

11150

Diag. Cht. No. 1206.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Shoreline

Field No. Ph-114 (53) Office No. T-11150

LOCALITY

State Massachusetts

General locality Merrimack River

Locality Newburyport to Deer Island

19452-53

CHIEF OF PARTY

P. Taylor, Chief of Field.

J.E. Waugh, Tampa Photo. Office

LIBRARY & ARCHIVES

DATE July 28, 1958

11150

DATA RECORD

T - 11150

Project No. (II): **Ph-114(53)**

Quadrangle Name (IV):

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

Chief of Party: **Paul Taylor**

Photogrammetric Office (III): **Tampa, Florida**

Officer-in-Charge: **J. E. Waugh**

Instructions dated (II) (III):
30 March 1953 (II)
20 February 1953 (III)

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) **JUN - 9 1953** Date reported to Nautical Chart Branch (IV): **JUN 16 1953**

Applied to Chart No.

Date:

Date registered (IV): **5/26/54**

Publication Scale (IV):

Publication date (IV):

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

Vertical Datum (III):

~~Mean sea level except as follows:~~ **M. H. W.**
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): **96C (MGS) 1934**

Lat.: **42° 50' 41.437 (1278.7 m.)** Long.: **70° 56' 13.887 (315.3m.)**

Adjusted

~~UNCLASSIFIED~~

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.

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

DATA RECORD

Field Inspection by (II): **L. F. Bengnet**

Date: **28 April 1953**

Planetable contouring by (II): **(Shoreline Survey)**

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location):

Projection and Grids ruled by (IV): **Jack Allen (W.O.)**

Date: **14 April 1953**

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

Date: **14 April 1953**

Control plotted by (III): **R. J. Pate**

Date: **22 May 1953**

Control checked by (III): **I. I. Saperstein**

Date: **25 May 1953**

Radial Plot ~~of Stereoscopic~~ **M. M. Slavney**
~~Control Extension~~ by (III):

Date: **17 May 1953**

Stereoscopic Instrument compilation (III): **Inapplicable**
Planimetry
Contours

Date:

Date:

Manuscript delineated by (III): **R. Dossett**

Date: **1 June 1953**

Photogrammetric Office Review by (III): **J. A. Giles**

Date: **4 June 1953**

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

Date:

Camera (kind or source) (III):

Department of Agriculture, by Robinson Aerial Surveys, Inc.

Number	Date	Time	Scale	Stage of Tide
DPP-14K-74	10-20-52	10:59	1:10,000	7.55
75	"	10:59	"	"
76	"	11:00	"	"
77	"	11:01	"	"

Tide (III)

Reference Station: PORTLAND
 Subordinate Station: NEWBURYPORT, MERRIMACK RIVER
 Subordinate Station:

MHW	Ratio of Ranges	Mean Range	Spring Range
	-	8.9	10.2
8.2	0.9	7.8	9.0

+ 0.50 min

Washington Office Review by (IV): *Linda T. Stevens*

Date: 1 Oct. 1954

Final Drafting by (IV): P.C. Lach

Date: 31 Dec 1954

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 1.5

Shoreline (More than 200 meters to opposite shore) (III): 16

~~Shoreline (Less than 200 meters to opposite shore) (III):~~

Control Leveling - Miles (II): 0

Number of Triangulation Stations searched for (II): 14

Recovered: 12

Identified: 6

Number of BMs searched for (II): 0

Recovered: 0

Identified: 0

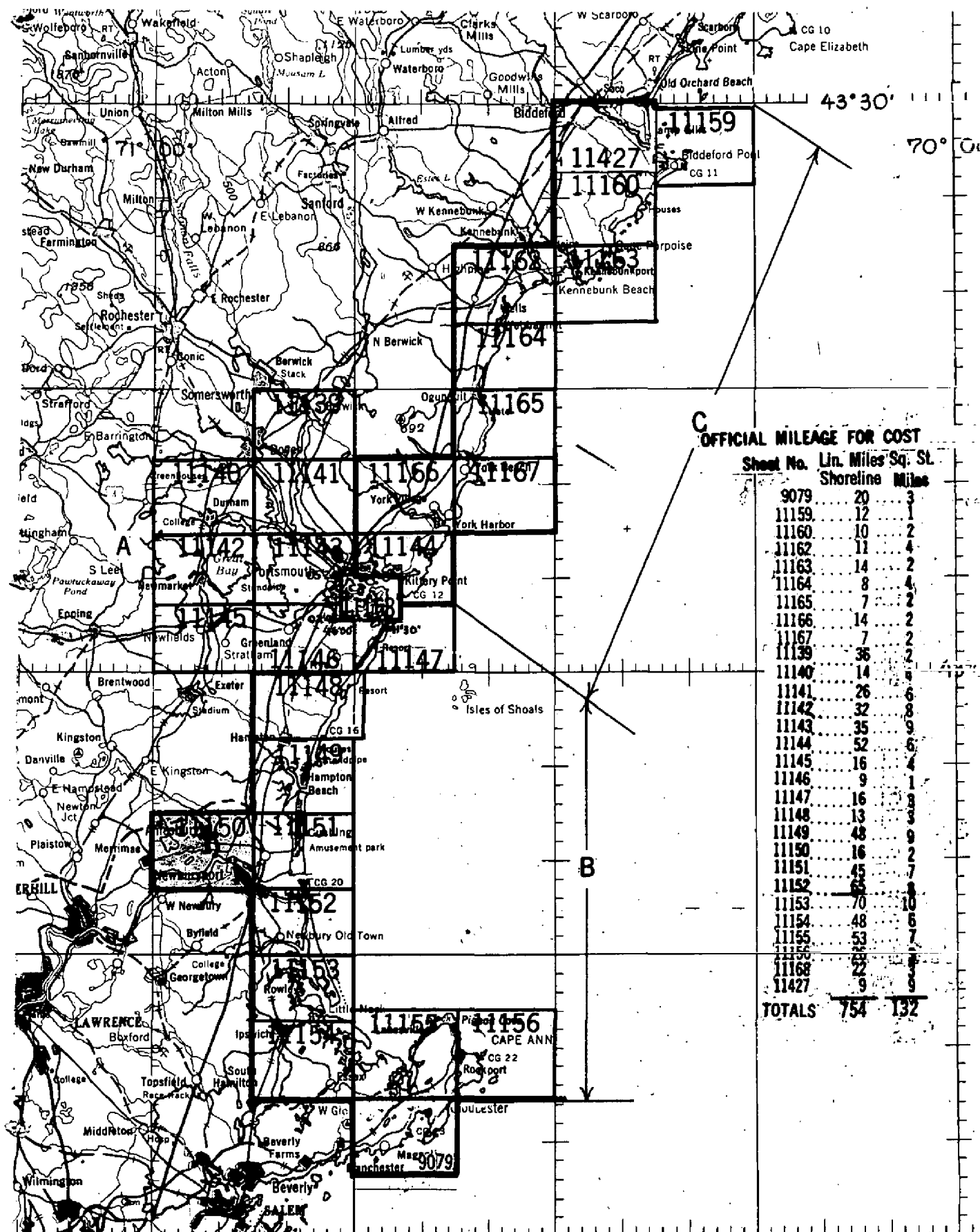
Number of Recoverable Photo Stations established (III): 0

Number of Temporary Photo Hydro Stations established (III): 17

Remarks:

SHORELINE MAPPING PROJECT PH-114

BIDDEFORD POOL, MAINE TO CAPE ANN, MASS.



OFFICIAL MILEAGE FOR COST

Sheet No.	Lin. Miles	Sq. St.
	Shoreline	Miles
9079	20	3
11159	12	1
11160	10	2
11162	11	4
11163	14	2
11164	8	4
11165	7	2
11166	14	2
11167	7	2
11139	36	2
11140	14	8
11141	26	6
11142	32	8
11143	35	9
11144	52	6
11145	16	4
11146	9	1
11147	16	3
11148	13	3
11149	48	9
11150	16	2
11151	45	7
11152	63	8
11153	70	10
11154	48	6
11155	53	7
11156	25	3
11168	22	3
11427	9	8
TOTALS	754	132

Summary to Accompany T-11150

Field instructions were issued for Ph-1114 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).

COMPILATION REPORT
T-11150 (Ph-114)

PHOTOGRAMMETRIC PLOT REPORT.

~~To be submitted at a later date.~~

Is filed as a part of Report T11147

31. DELINEATION.

Compiled graphically.

The photographs were of reasonably good scale.

The field inspection was adequate. Inshore field notes were not followed implicitly because stereoscopic examination of photographs agrees with the published (and field edited) quadrangle "NEWBURYPORT WEST".

32. CONTROL.

Sufficient secondary control was established and placement was such that no difficulty was encountered in securing detail points.

33. SUPPLEMENTAL DATA.

None.

34. CONTOURS AND DRAINAGE.

Contouring inapplicable.

Drainage was delineated photographically and according to field inspection notes.

35. SHORELINE AND ALONGSHORE DETAILS.

Delineated according to field inspection notes.

36. OFFSHORE DETAILS.

No unusual problems encountered.

37. LANDMARKS AND AIDS.

Landmarks will be submitted by the hydrographic party as per project instructions. ~~There are no nonfloating aids for charting.~~ One nonfloating aid (Kettle Rock Daybeacon) was located photogrammetrically and its position is submitted on Form 567. w.a.r.

38. CONTROL FOR FUTURE SURVEYS.

Seventeen (17) photo-hydro points have been listed under Item 49. All of these were established by the intersection of not less than three rays. Consequently, no green circles (signifying two cut intersections) appear on the Map Manuscript.

39. JUNCTIONS.

A satisfactory junction has been made with T-11151 on the east. There is no contemporary survey to the north, west and south.

40. HORIZONTAL AND VERTICAL ACCURACY.

No statement.

46. COMPARISON WITH EXISTING MAPS.

Comparison has been made with Army Map Service quadrangle NEWBURYPORT WEST, scale 1:25,000, originally compiled in 1944 by U.S.G.S. by stereophotogrammetric method. No outstanding difference was noted.

47. COMPARISON WITH NAUTICAL CHARTS.

A comparison has been made with U.S.C. & G.S. Nautical Chart No. 1206, scale 1:80,000, published October 1948, corrected to 14 July 1952.

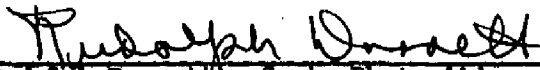
Except for the new bridge under construction, no differences were noted.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY.

None.

ITEMS TO BE CARRIED FORWARD.

None.


Rudolph Dossett Carto Photo Aid

APPROVED AND FORWARDED


J. E. Waugh, Chief of Party

48. GEOGRAPHIC NAME LIST.

B & M RAILROAD

CARR ISLAND

DEER ISLAND

EAGLE ISLAND

MASSACHUSETTS

MERRIMACK RIVER

NEWBURYPORT

RAM ISLAND

TOWN CREEK

SALISBURY POINT

*Names approved
10-8-54
a.j.w.*

49. NOTES FOR THE HYDROGRAPHER.

The following is a list of photo-hydro points for use by the hydrographer:

- 5001 - Wht. lt. atop a small concrete structure about 4 feet high on north side of river.
- 5002 - Red brick stack, south side of river, west of new bridge.
- 5003 - East end of north pier of bridge under construction.
- 5004 - Light over center of draw span of old bridge.
- * 5005 - Southeast corner of concrete pier supporting fixed bridge.
- 5006 - Southeast corner of house, north side of river.
- 5007 - Tall slender cedar tree, north side of river, off east end of Eagle Island.
- 5008 - Center of large tree, south side of river on point south-east of Eagle Island.
- 5009 - Center of duck blind, north side of river, east side of creek.
- 5010 - Center of duck blind, north side of river, opposite Carr Island.
- 5011 - Center of small shack, south side of river.
- 5012 - Red brick stack, south side of river.
- 5013 - Center of cedar on south side of Carr Island.
- 5014 - Center of lone cedar on north side of Carr Island.
- 5015 - Center of duck blind, northwest side of Ram Island.
- 5016 - Black stack near northeast corner of laundry.
- 5017 - Brick stack on northwest corner of Caldwell Distillery.

* It is to be noted that the top of the southeast "tower" is the photo-hydro point.

TIDE COMPUTATION

PROJECT NO. PH114(53)-11150

Time and date of exposure 1100, 10/20/52Reference station PORTLANDSubordinate station NEWBURYPORT, MERRIMACK RIVERMean range 7.8

Date of field inspection

Ratio of ranges 0.9

	Time	
	h.	m.
High tide	11	33
Low tide	5	24
Duration of rise or fall	6	09

	Height	Height x Ratio of ranges
	feet	
High tide	9.5	8.55
Low tide	0.5	.45
Range of tide		8.10

	Time	
	h.	m.
High tide at Ref. Sta.	11	33
Time difference	0	50
Corrected time at Subordinate station	12	23

	Time	
	h.	m.
Low tide at Ref. Sta.	5	24
Time difference		50
Corrected time at Subordinate station	6	14

	h.	m.		feet		feet	Photo. No.
Time H. T. or L. T.	12	23	Ht. H. T. or L. T.	8.55	Feature bares		
Required time	11	00	Tabular correction	1.00	Stage of tide above MLW		
Interval	1	23	Stage of tide above MLW	7.55	Feature above MLW		
Time H. T. or L. T.			Ht. H. T. or L. T.		Feature bares		
Required time			Tabular correction		Stage of tide above MLW		
Interval			Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.			Ht. H. T. or L. T.		Feature bares		
Required time			Tabular correction		Stage of tide above MLW		
Interval			Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.			Ht. H. T. or L. T.		Feature bares		
Required time			Tabular correction		Stage of tide above MLW		
Interval			Stage of tide above MLW		Feature above MLW		
Time H. T. or L. T.			Ht. H. T. or L. T.		Feature bares		
Required time			Tabular correction		Stage of tide above MLW		
Interval			Stage of tide above MLW		Feature above MLW		

NONFLOATING AIDS CANNOT BE USED FOR CHARTS

Tampa Photogrammetric Office, 6 July 1954

The positions given have been checked after listing by

James

Carto. Photo. Aid

Trs R. Tubbs

Chief of Party.

[illegible]

50

PHOTOGRAMMETRIC OFFICE REVIEW

T- 11150

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 XX 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 William A. Rasure
Reviewer 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

2

er

M-2168-1

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

Review Report T-11150
Shoreline Map
5 October 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 were 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-355 1:10,000 1851 Newburyport and Environs

T-11150 supersedes the older survey for charting purposes.

63. Comparison with Maps of other Agencies

USE Newburyport, West 1:25,000 1947

Because of its more detailed shoreline and additional cultural data, T-11150 replaces these features on the quadrangle for charting purposes.

64. Comparison with Contemporary Hydrographic Surveys

H-8096 1:10,000 1953 Merrimac and Outer Coast Adjoining

* This survey was not available for comparison.

* *This comparison has been made. There are no conflicts*

65. Comparison with Nautical Charts

*6/25/54
lcl.*

331 1:20,000 July 1929 Corr. Sept. 1951
1206 1:80,000 Oct. 1948 Corr. Mar. 1954

T-11150 supersedes the charts for shoreline and culture in their common area. Offshore data is covered by H-8096 (ECFP-1253).

66. Accuracy

The radial plot report was not available so that the strength of the plot is not known to the reviewer.

The field inspection notes were wholly utilized and the delineation is well executed, so that the shoreline meets charting needs.

Reviewed by:

Lena T. Stevens
Lena T. Stevens

Approved by:

L. C. Landy
Chief, Review Section
Division of Photogrammetry

Max Skidmore
Chief, Nautical Chart Branch
Division of Charts

W. E. Swanson
Chief, Division of Photogrammetry

W. D. Drake
Chief, Division of Coastal
Surveys

23 July 1958