

9278



Diag Cht. No. 1229

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No: Ph-45 (49) Office No. T-9278

LOCALITY

State North Carolina

General locality Pamlico Sound

Locality Oregon

194 53

CHIEF OF PARTY

Harry F. Garber, Chief of Field Party

Arthur L. Wardwell, Tampa Photogrammetric

Office

LIBRARY & ARCHIVES

DATE May 4, 1956

9278

DATA RECORD

T - 9278

Project No. (II): **Ph-45 (49)** Quadrangle Name (IV):Field Office (II): **Mantee, N. C.**Chief of Party: **Harry F. Garber**Photogrammetric Office (III): **Tampa, Florida**Officer-in-Charge: **Arthur L. Wardwell**Instructions dated (II) (III): **15 September 1949**
19 January 1950 (Supplement one)
*15 May 1951 (Supplement Two)*Copy filed in Division of
Photogrammetry (IV)*Office Files*Method of Compilation (III): **Graphic**Manuscript Scale (III): **1:20,000**Stereoscopic Plotting Instrument Scale (III): **Inapplicable**Scale Factor (III): **None**

Date received in Washington Office (IV):

JAN 5 1952

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV):

AUG 19 1955

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): **N. A. 1927**Vertical Datum (III): **MSL**

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): ~~BODIE ISLAND SOUTH BASE 1849~~ **CLUB 1933**Lat.: ~~35° 47' 52.782 (1626.7m)~~ **35° 48' 34.413 (1060.6m)** Long.: ~~75° 35' 45.090 (1132.2 m)~~ **75° 33' 00.108 (2.7m)**

Adjusted

~~Unadjusted~~

Plane Coordinates (IV):

State:

Zone:

Y=

X=

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.

All contouring was done
by Richard E. Conway, Jr.

Areas contoured by various personnel
(Show name within area)

(1) ~~(11)~~

DATA RECORD

Field Inspection by (II): **Ralph G. Holland**
Topographic Engineer

Date: **Apr-May 1950**

Planetable contouring by (II): **Richard E. Conway, Jr.**
Cartographic Survey Aid

Date: **June-July 1950**

Completion Surveys by (II): **R. L. Mc Glinchey**

Date: **Apr 1953**

Mean High Water Location (III) (State date and method of location):

Air Photo Compilation

16 March 1950

Projection and Grids ruled by (IV): **T. L. J. (W. O.)**

Date: **29 Oct. 1950**

Projection and Grids checked by (IV): **H. D. W. (W.O.)**

Date: **30 Oct. 1950**

Control plotted by (III): **I. I. Saperstein**

Date: **11 Dec. 1950**

Control checked by (III): **R. J. Pate**

Date: **19 Dec. 1950**

~~Radial Plot by Stereoscopic~~
~~Control extension by (III):~~

M. M. Slavney

Date: **15 Jan. 1951**

Stereoscopic Instrument compilation (III):

Planimetry

Inapplicable

Date:

Contours

Date:

Manuscript delineated by (III): **R. R. Wagner**

Date: **14 Aug. 1951**

Photogrammetric Office Review by (III): **J. A. Giles**

Date: **28 Nov. 1951**

Elevations on Manuscript
 checked by (II) (III):

R. R. Wagner

Date: **8 Aug. 1951**

Camera (kind or source) (III): **Fairchild Cartographic 6" Metrogon lens Camera "Q"**

PHOTOGRAPHS (III)				
Number	Date	Time	Scale	Stage of Tide
1788-1790, incl.	5 Dec. 1949	13:30	1:20,000	0.1, 0.0, 0.0
1802-1808, incl.	"	"	"	0.1

Tide (III)

Reference Station: **Hampton Roads**
 Subordinate Station: **Oregon Inlet**
 Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
0.7	1.8	2.2

Washington Office Review by (IV): *Everett H. Ramey*Date: *1 Feb 1954*Final Drafting by (IV): *E. L. Hunter*Date: *3-14-55*

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

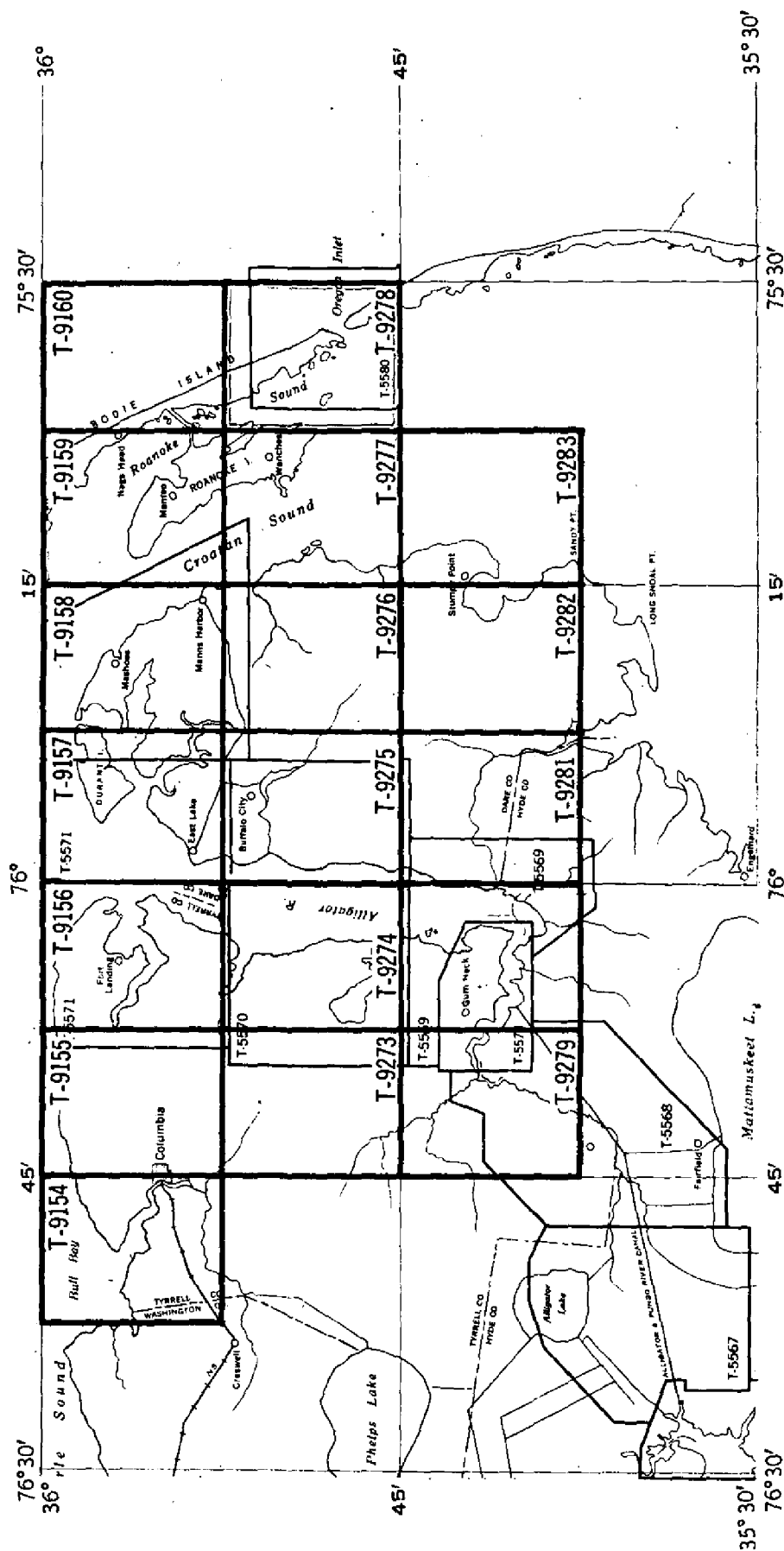
Land Area (Sq. Statute Miles) (III): **11**
 Shoreline (More than 200 meters to opposite shore) (III): **33**
 Shoreline (Less than 200 meters to opposite shore) (III): **7 mi.**
 Control Leveling - Miles (II): **5 miles of fly leveling**
 Number of Triangulation Stations searched for (II): **14** Recovered: **8** Identified: **7**
 Number of BMs searched for (II): **4** Recovered: **4** Identified:
 Number of Recoverable Photo Stations established (III): **12**
 Number of Temporary Photo Hydro Stations established (III): **none**

Remarks:

TOPOGRAPHIC MAPPING PROJECT

PH-45 (49)

NORTH CAROLINA, Vicinity of Albemarle Sound



Summary to Accompany Topographic Map T-9278

Map T-9278 is one of eighteen topographic maps of Project Ph-45(49). It covers land and water areas in the vicinity of Oregon Inlet, North Carolina. The entire area is within Dare County.

Project Ph-45(49) is a graphic compilation project. Field work in advance of compilation included the establishment of some additional control, field inspection, the delineation of 5 foot contours by planetable methods directly on the photographs, the location of boundaries and the investigation of geographic names.

Map T-9278 was compiled at a scale of 1:20,000 using aerial photographs taken in 1949. The map was field edited. After the addition of hydrographic information, the map will be forwarded to the Geological Survey for publication as a standard $7\frac{1}{2}$ ' topographic map.

Items registered under T-9278 will include a lithographic print of the map manuscript at a scale of 1:20,000, a print of the published map at a scale of 1:24,000 and the descriptive report.

FIELD INSPECTION REPORT
QUADRANGLE T-9278
Project Ph-45(49)

Harry F. Garber, Chief of Party

The field work for this quadrangle was done in accordance with the Director's Instructions, Project Ph-45(49) dated 15 September 1949 and Supplement One Instructions dated 19 January 1950. In addition to contours as indicated on Page 2 the field work was accomplished by:

<u>Name and Title</u>	<u>Phase</u>	<u>Dates</u>
Ralph G. Holland Topographic Engineer	Horizontal and Vertical Control Recovery and Identification, Interior Inspection, Shoreline, Fly Levels and Supplementary Horizontal Control	April 1950 May 1950

2. AERIAL FIELD INSPECTION

This quadrangle is in Dare County, North Carolina and covers an area of land to the east and west of Roanoke Sound at its southerly end. The area to the west covers the southeastern section of Roanoke Island and to the east covers the southern portion of land known as Bodie Island and the northern portion of land known as Pea Island. Bodie Island and Pea Island are separated by Oregon Inlet, the only passageway to the Atlantic Ocean for many miles. It is a narrow shallow inlet with numerous sand shoals subject to continuous shifting of position which is a menace to surface navigation. Oregon Inlet is navigable by only the smaller type vessels.

There are no towns or settlements in this quadrangle, the area being almost barren except for a few fish houses on Roanoke Island, the Bodie Island Lighthouse and a few fish houses on Bodie Island and the Oregon Inlet Coast Guard Station on Pea Island. The Bodie Island Coast Guard Station has been abandoned and subject to be dismantled*. The land area on Bodie Island and Pea Island consists chiefly of small shifting sand dunes except for some low marsh land on the west shores. The land area on Roanoke Island for this quadrangle is composed almost entirely of low marsh land.

* See §60

Bodie Island and Pea Island are served by only one poor sand road which is at times impassable due to the shifting of sand in this area and the beach along the Atlantic shore is used in lieu of the sand road approximately fifty percent of the time.

See §59

However, the North Carolina State Highway Department has just recently completed the final location on a new proposed highway to serve this area. This highway is to be of hard surface and the construction is expected to begin within a few months.

See §59

There is no access by road to most of the land area on Roanoke Island covered by this quadrangle, except for a small section in Wanchese which is served by a good paved road from the north.

A ferry operates between Pea Island and Bodie Island about five times daily and Sunday. It operates at intervals of about every two hours from about 0700 to 1700.

The quality of the photographs is satisfactory. No difficulty should be encountered in interpretation of tones by the compiler.

The field inspection is believed to be complete.

See §31

3. HORIZONTAL CONTROL

(a) ^{*less than 50m*} A third order position on topographic station INEZ 1950 ^{***} was determined by a four point fix to supplement the horizontal control at the south end of Bodie Island in lieu of BODIE ISLAND SOUTH BASE, 1849 which was not recovered. ^{** Reported destroyed 1953. ENR*}

^{*less than 50m*} A third order position on topographic station EARN 1950 which was established on Duck Island was determined by a three point fix for the purpose of holding the photogrammetric plot on both flights. Station CLUB 1933 was also identified by the sub-station method. However, this sub-station was not clear on all photographs, so a new station EARN 1950 was established.

A short traverse was also run from U. S. Engineers PIPE STATION, A-2 and OREGON INLET C. G. FLAGPOLE to a sub-station opposite the photograph center for the purpose of holding the photogrammetric plot.

(b) No datum adjustments were made by field party.

(c) ^{***} Two U. S. Engineers station, PIPE STATION A-1 and PIPE STATION A-2, 1942 ^{** Stations south of quad limits. Published as Third-order or better in accuracy. ENR*} were recovered in this quadrangle. The order of accuracy is not known.

(d) Sufficient stations were identified to satisfy the project instructions.

(e) All Coast and Geodetic stations were searched for and reported on Form 526.

(f) All stations positively identified and all useful information was noted on identification cards.

4. VERTICAL CONTROL

(a) The following Bench Marks were recovered, no datum difference applied.

M 21.5 (USGS) Third Order	1236 00 (USDI) Third Order	* See § 53
M 22.0 (USGS) Third Order	1104 72.2 (USDI) Third Order	

* Recovered as leaning. EMK

(b) Five miles of fly levels were run to establish supplemental vertical control for contouring. A closed loop was run from third order bench mark P-249 (U. S. Coast & Geodetic Survey).

(c) The first and last level points were 78-01 to 78-15.

5. CONTOURS AND DRAINAGE

All contouring was done by planetable methods directly on single lens photographs at a five foot interval. Most of the contours were along a ridge of shifting sand dunes between the ocean and a dirt road running parallel to the beach with a few isolated dunes scattered east of the road. The five foot contour as shown on the beach is subject to change due to storm tides which continually wash sand in and out. Usually no contour above 15 feet is shown as peaks are too small. See § 53 & § 56

There is practically no drainage in this Quad except immediately off of the ridge into the marshland on the west. Water stands in ponds and marshland along the west side of the road.

Some of the detail was omitted as the scale was too small to show.

6. WOODLAND COVER

The coverage was classified in accordance with Paragraph 5433 of the Preliminary Edition of the Topographic Manual dated June 1949.

7. SHORELINE AND ALONGSHORE FEATURES

(a) The mean high water line along the Atlantic shore was indicated on the photographs by both field inspection and reference measurements. The shore line is generally apparent along the sound sides. See § 58

(b) The mean low water line along the barrier beach was not indicated on the photographs since the photography was taken at or near the time of mean low water. On the sound side except at Oregon Inlet there is practically no perceptible periodic tidal change and the low mean water line coincides with the mean high water line.

The mean low water is indicated on photographs at Oregon Inlet as of date of inspection and is subject to change due to the continual shifting of the sand shoals in this area.

(e) Docks, wharves, piers and landings are clearly presentable on the photographs and clearly labeled.

(f) A submarine cable*transmitting a telephone line from Bodie Island to Pea Island crosses at Oregon Inlet. The point where the cable enters water at the north end of Pea Island is clearly indicated on photograph. The point where the cable entered water at the south end of Bodie Island was indefinite since there was no indication of underground wiring for some distance of the shore line. The end poles were identified on the photographs.

** Positioned by the field editor. ENR*

8. OFFSHORE FEATURES

There are no offshore features requiring further investigation.

9. LANDMARKS AND AIDS

(a) Landmarks and Non-floating aids to navigation are listed on Form 567.

The most significant aid in this area is the Bodie Island Lighthouse.

See 557 & 565

10. BOUNDARIES MONUMENTS AND LINES

For legal descriptions of all boundaries in this project, see "Special Boundary Report", by Mr. R. L. McGlinchey. *This report is filed under project data in the Div. of Photogrammetry.*

11. OTHER CONTROL

Recoverable topographic stations established are:

CUPOLA, 1950
*HOUSE, 1950
EARL, 1950
DALE, 1950
*INEZ, 1950
EARN, 1950

CHIMNEY, 1950
Gable, 1950
EAST, 1950
~~CHIMNEY, 1950~~ * (Stack 1950)
HAIR, 1950
BOUNDARY MK. 2 } Repositioned by planetable
BOUNDARY MK. 3 } in 1953.

** Destroyed as per 1953 recovery. ENR*

12. OTHER INTERIOR FEATURES

Roads and buildings are classified in accordance with instructions. There are no bridges over navigable water in this quadrangle.

13. GEOGRAPHIC NAMES

This special report will be submitted by Mr. R. L. McGlinchey.

This report is filed in the Geographic Names Section, Div. of Charts

14. SPECIAL REPORT AND SUPPLEMENTAL DATA

Except for items 10 and 13 above, there are no special data for this sheet.

2 June 1950

Submitted by:

Harry F. Gribben
For Ralph C. Holland
Topographic Engineer

Photogrammetric Plot Report

This report covers surveys T-9154 through T-9158, T-9273 through T-9276 and T-9279 through T-9283. It is filed as part of the Descriptive Report for T-9158.

MAP T-9278 PROJECT NO. Ph-45(49) SCALE OF MAP 1:20,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR μ -COORDINATE LONGITUDE OR x -COORDINATE		DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS	
					FORWARD	(BACK)		FORWARD	(BACK)	FORWARD	(BACK)
OREGON INLET COAST GUARD STATION FLAGPOLE, 1933	SP.P. 218	N.A. 1927	35 46	03.15				97.1 (1,752.1)			
	"	"	75 31	26.02				653.6 (853.6)			
BODIE ISLAND SOUTH BASE, 1849	"	"	35 48	34.413				1,060.6 (788.6)		Covered by dune. Lost. ENE	
	"	"	75 33	00.108				2.7 (1,503.6)			
CREEK, 1933	"	"	35 51	12.879				396.9 (1,452.3)			
	"	"	75 36	52.163				1,308.9 (196.6)			
BODIE ISLAND COAST GUARD STATION 1933	"	"	35 50	14.34				442.0 (1,407.2)		Destroyed (F.E. 1953) ENE	
	"	"	75 33	33.47				840.0 (665.8)			
OREGON INLET COAST GUARD STATION, GUROLA, 1933	"	"	35 46	03.80				117.1 (1,732.1)			
	"	"	75 31	26.98				677.7 (829.5)			
CLUB, 1933	"	"	35 47	52.782				1,626.7 (222.5)			
	"	"	75 35	45.090				1,132.2 (374.4)			
BODIE ISLAND LIGHTHOUSE, 1875	"	"	35 49	06.178				190.4 (1,658.8)			
	"	"	75 33	49.297				1,237.5 (268.7)			
MILL CREEK, 1909	"	"	35 49	42.433				1,307.8 (541.4)			
	"	"	75 37	00.782				19.6 (1,486.4)			
PIPE STATION B-1, 1942 (USE)	Roanoke Island Quad	"	35 45	43.720				1,347.5 (501.7)		Lost ENE	
	"	"	75 31	06.047				151.9 (1,355.4)			
PIPE STATION B-2, 1942 (USE)	"	"	35 45	50.330				1,551.2 (298.0)		Lost ENE	
	"	"	75 31	07.608				191.1 (1,316.3)			
1320/00 (N.C.D.C. & D.) 1933	SP.P. 218	"	35 47	56.984				1,756.2 (93.0)		Covered by dune. Lost. ENE	
	"	"	75 32	34.660				870.4 (636.3)			
INEZ, 1950	COMP. 3M-FIX	"	35 48					348.6 (1,500.6)		Destroyed 1953. ENE	
	"	"	75 32					1,904.2 (463.2)			

1 FT. = 3048006 METER

COMPUTED BY W. W. Dawsey

DATE 17 August 1950

CHECKED BY: I. I. Saperstein

DATE 6 Dec. 1950

M-2388-12

12

MAP T-9278.

PROJECT NO. Pb-45(49)

SCALE OF MAP 1:20,000

SCALE FACTOR

None.

[illegible]

1 FT. = 3048005 METER

COMPUTED BY: **W.W.Dawsey**

DATE.....17 August 1950.....

CHECKED BY: I. I. Saperstein

DATE 6 Dec 1950

M-2388-12

COMPILATION REPORT T-9278PHOTOGRAMMETRIC PLOT REPORT.

Submitted with T-9159.

31. DELINEATION.

The graphic method was used.

The original field inspection was inadequate and the photographs were returned to the field for additional information. Reference letter from Commander Harry F. Garber, dated 8 March 1951, a copy of which is a part of this report.

32. CONTROL.

The identification of control points was good. Density and placement were satisfactory.

33. SUPPLEMENTAL DATA.

None used.

See § 14

34. CONTOURS AND DRAINAGE.

No contours have been shown on PEA ISLAND as it is adequately covered by U. S. Geological Survey contours. These contours will be applied by the Washington Office Review Section.* Reference letter from Chief, Division of Photogrammetry, dated 20 July 1951, 78-mkl, a copy of which is a part of this report.

** Not applied as stated. See § 53.*

No difficulty was encountered in delineation of drainage.

35. SHORELINE AND ALONGSHORE DETAILS.

The shoreline inspection was adequate. The low-water line around Oregon Inlet was furnished by the field inspector.

See § 58

36. OFFSHORE DETAILS.

No statement.

37. LANDMARKS AND AIDS.

No unusual method was used.

See § 57

38. CONTROL FOR FUTURE SURVEYS.

Two (2) of the thirteen (13) stations submitted fell on adjoining quadrangles. One (1) station was added from another quadrangle, bringing the total to twelve (12) stations which are being submitted on Form 524 with this report. The stations are listed under Item 49.

See § 67

39. JUNCTIONS.

The Atlantic Ocean is on the east.
T-9277 to the west - in agreement.
T-9160 to the north - in agreement.
T-8911 Ph 5(45) south, in agreement except for a telegraph line to be checked at the time of field edit.

40. HORIZONTAL AND VERTICAL ACCURACY.

No statement.

See § 53

46. COMPARISON WITH EXISTING MAPS.

Comparison was made with Planimetric Map T-5580, scale 1:10,000, dated October 1937. The shoreline has changed considerably.

See § 62 & 63

Comparison was also made with U. S. Corps of Engineer Quadrangle ROANOKE ISLAND N. C., scale 1:125,000, dated 1942. The two are in good agreement.

47. COMPARISON WITH NAUTICAL CHARTS.

Comparison was made with Chart 1229, scale 1:80,000, published December 1942, corrected to 4 December 1950. The planimetric map listed under Item 46 appears to be the main source of the topography on the chart and the same statement applies.

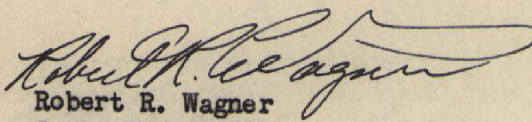
ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY.

See § 65

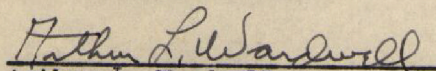
None.

ITEMS TO BE CARRIED FORWARD.

None.


Robert R. Wagner
Carto Photo Aid

APPROVED AND FORWARDED:


Arthur L. Wardwell
Chief of Party

FIELD EDIT REPORT
Project Ph-45(49)
Quadrangle T-9278

51. METHODS

The field edit for this quadrangle was accomplished by traversing, via truck, all roads, and walking to other areas in which the reviewer requested information. The shoreline was inspected from a skiff, except the barrier beach which was inspected intermittently by walking along the beach.

Corrections and additions were made by standard surveying methods in conjunction with visual inspection.

The reviewer's questions are answered on the discrepancy print, field edit sheet, the metal mount sheet, this report, and field photographs 49-0-1788, 1790A, 1804, 1805 and 1807E.

Deletions have been noted on the discrepancy print and the field edit sheet. A legend appears on the field edit sheet stating the various colors of ink used and the completion date of field edit.

Field work was accomplished intermittently during March, 1953.

52. ADEQUACY OF COMPILATION

The map compilation is adequate and will be complete after field edit is applied.

See 566

53. MAP ACCURACY

Reference Item 49, ^{Compilation} ~~Field Inspection~~ Report.

Recoverable topographic stations STACK, 1950; HOUSE, 1950; and INEZ, 1950 have been destroyed.

See 567

The horizontal accuracy of map detail in all areas appears good.

That portion of Pea Island falling within this quadrangle was recontoured as requested. Control for this area was established from calculated water level at Oregon Inlet and checked by a water crossing to temporary bench marks set by the original contour party in 1950 in the vicinity of Bodie Island Lighthouse. During the course of contouring Sta. 54 + 00 U.S.D.I., was recovered on Pea Island and a datum check of 0.2 foot was made. Proper contour junction was made with U.S.G.S. quadrangle "PEA ISLAND" on the south. For a discussion of contours on shifting sand dunes within this quadrangle see Paragraph 56, this report.

In the vicinity of Mill Creek, Wanchese, elevations were obtained along canal spoil banks. These are shown on the field photographs and referenced on the discrepancy print.

54. RECOMMENDATIONS

It is recommended that shifting sand dunes of the type found in the southern portions of Bodie Island, not be contoured, but only an occasional elevation shown on the higher peaks. Sec 856

55. EXAMINATION OF PROOF COPY

It is believed that Mr. David J. Cox, Jr., Registered Land Surveyor, Hertford, N. C. is best qualified to examine a proof copy of this map.

A spot check of geographic names was made and found to be in excellent agreement with the Geographic Name List.

Reference Item 48, ^{COMPILATION} Field Inspection Report.

The placement of CUT THROUGH waterway was investigated thoroughly and its position shown on the discrepancy print. CUT THROUGH should be mapped as two words.

"THEOFF" POINT was checked in the field and found to have originated from a family name. THEOFF is one word.

56. CONTOURS AND SAND DUNES

The sand dunes along the barrier beach within this quadrangle are classified in three groups:

1. From the northern quadrangle limits, southward to approximately the position of topographic station DALE, 1950, and westward from the beach to the new road to Oregon Inlet. The sand dunes in this area can be classed as more "stable" than shifting. Considerable grass covers the dunes, with only the top peaks and hollows being bare and shifting. Contours in this area are recommended for mapping up to the ten (10) foot level - then, only an occasional spot elevation shown on the higher dunes.

See §68

2. The point where the grass stops growing and only bare sand remains is not a well defined line. From the vicinity of topographic station DALE, 1950, southward for about 2,000 feet, the grass gradually disappears and the dunes become bare and very unstable. In the area of the abandoned Bodie Island Coast Guard Station and southward to within 1/4 mile north of Oregon Inlet, the sand is beginning to move westerly and is threatening to cover the new road to Oregon Inlet. Plans are under way by the Coast Guard to move the telephone line as the sand has piled to within inches of the wires in some areas. Contours in this area are recommended for deletion and only an occasional top elevation shown. This area has been circled in red on the field edit sheet.

3. All contours west of the new road are recommended for mapping. These are usually small sand areas, not over ten (10) feet high and somewhat protected from the winds by surrounding bushes.

Contours and shifting sand dunes on Pea Island are discussed on field photograph 49-C-1807F, submitted with this quadrangle.

57. AIDS TO NAVIGATION

Thirteen (13) fixed aids to navigation were cut in by planetable on a metal mounted sheet. All cuts were taken from stations of third order or higher accuracy. New positions were obtained for ROANOKE ISLAND LT. 7; ROANOKE ISLAND LT. 9; ROANOKE ISLAND LT. 10; and ROANOKE ISLAND LT. 11.

A new position of OREGON INLET LT. 5 was obtained by a planetable and tape traverse from station OREGON INLET FLAGPOLE, 1933.

Two cuts of strong intersection were taken to the remaining nine (9) fixed aids, verifying their plotted position.

See §69

58. SHORELINE AND OFFSHORE FEATURES

The sand beach at the southern end of Bodie Island in the vicinity of North Point has built up and extended southward into Oregon Inlet for approximately 2,000 feet. Elevations in this area average 2 and 3 feet above mean sea level. This area is gradually changing from sand flats to low shifting sands and does not flood at extreme high tides. Mean high water line was surveyed by planetable and shown on the field edit sheet. Low water line has not been shown in this area because of the small scale. There is approximately only 1.8 feet of tide range here, and the low water line is too close to the mean high water line to depict accurately. According to the Commanding Officer of the Oregon Inlet Coast Guard Station, there is only six (6) feet of water across the entrance of Oregon Inlet at high water. Soundings were taken 15 March 1953.

The channel running southward in Roanoke Sound in the vicinity of ROANOKE ISLAND DAYBEACON 12, 1950, has filled with sand and has become impassable to practically all boats with inboard engines. As the result of petitions signed by the many fishermen using this channel, the Corps of Engineers are presently engaged in this area, seeking a passable route south and possibly dredging a canal. It is not improbable that some of the fixed aids to navigation in this area will be moved in the near future.

59. OTHER INTERIOR FEATURES

Since the photography and original field inspection of this quadrangle, a new highway has been built southward along the beach to Oregon Inlet. The State of North Carolina operates a free ferry across Oregon Inlet, where the new highway begins again and extends southward to Cape Hatteras. This highway has been located on the field edit sheet.

The U.S. Department of Interior, National Park Service, is in the process of acquiring all the land contained in this quadrangle with the exception of that portion of Roanoke Island shown on this sheet, and several small reservations. At present, the boundaries of this tract are only outlined on paper but will be surveyed and bounded in the near future. The reservation will be known as "THE CAPE HATTERAS NATIONAL SEASHORE RECREATION AREA."

60. BOUNDARIES

All four boundary monuments of the Bodie Island Lighthouse Reservation were recovered and cut in by planetable on the field edit sheet.

Following is a legal description of the Oregon Inlet Coast Guard reservation as abstracted from the records of the Dare County Courthouse:

Beginning at Corner 1, the northwest corner of the tract, marked by a standard concrete post with a brass cap stamped "12 U.S. TR. 1, COR. 1, J. F. BEYERS ET AL, TR. 8, OREGON INLET 1936", thence, N. 63° -33'E., 10.0 chains to Corner 2,
S. 26° -27'E., 10.0 chains to Corner 3,
S. 63° -33' W., 10.0 chains to Corner 4,
N. 26° -27' W., 10.0 chains to Corner 1.

All corners were marked with standard concrete posts and brass caps.

Only Corner 1 could be recovered. This was cut in by planetable from OREGON INLET FLAGPOLE, 1933.

Bodie Island Coast Guard Station reservation has been abandoned by the Coast Guard and the tract taken over by the Department of Interior. These buildings will become the headquarters for the recreational project. see § 59 above

61. JUNCTIONS

Satisfactory junctions have been made with T-9160 on the north, U.S.G.S. quadrangle "PEA ISLAND" on the south, and T-9277 on the west. The Atlantic Ocean covers the eastern limits of this quadrangle.

3 April 1953
Submitted by:

Richard L. McGlinchey
Richard L. McGlinchey, by *RT*
Carto. Surv. Aid

10 April 1953
Approved by:

Paul Taylor
Paul Taylor
Lt. Comdr., USC&GS
Chief of Party

PHOTOGRAMMETRIC OFFICE REVIEW

T-9278

1. Projection and grids J.G. 2. Title J.G. 3. Manuscript numbers J.G. 4. Manuscript size J.G.

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy M.M.S. 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) J.G. 7. ~~Photographic stations~~ 8. Bench marks J.G. 9. Plotting of sextant fixes J.G. 10. Photogrammetric plot report J.G. 11. Detail points J.G.

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline J.G. 13. Low-water line J.G. 14. Rocks, shoals, etc. J.G. 15. ~~Islands~~ 16. Aids to navigation J.G. 17. Landmarks J.G. 18. Other alongshore physical features J.G. 19. Other along-shore cultural features J.G.

PHYSICAL FEATURES

20. Water features J.G. 21. Natural ground cover J.G. 22. Planetable contours J.G. 23. ~~Seismic data~~ 24. Contours in general J.G. 25. Spot elevations J.G. 26. Other physical features J.G.

CULTURAL FEATURES

27. Roads J.G. 28. Buildings J.G. 29. ~~Railroads~~ 30. Other cultural features J.G.

BOUNDARIES

31. Boundary lines J.G. 32. ~~Political boundaries~~

MISCELLANEOUS

33. Geographic names J.G. 34. Junctions J.G. 35. Legibility of the manuscript J.G. 36. Discrepancy overlay J.G. 37. Descriptive Report J.G. 38. Field inspection photographs J.G. 39. Forms J.G.
40. for William A. Rasure William A. Rasure
Jesse A. Giles William A. Rasure
Reviewer Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Compiler_____
Supervisor

43. Remarks:

Review Report
Topographic Map T-9278
1 February 1954

62. Comparison with Registered Topographic Surveys.-

T-354	1:20,000	1849
T-791	"	1860
T-826	"	1861
T-933	"	1864
T-2951	"	1909
T-3538	1:40,000	1915-16
T-5580	1:10,000	1937
T-6582	"	1937

There are numerous differences in shoreline and culture between T-9278 and the above surveys. The most striking difference is in the position of Oregon Inlet which has progressed southward approximately one and one-half miles since the earliest survey. Map T-9278 is to supersede the above surveys for the areas encompassed by T-9278.

63. Comparison with Maps of Other Agencies.-

Roanoke Island, N.C. (USE) 1:125,000 1943

Differences exist between this map and T-9278 in shoreline and culture. Because of the large scale difference, no detailed comparison was made.

64. Comparison with Contemporary Hydrographic Surveys.-None

65. Comparison with Nautical Charts.-

1229- 1:80,000 1942 corrected to 53- 8/24

Many differences exist between this chart and T-9278. New islands have formed at latitudes $35^{\circ} 48.3'$ and $35^{\circ} 48.5'$ and longitude $75^{\circ} 35'$. They should be added to the chart. Landmarks: "CHY-LARGEST HOUSE" at lat. $35^{\circ} 50.5'$ and long. $75^{\circ} 37.3'$ and "CHY" at lat. $35^{\circ} 49.2'$ and long. $75^{\circ} 36.9'$ were recommended for deletion during this review (see form 567 attached). Landmark "Clubhouse" at lat. $35^{\circ} 45.6'$ and long. $75^{\circ} 31.4'$ no longer exists and should be deleted from the chart.

The shoal areas on T-8992 were compiled from photographs taken in 1949. They differ greatly from what is shown on the chart. Considering the fairly large change in the shoreline at North Point on Oregon Inlet between the field inspection of 1950 and the field edit of 1953, it is evident that the shoal areas change accordingly.

The placement of the feature "Cut Through" was investigated during the field edit (see sub-heading 55). "Roanoke Island Cut Through Light" does not ~~mark~~ this feature. Many aids that were positioned during the field edit of 1953 have not been added to the above chart print.

Changes made to the map manuscript during this review are shown in red.

66. Adequacy of Results and Future Surveys.- This map meets the National standards of Map Accuracy and complies with project instructions. Some areas of this map will probably require frequent future surveys. See Sub-heading 58 regarding shoaling at Roanoke Sound Channel Daybeacon 12. ✓

67. Other control.-Topographic station "Chimney 1953" was identified on the photographs during the field edit and positioned during this review by photogrammetric methods.

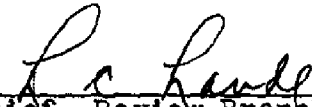
68. Contours and Dunes.-Reference sub-heading 56, par. 1. The area referred to is too dissected and intricate with dunes rising more than ten feet to map in the way the field editor suggested. The limits of the shifting dunes were chosen as below the ten foot plane. The limits chosen are in agreement with the field inspection notes.


69. Landmarks and Aids.- Reference par. 3, sub-heading 57. The 1950 positions of these aids were adjusted slightly to incorporate the new observations and were submitted on a new Form 567. Consequently, they are shown on the map manuscript as 1953 positions.

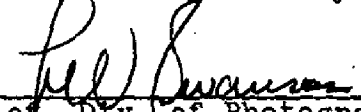
Reviewed by:


Everett H. Ramey

APPROVED


Chief, Review Branch
Div. of Photogrammetry


Chief, Nautical Chart Branch
Division of Charts 67


Chief, Div. of Photogrammetry


Chief, Div. of Coastal Surveys

3 May 1956

T-9278

Geographic Names:

- North Carolina ✓
- Dare County
- Kennebakeet Township ✓
- Nags Head Township ✓
- Atlantic Ocean ✓
- Pamlico Sound ✓
- Hatteras Road ✓
- Pea Island ✓
- Pea Island National Wildlife Refuge ✓
- Oregon Inlet C.G. Sta. No. 176 ✓
- South Point ✓
- Oregon Inlet ✓
- North Point ✓
- Bodie Island ✓
- Motta Creek ✓
- Little Tim Island ✓
- Big Tim Island ✓
- Herring Shoal Island ✓
- Duck Island ✓
- Off Island ✓
- Blossie Creek ✓
- Lighthouse Bay ✓
- Cedar Island ✓
- Cedar Point ✓
- Georges Creek ✓
- Bodie Island Clubhouse ✓
- Theoff Point ✓
- Bodie Island C.G. Sta. No. 175 ✓
- Tommys Hammock
- Roanoke Sound ✓
- Roanoke Island ✓
- Broad Creek Point ✓
- Broad Creek ✓
- Wanchese ✓
- Mill Creek ✓
- Mill Landing
- Cutthrough ✓ (waterway between south end Roanoke Island and islands off of it)
- N.C. 345A
- Oyster Creek ✓
- Hog Island ✓
- Smith Island ✓
- Smith Creek ✓

Names underlined in red are
approved, on basis of project names
report. 5-29-52

Check
Checked and approved
1-30-54 A.J.W.

49. NOTES FOR THE HYDROGRAPHER.

Recoverable topographic stations of use to the hydrographer are as follows:

EARN 1950	
GABLE 1950	
CHIM 1950	CHIMNEY EHR
STACK 1950	Destroyed 1953. EHR
EARL 1950	
HAIR 1950	
DALE 1950	
MON 1950	} Repositioned by planetable 1953. Other monuments located also. EHR
MON 1950	
CUPOLA 1950	
HOUSE 1950	Destroyed 1953. EHR
INEZ 1950	Destroyed 1953. EHR
CHIMNEY 1953	

PHOTOGRAMMETRIC REVIEW SECTION

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS FOR LANDMARKS FOR CHARTS

TO BE CHARTED
~~TO BE DELETED~~

STRIKE OUT ONE

Tampa Florida

13 August 1951

I recommend that the following objects which have ~~(XXXXXXXXXX)~~ 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

Robert E. Wagner

Tampa Photogrammetric Office

Arthur L. Wardwell

LCDR

Chief of Party.

STATE	NORTH CAROLINA				SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	CHARTING NAME	DESCRIPTION	LATITUDE			LONGITUDE									
			° ' "	D. M. METERS		° ' "	D. P. METERS								
								DATUM							
LIGHT	ROANOKE I. CUT THROUGH:	Black slatted pile structure	35 48	551	75 37	150	N.A. 1927	T-9277 Rad. Plot	1950	X			1229		
LT.	ROANOKE ISLAND 21:	Black box on pile	35 51	1530	75 37	284	"	"	"		X		"		
LT.	ROANOKE ISLAND 19:	Black box on pile	35 51	320	75 36	1247	"	"	"		X		"		
BN.	ROANOKE ISLAND 18:	Red triangular daymark on pile	35 50	1118	75 36	600	"	"	"		X		"		
BN.	ROANOKE ISLAND 16:	Red triangular daymark on pile	35 50	457	75 36	324	"	"	"		X		"		
BN.	ROANOKE ISLAND 14:	Red triangular daymark on pile	35 49	1333	75 35	1420	"	"	"		X		"		
LT.	ROANOKE ISLAND 13:	Black box on pile	35 49	1311	75 35	1462	"	"	"		X		"		
BN.	ROANOKE ISLAND 12:	Red triangular daymark on pile	35 49	250	75 35	947	"	"	"		X		"		
LT.	ROANOKE ISLAND 11:	Black box on pile	35 48	1091	75 35	552	"	"	"		X		"		
LT.	ROANOKE ISLAND 10:	Black box on pile	35 47	1579	75 34	1142	"	"	"		X		"		
LT.	ROANOKE ISLAND 7 :	Black box on pile	35 47	963	75 33	1393	"	"	"		X		"		
LT.	ROANOKE ISLAND 5 :	Black box on pile	35 47	628	75 33	122	"	"	"		X		"		
LT.	OREGON INLET 5:	Black box on pile	35 46	1054	75 32	70	"	"	"		X		"		
LIGHT	BODIE I. CONICAL TOWER:	alternate white and black horz. bands above granite base; black ironwork	35 49	190.4	75 33	1237.5	"	Tri.	1875	X			1109 1229		

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. 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.

PHOTOGRAMMETRIC REVIEW SECTION

TO BE CHARTED
TO BE DELETED

STRIKE OUT ONE

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

Tampa Florida

13 August, 1951

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

Robert R. Wagner

Tampa Photogrammetric Office

Arthur L. Wardwell

Chief of Party.

[illegible]

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. 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.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE
TO BE DELETED }

10 August, 1953

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

The positions given have been checked after listing by

Robert R. Wagner
Cartographic Photo. Aid

J. R. Hough
Chief of Party.

STATE NORTH CAROLINA				POSITION						METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
CHARTING NAME	DESCRIPTION	SIGNAL NAME	LATITUDE *		LONGITUDE *										
			°	'	D. M. METERS	°	'	D. P. METERS							
ONCOCK ISLAND LIGHT 5			35	44	51.80 980	75	32	61.59 40	N.A. Flaretable 1987 T-9276	March 1953				1229	
* ROANOKE ISLAND LIGHT 5			35	47	20.30 628	75	33	61.36 122	"	"	"			"	
* ROANOKE ISLAND LIGHT 7			35	47	21.02 956	75	33	53.36 1340	"	"	"			"	
* ROANOKE ISLAND LIGHT 9			35	47	41.99 1284	75	34	19.08 679	"	"	"			"	
* ROANOKE ISLAND LIGHT 10			35	47	51.62 1591	75	34	50.26 1369	"	"	"			"	
* ROANOKE ISLAND LIGHT 11			35	48	26.20 1118	75	35	23.02 573	"	"	"			"	
* ROANOKE ISLAND BATHYGRAPH 12			35	49	08.18 252	75	35	37.08 951	"	"	"			"	
* ROANOKE ISLAND LIGHT 13			35	49	42.70 1316	75	35	50.00 1436	"	"	"			"	
* ROANOKE ISLAND BATHYGRAPH 14			35	49	43.20 1994	75	35	56.57 1120	"	"	"			"	
* ROANOKE ISLAND BATHYGRAPH 16			35	50	14.03 457	75	36	12.21 346	"	"	"			"	
* ROANOKE ISLAND LIGHT 18			35	50	20.57 1127	75	36	24.23 600	"	"	"			"	
* ROANOKE ISLAND LIGHT 19			35	51	10.01 357	75	36	49.62 1265	"	"	"			"	
* ROANOKE ISLAND LIGHT 21			35	51	57.71 1592	75	37	11.00 291	"	"	"			"	
ROANOKE ISLAND OUT THATCH LIGHT			35	48	17.08 551	75	37	05.77 150	"	"	"			"	

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. 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. *5472*

* TABULATE SECONDS AND METERS *Copy filed as part of Chart Letter 824 (1953).*

* Designation should be "Roanoke Sound Channel" not "Roanoke Island." *5472*

~~NO REEXAMINED~~ STRIKE OUT ONE
TO BE DELETED

Washington, D.C. 27 Jan. 1954

Everett H. Ramsey

S. V. GRIFFIN Chief of Party.

Chief of Party.

[illegible]

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. 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**

DEPARTMENT OF COMMERCE
U. S. COAST & GEODETIC SURVEY

P. O. Box 271
Edenton, North Carolina

8 March 1951

To: Lt. Comdr. Arthur L. Wardwell
Tampa Photogrammetric Office
U. S. Coast and Geodetic Survey
Post Office Box 1689
Tampa, Florida

Subject: Field Inspection, T-9278

1. Mr. McGlinchey and I walked over a considerable area on T-9278, often in water up to our knees, in an attempt to delineate many of the features. After seeing some small islets labeled "shell-holes", it became apparent that no interior field inspection had been made of this area.

2. The general character of the center of this area is low and flat, where the rainfall is trapped, as it is generally higher on either side of the island. As the ground is barely above sea level, I doubt if there is much seepage, so the water is lost through evaporation. I believe that the open water areas evaporate more rapidly than the marsh area, hence the extensive sand and mud flats in contrast to the adjacent wet grass or marsh areas. The types of grasses and reeds vary according to the degree of wetness, which give different tones on the photographs. However, I think we are safe in calling it all marsh, as it was extremely wet when we were through it, and will be for the greater part of the year.

3. Interspersed among this marsh are numerous "islands" or "hummocks" of varying size and elevation which is fast ground indeed. The larger ones are fringed with a belt of extremely dense bushes about fifteen (15) to twenty (20) feet high, and can be classified as trees. The centers of these large ones are mostly sand with scrub brush. The sizes range down to a matter of fifteen (15) to twenty (20) feet across, generally with low bushes and brown sage. Numerous samples of these have been marked on the photographs. In some cases, these hummocks are so small and numerous within a marsh, that some generalization will have to be made. Such an area has been indicated along the southern shore of the southernmost pond.

4. As the grassland merges into the marsh very gradually in some places, a sharp line of demarcation cannot be made. Such a line will need be generalized somewhat as indicated along the east edge of the main marsh.

5. Delete the "target", whatever it was. It is now in ruins - merely scrap lumber remaining.

6. The term "apparent shoreline" has caused considerable difficulty. To my mind, it is the edge of dense vegetation growing in the water, such as mangrove, heavy growth of cypress trees well into the water, or heavy marsh grasses where high water runs through it. However, the interpretation by the field inspectors, when I came on the party, was that apparent shoreline was any marsh or swamp ground that was soft underfoot and not too staple, in contrast to rocky or sand beaches. In water where there is little tide, the marsh areas often have a decided berm about a foot high. However, this has still been classified as apparent shoreline. I discussed the matter with Mr. B. G. Jones and he did not seem too concerned about it. He said that it was a borderline case. *

7. I hope that the notes on the photographs will clarify the various limits, and if not, please call on us for further investigation. A good deal of it is a matter of judgment in the borderline cases. I have noticed that some of the field inspectors have a tendency to skip borderline cases as they are not sure of themselves. I try to explain that if they cannot decide on a feature while standing there looking at it, how can they expect a compiler to know how to interpret it from photographs alone? I hope to make a little progress. *

/s/ Harry F. Garber
Harry F. Garber
Commander USC&GS
Chief of Party

History of Hydrographic Information
for T-9278

Hydrography was added to the map manuscript in accordance with the general specifications of 18 May 1949.

Depth curves and soundings are in feet at mean low water datum and originate with the following:

Hydro. surveys:	H-1053	1:40000	1870
	H-1180a	1:20000	1873
	H-3772	1:20000	1915
	H-6228	1:10000	1937

USE blue prints: 35901 1:30000 1941

46443-6 1:2000 & 1:10000 1947-8 & 1950

Comparison was made with Nautical Chart 1229, 1:80000, 1942 corrected to 53-8/24. Shoal areas were interpreted from photographs taken in 1949.

Hydrography was compiled by Everett H. Ramey
8 March 1954 and verified by O. Svendsen 18 March 1954.

Everett H. Ramey
Everett H. Ramey

NAUTICAL CHARTS BRANCH

SURVEY NO. 9278

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.