9091

Diag. Cht. No. 1212-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey SHORELINE-PHOTOGRAMMETRIC

Field No. Ph-31(48)F Office No. T-9091

LOCALITY

State CONNECTICUT

General locality CONNECTICUT RIVER

Locality FROM SHAILERVILLE TO A POINT ABOUT 2 MILES UPSTREAM FROM HIGGANUM

194 8

CHIEF OF PARTY

R.J.Sipe, Chief of Party.
C.W.Clark,Portland Photogrammetric Office

LIBRARY & ARCHIVES

DATE Aug-14-1953

B-1870-1 (1)

9091

Cht 266 - Part, Appd 10/26/65 GRJ
Thru BP 68518 (part 5)

DATA RECORD

T -9091

Project No. (II): Ph-31(48)F Quadrangle Name (IV):

Field Office (II): Washington, North Carolina Chief of Party: Riley J. Sipe

Photogrammetric Office (III): Portland, Oregon Officer-in-Charge: Charles W. Clark

Instructions dated (II) (III): 9 April 1948 (Field)
9 February 1949 (Office)

Copy filed in Division of Photogrammetry (IV)
Office Files

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:10,000 Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): None

Date received in Washington Office (IV): 9-5-50 Date reported to Nautical Chart Branch (IV): 8 Sept 1950

Applied to Chart No. Date: Date registered (IV): 20 Aug. 1952

Publication Scale (IV): Publication date (IV): (Date of issue June 1952)

Geographic Datum (III): N.A. 1927 Vertical Datum (III): ~~Mean Sea Level~~ Mean High Water

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (5) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): BROWN, 1934

Lat.: 41° 30' 30.365" 936.8 m (914.3 m) Long.: 72° 32' 50.137" 1162.7 m (228.7 m) Adjusted X Unadjusted

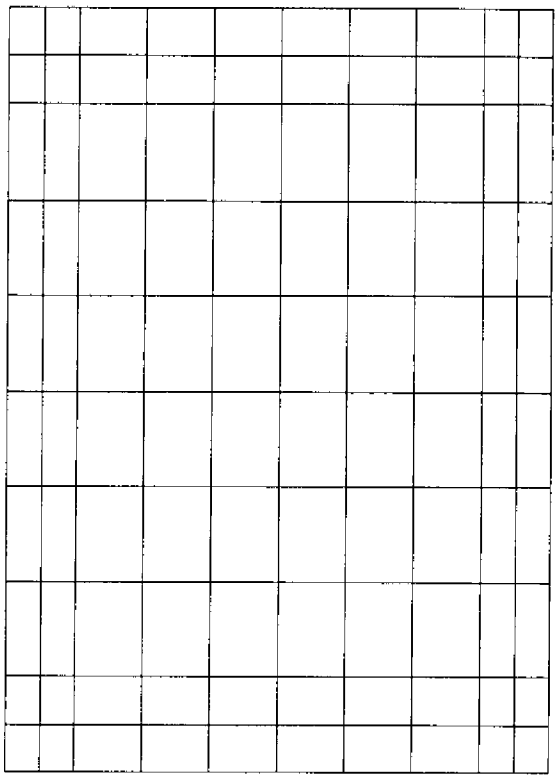
Plane Coordinates (IV): State: Conn. Zone:

Y= 246,043.58 X= 650,531.23

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office, or (IV) Washington Office.

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

M-2618-12(4)



Areas contoured by various personnel
(Show name within area)
(II) (III)
Shoreline Map

DATA RECORD

Field Inspection by (II): R.A. Horn & E.T. Jenkins — Date: 5/22/48 to 6/11/48

Planetable contouring by (II): — Date:

Completion Surveys by (II): — Date:

Mean High Water Location (III) (State date and method of location): 5/22/48 to 6/11/48. Located on field inspection photographs.

Projection and Grids ruled by (IV): — Date:

Projection and Grids checked by (IV): — Date:

Control plotted by (III): John C. Lajoye — Date: 8/8/49

Control checked by (III): Frank H. Elrod — Date: 8/15/49

Radial Plot or Stereoscopic Control extension by (III): James L. Harris and J.E. Deal — Date: 8/26/49

Stereoscopic Instrument compilation (III):
- Planimetry ——— Date: ———
- Contours ——— Date: ———

Manuscript delineated by (III): Helen L. Laube — Date: 1/23/50

Photogrammetric Office Review by (III): Ree H. Barron — Date: 3/3/50

Elevations on Manuscript checked by (II) (III): ——— — Date: ———

Camera (kind or source) (III): U.S.C. & G.S. Single lens

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
48 J-738	5/2/48	11:20	1:10,000 ratio	0.9 ft. above M.L.W.
48 J-743 to 745 Incl.	5/2/48	11:25	1:10,000 "	0.9 " " "
48 J-761 to 769 Incl.	5/2/48	11:45	1:10,000 "	0.9 ft. " "

* Tidal information applies only during lowest river stages. (See Field Inspection Report for T-9093 and T-9094 Project Ph-31(48)F sub-heading 7, "Mean High Water").

F. I. Photos:
46-D-2351-56
2373-77
2380-83

Tide (III)

Ratio of Ranges	Mean Range	Spring Range
1.0	2.6	3.1
1.0	2.5	3.0

Reference Station: New London, Conn.
Subordinate Station: Haddam, Conn.
Subordinate Station:

Washington Office Review by (IV): Lena T. Stevens Date: 16 May, 1951

Final Drafting by (IV): Michael C. Jones Date: 26 Oct. 51

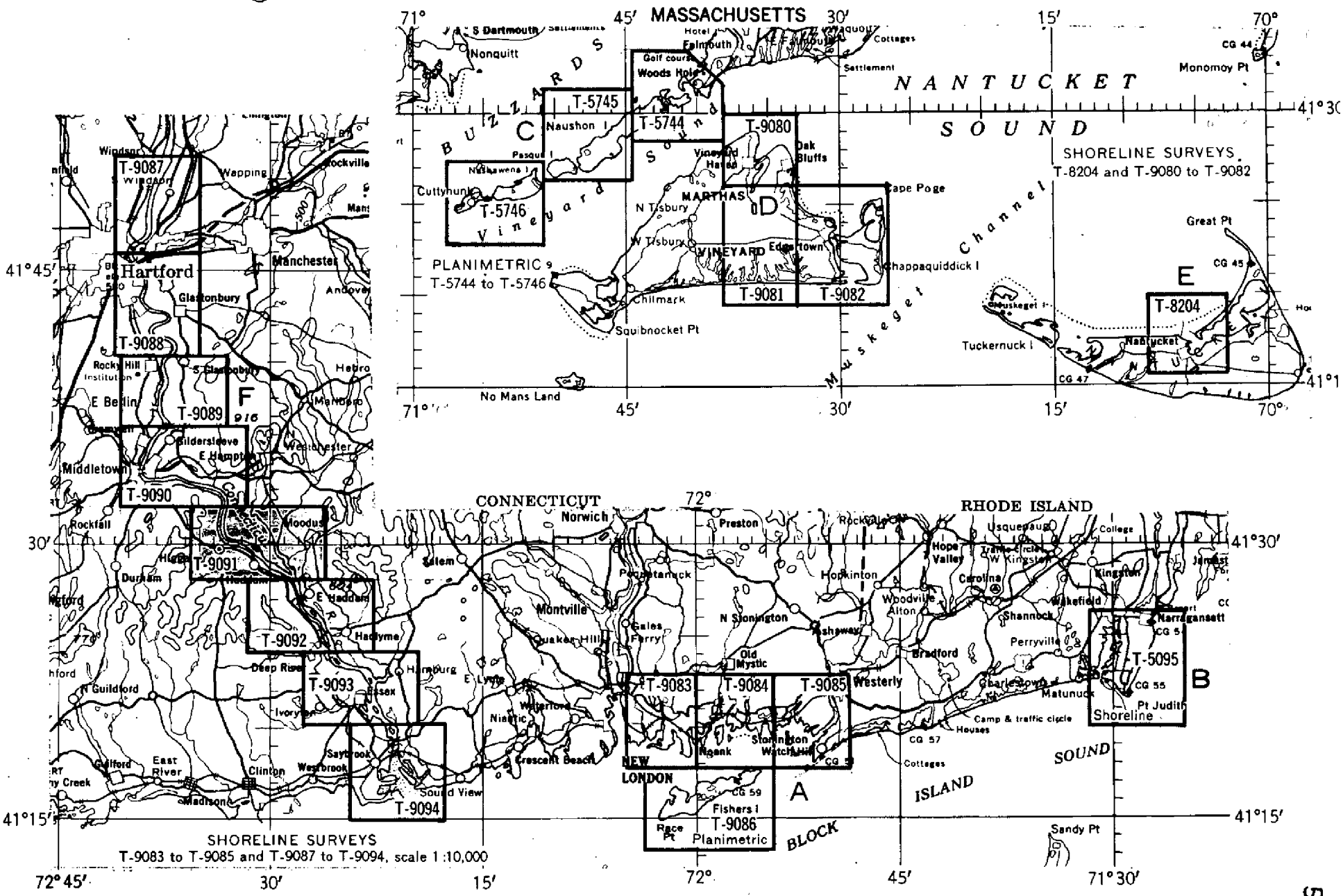
Drafting verified for reproduction by (IV): Sylvia Dean W. Ballein G. Strugles 5/21/52 Date: 21 May, 1952

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): 29.7
Shoreline (More than 200 meters to opposite shore) (III): 19.9
Shoreline (Less than 200 meters to opposite shore) (III): 5.6
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): Recovered: 59 Identified: 17
Number of BMs searched for (II): Recovered: Identified:
Number of Recoverable Photo Stations established (III): 6
Number of Temporary Photo Hydro Stations established (III): None

Remarks:

PLANIMETRIC AND SHORLINE MAPPING PROJECTS PH-31(48) A-B-C-D-E-F



FIELD INSPECTION REPORT
QUADRANGLES 9091 AND 9092
PROJECT Ph-31 (48)

Riley J. Sipe, Chief of Party

All phases of the field work were done in accordance with The Director's Instructions, Project Ph-31 (48), Field, dated 9 April 1948.

The field work on these quadrangles was performed by the following personnel on the dates indicated:

Name & Title	Field Work	Dates
E. T. Jenkins Engineering Aid	Recovery, Shoreline and Inspection	5-22-48 6-11-48
R. A. Horn Photogrammetrist	Recovery, Shoreline and Inspection	5-22-48 6-11-48

1. Description of the Area.

The area surveyed includes the Connecticut River from the north portion of Deep River, Connecticut to and including a portion of Cobalt, Connecticut; and the land area adjacent to the Connecticut River.

The river in this section is well marked by Aids to Navigation and has adequate water depth for the passage of large barges.

The principal settlements in the locality are Chester, Hadlyme, Haddam, Higganum, and Cobalt. The predominent occupation of the inhabitants is manufacturing of all descriptions.

2. Completeness of Field Inspection.

See report on Quadrangles 9093 and 9094.

3. Interpretation of the Photographs.

See report on Quadrangles 9093 and 9094.

4. Horizontal Control.

See report on Quadrangles 9093 and 9094.

5. Vertical Control

Not applicable to this project.

6. Contours and Drainage

Not applicable.

7. Mean High Water

See report on Quadrangles 9093 and 9094.

8. Low Water Line

Due to the spring rains falling in this area, the Mean Low Water Line could not be determined at any point during the course of the survey. As indicated in Paragraph 7, the fresh water discharge at such times maintains the water level to a comparatively high stage.

9. Wharves and Shoreline Structures

See report on Quadrangles 9093 and 9094.

10. Details Off-shore from Mean High Water Line

See report on Quadrangles 9093 and 9094.

11. Landmarks and Aids to Navigation

All Landmarks and Fixed Aids to Navigation in the quadrangles were investigated. Form 567 and Chart Sections are submitted with the information determined.

It should be noted that, with three exceptions, the positions of all ranges on the Connecticut River were changed about 1937. This was necessary, at that time, due to the dredging of new channels. The three ranges that were not changed in 1937 are: Whalebone Creek, Rock Landing and Clay Banks. The information on the ranges was obtained from the U. S. Coast Guard Station in Portland, Connecticut. This same station was informed of the discrepancies existing in the Light List - Atlantic and Gulf Coasts, 1947 edition. Several of the ranges are not listed as having been rebuilt during this period.

12. Hydrographic Control

Not applicable to this project.

13. Landing Fields and Aeronautical Aid s

There were no landing fields or aeronautical aids noted in either of these quadrangles.

14. Roads

Same as Report on Quadrangles 9093 and 9094.

15. Bridges

All bridge information for the area covered by this report as listed in the U. S. Engineers' 'List of Bridges Over Navigable Waters in the U. S.', dated 1 July 1941, was verified in the field, all clearances were carefully measured with a steel tape, and the published descriptions and clearances were found to be correct.

16. Buildings and Structures

Adequately indicated on the photographs. Cross-references are made to new photography for exact locations and shapes.

17. Boundary Monuments and Lines

Not applicable to this project.

18. Geographic Names 854A

In accordance with the Project Instructions, a systematic investigation of geographic names was not made. However, important points were identified and a few additional names supplied. One discrepancy was noted on Chart 266 at approximate latitude 41 Degrees - 28 Minutes and Longitude 72 Degrees - 30 Minutes. A tributary is identified on the Chart as Beaver Meadow Brook. Actually, this stream is known locally as MILL CREEK. Beaver Meadow Brook is the southern prong of MILL CREEK. 1944 B.G.N. decision (not Mill Creek, etc.)

Submitted:
Date 24 June 1948

E. T. Jenkins

E. T. Jenkins
Engineering Aid

Robert A. Horn

Robert A. Horn
Photogrammetrist

NOTES TO COMPILER
QUADRANGLES 9091 AND 9092
PROJECT Ph-31 (48)
SUB-PROJECT F

Riley J. Sipe, Chief of Party

1. Chart Discrepancies

(See Review Report, 66)

On Chart 266, just north of East Haddam, an Overhead Cable crossing is indicated with a clearance of 146 feet shown. Determinations by this party fix the clearance to be 136.7 feet. Cht. Letter No. 473 (1948)

The horizontal control layout, on a nautical chart base, supplied this party names a triangulation station near Clark Landing, "CLARKHURST GOLF LINKS, CLUBHOUSE, GABLE"#1. The list of descriptions name it "CLUBHOUSE CUPOLA". On this same layout, HIGGANUM METHODIST CHURCH - 1862#2 was not shown as triangulation. No geographic position could be found on this station. See fm. M-2388-12, p. 1

See attached note re: #1 & #2 Sr.

2. Horizontal Control

In addition to the control identified in accordance with instructions, several points of triangulation, such as chimneys and cupolas, where they were apparent on the photographs, were labeled and a ray drawn to same. This required very little additional time and effort on the part of the field man, and it is felt that should some difficulties arise in laying the plot, these stations could be readily identified and pricked in the office.

The following Triangulation Stations were identified on the photographs for use in the control of the radial plot:

Quadrangle 9092

CHESTER BAPTIST CHURCH TOWER - 1934 - (Pricked Direct)
CHESTER ROCK LIGHT - (Pricked Direct)
RIAN JAMES GABLE - 1934 - (Pricked Direct)
GRAVEL - 1934 - (Sub. Station)
WHALEBONE CREEK FRONT RANGE LIGHT - (Pricked Direct)
WHALEBONE CREEK REAR RANGE LIGHT - (Pricked Direct)
MAPLE SHADE BARN VENTILATOR - 1934 - (Pricked Direct)
WILLEY'S GABLE - 1935 - (Pricked Direct)
FRANCIS - 1934 - (Sub. Station)
EDDY ROCK LIGHT - 1934 - (Pricked Direct)

TYLER'S CUPOLA - 1934 - (Pricked Direct)
RAY'S HOUSE CUPOLA - 1934 - (Pricked Direct)
SHAILER'S MONUMENT - 1934 - (Pricked Direct)
EAST HADDAM, TRANSMISSION TOWER, EAST SIDE - (Pricked Direct)
SHAILERVILLE BAPTIST CHURCH FINIAL - 1862 - (Pricked Direct)

Quadrangle 9091

JOHNSON'S BARN CUPOLA - 1934 - (Pricked Direct)
U.S.E. - 180 - 1909 - (Pricked Direct)
HADDAM NECK CONGREGATIONAL CHURCH SPIRE - 1934 - (Pricked Direct)
FAARTOFT'S CUPOLA - 1934 - (~~Sub. Station~~) Prick. Direct.
RED STORE - 1934 - (~~Pricked Direct~~) (Sub. Sta.)
ST. PETER'S CHURCH CUPOLA - 1934 - (Pricked Direct)
LATSHAW - 1934 - (Sub. Station)
DARLEY'S BARN CUPOLA - 1934 - (Pricked Direct)
HIGGANUM CONGREGATIONAL CHURCH BELFRY - 1934 - (Pricked Direct)
KELLNERS TOWER - 1934 - (Pricked Direct)
CLUBHOUSE CUPOLA - 1934 - (Pricked Direct)
SCOVILL - 1934 - (Sub. Station)
OAKBROOK FARM BARN GABLE - 1934 - (Pricked Direct)
U.S.E. 162 - 1914 - (Sub. Station)
ROCK LANDING FRONT RANGE LIGHT - (Pricked Direct)
SKINNERS GABLE - 1934 - (Pricked Direct)
HIGGANUM METHODIST CHURCH - 1862 - 1934 - (Pricked Direct)

The following points are to be located by radial plot:

Quadrangle 9092
Photo Points 1 to 15, inclusive.
Photo Points A to F, inclusive.

Quadrangle 9091
HADDAM ISLAND FRONT AND REAR RANGE LIGHTS - Topographic Station.
Points on M.H.W.L. from U.S.E. 174, 176 and 178.
Photo Points 1 to 6, inclusive.
SEARS SHOAL RANGE LIGHTS - Topographic Station.
WARNERS QUARRY DOCK LIGHT 49 - Topographic Station.
HIGGANUM LIGHT 55 - Topographic Station.

PHOTOGRAMMETRIC PLOT REPORT
Map Manuscripts No's. T-9091 to T-9094 Incl.
Project Ph-31(48)F

21: AREA COVERED:

This radial plot covers the shorelines of the Connecticut River and adjacent interior areas (approximately 3 miles wide) along both shores of the river from Long Island Sound to a point about two miles upstream from Higganum, Connecticut. It comprises Map Manuscripts No's. T-9091 to T-9094 incl.

22: METHOD:

The same methods were used as described in side heading 22 "METHOD" of the Photogrammetric Plot Report for Map Manuscripts No's. T-9083 to T-9086 incl. (1948) Project Ph-31(48)A, which is included in the Descriptive Report for T-9083 (1948).

23: ADEQUACY OF CONTROL:

The field party identified an ample number of horizontal control stations to rigidly fix the orientation of the templets. All identified stations except station ELY'S WINDMILL, 1934 were held to during the running of the radial plot. It is believed that the field party should have marked the identification of station ELY'S WINDMILL 1934 as "doubtful" because the points selected were not easily identified on the 1948 photographs and also because the field methods used did not give a substation of sufficient accuracy. Refer to "Notes to the Compiler" in the Field Inspection Reports for T-9091 and T-9092 (combined) and T-9093 and T-9094 (combined) and sub-heading 4: "Horizontal Control" of the Field Inspection Report for T-9093 and T-9094 (combined). T-9094

24: SUPPLEMENTAL DATA:

There were no graphic control surveys furnished for the area of this radial plot.

25: PHOTOGRAPHY:

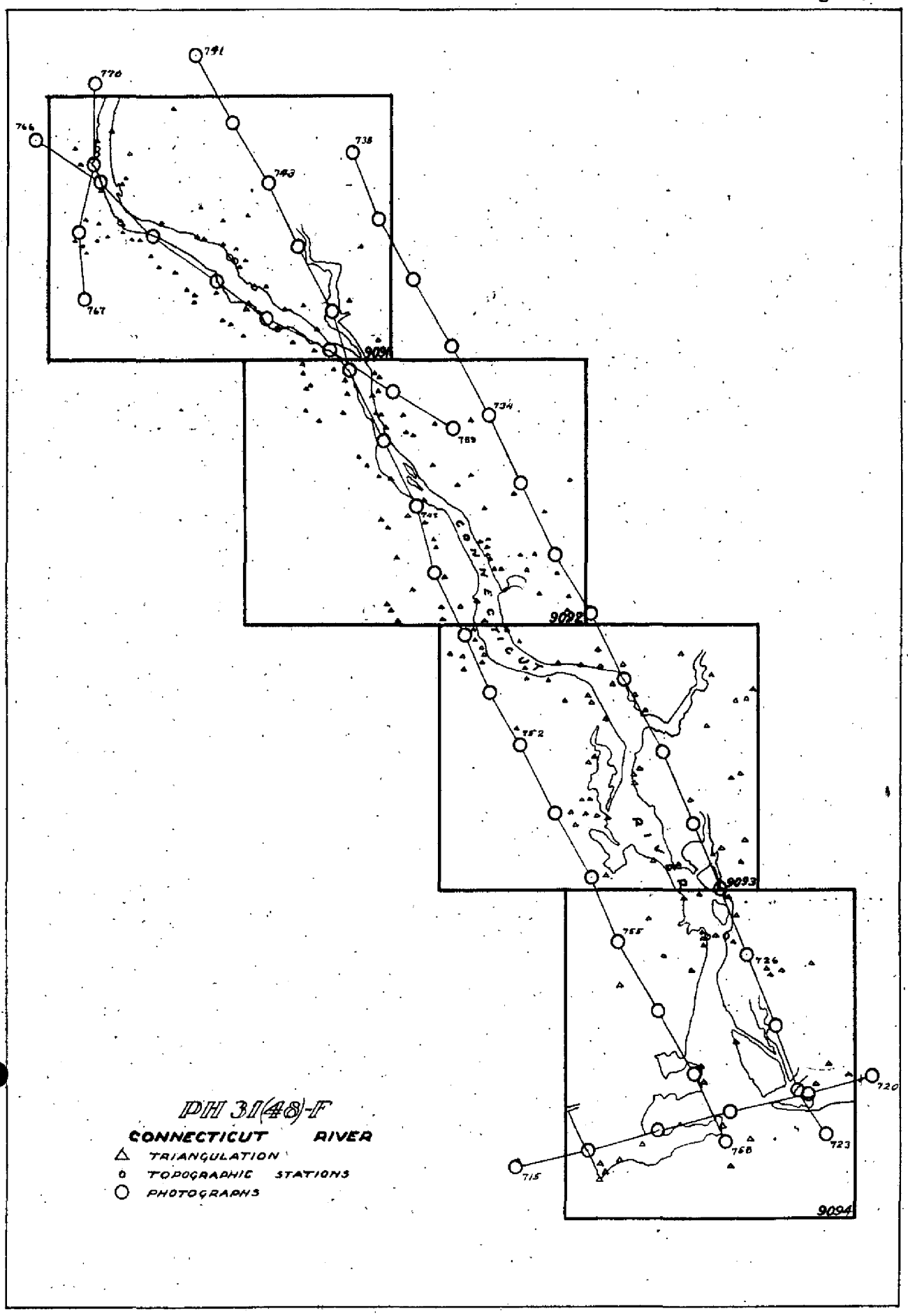
The photography was adequate for the area of this radial plot.

26: REMARKS:

Attached are Forms M-2388-12 for map manuscript No. T-9091 and a letter size sketch, showing map limits, photograph centers and the horizontal control stations used to control the radial plot.

Approved:
Charles W. Clark
Charles W. Clark
Officer-in-Charge

Respectfully submitted:
J. Edward Deal Jr.
J. Edward Deal, Jr.
Cartographer


741
776
766
738
743
767
9091
734
789
9092
752
9093
755
736
720
723
768
715
9094
PH 31(48)-F
CONNECTICUT RIVER
TRIANGULATION
TOPOGRAPHIC STATIONS
PHOTOGRAPHS

MAP T-9091 PROJECT NO. Ph-31(48)F SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
FAARTOFTS CUPOLA 1934	G-3536 Pg. 180	N.A. 1927	41° 28' 11.161" 1				344.3	(1506.7)		
			72° 29' 37.188"				862.9	(529.4)		
RED STORE, 1934	Pg. 149	"	41° 28' 52.036" 2				1605.3	(245.7)		
			72° 30' 23.986"				556.5	(835.6)		
LATSHAW, 1934	Pg. 149	"	41° 29' 17.013" 16				524.9	(1326.1)		
			72° 31' 35.186"				816.2	(575.6)		
OAKBROOK FARM BARN GABLE, 1934	G-3536 Pg. 187	"	41° 30' 56.511" 48				1743.4	(107.6)		
			72° 33' 53.259"				1235.0	(156.3)		
SCOVILL, 1934	G-3536 Pg. 151	"	41° 31' 15.326" 53				472.8	(1378.2)		
			72° 33' 32.584"				755.5	(635.7)		
HIGGANUM ST. PETERS ROMAN CATHOLIC CHURCH, 1934	G-3536 Pag. 185	"	41° 29' 53.492" 17				1650.2	(200.8)		
			72° 33' 03.137"				72.8	(1318.9)		
HIGGANUM METHODIST CHURCH, 1862; 1934	W.O. by letter 9/6/49 P.324	"	41° 29' 54.15 " 16	Station est. 1862. (unadjusted pos.) R. 1934 by GCM, and adjusted. (GT2° G-3536). G.P. page 326. Door 279 ft. Landmark			1670.5	(180.5)		
			72° 33' 49.70 "				1152.8	(238.9)		
DARLEYS BARN CUPOLA, 1934	G-3536 Pg. 185	"	41° 29' 52.204" 19				1610.5	(240.5)		
			72° 32' 35.062"				813.3	(578.4)		
HIGGANUM CONGREGATIONAL CHURCH BELFREY, 1934	G-3536 Pg. 185	"	41° 29' 50.648" 20				1562.5	(288.5)		
			72° 33' 20.404"				473.3	(918.4)		
KELLNERS TOWER 1934	G-3536 Pg. 186	"	41° 29' 50.036" 21				1543.6	(307.4)		
			72° 33' 46.052"				1068.2	(323.5)		
No. 162(USE), 1934	G-3536 Pg. 151	"	41° 31' 27.418" 12				845.9	(1005.2)		
			72° 33' 12.835"				297.6	(1093.5)		
ROCK LANDING FRONT RANGE LIGHT, 1915	G-3536 Pg. 184	"	41° 29' 49.657" 22				1531.9	(319.1)		
			72° 31' 25.136"				583.0	(808.7)		

1 FT. = .3048006 METER

COMPUTED BY: G. Richter DATE 7/18/49 CHECKED BY: J.C. Lajoye DATE 7/18/49

M-2388-12

MAP T-9091 PROJECT NO. Ph-31(48)F SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
HADDAM NECK CONGREGATIONAL CHURCH SPIRE 1934	G-3536	N.A.	41° 29' 59.642" 23	Landmark			1840.0	(11.0)		
	Pg. 184	1927	72° 30' 44.052"				1021.7	(369.9)		
CLARKHURST GOLF LINKS CLUBHOUSE Cupola GABLE, 1934	G-3536	"	41° 30' 25.661" 44	See Review Report			791.7	(1059.4)		
	Pg. 186		72° 32' 51.040"	Landmark			1183.7	(207.8)		
No.180(USE),1934		"	41° 29' 07.119" 24				219.6	(1631.4)		
	Pg. 149		72° 30' 26.435"				613.3	(778.7)		
JOHNSONS BARN CUPOLA, 1934	G-3536	"	41° 29' 45.24 " 45				1395.7	(455.3)		
	Pg. 181		72° 28' 03.09 "				71.7	(1320.0)		
SKINNERS GABLE, 1934	G-3536	"	41° 28' 10.462" 3				322.8	(1528.2)		
	Pg. 179		72° 27' 37.557"				871.5	(520.8)		
MOLLER, 1934	G-3536	"	41° 31' 06.494" 57				200.3	(1650.7)		
	Pg. 151		72° 33' 57.826"				1340.8	(50.4)		
SEARS, 1934		"	41° 30' 41.278" 45				1273.5	(577.6)		
	Pg. 150		72° 33' 26.920"				624.3	(767.1)		
No.185(USE),1934		"	41° 28' 25.302" 4				780.6	(1070.4)		
	Pg. 149		72° 29' 41.546"				964.0	(428.2)		
DICKINSON, 1934	8	"	41° 28' 25.341" 5				781.8	(1069.2)		
	Pg. 149		72° 30' 29.040"				673.8	(718.4)		
DARLEY, 1935		"	41° 29' 55.990" 26				1727.3	(123.7)		
	Pg. 150		72° 32' 41.586"				964.5	(427.1)		
HALLBERGS GABLE, 1935	G-3536	"	41° 31' 52.01 " 58				1604.6	(246.5)		
	Pg. 187		72° 32' 03.66 "				84.8	(1306.1)		
SPLIT ROCK 1934	G-3536	"	41° 31' 04.523" 59				139.5	(1711.5)		
	Pg. 151		72° 33' 02.617"				60.7	(1330.6)		

1 FT.=.3048006 METER

COMPUTED BY: G. Richter DATE 7/18/49 CHECKED BY: J.C. Lajoye DATE 7/18/49

M-2388-12

MAP T-9091 PROJECT NO. Ph-31(48)F SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
PARKERS GABLE 1934	G-3536 Pg. 187	N.A. 1927	41° 30' 41.24" 46 72° 33' 08.22"				1272.3 190.6	(578.8) (1200.8)		
PARK, 1934	Pg.150	"	41° 30' 38.994" 47 72° 33' 09.373"				1203.0 217.4	(648.0) (1174.0)		
BROWN 1934	Pg. 150	"	41° 30' 30.365" 48 72° 32' 50.137"				936.8 1162.7	(914.3) (228.7)		
CLARKHURST FLAGPOLE, 1934	G-3536 Pg. 186	"	41° 30' 25.525" 49 72° 32' 52.588"				787.5 1219.6	(1063.6) (171.9)		
SWAN HILL 2, 1934	Pg. 149	"	41° 30' 10.019" 50 72° 33' 38.728"				309.1 898.2	(1542.0) (493.4)		
DOYLES TOWER 1934	G-3536 Pg. 186	"	41° 30' 07.90" 51 72° 33' 24.89"				243.7 577.3	(1607.3) (814.3)		
GROUT, 1934	Pg. 150	"	41° 30' 04.143" 52 72° 33' 01.233"				127.8 28.6	(1723.2) (1363.0)		
FRISSEL FABRIC CO. ELEVATED TANK, 1934	G-3536 Pg.186	"	41° 29' 59.67" 27 72° 33' 22.32"				1840.8 517.7	(10.2) (873.9)		
HIGGANUM ICE COMPANY STACK, 1934	G-3536 Pg. 185	"	41° 29' 45.901" 28 72° 33' 41.535"				1416.0 963.4	(435.0) (428.3)		
BROSMITHS GABLE 1934	G-3536 Pg. 185	"	41° 29' 44.740" 29 72° 33' 13.143"				1380.2 304.9	(470.8) (1086.9)		
DARLEYS CHIMNEY 1934	G-3536 Pg. 185	"	41° 29' 52.490" 30 72° 32' 29.866"				1619.3 692.7	(231.7) (699.0)		
LATSHAWS GABLE 1934	G-3536 Pg. 182	"	41° 29' 08.468" 31 72° 31' 32.400"				261.2 751.6	(1589.8) (640.3)		

1 FT. = .3048006 METER

COMPUTED BY: G. Richter DATE 7/18/49 CHECKED BY: J.C. Lajoye DATE 7/18/49

M-2388-12

MAP T-9091 PROJECT NO. Ph-31(48)F SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
HAZEN'S BARN	G-3536	N.A.	41° 29' 01.554" 32				47.9	(1803.1)		
CUPOLA, 1934	Pg. 182	1927	72° 31' 07.592"				176.1	(1215.9)		
THOMPSONS CLUB-	G-3536	"	41° 28' 50.01 " 6				1542.8	(308.2)		
HOUSE CHIMNEY 1935	Pg. 181		72° 30' 25.07 "				581.6	(810.4)		
HADDAM, CONGREGA-	G-3536	"	41° 28' 45.350 7				1399.0	(452.0)		
TIONAL CHURCH, 1862	Pg.182		72° 30' 56.180"				1303.4	(88.6)		
BRAINERD LIBRARY	G-3536	"	41° 28' 43.665" 8				1347.1	(503.9)		
GABLE 1934	Pg. 181		72° 30' 51.012"				1183.6	(208.5)		
CHURCH'S GABLE	G-3536	"	41° 28' 32.538" 9				1003.8	(847.2)		
1935	Pg. 181		72° 30' 54.015"				1253.3	(138.9)		
GROGGIN'S GABLE	G-3536	"	41° 28' 27.364" 10				844.2	(1006.8)		
1935	Pg. 181		72° 30' 34.613"				803.1	(589.1)		
		"	41° 28' 15.618" 11				481.8	(1369.2)		
GREAT HILL, 1934	Pg. 148		72° 30' 24.735"				574.0	(818.3)		
WHITTEMORE'S	G-3536	"	41° 28' 15.372" 12				474.2	(1376.8)		
GABLE, 1934	Pg. 180		72° 29' 14.072"				326.5	(1065.7)		
BOLSTER GARAGE	G-3536	"	41° 28' 04.612" 13				142.3	(1708.7)		
CUPOLA, 1934	Pg. 180		72° 29' 04.122"				95.7	(1296.7)		
		"	41° 30' 02.864" 53				88.4	(1762.7)		
CARLSON, 1934	Pg. 150		72° 32' 16.498"				382.7	(1009.0)		
		"	41° 29' 49.507" 33				1527.3	(323.7)		
No. 174(USE) 1934	Pg. 149		72° 31' 25.226"				585.1	(806.6)		
ROCK LANDING REAR	G-3536	"	41° 29' 49.122" 34				1515.4	(335.6)		
RANGE LIGHT, 1915	Pg. 184		72° 31' 21.578"				500.5	(891.2)		

1 FT. = .3048006 METER

COMPUTED BY: G. Richter DATE 7/18/49 CHECKED BY: J.C. Lajoye DATE 7/18/49

M-2388-12

MAP T-9091 PROJECT NO. Fh-31(48)F SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
HAMMERSETH'S	G-3536	N.A.	41° 30' 13.686" 34				422.2	(1428.8)		
GABLE, 1934	Pg. 184	1927	72° 31' 22.211"				515.1	(876.4)		
CLARK'S BARN	G-3536	"	41° 29' 57.177" 35				1763.9	(87.1)		
GABLE 1934	Pg. 184		72° 30' 59.374"				1377.1	(14.5)		
BRAINERD'S	G-3536	"	41° 29' 45.668" 36				1408.9	(442.1)		
CHIMNEY 1934	Pg. 183		72° 30' 12.623"				292.8	(1098.9)		
	G-3536	"	41° 29' 40.296 37				1243.1	(607.9)		
No. 176 (USE) 1934	Pg.182		72° 30' 53.758"				1247.0	(144.8)		
GILLETTE'S	G-3536	"	41° 29' 34.936" 38				1077.8	(773.2)		
CHIMNEY, 1934	Pg. 183		72° 30' 39.912"				925.8	(466.0)		
ELLIS' BARN	G-3536	"	41° 29' 23.977" 39				739.7	(1111.3)		
CUPOLA, 1934	Pg. 183		72° 30' 29.848"				692.4	(699.5)		
ELLIS' CHIMNEY	G-3536	"	41° 29' 22.182" 40				684.3	(1166.7)		
1934	Pg. 182		72° 30' 33.776"				783.5	(608.3)		
		"	41° 29' 18.235" 41				562.5	(1288.5)		
No.178(USE),1934	Pg. 150		72° 30' 37.921"				879.7	(512.2)		
SMITH'S CHIMNEY	G-3536	"	41° 29' 02.977" 42				91.8	(1759.2)		
1934	Pg. 181		72° 30' 15.383"				356.9	(1035.1)		
		"	41° 28' 54.851" 14				1692.2	(158.8)		
HADDAM NECK,1862	Pg. 148		72° 29' 28.515"				661.6	(730.5)		
	G-3536	"	41° 28' 47.834" 15				1475.7	(375.3)		
ELIAS' GABLE,1934	Pg. 180		72° 28' 12.526"				290.6	(1101.4)		

1 FT. = .3048006 METER

COMPUTED BY: G. Richter DATE 7/18/49 CHECKED BY: J.C. Lajoye DATE 7/18/49

M-2388-12

COMPILATION REPORT
Map Manuscript No. T-9091
Project Ph-31(48)F

31: DELINEATION:

Graphic methods were used for the compilation of this map manuscript.

There were no unusual methods used for the compilation work.

The field inspection was in general satisfactory. There were some places along the shoreline where the high water line was not clearly indicated by field inspection.

All planimetric details, except complete building coverage, have been detailed for the area of this map manuscript which falls within the detail limits of Nautical Chart No. 266.

For the area of this map manuscript which falls outside the detail limits of Nautical Chart No. 266, only arterial highways, railroads, drainage, and landmark buildings have been delineated.

All buildings falling within an area approximately 300 meters back from the shoreline of this map manuscript have been delineated. Outside of this area only landmark buildings have been delineated.

32: CONTROL:

The horizontal control stations were well identified and the placement and density were satisfactory.

Refer to side heading 23: "Adequacy of Control" of the Photogrammetric Plot Report for additional facts.

33: SUPPLEMENTAL DATA:

There were no supplemental data furnished this office for the area of this map manuscript.

34: CONTOURS AND DRAINAGE:

The stereoscope was used to verify the drainage delineated by the field inspection party. Drainage not indicated by field inspection was delineated by office examination of the photographs and by comparison with the U.S. Geological Survey and Army Map Service quadrangles of the area.

Contours are not applicable.

35: SHORELINE AND ALONGSHORE DETAILS:

There were some small portions of shoreline where the mean high-water line was not clearly indicated by field inspection. In these places a delineation was made by stereoscopic study of the office photographs.

A typical illustration of the lack of complete shoreline field data may be found at the small inlet which enters the southwest shoreline at Higganum. For this area no field inspection was made of the high-water line or type of ground bordering the high-water line. It appears that in general the straight even shorelines were completely field inspected but that in most cases areas were not adequately inspected where delineation in the office was difficult and at best would be based on assumptions.

Refer to sub-heading 7: "Mean High-Water" of the combined field inspection report for T-9093 and T-9094 (1948) and sub-heading 8: "Low-Water Line" of the combined field inspection report for T-9091 and T-9092 (1948).

Refer to Special Report U.S. Engineer Reference Planes Connecticut River Project Ph-31(48)F 1948. See p. 6 for filing.

The approximate limits of a small shoal area at the upstream end of Haddam Island has been delineated by office inspection of the photographs.

Alongshore details have been shown as delineated by the field inspection party.

36: OFFSHORE DETAILS:

There are no offshore details.

37: LANDMARKS AND AIDS:

Forms 567 are being submitted in the near future for the entire area of Project Ph-31(48)F. See 67 Review Report

38: CONTROL FOR FUTURE SURVEYS:

There were six recoverable topographic stations established by air photogrammetric plot in the area of this map manuscript. Forms 524 are submitted, with this descriptive report. A list of recoverable topographic stations has been included in paragraph 49.

39: JUNCTIONS:

Complete and satisfactory junctions have been made with adjoining map manuscripts.

40: COMPARISON WITH EXISTING MAPS:

A visual comparison was made with U.S.G.S., Deep River, Conn., 7 1/2 min. quadrangle, Scale 1:31680, Edition of 1944.

A visual comparison was made with Army Map Service, Haddam, Conn., 7 1/2 min. quadrangle, Scale 1:25,000, Edition of 1947.

A visual comparison was made with U.S.G.S. Middletown, Conn., 15 min. quadrangle, Scale 1:62,500, Edition of 1893 reprinted 1942.

There have been numerous changes and additions in roads since this quadrangle was compiled.

47: COMPARISON WITH NAUTICAL CHARTS:

Comparison was made by use of the vertical projector, with Nautical Chart No. 266, Scale 1:20,000, last printed 9/20/48 hand corrected 10/28/48.

There are numerous minor disagreements between the nautical chart and map manuscript in the location of shoreline and other planimetric detail.

Approved:

Charles W. Clark

Charles W. Clark
Officer-in-Charge

Respectfully submitted:

J. Edward Deal Jr.

J. Edward Deal, Jr.
Cartographer

49: NOTES FOR THE HYDROGRAPHER:

Forms 524 are submitted for six recoverable topographic stations as follows:

√ SEARS SHOAL FRONT - 61, 1948
√ SEARS SHOAL REAR - 61, 1948
√ HADDAM ISLAND REAR RANGE LIGHT, 1948
√ HADDAM ISLAND FRONT RANGE LIGHT, 1948
√ WARNER'S QUARRY DOCK LIGHT, 1948
HIGGANUM #55, 1948

No photo-hydro stations were established in the area.
Form 524 filed in Div. Photogrammetry general files.

PHOTOGRAMMETRIC OFFICE REVIEW

T-9091

1. Projection and grids ✓ 2. Title ✓ 3. Manuscript numbers ✓ 4. Manuscript size ✓

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy ✓ 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) ✓ 7. Photo hydro stations ✓ 8. Bench marks ____
9. Plotting of sextant fixes ✓ 10. Photogrammetric plot report ✓ 11. Detail points ✓

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline ✓ 13. Low-water line ✓ 14. Rocks, shoals, etc. ✓ 15. Bridges ✓ 16. Aids to navigation ✓ 17. Landmarks ✓ 18. Other alongshore physical features ✓ 19. Other alongshore cultural features ✓

PHYSICAL FEATURES

20. Water features ✓ 21. Natural ground cover ✓ 22. Planetable contours ____ 23. Stereoscopic instrument contours ____ 24. Contours in general ____ 25. Spot elevations ____ 26. Other physical features ✓

CULTURAL FEATURES

27. Roads ✓ 28. Buildings ✓ 29. Railroads ✓ 30. Other cultural features ✓

BOUNDARIES

31. Boundary lines ____ 32. Public land lines ____

MISCELLANEOUS

33. Geographic names ✓ 34. Junctions ✓ 35. Legibility of the manuscript ✓ 36. Discrepancy overlay ____ 37. Descriptive Report ✓ 38. Field inspection photographs ✓ 39. Forms ✓

40. Rice H. Barron — Reviewer; J. Edward Deal Jr. — Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Compiler ____ Supervisor ____

43. Remarks:

M-2623-12

48: GEOGRAPHIC NAME LIST:

Chart #266

Connecticut River
Haddam Island Bar
Haddam Neck (bothland area and settlement)
Higganum Creek
Moodus River
~~Mill Creek~~ Beaver Meadow Brook (1944 B.&N.)
Rock Landing Bar
Salmon River
Scovills Rock
Scovill Rock Bar
Sears Shoal

Army Map Service
HADDAM QUAD

Candlewood Hill Road
Higganum Reservoir
Upper Pond

FIELD INSPECTION

Higganum Cemetery
Maple Avenue
St. Peters Cemetery

USGS Quads: DEEP RIVER, CONN.
MOODUS, CONN.
MIDDLE HADDAM, CONN.

Bible Rock Brook
Brainard Homestead State Park (this is name on all available sources) (Brainerd also used in this general vicinity)
Cave Hill
Cove Meadow
Conn. State Hwy #151
Higganum
Hurd Park
Hubbard Brook
Johnson Mill Pond
Leesville
Maromas Road
Middlesex Turnpike - state No. 9
Mt. Tom
Moodus
Old Rock Landing Cemetery
Pine Brook
River Road State No. 149
Salmon ~~River~~ Cove (Salmon Cove is 1950 B.&N.)
Sexton Hill
Shailerville
Wopowog

Names underlined in red are approved 5-17-51 L. Heck

New York, New Haven and Hartford

Note: Final name sheet was not furnished. Geographic names were obtained from sources shown above.

Additional Names, mostly on manuscript (SE to NW):

Scovill Landing
Old Cove Burying Ground
Plain Road
Warners Quarry Bar
Red Store Landing
Middlesex County Home
" " Jail

Haddam
Walkley Hill Road
Depot Road
Killingworth Road (#81)
Lake Avenue
Upper Road

Higganum Grammer school
" New " "
Haddam Island
Rock Landing
Clarkhurst
Freeman Road
Hurd Brook

Review Report T-9091

Shoreline Manuscript
16 May 1951

62. Comparison with Registered Topographic Surveys:

T-2008 1:10,000 1890 (with contours)
Except for contours T-9091 supersedes the older survey for shore and near-shore features for charting purposes.

63. Comparison with Maps of other Agencies:

USE Haddam, Conn. 1:25,000 1947
USE Deep River, " " "
USGS Middle Haddam, Conn. 1:31680 1945 ed.
USGS Moodus, " " 1946 ed.

64. Comparison with Contemporary Hydrographic Surveys:

None

65. Comparison with Nautical Charts:

266 1:20,000 ed. July 1947 rev. Nov. 1950
Warners Quarry Dock Light is labeled "51" on the chart, though it bears the number "49" on T-9091 and in the Light Lists. Lt "49" was discontinued — Lt "51" in new position - See notice to Mariners no. 32 (1950). GFW.

66. Control:

Triangulation station "Clarkhurst Golf Links Clubhouse Gable, 1934" is described (279,p.4) as the finial on the cupola and it appears on the charts as a landmark "Cup". The discrepancy between Geographic Positions name (p.186) and the description name was brought to the attention of Geodesy. They have changed the name in the Positions list to read: "Clarkhurst Golf Links Clubhouse Cupola, 1934".

67. Landmarks and Aids: (Chart Letter No. 35(1951)) Copy bound with T-3087

Landmarks (Triangulation stations)

SPIRE: Haddam Neck Cong. Church Spire, 1934
SPIRE: Higganum Meth. Church Spire, 1934 See FM-M-2388-12 p.1
CUPOLA: Clarkhurst Golf Links Clubhouse Cupola, 1934

Aids:

Warners Quarry Dock 49 ("51" on Chart 266)
Haddam Island Front Range 52
Haddam Island Rear Range 52
Rock Landing Front Range 54
Rock Landing Rear Range 54

Higganum 55
Sears Shoal Front Range 61
Sears Shoal Rear Range 61

68. Accuracy:

The map complies with project instructions and with the National Standards of map accuracy.

Reviewed by:

Lena T. Stevens

Approved by:

S. V. Griffith
Chief, Review ~~Section~~ Branch 7-30-53
Division of Photogrammetry

H. R. Edmonston
Chief Nautical Chart Branch
Division of Charts

D. S. Reading
Chief, Division of
Photogrammetry

Earl O. Heaton
Chief, Division of Coastal
Surveys