5283

U. S. COAST & GEODETIC SURVEY LIBRARY AND ARCHIVES

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Form	504
Ed. Jun	o. 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R.S. Patton, Director

State	NT cours	TOMODIE	

DESCRIPTIVE REPORT

Topographic Sheet No. T5283

LOCALITY

Mast Coast of New Jersey

Avon to Spring Lake

Shark River and Vicinity

Photographs Faken 1932 -1933

CHIEF OF PARTY

. Rolstad, Jr. H. & G. Engr.

applied to drawing of Chart 1216 - Wee 30,1936 - JTW.

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DEPARTMENT OF COMMERCE U.S. COAST AND GEODETIC SURVEY

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. 69

REGISTER NO. T5283

State New Jersey
General locality East Coast of New Jersey
Locality
photographs Apr. 19,1932; May 20,1932 Scale_1:10,000 Date of survey
Wesselx Air Photo Commilation Party Mo. 12, New York City.
Chief of party: Rosarell C. Rolated
Surveyed by See data sneet enclosed in the descriptive report for this sheet.
Inked by W.E.Rrown
Heights in feet aboveto ground to tops of trees
Contour, Approximate contour, Form line intervalfeet
Instructions dated November 15, 19.32
Remarks: Compiled on a scale of 1:10,000 and printed by
Photo Lithography.
* Blue Print on Seale 1: 10000

- STATISTICS -

on

SHEET, FIELD NO. 69, REG. NO. T5283

PHOTOS, NOS. 66-11-31 to 66-11-33	incl. D	ATE_	Apr.	19,	1932
PHOTOS, NOS. 66-32-85		ATE_	May	20,	1932
PHOTOS, NOS. 66-33-27 to 66-33-30	incl. D	ATE_	May	20,	1932
PHOTOS, NOS. 66-51-28 to 66-51-30	incl. D	ATE_	July	24,	1932
PHOTOS, NOS. 876-14 (M2698 to M2704) incl. D	ATE_	Jan.	23,	1933
Scale factor of this sheet is)1.000	albert				
PROJECTION J.G.Al	•	<u>`</u> 8	-3-34		
PROJECTION CHECKED W.D.Ay		8-	-3-34		
CONTROL PLOTTED Wm. Bar	asch)	9.	-9-34		
CONTROL CHECKED	elekuller)	9-	-10-34		
TOPOGRAPHY TRANSFERRED J.G.AI	bert	9.	-11-34	:	···-
TOPOGRAPHY CHECKED /J.P.O'	Donnell	9.	-11-34		
SMOOTH RADIAL LINE PLOT R.H. e	ckett The Hocke		2 -10- 3 1 -30- 3	4 to 4 to	1-9-35 12-9-34
RADIAL LINE PLOT CHECKED R.C.BO.	Istad	1.	-10-35		
DETAIL INKED W.E. Br	own own	4.	-5 -35	to	6-3-35
PRELIMINARY REVIEW OF SHEET W.E.H	The Yackey	6.	-18-35	to	6-20-35
	tute Miles (·		
AREA OF DETAIL INKED 0.5 sq. Sta-	tute Miles (Sh	oals	in Wa	ter.	Area)
LENGTH OF SHORELINE (more than 200 mag) 4.6 Statute		oppo	site	shor	e)
LENGTH OF SHORELINE (rivers and slow 29.0 Statute		200 n	n. wid	e)	
LENGTH OF STREETS, ROADS, TRAILS, RA	AILROADS, etc	219.0) Sta	tute	Miles
GENERAL LOCATION East Coast of New	v Jersey				1
LOCATION Avon to Soring Lake					\int
DATUM North American 1927	,				
STATION Wall, 1934 Lat	itude 40° 10'	24.4	06" (752.1	8 m.)
Lor	ngitude 74° 02'	16.2	92" (385.	<u>5 m.)</u>

COMPILER'S REPORT

for

AIR PHOTO TOPOGRAPHIC SHEET FIELD NO. 69

GENERAL INFORMATION

The Air Photo Field Inspection Report, dated Nov. 19, 1984 for New Jersey attached to the descriptive report for the Air Photo Topographic Sheet No. T5279 furnished the necessary field data for the the compilation of this sheet. Additional information was obtained by R.L. Fisher, Draftsman Party No. 12, who is familiar with the area.

The accompanying STATISTICS sheet details all necessary data used inconnection with the compilation of this sheet.

The sheet was compiled from four flights of photographs which were taken by the Aero Service Corporation of Philadelphia, Pa. using a single lens camera equiped with an orthomesser lens with a focal length of 8 inches. The Photographs were taken at a scale of approximately 1:22,000 and were enlarged to a scale of 1:10,000. The time of day at which they were taken was not available and therefore the tidal condition could not be determined. The time of the time of the tidal condition could not be determined. The time of the a single lens camera at a scale somewhat smaller than 1:10,000. The scale difference between the compilation and these photographs rendered them unfit to use in the compilation, however they were used for checking the change in detail between the time of the Aero Service pictures and these of the time of the

CONTROL

(A) Sources

The following sources of control were used in the compilation of this sheet:-

(a) Triangulation by P.C.Doran, in 1933, North
American 1927 datum, field positions adjusted. (Pp. 41-45 N.J. Shale Led)

(b) Triangulation by Lieut. E.R.McCarthy, in 1934, North American 1927 datum, field positions adjusted. (Pps. 288-304 N.J. State List)

(c) Aluminum Control Sheet by P.C.Doran, 1933, Reg. No. T4747.

The topographic sheet by P.C. Doran Reg. No. T4747 was used for comparison purposes only. No stations were used from this sheet for the control of this compilation.

(B) Errors

There are no apparent errors in the control psitions for this compilation. The control along the shore is ,in general, strong and the radial plot gave good intersections.

(C) Discrepancies

No other control stations established by other organizations were used in the compilations of this sheet. However, the track traverse data of the Pennsylvania Railroad

Additional Note: (C) Interpretation

Sea Girt Inlet

The south shore of the inlet to Wreck Pond, at Lat. 40° 08.3°, Long. 74° 01.6' is detailed with a dashed line to indicate that this point does not remain as the photographs show; for the high water line is continually changing.

was used as supplementary control.

COMPILATION

(A) Method

The usual radial line method of plotting was used in the compilation of this sheet.

(B) Adjustment of Plot

The photographs of this area are free from excessive tilt and undue scale fluctuation. There are some areas in the westerly and southwesterly parts of the sheet where the photographs are not clear in definition.

(C) Interpretation

The usual graphic symbols were used as approved by the Board of Surveys and Maps, 1932 in the compilation of thes sheet.

First order roads are indicated by the double full line private driveways and roads of lesser importance by a double broken line. Exceedingly poor roads and trails are shown by a single broken line. In most cases, unless noted on the field prints, the classification had to be determined by the appearance under the stereoscope

Field Memorandum No. 2 (1935), Location and Drafting of Puildings on Air Photo Compilations, dated April 1, 1935 was followed.

The railroad traverse used as control and plotted hereon consists of a double track line about parallel to the Ocean Beach and about 1 mile inland and a branch line near the southwesterly limit of the sheet (700 meters within the area of detail) both controlled by the Pennsylvania Railroad Co.

Hydraulic fill at Lat. 40° 10' 50", Long. 74° 01' 50", was in progress during the time of the field inspection. The area behind the bulkhead along Shark River is being filled in, and has been labeled on the cover sheet.

(D) Bridges

There are four bridges over navigable waterways, all of which cross Shark River Inlet. The data shown on the cover sheet for these bridges was taken from the U.S. Coast Pilot, Section C, 1933. (It is assumed that Lieut. Mediciny has submitted any revisions necessary to the Coast Pilot.) Other bridges of little or no importance to mavigation have been indicated by only the usual graphic symbols.

(E) Information from Other Sources

Pennsylvania Railroad Track Traverse data provided the only other information than sources other than those previously mentioned. This data was used as supplemental information in detailing the main line and sidings.

Bridge data shown on the overlay sheet was obtained from the Coast Pilot.

Additional Note: Landmarks

The following two signals, shown at present on Chart 1215 as Landmarks, are no longer in existence and should be expunged from the chart.

(a) Radio, at Lat. 40°10' 43", Long. 74 04' 24"

(b) Hotel Cupola, at Lat. 40°10' 23", Long. 74 00' 52"

Additional Note

Chart 1215 shows a light on the southern jetty of Shark River Inlet. Verification of this light was missed by the field inspection party. However, it was understood that Lieut. McCarthy was to obtain all information in regard to the landmarks in this area. As no information in regard to landmarks has been recipived by this party for this area, the light has been omitted from this compilation.

This light was located on Graphic

Control. Survey T6215 b Aug 1934 and has been transferred to the compilation in this office. 136d.

(F) Conflicting Names

There are no names shown on this compilation which conflict with any of the names as shown on the present edition of the $\rm W.S.C.$ & G.S. Chart.

LANDMARKS

It is assumed that a list of landmarks has been previously submitted by Lieut. E.R.McCarthy for this area, although no list has been received by this party.

There are many other objects (such as houses, ends of docks, etc.) which are located within the accuracy specified under the following heading, RECOMMENDATIONS FOR FURTHER SURVEYS and may be used to obtain hydrographic "Tixes". Care should be taken in using the houses to use the center as the size shown on the compilation sheet may be expanded somewhat.

COMPARISON WITH OTHER SURVEYS

The junctions with all adjoining sheets are satisfactory.
Lat. 40° 11.8', Long. 74° 00.5' stone jetty appearing on Topographic Sheet T4747 is not of the **same** shape as the actual construction at the present time. This jetty has been correctly shown on this compilation. There are several new jetties in this area which have also been shown on this compilation.

Lat. 40° 11.2', Long. 74° 00.6' the shoreline beginning at this point and continuing southward on the Topographic Sheet No. T4747 does not agree with the existing conditions and has been changed accordingly.

Near triangulation station Shark River the outlet from the lake to the ocean has not been shown on the compilation as it is a covered culvert but has been labeled on the cover sheet.

Lat. 40° 11.2, Long. 74° 01.5' there are several new docks in this area which have not been shown on the topographic sheet T4747 but have been detailed on the compilation.

The remainder of Topographic Sheet Reg. No. T4747 checks well with the Air Photo Compilation.

RECOMMENDATIONS FOR FURTHER SURVEYS

The compilation of this sheet is believed to have a probable error of not over two meters in well defined detail of importance for charting and of four meters for other data. It is understood that the width of roads and similar objects may be slightly expanded in order to keep the detail clear and keep it from photographing as a solid area in the photo Lithographic process.

To the best of my knowledge is complete in all detail of importance for charting purposes, within theaccuracy stated above, and no additional surveys are required.

Submitted by

W.E. Brown
Draftsman

Assisted by W.E.Hackett

Surveyor

Decisions

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	Sylvan Lake										5
	Avon	1215		/			SEE NOTE	~	ν·		6
	Silver Lake -		_		-						7
	Belmar -	1215					/	/	/		8
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REVIEW OF AIR PHOTO COMPILATION T 5283 Scale 1:10,000

Comparison with Graphic Control Surveys

T 6215b (1934), 1:10,000

Numerous recoverable topographic stations (locations of objects of recoverable nature; mostly flagpoles, house cupolas, etc. located for hydrographic fixes) are shown on T 6215b. Of these, only those described on Form 524 were transferred to the compilation. These stations, together with the triangulation, give a spacing of one control station for approximately every quarter mile on the compilation. Stations plotted by R. M. Berry and checked by L. A. McGann. (£0 M.)

The shoreline at the entrance to Shark River, shown in pencil on T 6215b and stated in the report for the same to have been furnished by the air photo party, does not agree with the shoreline shown on the compilation. This may be due to faulty transferring or to a subsequent change in the air photo compilation. The compilation is accepted as correct.

The wreck of the "Morro Castle" shown on T 6215b has been removed. (Page 3 of 3, verifier's report, H. 5638.)

Refer to descriptive report, T 6215b for discussion of U.S.E. control in this area; also for discussion of fish traps in this area; and for discussion of relative importance of cities.

Comparison with Recent Topographic Surveys

T 4747 (1933), 1:10,000

T 4747 was made subsequent to the taking of the photographs for T 5283 but prior to their compilation. T 4747 was available to the air photo party and was used for comparisons and is in very good agreement except as noted on page 5 of the descriptive report for the compilation. The following recoverable topographic stations, located by planetable methods on T 4747 and described on a supplemental page in the report, T 4747, may be of value as landmarks and were transferred to the compilation:

Mac - Southerly of 4 radio towers,

Rad - Second tower from south,

Ned - Green roofed summer pavilion.

The remaining recoverable topographic stations on T 4747 are of minor importance, flag poles, house cupolas, etc. and have not been transferred because of density of recoverable stations already on the compilation. Stations transferred by R.M.B. and checked by L.A.M.(Cam.)

Comparison with Contemporary Hydrographic Surveys

<u>H 5300</u> (1933), 1:10,000

There are some small differences in high water line between H 5300 and the compilation. Page 5 of the preceding report discusses these

differences with T 4747 which is the source of the shoreline of H 5300. The compilation is accepted as correct. There is no conflict with soundings.

н 5638 (1934), 1:10,000

There are some small differences in position of a few of the docks shown on H 5638. The source of these positions on H 5638 is the planetable survey T 4747 whose differences with the compilation are discussed on page 5 of the preceding report. The compilation is accepted as correct.

Shoreline detail along the coast is not complete on H 5638. H 5638 was apparently surveyed before this compilation was completed. This has been referred to Captain Ellis.

Except as mentioned above there is no conflict between the compilation and H 5638.

Comparison with chart 1215 (Ed. 10/29/35).

The propellor-shaped boat basin on the south side of the neck of Shark River in Belmar is incorrectly shown on chart 1215. The park-like area surrounding the basin has been shown with water tint and the basin proper tinted buff-colored to denote an island.

The north jetty at the entrance to Shark River is approximately . the same length as the south jetty.

Numerous docks along the outside coast and in the Shark River, shown on the compilation, are not shown on chart 1215.

Landmarks and Aids to Navigation

Two radio towers shown just west of Shark River on chart 1215 (40° 11.2', 74° 03.6'; 40° 10.7', 74° 04.5') are positions determined for the end towers of a row of six, the same being station No. 6 of the Marconi Wireless Telegraph Corp. (J.E.McGrath, 1917, triang.). Careful examination of the photographs in connection with a blue print layout of the station discloses the remains of some of the footings and guybases. The stereoscope reveals no elevated structure of any kind and analysis of the visible footings, etc. shows that two of the masts would now be in the paved area of a road. These structures are, without doubt, non-existent at this date and should no longer be shown as landmarks. Triangulation station "Radio 3, 1933", described as the "third from the southerly end of a row of 4 radio towers" plots appxoximately 250 meters from the position of the old easterly tower and may have been mistaken for it and for that reason the old tower was not reported as non-existent.

Topographic positions from T 4747 give the location of the southerly two of the previously-mentioned four radio towers. Triangulation (Doran, 1933) gives position for the third. The fourth tower has been overlooked by both topographic and triangulation parties. It is not

H.W. him No definite information of give in the description report or on the field photographs as to whether a blailed ground inspection was made of H.W. line along the outer coast. The high water with appears to have been drawn appears to have been drawn the phistographs of Jan 23, 1933

the phistographs of Jan 23, 1933

the is accepted as of that date sand book in g

High Water Line on the Outer Coast

High water line on this compilation is of the date of the field inspection, July-October 1934. Field inspection report T 5279 the project is filed under for

ground See page 3, first section of report, T 5279 regarding the date of the photographs, April-July 1932 and the field inspection on this project for changes during the interval tion, July-October 1934.

Changes in high water line were marked on the photographs by reference distances and sketching. This method lends itself more readily to delineation of large permanent objects to which reference measurements changes than to small detail. In this area there is in general an abundance of can be made.

Man Son The

visible in the photographs and therefore is not shown on the compilation. The group of four radio towers now standing is a different group from the six towers mentioned above.

No position is available for the Shark River North Breakwater Beacon which is stated in the 1936 Light List "New York and Approaches" to have been built in 1935 (Light No. 1091.5), and this beacon is therefore not shown on the compilation.

With the above exceptions, all landmarks and lights and beacons shown on the present chart, or listed in the 1936 Light List, are shown on the compilation.

Bridges

Vertical clearance of bridges over Shark River are given in various sources as follows:

	USE 1927 list	Coast Pilot T 6215b	T 4747
(1)Bascule bridge at entrance	10.3 above H.W.	13.5 #5 13.5 H.T. detum M.L.W. Plant per 1935 Supplement	9 ft. No datum plane
(2)Second bridge above entrance	-	Bascule 15.7. No datum plane	Draw bridge No clearance Given

Note: The two bridges at this site listed on page 400 of U.S.E. List, 1927 have been removed and replaced by one Bascule Bridge as stated on page 1, par. 7, report T 4747 and as shown on this compilation.

(3)R.R.Bridge, Fixed span	9.7 above H.W.	8.5ft. H.W. 11.2. No de-tum per lass plane Supplement	6.0. No datum plane
(4)4th Bridge, H.W.Bridge		Bascule 13.5. Ho 13.5. Ho datum flanc datum from 1935 plane Supplement	Bascule-draw not operated. No motor. 10.0. No datum plane

Clearances not shown on printed compilation.

General

A better statement of the accuracy of this compilation would be 0.2 mm. to 0.5 mm. for intersected points and 0.2 to 0.8 mm. for traced detail.

Described station cards (Form 524) for this sheet are filed under T 6215b. See opposite page

R. M. Berry B. Jones

March 23, 1936

Title (Par. 56)

Chief of Party Roswell C. Bolstad Compiled by (See page 2 STATISTICS)

Project New York Air Photo Compilation Instructions dated November 15, 1932

- Party No. 12

 1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 8; and 16, a, b, c, d, e, g and i.)
- 1/2. The character and scope of the compilation satisfy the instructions and the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".
- 3. The control and adjustment of the radial plot were adequate. (Par. 12, 29.)
- 4. There is sufficient control on maps from other sources that were transmitted by the field party for their application to the charts. (Par. 28.)
- 5. High water line on marshy and mangrovex coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)
- sand bars, shoal areas recent ation of low water lines, recent areas recent ation of low water lines, recent recen
- 7. Important details shown on previous surveys and on the chart have been compared with this sheet and a statement has been entered in the report regarding the removal from the chart or change in position of important detail such as rocks, lights, beacons, prominent objects, bridges, docks, and structures along the water front. No changes in such details have been noted on this sheet.
- 8. The span, draw and clearance of bridges are shown. (Par. 16c.)
- lo. The data furnished by the Field Inspection is adequate.

NCTE: 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.

- The descriptive report covers all details listed in the Manual, so far as they apply to this survey. (Par. 64, 65 and 66.)
- V11. The descriptive report also contains all additional information required in photo topography as prescribed in the instructions and in the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".
- 12. The descriptions of recoverable stations and references to shore line were accomplished on Form 524, and scaling of positions checked. (Par. 29, 30 and 57.)
- 13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.)
- 14. The geographic datum of the sheet is North American 1927 and the reference station is correctly noted. (Par. 34.)
- $\sqrt{15}$. Junctions with contemporary surveys are adequate.
- 16. Geographic names are shown on the sheet and are covered by the Descriptive Report. (Par. 64, 66k.)
- 147. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46.)
- 18. No additional surveying is recommended.

19. Remarks:

Preliminary Review

20. Examined and approved:

Chief of Party

21. Remarks after review in office:

Reviewed in office by: Ralph In . Berry

UBG Jones

Examined and approved:

Chief, Section of Field Records

Chief, Division of Charts

Chief, Section of Field Work

Chief, Division of

Hydrography and Topography.

MEMORANDUM IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT PHOTOSTAT OF	No. H No. T 5283	received registered 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.

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