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DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

State Massachusetts

LOCALITY

Cape Cod

Spring Hill Beach

Sagamore Beach to Sandwich Harbor

1934Q

CHIEF OF PARTY

H. Arnold Karo

U. S. GOVERNMENT PRINTING OFFICE 10223

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.

REGISTER NO. T6741

State Massachussetts

General locality Cape Cod

Locality Sagamore Beach to Sandwich Herbor

Scale 1,- 10,000 Date of survey August , 19 40

Vessel Lydonia

Chief of party H. Arnold Karo

Surveyed by Fair J. Bryant

Inked by Fair J. Bryant & D.M.S.

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated March 8, July 26 , 19 40

Remarks:

GPO

DESCRIPTIVE REPORT

to

Accompany Topographic Sheet No. B (Field)

Register No. T-6741

Scale 1;10,000

Cape Cod

Massachusetts

Ship LYDONIA

H. Arnold Karo, Chief of Party

INSTRUCTIONS:

Work was executed under authority of Instructions dated March 8, 1940 and Supplemental Instructions dated July 26, 1940.

GENERAL DESCRIPTION OF COAST LINE:

From 0 Gap to the entrance of the Cape Cod Canal the beach and fore-shore is sandy. The width of the beach varies from 30 to 75 meters back of the high water line. The width of the fore-shore is from 20 to 130 meters. There are low grass covered sand dunes back of the beach in this area, from 5 to 20 feet in height. There are numerous cottages and buildings in the vicinity of Sagamore Beach (0 Fin to 0 Gob).

North of 0 Gap there are scattered rocks on the beach which is backed by high sand bluffs. The fore-shore is rocky.

Between the entrance to the Cape Cod Canal and 0 Vex the beach is sandy, backed by grass covered sand dunes from 5 to 30 feet high. The fore-shore is rocky and there are numerous off-lying rocks. The outermost rocks were located on the sheet. The area inshore from these rocks is foul.

From 0 Vex to triangulation station NECK the beach and fore-shore are sandy. The beach is backed by grass covered sand dunes from 5 to 20 feet high.

LANDMARKS:

No additional landmarks were located. The landmarks shown on chart 1208 \searrow are correct for the area of this sheet.

CONTROL:

Control consisted of previously established triangulation points, supplemented with triangulation control established this season by the LYDONIA.

TRAVERSES, ETC.

Signals and shore line between triangulation stations SANDWICH CORNER 5 and NECK were located from three points fixes. A traverse was run

between triangulation stations SANDWICH CORNER 5 and MAN. As MAN did not fall on this sheet, 0 Gap was transferred to sheet No. C and the traverse closed on that sheet. The closure was four meters which was adjusted on the sheets.

GENERAL REMARKS:

There are no form lines shown on this sheet as the primary purpose of the survey was to provide control for contemporary inshore hydrographic surveys. In as much as the area had been flown for air photos, the actual points roded in are still shown on the sheet. The part sketched in is shown as a 'solid line.

JUNCTIONS:

Satisfactory junctions with adjacent surveys was obtained. Actual high water line is somewhat difficult to obtain in parts of the area surveyed due to shifting nature of the sand beach. The high water line will be found to shift slightly in places after each norther or northeaster.

NAMES:

All names were taken from chart 1208 and are in agreement with local usage.

STATISTICS:

Statute Miles ofmShore Line - - - - - -Number of signals located - - - - - -

NOTE:

Descriptive report prepared from notes submitted by the topographer, Ensign Fair J. Bryant.

Respectfully submitted

Officer in Charge

Norfolk Processing Office.

Norfolk, Virginia. 23rd June 1941.

Remarks.

Decisions

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MEMORANDUM IMMEDIATE ATTENTION

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| SURVEY DESCRIPTIVE REPORT REMAINSTANTANTE | Nocestri | registered July 30, 1941 |
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| | No. T T6741 | 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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RETURN TO

82 T. B. Reed

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DIVISION OF CHARTS

Surveys Section

REVIEW OF TOPOGRAPHIC SURVEY

REGISTER NO. T-6741 Field No. B

Massachusetts - Cape Cod, Sagamore Beach to Spring Hill Beach Surveyed August 1940, Scale 1:10,000 Instructions dated March 8 and July 26, 1940

Plane Table Survey

Aluminum Mounted

Chief of Party - H. Arnold Karo Surveyed by - Fair J. Bryant Inked by - Fair J. Bryant and D.: M. Stanley Reviewed by - Harold F. Stegman, October 9, 1941 Inspected by - H. R. Edmonston

1. Junctions with Contemporary Surveys

- a. The junction on the northwest with T-6742 (1940) is satisfactory.
- b. The junction on the southeast with T-6740 (1940) is satisfactory.

2. Comparison with Prior Surveys

a. T-901 (1860-61), T-1062 (1867), T-1530 (1860); Scale 1:10,000

These early surveys taken together cover the entire area of the present survey. There are major changes in the vicinity of Lat. 41°46.5', Long. 70°30' due to the construction of the Cape Cod Canal. Differences were also noted at Sandwich Harbor Entrance in Lat. 41°45.8', Long. 70°28.5'. The mouth of Scusset Mill Creek just northwest of the canal entrance is now entirely closed. Northward of Lat. 41°47', the shoreline has advanced as much as 40 meters in some spots and receded up to 40 meters in others. No offshore rocks were shown on these early surveys. They are superseded by the present survey.

b. T-90la (1909), T-1062a (1909); Scale 1:10,000

These revision surveys cover the entire area of the present survey. To the northward of Lat. 41°47' the shoreline is in fair to good agreement with that of the present survey. These surveys were made prior

to the construction of the canal entrance and therefore major changes have occurred in that vicinity. The entrance to Sandwich harbor on T-90la is about 250 meters southeast of its position on T-90l (1860-61). The position on the earlier survey agrees closely with that of the present survey. These surveys are superseded by T-674l (1940).

c. T-5611 (1938); Scale 1:10,000

This air photographic survey covers the area of the present survey from Lat. 41°46' to Lat. 41°48'. The shoreline varies from 60 meters offshore to 30 meters inshore of that shown on the present survey. Because of its more accurate determination and later date the present survey shoreline should supersede that of T-5611. In the vicinity of Lat. 41°46.3', Long. 70°29.3' in the area shown as foul on the present survey, 4 rocks awash were precisely located on T-5611. These rocks have been transferred in green to T-6741.

3. Comparison with Chart 1208 (Latest Print dated 8-1-41)

a. Topography

Charted topography originates with surveys considered in previous paragraphs and with the following sources:

- 1. Shoreline northwestward of the entrance to Cape Cod Canal is Charted from (Bp. 34169) the Sagamore Quadrangle U.S.G.S., edition of 1940, and (Bp. 34417) U.S.E. 1940 survey of the canal, and is in very good agreement with the present survey. T-6741 supersedes this information in the common area.
- 2. The three rocks awash charted inshore of Lat. 41°46.4', Long. 70°29.1' are generalized symbols originating with Chart Letter 364 (1916). They fall within the area designated as foul on the present survey and close to several accurately located rocks awash. The rocks charted from Letter 364 (1916) are superseded by the present survey.

b. Aids to Navigation

(1) The positions and notations of buoys were considered in the review of H-6561 (1940).

- The positions of Cape Cod Canal eastern entrance Front Range Light and Rear Range Light on the present survey are 150 meters and 100 meters, respectively, S.W. of the charted positions, and about 100 meters westward of the positions in the Atlantic Coast Light List of 1941. The positions on U.S.E. Bp. 34417 (1940) are in agreement with those of the present survey, and the latter should be used in charting.
- (3) The other fixed aids to navigation have been located by triangulation and agree closely with the charted positions.

4. Condition of Survey

- a. The inking of topographic details is satisfactory except that geographic names should be in pencil. They are inked in the office after being edited.
- b. The Descriptive Report is clear and covers all matters of importance.
- 5. Compliance with Instructions for the Project Satisfactory.
- 6. Additional Field Work Recommended

This survey is satisfactory and no additional field work is required.

7. Superseded Surveys

| T- 901 | (1860-61) | in | part |
|---------|-----------|----|------|
| T-1062 | (1867) | 11 | 11 |
| T-1530 | (1860) | Ħ | ii. |
| T-90la | (1909) | Ħ | fī |
| T-1062a | (1909) | 11 | 11 |
| T-5611 | (1938) | 11 | Ħ |

Examined and Approved:

Chief, Surveys Section

Chief, Division of Charts

Chief, Section of Hydrography:

Chief, Division of Coastal Surveys