

12270

12271

12272

Diag. Cht. Nos. 1231-2, 1232 & 1233.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Shoreline
T-12270, T-12271
Field No. Ph-6215 Office No. & T-12272

LOCALITY

State North Carolina
General locality Ocracoke Inlet
Locality Portsmouth

1962

CHIEF OF PARTY

R.M. Sundean, Div. of Photo. Wash., D.C.

LIBRARY & ARCHIVES

DATE May 1963

USCOMM-DC 5087

12270
12271
12272

DESCRIPTIVE REPORT - DATA RECORD

T-12270, 12271, 12272

PROJECT NO. (II): PH-6215		
FIELD OFFICE (II): Photo Party 723, Ocracoke, North Carolina	CHIEF OF PARTY Lt Ray M. Sundean	
PHOTOGRAMMETRIC OFFICE (III): Washington, D. C.	OFFICER-IN-CHARGE J. E. Waugh	
INSTRUCTIONS DATED (II) (III): 25 September 1962		
METHOD OF COMPILATION (III): Graphic and stereo instrument (Wild B-8 stereo-plotter)		
MUSCRIPT SCALE (III): 1:10,000	STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:10,000	
DATE RECEIVED IN WASHINGTON OFFICE (IV): 31 October 1962	DATE REPORTED TO NAUTICAL CHART BRANCH (IV):	
APPLIED TO CHART NO.	DATE:	DATE REGISTERED (IV):
GEOGRAPHIC DATUM (III):	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):		
LAT.:	LONG.:	<input type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED
PLANE COORDINATES (IV): Y = X =	STATE	ZONE
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

FIELD INSPECTION BY (II):		DATE:
Dale M. Fuller and Matthew A. Stuart		October 1962
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):		
October 1962 --- field inspection ... delineated on field photographs.		
PROJECTION AND GRIDS RULED BY (IV):		DATE
A. Roundtree		12/6/62
PROJECTION AND GRIDS CHECKED BY (IV):		DATE
Walter Masula		12/10/62
CONTROL PLOTTED BY (III):		DATE
J. T. Gerlach		2/1/62
CONTROL CHECKED BY (III):		DATE
J. B. Phillips		2/1/62
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):		DATE
L. W. Fritz		Jan. 1962
STEREOSCOPIC INSTRUMENT COMPILATION (III): February 1962	PLANIMETRY	DATE
	CONTOURS	DATE
MANUSCRIPT DELINEATED BY (III): J. T. Gerlach R. A. Carter		DATE Feb. 1962 April 1962
SCRIBING BY (III):		DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): J. P. Battley, Jr.		DATE April 1962
REMARKS:		

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

Wild RC - 8 (color and panchromatic)

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
62 S 1836A thru 1844A	18 Sept '62	11:25 to 11:31,	1:30,000	
62 S (c) 1238 thru 1245	2 Sept '62	7:56 to 7:60	1:20,000	

TIDE (III)

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION:			
COORDINATE STATION:			
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV):

DATE:

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):

RECOVERED:

IDENTIFIED:

13

13

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

RECOVERED:

IDENTIFIED

1

1

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

REMARKS:

PROJECT PH-6215

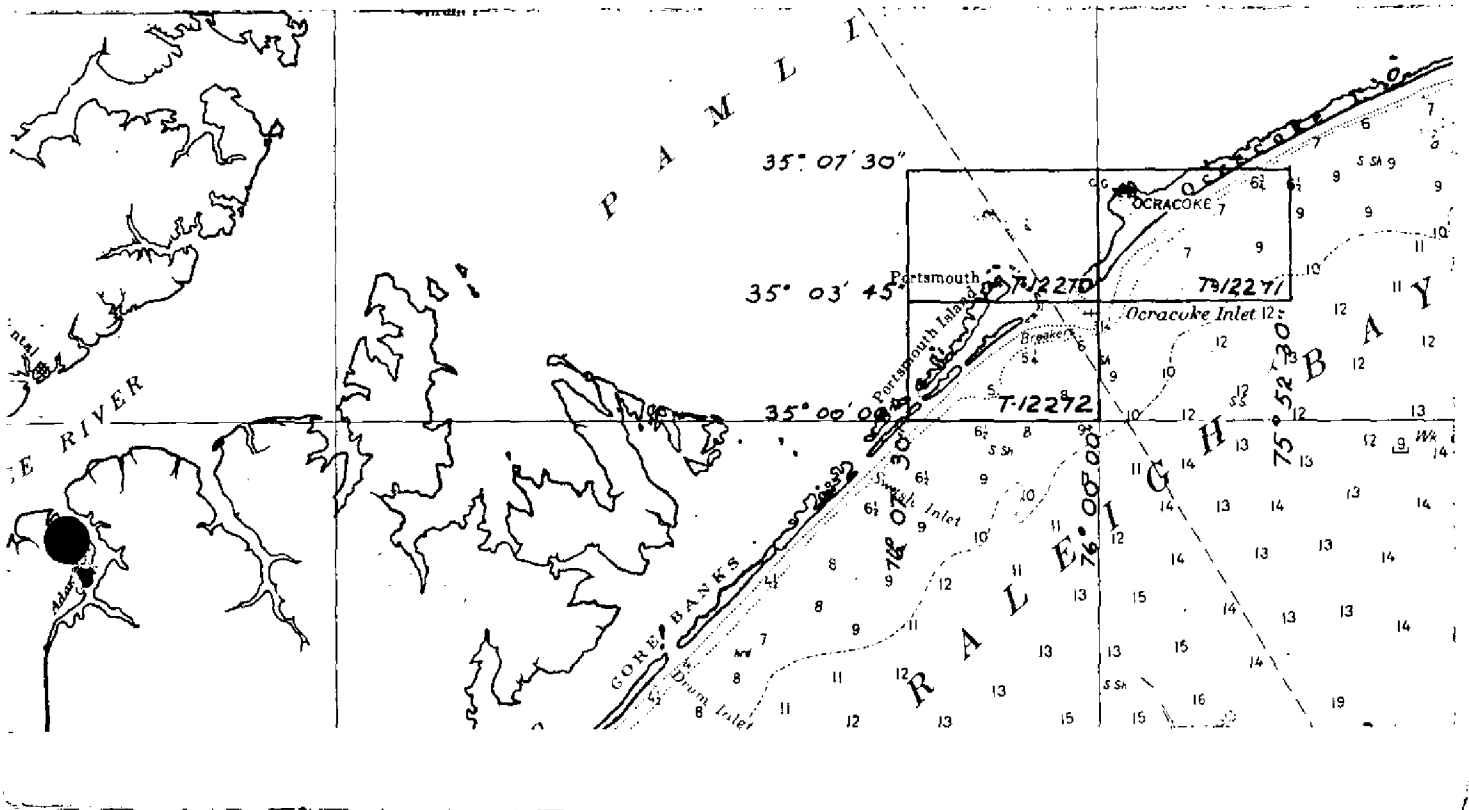
SHORELINE MAPPING

NORTH CAROLINA

OCRACOKE INLET

OFFICIAL MILEAGE FOR COAST ACCOUNTS

Sheet No.	Area Sq. Mi.	Shoreline Lin. Miles
T-12270	2	8
T-12271	5	14
T-12272	<u>3</u>	<u>23</u>
TOTALS	10	45



SUMMARY TO ACCOMPANY DESCRIPTIVE REPORT
T-12770, 12771 and 12772
PH6215

Shoreline manuscripts T-12770 thru T-12772 cover Portsmouth Island, Ocracoke Inlet and the southern portion of Ocracoke Island including the town of Ocracoke.

These manuscripts will provide data for smooth sheet preparation and subsequent revision of chart topography, Hydrography was completed prior to these surveys.

The field operations preceding compilation included field inspection of the MHWL & related features, the location of existing control, the establishment of an additional control station and the location of lights and aids to navigation.

The area was bridged on the C-8 Stereoplanigraph. Compilation was achieved by use of the B-8 stereoplotter and graphic means, utilizing ratioed panchromatic photographs and color photography.

The manuscripts are $3 \frac{3}{4}'$ in latitude by $7 \frac{1}{2}'$ in longitude, at a scale of 1:10,000.

Submitted by:

Jeter P. Battley Jr.

J. P. Battley, Jr.

FIELD INSPECTION REPORT

MAPS T-12270, T-12271, and T-12272

PROJECT PH-6215

OCRACOKE INLET, NORTH CAROLINA

2. Areal Field Inspection

The area covered by these three maps is located at Ocracoke Inlet, North Carolina.

Ocracoke Inlet is generally shoal with constantly changing shoals and shoreline.

The ocean shoreline is generally sandy with the Pamlico Sound shoreline generally marsh.

The only cultural features of the shoreline is a small village at Ocracoke on Silver Lake and an abandoned village at Portsmouth on Portsmouth Island.

The photography was generally good except for the color photography of Beacon Island and North Rock which lacked detail and made control identification difficult.

3. Horizontal Control

All stations indicated on the project diagram within the limits of the sheets were searched for. Requirements for horizontal control identification as indicated on a special copy of the project diagram were met.

All stations indicated were recovered. None were found destroyed.

One new station, "ROCK, 1962", was established on sheet T-12270 by 3rd-order triangulation on North Rock as requested in the project instructions. All data for this station is submitted with this report. A new station on Beacon Island was not established as station "BEACON 2, 1933" was recovered.

4. Vertical Control

All tidal bench marks on Ocracoke Island were searched for, however, only "TBM 6, 1916" was recovered.

5. Contours and Drainage

There are many ponds and marsh areas within the limits of the project. The drainage was delineated where visible.

On Ocracoke and Portsmouth Islands there are large sand flats that are slightly above highwater which flood with wind-driven tides.

6. Woodland Cover

There is very little woodland cover within the limits of the project. Only scattered small scrub trees exist.

7. Shoreline and Alongshore Features

The Pamlico Sound side of the shoreline is mostly apparent. Nearly all the shoreline on these maps is a fringe of marsh. The entire shoreline was inspected by skiff and has been indicated on the photographs. There are occasional short stretches of shoreline that are fast land containing sand or shell.

The ocean shoreline is sandy with a dune ridge containing a sand fence an average of 50 yds. back of the highwater line.

8. Offshore Features

There are no offshore features worthy of mapping.

9. Landmarks and Aids

All landmarks and aids for nautical charts are reported on Form 567. All visible aids and landmarks which are triangulation are identified on contact prints.

Silver Lake Entrance Light and Silver Lake Obstruction Light were identified on ratio prints 62-S-1839A and 62-S-1838A, respectively.

All other aids to navigation could not be seen on the photographs and were located by theodolite cuts. Only two theodolite cuts could be observed to the fixed aids to navigation in Wallace Channel numbers 11 through 20. To supplement these cuts sextant fixes were taken at each of the aids and recorded in horizontal angle book Vol. 2, pages 28 and 29.

10. Boundaries, Monuments, and Lines
Inapplicable.

11. Other Control

The project instructions called for photogrammetric location of some of the hydrographic signals built in the area.

The hydrographic party was able to perform hydrography by only building signals on triangulation stations. Each of these stations were identified by this party on the contact prints.

12. Other Interior Features

All roads have been classified in accordance with Photogrammetric Instruction No. 56, dated 2 January 1958.

12. Other Interior Features Cont'd.

All landmark buildings have been identified on the photographs.

There is one landing strip on Portsmouth Island. It was delineated on photograph 1841-A.

13. Geographic Names

A complete investigation of geographic names was not required. No discrepancies in the geographic names were found.

14. Special Reports and Supplemental Data

The field photographs and all other data for the compilation of these maps are submitted by Letter of Transmittal dated 27 October 1962.

Respectfully submitted,
26 October 1962



Ray M. Sundean
Chief, Photo Party 723

PHOTOGRAMMETRIC PLOT REPORT
OCRACOCKE INLET, NORTH CAROLINA
February 1963

Area Covered

This report covers the shoreline area of Portsmouth Island and the major portion of Ocracoke Inlet, North Carolina. The following shoreline surveys at 1:10,000 scale, covering this area are: T-12270 thru T-12272.

Method

Two bridges were run on the Stereoplanigraph C-8 and adjusted by the IBM-650.

Strip #7 consists of 4 models, 62S 1836A thru 62S 1840A. Adjustment utilized 3 control stations with 5 sub-stations as checks.

Strip #8 consists of 4 models, 62S 1840A thru 62S 1844A. Adjustment utilized 5 control stations with 5 sub-stations, as checks.

Adequacy of Control

Horizontal control was adequate and complied with project instructions. However, SMOTH sub-station #1 did not hold by approximately 15 feet. As five other stations were used to control Strip #8, this discrepancy was not regarded as significant.

On Strip #7, control station Grass, 1960, does not hold due to a poor image point, however the sub-station held in the bridge.

Closures to all other control stations are within the requirements of the National Standards of Map Accuracy for scales of 1:10,000.

Photography was adequate in regards to coverage, overlap and definition.

Submitted by:

Lawrence W. Fritz
Lawrence W. Fritz

Approved by:

Everett H. Ramey
Everett H. Ramey
Chief, Aerotriangulation Section

COMPILATION REPORT
T-12270, 12271, and 12272
PH-6215
Ocracoke Inlet, North Carolina

April 1963

31. Delineation

The three surveys were compiled by instrument and graphic methods. The instrument used was the Wild B-8 stereoplotter. Survey T-12271 was compiled almost in its entirety from stereo models on the B-8, this included the town of Ocracoke. Holding to bridge points and additional points dropped from the B-8, T-12272 was compiled graphically with cronapaque ratio prints. Survey T-12270 was compiled utilizing color film on the B-8, holding to bridge points.

32. Control

Horizontal control was adequate in identification, density and placement.

33. Supplemental Data

U.S.G.S. quadrangles Portsmouth, N. C. and Ocracoke, N. C. were furnished by geographic names section for Geographic names.

34. Contours and Drainage

Inapplicable

35. Shoreline and alongshore details

The mean high water line was delineated from both field inspection and photo interpretation. The MHWL is unstable, especially along the north shore and varies greatly with wind and tide conditions. Shallow and low-water lines were delineated from office interpretation.

36. Offshore details

The apparent limits of Wallace Channel (T-12270) was delineated from the color photography where the drop from shallow to deeper water was apparent. Hydrographic surveys had already been completed in the area, therefore no attempt was made to office interpret the MLWL or offshore shallow limits.

37. Landmarks and Aids

All landmarks and aids identified by the field were positioned, scaled and their geographic positions entered on Form 567.

38. Control for future surveys:

None

39. Junctions

Junctions were made for the bordering limits of the three surveys.

40. Horizontal and vertical accuracy

Inapplicable

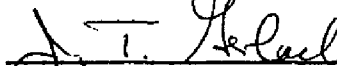
41. thru 45. Inapplicable46. Comparison with existing maps

U.S.G.S. quadrangles, Portsmouth, N. C. and Ocracoke, N. C., dated 1948; scale 1:24,000 was available for comparison, but this area is of such a changeable nature, they were of little value.

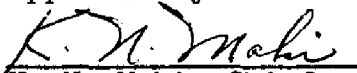
47. Comparison with nautical charts

A comparison was made with Chart No. 419, scale 1:40,000, revised Nov. 1962. Flounder Slue Rk. at approximately $35^{\circ} 06'$ by $76^{\circ} 04.9'$ was not visible on color photography & was not shown.

Submitted by:


J. T. Gerlach

Approved by:


K. N. Maki, Chief
Compilation Section

48. Geographic Names

T-12270

Baymarsh Thorofare
Beacon Island
Casey Bay
Casey Island
Haulover Point
North Rock

Ocracoke Inlet
Pamlico Sound
Portsmouth (ABAND.)
Shell Castle
Sheep Island
Teaches Hole Channel
Wallace Channel

T-12271

Atlantic Ocean
Cuttin Sage Lake
First Hammock Hills
Gap Point
Northern Pond
Ocracoke
Ocracoke Island

Pamlico Sound
Silver Lake
Silver Lake Channel
Springers Point
Teaches Hole Channel
The Plains
Windmill Point

T-12272

Atlantic Ocean
Daniel Swash
Evergreen Island
Evergreen Slough
High Hill Inlet
Pamlico Sound
Portsmouth Island

Royal Point
Royal Point Bay
The Haulover
The High Hills
Whalebone Inlet
Whalebone Island

George W. Bane
Geographic Names
May 1863

REVIEW REPORT
T-12270, 12271 and 12272
April 1963

61. General Statement

(See preface)

62. Comparison with Registered Topographic Surveys

The following prior surveys were made in the area of this survey.

T-376	1:20,000	dated 1852
T-622	1:10,000	dated 1857-66
T-1016	1:20,000	dated 1866
H-1364	1:20,000	dated 1877
T-2739	1:20,000	dated 1905
T-3662	1:40,000	dated 1916
T-6924A	1:10,000	dated 1942-43
T-8727 $\frac{n}{2}$ & $\frac{s}{2}$		
	1:24,000	dated 1946-48
T-8728	1:24,000	dated 1946-48

Due to the inherent nature of the area and recent severe storms, there are large shifts between surveys of the MHWL along the points of land either side of Ocracoke Inlet. The village of Portsmouth is now abandoned. Vera Cruz Shoal, at the entrance of Ocracoke Inlet, (T-8727 $\frac{n}{2}$) no longer exists. Flounder Slue Rock (T-8727 $\frac{n}{2}$) was not visible on the existing photography and is considered covered at MHW. For common detail, T-12270 thru T-12772 supersedes all prior surveys.

noted
LAM
11/20/63

63. Comparison with Maps of Other Agencies

A comparison was made with U.S.G.S. quadrangles; Portsmouth, N. C. and Ocracoke, N. C., scale 1:24,000, 1950 edition.

64. Comparison with Contemporary Hydrographic Surveys

Hydrographic surveys for the area were completed prior to photogrammetric compilation. A comparison was made with the hydrographic boat sheet and no discrepancies were noted.

H-8291 ✓

65. Comparison with Nautical Charts

A comparison was made with nautical chart 419, 4th edition, issued Nov. 26, 1962. This chart also included a correction inset for the immediate area of Ocracoke Inlet, dated April 13, 1963. This inset corrected depth curves and soundings obtained from the hydrographic surveys made prior to this survey.

The discrepancies noted in item 62 of this report existed on chart 419, with the exception of Vera Cruz Shoal, which is not shown on the chart.

66. Adequacy of Results and Future Surveys

The 3 surveys comply with project instructions and meet the requirements for Bureau Map Accuracy Standards.

Reviewed by:

John P. Battley, Jr.
J. P. Battley, Jr.

Approved by:

Charles H. ... Chief, Cartographic Branch Louis G. Taylor Chief, Nautical Chart Division

J. E. Waugh 7/1/63 Chief, Photogrammetry Div. Horace S. Conroy Chief, Operations Division

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

PHOTOGRAMMETRIC REVIEW

TO BE CHARTED
TO BE REVISED
TO BE DELETED

STRIKE OUT TWO

2, Oct. 1962

Ocracoke, North Carolina

I recommend that the following objects which have *(have not)* been inspected from seaward to determine their value as landmarks be charted on *(deleted from)* the charts indicated.

The positions given have been checked after listing by W. M. Reynolds

LT Roy H. Sundeen Chief of Party.

CHARTING NAME	STATE	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. M. METERS	° ' "	D. P. METERS	° ' "							
	North Carolina													
Teaches Hole Channel Light 5				35 04.3	76 00.8	53.74	NA	1927	X			A19-1231		
Teaches Hole Channel Light				35 05.3	75 59.3	46.017			X			1232		
Cockle Shoal Light				35 06.8	75 59.3	34.234			X			"		
Silver Lake Entrance Light				35 06.8	75 59.3	1165.6			X			"		
(OCRACOME LIGHTHOUSE, 1851)				35 06.8	75 59.3	866.9			X			"		
Silver Lake Obstruction Light				35 07.1	75 59.3	24.91			X			"		
Wallace Channel Daybeacon 4				35 04.8	76 02.8	631.0			X			"		
Wallace Channel Light 5				35 05.3	76 03.3	11.07			X			"		
Wallace Channel Light 7				35 05.3	76 03.3	280.3			X			"		
Wallace Channel Daybeacon 6				35 05.3	76 03.3	23.36			X			"		
Wallace Channel Light 10				35 05.9	76 04.9	591.5			X			"		
Wallace Channel Daybeacon 11				35 06.2	76 05.3	52.158			X			"		
Wallace Channel Light 12				35 06.3	76 05.3	21.848			X			"		

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. 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

* No check on this Position.

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
TO BE REVISED
TO BE DELETED

STRIKE OUT TWO

Ocracoke, North Carolina 24 October, 19 62

I recommend that the following objects which have ~~(been not)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(deleted from)~~ the charts indicated.

The positions given have been checked after listing by W. H. Reynolds

Lt. Ray M. Sandean

Chief of Party.

CHARTING NAME	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. M. METERS	° ' "	D. P. METERS	° ' "								
North Carolina														
Wallace Channel Daybeacon 13			35 06.4	21.66	76 05.7	30.39	NA	1977	Theo. cuts	10-24-62	X		A19-1231 1232	
Wallace Channel Daybeacon 14			35 06.5	24.06	76 05.6	31.69	"	"	T-12270	"	X		"	
Wallace Channel Daybeacon 15			35 06.6	33.09	76 06.0	22.7	"	"	T-12270	"	X		"	
Wallace Channel Light 16			35 06.7	35.78	76 06.0	58.04	"	"	T-12270	"	X		"	
Wallace Channel Daybeacon 17			35 06.8	52.82	76 06.0	35.54	"	"	T-12270	"	X		"	
Wallace Channel Daybeacon 18			35 06.9	1628.0	76 06.0	900.0	"	"	T-12270	"	X		"	
Wallace Channel Daybeacon 19			35 07.0	1706.0	76 06.1	33.19	"	"	T-12270	"	X		"	
Wallace Channel Light 20			35 07.1	4.22	76 06.9	55.90	"	"	T-12270	"	X		"	
				6.85	76 06.8	52.89	"	"	T-12270	"	X		"	
				211.0	76 06.8	1339.5	"	"	"	"	X		"	

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. 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

