

6496

~~Graphic Control~~

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Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic

~~Hydrographic~~

Sheet No.

B

T6496

State Pennsylvania and New Jersey

LOCALITY

Delaware River

Vicinity of Delanco, Riverside,

to
and Torresdale

1935

CHIEF OF PARTY

E. B. Roberts

51

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET T6496

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. B T6496

REGISTER NO. ~~T6496~~

State Pennsylvania and New Jersey

General locality Delaware River

Locality Delanco, ~~Riverside~~, and Torresdale

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

Vessel Party No. 8

Chief of party E. B. Roberts

Surveyed by W. H. White

Inked by W. H. White

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated 22 April, 1935

Remarks: Photo-Topo Control Sheet

DESCRIPTIVE REPORT
TO ACCOMPANY TOPOGRAPHIC SHEET B
H T 202
DELAWARE RIVER
Vicinity of Delanco, Riverside, and Torresdale.

E. B. Roberts, H & G Engr., Chief of Party.
W. T. White, Surveyor, Topographer.

Instructions dated 22 April, 1935.

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General description of the coast.

This sheet covers the Delaware River from Ten Mile Point (north of Tacony) to Andalusia on the Pennsylvania side, and from Riverton to Delanco on the New Jersey side; also Rancocas Creek (see discussion of geographic names) from its mouth to the highway crossing at Bridgeboro.

Below station Fisher 2 on the Pennsylvania side the high water line is generally determined by wooden bulkheads and stone retaining walls. Marsh exists between the high and low water lines at Pennypack Creek mouth, with many high weeds.

Higher ground meets the shore near Fisher 2, from which point northward to Poquessing Creek there is a 20-25 foot bluff. Above Poquessing Creek the high water line is determined by a low dike, behind which there is marsh. From Torresdale range rear light to station Andalusia 2 there is a 15 foot bluff.

Mud Island is all marsh, and is covered by the rank growth locally known as 'can docks'. The ground is submerged at high water, but most of the vegetation is exposed. The low water line is about 5 meters outside the marsh line on the NW side of the island, and 10-15 meters elsewhere.

On the two small islands north of Delanco there is some sand and gravel. The high water line, blanketed in high weeds, is difficult to delineate.

From Jones 2 to Diehlco, on the New Jersey side, the high water line is at a low retaining wall bounding a gravel beach. Spoil has been dumped on Hawk Island, making it now a peninsula. It consists of gravel and sand, and is surrounded by marsh.

The shores of Rancocas Creek are marshy except where there are retaining walls between Riverside and Delanco. It is more wooded on the NE side; there is marsh some distance behind the high water line on the SW side.

The sand pit, a local designation for the disposal area at lat. 40-02, long. 74-59, is in use and of changeable character.

From Plum, USE, to Wright 2 is a gravel shore. Off Wells 2 there is a growth on both sides of the low water line, consisting of long, narrow-bladed grass, which, when submerged, gives the effect of shallow water or sand flats. Between Wright 2 and Riverton the shore is marshy.

Landmarks.

A list of objects, listed on form 567 ~~herewith~~, is

recommended for charting as landmarks. None of them are of unusual character or sufficiently outstanding to merit special comment. A separate report on landmarks, consisting of a list on form 567 and a set of chart sections, is rendered to cover the area of this sheet.

Character of control used.

Immediate triangulation control was used throughout, consisting of the following:

1. Adjusted intersection points of the 1933 1st-order work.
2. Main scheme and intersection points of the 1935 2nd-order work, unadjusted field computations on the N. A. 1927 datum.

Closing errors of traverses and how adjusted.

The wealth of triangulation points, permitting resection and graphical fixing throughout, permitted maintenance of a high order of graphical accuracy at all times without the running of traverses.

Surveying methods.

There were no departures from normal planetable methods.

Rectification of setup points was made as the work progressed by resection and orientation on a variety of objects. No graphical trouble was experienced, and a high order of accuracy was maintained.

A close development of the high water line was made because of the highly developed and valuable character of abutting property. Attention was given as well to delineation of the low water line where possible. In places, however, it could not readily be determined. It is thought a hydrographic development of this line would in general be preferable.

Examination and measurement of detail near control points was separately made by a field inspection party, whose notes are submitted as such. Additional graphic control points, beyond easy reach of the planetable operations, were established by the inspection party, using in general three-point sextant fixes, carefully checked. These, together with sketches, are included in the notes of the inspection party.

Laying down range lines.

Points determined by inspection to lie exactly on the extended range lines of Torresdale, Rancocas River, Mud Island, and Palmyra ranges, were located on the sheet and the lines laid down accordingly. Torresdale range line passes through Riverton light. Mud Island and Palmyra range lines extend over parts of sheets A and C. In these cases temporary projections covering the full lengths of the range lines in question were utilized for laying down the lines, after which they were transferred to the sheets to which they apply.

The azimuths of the range lines were scaled and read as facing the lights. The azimuths have been closely checked by computation based on the triangulation (Scaled in the case of Torresdale range lights) positions of the lights.

Form lines.

No form lines were applied.

Changes in objects previously shown.

No changes not conclusively indicated by the sheet and the air photos, or covered by the note regarding landmarks, are involved.

Future changes.

Extensive changes in shore lines, areas of disposal banks, etc., are to be expected as result of river improvement works now in progress or projected. Some are predictable on the basis of U. S. E. D. dredging and disposal plans; others are unpredictable. The only guide will be the surveys of the U. S. E. D.

Work incomplete or unreliable.

No magnetic meridian was laid down, owing to stress of circumstances at the time of sudden cessation of work. Since such observations were made on sheets A and C adjacent nearby in each direction, this was not considered a serious lack.

In view of the intended use of this as a graphic control sheet, the exact location of all fixed points have been preserved by dots surrounded by pencilled circles. Lines, except where precisely fixed, have been left dashed.

In a few places, where the fixed points were near but not on the lines they determined, paced offset distances have been plotted. No material error results from this practice.

High weeds prevented extension of work any distance up Pennypack Creek from its mouth.

No determination of either the low water line or the marsh line could easily be made on the north side of Hawk Island, a lack compensated by information available in the air photos.

The highway bridge at Riverside-Delanco being incomplete at time of the fieldwork, no fender piles are shown here.

Waste disposal at the sand pit, locally so-called, at lat. 40-02, long. 74-59, was in progress during the survey. The sheet shows a condition subsequent to that shown by the photos, but later changes were in prospect. The two islands in the middle of the area are now nearly of the same size.

The low water line between Wright 2 and Riverton was too uncertain to be indicated in the sheet. A hydrographic development would be required for this determination.

Deviations from standard practice.

No deviations were made.

Discrepancies in joining previous work.

No discrepancies were noted.

List of new names.

No list is submitted, but attention is called to one

circumstance worthy of attention. Rancocas River, so-charted, is commonly known locally as Rancocas Creek, and it is so named by the highway department road signs at the crossings. It is recommended that the latter designation be adopted, and it has been so named on the sheet.

Hawk island, as a result of dredging, is not now an island, nor is it likely again to be such.

List of planetable positions, and recoverable topographic stations.

No lists are submitted because:

Triangulation locations were made for all fixed aids to navigation, all monumented U.S.E.D. and other stations, and for all prominent objects not previously located by acceptable triangulation.

There is a wealth of triangulation points in such profusion of numbers and distribution that the recording of additional points is quite unnecessary.

The few topographic points shown on the sheet are of doubtful permanence. They would be an aid to future hydrographic parties, but these and others could readily be fixed by future parties without recourse to the theodolite or planetable. In any event, adequate hydrographic control can be found in the triangulation alone.

Photographs obtained.

No photographs are available except the air-photos.

Changes in coast line.

The connection of Hawk Island to the mainland, and the filling of the sand pit', both discussed above, are the only noteworthy changes. Others are in all cases definitely covered by the sheet and the photographs. In this connection, see the comment above under 'future changes'.

Character of marshes covered by high water.

See the general description of the shore. The marshes are all covered at high water, but most of the vegetation shows at high water stages.

General statement.

This being a graphic control sheet, certain details have not been covered herein or on the sheet, because balanced by work performed by the field inspection party, whose records are separately rendered. *Filed in AirPhoto Unit under "Field Inspection Data".*

Respectfully submitted,

E. B. Roberts

for W. H. White, Surveyor.

Inspected and approved,

E. B. Roberts
E. B. Roberts, E. & G. Engr.

Chief of Party.

Mr. Green

The name Jonesdale
is in wrong position (see
chart)

2 Cree names (both charted)
should be added to sheet and
to list of geographic names.

A. L. S.

See p. 344 of F. A.

re

Panocous Creek
Hawk Island

additional names on chart 246

GEOGRAPHIC NAMES

Survey No. T-6496

GEOGRAPHIC NAMES											
Survey No. T-6496											
Name on Survey											
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List			
A	B	C	D	E	F	G	H	K			
Delanco										1	
Delaware River										2	
Rancocas Creek										3	
Torresdale										4	
Riverside										5	
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										8	
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MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTO STATION~~

~~XXXX~~

No. T -6496

~~Graphic Control~~

received Oct. 31, 1936
registered Nov. 12, 1931
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			
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90			

RETURN TO

82	C. K. Green ✓
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REVIEW OF TOPOGRAPHIC SURVEY No. 6496 *Field letter "B"*Title (Par. 56) *Delanco to Torresdale, Delaware River, Pennsylvania-New Jersey*Chief of Party *E.B. Roberts* Surveyed by *W.H. White* Inked by *W.H. White*Ship *Party No. 8* Instructions dated *April 22, 1935* Surveyed in *July 1935*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓
2. The character and scope of the survey satisfy the instructions. ✓
3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓
4. The amount of vertical control that the Manual specifies for -contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)
No vertical control is shown.
5. The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.) *No contours or formlines are shown.*
6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) *This survey was originally made as a graphic control survey. The air photos and the field inspection notes are filed in the Air Photo Unit under "Field Inspection Data."*
7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓
8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) *except that the low water line is incomplete and in some places indeterminate. See D.P. page 3.*
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ✓
10. The span, draw and clearance of bridges are ^{not} shown. (Par. 16c.)
11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~
12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

a comparison with prior surveys shows several changes in the details of the shoreline. More extensive changes in shoreline, areas of disposal banks, etc., are to be expected as a result of river improvement works now in progress or projected. see Desc. Rep. page 3, par. 2.

The information on the present survey should supersede similar information on the prior surveys for charting.

Prior surveys, portions of which fall within the limits of the present survey, are T-167(1843-4), T-168(1843-4), T-1993(1890), T-1993a(1911), T-2144(1885) and T-3377(1912).

Chart 296.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓
14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~
15. ^{No} ~~The~~ descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.) *see D.R. page 4.*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *Chart letter 909 (1935).* ✓
17. ^{No} ~~The magnetic meridian was shown, and declination was checked.~~ (Par. 17, 52.) *See D.R. page 3.*
18. The geographic datum of the sheet is *North American 1927* and the reference station is correctly noted. (Par. 34.) ✓
19. Junctions with contemporary surveys are adequate. ✓
20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) *The report on Geographic Names is not complete and chart 296 should be consulted for additional names in this area.*
21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓
22. No additional surveying is recommended. ✓
23. The Chief of Party inspected and approved the sheet and the descriptive report, ~~after review by~~
24. Remarks: *this survey was made as a graphic control survey but no air photo compilation is contemplated at the present time. The field inspection notes, etc. are filed in the Air Photo Unit under "Field Inspection Data."*

Reviewed in office by *R.J. Christman, Jan. 11, 1937.*

Examined and approved:

C. K. Green Chief, Section of Field Records *Fred. L. Peacock* Chief, Section of Field Work

L. O. Colburn Chief, Division of Charts

Glenn Chief, Division of Hyd. and Top.