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Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
E. Lester Jones, Director	
<div>C. & G. SURVEY L. & A. MAR 21 1927 Acc. No.</div>	
State: <u>New Jersey</u>	
DESCRIPTIVE REPORT	
<div>Topographic Hydrographic</div>	Sheet No. B 4246
LOCALITY	
<u>Sandy Hook Bay and Raritan Bay</u>	
<u>Atlantic Beach</u>	
<u>Monmouth County, Leonardo</u>	
<u>to Lorillard.</u>	
1926	
CHIEF OF PARTY	
<u>R. F. A. Studds</u>	

GOVERNMENT PRINTING OFFICE

GENERAL

The survey extends from point "A" at the Borough Line between Atlantic Highlands and Leonardo, N. J., west to the pier at Lorillard, N. J. Junction is made with topographic sheet "A" on the east and with topographic sheet "C" on the west end of the survey.

The planetable and stadia method, supplemented by sextant location of minor details, was used for the survey.

SURVEYING METHODS.

Control for the survey was furnished by the triangulation of New Jersey previously completed and by the triangulation of the party during the season.

Work was begun at Conover Beacon. Orientation was obtained on "White Tank", the only signal visible, and a traverse run east to point "A" to make a junction with the work on topographic sheet "A". This traverse was run back to Conover Beacon with no error of closure.

The table was again set up at Conover Beacon, oriented on "White Tank", and a traverse run to "White Tank". The error of closure was about three meters and was not adjusted.

The creeks along this line were surveyed back to the limits of navigation. Investigation showed the limits of the marsh and creeks to be the same as on chart 369 and so a complete survey was not made.

From "White Tank" a traverse was run south along Compton Creek to the railroad and thence back along the highway through Port Monmouth to the beach. Compton Creek and the details in the vicinity were surveyed from this line.

The table was next set up at "White Tank", oriented on Conover Beacon, the only signal visible, and a traverse run west to Point Comfort Beacon. Junction with the traverse of Compton Creek showed that traverse to be in error about five meters. As the traverse was in the interior and the error comparatively small, the error was not adjusted.

Mill Creek was surveyed to the limit of navigation. The creek and limits of the marsh were found as shown on chart 369 and were not completely surveyed.

A secondary traverse was run south along Beacon Boulevard, thence west and north to "Mid" with an error of closure of about fourteen meters. At Point Comfort Beacon (new) the main traverse line was in error about fourteen meters in distance, the same as at "Mid". This error was later adjusted by distributing it over the line from the first traverse point west of "White Tank" to Point Comfort Beacon (new). The error was considered as increasing, in proportion to the distance, from zero at "White Tank" to the maximum at Point Comfort Beacon.

Starting at Point Comfort Beacon with orientation on "White Tank", the only signal visible, a traverse was run west along the water front to Point "b". At this point, a three-point fix position on "Stan", "Chim", and "Tak" showed an error of about 20 meters between the traverse position "b" and the three-point fix position "B". The traverse was re-run from Point Comfort Beacon up to the eastward pier at Keansburg but no error was found in the original line up to that point. Further investigation showed the error to be as follows: The position of Point Comfort Beacon as furnished the party was the position of the old light house. In the last year a new light house was built about ten meters off shore from the old one. In starting the traverse line from Point Comfort, the new Light House was used on the ground and the position of the old Light House was used on the sheet. This error of ten meters in position at the beginning of the line with a necessary back orientation on "White Tank" caused considerable error at "b". The traverse was not further re-run. Adjustment was made as follows: The entire line, Point Comfort Beacon (old) to "b", was traced and swung onto the position of Point Comfort Beacon (new) and the three-point fix position "B". A difference of five meters in distance was distributed over the traverse line.

From "B" a traverse was run west and checked at "Chim" where a junction was made with topographic sheet "C". From this position, cuts on the piers at Keansburg checked the adjusted positions of those piers.

From "B" a traverse was next run up Waackaack Creek with no error of closure at "Tak". Traverse was continued up the creek to "Brik" which was located by intersections from successive traverse points and by a rod reading from the last planetable position. Streets and roads in the vicinity were surveyed from this line. This traverse from "Tak" for the remainder of the distance up the creek was not run back for a check on any triangulation station as cuts taken ahead on "Brik" indicated no error in the planetable positions.

USE OF THE SEXTANT

The wrecks at Leonardo were located by means of the sextant.

CHANGES IN THE SHORELINE

Comparison with the original survey shows no appreciable changes except those caused by construction along the water front and some erosion of the beach around Point Comfort.

At Leonardo the yacht basin on the west side of the town furnishes a good harbor for small boats and should be shown on the chart.

The creeks are shown to the limits of navigation. There seems to have been very little change in the channels of these creeks, but they are not navigable as far as would appear from an investigation of chart 369.

The limits of the marshes are as shown on chart 369. These marsh lands have been drained to some extent, but the land is low and liable to be flooded at extreme high water.

Compton Creek is navigable by small boats up to the Highway bridge about a mile above the entrance. About 1/4 mile above the entrance, a highway bridge with a draw opening 29 feet crosses the creek. About 1/2 mile above the entrance, two highway bridges, without a draw but with about four feet clearance at high water, cross the creek.

Waackaack Creek is navigable by small boats to the limits shown on the topographic sheet. The highway bridges crossing the creek have a clearance of about four feet at high water.

Along the east side and around the end of Point Comfort, the beach has been worn back for from 20 to 50 meters. Jetties and bulkheads have been built along this beach as shown on the topographic sheet.

SUPPLEMENTAL DRAWINGS.

Photostats "C" and "D" taken of blueprints of Leonardo show the streets in the most important section of that borough. Additional outlying streets are shown on Atlas Sheet 29, State of New Jersey, submitted with topographic sheet "A". (Bps. 21145 + 21146) (Bp. 21124)

Streets in the Borough of Keansburg, including Ideal Beach and Bellvedere Beach, are shown on plan "E" submitted with this report. (Bp. 21144)

Roads between Keyport and Leonardo, N. J., are shown on Atlas Sheet No. 29, State of New Jersey, submitted with topographic sheet "A". All roads have been checked on this map from Keyport to Highlands and from the water front inland to the line marked with green pencil.

DESCRIPTION OF SHORELINE AND LANDMARKS.

The water front at Leonardo is a sand beach with numerous small docks and bulkheads as shown on the topographic sheet. The country back from the beach is rolling and wooded. On one of the hills about one and one quarter miles inshore is Horsford Tank, a small black steel, water tank. This tank stands out clearly on the skyline and makes a good landmark from Sandy Hook Bay. It should be shown on the chart.

Between Leonardo and Shoal Harbor there is a large salt marsh backed by wooded country. "White Tank" at Shoal Harbor is a small, steel, water tank. It makes a fair landmark from Sandy Hook Bay and should be shown on the chart.

From Shoal Harbor to Ideal Beach, the shore line is a sand beach. There are a few scattered houses but no settlements or marks of prominence. The country is low land with scattered trees, undergrowth and marshes.

From Ideal Beach around Point Comfort to Belvedere Beach is the location of the Borough of Keansburg. The shore line is marked by numerous small piers, bulkheads, and jetties. The country back from the beach is thickly settled. During the summer months, the most eastward of the large piers is used by the Keansburg Steamboat Company which maintains daily communication with New York City. The pier at Belvedere Beach is not in use and the pier at the Tile Factory at Lorillard is in ruins. The Keansburg standpipe is a tall, black, steel standpipe. It is a good landmark and should be shown on the chart.

From the pier at Belvedere Beach to the pier at Lorillard, the beach is marked by a salt marsh and the back country is wooded. The chimney at Lorillard is a tall, brick chimney which makes a good landmark and should be shown on the chart.

WRECKS

The two wrecks shown at Leonardo are sunken barges with steel

boilers and equipment. These wrecks are bare at low water, but are a danger to small boats running close inshore at high water.

Respectfully submitted,

Bennett G. Jones
Bennett G. Jones
Aid, U.S. C. & G.S.
Topographer

Approved:

R. F. A. Studds
R. F. A. Studds,
Lieut. (j.g.) U.S. C. & G.S.
Chief of Party.

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PLANT TABLE POSITIONS

Lat.	D. L. meters	Long.	D. P. meters	Remarks
40-26	307 1544	74-08	148 1266	"BRIK" A small, brick chimney on the Keansburg incinerator

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4246

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. _____ R. _____

REGISTER NO. 4246

State New Jersey

General locality Sandy Hook Bay and Raritan Bay

Locality Atlantic Beach
Monmouth County Leonardo to Lorillard

Scale 1 : 10000 Date of survey September, 1926

Vessel Launch Elsie

Chief of Party B. F. A. Studds

Surveyed by B. G. Jones

Inked by B. G. Jones

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated May 7 and May 11, 1926

Remarks: Map of Keansburg, photostat C-(2 parts) and
photostat D (2 parts)~Leonardo turned over to Mr. Storm