

5742

289
1997
68872
6622
2039

1207-2

5742

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey	Planimetric Air Photographic
Field No.	Office No. T-5742
LOCALITY	
State	Massachusetts
General locality	South Coast Cape Cod
Locality	Waquoit Bay and Vicinity
Nine-lens photos:	7/14/38
Single-lens photos:	11/21/38
	194 ²
CHIEF OF PARTY	
L. W. Swanson	
LIBRARY & ARCHIVES	
DATE	

B-1870-1 (11)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. T-5742

REGISTER NO.

State Mass.

General Locality Cape Cod

Locality Davis Neck to Succoneasset Point

Photographs:

Scale 1:10,000 Date of ~~survey~~ July 15 & November, 1938

Vessel Air Photographic Survey Party No. 2

Chief of party L. W. Swanson

FIELD INSPECTION*-A. L. Wardwell & E. B. Lewey

Surveyed by Radial Plot W. C. R. & W. E. S.

Shoreline I. M. Zaskind & J. Steinberg

Inked by Detail H. R. Rudolph

Heights in feet above - to ground to tops of trees

Contour, Approximate contour, Form line interval - feet

Instructions dated Project No. 227B-Dated 9/29/, 1938

Remarks: _____

Data Record T-5742

Photographs

Number	Date	Time	Scale	Alt.	Stage of Tides
5-44 to 5-48	11/21/38	11:06.5a.m.	1:10,000	Unknown	.90' above M.L.W.
5-98 5-101	"	11:49a.m.	"	"	.78' " "
5-102 5-105	"	11:56.5a.m.	"	"	.74' " "
2376 2381	7/14/38	11:31.5a.m.	"	"	.78' " "
2386 2388	"	11:38.5a.m.	"	"	.77' " "

Tide from predicted tables for Boston, Mass., with time and ratio of ranges correction to Menauhant, South Coast of Cape Cod, Mass. Mean range 1.9, spring range 2.3.

Camera: U. S. Coast & Geodetic nine lens (focal length $8\frac{1}{4}$ inches) and Geological Survey Single lens.

Supplementary Surveys

Topographic Sheet	) none available	Field Inspection	A. L. Wardwell
Graphic Control Sheets			11/38-12/15/38
Hydrographic Surveys			
Geographic Name Investigation		E. B. Lewey	E. B. Lewey
		A. L. Wardwell	July & August '41

General Information

Chief of Party.....L. W. Swanson.....Date Unknown
 Projection By.....Washington Office.....December 1938
 Projection Checked By....." " " " " " " "
 Control Plotted By....L.W. S. & J. S.....Jan. 6, '39 & Mar. 4, '42
 Control Checked By....WCR & JR.....
 Radial Plot By.....WCR & WES.....1/13/39 to 1/14/39
 Revised Radial Plot By...J. Steinberg.....April 1942
 Additional points by
 Radial points pricked by..WES & WCR.....
 Shoreline inked by.....J. Steinberg.....3/6/42 to 3/18/42
 Detail inked by.....HRR.....4/3/42 to 5/7/42
 Scale1:10,000.....No scale factor

Statistics

Area (land)*.....24 square statute miles
 Shoreline (more than 200 meters from the opposite shore) 26.5 statute miles
 Shoreline (less than 200 meters from the opposite shore) 6.5 statute miles
 Roads, Streets, Trails & Streams.....1910 statute miles
 Power Lines.....8.6 statute miles
 Time required for detailing shoreline.....20 working days
 Time required for redetailing shoreline.....10 working days
 Time required for detailing interior.....27 working days

Bowen, 1934 Reference Station

Latitude 41° 33' 00.730" (22.5 m) Datum: N.A. 1927
Longitude 70° 33' 07.564" (175.3 m)
Massachusetts System Plane Coordinates x = 859,478.09
Mainland Zone y = 201,933.93

DESCRIPTIVE REPORT
TO
ACCOMPANY
AIR PHOTOGRAPHIC SURVEY SHEET NO. T-5742
STATE OF MASSACHUSETTS
SOUTH COAST CAPE COD, MASS.
DAVIS NECK TO SUCCONNESSET POINT

Date of this report May 9, 1942

INSTRUCTIONS

This map drawing is a part of project 227 B, the instructions for which are dated September 29, 1938.

FIELD INSPECTION

The field inspection for this sheet was made by A. L. Wardwell during November and December, 1938 and by Lieut. E. B. Lewey during July and August, 1941.

The geographic name investigation was made by Lieut. E. B. Lewey during July and August, 1941.

PHOTOGRAPHS

The photographs on this sheet were taken by the U. S. Coast & Geodetic Survey Nine Lens Camera and supplemented by single lens Geological Survey photographs.

CONTROL

The control used on this map drawing consists of 4 U. S. C. & G. S. triangulation stations and 8 M. G. S. Traverse stations which fall within the detail limits and are listed as follows.

U.S. C. & G. S.

TRIANGULATION STATIONS

Coonamessett, 1934
Bowen, 1934
East Falmouth Methodist
Church Tower, 1934
Waquoit Congregational Church
Spire, 1888, 1933, 1934

M.G.S. TRAVERSE STATIONS

Falmouth, Mashpee,
Sandwich Town Corner
104C M28RF
104D M28SJ
114E ✓ M28TM ✓

Radial Plot

The original radial plot for this sheet was run in conjunction with sheets T-5740 and T-5741 by the usual template method. A fairly satisfactory plot was obtained with the control available at the time.

Prior to detailing this map drawing, a revised Radial plot was run using additional control stations at the Mass. Geodetic Survey and 3 flights of single lens photographs.

The photographs on this map drawing are fixed by existing triangulation plotted from computed positions. The Mass. Geodetic Survey stations were plotted directly on this map from computed positions of the established grid system. Each photograph was laid separately so that the radial lines through the control on the photographs resected as nearly as was possible the triangulation as plotted on the map drawing. The center of the photograph was then pricked on the map drawing and is indicated by double blue circles.

Map drawing T-5743 was joined to sheet T-5742, and using all the control on photo 2386 not covered by map drawing T-5742, a strong fix for this photograph was obtained. Several radial points common to both map drawings were established while the sheets were joined together.

Due to errors in matching of the outer chambers of some of the nine lens photographs, radial intersections were obtained by orienting the chamber found to be in error to the Triangulation or other control within it.

Hydrographic Signals

A number of natural objects have been located on this map drawing for the use as Hydrographic Signals. These objects have been located from the field inspection photographs and are marked on the map drawing by black circles 1.5 mm. in diameter.

Recoverable Topographic Stations

One recoverable topographic station, shown by 2.5mm diameter black circle, appears on this map drawing, and is listed on form 524 in the appendix.

Detail

Trails were detailed according to the field inspector's notes, as shown on the field inspection photographs. They are shown as follows by a single dashed line and are labeled "S. D. L.". Only center lines are shown.

Roads were detailed according to the field inspector's notes on the field inspection photographs. They are shown as follows:

Roads that are maintained, drained, and kept open to the public the year around, by the state or county regardless of the road surface have been labeled in this map drawing as "D. F. L." (double full line)

All private roads, which are not available for use by the public, have been labeled on this map drawing as "D. D. L." (double dashed line)

Only the center lines have been shown except at a few

Only the center lines have been shown except at a few intersections or in villages which have a street system.

All roads should be drawn 6 meters wide except a few noted otherwise in the Village of Menauhant.

Power lines have been shown as designated on the field inspection photographs. Parts of power line in North West Section were drawn entirely from field inspection and Cape and Vineyard Electric Co. maps. They are shown by the conventional symbol and are labeled "Power Line".

All Buildings are believed to have been shown except some in the village with street system and those under 6 meters in both width and length when in a larger group of buildings. A new building not shown on photographs but shown by field inspection notes is shown North of Round pond.

Wooded areas have been outlined by standard symbols and labeled.

Streams and ditches have been shown by solid lines when location is known and by dashed lines when some doubt exists. All streams were checked by use of stereoscope and properly labeled.

Cranberry bogs designated by many ditches and labeled either "Cranberry Bog" or "C. B."

Marsh areas are shown by the standard symbol.

Shoal lines on East side of Waquoit Bay are shown by light dashed line.

Fences are shown by standard symbol.

Comparison with Previous Surveys

T-6624 The following change has occurred between the present Map drawing and T-6624:

At Latitude $41^{\circ}33'$ and longitude $70^{\circ}32.4'$, the narrow neck that formerly closed the entrance to Eel Pond has eroded away and there is now an opening into Eel Pond about eighty meters in width.

T-1997 At latitude $41^{\circ}33.8'$ and longitude $70^{\circ}34'$ the shoreline has moved Northward about 20 meters.

T-2039 In general, the shoreling on this map drawing is in fair agreement with T-2039. Some roads have been added but roads shown on this map drawing and T-2039 are in fair agreement.

At latitude $41^{\circ}34.9'$ and longitude $70^{\circ}30.5'$, the swamp as shown on T-2039 now seems to be brush.

Due to the difference of scale, a real good comparison of T-2039 and the present map was impossible.

Comparison with chart No. 1209 (corrected to August 1939)

Within the limits of this chart, the notes under "Comparison with Previous Surveys" for T-6624 agrees. Landmark at Latitude $41^{\circ}34'$ 243.6m and Longitude $70^{\circ}31'$ 842.8m should be added

Functions:

Note (On the East-T-5741 matches with this map drawing in all detail except at Latitude $40^{\circ}38.5'$ and Longitude $70^{\circ}29'$ where the Cranberry bog should be detailed on T-5741 as shown on this map drawing.

On the West and North Map drawings have not been completed, so no comparison can be made except a shore line at Latitude $41^{\circ}35'$ and Longitude $70^{\circ}35'$ which agrees with the map drawing.

Geographic Names

The geographic names shown on this map drawing are listed on form 567 in the appendix. This landmark is also shown as a recoverable topographic station.

Bridges: For information regarding bridges, see overlay sheet.

RECOMMENDATIONS FOR FUTURE SURVEYS

From latitude $41^{\circ}37'$ to latitude $41^{\circ}38.5'$ and longitude $70^{\circ}32'$ to longitude $70^{\circ}54'$ very few three point intersections could be made for the benefit of this map drawing and the adjoining ones in that vicinity it would have been better had there been a greater overlap of photographs.

The probable error of radial points and of well defined objects along the shoreling is not greater than 0.5mm and the error of inland radial points and detail of importance is not greater than 1.0mm with the exception of the area mentioned above and the power lines and a road plotted from field inspection and Cape Vineyard Electric Co. maps.

There may also be errors in plotting power lines from latitude $41^{\circ}36.7'$ and longitude $70^{\circ}30.5'$ to latitude $41^{\circ}37.2'$ and longitude $70^{\circ}29.5'$ and also from latitude $41^{\circ}37'$ and longitude $70^{\circ}33.3'$ to latitude $41^{\circ}36.1'$ and longitude $70^{\circ}34'$ due to the fact that in both cases the right of way of the power line was very indistinct on all photographs.

In several areas it was necessary to detail from outer chambers of Nine Lens photographs due to poor single lens photographs or not enough overlap of flight lines.

Respectfully submitted

5/16/42
Forewarded Approved

L. W. Swanson
L. W. Swanson
Chief of Party

H. Ray Rudolph
H. Ray Rudolph
Sr. Photogrammetric Aid

Joseph Steinberg
Principal Photogrammetric Aid (Field)

Note: Said mark for Chart is attached & has been submitted according to request. (Chart letter 258-942)

GEOGRAPHIC NAMES

Survey No. T-5742

(See Geographic Name Sheet Nos. 7 & 8)

Name on Survey	A. On Chart No. 1209	B. On previous survey No. 1209	C. On U. S. quadrangle No. 1209 R. 1.	D. Maps From local information	E. F. Falmouth On local maps Barnstable	F. P. O. Guide or Map	G. Rand McNally Atlas	H. 604 Prev. Survey 1948 List	I. M-1300
<u>Bowen Pond</u>				8					1
(Bowen's Pond)		2,3, 6,14				*	*		2
(Bowen Pond)	*		*					*	3
(Bournes Pond)		16		6,14	*				4
<u>Bourne Pond</u>			*	14					5
(Bourne's Pond)					*				6
<u>Bog Pond</u>			*						7
<u>Caleb Pond</u>			*	14					8
(Caleb's Pond)					*				9
<u>Childs River</u>		2,3, 16	*	14	*	*	*		10
Granberry Bogs			*	Several of these N. of E. Falmouth					11
<u>Davisville</u>	*	2,3,6 14	*	14	*				12
<u>Dead Neck</u>			*						13
<u>Sage Lot Pond</u>			*						14
(Flat Pond)		2,3,		another Flat Pond 3/4 to east.					15
<u>Davis Neck</u>	*		*					*	16
<u>Eel Pond</u>		2,3,6 14,16	*	14	*		*		17
<u>East Falmouth</u>	*	1,2, 3,4,	*	14	*	*	*		18
<u>Fresh Pond</u>		16	*	14	*	(near Small Pond)			19
<u>Flat Pond</u>			*	13	(near cone H)				20
<u>Fresh Pond</u>				13					21
<u>Little Flat Pond</u>			*						22
<u>Succomessett Pt</u>			*						23
<u>Great River</u>	*		*					*	24
<u>Grassy Pond</u>			*						25
<u>Great Neck</u>				11					26
<u>Hamblin Pond</u>	*	13,16	*	13,14	*			*	27

GEOGRAPHIC NAMES

Survey No. T-5742

(See Geographic Name Sheet Nos. 7 & 8)

Name on Survey

	A	B	C	D	E	F	G	H	K	M-1300
✓ Hatchville			*	1,2,3, 5,4, 16	*	*				1
Israels Cove										2
✓ Israels Cove				14	*					3
✓ *Jenkins Pond			*	There are two of these in the Vicinity						
✓ Johns Pond		2,3,7		8		*	*	USGB decision		
(Johns Pond)			*							6
(John's Pond)				13						7
✓ John Pond Jehews Pond				13			USGB decision			8
(Jehew Pond)	*									9
(Jehew's Pond)								*		10
(John Pond)				8						11
(John Pond)			*							12
✓ Little River			*							13
✓ Menauhant		2,3.	*	14	*					14
✓ Moromoosoy Id.		2,3,13								15
✓ Moonakiss River		2,3 16		14	*	Lower part of Quashnet river called Moonakiss Part of Quashnet R for USGB decision				
✓ Martha Pond			*							17
✓ Mashpee River	*	*	*	13			*			18
✓ Moody Pond			*	13						19
(Moody's Pond)									*	20
✓ Mill Pond		1,4 16	*	14	*					21
Not on 5742 ✓ Ockway Bay			*	11	-T-5741			*		22
✓ Pine Tree Corner			*							23
✓ Quashnet River	*		*							24
(Quashnet)							*			25
✓ Red Brook		2,3	*	14	Fa					26
(Red Brook River)				13						27

GEOGRAPHIC NAMES

Survey No. T5742

(See Geographic Name Sheet Nos. 7 & 8)

Name on Survey

	A	B	C	D	E	F	G	H	I	J	K	L
	On Chart No. 1209	On previous survey	Not 1999 P.I.	On U. S. quadrangle Maps	From local information	From local maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Coast Survey	U. S. Light List	M-1300	
✓ <u>Round Pond</u>		7, 16	*	There are two Round Ponds in the vicinity					*		1	
<u>Seapit River</u>		16			*						2	
✓ <u>(Seapit River)</u>			*	14							3	
✓ <u>Seconsett Island</u>		2, 3, 13		14							4	
✓ <u>Seconsett</u>				15	*						5	
Not on 5742 → <u>South Mashpee</u>			*								6	
<u>Salt Pond</u> omit				13							7	
✓ <u>Succonesset Pt.</u>	*										8	
✓ <u>Smiltown</u>			*								9	
✓ <u>Tim Pond</u>		*									10	
✓ <u>Waquoit Village</u>		2, 3	*	14				*			11	
<u>(Waquoit)</u>	*				*	*					12	
✓ <u>Wills Pond</u>				13							13	
✓ <u>Whitcomb Swamp</u>			*								14	
Not on 5742 → <u>Wells Pond</u>				13							15	
<u>(Jim Pond)</u>			*								16	
✓ <u>Coonemossett Pond</u>	*	1, 2, 3, 4, 5, 16	*		*		*		*		17	
✓ <u>Flashy Pond</u>		16		15	*						18	
✓ <u>Waquoit Bay</u>	*	2, 3, 6		13, 14	*	*	*				19	
✓ <u>Ashumet Pond</u>		2, 3, 7, 16	*	13, 14	*	*	*		*		20	
✓ <u>Green Pond</u>	*	2, 3, 4, 6, 14	*	14	*	*	*	*			21	
NOTE: NAMES IN PARENTHESIS NOT RECOMMENDED											22	
<u>State LR, 130</u>											23	
✓ <u>VINEYARD SOUND</u>											24	
Names underlined in red approved by L. Heck on 2/27/46											25	
											26	
											27	

Division of Photogrammetry

Review of Planimetric Map T-5742

Photographs were taken in 1938 and the compilation completed in the Baltimore Office in 1942. The Washington Office processing was delayed because of the war map work of the Bureau and was not completed until 1947.

The chronology of work on this map is not clear in the descriptive report and is summarized briefly as follows:

Nine-lens photographs in July 1938.

A severe hurricane in the area in September 1938.

Single-lens photography of the Geological Survey in November 1938.

Graphic control survey (including high water line) T-6624 from Long. $70^{\circ}32'$ westward made in August 1938.

Partial field inspection in November-December 1938.

Addition of field inspection in July-August 1941.

Planetable topographic survey T-6887a, including shoreline, extending from Long. $70^{\circ}28'30''$ to Long. $70^{\circ}33'30''$ made in May 1942.

Hydrographic survey H-6468, 1:10,000, 1942.

Field Inspection and Detailing.

These were generally ^{adequate}/. A few changes were necessary during the review and are shown in red on the manuscript. These include the addition of buildings and vegetation symbols.

Mean High Water Line.

The mean high water line was compiled from the single-lens photographs taken after the hurricane in November 1938, with field inspection notes to August 1941. The high water line is approximately as it existed in ~~1941~~-(August.)

Comparison with Contemporary Planetable Surveys.

Graphic control survey T-6624 was made before the hurricane and the shoreline details differ somewhat from this manuscript (T-5742). The graphic control survey, therefore, has not been applied to the manuscript T-5742.

Planetable survey 6887a shows the shoreline as it existed approximately a year later than this manuscript, T-5742. Some changes have occurred in shoreline details on 6887a which are somewhat different than on this manuscript, T-5742.

Comparison with Hydrographic Surveys.

H-6468 1:10,000 1942

Shoreline on the hydrographic sheet was taken from the more recent graphic control survey T-6887a and differs in some particulars from this manuscript, T-5742.

Comparison with Previous Surveys.

2 T-5742 supersedes those sections of the following order surveys which it covers:

T-289	1:10,000	1846
T-1997	1:10,000	1890
T 2039	1:20,000	

Comparison with Nautical Charts.

T-5742 was applied to charts 259 and 1209 prior to this review. Changes made during the review are not of consequence to the charts, with the possible exception of buildings added near the shore. These are shown in red on the manuscript.

Bridge Data.

The following bridge clearances were supplied by field inspection:

1. Bowen Pond, Mass., Fixed bridge, 8 spans,
Horizontal Cl. 16' and Vertical Cl. 4.0 H.W.
2. Childs River, Mass., Fixed bridge, 1 span,
Horizontal Cl. 23.5' and Vertical Cl. 5.5 H.W.

3. Moonakiss River, Mass., Fixed bridge, 1 span,
Horizontal Cl. 21.4 and Vertical Cl. 6.4 H.W.

Reviewed under direction of D. H. Benson, 1945.

This report prepared from reviewer's notes by B. G.
Jones, May 1947.

APPROVED BY:

B. G. Jones 5/47
Technical Assistant to the
Chief, Div. of Photogrammetry

J. E. Butterling
Chief, Nautical Chart Br.
Division of Charts

K. T. Adams
Chief, Div. of Photogrammetry

C. K. Green
Chief, Div. of Coastal Surveys

Applied to chart 1209 - Aug 1941 - J.V.D.B.

Applied to chart 259 (Before review) Sept 4, 1943 - JFW

Reconnection to 1209 after review Plegman 8/21/50

No. Conn. to 259. Superseded by. T-12495

No. Conn. to 1209 superseded by - T-12495 & later

Photo revision O.C. 98. 9-21-73