

6400a

Graphic Control

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

FEB 26 1936

Acc. No.

and Add'l Work on T6400b in 1936

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: New Jersey

DESCRIPTIVE REPORT

GRAPHIC CONTROL } Sheet No. N

LOCALITY

Little Egg Harbor, N.J.

~~Puckerton~~

Edge Core to Storey Island

1935

CHIEF OF PARTY

Benjamin H. Rigg.

U. S. GOVERNMENT PRINTING OFFICE: 1928

6400a

Graphic Control

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

FEB 26 1936

REG. NO.

Acc. No.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. N

REGISTER NO. **T6400a**

State New Jersey

General locality Little Egg Harbor

Locality ~~Tuckerton~~ Edge Core to Storey Island

Scale 1/10,000 Date of survey June, 1935

Vessel Party No. 19

Chief of party Benjamin H. Rigg

Surveyed by A. M. Rogers, Jr.

Inked by T. B. N.

Heights in feet above.....to ground to tops of trees

Contour, Approximate contour, Form line interval.....feet

Instructions dated May 16, 1935

Remarks: No hydrography done.

DESCRIPTIVE REPORT TO ACCOMPANY
GRAPHIC CONTROL SHEET N

Outline

1. INSTRUCTIONS.
2. PURPOSE.
3. LIMITS OF SHEET.
4. DESCRIPTION OF TERRITORY.
5. CONTROL.
6. SURVEYING METHODS USED.
7. PERMANENT STATIONS ESTABLISHED.
8. AIDS TO NAVIGATION AND LANDMARKS.
9. TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO COMPILATION.
10. OLD TRIANGULATION STATIONS SEARCHED FOR.

DESCRIPTIVE REPORT TO ACCOMPANY
GRAPHIC CONTROL SHEET N

INSTRUCTIONS

The survey was carried out under instructions dated May 16, 1935.

PURPOSE

The purpose of the survey was to locate topographic control for hydrography, to establish permanent stations, locate aids to navigation and check landmarks, and to locate topographic features for use in the air photo compilation.

LIMITS OF SHEET

The topography on sheet N includes the territory around Little Egg Harbor from the N.E. corner of Great Bay (Lat. $39^{\circ} 32'$, Long. $74^{\circ} 20'$) on the S.E. corner of the sheet northeastward to Lat. $39^{\circ} 35'$, Long. $74^{\circ} 17'$ in Little Egg Harbor. It extends on the S.W. to Lat. $39^{\circ} 33'$, Long. $74^{\circ} 22'$ about one-half mile south of Tuckerton Radio Station. The Tuckerton Radio Marine Station (Lat. $39^{\circ} 36'.5$, Long. $74^{\circ} 20'$) is at the N.W. corner of the sheet. The sheet includes the village of Tuckerton.

DESCRIPTION OF TERRITORY

The Tuckerton Yacht Club, Headquarters for many small fishing and pleasure craft, may be reached by a well marked channel. There are facilities here for docking and refuelling. A good road leads from the Yacht Club to the village of Tuckerton where supplies may be obtained. The portion of Little Egg Harbor and surrounding territory covered by sheet "N" are entirely similar to that described in a descriptive report accompanying sheet "L".

CONTROL

The following triangulation stations were used as control on sheet "N":

| | |
|-----------------------|-------------|
| TUCKERTON RADIO TOWER | Meaney 1932 |
| TUCKERTON RADIO | Meaney 1932 |
| BAY | Rigg 1935 |
| SHEEPHEAD | " " |
| STORY | " " |
| JESSIE | " " |

SURVEYING METHODS USED

The hydrographic signals on sheet "N" were located by graphic triangulation. The survey was started by set-ups on triangulation stations JESSIE and STORY, using Tuckerton Radio Tower for orientation. Cuts were taken to hydrographic signals from these stations and patches of shoreline were obtained at the same time. The survey was completed by making set-ups on or near hydrographic signals. Shoreline was obtained at the proper intervals to give an adequate check between the Air Photo Compilation and the Control Sheet. The Tuckerton Yacht Basin and the Tuckerton Yacht Club were located for use in the air photo compilation. Cuts were taken to Bolstad's fourth order stations falling within the limits of the sheet. For a discussion of checks on these stations see paragraph "7-C" of this report.

PERMANENT STATIONS ESTABLISHED

A. Natural Objects Located and Described.

The center of the roof of the Tuckerton Yacht Club was located and described on form 524. It is designated on the control sheet by the letter "D".

B. Monumented Stations.

No permanently marked H. & T. Stations were established on sheet "N".

C. Bolstad Fourth Order Stations. -- All of Bolstad's "4th order" stations (located for Air Photo Compilation Control) falling within the limits of the graphical control sheets were plotted. Wherever possible, they were checked with the planetable. In the few cases where discrepancies occurred, they were adjusted by re-checks of the computations or of the topography, or both. The final position as shown on the sheet and the card, is to be considered correct.

Following is a list of stations falling on sheet "N":

| Station | Whether or Not Checked | Amt. of Discrep. | Remarks |
|----------------------------|---------------------------|----------------------------|-----------------------------------|
| N. GAB. LARGER | NOT CHECKED | checked on sheet "P" | |
| " " WALK | " " | Also on sheet P | |
| MARSH | " " | | |
| FLAGPOLE FIRE HOUSE U.S.E. | " " | | |
| E.R.A. 2259 | " " | | |
| N. GAB. SMALL SHACK | CHECKED | | |
| WILLET | " | | |
| N. RAD POLE | " | | |
| REAR RANGE | " | | |
| FRONT RANGE | " | | |
| TUCKERTON W.T. | " | Slightly more than 2 m. | Bolstad's pos. considered good |
| " M.E. CHURCH | " | " " " | because of flat intersections |
| E. RADIO MARINE | " | " " " | of cuts on con- trol sheet. |
| WEST GAB. (EDGE COVE) | " | " " " | |

AIDS TO NAVIGATION AND LANDMARKS

For a discussion of aids to navigation see corresponding paragraph in descriptive report accompanying sheet "M". All lighted aids to navigation falling on sheet "N" have been submitted on form 567. A point on the range leading to Tuckerton Yacht Club Basin was located on the control sheet and designated with a small black circle marked "Point on Range". The azimuth of the range was determined, marked on the sheet, and noted on form 567. Computed value $324^{\circ} 24'$; Scaled value $323^{\circ} 20'$.

The Tuckerton Water Tank and the Tuckerton Radio Beacon are the only landmarks appearing on the present charts in the area covered by this sheet. These landmarks are still in place. No new landmarks should be added to the charts.

TOPOGRAPHIC FEATURES LOCATED FOR USE IN THE AIR PHOTO COMPILATION

Patches of shoreline, the Tuckerton Yacht Basin, and the Tuckerton Yacht Club were located for use in the air photo compilation. No discrepancies of more than five meters occurred between the control sheet and the compilation. No adjustments were made on the topographic sheet. In the case of discrepancies, all of which were under five meters, the compilation was changed to agree with the control sheet.

OLD TRIANGULATION SEARCHED FOR

CEDAR HUMMOCK 2

J. Farley 1867 - Not found.

EZRA

" " 1866 " "

GEOGRAPHIC NAMES

See air photo compilation for details.

Respectfully submitted,

A. M. Rogers, Jr.

Forwarded by,

Lt. Benjamin H. Rigg,
Chief of Party.

INVERSE POSITION COMPUTATION

5

$$s_1 \sin \left(\alpha + \frac{\Delta \alpha}{2} \right) = \frac{\Delta \lambda_1 \cos \phi_m}{\Delta_m}$$

$$s_1 \cos \left(\alpha + \frac{\Delta \alpha}{2} \right) = \frac{-\Delta \phi_1 \cos \frac{\Delta \lambda}{2}}{B_m}$$

$$-\Delta \alpha = \Delta \lambda \sin \phi_m \sec \frac{\Delta \phi}{2} + F(\Delta \lambda)^3$$

in which $\log \Delta \lambda_1 = \log (\lambda' - \lambda)$ - correction for arc to sin*; $\log \Delta \phi_1 = \log (\phi' - \phi)$ - correction for arc to sin*; and $\log s = \log s_1 +$ correction for arc to sin*.

| NAME OF STATION | | | |
|--|---|--|--------------|
| 1. ϕ | 39 34 45.890 | Front Range | λ |
| 2. ϕ' | 39 34 52.002 | Rear Range | λ' |
| $\Delta \phi (= \phi' - \phi)$ | +06.112 | $\Delta \lambda (= \lambda' - \lambda)$ | +05.864 |
| $\frac{\Delta \phi}{2}$ | 03.056 | $\frac{\Delta \lambda}{2}$ | 02.932 |
| $\phi_m (= \phi + \frac{\Delta \phi}{2})$ | 39 34 48.946 | | 74 20 28.998 |
| $\Delta \phi$ (secs.) | | $\Delta \lambda$ (secs.) | +05.864 |
| $\log \Delta \phi$ | 0.786 1833 | $\log \Delta \lambda$ | 0.768 1940 |
| cor. arc-sin | - | cor. arc-sin | - |
| $\log \Delta \phi_1$ | 0.786 1833 | $\log \Delta \lambda_1$ | 0.768 1940 |
| $\log \cos \frac{\Delta \lambda}{2}$ | | $\log \cos \phi_m$ | 9.886 9041 |
| $\text{colog } B_m$ | 1.489 1162 | $\text{colog } A_m$ | 1.490 8709 |
| $\log \left[s_1 \cos \left(\alpha + \frac{\Delta \alpha}{2} \right) \right]$ | 2.275 2995 (opposite in sign to $\Delta \phi$) | $\log \left[s_1 \sin \left(\alpha + \frac{\Delta \alpha}{2} \right) \right]$ | 2.145 9690 |
| | | $\log \left[s_1 \cos \left(\alpha + \frac{\Delta \alpha}{2} \right) \right]$ | 2.275 2995 |
| $\log \Delta \lambda$ | 0.768 194 | $\log \tan \left(\alpha + \frac{\Delta \alpha}{2} \right)$ | 9.870 6695 |
| $\log \sin \phi_m$ | 9.804 2472 | $\alpha + \frac{\Delta \alpha}{2}$ | 143 24 28 |
| $\log \sec \frac{\Delta \phi}{2}$ | | $\log \sin \left(\alpha + \frac{\Delta \alpha}{2} \right)$ | |
| $\log a$ | 0.572 4412 | $\log \cos \left(\alpha + \frac{\Delta \alpha}{2} \right)$ | |
| a | | $\log s_1$ | |
| b | | cor. arc-sin | + |
| $-\Delta \alpha$ (secs.) | 03.74 | $\log s$ | |
| $\frac{\Delta \alpha}{2}$ | +01.87 | | |
| $\alpha + \frac{\Delta \alpha}{2}$ | 143 24 28.0 | * Use the table on the back of this form for correction of arc to sin. | |
| α (1 to 2) | 143 24 30.0 | | |
| $\Delta \alpha$ | 4 | | |
| | 180 | 323° 20' (Scaled from Sheet by Protractor) | |
| α' (2 to 1) | 323 24 26.0 | | |

NOTE.—For $\log s$ up to 4.52 and for $\Delta \phi$ or $\Delta \lambda$ (or both) up to 10', omit all terms below the heavy line except those printed (in whole or in part) in heavy type or those underscored, if using logarithms to 6 decimal places.

Table of arc-sin corrections for inverse position computations

| $\log s_1$ | Arc-sin correction in units of seventh decimal of logarithms | $\log \Delta\phi$ or $\log \Delta\lambda$ | $\log s_1$ | Arc-sin correction in units of seventh decimal of logarithms | $\log \Delta\phi$ or $\log \Delta\lambda$ | $\log s_1$ | Arc-sin correction in units of seventh decimal of logarithms | $\log \Delta\phi$ or $\log \Delta\lambda$ | |
|------------|---|---|------------|---|---|------------|---|---|--|
| 4.177 | 1 | 2.686 | 5.223 | 124 | 3.732 | 5.525 | 497 | 4.034 | |
| 4.327 | 2 | 2.836 | 5.234 | 130 | 3.743 | 5.530 | 508 | 4.039 | |
| 4.415 | 3 | 2.924 | 5.243 | 136 | 3.752 | 5.534 | 519 | 4.043 | |
| 4.478 | 4 | 2.987 | 5.253 | 142 | 3.762 | 5.539 | 530 | 4.048 | |
| 4.526 | 5 | 3.035 | 5.260 | 147 | 3.769 | 5.543 | 541 | 4.052 | |
| 4.566 | 6 | 3.075 | 5.269 | 153 | 3.778 | 5.548 | 553 | 4.057 | |
| 4.599 | 7 | 3.108 | 5.279 | 160 | 3.788 | 5.553 | 565 | 4.062 | |
| 4.628 | 8 | 3.137 | 5.287 | 166 | 3.796 | 5.557 | 577 | 4.066 | |
| 4.654 | 9 | 3.163 | 5.294 | 172 | 3.803 | 5.561 | 588 | 4.070 | |
| 4.677 | 10 | 3.186 | 5.303 | 179 | 3.812 | 5.566 | 600 | 4.075 | |
| 4.697 | 11 | 3.206 | 5.311 | 186 | 3.820 | 5.570 | 613 | 4.079 | |
| 4.716 | 12 | 3.225 | 5.318 | 192 | 3.827 | 5.575 | 625 | 4.084 | |
| 4.734 | 13 | 3.243 | 5.326 | 199 | 3.835 | 5.579 | 637 | 4.088 | |
| 4.750 | 14 | 3.259 | 5.334 | 206 | 3.843 | 5.583 | 650 | 4.092 | |
| 4.765 | 15 | 3.274 | 5.341 | 213 | 3.850 | 5.587 | 663 | 4.096 | |
| 4.779 | 16 | 3.288 | 5.349 | 221 | 3.858 | 5.591 | 674 | 4.100 | |
| 4.792 | 17 | 3.301 | 5.356 | 228 | 3.865 | 5.595 | 687 | 4.104 | |
| 4.804 | 18 | 3.313 | 5.363 | 236 | 3.872 | 5.600 | 702 | 4.109 | |
| 4.827 | 20 | 3.336 | 5.369 | 243 | 3.878 | 5.604 | 716 | 4.113 | |
| 4.857 | 23 | 3.366 | 5.376 | 251 | 3.885 | 5.608 | 729 | 4.117 | |
| 4.876 | 25 | 3.385 | 5.383 | 259 | 3.892 | 5.612 | 743 | 4.121 | |
| 4.892 | 27 | 3.401 | 5.390 | 267 | 3.899 | 5.616 | 757 | 4.125 | |
| 4.915 | 30 | 3.424 | 5.396 | 275 | 3.905 | 5.620 | 771 | 4.129 | |
| 4.936 | 33 | 3.445 | 5.403 | 284 | 3.912 | 5.624 | 785 | 4.133 | |
| 4.955 | 36 | 3.464 | 5.409 | 292 | 3.918 | 5.628 | 800 | 4.137 | |
| 4.972 | 39 | 3.481 | 5.415 | 300 | 3.924 | 5.632 | 814 | 4.141 | |
| 4.988 | 42 | 3.497 | 5.422 | 309 | 3.931 | 5.636 | 829 | 4.145 | |
| 5.003 | 45 | 3.512 | 5.428 | 318 | 3.937 | 5.640 | 845 | 4.149 | |
| 5.017 | 48 | 3.526 | 5.434 | 327 | 3.943 | 5.644 | 861 | 4.153 | |
| 5.035 | 52 | 3.544 | 5.440 | 336 | 3.949 | 5.648 | 877 | 4.157 | |
| 5.051 | 56 | 3.560 | 5.446 | 345 | 3.955 | 5.652 | 893 | 4.161 | |
| 5.062 | 59 | 3.571 | 5.451 | 354 | 3.960 | 5.656 | 909 | 4.165 | |
| 5.076 | 63 | 3.585 | 5.457 | 364 | 3.966 | 5.660 | 925 | 4.169 | |
| 5.090 | 67 | 3.599 | 5.462 | 373 | 3.971 | 5.663 | 941 | 4.172 | |
| 5.102 | 71 | 3.611 | 5.468 | 383 | 3.977 | 5.667 | 957 | 4.176 | |
| 5.114 | 75 | 3.623 | 5.473 | 392 | 3.982 | 5.671 | 973 | 4.180 | |
| 5.128 | 80 | 3.637 | 5.479 | 402 | 3.988 | 5.674 | 989 | 4.183 | |
| 5.139 | 84 | 3.648 | 5.484 | 412 | 3.993 | 5.678 | 1005 | 4.187 | |
| 5.151 | 89 | 3.660 | 5.489 | 422 | 3.998 | | | | |
| 5.163 | 94 | 3.672 | 5.495 | 433 | 4.004 | | | | |
| 5.172 | 98 | 3.681 | 5.500 | 443 | 4.009 | | | | |
| 5.183 | 103 | 3.692 | 5.505 | 453 | 4.014 | | | | |
| 5.193 | 108 | 3.702 | 5.510 | 464 | 4.019 | | | | |
| 5.205 | 114 | 3.714 | 5.515 | 474 | 4.024 | | | | |
| 5.214 | 119 | 3.723 | 5.520 | 486 | 4.029 | | | | |

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
DEC 28 1936
Acc. No. _____

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Topographic } Sheet No.N
Hydrographic }

State -----New Jersey.

LOCALITY

Little Egg Harbor

Tickerton.

193 6

CHIEF OF PARTY

John A. Bond

U. S. GOVERNMENT PRINTING OFFICE

GOVERNMENT PRINTING OFFICE

7

SUPPLEMENTAL REPORT

To Accompany Graphic Control Sheet N. T64000

Little Egg Harbor - Tuckerton

INSTRUCTIONS

The graphic control on sheet N is a part of Project HT-205, the instructions for which were dated May 16, 1935.

GENERAL INFORMATION

This sheet was surveyed in June 1935 under Lieutenant B. H. Rigg but the hydrography was not completed in this area. In June 1936 all old signals that could be recovered were re-built and additional signals located.

LANDMARKS FOR CHARTS

A list of landmarks for charts will be submitted in a separate report.

The W. RADIO MARINE TOWER 1936 has only 2 cuts but as this pair of towers are prominent, the west tower was located so that both towers could appear as landmarks.

NON-FLOATING AIDS TO NAVIGATION

All non-floating aids to navigation on this sheet are at same location as given in 1935.

RECOVERABLE TOPOGRAPHIC STATIONS

No new recoverable topographic stations were located in 1936.

SHORELINE

No shoreline was rodded in 1936.

Submitted by,

D. M. Watt
D. M. Watt

Approved by,



John A. Bond
H. & G. Engineer
Chief of Party

REVIEW OF GRAPHIC CONTROL SURVEY T- 6400 a , SCALE 1:10,000,

Date of Review 3/3/37 3/30/37

- ✓ 1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5445, 5447 , , with particular attention to the following details:
 - ✓ (a) Projection has been checked in the Field.
 - ✓ (b) Accuracy of location of plane table control points.
 - ✓ (c) Discrepancies between detail on this survey and the air photo compilations listed above.
 - ✓ (d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above.
- ✓ 2. Refer to the reviews and descriptive reports of air photo compilations Nos. T-5445, 5447 , , for a more complete discussion of any errors or discrepancies found.
 - ✓ Any material errors found on this survey are noted in subsequent paragraphs of this review, and these have been reported to the Field Records Section and the Cartographic Section.
 - ✓ Notes and corrections resulting from the review are shown on this survey in green.

F.R. Tollen

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

FEB 26 1936

Acc. No. _____

Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, *Director*

State: New Jersey

DESCRIPTIVE REPORT

GRAPHIC CONTROL Sheet No. 0

LOCALITY

Little Egg Harbor, N.J.

Beach Haven Inlet

1935

CHIEF OF PARTY

Benjamin H. Rigg

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

| | |
|---|----------|
| U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES | REG. NO. |
| FEB 26 1936 | |
| Acc. No. | |

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 0

REGISTER NO. T6400 b
100 p

State New Jersey

General locality Little Egg Harbor

Locality Beach Haven Inlet

Scale 1/10,000 Date of survey June, 1935

Vessel Party No. 19

Chief of party Benjamin H. Riggs

Surveyed by A. N. Rogers, Jr.

Inked by T. B. Muttin

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated May 16, 1935

Remarks: Hydrography completed.

DESCRIPTIVE REPORT TO ACCOMPANY
GRAPHIC CONTROL SHEET 0

Outline

1. INSTRUCTIONS.
2. PURPOSE.
3. LIMITS OF SHEET.
4. DESCRIPTION OF TERRITORY.
5. CONTROL.
6. SURVEYING METHODS USED.
7. PERMANENT STATIONS ESTABLISHED.
8. AIDS TO NAVIGATION AND LANDMARKS.
9. TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO COMPILATION.

DESCRIPTIVE REPORT TO ACCOMPANY
GRAPHIC CONTROL SHEET 0

INSTRUCTIONS

The survey was carried out under instructions dated May 16, 1935.

PURPOSE

The purpose of the survey was to locate topographic control for hydrography, to establish permanent stations, to locate Aids to Navigation and check Landmarks, and to locate topographic features for use in the Air Photo Compilation.

LIMITS OF SHEET

The territory covered by sheet 0 includes the ocean beach from just south of Beach Haven Inlet (Lat. $39^{\circ} 30.5'$, Long. $74^{\circ} 17'$) north-eastward past the inlet to Beach Haven (Lat. $39^{\circ} 34'$, Long. $74^{\circ} 14.3'$). It extends westward to the N.E. corner of Great Bay, in S.W. corner of sheet, and to a point in Little Egg Harbor (Lat. $39^{\circ} 34'$, Long. $74^{\circ} 17'$), in the N.W. corner of the sheet.

DESCRIPTION OF TERRITORY

The territory covered by sheet 0 includes the southern part of the village of Beach Haven, described in report on sheet M. It also includes the New Jersey inland waterway from Beach Haven southward beyond Beach Haven Inlet. There are numerous islands in Little Egg Harbor to the westward of the waterway. Beach Haven Inlet is a critical place in the waterway because of the choppy seas sometimes encountered here, and the rapid shifting of shoals to the westward of the inlet.

SURVEYING METHODS USED

Hydrographic signals were located by graphic triangulation. The survey was started by set-ups on triangulation stations BONDS, POLE, BARREL, LITTLE EGG 2, STORY, AND SHEEPHEAD. Patches of shoreline were run in

at intervals in conjunction with the other work. The high water line along the ocean beach from the north side of Beach Haven Inlet to the northern limit of the sheet was located by running a traverse from triangulation station BONDS to triangulation station BEACH HAVEN. An adjustment of three meters was necessary in this traverse. A point on the traverse at the northern limit of the sheet was transferred to sheet M, from which the traverse was continued up the beach. (See report on sheet M). The bridge just east of triangulation station SHEEPHEAD, with its approaches was located from a set-up determined by a rod reading from station SHEEP* HEAD, checked by resection on triangulation station STACK, STORY ISLAND.

CONTROL

The following triangulation stations were used as control on sheet O:

| | |
|---------------------------------------|----------------|
| BEACH HAVEN | Meaney 1932 |
| " " W.T | " " |
| St. JAMES | " " |
| BONDS | " " |
| SHEEPHEAD | Rigg 1935 |
| INLET | " " |
| POLE | " " |
| STORY | " " |
| BARREL | " " |
| STACK STORY ISLAND | " " |
| BONDS C.G. CUPOLA | Bernstein 1924 |
| LITTLE E662 | RIGG 1935 |
| <u>PERMANENT STATIONS ESTABLISHED</u> | |

A. Monumented Stations. -- The following Department of Commerce and Navigation, State of New Jersey, monuments were recovered, located, and described:

MEADOW C. & N.
FISH C. & N.
SAND C. & N.
DUNE C. & N.

B. Natural Objects Located. --

E. H. Bernstein 1924

TOW (Topographic Stations)
HOS " "

C. Bolstad's Fourth Order Stations. -- All of Bolstad's

"4th" order stations (located for Air-Photo Compilation Control) falling

within the limits of the graphical control sheets were plotted. Wherever possible, they were checked with the planetable. In the few cases where discrepancies occurred, they were adjusted by re-checks of the computations or of the topography, or both. The final position as shown on the sheet and the card, is to be considered correct.

Following is a list of stations falling on sheet "O":

| Station | Whether or Not Checked | Amt. of Discrep. | Remarks |
|---------------------------|------------------------|------------------|--|
| LAKE SIGNAL | Not Checked | Not found. | |
| END POLE (CABLE CROSSING) | Checked | | |
| S. GAB. SHEEPHEAD THORO. | " | | |
| *SHEEPHEAD | " | | Not shown on sheet. |
| ENGLESIDE CUPOLA | " | | |
| S.W. GAB. MIDDLE I. | Not Checked | | |
| S.W. GAB. HITHER I. | Checked | | |
| CENTER OF HOUSE BARREL I. | Not Checked | | Not plotted on sheet. Form 524 with Bolstad's triangulation computation. |

*Note -- Bolstad's SHEEPHEAD, 1935 -- This station SHEEPHEAD was a temporary station established by Bolstad for control of Air Photographs only. Its location was checked by graphic control methods but neither its position nor description are being forwarded with this sheet for fear of confusing it with triangulation station SHEEPHEAD 1935, established by Rigg about 400 meters away. Form 524 for Bolstad's SHEEPHEAD showing its position will be found with his fourth order computations along with numerous other Bolstad stations that fall outside the limits of the Graphic Control Sheets. The card is marked "Not For Files But For Use In Checking Aerial Compilation Only".

D. Stations searched for and not found. --

Topographic stations of E. H. Bernstein 1924.

Natural Objects

SED
LIE
TRE
KEY
PAR
WHO

Hydrographic Disks

REK (Washed Out)
CAN " "
MID " "
IS " "
TIE " "
END (Dug for but could not locate)
HI (NOT FOUND, POSSIBLE STILL THERE)

Department of Commerce & Navigation Marks

It is considered that a sufficient number of these marks has been recovered on this sheet. There is listed below additional Commerce & Navigation Marks falling within the area of this sheet that were searched for and not found. As the only information that we had concerning these stations was their approximate positions spotted on a section of chart, there is a possibility that many of them are still in place.

| | |
|------------|----------------|
| BAR C. & N | GRASSY C. & N. |
| FACT " | BARREL " |
| ISLE " | THORO " |
| HITHER " | FARE " |
| POINT " | KEG " |

AIDS TO NAVIGATION AND LANDMARKS

For a discussion of aids to navigation see corresponding paragraph in descriptive report accompanying sheet M. All lighted aids to navigation falling on sheet "O" have been submitted on form 567.

The only landmark on the present charts in the area covered by this sheet is a prominent brick stack on Story Island. This is a prominent landmark and should be retained on the charts. It was cut in by triangulation by this party in 1935. No new landmarks should be added.

TOPOGRAPHIC FEATURES LOCATED FOR USE IN AIR PHOTO COMPILATION

The high water line along the ocean beach was located from Beach Haven southward to a point about a quarter of a mile south of Beach Haven Inlet.

The boardwalk and fishing pier at Beach Haven were also located, together with patches of shoreline to the westward of the New Jersey Inland Waterway.

There was considerable discrepancy in the shoreline along the ocean beach.

The compilation was changed here to agree with the control sheet.

GEOGRAPHIC NAMES

See air photo compilation for details.

Respectfully submitted,

A. M. Rogers, Jr.

Forwarded by,

Lt. Benjamin H. Rigg,

Chief of Party.

6

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

DEC 28 1936

Acc. No. _____

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic }
~~Hydrographic~~ }

Sheet No. 0

State New Jersey

LOCALITY

Little Egg Harbor

Beach Haven Inlet

193 6

CHIEF OF PARTY

John A. Bond

U. S. GOVERNMENT PRINTING OFFICE

John A. Bond

7

SUPPLEMENTAL REPORT

To Accompany Graphic Control Sheet O T6400b

Little Egg Harbor, Beach Haven Inlet

INSTRUCTIONS

The graphic control on sheet O is a part of Project HT-205, the instructions for which were dated May 16, 1935.

GENERAL INFORMATION

This sheet was surveyed in June 1935 under Lieutenant B. H. Rigg but the hydrography was not completed in this area. In June 1936 all old signals that could be recovered were re-built and new signals located.

LANDMARKS FOR CHARTS

A list of landmarks for charts will be submitted in a separate report.

NON-FLOATING AIDS TO NAVIGATION

- (1) The range shown on this sheet is determined by beacons that were located on graphic control sheet M. These beacons were described in the report for sheet M.
- (2) In this area, where the hydrography was partially completed in 1935, the lights were destroyed in the winter of 1935-36. In these instances the word "light" and its number have been removed from the sheet leaving only the hydrographic names and noted as "Destroyed 1936".
- (3) These lights are temporary, being mounted on single piles approximately 10 inches in diameter and approximately 10 feet above high water. Late in the fall the lights are removed and the piles are usually destroyed during the winter. It is doubtful as to whether the positions and numbers of the lights as shown in the summer of 1936 will be reliable data for charting purposes after the winter of 1936-37.

SHORELINE

The shoreline around Beach Haven Inlet has changed considerably since June 1935.

The area southwest of triangulation station BONDS 1932, between the line indicated as H.W.L. at extreme Spring tides and the long sand spit, is very flat and is partially covered at high tides. A difference of 6 inches in the height of high tide would change the shoreline many meters. All this area is bare at low tide.

RECOVERABLE TOPOGRAPHIC STATIONS

Eight new recoverable topographic stations were located. These stations are described on Form 524.

SURVEY METHODS

Standard Coast Survey methods were used throughout. Signals were located by intersection and resection. Distances along the traverses were determined by resection.

Submitted by,

D. M. Watt

D. M. Watt

Approved by,

J. A. Bond

John A. Bond
H. & G. Engineer
Chief of Party

SUPPLEMENTAL REPORT

GRAPHIC CONTROL SHEET 0

Little Egg Harbor, Beach Haven Inlet

EXTENT

Additional shoreline was rodded in general locality of Lat. $39^{\circ}33.5'$, Long. $74^{\circ}17'$ and includes all of the inked shoreline to the east of triangulation station Stony, north of triangulation station Pole and west of topo signal Keg.

METHOD

Three point fixes were used entirely in controlling the topography in this area.

PURPOSE

This additional work was done after the completion of the hydrography for the following reasons:

- a. To locate islands not shown on the air-photo compilation.
- b. To correct discrepancies in the location of signals "S.W. Gable Hither Island 1935" and "S.W. Gable Mid Island 1935".
- c. To locate shoreline shown on the air-photo compilation as a dashed line.

GENERAL

The marsh grass outside of the high water line near signal Age is scattered tufts growing on a low mud flat which is covered at high water.

Signals "Age" and "Is" are non-existent.

The discrepancies in this area are believed to be due mainly to misinterpretation of the air-photographs.

The hydrographic signals "S.W. Gable Hither Island 1935" and "S.W. Gable Mid Island 1935" were relocated. These gables are on low shacks of the "many gable type". It is believed that the 1935 locations were obtained from cuts at distant triangulation stations where the topographer could not identify the correct gable. They are now shown correctly on the sheet. Descriptions on form 524 are resubmitted for these two stations.

Submitted by,

Edmund L. Jones
Edmund L. Jones
Aid, U.S.C. & G.S.

Approved by,

L. D. Graham

L. D. Graham
H. & G. Engineer
Chief of Party

REVIEW OF GRAPHIC CONTROL SURVEY T- 6400 b , SCALE 1:10,000,

Date of Review 3/3/37

✓ 1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5445, , , with particular attention to the following details:

- ✓ (a) Projection has been checked in the Field.
- ✓ (b) Accuracy of location of plane table control points.
- ✓ (c) Discrepancies between detail on this survey and the air photo compilations listed above.
- ✓ (d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above.

✓ 2. - Refer to the reviews and descriptive reports of air photo compilations Nos. T-5445, , , for a more complete discussion of any errors or discrepancies found.

✓ Any material errors found on this survey are noted in subsequent paragraphs of this review, and these have been reported to the Field Records Section and the Cartographic Section.

✓ Notes and corrections resulting from the review are shown on this survey in green.

J. R. Gollon

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. ~~H~~

No. T 6400 b

Additional work

received DEC 28 1936
registered JAN 9 1937
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

| ROUTE | | Initial | Attention called to |
|-------|-------------|---------|---------------------|
| 20 | | | |
| 22 | | | |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 30 | | | |
| 40 | | | |
| 62 | | | |
| 63 | | | |
| 82 | Kelly - MUE | | |
| 83 | | | |
| 88 | | | |
| 90 | | | |
| | | | |
| | | | |

RETURN TO

| | |
|----|------------|
| 82 | C.K. Green |
|----|------------|