

5603

Diag. Cht. No. 1210-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Topographic*

Field No. *3* Office No. *5603*

LOCALITY

State *Massachusetts*

General locality *Westport River*

Locality *East Branch &*

*Vicinity*

1936

CHIEF OF PARTY

*Thomas B. Reed*

LIBRARY & ARCHIVES

DATE *August 14, 1936*

6-1870-1 (11)++

5603

56003

56003

Form 504  
Rev. Dec. 1933

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY  
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Photo  
Topographic } Sheet No. 56003  
~~Hydrographic~~ } Field No. 3.

---

State Massachusetts

LOCALITY

East Branch of Westport River, East Branch  
~~and Vicinity. ok~~ and Vicinity

---

1934

CHIEF OF PARTY

Thos. B. Reed

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

REG. NO.

AIR PHOTO  
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. 3 **T56003**

REGISTER NO.

State Massachusetts

General locality Westport

Locality Eastern Branch of Westport River <sup>E. Branch</sup> and Vicinity

Scale 1:10,000 Date of Photos November 15, 1934  
Compilation May, 1936

~~Vessel~~ Photos by Army Air Corps.  
Compilation by Field party No. 16.

Chief of party Thos. B. Reed

Surveyed by See data in Descriptive Report.

Inked by Thos. B. Reed

Heights in feet above ----- to ground to tops of trees

Contour, No contours. Approximate contour, Form line interval ----- feet

Instructions dated September 28, 1935

Remarks: Compiled on a scale of 1:10,000.

*\* Blueprint out on scale 1:10,000*

## PHOTO TOPOGRAPHIC SHEET NO. 3.

REGISTER NO. -----

PHOTOS NO.	DATE	TIME
M-318 to M-328 incl.	Nov. 15, 1934	11:40 AM
M-355 to M-366 "	Nov. 15, 1934	11:50 AM

Projection by Projection machine in Washington Office, Feb. 1936.

Triangulation and Traverse  
Stations plotted by M. H. Reese and R. S. Poor Feb. - May, 1936.Triangulation and Traverse  
Stations checked by Thos. B. Reed Feb. - May, 1936.Topographic Stations transferred  
from plane table sheets by Washington Office Feb. 1936.

Smooth Radial Plot by Thos. B. Reed and R. S. Poor Feb. - April, 1936.

Detail Inked by Thos. B. Reed March-May, 1936.

*field inspection in Nov - Dec. 1935*

## Statistics:

Area of detail inked (land area)	19.4 sq. statute miles.
Length of shore line (more than 200 meters from nearest opposite shore)	31.0 statute miles.
Length of shoreline (streams less than 200 meters wide)	6.0 statute miles.

Datum: North American, 1927, ~~adjusted~~ UnadjustedStation: DARTMOUTH 2, 1934 Lat.  $41^{\circ} 34' 11.066''$  (341.4 m.)  
Long.  $71^{\circ} 01' 47.620''$  (1104.4 m.)*Triangulation in process of readjustment  
and values from first adjustment not final*

Ref. Sta. -

$X = 728,647.11$ FT.	} Mass. Grid.
$Y = 207,966.03$ FT.	

DESCRIPTIVE REPORT  
to accompany

Photo Topographic Sheet No. T- \_\_\_\_\_  
Field No. 3.  
East Branch of Westport River and Vicinity, Mass.

Thos. B. Reed, Chief of Party.

DATE OF INSTRUCTIONS: Letter dated Sept. 28, 1935, No. 22-AA 1990 (16)

DATE OF SURVEY: Nov. 15, 1934, with revision by Field  
Inspection Party Nov. 1935 to Feb. 1936.

GENERAL INFORMATION:

Photographs: This sheet was compiled from parts of two flights of 1:10,000 scale five lens aerial photographs taken by the Army Air Corps on Nov. 15, 1934 with Model T3A Camera No. AC31-78-A. The flights were designated 886-14 and the photographs of the lower flight were numbered M-318 to M-328 (numbers increasing from west to east); the photographs of the upper flight were numbered M-355 to M-366 (numbers increasing from east to west). The camera had a focal length of six inches and the photographs were taken from a height of approximately 5,000 feet. The stage of the tide when the photographs were taken was 1.7 feet (computed from Tide Tables).

General Description: This sheet comprises the coast line in the vicinity of, and the area to the northward of Gooseberry Neck and includes the Eastern Branch of the Westport River.

This region is entirely rural and consists of a large number of small farms and several small rural villages. Practically the entire area, except along the outer coast, is heavily wooded, except where the land has been cleared for farm land or pasture. There is a considerable amount of poultry raising in this area, which accounts for the large number of small buildings on some of the farms, particularly to the northwestward of Allens Pond. Horse Neck Beach is a summer resort of considerable size, and Westport Point is the most important town in this area.

The beach is mostly sand or gravel except around Gooseberry Neck and to the eastward where there are off-lying rocks and a few rocky ledges as shown on the sheet. The area along the outer coast is low, except that there are large sand dunes or ridges as shown along Horse Neck Beach. The interior area is hilly and rolling with several elevations of over 100 feet.

The interior area is drained by a number of small brooks, the position of some of which could not be obtained from the photographs due to the heavy woods and brush. Such as could not be seen on the photographs were shown in their approximate positions by dashed lines.

CONTROL:

Sources: 2nd and 3rd order triangulation by W. D. Patterson, 1934. Station RED ROOFED HOUSE was obtained from Publication No. 169, "Triangulation in Mass." and the position corrected to 1927 datum.

2nd order traverse by Works Progress Administration of Massachusetts, 1936. (*Stations computed on N.A. 1927 Datum by Field Party No. 16*).

Topographic stations established by plane table by party of W. D. Patterson, in 1934.

Errors: No errors were found in triangulation or traverse stations. Errors in topographic stations are discussed in detail under the heading "Comparison with Plane Table Sheets Nos. T-6119, 6120 and 6121" in this report.

Other sources of control: No control, other than that mentioned above, was used in the compilation of this sheet.

COMPILATION:

Method: The usual five-lens radial line method of plotting was used in the compilation of this sheet. In general, there were sufficient triangulation and traverse stations on the sheet to control the plot without the use of topographic stations established in 1934 by plane table. The positions of most of the topographic stations were checked by radial plot. In making the radial plot, Sheets 2 and 4 were attached to the sides of this sheet and the plot of both flights was continued across the three sheets.

Adjustments of plot: No unusual adjustments of the plot were necessary.

INTERPRETATION:

In general, no difficulty was experienced in interpreting the detail from the photographs, except in the wooded areas where minor details such as fences, small brooks, small cottages, trails, etc. were obscured by the trees. However it is believed that no detail of any importance has been omitted due to being obscured by woods. Fences in this area are made largely of stone and show clearly on the photographs, except where obscured by woods.

The interpretation of the high and low water line will be discussed in the comparison with the plane table sheets in this area. The large number of small ditches in the marshy areas are "Mosquito Control Ditches" and all were drawn on the sheet that could be seen on the photographs. The outlines of the large sand dunes at Horse Neck Beach were picked under the stereoscope.

The stereoscope was used, in general, for defining buildings. However the shape and size of some buildings on the sheet

may be slightly in error due to being partly obscured by trees or hard to pick on the wing prints. This is particularly true in the area along the junction of the two flights, where an insufficient overlap was obtained to clearly show all detail.

In Lat.  $41^{\circ} 33.7'$ , Long.  $71^{\circ} 03.1'$  a new section of road has been constructed to eliminate curves in the old road. Construction work on this cut-off had been begun when the photographs were taken and is completed at this time.

#### CONVENTIONAL TOPOGRAPHIC SYMBOLS:

Only graphic symbols, approved by the Board of Surveys and Maps were used, except as follows:

A small wavy line symbol was used for brush. *not good. to be called to attention of chief of party*

A small hatchure symbol was used to outline the large sand ridges at Horse Neck Beach instead of the conventional sand dune symbol. Most of these ridges are covered with small pine trees and other vegetation.

All cultivated fields were left blank to avoid a too congested appearance on the sheet; otherwise all areas were filled in with conventional symbols.

First class roads were shown by a full double line and private or less important roads by a broken double line. Very poor roads or trails were indicated by a single dashed line. Fences were indicated by lines of short dashes.

The boundaries of shoal water areas which could be seen on the photographs were shown by dashed lines with blue ink. If it is desired that these shoal water areas be shown on the completed sheet they should be compared with the hydrographic sheets of this area before inking over with black ink. (No copies of the hydrographic sheets are available in this office).

*Hix Bridge - H.W. clear 3.5 ft*

#### INFORMATION FROM OTHER SOURCES:

Data on the two bridges on the sheet were obtained from the U. S. Engineers and checked by the Field Inspection party.

Two maps of the towns of Dartmouth and Westport are forwarded herewith. These were used only in obtaining names of roads, and were the only local maps obtainable in that locality.

#### GEOGRAPHIC NAMES:

Names of Geographic Features were obtained from U. S. C. & G. S. charts and plane table sheets and were verified by the field inspection party from local residents. Names of roads were obtained from the town maps of Westport and Dartmouth and also from road signs on the various roads throughout the area.

New Names: "The Let" Name obtained from Irving C. Hammond, Chief of Westport Fire Department, *also other local residents.*

"Little Beach" Name obtained by

field inspection party from local residents at the beach.

The name "Cadman's Neck" which appears on Sheet No. T-6120 was checked with local residents by the field inspection party.

Conflicting Names: There are no conflicting names in this area.

COMPARISON WITH OTHER SURVEYS:

Junctions: This sheet makes satisfactory junctions on the west with photo-compilation No. 2, and on the east with photo-compilation No. 4.

Comparison with Plane Table Sheet No. T-6119 <sup>Aug.</sup> (1934),

Topographic Stations: The following stations were picked on the prints by the field inspection party and the location by radial plot checked the plane table position: DIP, RAC, DAM, KIN, INK, HAT, AGE, TOE, STA, PAT, BED, PEN, and ICE. All of the above were shown on the compilation with the exception of station DIP which was not considered a permanent structure. Stations TAL<sup>M</sup> and TAP were shown on the compilation but could not be checked by radial plot.

The following stations were not shown on the compilation: BAR (this barn has been torn down and a new garage erected at this place). ~~YEL~~ (Found, by radial plot, to be located 10 meters in error on the plane table sheet. ~~MIT~~ (not spotted on photos). DAD (pole gone). LID (pole gone) OAT (not permanent) <sup>YEL shown in radial plot position. MIT transferred from T-6119</sup>

High and Low Water Lines: The high water line along the sand beach of the outside shore line was drawn as shown on the plane table sheet unless it was found by the field inspection party to have changed since the date of the plane table survey. All high water line in inside waters was taken from the photographs and a considerable difference was found in many places with the shore line shown on the plane table sheet. Low water line from the plane table survey was shown on the compilation unless it was obvious from the photographs that it differed from that obtained by plane table.

Off-lying Rocks: The off-lying rock, shown on T-6119 as bare 1 foot at high water in Lat.  $41^{\circ} 30'$ , Long.  $71^{\circ} 01.8'$  does not exist. About 90 meters to the eastward there is a rock awash 1 foot at low water which was evidently located incorrectly on the plane table sheet. This rock awash was located both by radial plot on the compilation and by three sextant cuts from shore and both positions checked exactly. Points from which sextant cuts were taken are shown on Field Print No. 323 C. The area to the westward, in which the rock was shown on the plane table sheet, was inspected at low tide and no other rock existed in the locality. The "rock (1')" shown on Sheet No. T-6119 should therefore be deleted. <sup>T-5600<sup>3</sup> accepted.</sup>

(Angles of above sextant cuts are recorded in Sketch Book Labeled "Traverse Stations for Control of Air Photos in vicinity of Dartmouth, Mass.") Not received in office 7/24/36



All rocks, shown on Sheet T-6119, outside the high water line in the vicinity of Gooseberry Neck were shown on the compilation. Most of these could be verified from the photos, although this area is so far out on the wing prints that the detail is rather indistinct. The two rocks awash, located 250 and 450 meters N N E of triangulation station GOOSEBERRY NECK 2 are not shown on T-6119, but were shown on the projection when received from the office, probably having been located on the hydrographic sheet. These two rocks show as dark spots on some of the photographs. A rock awash in Lat.  $41^{\circ} 29.3'$  Long.  $71^{\circ} 02.4'$  was located by radial plot. The shoal rocky area shown on T-6119 extending south eastward from the outer end of Gooseberry Neck was enlarged on the outer end from the photographs. The detail was very indistinct in this locality, however, for accurate compilation.

Two Mile Rock was not visited by the field inspection party and the beacon was not located on the photographs. The rock was located by radial plot and the detail drawn in as well as could be ascertained from the photographs. The high water line differs considerably however from that shown on the plane table sheet and if the rock was actually rodded in or sketched in from a position on the rock instead of plane table cuts from shore, it is recommended that the high water line from the plane table or hydrographic sheet be charted instead of that shown on the compilation.

Sept.

Comparison with Plane Table Sheet No. T-6120 (1934):

Topographic Stations: The following stations were picked on the prints by the field inspection party and the location by radial plot checked the plane table position: MAR, RET, RUE, ROW, WHO, MAN, CAD, RAT, RIG, HIM, FIX, HUM, GUY, FEW, FUN, FIG, CAP, and CAB. All of the above were shown on the compilation.

The following stations were not shown on the compilation: RUT (was not spotted on photos or checked by radial plot). HOE (found to be 4 meters in error on T-6120, by radial plot). GYP (found to be 5 meters in error on T-6120, by radial plot). CAR (was not spotted on photos). CAN (there is no barn in this locality at present) CAT (found 6 meters in error by radial plot, may not be the same shack)

High Water Line: All high water line was taken from the photographs and a considerable discrepancy was found in many places with the shore line from the plane table sheet. The plane table shore line was drawn on the compilation in blue ink before tracing shore line from the photographs and in all cases its position was given consideration before drawing in the high water line.

Sept-Oct.

Comparison with Plane Table Sheet No. T-6121 (1934):

Topographic Stations: Stations GUL, LIP, BEE, FIG, and NYE were picked on the prints by the field inspection party and the location by radial plot checked the plane table positions. These five stations were shown on the compilation. The location, by radial plot of topographic stations PIL and PET did not check the plane table positions by 14 meters on PIL and

4 meters on PET. Cuts were obtained from 6 photographs on each station and all cuts passed through a point in each case. As these two topographic stations are within 300 meters of triangulation station ALMY 2, and there might have been a slight error due to not picking the exact part of the building on the photographs, the positions obtained by radial plot were not shown as recoverable stations on the compilation.

*Plane table position  
for O PET accepted.*

High and Low Water Lines: The high water line was drawn as shown on the plane table sheet unless it was found by the field inspection party to have changed since the date of the plane table survey. The high water line around the rocky point at Topographic station CAR was found to be several meters different than that shown on the plane table sheet, as the rocky reef off this point is covered at high tide. Unless it was obvious from the photographs that the low water line was different from the plane table survey, that obtained by the plane table survey was shown on the compilation.

Off-lying Rocks: Black Rocks were found to differ considerably from that shown on the plane table sheet. It is thought probable that these rocks were cut in from shore by the topographer and that the exact configuration could not be obtained. Two additional sunken rocks were obtained from the photographs. *One of these sunken rocks were located by H-5630 Add. Work and is shown as a rock awash.*

About 30 meters outside the low water line off the point on which topographic station PIG is located, two rocks awash were shown in blue ink on the projection when it was obtained from the office. These two rocks do not appear on sheet No. T-6121 and it is not known from what source they were obtained. No evidence of rocks in this position could be obtained from any of the photos, and unless the rocks are very small they are believed not to exist as the photographs were taken at a low stage of the tide and show most of the rocks in the vicinity. These two rock awash symbols were left on the compilation in blue ink. *Disposed of in H-5630 Add. Work*

Extending off this point for about 500 meters in a south easterly direction there is a fish trap, supported by a line of buoys and attached to larger buoys at the outer end. This trap is located approximately in the same position each year from about April 15 to December 25. This trap was not shown on the compilation. *Note "Fish Net" on H-5630.*

#### LANDMARKS:

A List of Landmarks for Charts of this area was submitted by Lieut. W. D. Patterson in connection with hydrographic surveys in 1934 and 1935. No additional landmarks have been established since that time.

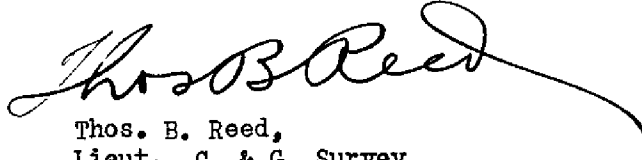
*H. 5322  
28  
29  
30*

#### RECOMMENDATION FOR FURTHER SURVEYS:

This compilation is believed to have a probable error of not more than 3 meters in position of well defined detail of importance for charting purposes and of 5 meters for other data.

To the best of my knowledge this compilation is complete in all detail of importance for charting purposes within the accuracy stated above, and as mentioned in the foregoing report, and no further surveys are required.

Respectfully submitted,

A handwritten signature in cursive script that reads "Thos. B. Reed". The signature is written in black ink and has a long, sweeping tail that extends to the right.

Thos. B. Reed,  
Lieut., C. & G. Survey,  
Chief of Field Party No. 16.

5  
T 560<sup>3</sup>X

Remarks

Decisions

	Remarks	Decisions
1		
2	Present policy would favor combining: <u>not</u> Two Mile.	<u>Two mile</u>
3		
4		
5		
6		
7		
8		
9		
10	THE name of the widened extension of Horse Neck Chan. where it fails to enter the sea	<u>THE LET</u>
11		
12	1210 has Allen Pond: but it had been corrected in red.	<u>ALLENS</u>
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27	advise retain Black Rk. instead of Black Rock, to conform with chart	<u>Black Rk.</u>

GEOGRAPHIC NAMES

Survey No. T 560 ~~23~~

Name on Survey	On Chart 1210 No. <del>1210</del>		On previous survey No. T 6119		On U. S. quadrangle Maps T 6120		From local information		On local Maps		P. O. Guide of Map		Rand McNally Atlas		U. S. Coast and Geodetic Survey List		T 5600
	A	B	C	D	E	F	G	H	K								
<u>S.W. Rock</u>	*				-												1
<u>Twomile Rock</u>	*				-												2
<u>Gooseberry Neck</u>	*	✓			-	-											3
<u>Bar Rock</u>	*	✓			-	-											4
<u>East Horse Neck Beach</u> <sup>alt 1/10</sup>					-											*	5
<u>Horse Neck Channel</u>		✓			-		-					✓				*	6
<u>John Reed Road</u>					-	-										*	7
<u>West Beach Road</u>					-	-										*	8
<u>Horse Neck Beach</u>	*	✓	✓		✓		✓		✓	-							9
<u>The Let</u>					-	-										*	10
<u>Horse Neck Road</u>					-	-										*	11
<u>Allens Pond</u>	*			✓	-					-							12
<u>Little Beach</u>					-											*	13
<u>Westport Point</u>	*	✓	✓	✓	✓	✓			✓		✓		-				14
<u>Drift Road</u>					-											*	15
<u>Westport River, E. Branch</u>	*	✓	✓	✓	-					-			✓				16
<u>Great Island</u>	*		✓	✓	-												17
<u>Division Road</u>					-	-										*	18
<u>Cadmans Neck</u>		✓			-	-										*	19
<u>Woodcock Road</u>					-	-										*	20
<u>Fisher Road</u>					-	-										*	21
<u>Slades Corner Road</u>					-	-										*	22
<u>East Beach Road</u> <sup>alt 1/16</sup>					-	-										*	23
<u>South Westport</u>				✓	-	-				-						*	24
<u>Old Pine Hill Road</u>					-	-										*	25
<u>New Pine Hill Road</u>					-	-										*	26
<u>Hix Bridge Road</u>					-	-										*	27
<u>Black Rk.</u>	*				-	-										*	

Name underlined in red approved  
 by *[Signature]*  
 11/6/36

Remarks

Decisions

	Remarks	Decisions
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		U.S. G.B.
19		
20		
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No.

Name on Survey	Sources											
	A	B	C	D	E	F	G	H	K			
Jessies Neck												1
Snells Creek												2
Allens Creek												3
Huddleston Pt.												4
Upper Doctors Pt.												5
Lower Doctors Pt.												6
Cadmans Neck												7
Cadmans Cove												8
Upper Spectacle I.	}	approved on # 5629 B.G.I.										9
Lower Spectacle I.												10
Little Pine I.												11
Big Pine I.												12
Gunning I.												13
Speaking Rock												14
Gull Rock												15
Lakes I.												16
												17
<u>Buzzard Bay</u>												18
		19										
		20										
		21										
		22										
		23										
		24										
		25										
		26										
		27										

REVIEW OF AIR PHOTO COMPILATION T-560Q<sup>3</sup>  
Scale 1:10,000

Comparison with Contemporary Topographic Surveys

Although these plane table surveys have been filed and reviewed as "Topographic Surveys" they have been handled in connection with T-560Q<sup>3</sup> as "Graphic Control Surveys".

T-6119 (1934), 1:10,000

The outer coast shoreline agreed fairly well; however, there are several discrepancies in the inside shoreline. The photographs have been examined and T-560Q<sup>3</sup> is accepted.

There is a disagreement in the docks at lat.  $41^{\circ} 31'$ , long.  $71^{\circ} 04 \frac{1}{4}'$ . T-560Q<sup>3</sup> is accepted. The docks on the compilation agree very closely with T-183 bis (1844).

There is a disagreement in the position of signal YEL, (Chy. on yellow house). The compilation was checked and found to be correct, moving the signal + 10 meters north.

There is a disagreement in the shape of Twomile Rock. Page 5 of this report discusses this disagreement. The delineation on T-560Q<sup>3</sup> more nearly checks that of T-183 bis (1844). Although the photographs covering these rocks have not been received in the office, T-560Q<sup>3</sup> is considered correct.

Duck blinds are not shown on T-560Q<sup>3</sup>.

The two poles,  $\odot$  DAD and  $\odot$  LID and the barn,  $\odot$  BAR no longer exist.

The offlying rock on T-6119 at lat.  $41^{\circ} 30'$ , long.  $71^{\circ} 01.8'$  does not exist. About 90 meters to the eastward there is a rock awash. See page 4 of this descriptive report for discussion.

All detail on T-6119 is shown on T-560Q<sup>3</sup> except the magnetic meridian, temporary signals and as discussed above.

T-6120 (1934), 1:10,000 - Westport River.

A number of differences exist in the shoreline of Westport River. The greatest difference is at lat.  $41^{\circ} 34.9'$ , long.  $71^{\circ} 04.5'$  where the disagreement is about + 50 meters. The compilation has been checked and is accepted as correct.

Duck blinds are not shown on this survey.

Station CAN, E. Gable Barn, shown on T-6120, no longer exists. There is no barn in this locality at present.

All detail on T-6120 is shown on T-560Q<sup>3</sup> except the magnetic meridian, temporary signals, and as discussed above.



T-6121 (1934), 1:10,000

This survey covers only a small area in the eastern part of T-5600. The shoreline agreement is fairly good except around  $\odot$  CAR, (not shown on T-5600) (lat.  $44^{\circ} 30' 1/3''$ , long.  $71^{\circ} 01' 1/4''$ ) as mentioned on page 6 of this report. T-5600 is accepted as correct.

Station PIL, lat.  $41^{\circ} 30' 3/4''$ , long.  $71^{\circ} 01' 3/4''$  was found to be + 14 meters too far west of T-6121. The correct location is shown on T-5600.

The delineation of Black Rocks, lat.  $41^{\circ} 30' 1/3''$ , long.  $71^{\circ} 00' 2/3''$  as mentioned on page 6 of this report is quite different on the two surveys. The photographs are clear and in addition the delineation on T-5600<sup>3</sup> agrees much better with T-2217 (1895) than T-6121. T-5600<sup>3</sup> is accepted as correct.

All detail on T-6121 over the common area is shown on T-5600<sup>3</sup> except the magnetic meridian, temporary signals and as discussed above.

Comparison with Previous Topographic Surveys

T-183 bis (1844), 1:10,000

T-2217 (1895-6), 1:10,000

The general topographic features have remained the same since these old surveys. The marsh details in Westport River have changed somewhat.

There is a remarkably close agreement between T-183 bis and this survey in the docks at Westport Point.

The numerous bare rocks around Gooseberry Point have been disposed of in the reviews of T-6119 and H-5630.

T-5600 is adequate to supersede T-183 bis and T-2217 over the common area except for contours.

Comparison with Contemporary Hydrographic Surveys

H-5622 (1934), 1:10,000

There are no conflicts with the hydrography.

A rock awash at lat.  $41^{\circ} 29.3'$ , long.  $71^{\circ} 02.4'$  is not shown on H-5622. *Rock added to Hydro. 8/3/36 H.M.M.*

The delineation of Twomile Rock is not shown on H-5622.

*Delineation added to Hydro. 8/3/36 H.M.M.*

H-5630 (1934-35), 1:10,000

There are no conflicts with the hydrography.

The two ~~works~~<sup>rocks</sup> N.N.E. of Triangulation Station GOOSEBERRY NECK 2, 1934, mentioned on page 5 of this report were located on H-5630, Add. Work, in slightly different positions. *Location on T-5603 (1934) accepted, R.J.C. Oct. 28, 1936.*

The delineation of Black Rocks is erroneously shown on H-5630. H-5630, Add. Work, discovered one of the sunken rocks this survey picked up in this area (see page 6 of this report). The hydrographic survey shows this rock as awash. *Delineation on T-5608 accepted, Hydro changed to agree with this delineation. 8/3/36 X.M.M.*

The bare rock discussed on page 4 of this report is shown on H-5630 and should be deleted. *Rock deleted on Hydro. 8/3/36 X.M.M.*

H-5628 (1934), 1:5,000; H-5629 (1934), 1:10,000

There are no conflicts with the hydrography.

Comparison with Chart 1210

All recommended landmarks and aids to navigation are shown on this survey.

The comparison with the chart is covered in "Comparison with Topographic Surveys". *in the preceding description report T-56003*

July 28, 1936.

*Frank G. Erskine*

Frank G. Erskine.

## REVIEW OF AIR PHOTO COMPILATION NO.

Field No. 3.

Chief of Party: Thos. B. Reed

Compiled by: Thos. B. Reed

Project: Vicinity of Westport, Mass.

Instructions dated: Sept. 28, 1935

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b,c,d,e,g and i; 26; and 64)  
Yes.
2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n) Yes.
3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d,e)  
Yes.
4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)  
None submitted except town maps of Westport and Dartmouth showing names of roads and streets.
5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report. Yes.
6. The control and adjustment of the photo plot are discussed in the descriptive report. ~~Unusual or large adjustments are discussed in detail and limits of the area affected are stated.~~ (Par. 12b; 44; and 66 c,h,i) Yes.
7. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)  
Yes.

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs." 4-27

8. The representation of low water lines, reefs, ~~coral-reefs and~~ rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41)  
Yes.
9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)  
Located by plane table by party of W. D. Patterson, 1934.
10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)  
Furnished by W. D. Patterson in conjunction with Hydrographic and Topographic survey of this area in 1934. No changes since then.
11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)  
Yes. *Information from "List of Bridges over Adv. Waters"*  
*H-5629 gives least clearance of 5.8' at M.H.W. while this survey gives 3.5' at H.W.*
12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)  
Yes.
13. The geographic datum of the compilation is N. A., 1927 (adjusted) and the reference station is correctly noted.
14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)  
Yes.
15. The drafting is satisfactory and particular attention has been given the following:
1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout ✓  
except as noted in the report.
  2. The degrees and minutes of Latitude and Longitude are correctly marked. ✓

3. All station points are exactly marked by fine black dots. ✓
4. Closely spaced lines are drawn sharp and clear for printing. ✓
5. Topographic symbols for similar features are of uniform weight. ✓
6. All drawing has been retouched where partially rubbed off. ✓
7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground. ✓

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time. ✓

17. Remarks:

18. Examined and approved;

Thos B Reed  
Chief of Party

19. Remarks after review in office:

Reviewed in office by: Frank G. Eshine

Examined and approved:

C. H. Green  
Chief, Section of Field Records

O. Robert  
Chief, Division of Charts

Fred. S. Peacock  
Chief, Section of Field Work

Stude  
Chief, Division of Hydrography  
and Topography.

PLANE COORDINATE GRID SYSTEM

Positions of grid intersections used for fitting the grid to this compilation were computed by Division of Geodesy and the computation forms are included in this report.

Positions plotted by R. E. Ask & H. D. Reed, Jr.

Positions checked by H. D. R., Jr.

Grid inked on machine by R. E. Ask.  
 " adjusted by hand H. D. R., Jr.

Intersections inked by H. D. R., Jr.

Points used for plotting grid:

x = 725,000 FT  
y = 190,000 FT.

\* Offset from  
\* Dartmouth 2, 1934

x 730,000  
y 175,000

x  
y

x 715,000  
y 175,000

x  
y

\* Offset from Sta 82 AF  
\* (Mass. G.S.)

x  
y

Triangulation stations used for checking grid:

x = 728,647.11 FT - y = 207,966.03 FT

- |           |                                   |          |
|-----------|-----------------------------------|----------|
| Ref. sta. | 1. <u>Dartmouth 2, 1934</u>       | 5. _____ |
|           | x = 721,047.93 - y = 208,576.82   |          |
|           | 2. <u>82 AC, 1936 (Mass G.S.)</u> | 6. _____ |
|           | x = 732,379.80 - y = 208,324.35   |          |
|           | 3. <u>82 G, 1936 (Mass G.S.)</u>  | 7. _____ |
|           | 4. _____                          | 8. _____ |

T-560

GEODETIC POSITIONS FROM LAMBERT COORDINATES

STATE Mass. STATION \_\_\_\_\_

$x$	725,000	$R_0 + A$	23,549,477.32
$C$	600,000	$y$	190,000.00
$x' (=x-C)$	+125,000	$R_0 + A - y$	23,359,477.32
$\log(x-C)$	5.0969 1001	$\frac{\theta}{2}$ (in secs.)	551.4714
$\log(R_0 + A - y)$	7.3684 6312	$\log \frac{\theta}{2}$	2.74143749
$\log \tan \theta$	7.7244 4689	$\log S$	4.68557279
$\theta$	1° 23' 74.24"	$\log \sin \frac{\theta}{2}$	7.42741069
	1103.7424"		
$\log \theta$ ( $\theta$ in secs.)	3.0428 6748	$\log \sin^2 \frac{\theta}{2}$	4.8548214
$\log l$	9.8271 9388	$\log 2$	0.3010300
$\log \frac{\theta}{l}$	3.2156 7400	$\log R^*$	7.3684631
$\Delta\lambda (= \frac{\theta}{l})$	1643.1378"	$\log y''$	2.5243145
		$y''$	334.44
$\lambda$ (central mer.)	71° 30' 00.0000"	$R_0 + A - y$	23,359,477.32
$-\Delta\lambda$	- 27 23.1378"	$y''$	+ 334.44
$\lambda$	71 02 36.8622"	$R$	23,359,811.76
	53.65 bank		
		$y$	190,000.00
		$y''$	- 334.44
		$y'$	189,665.56
		$\phi$ (by interpolation)	41 31 13.7682
			42.48 F

$$\tan \theta = \frac{x-C}{R_0 + A - y}$$

$$\Delta\lambda = \frac{\theta}{l}$$

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

$$y'' = 2R \sin^2 \frac{\theta}{2}$$

$$y' = y - y''$$

$C$  is constant added to  $x'$  in computation of coordinates

$R_0$  is map radius of lowest parallel

$A$  is value of  $y'$  for  $R_0$ ; in most cases it is zero

$\phi$  is interpolated from table of  $y'$

\* Use  $(R_0 + A - y)$  as an approximate value of  $R$  and later correct this value when  $R$  is obtained below.

1-5600

GEODETIC POSITIONS FROM LAMBERT COORDINATES

STATE Mass. STATION \_\_\_\_\_

$x$	730,000	$R_0 + A$	23,549,477.32
$C$	600,000	$y$	175,000.00
$x' (=x-C)$	+ 130,000	$R_0 + A - y$	23,374,477.32
$\log(x-C)$	5.1139 4335	$\frac{\theta}{2}$ (in secs.)	573.5775
$\log(R_0 + A - y)$	7.3687 4191	$\log \frac{\theta}{2}$	2.75859211
$\log \tan \theta$	7.7452 0144	$\log S$	4.68557263
$\theta$	19° 07' 15.50"	$\log \sin \frac{\theta}{2}$	7.4441 6474
	1147.1550"		
$\log \theta$ ( $\theta$ in secs.)	3.0596 2210	$\log \sin^2 \frac{\theta}{2}$	4.8483295
$\log l$	9.8271 9388	$\log 2$	0.3010300
$\log \frac{\theta}{l}$	3.2324 2422	$\log R^*$	7.3687 4191
$\Delta\lambda (= \frac{\theta}{l})$	1707.7654	$\log y''$	2.5541 014
		$y''$	361.49
$\lambda$ (central mer.)	71° 30' 00.0000"	$R_0 + A - y$	23,374,477.32
$-\Delta\lambda$	- 24 27.7654"	$y''$	+ 361.49
$\lambda$	71 01 32.2346"	$R$	23,374,838.81
	64.42 back 74.78 - Forward		
		$y$	175,000.00
		$y''$	- 361.49
		$y'$	174,638.51
		$\phi$ (by interpolation)	41 29 45.1734
			3081 45.32 back

$$\tan \theta = \frac{x-C}{R_0 + A - y}$$

$$\Delta\lambda = \frac{\theta}{l}$$

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

$$y'' = 2R \sin^2 \frac{\theta}{2}$$

$$y' = y - y''$$

$C$  is constant added to  $x'$  in computation  
of coordinates

$R_0$  is map radius of lowest parallel

$A$  is value of  $y'$  for  $R_0$ ; in most cases it is zero

$\phi$  is interpolated from table of  $y'$

\* Use  $(R_0 + A - y)$  as an approximate value of  $R$  and later correct this value when  $R$  is obtained below.



GEODETIC POSITIONS FROM LAMBERT COORDINATES

STATE Mass. STATION \_\_\_\_\_

$x$	715,000	$R_0 + A$	23,549,477.32
$C$	600,000	$y$	175,000.00
$x' (=x-C)$	+ 115,000.	$R_0 + A - y$	23,374,477.32
$\log(x-C)$	5.0606 9784	$\frac{\theta}{2}$ (in secs.)	507.3966
$\log(R_0 + A - y)$	7.3687 4191	$\log \frac{\theta}{2}$	2.7053 4755
$\log \tan \theta$	7.6919 5593	$\log S$	4.6855 7311
$\theta$	16' 54.7932"	$\log \sin \frac{\theta}{2}$	7.3909 2066
	1014.7932		
$\log \theta$ ( $\theta$ in secs.)	3.0063 7756	$\log \sin^2 \frac{\theta}{2}$	4.7818 412
$\log l$	9.8271 9388	$\log 2$	0.3010 300
$\log \frac{\theta}{l}$	3.1791 4368	$\log R^*$	7.3687 419
$\Delta\lambda (= \frac{\theta}{l})$	1510.7190	$\log y''$	2.4516 132
		$y''$	282.89
$\lambda$ (central mer.)	71° 04' 49.2810"	$R_0 + A - y$	23,374,477.32
$-\Delta\lambda$	25 10.7190	$y''$	+ 282.89
$\lambda$	71 04 49.2810	$R$	23,374,760.21
	24.87 <sup>mm</sup> <sub>per ft.</sub>		
		$y$	175,000.00
		$y''$	- 282.89
		$y'$	174,717.11
		$\phi$ (by interpolation)	41 28 46.0946

42.93 back

$$\tan \theta = \frac{x-C}{R_0 + A - y}$$

$$\Delta\lambda = \frac{\theta}{l}$$

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

$$y'' = 2R \sin^2 \frac{\theta}{2}$$

$$y' = y - y''$$

$C$  is constant added to  $x'$  in computation  
of coordinates

$R_0$  is map radius of lowest parallel

$A$  is value of  $y'$  for  $R_0$ ; in most cases it is zero

$\phi$  is interpolated from table of  $y'$

\* Use  $(R_0 + A - y)$  as an approximate value of  $R$  and later correct this value when  $R$  is obtained below.

Applied to Chart 237 - Nov. 13, 1936 - JTW  
" " " 1210 - Dec. 13, 1938 - KJR