

5738

5738

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey <u>Planimetric Air Photographic</u> (Shoreline & Interior)	
Field No. ....	Office No. <u>T-5738</u>
LOCALITY	
State <u>Massachusetts</u>	
General locality <u>Cape Cod - Nantucket Sound</u>	
Locality <u>HAPEWICK PORT CR.</u> <u>Doanes Creek - Bucks Creek</u>	
DATE OF PHOTOS { <u>NINE LENS - 7-16-38</u> <u>U.S.G.S. SINGLE LENS -</u> <u>11-21-38 &amp; 12-14-38</u>	
<u>1943</u>	
CHIEF OF PARTY	
<u>Fred. L. Peacock</u>	
LIBRARY & ARCHIVES	
DATE .....	



## DATA RECORD

T-5738

Quadrangle (II):

Yarmouth, Mass. U.S.G.S.

Project No. (II):

H. T. 227-B

Field Office:

Air Photographic Party No. 2  
Baltimore, Maryland

Chief of Party:

Lieut. (j.g.) L. W. Swanson

Compilation Office:

Air Photographic Party No. 2  
Baltimore, Maryland

Chief of Party:

Comdr. Fred. L. Peacock

Instructions dated (II III):

September 29, 1938

Copy filed in Descriptive  
Report No. T- (VI)

Completed survey received in office: 7/17/43

Reported to Nautical Chart Section: 1/26/45

Reviewed: 4/5/45

Applied to chart No.

Date:

Redrafting Completed: 3/12/46

Registered: 12/46

Published:

7/22/46

Compilation Scale: 1:10,100

Published Scale: 1:10 000

Scale Factor (III): 0.99

Geographic Datum (III): N.A. 1927

Datum Plane (III): Mean Sea Level

Reference Station (III): HARWICH CONG. CHURCH SPIRE, 1887, r. 1941

Lat.: 41° 41' 11.645" 359.3 meters Long.: 70° 04' 35.997" 832.5 meters Adjusted  
~~Unadjusted~~

State Plane Coordinates (VI):

X = 988,777.17 Ft.

Y = 253,426.02 Ft.

Military Grid Zone (VI)



PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
G.S.F. 5-62 to				
G.S.F. 5-68	11/21/38	11:30a.m.	1:10,000	0.4' Above M. H. W.
G.S.F. 7-63 to				
G.S.F. 7-68	12/14/38	11:30a.m.	1:10,000	0.1' Below M. L. W.
G.S.F. 7-88 to				
G.S.F. 7-92	12/14/38	11:25a.m.	1:10,000	0.1' Below M. L. W.
2404 to 2406	7/16/38	12:00noon	1:10,000	2.0' Above M. L. W.

Tide from (III): Boston, Mass. with time correction to Dennis Port, Mass.

Mean Range: 3.7'      Spring Range: 4.4'

Camera: (Kind or source) U. S. Coast & Geodetic Survey Nine Lens; (Focal length 8 $\frac{1}{4}$ " ). All negatives are on file at the Washington Office

Field Inspection by: Lieut. A. L. Wardwell      date: Nov. & Dec., 1938  
Lieut. E. B. Lewey      July & Aug., 1941

Field Edit by:      date:

Date of Mean High-Water Line Location (III):

July 16, 1938 - Before hurricane of 1938

November 21, 1938 - After hurricane of 1938\*

December 14, 1938 - After hurricane of 1938

*Mean High water line  
detailed from the  
Nov. 21, 1938 photos.  
See the narrow of  
the lock.*

Hurricane occurred in September, 1938

Projection and Grids ruled by (III) Washington Off. date: February, 1939

" " " checked by: Washington Office date: February, 1939

Control plotted by: R. A. Gilmore date: Feb. 13, 1939

Control checked by: Walter E. Schmidt date: Feb. 13, 1939

L. W. Swanson, R. A. Gilmore,      2/15-17/39  
Radial Plot by: W. C. Russel, William H. VanLoon      date: May, 1942

Isadore M. Zeskind (Shoreline only)      3/6-15/39  
Detailed by: Ada May Hobine (Shoreline revised)      date: Nov. '42 to  
(Interior Detailed) rough draft      March, 1943

Reviewed in compilation office by: Harry R. Rudolph      date: June & July,  
1943

Elevations on Field Edit Sheet  
checked by:      date:



### STATISTICS (III)

Land Area (Sq. Statute Miles): 22 Square Statute Miles

Shoreline (More than 200 meters to opposite shore): 21 Statute Miles

Shoreline (Less than 200 meters to opposite shore): 7 Statute Miles

Number of Recoverable Topographic Stations established: 11

Number of Temporary Hydrographic Stations located by radial plot:

23

Leveling (to control contours) - miles:

Roman numerals <sup>none</sup> indicate whether the item is to be entered by, (II) Field Party, (III) Compilation Party, or, (VI) the Washington Office.

When entering names of personnel on this record give the surname and initials (not initials only).

Remarks:



26 CONTROL:

The control plotted on this map drawing consists of ten (10) U. S. Coast & Geodetic Survey triangulation stations, and nine (9) Massachusetts Geodetic Survey traverse stations. They have been shown with the triangulation symbol.

The following control stations are within the detail limits of this map drawing:

Four (4) U. S. Coast & Geodetic Survey Triangulation Stations:

SOUTH HARWICH, FLAGSTAFF, 1887  
HARWICHPORT CONG. CHURCH SPIRE, 1887, r.1941 /  
HARWICH EXCHANGE 2, 1934, r.1941 ✓  
HARWICH CONG. CHURCH SPIRE, 1887, r.1941 /

Six (6) Massachusetts Geodetic Survey Traverse Stations:

111C, r.1941 ✓  
111E, r.1941 ✓  
116AC, r.1941 ✓  
140A, r.1941 ✓  
140B, r.1941 ✓  
140C, r.1941 ✓

The following control stations fall just outside the detail limits of this map drawing:

Six (6) U. S. Coast & Geodetic Survey Triangulation Stations:

WEST HARWICH, BELMONT HOTEL, WATER TANK, 1934, r.1941  
WEST HARWICH BAPTIST CHURCH SPIRE, 1887, r.1941  
WEST HARWICH HOLY TRINITY CATHOLIC CHURCH SPIRE, 1934, r.1941  
SWAN, 1934 /  
DENNIS SCHOOL CUPOLA, 1934, r.1941 /  
SOUTH DENNIS CONG. CHURCH SPIRE, 1887, r.1941 ✓

Three (3) Massachusetts Geodetic Survey Traverse Stations:

139A, r.1941  
139B, r.1941  
140D, r.1941

27 RADIAL PLOT:

A combined plot for map drawings, Surveys Nos. T-5736, T-5737, T-5738 and T-5739 was laid in February 1939 by the usual radial method. Celluloid templates were used.

This work was under the supervision of Lieut. L. W. Swanson, Chief of Air Photographic Party No. 2. He was assisted by Lieut. R. A. Gilmore and Lieut. W. C. Russell.



27 RADIAL PLOT: (cont'd)

The positions of radial points established by the combined plot were not considered within the desirable accuracy. The positions of a considerable number of radial points were determined by the intersection of two radials because the number of nine lens photographs covering the area was inadequate. The number of control stations was inadequate. However, this compilation office was instructed to accept the plot and detail the shoreline and immediate adjacent culture.

Recommendations were made to the Washington Office to obtain additional photographs and field inspection of the area involved. These recommendations received favorable action.

After the additional single lens photographs and additional field inspection were obtained, individual plots were relaid for the areas represented on the above mentioned map drawings.

The positions of radial points (secondary, minor detail, hydrographic stations and recoverable topographic stations) established by these individual plots were considered within the desirable accuracy.

The number of photographs was adequate.

The identification of the control was adequate.

No exceptional difficulties were encountered except as follows:

SOUTH HARWICH FLAGSTAFF, 1887.

The submitted geographic position of this station was in disagreement approximately 50.0mm east of the point identified on the field photographs as the station by the field inspection party. The field inspection party recommended the station be considered lost, but this compilation office believes the wrong place was visited and the station should not be considered lost until future field parties have investigated.

28 DETAILING:

The shoreline and interior culture have been detailed on this map drawing in accordance with the Director's letter dated September 29, 1938.

All detail on this map drawing has been shown by the standard symbols recommended by the Washington Office, and notes fully describing any deviation therefrom have been made on the overlay sheet so that the planimetry may be clearly interpreted by those concerned.



28 DETAILING: (cont'd)

The area of this map drawing was adequately covered by photography. However, dark shadows appeared on the photographs causing considerable difficulty in identifying the shapes of buildings.

Small purple ink circles and green ink circles indicate positions of tertiary points determined by radial intersection, which were considered relatively strong or weak respectively.

In the area along the shoreline, considerable difficulty was encountered in establishing the positions of the tertiary points because the nine lens photographs were taken prior to the hurricane of September 21, 1938 and the single lens photographs were taken after the hurricane.

The mean high water line was outlined on the office photographs in accordance with the field inspection data, and then detailed on this map drawing by using the positions of the previously mentioned tertiary points.

The new stone breakwater south of the entrance to Wychmere Harbor was detailed from data submitted by the field inspection party. This breakwater does not show on any of the photographs. The position of the beacon at the Southeast end of this breakwater should be considered approximate.

No field inspection data was submitted for an <sup>area</sup> ~~area~~ of about two-thirds of a square mile which has been outlined in red ink on the dull side of this map drawing.

All street and road names shown on this map drawing were obtained from information submitted by the field inspection party.

Several ponds appear on this map drawing for which no geographic names were submitted. These have been labeled "Pond".

No field inspection data were submitted to assist this compilation office in identifying what is believed to be a telephone line running southwest from Goose Pond. This compilation office has shown the "line" with the standard symbol for a telephone line and notes have been shown on the map drawing calling for investigation by future field inspection parties.

30 MEAN HIGH WATER LINE:

The mean high water line (firm ground) has been shown by a solid heavy-weight black acid ink line, the center of which should be taken as the true position.

Limits of marsh areas, visible on the photographs or identified by the field inspection party, have been shown by a solid light-weight black acid ink line in conjunction with the conventional marsh symbol.



31 LOW WATER AND SHOAL LINES:

The limits of shoal areas, as identified on the office photographs in accordance with the field inspection data, are shown by a thin dashed black acid ink line. The limits of mud and sand areas, as identified on the office photographs in accordance with the field inspection data, are shown by a dotted black acid ink line. The limits of "grass in water" areas have been shown by the conventional symbol. These limits are for the use of the hydrographer only. They should not be accepted by any mapping agency as indicating the true position of the mean low water line.

Notes have been made on the map drawing to assist in identifying these areas.

33 WHARVES AND SHORELINE STRUCTURES:

All piers, wharves, bulkheads, jetties, etc. have been detailed in accordance with the field inspection data.

34 LANDMARKS AND AIDS TO NAVIGATION:

The positions of one (1) recommended landmark and one (1) aid to navigation are shown with  $2\frac{1}{2}$ mm black acid ink circles on this map drawing. The position of the landmark has been radial plotted. The position of the aid to navigation was determined from fixes and distances submitted by the field inspection party and is to be considered approximate. Their descriptions appear on the map drawing. Form No. 567 (to be charted) has been submitted.

The one (1) Landmark is as follows:

TANK, HARWICH WATER

The one (1) Aid to Navigation is as follows:

BEACON \*WITCHMERE HARBOR JETTY

Form 567 (to be deleted) has been submitted for another beacon shown on Chart 1209 at the entrance to \*Wychmere Harbor.

\*Disputed geographic name.

35 HYDROGRAPHIC CONTROL:

The positions of eleven (11) recoverable topographic stations and twenty-three (23) temporary hydrographic stations are shown on this map drawing by  $2\frac{1}{2}$ mm and  $1\frac{1}{2}$ mm. black acid ink circles respectively. \*The position of one (1) of the recoverable topographic stations was determined by plotting from data submitted by the field inspection party. The positions of all other recoverable topographic stations and temporary hydrographic stations were radial plotted.

Chart Letter #  
470 (1943)





35 HYDROGRAPHIC CONTROL: (cont'd)

The numbers and descriptions of both types of stations have been shown on the overlay sheet.

The descriptions and geographic positions of the following eleven (11) recoverable topographic stations have been submitted on Form No. 524:

- \*Beacon, Witchmere Harbor Jetty
- No. 796 - Tank, Harwich Water
- No. 798 - Chimney, Center of first house
- No. 801 - Tank, white, water
- No. 811 - Chimney, center of large house
- No. 814 - Gable, outer, old red building
- No. 816 - S. E. Corner, yellow cottage
- No. 817 - Steeple, South Chatham Methodist Church
- No. 819 - Gable, outer, white cottage
- Tank, Water, Harwich
- Tank, water, Harwich Port

37 JUNCTIONS:

Map Drawing, Survey No. T-5739, West and South sides, junction in agreement except as follows:

At Latitude  $41^{\circ} 42' 00''$  and approximately Longitude  $70^{\circ} 06' 38''$ , same Latitude and approximately Longitude  $70^{\circ} 06' 45''$ , and same Latitude and approximately Longitude  $70^{\circ} 06' 52''$ , three separate roads are shown on T-5739 as double dashed line roads and on T-5738 as single dashed line roads. The field inspection party calls for single dashed line roads on Field Inspection Photograph G.S.F. 5-64.

At Latitude  $41^{\circ} 42' 00''$  and approximately Longitude  $70^{\circ} 07' 35''$ , same Latitude and approximately Longitude  $70^{\circ} 07' 42''$ , and same Latitude and approximately Longitude  $70^{\circ} 08' 28''$ , three separate roads are shown on T-5739 as double dashed line roads and on T-5738 as single dashed line roads. The field inspection party calls for single dashed line roads on field inspection photograph G.S.F. 5-62.

Map Drawing, Survey No. T-5736, East Side, -will be made when that map drawing is being detailed.

Upper West and North Sides - No contemporary surveys.

South Side - Atlantic Ocean

39 RECOMMENDATIONS FOR FUTURE SURVEYS:

This map drawing is believed to be complete in all details of importance for Charting and no additional surveys are recommended.

It is believed that the probable error in the positions of radial points and well-defined objects along the shoreline is not greater than 0.5mm. and the error in the positions of inland radial points and



39 RECOMMENDATIONS FOR FUTURE SURVEYS: (cont'd)

details of importance is not greater than 1.0mm.

43 COMPARISON WITH EXISTING U.S.C.&G.S. TOPOGRAPHIC SURVEYS:

Survey No. 402; surveyed by J. B. Glück, 1851, scale 1:10,000.

In general the planimetry was in poor agreement between the map drawing and Survey No. 402. It is recommended that the planimetry shown on the Map Drawing supersede that as shown on Survey No. 402.

44 COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

Yarmouth Quadrangle U.S.G.S., Scale 1:62,500, edition of September 1893, reprinted 1932.

Due to difference in scale between this map drawing and the above mentioned quadrangle, small planimetric details could not be readily compared. In general, however, planimetry common to both is in fair agreement except as follows:

At approximately Latitude  $41^{\circ} 43' 30''$  and Longitude  $70^{\circ} 03' 00''$  Greenland Pond is shown on this Map Drawing as a separate pond. On the quadrangle, it is joined with Smalls Pond to the southeast.

At approximately Latitude  $41^{\circ} 41' 30''$  and Longitude  $70^{\circ} 01' 40''$  two small marshy ponds are shown on this map drawing that do not appear on the above mentioned quadrangle.

At approximately Latitude  $41^{\circ} 41' 45''$  and Longitude  $70^{\circ} 01' 30''$  Youngs Ponds are shown on this map drawing as one pond. On the above mentioned quadrangle it appears as two separate ponds.

At approximately Latitude  $41^{\circ} 42' 40''$  and Longitude  $70^{\circ} 02' 50''$  between Eldridges Pond and Walkers Pond a single pond is shown on this Map Drawing. On the above mentioned quadrangle, this pond is shown as two separate ponds.

At approximately Latitude  $40^{\circ} 41' 20''$  and Longitude  $70^{\circ} 05' 00''$  a small pond is shown on this map drawing that does not appear on the above mentioned quadrangle.

At approximately Latitude  $40^{\circ} 43' 20''$  and Longitude  $70^{\circ} 06' 45''$  the area outline by a dashed green ink line appears on the above mentioned quadrangle as Tuckers Pond. This area is shown on this Map Drawing as a group of Cranberry Bogs.

45 COMPARISON WITH NAUTICAL CHARTS:

Chart No. 1208 U.S.C.&G.S., Scale 1:80,000, published November, 1936; reissued July, 1936, issued to this office May 17, 1940.



45 COMPARISON WITH NAUTICAL CHARTS: (cont'd)

Due to difference in scale between this Map Drawing and Chart No. 1208 (very little interior planimetry shown on this Chart), small planimetric details could not be readily compared. In general, however, planimetry common to both is in fair agreement.

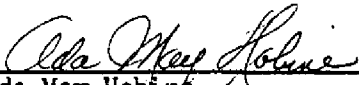
Chart No. 1209 U.S.C.&G.S., Scale 1:80,000; published April, 1941, issued to this office December 16, 1941.

Due to difference in scale between this Map Drawing and Chart No. 1209, small planimetric details could not be readily compared. In general, however, planimetry common to both is in fair agreement except as noted below.

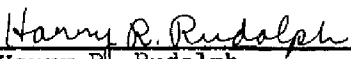
The beacon previously located at the entrance to Wychemere Harbor has been moved to the Southeast end of the new stone breakwater. The new position has been submitted on Form No. 567. The description and position has been submitted on Form No. 524.



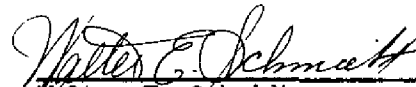
Respectfully submitted

  
\_\_\_\_\_  
Ada May Hobins  
Jr. Photogrammetric Aid


Compilation and Descriptive Report  
Reviewed by

  
\_\_\_\_\_  
Harry R. Rudolph  
Sr. Photogrammetric Aid

Supervised by

  
\_\_\_\_\_  
Walter E. Schmidt  
Asst. Photogrammetric Engineer

Approved and Forwarded  
July 17, 1943

  
\_\_\_\_\_  
Fred. L. Peacock  
Chief, Air Photographic Party No. 2



# LIST OF GEOGRAPHIC NAMES

## Undisputed

- |   |   |
|---|---|
| ✓ Andrews Pond                          | ✓ Long Pond                               |
| ✓ Bakers Pond (west of this sheet?)     | ✓ Muddy Creek                             |
| ✓ Black Pond (East of Seymour Pond)     | ✓ Paddocks Pond                           |
| <del>Bucks Pond</del>                   | ✓ Pine Pond (west of this sheet?)         |
| ✓ Cornelius Pond                        | ✓ Pleasant Lake (village)                 |
| ✓ Doanes Creek                          | ✓ Red River                               |
| ✓ East Harwich (village)                | ✓ Robbins Pond                            |
| ✓ Elbow Pond                            | ✓ Seymour Pond                            |
| ✓ Eldridge Pond                         | ✓ Skinequit Pond                          |
| ✓ Flax Pond                             | ✓ Slough Pond                             |
| ✓ Goose Pond                            | ✓ Smalls Pond                             |
| ✓ Grass Pond                            | ✓ South Chatham (village)                 |
| ✓ Greenland Pond                        | ✓ South Harwich (village)                 |
| ✓ Harwich (village)                     | ✓ Taylors Pond                            |
| ✓ Harwich Port (village)                | ✓ Walkers Pond (South of Long Pond)       |
| ✓ Hawks Nest Pond                       | ✓ Walkers Pond - lower part of Mill Ponds |
| ✓ Herring Creek River                   | ✓ White Pond                              |
| ✓ <del>Little Pond</del> Ministers Pond | ✓ Youngs Ponds                            |

add:

- ✓ Chatham Roads
- ✓ Nantucket Sound (U.S.A.)
- ✓ Cockle Cove
- ✓ Island Pond (near Harwich)
- ✓ Bucks Creek
- ✓ Grassy Pond (East of Long Pond)
- ✓ Cahoon Pond
- ✓ Mill Pond
- ✓ Black Pond (E. of Eldridge Pond)
- ✓ Duane Pond
- ✓ Harwich R.R. Station
- State No. 28, No. 24, No. 137

Hinecloys Pond

Names preceded by • are  
approved. 3/22/46.  
L.H.



LIST OF GEOGRAPHIC NAMES

Disputed

Allen's Harbor	Allen's Harbor	✓ Allen Harbor
✓ <u>Briar Pond</u> ✓	Briar's Pond	<u>Briars' Pond</u>
Briggs Pond	John Josephs Pond	✓ <u>Josephs Pond</u> ✓
✓ <u>Hinckleys Pond</u> ✓	Hinckley's Pond	Hinckley Pond
✓ Walkers Pond	✓ <u>Bucks Pond</u> ✓	
✓ <u>Wychmere Harbor</u> ✓	Witchmere Harbor	Salt Pond

Tuckers Pond - Called Tuckers Pond on Yarmouth Quadrangle U.S.G.S.,  
but area is now mostly Cranberry Bogs.

Names underlined in red approved  
by L. Heck on 3/22/46



## Division of Photogrammetry

### Review Report of

### Planimetric Survey, Manuscript T-5738

#### Radial Plot.-

The original radial plot for survey T-5738 was part of a combined plot laid in February 1939. Due to inadequate photograph coverage, the plot was rather weak. However, the compilation office was instructed to detail the shoreline and immediately adjacent culture as a base for a hydrographic survey.

In May 1942 a second radial plot was laid for this area using additional single lens photographs. This plot was entirely acceptable.

#### Detailing.-

Considerable difficulty was encountered in establishing detail points on the shoreline because the nine-lens photographs were taken July 16, 1938, prior to the 1938 hurricane, and the single lens photographs were taken after it, November 21, 1938. The mean-high water line was detailed in accordance with the field inspection data. The stone breakwater south of Wychmere Harbor was also detailed from the field inspection. It does not appear on any of the photographs. The position of the beacon at the southeast end of this breakwater should be considered approximate.

Most of the road classifications have been changed during the review of T-5738. The field inspection for the general area of Cape Cod seems to have classified 90 per cent of all the roads as poor or low class, whereas about 85 per cent of this amount shall be classed as good roads and the classifications have been corrected accordingly during this review.

#### Comparison with Contemporary Hydrographic Surveys.-

H-6472	1:10,000	1939
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The shoreline indicated in red ink on the map drawing for T-5738 was taken from H-6472.

#### Comparison with Previous Topographic Surveys.-

T-402	1:10,000	1851
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## NAUTICAL CHARTS BRANCH

SURVEY NO. T-5738

### Record of Application to Charts

[illegible]

M-2168.1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.