

# 11139

Diag. Cht. Nos. 229, 1205, & Insert.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey Shoreline

Field No. Ph-111 Office No. T-11139

### LOCALITY

State Maine - New Hampshire

General locality Dove

Locality Salmon Falls River to Dover

1951-54

### CHIEF OF PARTY

E.H.Kirsch, Chief of Field Party  
I.R.Rubottom, Tampa Photo. Office

### LIBRARY & ARCHIVES

DATE September 15, 1958

# 11139

# DATA RECORD

T - 11139

Project No. (II): **Pb-114(53)** Quadrangle Name (IV):

Field Office (II): **Newburyport, Mass**

Chief of Party: **E. H. Kirsch**

Photogrammetric Office (III): **Tampa, Fla.**

Officer-in-Charge: **Ira R. Rubottom**

Instructions dated (II) (III): **13 March 1953**  
**Supplement No. 1 28 March 1953**  
 " No. 2 **30 April 1953**  
 " No. 3 **6 May 1953**  
 " No. 4 **26 May 1953**  
 " No. 5 **25 June 1953**

Copy filed in Division of  
Photogrammetry (IV)

Method of Compilation (III): **Graphic**

Manuscript Scale (III): **1:10,000**

Stereoscopic Plotting Instrument Scale (III): **Inapplicable**

Scale Factor (III): **None**

Date received in Washington Office (IV): **NOV-8-53** Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): **4/10/58**

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): **N. A. 1927**

Vertical Datum (III): **M. H. W.**

~~Mean sea level~~ except as follows:

Elevations shown as (25) refer to mean high water  
 Elevations shown as (2) refer to sounding datum  
 i.e., mean low water or mean lower low water

Reference Station (III): **DOVER, 1908** ✓

Lat.: **43° 11' 15".811 (487.9 m.)** ✓

Long.: **70° 51' 31".742 (716.8 m.)** ✓

Adjusted

~~Unadjusted~~

Plane Coordinates (IV):

State:

Zone:

Y=

X=

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.


INAPPLICABLE

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

## DATA RECORD

Field Inspection by (II): **None** Date:

Planetable contouring by (II): **Inapplicable** Date:

Completion Surveys by (II): **Inapplicable** Date:

Mean High Water Location (III) (State date and method of location): **Air Photo Compilation**  
**Date of photographs**

Projection and Grids ruled by (IV): **S. Rose (W.O.)** Date: **15 Feb. 1953**

Projection and Grids checked by (IV): **H. D. Wolfe (W.O.)** Date: **16 Feb. 1953**

Control plotted by (III): **J. E. Johnson** Date: **9 Dec. 1953**

Control checked by (III): **R. J. Pate** Date: **9 Dec. 1953**

Radial Plot ~~of Stereoscopic~~ **M. M. Slavney** Date: **4 Jan. 1954**  
~~Control extension~~ by (III):

Planimetry Date:

Stereoscopic Instrument compilation (III): **Inapplicable** Date:

Contours Date:

Manuscript delineated by (III): **R. R. Wagner** Date: **30 Aug. 1954**

Photogrammetric Office Review by (III): **J. A. Giles** Date: **14 Sept. 1954**

Elevations on Manuscript Date:  
checked by (II) (III): **Inapplicable**

Camera (kind or source) (III): **FAIRCHILD K-17-6" Metrogon lens Camera "J"**  
**DQM photographs (Mark Hurd Mapping Co. for Dept. of Agriculture)**  
**Wild Camera W**

## PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
51-J-5979-82 incl.	2 Nov. 1951	No-time	1:10,000	-
DQM-9K-179	2 July 1952	1050	"	3.1
51-H-1365	29 Apr. 1954	1537	"	-0.2
51-H-1366-67	"	1538	"	"
51-H-1368-69	"	1539	"	"
51-H-1371	"	1544	"	"
51-H-1372-73	"	1545	"	"

## Tide (III)

Computed from predicted tide tables

Reference Station: **PORTLAND**  
 Subordinate Station: **SALMON FALLS RIVER ENTRANCE**  
 Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
	8.9	10.2
0.7	6.6	7.6

Washington Office Review by (IV): *Leah T. Stevens*Date: *23 Dec. 1954*

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): **5**  
 Shoreline (More than 200 meters to opposite shore) (III): **11**  
 Shoreline (Less than 200 meters to opposite shore) (III):  
 Control Levelling - Miles (II): **Inapplicable**  
 Number of Triangulation Stations searched for (II): **5**  
 Number of BMs searched for (II): **Inapplicable**  
 Number of Recoverable Photo Stations established (III): **none**  
 Number of Temporary Photo Hydro Stations established (III): **13**

Recovered: **5** Identified: **7\***  
 Recovered: Identified:

Remarks:

**\*Two (2) stations were identified in the office to carry the plot north. See**

**Photogrammetric Plot Report**



5 - 1

PHOTOGRAMMETRIC PLOT REPORT.

21. AREA COVERED.

This photogrammetric plot was for Section A of Ph-114(53), comprising maps T-11139 to T-11147 inclusive.\* The maps cover the inland navigable waters in the area of Portsmouth, Newmarket and Dover, New Hampshire.

The sketch on Page 9 of this report shows the layout of maps, the identified control, photograph centers, index of control, adjoining map T-11148 of Section B, and 14 points common to the 1943 compilation and this plot.

22. METHOD.

Radial Plot:

Map Manuscripts: -- The map projections are on acetate at 1:10,000 scale with the polyconic projection in black, the New Hampshire Grid and the Maine West Mercator Grid in blue and red. The map manuscripts are 3'45" in latitude and 7'30" in longitude.

The base grids were vinylite with the 5,000 foot interval at 1:10,000 scale. The New Hampshire State Grid was on all the manuscripts so control was transferred to the grids by matching grid values and adjusting the scale differences.

Photographs: -- The photographs were single-lens taken in July 1952 at 1:20,000 scale by Mark Kurd Mapping Company for the Production and Marketing Administration of the Department of Agriculture and enlarged to approximately 1:10,000 scale.

Templets: -- Vinylite templets were made from the photographs using the distortion templet furnished by the Washington Office for photographs printed with the Saltzman projector.

Closure and adjustment to control: -- All the control that could be transferred from the 1943 field prints was identified on the 1952 photographs; and fourteen points were selected from the 1:20,000 manuscripts, as suggested in Paragraph 5 of the Instructions, dated 20 February 1953; reference 73-aal. These points are indicated on the sketch by letters A to O and are discussed under Item 24. \*

7 2.

A preliminary radial plot disclosed a control discrepancy in T-11141. The templet DQW-9K-179, the first laid in the area, was fixed plus a check station and would not hold all the control. After several trial laydowns it was decided that DOVER, PACIFIC MILLS RED BRICK STACK, 1943 (No. 1 on sketch) was in error. This is discussed further under Item 23.

On the final radial plot, fixed templets were laid as follows:

DQW-10K-12, 13, 14, 15, 22, 23, 24 and 25; then

DQW-9K-123, 124, 176, 179, 184, 186 and 189

No more trouble was encountered with control but discrepancies were noted in eleven (11) of the fourteen (14) points identified and scaled from the 1943 compilations. These discrepancies on fixed templets revealed that the points (A to O on sketch) could not be held to supplement the control. (See Item 24 for discussion). The plot was continued and bridged across progressively weaker areas.

The area along the junction of T-11142 and T-11143 required the most adjustment. The interruption of azimuths on the photographs centered in the water made the plot more difficult and probably this is the weakest part of the work.

The photogrammetric points were transferred from the plot to the various manuscripts by adjusting to similar coordinate values.

### 23. ADEQUACY OF CONTROL.

All the control that could be transferred from the 1943 nine-lens photographs to the 1952 photograph was used excepting a few stations in the Portsmouth area where a plethora of control was identified. Two stations, TANK WINDMILL, 1908 (No. 9 on sketch) on T-11141, and NEWMARKET WAREHOUSE CHAPEN CO. STACK, 1943 (No. 14 on sketch) on T-11142, could not be found on the 1952 photographs. The latter station was not needed because NEWMARKET INDUSTRIAL ASSOCIATION TANK, 1943 (No. 13 on sketch) was used, but TANK WINDMILL, 1908 would have helped. One station, YELLOW CUPOLA HORIZONTAL STRIPES, 1943 (No. 11 on sketch) on T-11141 was "not recovered" in 1943 but a cupola on a building in the area was identified and tried on the plot where it held.



Control station DOVER PACIFIC MILLS RED BRICK STACK, 1943 (No. 1 on sketch) on T-11139, fell on one photograph DQW-9k-179. This photograph was rigidly fixed plus a check station. After repeated trial laydowns bridging to other control it was decided that the "STACK" was at fault. It is noted that the 1943 identification card for this station was originally labeled "DOVER LARGEST SMOKE CHIMNEY" then changed with a new sketch made in the compilation office. Both stations are "No Check" intersection stations. No photogrammetric position was possible for DOVER PACIFIC MILLS RED BRICK STACK but the one cut from DQW-9k-179 fell 0.8 mm (8 meters) northeast of the plotted position. As an additional check an attempt was made to identify DOVER, FIRST PARISH CONGREGATIONAL CHURCH SPIRE, 1943 (No. 2 on sketch) but it fell on the edge of DQW-9k-179 and could not be positively transferred.

The adequacy of control for this plot is in doubt and is the subject of Item 26, ACCURACY AND RECOMMENDATIONS. (See paragraph 6, Instructions, dated 20 February 1953; reference 73-aal).

It is noted that some control plotted on the Ph-1114(53) manuscripts was listed "Not recovered" in 1943 although they appear on the 1943 manuscripts. They are:

T-11141 - OYSTER RIVER FLAG STAFF, 1908

T-11142 - MARSH, 1908

T-11143 - POINT, 1908; TANK WINDMILL, 1908; BOILING ROCK, 1908; OLD WHARF WEST CORNER SPIRE, 1908; and SOUTH CHY. HOUSE OFF KITTY JUNCTION R.R. STATION, 1900

#### 24. SUPPLEMENTAL DATA.

Fourteen (14) points, A to O on the sketch, common to the 1952 photographs and the 1943 compilations, were scaled off the 1943 manuscripts and plotted on the base grid for this plot. The 1943 office photographs were not available and only one pass point on the 1:20,000 manuscripts could be positively identified in the areas desired on the 1952 photographs; the other points are details on the 1943 manuscripts that could be identified on the 1952 photographs. Three of these points were held:

"J" on sketch is YELLOW CUPOLA HORIZONTAL STRIPES,  
1908, discussed in Item 22.

"B" and "M" on sketch, which fell on one photo-  
graph each and whose cuts held.

The points A to O are described and the position differences with  
the 1943 1:20,000 compilation are as follows:

POINT	MAP	DESCRIPTION	DISTANCE & DIRECTION OF THE PH-114(53) POSITION FROM THE 1943 POSITION
A	T-11140	NE corner of large building	0.7 mm (7 meters) E
B	T-11140	NE corner of large building	OK
C	T-11142	Intersection of roads	1.3 mm (13 meters) S
D	T-11145	Intersection of centerline of bridge and fender	1.8 mm (18 meters) E
E	T-11146	Intersection of road and R.R.	0.6 mm (6 meters) SW
F	T-11146	Intersection of roads	0.7 mm (7 meters) ESE
G	T-11143	E gable of large building	0.8 mm (8 meters) E
H	T-11143	E gable of large building	2.2 mm (22 meters) SW
J	T-11141	Cupola on building	OK (See Item 22)
K	T-11141	Intersection of road and R.R.	0.8 mm (8 meters) S
L	T-11141	N end of bridge fender	0.8 mm (8 meters) SE
M	T-11141	Intersection of roads	OK (one cut)
N	T-11144	Intersection of R.R. <sup>and</sup> overpass	1.0 mm (10 meters) ESE
O	T-11144	Center of bridge	0.9 mm (9 meters) SE

The 1952 photogrammetric position of these points are on the Ph-114  
manuscripts as pass points.

25. PHOTOGRAPHY.

The instructions for this project, dated 2/20/53, included T-11139, T-11140, T-11141 and T-11144 for compilation as part of Section A, but photographic coverage was marginal in T-11140, T-11141 and T-11144, and inadequate in T-11139.

The forward lap was approximately 60% and the side-lap varied from 20% to 45%.

The prints, enlargements on positype paper using the distortion plate in the printer, were of good contrast and definition. Some tilt was noticed but not enough to merit special attention.

26. ACCURACY AND RECOMMENDATIONS.

The accuracy of this photogrammetric plot is in doubt because the scarcity of control was aggravated by the interruption of azimuths when several photograph centers fell in the water. (See sketch on page 8 ). Also the differences in 1943 compilation positions and the 1953 photogrammetric plot positions for the points tabulated in Item 24 must be considered in evaluating the accuracy of this plot notwithstanding the lack of any reports on the 1943 work. However, by all criteria the plot seemed very good. Furthermore, the intersections when cutting in detail points and the photo-hydro signals were checked and all were considered to be very good.

It is therefore recommended that the accuracy of this photogrammetric plot be checked by locating stations or substitute stations in the vicinity of the red circles shown on the sketch; that the points be cut in on the map manuscripts and then the field positions be plotted. If the radial plot positions of these points meet the required accuracy it is believed that the remainder of the plot is satisfactory, if not, the new control may be used in a new radial plot.

It is noted that of the proposed check points, "Circles 1, 2, 3 and 5 are in the area of triangulation stations shown on the 1943, and Ph-114 manuscript, although the control identification card of 1943 on 1, 3 and 5 lists them "Not recovered".

Circle 1 - OYSTER RIVER FLAG STAFF, 1908

Circle 2 - TANK WINDMILL, 1908, identified on the 1943 photographs, could not be identified on the 1952 photographs, perhaps a substitute station from the footings of the old windmill, preferably about 400 meters east of the station.

6.

Circle 3 - MARSH, 1908

Circle 5 - POINT, 1908

27. GENERAL.

A final check was made to insure proper transfer of all pass points, control and photograph centers to the material limits of all map manuscripts. "Dog-ears" for the photograph centers needed for compilation were added to complete the preparation of the map manuscripts.

Dates of completion of the radial plot are as follows:

T-11140 and T-11141 - - 11 March 1953  
T-11143 - - 12 March 1953  
T-11142 and T-11144 - - 13 March 1953  
T-11145 and T-11146 - - 16 March 1953  
T-11147 - - 18 March 1953

Respectfully submitted

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Hilton M. Slavney,  
Cartographer,  
Tampa Photogrammetric Office

APPROVED AND FORWARDED

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J. E. Waugh, Chief of Party



SUPPLEMENT TO PHOTOGRAMMETRIC PLOT REPORT.

*See note opposite  
page 6*

12-7

The 1953 Photogrammetric Plot for T-11139, using the four single-lens contact prints 51-J-5979 through 51-J-5982 flown in 1951, was not considered tight enough for final hydrographic control because the photographic coverage was inadequate. A preliminary radial plot by the field party was extended by planetable survey E. C. F. P. Ab 53 to provide hydrographic control up the Salmon Falls River.

Attempts to reconcile the shoreline of the planetable sheet with the office compilation of T-11139 and planetable positions of some hydrographic signals with photogrammetric positions failed.

When notice of the impending visit of Mr. B. G. Jones, Technical Assistant to Chief, Photogrammetry Division, was received, it was decided to wait until this could be discussed with him.

A new photogrammetric plot with adequate photographic coverage for T-11139 of Section A, Ph-114(53) was authorized in discussion with Mr. B. G. Jones and correspondence with Chief, Photogrammetry Division. See copy of letter which is included with this report.

The sketch on page 7 of this report shows the 1951 and the 1954 photographs, and the control used on the photogrammetric plot for T-11139.

The new photographs are single-lens taken on 29 April 1954 at approximately 1:20,000 scale with the Wild Camera. The prints are 2-diameter enlargements on acetate impregnated paper.

Vinylite templets were made from the prints. No provision was made for distortion correction.

Control and pass points used on the 1953 plot for T-11139 and T-11141 were transferred to the photographs used on this plot. Two triangulation stations, SOUTH BERWICK LARGE BLACK TANK, 1908, and SOUTH BERWICK ACADEMY LARGE STONE CUPOLA, 1908, were transferred from the 1943 field photographs to control the north end of the north-south flight.

The plot was run on the manuscripts by laying the two flights simultaneously. The north-south flight was started with photograph 54-W-1364 and ended with 54-W-1369. The east-west flight was started with fixed photograph 54-W-1372 and tied into the north-south flight with 54-W-1373.

All the control was held. PACIFIC MILLS RED BRICK STACK, 1943, which fell on the edge of one photograph on the 1953 plot and which was



COPY

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON 25

IN REPLY ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY  
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO NO.

711-aal

10 March 1954

To: Officer-in-Charge  
U. S. Coast and Geodetic Survey  
Tampa Photogrammetric Office  
P. O. Box 1689  
Tampa, Florida

Subject: Additional photographs for map T-11139,  
Project Ph-111A

Reference: Your discussions with Mr. B. G. Jones at Tampa

We find no available photography in T-11139 in addition to that already furnished you. However, we are going to schedule a short single-lens flight in this area to strengthen your plot of the shoreline. These photographs should be available about 1 May 1954.

Manuscript T-11139 should be held at Tampa for use of the new photography unless the Norfolk Office has some urgent need for the shoreline that will not permit waiting until May. Please inform me if you have any questions about this.

/s/ O. S. Reading

O. S. Reading  
Chief, Div. of Photogrammetry

COPY

P. O. Box 592, Newburyport, Mass.

14  
COPY

7 October 1953

To: The Director  
U. S. Coast and Geodetic Survey  
Washington 25, D. C.

Subject: Project Ph-114 (Area A)

Reference: Letter dated 30 April 1953 - 711-aal

Enclosed is a letter transmitting the manuscripts and photographs covering Area A of Project Ph-114; and the Form 2226-12 and computations of the various check points required by the reference letter.

A short commentary on each of the points located for test purposes follows:

TEST POINT NO. 1 -- This point was located as a sub point for station "OYSTER RIVER FLAGSTAFF 1908". This station was reported destroyed in 1943 but an investigation showed that the base of the pole was still in position even though the staff had been cut down. Consequently, this remnant of the station was used to locate a sub point which, when radially plotted, checked the computed position within 3 meters.

\*

TEST POINT NO. 2 -- This point was located, as requested by the Tampa Office, in the sidalap areas of Photos DQW-9K-179 and 180. The traverse was run from station "TANK WINDMILL 1908". As the station, an intersected object, could not be occupied, and since no azimuth was visible from the ground, the traverse was based on a Polaris Observation taken between Points 1 and 2 of the traverse. The azimuth was then carried back to the first line, reverses by adding 180 degrees, and the traverse computed by Geographic Positions. The radial plot position of the sub point checked the computed position within 6 meters. The computation of this traverse has not been checked in the field and should be checked before the result is considered final. This was taken up with Capt. Reading on his visit here and it is with his permission that the traverse is submitted without having been checked. *See note next page*

TEST POINT NO. 3 -- In order to locate Test Points 3, 4, and 5, single triangles were observed to establish marked stations, which were then used to establish positions for sub points. In this particular area, a marked triangulation station (WATSON 1953) was established, and the sub point was located by laying out a base at the station and observing on the sub point from both ends of the base. The computed position of the sub point checked the radial position almost exactly.

TEST POINT NO. 4 - - A marked topographic station, WEEK 1953, was established as a no check position from the two marked triangulation stations mentioned above, and the test point was computed as a sub point for this station. The computed position checked the radial plot position within 5 meters.

TEST POINT NO. 5 - - This test point was established as a sub point for triangulation station "POINT 2 1953" which was located by single triangle. The sub point is also a pass point on the manuscript, and the computed position checked the plotted position with 4 meters.

The various stations numbered and required for identification on the diagram on Page 6 of Reference 3 of the reference letter, were identified with the exception of No. 14 which was found to have been destroyed.

Form 2226-12 for the following numbered stations were sent to Tampa for the compilation of sheet 11147 and should be secured from that office.

- NO. 37 - STARK 145 1941
- NO. 39 - FROST POINT 144 1941
- NO. 40 - ODIORNES POINT 143 1941
- NO. 41 - PULPET ROCK 142 1941
- NO. 44 - RYE LEDGE 139 1941

A complete list of the recovery, identification and establishment of the stations in this area is enclosed with the field data.

Computations of Geographic Positions for the two permanently marked triangulation stations will be forwarded to the Division of Photogrammetry for submission to the Division of Geodesy.

With regard to sentence 2 of paragraph 3 of the reference letter, numerous sub points were selected during the field work in sheets 11147 and 11144, and should satisfy the stipulation for identified control in sheet 11168.

\* \* \* \*

Respectfully submitted,

John C. Lajoie  
Cartographer, USCGS

\*

An error in the traverse computation for Test Point No. 2 moved the geographic position to within about two meters of the radial plot position.

TAMPA PHOTOGRAMMETRIC  
OFFICE



not held at that time, was held on this plot when the transfer was corrected.

It is noted that the triangulation symbol for Elliot Greenhouse Stack, 1943, on the 1943 1:20,000 compilation T-8527, is shown around a "prick-hole" that is 73 meters  $341^{\circ}$  in azimuth from a "prick-hole" that is the true position of the STACK. Examination revealed that the published quadrangle DOVER EAST N.H., ME. shows the station symbol with the same error. This station falls on T-11141 of this project.

The photographs are sharp and of excellent contrast. Some tilt was observed but none severe enough to justify computation.

Agreement between the 1953 photogrammetric plot and this one varied from 0.0 mm in the western portion to 1.2 mm (12 meters) at the eastern limits of the 1953 plot.

It is believed that this plot meets the accuracy requirements.

There follows a comparison of the radial plot positions and the field positions for the five check points called for in Item 26 of the Photogrammetric Plot Report for Section A of Ph-114(53). Reference letter dated 10/7/53 to the Director from Mr. J. C. Lajoie (copy attached)

POINT	DISTANCE AND DIRECTION OF FIELD POSITION FROM PHOTOGRAMMETRIC POSITION
Test Point No. 1	3 meters south
Test Point No. 2	2 meters north
Test Point No. 3	0.0
Test Point No. 4	5 meters southeast
Test Point No. 5	4 meters west

Respectfully submitted,

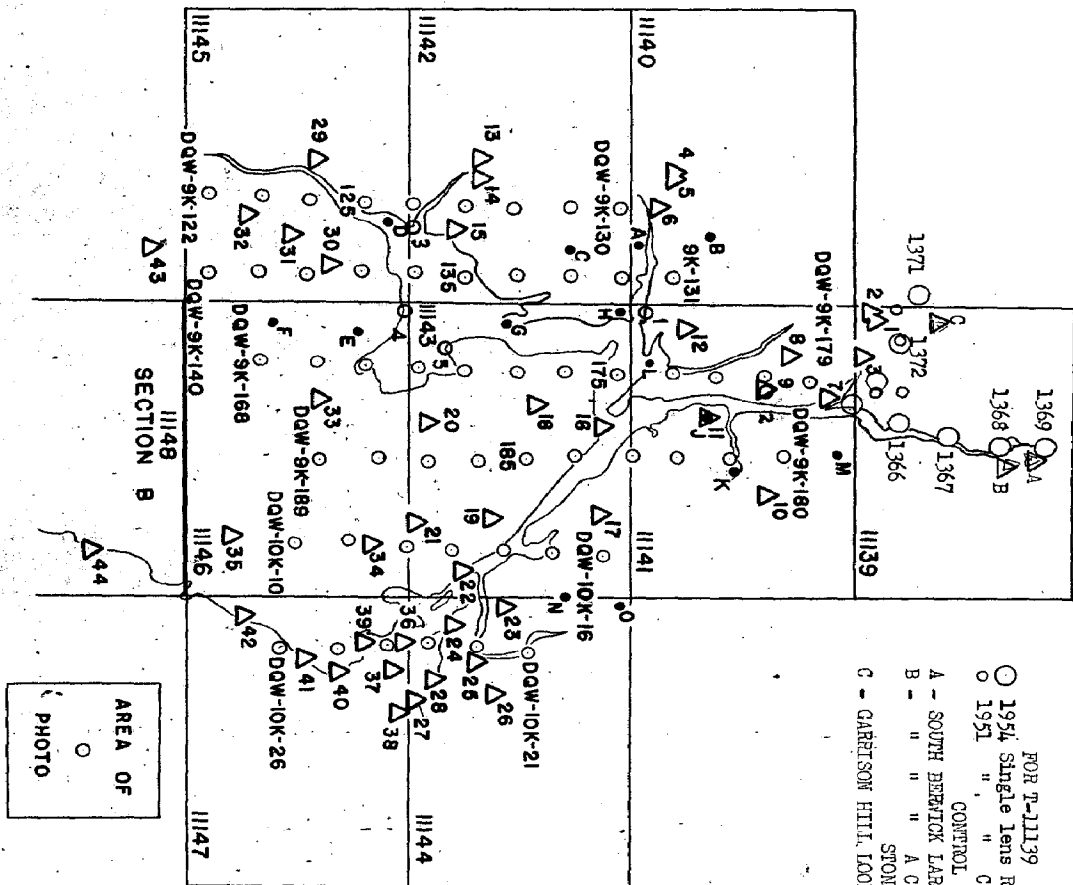
Milton M. Slavney  
Cartographer  
Tampa Photogrammetric Office

APPROVED AND FORWARDED:

Ira R. Rubottom, Chief of Party

○ 1954 Single lens Ratio Print (Wild)  
○ 1951 " " Contact Print

A - SOUTH BERNICK LARGE BLACK TANK  
B - " " A CADENT LARGE  
STONE CUPOLA  
C - GARRISON HILL, LOOKOUT TOWER



Δ HORIZONTAL CONTROL STATION  
 • POINTS COMMON TO 1943 COMPILATION  
 ⊗ CENTER OF SINGLE LENS PHOTOGRAPH

SKETCH FOR REPORT ON  
PHOTOGRAMMETRIC PLOT  
FOR PH-114(53) SECTION A

1. DOVER, PACIFIC MILLS REED BRICK STACK, 1943
2. DOVER, FIRST PARISH CONG. CHURCH SPIRE, 1943
3. SUB. FT. DOVER, 1908
4. UNIV. OF N. H., DURHAM, TANK, 1943
5. UNIV. OF N. H., DURHAM STACK, 1943
6. DURHAM, COMMUNITY CHURCH SPIRE, 1890
7. GRAY BARN CUPOLA, 1908
8. ELLIOT GREENHOUSE STACK, 1943
9. TANK WINDMILL, 1908
10. SUB. FT. FROST, 1908
11. YELLOW CUPOLA, HORIZONTAL STRIPES, 1908
12. SUB. FT. FROST, 1908
13. NEWMARKET, INDUSTRIAL ASSN. TANK, 1943
- \*14. NEWMARKET, NAKEM CHAFFIN CO., STACK, 1943
15. YELLOW BARN CUPOLA, 1908
16. NEWINGTON R. R. STATION, NW CHIMNEY, 1908
17. KITTERY WATERWORKS STANDPIPE, 1943
18. NEWINGTON CHURCH, SQUARE SPIRE, 1850-1908
19. WENTWORTH ACRES, TANK, 1943
20. FRANK JONES STANDPIPE, 1908
21. PORTSMOUTH STANDPIPE, 1928
22. PORTSMOUTH NORTH CHURCH SPIRE, 1900
23. KITTERY, SECOND N. E. CHURCH CUPOLA, 1900
24. PORTSMOUTH NAVY YARD, STANDPIPE, 1915
25. KITTERY POINT CONG. CHURCH SPIRE, 1900
26. KITTERY POINT BAPTIST CHURCH SPIRE, 1898.
27. WOOD ISLAND QUAST GUARD CUPOLA, 1917
28. PORTSMOUTH HARBOR L. H., 1878
29. NEWFIELDS UNIVERSALIST CHURCH, TALL SLENDER SPIRE, 1908
30. STATEHAM HILL FIRE TOWER, 1944
31. STATEHAM, SQUARE CHURCH SPIRE, 1908
32. STATEHAM, TALL CHURCH SPIRE, 1908
33. GREENLAND ORTHODOX CHURCH TALL SPIRE, 1908
34. WEEB, RAPID TOWER, 1911
35. RYE ORTHODOX CHURCH SPIRE, 1850
36. WENTWORTH HOTEL, HIGHEST CUPOLA, OLD BUILDING, 1898
37. SUB. FT. STARK 145, 1944
38. WATERBURY L. H., 1878
39. SUB. FT. FROST POINT 144, 1944
40. SUB. FT. OGDENSE POINT 143, 1944
41. FULLERTON ROCK 142, 1944
42. OCEAN WAVE HOTEL CUPOLA, 1898
43. SUB. FT. ROLLINS, 1911
44. SUB. FT. EYE LEDES, 1944

\*Not identifiable on the 1952 photographs used in this radial plot.

MAP T- 11139

PROJECT NO. Ph-1114

SCALE OF MAP 1:10,000

SCALE FACTOR

[illegible]

11 FT. = .3048006 METER  
M.M.  
COMPUTED BY:

**ER  
I. M. Slavney**

DATE 25 Feb. 1953

CHECKED BY: I.I.Saperstein

DATE 25 Feb. 1953

M. 2388.12

MAP T. 11140 PROJECT NO. PH-1114 SCALE OF MAP 1:10,000 SCALE FACTOR

SCALE OF MAP 1:10,000

77T-HA

PROJECT NO.

MAP T. 11140

SCALE FACTOR

[illegible]

M-2388-12

25 Feb. 1953

**I. I. SAPERSTEIN**

CHECKED BY:

DATE 25 Feb. 1953

1 FT. = .3048006 METER  
M.M. Slavney  
COMPUTED BY:

MAP T. 11111 PROJECT NO. **Pn-1114** SCALE OF MAP **1:10,000** SCALE FACTOR

PROJECT NO. **PA-114**

SCALE OF MAP 1:10,000

SCALE FACTOR

[illegible]

1 FT = 304800 MICRONS

COMPUTED BY: **I. I. Saperstein**

DATE 26 Feb. 1953.

CHECKED BY: **R.E. Smith**

DATE **26 Feb. 1953**

M-2388.12

MAP T. 11142 PROJECT NO. 11142 SCALE OF MAP 1:10,000 SCALE FACTOR -

[illegible]

[illegible]





[illegible]



MAP T-11146

[illegible]

M-2388.12

[illegible]

Summary to Accompany T-11139

Field instructions for Ph-114 were issued on 13 March 1953 to provide shoreline and control for inshore hydrographic surveys and to provide standard shoreline manuscripts for chart compilation. The hydrographic phase of this surveying was accomplished in the summer of 1953 under instructions for project CS-355 (Plum Island Sound to Portsmouth Harbor) and CS-361 (Cape Porpoise Harbor).

\* THE FIELD INSPECTION REPORT

WAS SUBMITTED SEPARATELY

\* Filed as a part of Report T11148



Final

COMPILATION REPORT T-11139see note photo  
page 6PHOTOGRAMMETRIC PLOT REPORT.

\* Submitted separately as a supplement to the photogrammetric plot report, Section "A", Ph-114.

\* Filed as a part of this Report

31. DELINEATION.

The graphic method of compilation was used.

There was no field inspection for this survey.

The power transmission line has not been delineated north of COCHECO RIVER since it could not be identified. Reference Item 38.

32. CONTROL.

Reference Photogrammetric Plot Report.

33. SUPPLEMENTAL DATA.

Reference Item 38 relative to planetable survey ECFP Ab 53.

34. CONTOURS AND DRAINAGE.

Contours are inapplicable.

No difficulty was encountered in the delineation of drainage.

35. SHORELINE AND ALONGSHORE DETAILS.

There was no shoreline inspection for this survey. A section of shoreline along SALMON FALLS RIVER has been shown as approximate ? due to shadows from trees along the shoreline.

The low-water lines and channel lines are from photographic interpretation.

Reference Item 38

36. OFFSHORE DETAILS.

No unusual problems were encountered.

37. LANDMARKS AND AIDS.

No statement.

38. CONTROL FOR FUTURE SURVEYS.

Thirteen (13) photo-hydro stations have been shown. They are listed under Item 49 with short descriptions of eleven (11). There are no descriptions available for two (2) stations.

Reference Photogrammetric Plot Report which was submitted as a supplement to Section "A", Ph-1114.

All of the topography is new and not the same as that furnished the hydrographic party.

The hydrographic stations established by planetable survey Ab53 made by the East Coast Field Party could not be fitted to the manuscript. Only those stations that could be positively identified on the photographs have been shown.

The low-water line and channel line are on the manuscript as an aid to the processing office for plotting soundings, since no control is available.

39. JUNCTIONS.

There is no contemporary survey to the east, north and west.

A junction was not made to the south with T-11141 at longitude  $70^{\circ} 49' 30''$ . It is requested that the W. O. rectify the discrepancy which now exists.

40. HORIZONTAL AND VERTICAL ACCURACY.

No statement.

41. BOUNDARY.

The State boundary between MAINE and NEW HAMPSHIRE was taken from topographic manuscript T-8527, CS 303-C south, Dover East (1944) scale 1:20,000. There was no Boundary Report for this project.



46. COMPARISON WITH EXISTING MAPS.

Comparison was made with USC&GS Survey T-8527, CS-303C south, Dover East (1944), scale 1:20,000. The two are in fair agreement.

47. COMPARISON WITH NAUTICAL CHARTS.

Comparison was made with USC&GS Nautical Chart No. 229, published Nov. 1914 and corrected 26 Jan. 1953. The map listed under Item 46 is not the source of planimetry for the nautical chart. The two are in fair agreement.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY.


None.

ITEMS TO BE CARRIED FORWARD.

None.

  
R. R. Wagner  
Carto Photo Aid

APPROVED AND FORWARDED.

  
Ira R. Rubottom, Chief of Party

48. GEOGRAPHIC NAME LIST.

The geographic names were taken from the manuscript listed under Item 46.

COCHECO RIVER

DOVER

DOVER CITY FARM

EMERSON BROOK

FRESH CREEK

Garrin Brook

GREAT WORKS

GREAT WORKS POND

GREAT WORKS RIVER

GULF ROAD

HAMILTON BROOK

Lower Narrows

MAINE

NEW HAMPSHIRE

PORTLAND ROAD

QUAMPHEGAN BROOK

ROLLINS NECK ROAD

SALMON FALLS RIVER

SLIGO BROOK

SLIGO HILL

SLIGO ROAD

STATE HIGHWAY 4

Upper Narrows

VAUGHAN HILL

Names approved 1-3-55.  
h. Heck

49. NOTES FOR THE HYDROGRAPHER.

The following photo-hydro stations will be of use to the hydrographer.

QDD	<i>Brick</i> Stack power plant
ROW	Tower
TAX	Tower
RAN	South cedar
PLY	East gable white house
BED	<i>Point of Marsh (H-8094)</i>
FAG	East end of marsh
NED	<i>White signal N row of trees (H-8094)</i>
UMP	Red signal in pine tree
ARM	Yellow signal
FID	Red signal north end of bridge
LAW	Red chimney brown house
FAN	Stack, <i>brick</i>

50.

## PHOTOGRAMMETRIC OFFICE REVIEW

T-11139

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

## CONTROL STATIONS

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

## ALONGSHORE AREAS

(Nautical Chart Data)

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

## PHYSICAL FEATURES

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

## CULTURAL FEATURES

27. Roads J.G. 28. Buildings J.G. 29. Railroads J.G. 30. Other cultural features J.G.

## BOUNDARIES

31. Boundary lines J.G. 32. Public land lines XX

## MISCELLANEOUS

33. Geographic names J.G. 34. Junctions J.G. 35. Legibility of the manuscript J.G. 36. Discrepancy overlay XX 37. Descriptive Report J.G. 38. Field inspection photographs J.G. 39. Forms J.G.40. Jesse A. Giles  
ReviewerWilliam A. Rasure  
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

Review Report T-11139  
Shoreline Map  
23 Dec. 1954

61. General:

Stick-up was applied to the map manuscripts in this project as a part of the compilation process, i.e., prior to review. The map manuscripts at this phase are labeled, "Advance Print".

These map manuscripts were not altered during review. Any additions, alterations, or deletions recommended by the reviewer are recorded on review correction overlays to be used by the drafting section for application of the called-for revisions on black line impressions on vinylite. These positives on vinylite, with corrections applied, serve as the final map manuscripts.

62. Comparison with Registered Surveys:

T-2958                      1:10,000                      1909 (with contours)

Except for contours, T-11139 superseded the older survey for charting purposes in their comparable area.

63. Comparison with Maps of Other Agencies:

USE Dover East, N. H., Me., 1:25,000, 1950

T-11139 supersedes the quadrangle for shoreline and planimetry for charting purposes.

64. Comparison with Contemporary Hydrographic Surveys:

H-8094 (ECFP 1753) 1:10,000 1953 Upper Piscataqua River  
and tributaries

\* The shoreline on T-11139 is not the same as on H-8094 because a new plot was laid for T-11139 with additional control. (Refer to Supplement to Photogrammetric Plot Report attached to the Photogrammetric Plot Report for Section A.) \* *Filed as a part of Report T-11139*

65. Comparison with Nautical Charts:

229 1:30,000 ed. Nov. 1914, corr. May, 1948

This chart is based on survey T-2958, 1909. It is, therefore, obsolete in much of its planimetric detail. Shoreline is still in general agreement.

T-11139 supersedes the chart for shoreline and planimetry.

66. Accuracy:

The supplementary plot for T-11139 was strongly held, as the position of shoreline and the nature of planimetry is as accurate as photo-interpretation permits. Bridge and cable data do not appear on this map, but is covered in Chart Letter No. 58, 1954. The LWL is determined by the hydrographic survey.

Reviewed by:

*Lena T. Stevens*

Lena T. Stevens

APPROVED:

*H. C. Landy*

Chief, Review Section  
Div. of Photogrammetry

*Max B. K. Little*

Chief, Nautical Chart Branch  
Div. of Charts

*Herb Swanson*

Chief, Div. of Photogrammetry

*S. B. Schmitt*

Chief, Div. of Coastal Surveys

13 Aug. 1958.