adequacy of Results and Future Surveys

T-13102 complies with the project instructions and is within the National Standards of Accuracy.

Approved by:


Chief, Photogrammetry
Division

Reviewed by:



Chief, Marine Chart
Division *Photogrammetric*
Branch 129

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- 13102 PROJECT NO. 6710 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE	DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 Ft. = 3048006 meter) FORWARD (BACK)
TRIPOD 3, 1963		N. A. 1927	1,402,983.80 630,570.85	
COLLEGE 2, 1906	page 18	N. A. 1927	1,380,783.25 620,582.20	
Canova Beach, Melbourne Municipal Water Tank 1960	**	N. A. 1927	28°08'24.205" 80°35'01.016"	
Patrick AFB South Tank of 3 1957	*	N. A. 1927	28°13'31.480" 80°36'07.078"	
*Position furnished by Patrick AFB Divil Engineers				
**Cape Canaveral Provisional N.A. 1927 Datum Vol. II Page 74				

COMPUTED BY _____ DATE _____
CHECKED BY _____ DATE _____

