ORIGINAL

TP 00519

NOAA FORM 76-35

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

# DESCRIPTIVE REPORT

*Type of Survey* Special Surveys

*Job No.* CM-7402 *Map No.* TP-00519

*Classification No.* Final *Edition No.* 1

Field Edited Map

## LOCALITY

*State* North Carolina

*General Locality* Beaufort Inlet

*Locality* Beaufort

1973 TO 1974

## REGISTRY IN ARCHIVES

DATE

☆ U.S. GOVERNMENT PRINTING OFFICE: 1974-762-901

TP-00519

(1)

NOAA FORM 76-36A (3-72) — U. S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.

# DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY: [X] ORIGINAL [ ] RESURVEY [ ] REVISED

SURVEY TP-00519

MAP EDITION NO. (1)

MAP CLASS Final CM

JOB [redacted]-7402

PHOTOGRAMMETRIC OFFICE: Coastal Mapping Division (Norfolk)

OFFICER-IN-CHARGE: Jeffrey G. Carlen, CDR - NOAA

LAST PRECEEDING MAP EDITION
TYPE OF SURVEY: [ ] ORIGINAL [ ] RESURVEY [ ] REVISED
JOB PH-
MAP CLASS
SURVEY DATES: 19__ TO 19__

## I. INSTRUCTIONS DATED

| 1. OFFICE | 2. FIELD |
|---|---|
| General Instructions - OFFICE - 5/10/74 | Photography (Special Bathymetry and Topo.) 10/23/73 |
| Amendment No. 1 8/10/74 | Field (Special Survey) 10/30/73 |
| | Field Edit 8/21/74 |

## II. DATUMS

1. HORIZONTAL: [X] 1927 NORTH AMERICAN — OTHER (Specify)

2. VERTICAL: [X] MEAN HIGH-WATER [X] MEAN LOW-WATER [ ] MEAN LOWER LOW-WATER [ ] MEAN SEA LEVEL — OTHER (Specify): National Geodetic Vertical Datum of 1929.

3. MAP PROJECTION: Lambert Conformal

4. GRID(S): STATE: N.C. ZONE: N.A.

5. SCALE: 1:5,000 STATE: ZONE:

## III. HISTORY OF OFFICE OPERATIONS

| OPERATIONS | | NAME | DATE |
|---|---|---|---|
| 1. AEROTRIANGULATION METHOD: Analytic, Block Adj. | BY | D.O. Norman | 5/74 |
| | LANDMARKS AND AIDS BY | N.A. | |
| 2. CONTROL AND BRIDGE POINTS METHOD: Calcomp | PLOTTED BY | R. Robertson | 5/74 |
| | CHECKED BY | N.A. | |
| 3. STEREOSCOPIC INSTRUMENT COMPILATION INSTRUMENT: Wild B-8 SCALE: 1:3,000 Pantographed to | PLANIMETRY (Contours) BY | A.L. Shands | 8/74 |
| | CHECKED BY | J. Byrd & J. Hancock | 8/74 |
| | CONTOURS (Photobathymetry) BY | A.L. Shands | 8/74 |
| | CHECKED BY | J. Byrd & J. Hancock | 8/74 |
| 4. MANUSCRIPT DELINEATION 1:5,000 METHOD: Smooth Compilation Drafting SCALE: 1:5,000 | PLANIMETRY (Contours) BY | J. Hancock | 9/74 |
| | CHECKED BY | B. Kurs | 9/74 |
| | CONTOURS (Photobathymetry) BY | J. Hancock | 9/74 |
| | CHECKED BY | B. Kurs | 9/74 |
| | HYDRO SUPPORT DATA BY | N.A. | |
| | CHECKED BY | N.A. | |
| 5. OFFICE INSPECTION PRIOR TO FIELD EDIT | BY | B. Kurs | 9/74 |
| 6. APPLICATION OF FIELD EDIT DATA | BY | J. Hancock | 1/75 |
| | CHECKED BY | A.L. Shands | 1/75 |
| 7. COMPILATION SECTION REVIEW | BY | A.L. Shands | 1/75 |
| 8. FINAL REVIEW | BY | E.L. Rolle | 5/76 |
| 9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH | BY | | |
| 10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH | BY | E.L. Rolle | 5/76 |
| 11. MAP REGISTERED - COASTAL SURVEY SECTION | BY | R. CATOR | 5/76 |

NOAA FORM 76-36A — SUPERSEDES FORM C&GS 181 SERIES

* U.S. G.P.O. 1972-769382/582 REG.#6

(2)

NOAA FORM 76-36B
(3-72)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TP-00519

# COMPILATION SOURCES

## 1. COMPILATION PHOTOGRAPHY

CAMERA(S): Wild "RC-10"

TIDE STAGE REFERENCE
- ☐ PREDICTED TIDES
- ☐ REFERENCE STATION RECORDS
- ☒ TIDE CONTROLLED PHOTOGRAPHY

TYPES OF PHOTOGRAPHY LEGEND
- (C) COLOR
- (P) PANCHROMATIC
- (I) INFRARED

TIME REFERENCE
ZONE: Eastern — ☒ STANDARD ☐ DAYLIGHT
MERIDIAN: 75th

| NUMBER AND TYPE | DATE | TIME | SCALE | STAGE OF TIDE |
|---|---|---|---|---|
| 73C(C)5842-5846 | 11/7/73 | 12:29 12:27 - 12:32 | 1:7,500 | 1:15 ft. above MLW * |
| 73C(C)5787-5793 | 11/7/73 | 12:29 12:18 - 12:22 | 1:7,500 | 0.80 ft. above MLW * |
| 5798-5800* | 11/7/73 | 12:29 12:18 - 12:22 | 1:7,500 | 1:15 ft. above MLW * |
| 73C(C)5691-5695 | 11/7/73 | 11:29 11:33 - 11:34 | 1:7,500 | 0.85 ft. above MLW * |
| 73C(C)5695-5703 | 11/7/73 | 11:29 11:34 - 11:34 | 1:7,500 | 0.95 ft. above MLW * |
| 73C(C)5575-5580 | 11/7/73 | 10:27 10:28 10:59 | 1:7,500 | 0.81 ft. above MLW * |
| 73C(C)6366-6368 | 11/12/73 | 13:30 - 13:36 | 1:7,500 | 0.65 ft. above MLW * |
| 6377-6381 | 11/12/73 | 13:28 13:30 - 13:36 | 1:7,500 | 0.65 ft. above MLW * |

* Refer to the following page for additional tidal information.

REMARKS
*Photos not included in bridge. Control points identified on adjacent photographs included in the bridge.

## 2. SOURCE OF MEAN HIGH-WATER LINE:

~~The elevation of the MHW line above NGVD in each tide zone was used to delineate it using the color photography listed above.~~

The source of the MHW line is the tide-coordinated color photography listed above under item 1.

## 3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

~~The elevation of the MLW line below NGVD in each tide zone was used to delineate it using the color photography listed above.~~

The source of the MLW line is the tide-coordinated color photography listed above under item 1.

## 4. CONTEMPORARY HYDROGRAPHIC SURVEYS *(List only those surveys that are sources for photogrammetric survey information.)*

| SURVEY NUMBER | DATE(S) | SURVEY COPY USED | SURVEY NUMBER | DATE(S) | SURVEY COPY USED |
|---|---|---|---|---|---|
| | | | | | |

## 5. FINAL JUNCTIONS

| NORTH | EAST | SOUTH | WEST |
|---|---|---|---|
| No survey | TP-00521 | TP-00520 | TP-00517<br>TP-00518 |

REMARKS: As this is a special job, no attempt was made to junction with other NOS jobs in the area.



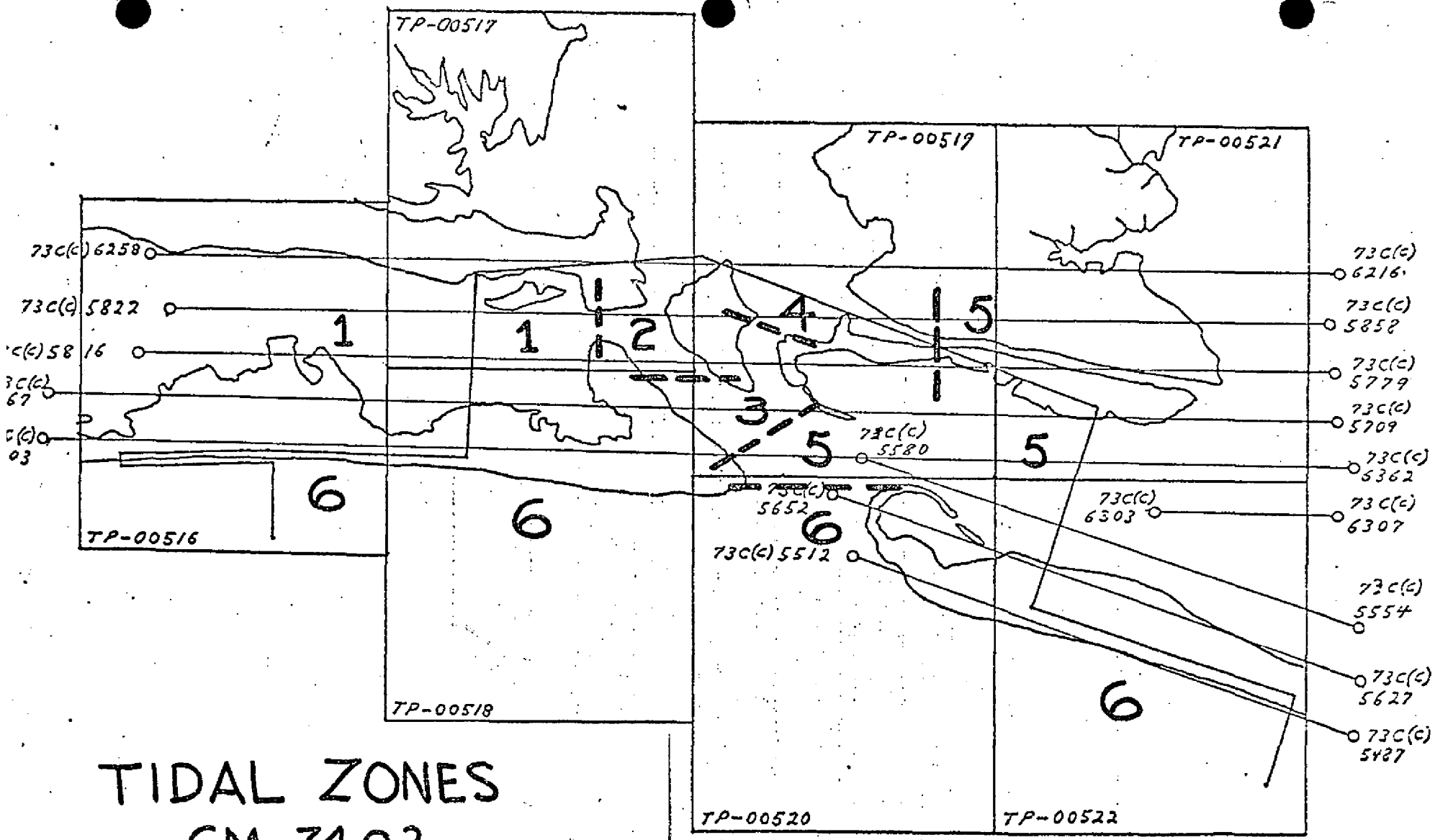
* U.S. G.P.O. 1972-769381/568 REG.#6

TIDE INFORMATION



| PHOTOGRAPHY | TIDE STATIONS (In operation at time of photography) | | STAGE OF TIDE Feet | MEAN RANGE Feet |
|---|---|---|---|---|
| | TIDE STATION | TIDAL ZONE* | | |
| 73C(C)5575-5580 | Beaufort Inlet Channel Range | 5 | +0.81MLW | 3.26 |
| 73C(C)5691-5695 | Fort Macon Coast Guard Dock | 3 | +0.85MLW | 3.18 |
| 73C(C)5698-5703 | Beaufort Inlet Channel Range | 5 | +0.95MLW | 3.26 |
| 73C(C)5787-5793 | Beaufort Inlet Channel Range | 5 | +0.80MLW | 3.26 |
| 73C(C)5790-5796 | Duke Marine Lab | 4 | +1.00MLW | 3.00 |
| 73C(C)5796-5800 | Port Terminal | 2 | +1.15MLW | 3.10 |
| 73C(C)5842-5843 | Port Terminal | 2 | +1.25MLW | 3.10 |
| 73C(C)5843-5846 | Duke Marina Lab | 4 | +1.15MLW | 3.00 |
| 73C(C)6366-6368 | Beaufort Inlet Channel Range | 5 | +0.65MLW | 3.26 |
| 73C(C)6377-6381 | Fort Macon Coast Guard Dock | 3 | +0.65MLW | 3.18 |

*Refer to the following page for a Tidal Zone Diagram.




# TIDAL ZONES
## CM-7402
## Beaufort Inlet, N.C.

TP-00519

5

ESSA FORM 76-36c
(2-70)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

# HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION ☒ FIELD EDIT OPERATION

| OPERATION | | NAME | DATE |
|---|---|---|---|
| 1. CHIEF OF FIELD PARTY | | R.S. Tibbetts | Oct. 1973 Sept. 1974 |
| 2. HORIZONTAL CONTROL | RECOVERED BY | R.D. Black | Oct. 1973 |
| | ESTABLISHED BY | " " | " " |
| | PRE-MARKED OR IDENTIFIED BY | " " | " " |
| 3. VERTICAL CONTROL | RECOVERED BY | R.E. Kesselring | Sept. 1974 |
| | ESTABLISHED BY | " " | " " |
| | PRE-MARKED OR IDENTIFIED BY | R.D. Black | Oct. 1973 |
| 4. LANDMARKS AND AIDS TO NAVIGATION | RECOVERED (*Triangulation Stations*) BY | | |
| | LOCATED (*Field Methods*) BY | N.A. | |
| | IDENTIFIED BY | | |
| 5. GEOGRAPHIC NAMES INVESTIGATION | TYPE OF INVESTIGATION<br>☐ COMPLETE<br>☐ SPECIFIC NAMES ONLY<br>☒ NO INVESTIGATION | BY | |
| 6. PHOTO INSPECTION | CLARIFICATION OF DETAILS BY | N.A. | |
| 7. BOUNDARIES AND LIMITS | SURVEYED OR IDENTIFIED BY | N.A. | |

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED Pre-mark Two

| PHOTO NUMBER | STATION NAME |
|---|---|
| | |

2. VERTICAL CONTROL IDENTIFIED Pre-mark One

| PHOTO NUMBER | STATION DESIGNATION |
|---|---|
| | |

3. PHOTO NUMBERS (*Clarification of details*) Field Edit

73C(C)5842; 73C(C)5844; 73C(C)5846; 73C(C)5848; 73C(C)5850; 73C(C)6379; 73C(C)5787; 73C(C)5789; 73C(C)5791; 73C(C)5797; 73C(C)5793

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

N.A.

| PHOTO NUMBER | OBJECT NAME |
|---|---|
| | |

| PHOTO NUMBER | OBJECT NAME |
|---|---|
| | |

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE

6. BOUNDARY AND LIMITS: ☒ REPORT ☐ NONE

7. SUPPLEMENTAL MAPS AND PLANS

~~None.~~ Sketch (Fort Macon Coast Guard Reservation Limits)

8. OTHER FIELD RECORDS (*Sketch books, etc.* **DO NOT** *list data submitted to the Geodesy Division*)

4 - Form ~~76-53~~, Control Station Identification.
C&GS-152



USCOMM-DC 46200-P70

NOAA FORM 76-36D
(3-72)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

TP-00519

# RECORD OF SURVEY USE

## I. MANUSCRIPT COPIES

| COMPILATION STAGES | | | DATE MANUSCRIPT FORWARDED | |
|---|---|---|---|---|
| DATA COMPILED | DATE | REMARKS | MARINE CHARTS | HYDRO SUPPORT |
| Compilation complete pending field edit | Aug.1974 | Class III manuscript | | |
| Field edit applied & revisions made due to new vertical datum | Jan.1975 | Class I manuscript | | Jan.1975 |
| | | | | |
| | | | | |

## II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

| NUMBER | CHART LETTER NUMBER ASSIGNED | DATE FORWARDED | REMARKS |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____
3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

## III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☐ FORM NOS 567 SUBMITTED BY FIELD PARTIES.
3. ☒ SOURCE DATA *(except for Geographic Names Report)* AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:

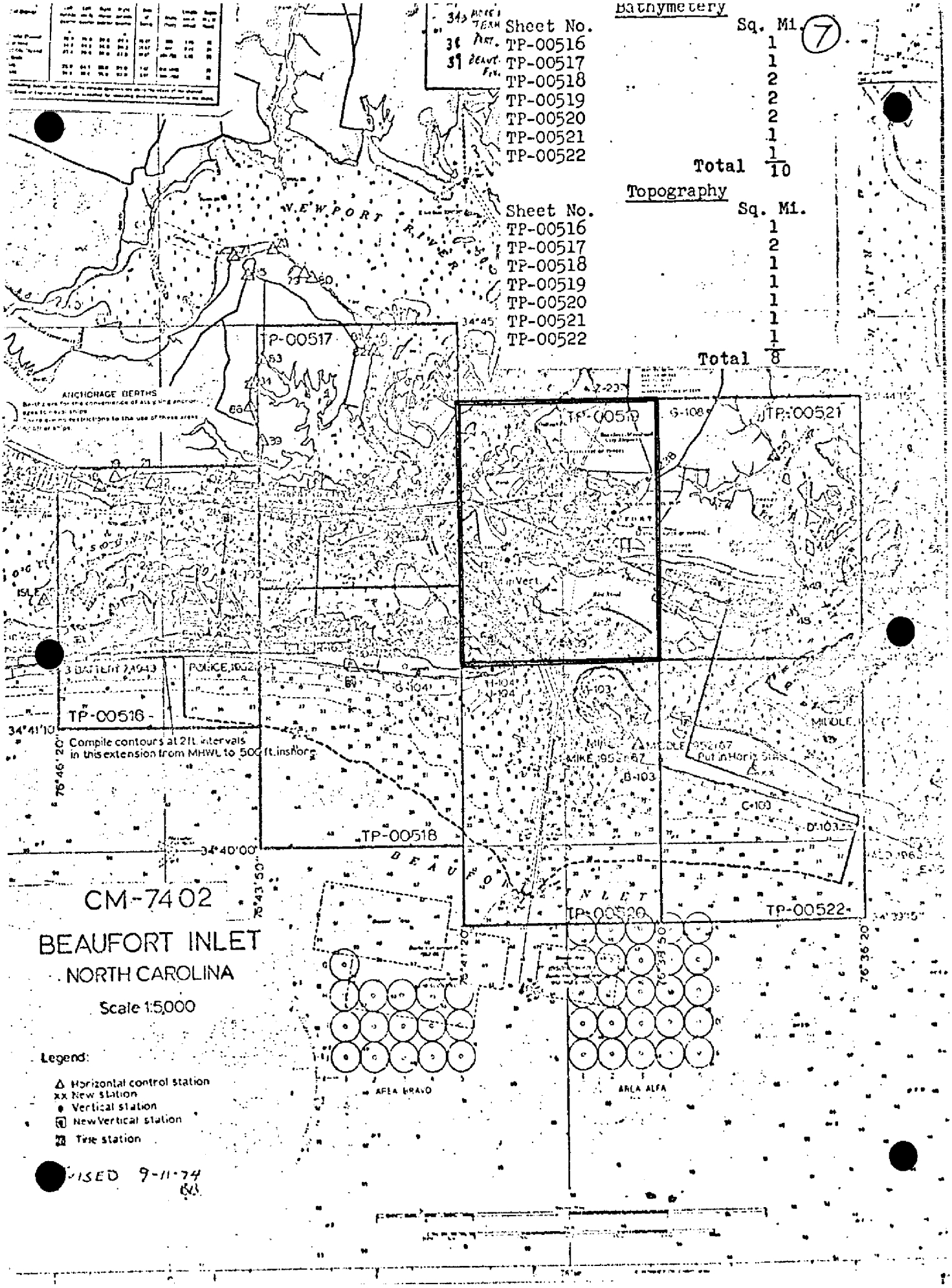
4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

## IV. SURVEY EDITIONS *(This section shall be completed each time a new map edition is registered)*

| | SURVEY NUMBER | JOB NUMBER | TYPE OF SURVEY |
|---|---|---|---|
| SECOND EDITION | TP - _____ (2) | PH - _____ | ☐ REVISED ☐ RESURVEY |
| | DATE OF PHOTOGRAPHY | DATE OF FIELD EDIT | MAP CLASS ☐II. ☐III. ☐IV. ☐V. ☐FINAL |
| THIRD EDITION | SURVEY NUMBER | JOB NUMBER | TYPE OF SURVEY |
| | TP - _____ (3) | PH- _____ | ☐ REVISED ☐ RESURVEY |
| | DATE OF PHOTOGRAPHY | DATE OF FIELD EDIT | MAP CLASS ☐II. ☐III. ☐IV. ☐V. ☐FINAL |
| FOURTH EDITION | SURVEY NUMBER | JOB NUMBER | TYPE OF SURVEY |
| | TP - _____ (4) | PH - _____ | ☐ REVISED ☐ RESURVEY |
| | DATE OF PHOTOGRAPHY | DATE OF FIELD EDIT | MAP CLASS ☐II. ☐III. ☐IV. ☐V. ☐FINAL |

NOAA FORM 76-36D

☆U. S. GOVERNMENT PRINTING OFFICE: 1973--778075/1077 REGION NO. 6


Bathymetery
Sheet No. Sq. Mi.
TP-00516 1
TP-00517 1
TP-00518 2
TP-00519 2
TP-00520 2
TP-00521 1
TP-00522 1
Total 10
Topography
Sheet No. Sq. Mi.
TP-00516 1
TP-00517 2
TP-00518 1
TP-00519 1
TP-00520 1
TP-00521 1
TP-00522 1
Total 8
7
TP-00517
TP-00519
TP-00521
TP-00516
TP-00518
TP-00520
TP-00522
ANCHORAGE BERTHS
Compile contours at 2ft. intervals in this extension from MHWL to 50ft. inshore
34°41'10"
34°40'00"
76°46'20"
76°43'50"
76°36'20"
CM-7402
BEAUFORT INLET
NORTH CAROLINA
Scale 1:5,000
Legend:
Horizontal control station
xx New station
Vertical station
New Vertical station
Tide station
AREA BRAVO
AREA ALFA
REVISED 9-11-74

# SUMMARY
## TP-00516 thru TP-00522

Under a cooperative agreement with the Corps of Engineers, Wilmington District, which became effective August 1973, these seven maps (TP-00516 thru 522) were compiled at 1:5,000 scale in the area of Beaufort Inlet, North Carolina.

The purpose of this special survey is to provide data for the Corps of Engineers on siltration rates in the entrance channel and harbor complex, possible impacts of entrance channel deepening on adjacent beaches, possible changes effected by dredging on the tidal prism and the circulation pattern, to update and establish tidal datums, and to update nautical charts in the area.

Field operations, which began in October 1973, generally consisted of aerial photography, establishment of tidal datums, pre-marking of horizontal and vertical control, and field edit.

Aerotriangulation and compilation tide-coordinated photography was furnished at 1:7,500 scale from natural color film taken with the Wild RC-10 super-wide-angle camera. Supplemental black-and-white infrared tide-coordinated photography at 1:4,300 scale, taken concurrently in an independent mode using color infrared film in the RC-8 camera, was also furnished.

Nine strips of the 1:7,500 scale photography were bridged by analytic aerotriangulation methods and adjusted to ground with the block adjustment program. Fourteen horizontal control stations, fifteen vertical control stations, and fifteen vertical points from the tide-coordinated infrared photography were weighted in the block adjustment. This provided horizontal and vertical control for compilation.

Compilation photography was the 1:7,500 scale photography and the supplemental infrared photography. The Wild B-8, using the 1:7,500 scale photography was used to compile planimetry, topography, and photobathymetry. The topography consists of 2-foot interval contours and spot elevations referred to the National Geodetic Vertical Datum of 1929. The photobathymetry consists of discrete soundings and 2-foot interval depth curves referred to the Mean Low Water Datum established by NOS.

All line work is smooth compilation drafting.

One plastic copy and ten ozalid copies of each map was furnished to:

Department of the Army
Wilmington District, Corps of Engineers
P.O. Box 1890
Wilmington, North Carolina 28401
ATTN: Mr. R.P. Masterson,Jr.

A Chart Maintenance Print for each map was submitted to the Marine Chart Division.

The following items are registered in the Bureau Archives:

1. A plastic copy of each map (1:5,000 scale).
2. A Descriptive Report for each map.

Negatives for each map are filed in the Reproduction Division.

All field data are filed in the National Archives.

# FIELD INSPECTION

TP-00519

There was no field inspection prior to compilation. Field work accomplished was limited to the recovery and identification of the horizontal and vertical control necessary for the aerotriangulation of the project.

(11)

Photogrammetric Plot Report
Beaufort Inlet, North Carolina
CM-7402
May 1974

21. Area Covered.

This report pertains to seven sheets in the vicinity of Beaufort Inlet, North Carolina. The sheets are TP-00516 thru TP-00522.

22. Method.

Nine strips (see sketch) of 1:7,500 scale color photography were bridged by analytic aerotriangulation methods and adjusted to ground with the block adjustment program. Points were established for determining ratios of 1:4,300 scale infrared support photography. Sufficient points were plotted by the Coradomat for setting models for compilation. These points were plotted in the North Carolina State Plane Coordinate System.

23. Adequacy of Control.

The control was adequate. Fourteen horizontal control stations were weighted in the block adjustment. The largest residual in the fit to horizontal control was .4 foot.

Fifteen vertical control targets were weighted. The largest residual in the fit to these targets was one-half foot. In addition to these targeted points, thirty-nine vertical control points were established from the tide-related infrared photography. Fifteen of these points were weighted in the block adjustment. The largest residual in the fit to control of all thirty-nine points was 1.28 feet. This point was in the critical area as were three other points with residuals greater than 1 foot. The average residual of non-weighted vertical points in the critical area was .54 foot.

24. Supplemental Data. - None was used.

25. Photography.

There was a noticeable scale difference on the edge of adjacent photographs. This produced some error in measurement that could not be compensated for.

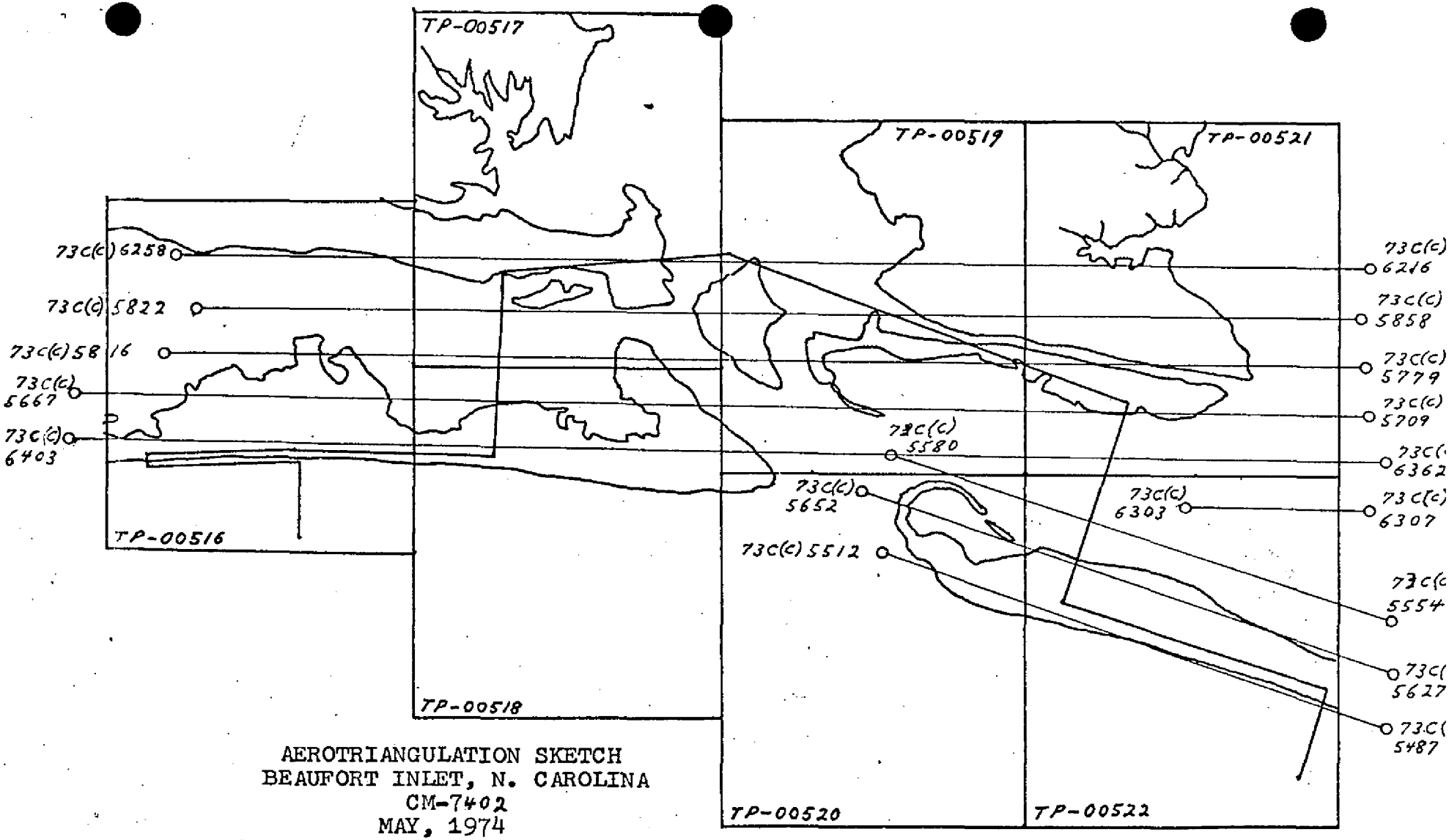
Submitted by,

Don O. Norman

Don O. Norman

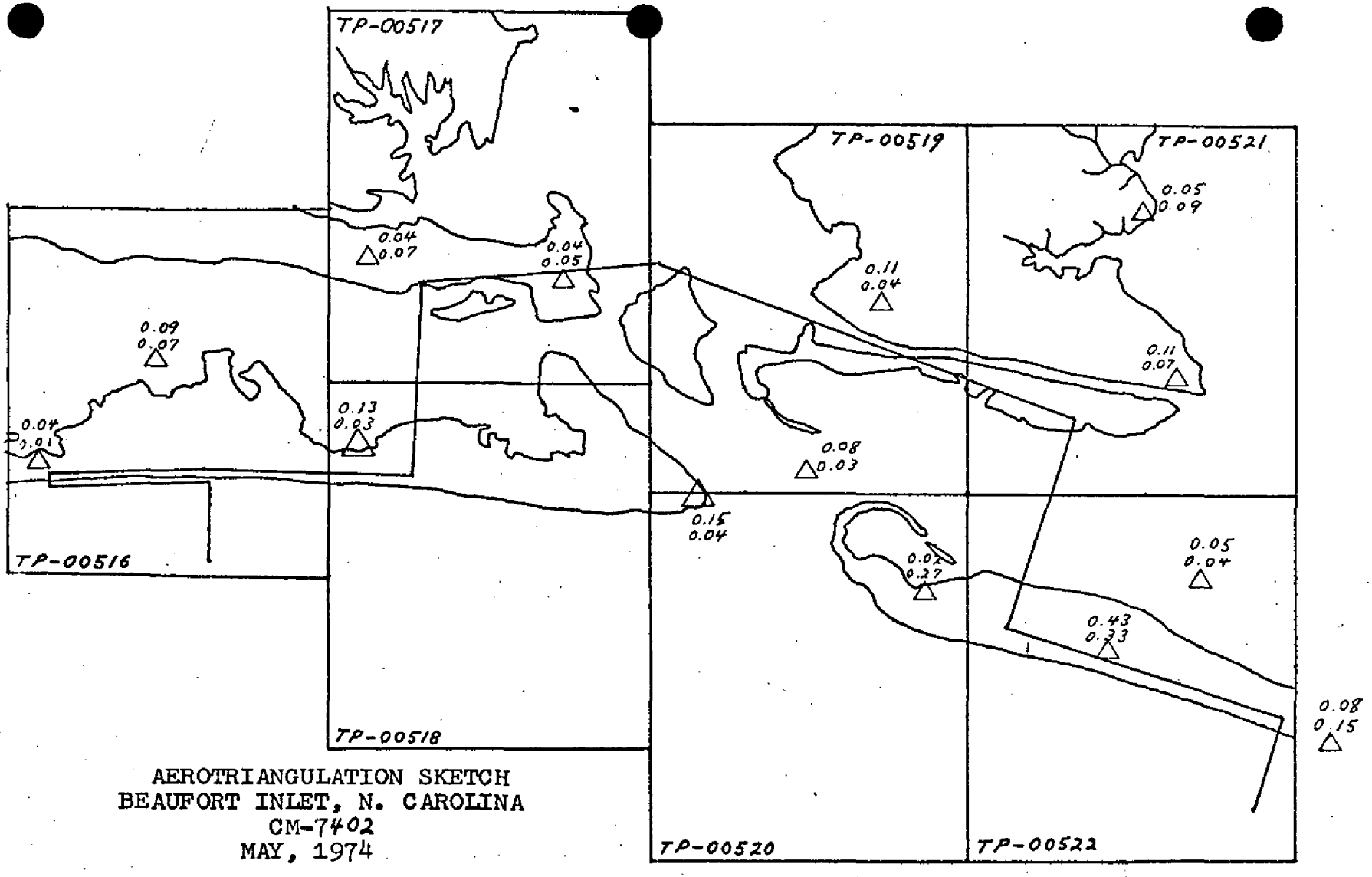
Approved by:

John D. Perrow, Jr.



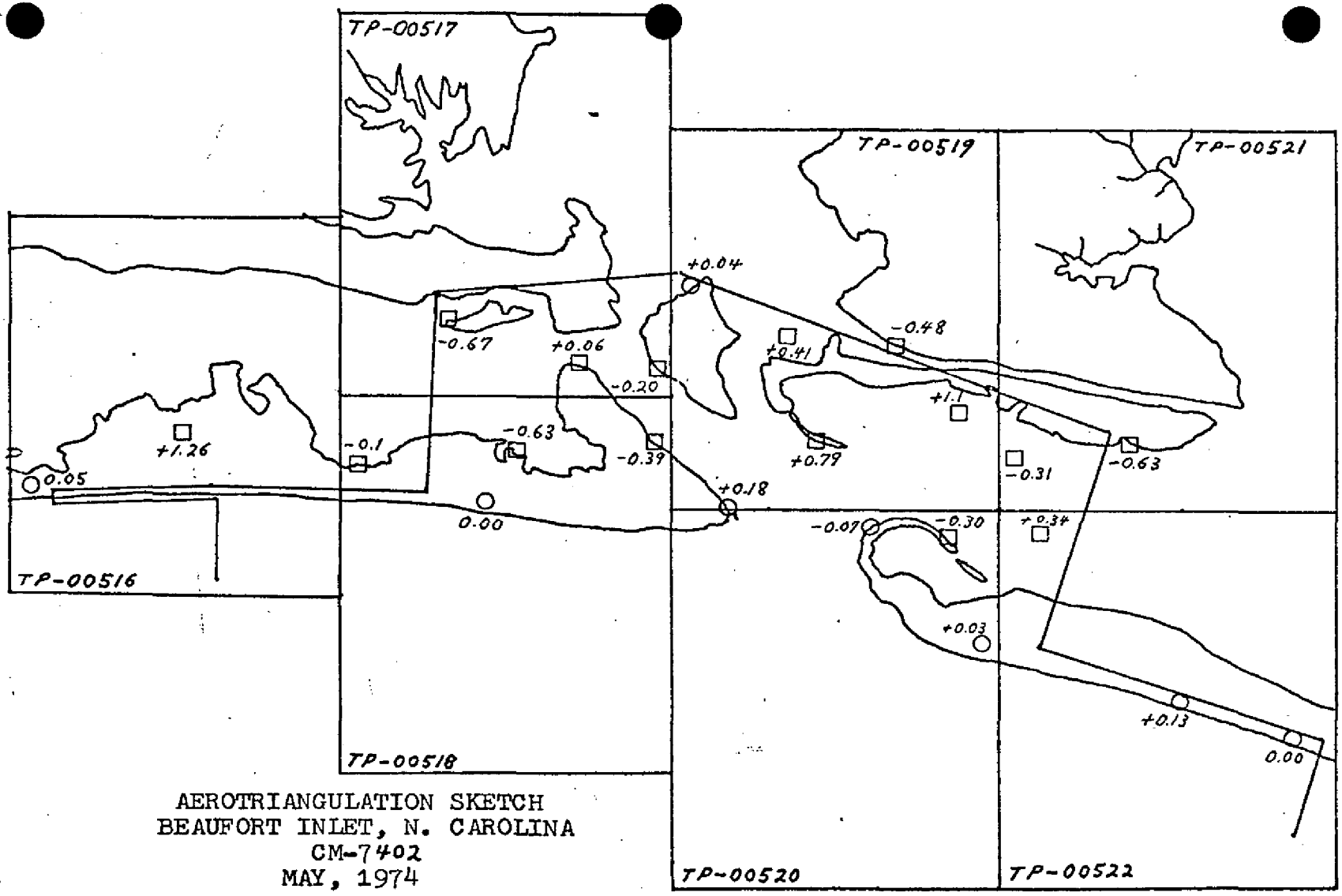

AEROTRIANGULATION SKETCH
BEAUFORT INLET, N. CAROLINA
CM-7402
MAY, 1974

Bridging Photography




AEROTRIANGULATION SKETCH
BEAUFORT INLET, N. CAROLINA
CM-7402
MAY, 1974

△ Horizontal Control




AEROTRIANGULATION SKETCH
BEAUFORT INLET, N. CAROLINA
CM-7402
MAY, 1974

Vertical Control
○ targets, weighted in block
□ points from infrared photography

NOAA FORM 76-41
(2-71)
USCOMM-DC
34168-P71
(FORMERLY [redacted] C&GS-164)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

# DESCRIPTIVE REPORT CONTROL RECORD

MAP T- TP-00519 PROJECT NO. CM-7402 SCALE OF MAP 1:5,000 SCALE FACTOR

| STATION | SOURCE OF INFORMATION (INDEX) | DATUM | X ~~LATITUDE OR Y~~ COORDINATE<br>Y ~~LONGITUDE OR X~~ COORDINATE | N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 Ft. = 3048006 meter)<br>FORWARD (BACK) |
|---|---|---|---|---|
| BEAUFORT MUNICIPAL WATER TANK, 1927 | N.C. VOL III Page 3034 ✓ | N.A.,1927 | 2,701,951.09<br>360,876.89 | |
| BEAUFORT INLET CHANNEL RANGE FRONT LIGHT, 1965 | 3663 ? ✓ | " | 2,701,501.14<br>353,687.21 | |
| BEAUFORT COURT HOUSE *CUPOLA, 1913 | N.C. VOL III Page 3036 ✓ | " | 2,702,201.74<br>361,140.61 | |
| H.D.O.P., 1943 | N.C. VOL III Page 2958 ✓ | " | 2,697,592.16<br>352,415.97 | |
| MOREHEAD CITY RADIO STATION WMBL TOWER, 1962 | N.C. VOL III Page 3032 ✓ | " | 2,695,183.60<br>359,039.42 | |
| | | | | |
| | | | | |
| * Stations not shown on manuscript | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

COMPUTED BY | DATE | CHECKED BY M. McGinley | DATE February 2, 1974

(5)

Compilation Report

TP-00519

31. Delineation

The map was compiled on the Wild B-8 stereoplotter using the 1:7,500 scale color photography. Black-and-white ratio photos, taken concurrently on color infrared film, were used graphically to supplement compilation of the mean low water line.

32. Control

Refer to the Photogrammetric Plot Report bound with this Descriptive Report.

The identification, density, and placement of horizontal and vertical control was adequate.

33. Supplemental Data - None

34. Contours and Drainage

Inconsistent color tone qualities of the photography impeded compilation of the contours. Areas of questionable contour accuracy were referred to the field editor for verification.

The mean high water line and the 2 foot contour vary in elevation by 0.3 of a foot or less and are nearly coincident in some areas. Where coincidence occurs, both lines are combined and delineated with the mean high water line symbol.

All significant drainage was compiled.

35. Shoreline and Alongshore Details

There was no preliminary field inspection of the shoreline.

The mean high water line and the mean low water line were compiled on the B-8 stereoplotter using contour compilation methods. Control data for this compilation was furnished by field methods and the photogrammetric plot.

Shoal areas were delineated from office interpretation of the photography and referred to the field editor.

36. Offshore Details and Photobathymetry

All discrete underwater depths (soundings), 2 foot interval underwater contours (depth curves) and all other pertinent offshore details were compiled on the B-8 stereoplotter. Areas of questionable compilation accuracy were referred to the field editor and/or the hydrographic party for verification.

Delineation of photobathymetry in some areas was impeded by water turbidity and suspended silt.

37. Landmarks and Aids

All landmarks and nonfloating aids, identifiable on the photography, were delineated and labeled with descriptive names only, i.e., light, beacon, marker, etc.

Forms 76-40 were not prepared. All positions of landmarks and nonfloating aids will be forwarded to the Marine Chart Division with Job CM-7219, which is a part of project SCOPE.

38. Control for Future Surveys - None

39. Junctions

Refer to form 76-36B, item #5, submitted with this Descriptive Report.

40. Horizontal and Vertical Accuracy

This map complies with National Map Accuracy Standards.

41. thru 45. Inapplicable

46. Comparison with Existing Maps

A comparison has been made with USGS quadrangle of Beaufort, NC, scale 1:24,000, edition of 1949, photorevised 1971.

47. Comparison with Nautical Charts

A comparison has been made with the following nautical charts:

Chart 420, scale 1:40,000, 42nd edition, Feb. 16, 1974
Chart 423, scale 1:12,500, 14th edition, Dec. 8, 1973

Items to be Applied to Nautical Charts Immediately - None

Items to be Carried Forward - None

Submitted by:

A.L. Shands
Cartographer, Sept. 4, 1974

Approved by:

Joseph W. Vonasek
Chief, Special Projects Section

Approved:

Victor E. Serena
Chief, Photogrammetric Branch, AMC

## 49. NOTES FOR THE HYDROGRAPHER

An ozalid copy of this map was furnished to the hydrographic party and labeled "Discrepancy Print for the Hydrographer". All notes for the Hydrographer were applied to this print.

FIELD EDIT REPORT
JOB CM 7402
BEAUFORT INLET, N.C.
MAP TP-00519

52. Adequacy of Compilation.

Compilation was generally adequate. The "marsh" areas at the easterly limits of the map are actually "grass in water or foreshore". The shoreline in this area is fast with "grass in foreshore". This discrepancy was dealt with on the field edit ozalid as were several oyster bars in the vicinity.

A similar discrepancy also occurs along the south bank of Taylor Creek near the center of the map. Here, again, the shoreline is fast with areas of grass in foreshore. The inshore edge of the "grass" areas closely approximate the mean high water line in this area. Grass areas were indicated on the field edit ozalid, as was the MHWL, and appropriate cross-references were made.

The MHWL on the north bank of Bird Shoal is actually behind an extensive area of "mud in foreshore" not in front of it as compiled. The "mud" shows as a dark brown almost black area and the MHWL falls on the inshore edge of this tone. The "mud in foreshore" and the MHWL were indicated on the field edit ozalid and cross-referenced to the appropriate photographs. Just to the west of the "mud in foreshore" the MHWL in this area takes a significant deviation from the line compiled. A single measurement was taken from a photo-identifiable point to the MHWL and the "approximate" MHWL inked in on the photographs from this point. This was done due to lack of time and personnel to accurately place the true MHWL and on instructions received from the Chief, Photo Field Survey Branch, AMC.

On the southwesterly bank of Bird Shoal, on the island called Bulkhead Shoal, a large area of "mud in the foreshore" was erroniously compiled as "marsh". The MHWL falls on the inshore edge of the mud as detailed in the discussion on the north bank of Bird Shoal above.

There are some areas of "oysters" in the vicinity also. "Mud and/or oyster" areas were indicated on the field edit ozalid, as was the MHWL, and cross-references made to the proper photographs. Once again, the MHWL to the west of the "mud in foreshore" area takes a significant deviation from the line compiled. The MHWL in this area closely approximates the two foot contour as compiled. A single measurement was taken from a photo-identifiable point to the MHWL and the MHWL approximately entered on the photographs from this point. The approximate MHWL was indicated on the field edit ozalid.

From longitude 76° 40' 15" eastward, the entire south shoreline of Bird Shoal is not as compiled. It is not known whether this shoreline was compiled from infrared photography or from the color photography supplied the field editor, but no line, as compiled, is visible on the color photography. The true MHWL falls somewhere on the white sandy area of the photographs. As no photo-identifiable points were available in this area and time did not permit a ground survey, permission was obtained from the Chief, Photo-Field Survey Branch, AMC, to ink an approximate MHWL on the photographs. This was done and attention drawn to it on the field ozalid.

Three vertical control points were requested for this map, two of them on the northern bank of Bird Shoal and the other on Bulkhead Shoal. All three of them, erroniously labeled Town Marsh 1, 2, & 3, were located horizontally from photographs, indexed on form 76-53 and indicated on the field edit ozalid and

the appropriate photograph.

A check on the two and four foot contours was requested in the southwestern corner of the map. Permission to ignore this question, due to difficulty of terrain, was obtained from Mr. Rowley of the Rockville Office on October 1, 1974. For a discussion of this terrain see the field edit report for Map TP-00520.

Verification of the marsh limits in the area mentioned in the preceeding paragraph was also requested. The "marsh limit" compiled is actually a line of relatively short marsh grass that junctions with taller lighter marsh grass. The "true" "marsh limit" is just at the edge of the tree line and just slightly before the two foot contour. The marsh limit was indicated on the field edit ozalid and cross-referenced to the appropriate photograph.

The limits for the Fort Macon Coast Guard Reservation were obtained from the engineering office at Fort Macon Coast Guard. The true boundry falls two feet outside of a fence which is clearly evident on the color photographs. Approximate limits were entered on the field edit ozalid and on the color photographs. True distances and bearings were indicated on a sketch, Sketch "A", which is included with this report.

54. Recommendations

There are no recommendations.

55. Examination of Proof Copy

Geographic Names

A geographic names investigation was requested for one specific name "Tombstone Point". The question regarded placement of the name rather than verification. However, as no one could be found who was familiar with the name, let alone its placement, the name is most likely obsolete. If the name is retained it should probably be applied to the southeasterly side of Fishing Creek.

56. Landmarks and Non-Floating Aids for Navigation

There was no requirement for landmarks or non-floating aids for this project.

57. Rocks, Reefs, and Shoals

There are no reefs, as defined, within the limits of this map. There are two or three unimportant rocks in the foreshore near the southwesterly corner of the map. They were delineated correctly. Heights and times of observations were indicated on the field edit ozalid . One group of "rocks" in the same area are concrete mooring anchors for floating aids to navigation. Whether they have been stockpiled in this area or abandoned is not known. Heights and times of observations were given for these also.

The only shoal worthy of mention is the huge one that occupies the entire center of the map, Bird Shoal. It was accurately delineated, excepted as noted under side heading 52 above.

58. Photography

Photography consisted of 1:5000 color ratio prints and was very good. The photography was not prepared for office use.

59. Disposition of Data

The field edit ozalid, the color ratio photography, and all field edit data were forwarded to the Director, Atlantic Marine Center.

Richard E. Kesselring
Surveying Technician
Photo Party 62

NOAA FORM 75-74
(2-74)

U.S. DEPARTMENT OF COMMERCE
NOAA
NATIONAL OCEAN SURVEY

# PHOTOGRAMMETRIC OFFICE REVIEW

TP-00519

(23)

| 1. PROJECTION AND GRIDS | 2. TITLE | 3. MANUSCRIPT NUMBERS | 4. MANUSCRIPT SIZE |
|---|---|---|---|
| B. Kurs | BK | BK | BK |

**CONTROL STATIONS**

| 5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY | 6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY *(Topographic stations)* | 7. PHOTO HYDRO STATIONS |
|---|---|---|
| BK | NA | NA |

| 8. BENCH MARKS | 9. PLOTTING OF SEXTANT FIXES | 10. PHOTOGRAMMETRIC PLOT REPORT | 11. DETAIL POINTS |
|---|---|---|---|
| BK | BK | BK | NA |

**ALONGSHORE AREAS** *(Nautical Chart Data)*

| 12. SHORELINE | 13. LOW-WATER LINE | 14. ROCKS, SHOALS, ETC. | 15. BRIDGES |
|---|---|---|---|
| ~~NA~~ BK | BK | BK | NA |

| 16. AIDS TO NAVIGATION | 17. LANDMARKS | 18. OTHER ALONGSHORE PHYSICAL FEATURES | 19. OTHER ALONGSHORE CULTURAL FEATURES |
|---|---|---|---|
| NA | BK | BK | BK |

**PHYSICAL FEATURES**

| 20. WATER FEATURES | 21. NATURAL GROUND COVER | 22. PLANETABLE CONTOURS |
|---|---|---|
| BK | ~~NA~~ BK | NA |

| 23. STEREOSCOPIC INSTRUMENT CONTOURS | 24. CONTOURS IN GENERAL | 25. SPOT ELEVATIONS | 26. OTHER PHYSICAL FEATURES |
|---|---|---|---|
| BK | BK ~~NA~~ | BK | BK |

**CULTURAL FEATURES**

| 27. ROADS | 28. BUILDINGS | 29. RAILROADS | 30. OTHER CULTURAL FEATURES |
|---|---|---|---|
| BK | BK | BK | BK |

**BOUNDARIES**

| 31. BOUNDARY LINES | 32. PUBLIC LAND LINES |
|---|---|
| NA | NA |

**MISCELLANEOUS**

| 33. GEOGRAPHIC NAMES | 34. JUNCTIONS | 35. LEGIBILITY OF THE MANUSCRIPT |
|---|---|---|
| BK | BK | BK |

| 36. DISCREPANCY OVERLAY | 37. DESCRIPTIVE REPORT | 38. FIELD INSPECTION PHOTOGRAPHS | 39. FORMS |
|---|---|---|---|
| BK | BK | NA | BK |

| 40. REVIEWER | SUPERVISOR, REVIEW SECTION OR UNIT |
|---|---|
| Bernard Kurs<br>Bernard Kurs | J. W. Vonasek<br>J. W. Vonasek |

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 |
|---|---|
| Jerry L. Hancock<br>Jerry L. Hancock<br>Reviewer A.L. Shands A.L. Shands | Joseph W. Vonasek<br>Joseph W. Vonasek |

43. REMARKS

NOAA FORM 75-74
(2-74)

SUPERSEDES C&GS FORM 1002 WHICH MAY BE USED UNTIL EXISTING STOCK IS DEPLETED.

Review Report
Photogrammetric Bathymetry
and Topographic Map TP-00519
May 1976

61. General Statement

The map was reviewed in its Class I (field edit applied) stage by the Quality Control Group. The Descriptive Report contains all of the pertinent information which may be required by users of this map.

62. Comparison with Registered Topographic Surveys - None

63. Comparison with Maps of Other Agencies

Refer to Compilation Report, Item #46.

64. Comparison with Contemporary Hydrographic Surveys

Photobathymetry is a component part of the map. A copy of the map was furnished the hydrographic party to provide support for a standard hydrographic survey. The hydrographic survey was accomplished in all areas not covered by photobathymetry. Sounding lines were run to evaluate the photobathymetry and to resolve questions noted by the compilation office.

The Officer-in-Charge, Atlantic Hydrographic Party, had the final authority and responsibility for resolving discrepancies, if any, between hydrographic and photogrammetric data. All accepted photobathymetry was transferred to the smooth sheets and identified as such by the hydrographer.

A comment is carried on the map as follows: Depths on this map may not be final. Refer to contemporary hydrographic surveys of the area for combined photobathymetry and hydrography.

65. Comparison with Nautical Charts

Refer to Compilation Report, Item #47.

66. Adequacy of Results and Future Surveys

This map meets the National Standards of Map Accuracy and complies with Compilation Instructions and Bureau requirements.

Submitted by,

E. L. Rolle

Approved and forwarded:

Chief, Photogrammetric Branch

Chief, Coastal Mapping Division

(25)

3 June 1975

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-7402 (Beaufort Inlet, N. C.)

TP-00519

Beaufort

Beaufort and Morehead (RR)

Beaufort Inlet

Beaufort-Morehead City Airport

Bird Shoal

Bulkhead Channel

Buldhead Shoal

Fort Macon

Fort Macon State Park

Fort Macon Creek

Gallant Channel

Gallant Point

Horse Island

Morehead City Channel

Newport Marshes

Newport River

Phillips Island

Pivera Island

Radio Island

The Causeway

Tombstone Point

Town Marsh

Approved

C. E. Harrington

C. E. Harrington
Staff Geographer-C51x2

(26)

TP-00519
National Archives Data

1 Discrepancy Print for the Field Editor

4 Form C&GS-152

1 Sketch (Coast Guard reservation limits)

Photography:

73C(C)5787, 5789, 5791, 5793, and 5797
73C(C)5842,5844,5846, 5848, and 5850
73C(C)6379