11142

Diag. Cht. Nos. 229 and 1206.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Shoreline

Field No. Ph-114 *Office No.* T-11142

LOCALITY

State New Hampshire

General locality Great Bay

Locality Oyster River to Lamprey River

194 52

CHIEF OF PARTY

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

LIBRARY & ARCHIVES

DATE September 15, 1958

8-1870-1 (1)

11142

ADVANCE

DATA RECORD

T -11142

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

Field Office (II): Chief of Party:

Photogrammetric Office (III): Tampa, Florida Officer-in-Charge: J. E. Waugh

Instructions dated (II) (III): 20 February 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

MAR 31 1953

Date received in Washington Office (IV): 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.

[redacted] 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): NEWMARKET INDUSTRIAL ASSN. TANK, 1943

Lat.: 43° 04' 49".013 (1512.5 m.) Long.: 70° 56' 12".748 (288.4 m.) Adjusted [redacted]

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.

M-2618-12(4)

ADVANCE

DATA RECORD

Field Inspection by (II): None — Date:

Planetable contouring by (II): — Date:

Completion Surveys by (II): — Date:

Mean High Water Location (III) (State date and method of location):
Air Photo Compilation (Office inspection only) — 2 July 1952

Projection and Grids ruled by (IV): Jack Allen (W.O. — Date: 13 Feb. 1953

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

Control plotted by (III): R. E. Smith — Date: 2 Mar. 1953

Control checked by (III): R. R. Wagner — Date: 2 Mar. 1953

Radial Plot [illegible] by (III): M. M. Slavney — Date: 13 Mar. 1953

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

Manuscript delineated by (III): R. E. Smith — Date: 20 Mar. 1953

Photogrammetric Office Review by (III): I. I. Saperstein — Date: 24 Mar. 1953

Elevations on Manuscript *checked by (III):* None — Date:

ADVANCE

Camera (kind or source) (III): Single-lens

DEPARTMENT OF AGRICULTURE
(Mark Hurd Mapping Company)

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
DQW-9K-126	2 July 1952	10:28	1:10,000	2.9 Feet
" -127	"	10:29	"	"
" -128	"	10:29	"	"
" -129	"	10:30	"	"
" -130	"	10:30	"	"
" -131	"	10:35	"	"
" -132	"	10:35	"	"
" -133	"	10:36	"	"
" -134	"	10:36	"	"
" -135	"	10:37	"	"
" -136	"	10:37	"	"

Tide (III)

Ratio of Ranges	Mean Range	Spring Range
-	8.9	10.2
0.7	6.4	7.4

Reference Station: PORTLAND, MAINE
Subordinate Station: DOVER POINT, N. H.
Subordinate Station:

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): -
Shoreline ~~(More than 200 meters to opposite shore)~~ (III): 32
~~Shoreline (Less than 200 meters to opposite shore) (III)~~:
Control Leveling - Miles (II): -
Number of Triangulation Stations searched for (II): - Recovered: - Identified: -
Number of BMs searched for (II): - Recovered: - Identified: -
Number of Recoverable Photo Stations established (III): -
Number of Temporary Photo Hydro Stations established (III): 16

Remarks:

M-2618-12(4)

Summary to Accompany T-11142

Field instructions were issued for Ph-114 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 the survey was accomplished under instructions for C.S.-355, 6 March 1953, 29 January 1954, and 16 February 1955, - Gloucester Harbor, Massachusetts to Biddeford and Saco River, Maine.

T-11142 is one of Part A of the project. This part was compiled without benefit of field inspection.* Subsequent to the hydrographic work, the shoreline was revised to conform to information received from the hydrographic party.

A ~~cloth backed lithographic~~ CRONAR print of each map at manuscript scale and the descriptive report will be registered and permanently filed in the Bureau Archives.

* Control identification and some field inspection information was taken from the prior topo mapping project.

ADVANCE

5

COMPILATION REPORT T-11142

PHOTOGRAMMETRIC PLOT REPORT.

* This report will be submitted at a later date.
* Is filed as a part of Report T-11146

31. DELINEATION.

The graphic method was used.

Photographs Nos. DQW-9K-132 through DQW-9K-136 were of fair scale. Photographs Nos. DQW-9K-126 through DQW-9K-130 were of poor scale. The projector was used in the delineation from these photographs.

All detail points and photo-hydro points established by the intersection of two radial lines only have been indicated with ticks.

32. CONTROL.

Sufficient pass points were adequately located by the radial plot to control each photograph.

33. and 34.

Inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS.

The M. H. W. L. was located by stereoscopic study of the photographs and delineated accordingly.

The limits of alongshore areas outside of the M. H. W. L. which may be shallow, shoal, grass-in-water, marsh, grass-and-mud, or mud have been delineated approximately by a black dashed line. It is requested that these areas be investigated and properly classified. Particular attention should be paid to the following shoreline and corrected if necessary:

1. Approximate Latitude 43° 04' 25" Lubberland Cr
   Approximate Longitude 70° 54' 30"

2. Approximate Latitude 43° 04' 33" & northward
   Approximate Longitude 70° 54' 15"

No foreshore objects were identified on the photographs by the compiler.

36. OFFSHORE DETAILS.

None observed.

37. LANDMARKS AND AIDS.

To be located by the hydrographer.

38. CONTROL FOR FUTURE SURVEYS.

The recoverable topographic stations (Form 524) located on T-5830 ( ) were examined; however, none appear to be usable as photo-hydro stations and since the field photographs on which these stations were identified were not available, no attempt was made to locate them on this survey.

Sixteen (16) temporary photo-hydro stations are shown and are listed under Item 49.

39. JUNCTIONS.

Satisfactory junction has been made with T-11145 on the south; T-11143 on the east; and T-11140 on the north. No contemporary survey on the west.

40. HORIZONTAL AND VERTICAL ACCURACY.

Reference Item 31 and Photogrammetric Plot Report relative to horizontal accuracy.

ADVANCE

46. COMPARISON WITH EXISTING MAPS.

Comparison was made with USC&GS Quadrangle T-8530 ( ). No outstanding shoreline differences were noted.

47. COMPARISON WITH NAUTICAL CHARTS.

Comparison was made with USC&GS Nautical Chart No. 229, scale 1:30,000, published November 1914 and corrected to 26 January 1953. No appreciable changes were noted.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY.

None.

ITEMS TO BE CARRIED FORWARD.

None.

William A. Rasure
for Rexford E. Smith
Cartographic Photogrammetric Aid

APPROVED AND FORWARDED:

William A. Rasure
for J. E. Waugh, Chief of Party

48. GEOGRAPHIC NAME LIST.

Only base map names have been shown. They were taken from USC&GS Nautical Chart No. 229.

ADVANCE

49. NOTES FOR THE HYDROGRAPHER.

A number of temporary photo-hydro stations were selected in the Tampa Photogrammetric Office for use by the hydrographer. The stations selected and pricked on the photographs consist principally of lone trees, bushes, gables of buildings and the like. An effort was made to select stations about one-quarter of a mile apart; however, it was impossible in certain areas to prick any object whatsoever which could be positively recovered in the field. In small coves and inlets, wherever possible, photo-hydro stations were pricked at closer intervals in order that a fix might be obtained readily.

The number and description of each temporary photo-hydro station follows:

NUMBER	DESCRIPTION
053 GOT	Lone tree on NW side of small inlet.
068 X	Lone tree on beach, in open area.
069 LAN	The most easterly tree on point of land.
070 X	East gable of house.
071 ~~ZOO~~ TIC	Chimney on house at south end of peninsula.
072 ZOO	The most easterly tree on point.
073 X	Large lone tree, in open area.
084 BUS	A bush, the most southerly of line of trees and bushes, about 70 m. inshore.
085 PEN	Lone tree, the most southeasterly, near shore, in open area.
086 SEN	The center of three trees, the nearest one to the shoreline.
087 IRK	Large lone tree, in clearing, about 10 m. inshore.
088 HOP	West gable of building.
089 JON	SE corner of east wing of building.

49. NOTES FOR THE HYDROGRAPHER. (CONTINUED)

NUMBER	DESCRIPTION
090 GAT	South gable of building.
091 X	SE corner of seawall.
092 LUM	The southeasterly of two bushes, on waters edge.

A cable crossing shown on Nautical Chart No. 229 at Latitude 43° 04.1' Longitude 70° 55.3' could not be identified on the office photographs.

ADVANCE TIDE COMPUTATION

PROJECT NO. Ph-114 T-11142

Time and date of exposure 10:37 2 July 1952 Reference station Portland, Maine Mean range 6.4

Date of field inspection - Subordinate station Dover Point, N. H. Ratio of ranges 0.7

	Time h.	Time m.
High tide	7	31
Low tide	13	34
Duration of rise or fall	6	03

	Height feet	Height x Ratio of ranges
High tide	7.5	5.0
Low tide	1.3	0.9
Range of tide		4.1

	Time h.	Time m.
High tide at Ref. Sta.	6	01
Time difference	+1	30
Corrected time at Subordinate station	7	31

	Time h.	Time m.
Low tide at Ref. Sta.	12	04
Time difference	+1	30
Corrected time at Subordinate station	13	34

	h. m.		feet		feet	Photo. No.
Time XXXXX L. T. Required time Interval	13 34 10 37 2 57	Ht. XXXXX L. T. Tabular correction Stage of tide above MLW	0.9 2.0 2.9	Feature bares Stage of tide above MLW Feature above MLW		DQW-9K-135
Time H. T. or L. T. Required time Interval		Ht. H. T. or L. T. Tabular correction Stage of tide above MLW		Feature bares Stage of tide above MLW Feature above MLW		
Time H. T. or L. T. Required time Interval		Ht. H. T. or L. T. Tabular correction Stage of tide above MLW		Feature bares Stage of tide above MLW Feature above MLW		
Time H. T. or L. T. Required time Interval		Ht. H. T. or L. T. Tabular correction Stage of tide above MLW		Feature bares Stage of tide above MLW Feature above MLW		
Time H. T. or L. T. Required time Interval		Ht. H. T. or L. T. Tabular correction Stage of tide above MLW		Feature bares Stage of tide above MLW Feature above MLW		
Time H. T. or L. T. Required time Interval		Ht. H. T. or L. T. Tabular correction Stage of tide above MLW		Feature bares Stage of tide above MLW Feature above MLW		

M-2617-12

Computed by R. E. Smith Checked by R. A. Reece

ADVANCE

Form T-2

50.

PHOTOGRAMMETRIC OFFICE REVIEW

T- 11142

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

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) I.I.S 7. Photo hydro stations I.I.S. 8. Bench marks XX
9. Plotting of sextant fixes XX 10. Photogrammetric plot report I.I.S. 11. Detail points I.I.S.

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

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

CULTURAL FEATURES

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

BOUNDARIES

31. Boundary lines XX 32. Public land lines XX

MISCELLANEOUS

33. Geographic names I.I.S. 34. Junctions I.I.S. 35. Legibility of the manuscript I.I.S. 36. Discrepancy overlay XX 37. Descriptive Report I.I.S. 38. Field inspection photographs XX 39. Forms I.I.S.
40. I.I.Saperstein — Reviewer; William 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

13 ¥

DATA RECORD

T - 11142

REFERENCE ADVANCE REPORT FOR DATA NOT LISTED

Project No. (II): Ph-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):
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):

Manuscript Scale (III): Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III):

Date received in Washington Office (IV): Date reported to Nautical Chart Branch (IV):

Applied to Chart No. Date: Date registered (IV):

Publication Scale (IV): Publication date (IV):

Geographic Datum (III): Vertical Datum (III):

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):

Lat.: Long.: Adjusted / Unadjusted

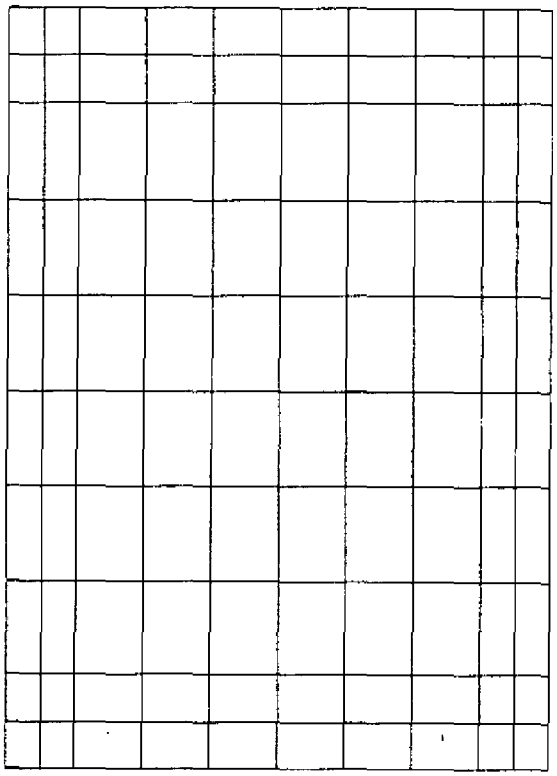
Plane Coordinates (IV): State: Zone:

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.

M-2618-12(4)



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

DATA RECORD

REFERENCE ADVANCE REPORT FOR DATA NOT LISTED.

Field Inspection by (II): Date:

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

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

Projection and Grids ruled by (IV): Date:

Projection and Grids checked by (IV): Date:

Control plotted by (III): Date:

Control checked by (III): Date:

Radial Plot or Stereoscopic Control extension by (III): Date:

Stereoscopic Instrument compilation (III): Planimetry Date:

Contours Date:

Manuscript delineated by (III): R. E. Smith Date: 18 March 1954

Photogrammetric Office Review by (III): J. A. Giles Date: 29 March 1954

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

REFERENCE ADVANCE REPORT FOR DATA NOT LISTED. 16 4

Camera (kind or source) (III):

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide

Tide (III)

	Ratio of Ranges	Mean Range	Spring Range
Reference Station:			
Subordinate Station:			
Subordinate Station:			

Washington Office Review by (IV): Date:

Final Drafting by (IV): Lena T. Stevens Date: 1 Dec. 1955

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): 8

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

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

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 3 Recovered: 2 Identified:

Number of BMs searched for (II): Recovered: Identified:

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III): 25*

Remarks:

*Nine (9) of these stations were selected and located by the photogrammetric field party and are in addition to those established by the Advance survey.

M-2618-12(4)

NO FIELD INSPECTION REPORT WAS SUBMITTED

COMPILATION REPORT T-11142

PHOTOGRAMMETRIC PLOT REPORT.

*This report submitted separately.
* Is filed as a part of Report T 11146

31. DELINEATION.

The graphic method was used.

Photographs DQW 132 through DQW 136 were of fair scale. Photographs DQW-9K-126 through DQW-9K-130 were of such poor scale that the projector was used to effect proper delineation.

All points established by the intersection of two radial lines, that were previously shown with ticks, are now shown with green circles.

There was no field inspection, but with stereoscopic examination and study the delineation is believed to be correct.

32. CONTROL.

Reference Photogrammetric Plot Report.

33. SUPPLEMENTAL DATA.

Inapplicable.

34. CONTOURS AND DRAINAGE.

Inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS.

Reference Item 35 of advance report.

Upon advice from a member of the photogrammetric field party, the black dashed line previously shown has been changed to the apparent shoreline. All shoreline changes have been made with red acetate ink.

The boat sheets were made available to this office and the low-water line was transferred in pencil. It was not possible to fill in the gaps of the low-water line left by the hydrographer as the line shown does not conform with any discernible tone or line on the photographs. The low-water line as transferred from the boat sheet is being retained on the manuscript in pencil for the convenience of the processing office.

36. OFFSHORE DETAILS.

None observed.

37. LANDMARKS AND AIDS.

Reference Item 37 of advance report.

38. CONTROL FOR FUTURE SURVEYS.

Reference Item 38 of advance report. Additional photo-hydro stations, located by the field party, are listed under Item 49 with their descriptions.

39. JUNCTIONS.

Reference Item 39 of advance report.

40. HORIZONTAL AND VERTICAL ACCURACY,

Reference Item 40 of advance report.

46. COMPARISON WITH EXISTING MAPS.

Reference Item 46 of advance report.

47. COMPARISON WITH NAUTICAL CHARTS.

Reference Item 47 of advance report.

Rexford E. Smith Jr.
Rexford E. Smith, Jr.
Carto Photo Aid

APPROVED AND FORWARDED:

Ira R. Rubottom
Ira R. Rubottom, Chief of Party

48. GEOGRAPHIC NAME LIST.

All names shown are base map names. No additions or deletions were submitted by the field inspector.

BAY ROAD
BOSTON AND MAIN RAILROAD
*CROMMETT CREEK
DAME ROAD
ELLISON BROOK
GREAT BAY
LAMPREY RIVER
LUBBERLAND CREEK
MOAT ISLAND
MOODYS POINT
NEW HAMPSHIRE
NEW MARKET
OYSTER RIVER
SHACKFORD POINT
STATE 108

Names approved,
12-1-55
a.g.w.

*shown on U.S. C.&G.S. Chart No. 229 (scale 1:30,000) as "CRUMMETT CREEK".

(Crommet Creek is correct as of U.S. Geog. Names Board Decis., 1954)
a.g.w.

49. NOTES FOR THE HYDROGRAPHER.

Reference Item 49 of advance report.

The following nine (9) temporary photo-hydro stations were identified and established by the photogrammetric field party and are in addition to those established on the advance survey. They have been checked photogrammetrically using the graphic method and no changes of positions noted.

WIG - Rock along shoreline
- Rock at H. W. L.
MAX - Large rock
ZIP - Point of rock
POD - Center of bush
WET - Rock offshore
RED - Silo
HIT - White house gable
VIM - House chimney

2VH

Form T-2

50. PHOTOGRAMMETRIC OFFICE REVIEW

T- 11142

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 alongshore 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 *Jesse A Giles* William A. Rasure *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

Review Report for T-11142
Shoreline Map
1 December 1955

62. Comparison with Registered Surveys:

T-2904 1:10,000, 1908 Great Bay

Differences are due to natural cultural and shoreline changes. The shoreline has advanced in the former grass-in-water areas, which are now true marshes.

Aside from the low bluff symbol and the contours, the present survey supersedes T-2904, in their comparable area; for charting purposes.

63. Comparison with Maps of Other Agencies:

USE Newmarket, N. H. 1:25,000, 1944, from C&GS

T-8530, 1943-44

The maps are in general agreement except that T-11142 has a marsh fringing the Great Bay shoreline and the islands north of Lubberland Creek mouth are joined to the mainland by marsh.

64. Comparison with Contemporary Hydrographic Surveys:

H-8093 (ECFP 1653) 1:10,000, 1953: from Oxbow Cut (43° 00') to Little Bay (43° 07').

The shoreline is that of T-11142. This was not altered during review, though some grass-in-water symbol was added.

65. Comparison with Nautical Charts:

229 1:30,000 Nov. 1914, corr. May 1948: Portsmouth to Dover & Exeter

Except for the low bluff symbol and the contours T-11142 supersedes the chart in its area.

66. Accuracy:

Interior delineation meets the National Standards of Accuracy. Shoreline is delineated as accurately as office interpretation permits.

Reviewed by:

Lena T. Stevens

Lena T. Stevens

APPROVED BY:

L C Landy
Chief, Review Section
Photogrammetry Division

Max B Ricketts
Chief, Nautical Chart Branch
Charts Division

L W Swanson
Chief, Photogrammetry Division
12 Aug 1958

Chief, Coastal Surveys Division