

11160

Diag. Cht. No. 1205.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Shoreline

Field No. Ph-111 Office No. T-11160

LOCALITY

State Maine

General locality Gulf of Maine

Locality Lords Pond to Sampson Cove

1945

CHIEF OF PARTY

E.H.Kirsch, Chief of Field Party

I.R.Rubottom, Tampa Photo. Office

LIBRARY & ARCHIVES

DATE September 17, 1958

11160

DATA RECORD

T - 11160

Project No. (II): **PH-114**

Quadrangle Name (IV):

Field Office (II): **NEWBURYPORT, MASS.**

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

Photogrammetric Office (III): **TAMPA, FLORIDA**

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

Instructions dated (II) (III): **13 March 1953**
Supplement #1 **28 March 1953**
Supplement #2 **30 April 1953**
Supplement #3 **6 May 1953**
Supplement #4 **26 May 1953**
Supplement #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):

Date reported to Nautical Chart Branch (IV): **JUN 3 1955**

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 (5) refer to sounding datum
 i.e., mean low water or mean lower low water

Reference Station (III): **HOYT NECK 2, 1928**

Lat.: **43° 24' 44.348" (1368.6m.)** Long.: **70° 23' 00.087" (2.0m.)**

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.

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

DATA RECORD

Field Inspection by (II): **J. C. Lajoie**
H. R. Spies
L. F. Bougnet Date: **Aug-Sept 1953**

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

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

Mean High Water Location (III) (State date and method of location): **Sept. 1953**
Air Photo Compilation

Projection and Grids ruled by (IV): **Austin Riley (W.O.)** Date: **7 Aug. 1953**

Projection and Grids checked by (IV): **H. O. Wolfe (W.O.)** Date: **14 Aug. 1953**

Control plotted by (III): **J. E. Johnson** Date: **7 Jan. 1954**

Control checked by (III): **R. J. Pate** Date: **7 Jan. 1954**

Radial Plot ~~on Stereoscopic~~ **M. M. Slavney** Date: **28 Jan. 1954**
~~Control-extension~~ by (III):

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

Manuscript delineated by (III): **I. I. Saperstein** Date: **Feb. 1955**

Photogrammetric Office Review by (III): **J. A. Giles** Date: **Mar. 1955**

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

Camera (kind or source) (III): Fairchild K-17 6" Metrogon lens, USC&GS

PHOTOGRAPHS (III)				
Number	Date	Time	Scale	Stage of Tide
53-J-339	22 Apr.1953	1014	1:10,000	2.9
53-J-340	"	1015	"	"
53-J-341	"	1016	"	"
53-J-342	"	1016	"	"
53-J-343	"	1017	"	"
53-J-344	"	1017	"	"
53-J-190 thru 196	18 Apr.1953			Low-water photography 1.0

185 10:00 = 0.87'
203 10:10 = 1.25'

Tide (III)
(Predicted)

Reference Station: Portland, Maine
Subordinate Station: Cape Porpoise
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
-	8.9	10.2
1.0	8.7	9.9

Washington Office Review by (IV): *Lena J. Stevens*

Date: 18 Nov. 1955

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 2
Shoreline (More than 200 meters to opposite shore) (III): 10
Shoreline (~~Less than 200 meters to opposite shore~~) (III):
Control Leveling - Miles (II): Inapplicable
Number of Triangulation Stations searched for (II): 8* Recovered: 4* Identified: 2**
Number of BMs searched for (II): None Recovered: Identified:
Number of Recoverable Photo Stations established (III): None
Number of Temporary Photo Hydro Stations established (III): Reference Item 38

Remarks: * Includes two (2) stations established by 1953 Field Party.

** Does not include two (2) temporary traverse station sub points to control plot.

Summary to Accompany T-11160

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 survey was accomplished under instructions for CS-355, 6 March 1953, 29 January 1954, and 16 February 1955, Gloucester Harbor, Mass. to Biddeford and Saco River, Maine.

CRONAR

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

~~THE FIELD INSPECTION REPORT~~

~~WAS SUBMITTED AS A SEPARATE~~

~~REPORT.~~

*Field Inspection Report
is filed as a part of
Report T 11148*

COMPILATION REPORT T-11160PHOTOGRAMMETRIC PLOT REPORT.

*This has been submitted as a separate report.

Filed as part of Report T-11144

31. DELINEATION.

The map manuscript was delineated by the graphic method. The field inspection was adequate and no difficulty was encountered in the delineation of the manuscript or interpretation of the photographs.

32. CONTROL.

Reference Photogrammetric Plot Report.

33. SUPPLEMENTAL DATA.

None.

34. CONTOURS AND DRAINAGE.

Contours are inapplicable. The drainage has been shown according to photographic interpretation.

35. SHORELINE AND ALONGSHORE DETAILS.

Shoreline and foreshore details were delineated according to the field inspection notes and no difficulty was encountered in their delineation.

The low-water and shoal lines were delineated according to the field inspector's notes and the low-water photography.

36. OFFSHORE DETAILS.

All offshore rocks and ledges have been delineated according to the field inspection notes and from the low-water photography.

37. LANDMARKS AND AIDS.

All landmarks are to be reported by the hydrographic party.

There are no aids.

38. CONTROL FOR FUTURE SURVEYS.

Twenty (20) photo-hydro stations have been established. A list of these stations with a description of each was prepared and submitted 24 April 1954.

39. JUNCTIONS.

A satisfactory junction has been effected with T-11159 to the east and T-11163 to the south.

There are no contemporary surveys to the north and west.

40. HORIZONTAL AND VERTICAL ACCURACY.

In certain areas of the manuscript, it was possible to obtain two cut intersections only. These points have been shown with green ink. They are, however, believed to meet the standard of accuracy required.

46. COMPARISON WITH EXISTING MAPS.

A comparison has been made with the BIDDEFORD QUADRANGLE, scale 1:25,000, edition of 1944.

An overhead cable shown on the quadrangle at approximate latitude $43^{\circ} 22' 5''$, longitude $70^{\circ} 25' 8''$ was not recovered by the field inspector. *See also Review Report, 65.*

47. COMPARISON WITH NAUTICAL CHARTS.

Comparison has been made with USC&GS Chart 1205, scale 1:80,000, edition of 1950, bearing a print date of 28 July 1952.

The map listed under Item 46 is evidently the source of topography on the chart and the same differences were noted.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY.

None.

ITEMS TO BE CARRIED FORWARD.

None.

I. I. Saperstein
I. I. Saperstein
Carto Photo Aid

APPROVED AND FORWARDED.

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

48. GEOGRAPHIC NAME LIST.

All names were taken from the BIDDLEFORD QUADRANGLE and C&GS
Chart 1205.

BATSON RIVER
BEACHWOOD ROAD

CAPE PORPOISE ROAD
CURTIS COVE

EAST GOOSE ROCKS
ETHERINGTON POND

FORTUNES ROCKS

GOOSEFARE BAY
GOOSE ROCK BEACH
GULF OF MAINE

HOYT NECK

LITTLE RIVER
LORDS PONDS

MAINE

PERKINS BROOK
PETER SMITH BROOK

SAMPSON COVE
SEAL ROCKS
ST. PHILLIPS BY THE SEA CHURCH
STATE 9

TIMBER ISLAND
TYLER BROOK

WEST GOOSE ROCKS

*Names approved
10-18-55
a.j.w.*

49. NOTES FOR THE HYDROGRAPHER.

Twenty (20) photo-hydro stations were established by the photogrammetric party. They were submitted 24 April 1954.

50. PHOTOGRAMMETRIC OFFICE REVIEW

T-11160

1. Projection and grids J.G. 2. Title J.G. 3. Manuscript numbers J.G. 4. Manuscript size J.G.5. Classification label Unclassified

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 XX 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 previous page)~~ NOTES FOR THE REVIEWER: A junction with T-11159 should be made for the limits of marsh. It is believed to be correct on T-11160

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

TIDE COMPUTATION

PROJECT NO. Ph- 114 c T. 11160

Time and date of exposure 10/6 22 Apr 1953Reference station Portland, Me.Mean range 8.7Date of field inspection Sept 1953Subordinate station Cape PorpoiseRatio of ranges 1.0
HW - 0.2

	Time		Height feet	Height x Ratio of ranges	Time	
	h.	m.			h.	m.
High tide	5	54	7.9	7.7	5	54
Low tide	12	23	0.8	0.8	0	00
Duration of rise or fall	6	29		6.9	5	54

	Time	
	h.	m.
High tide at Ref. Sta.	5	54
Time difference	0	00
Corrected time at Subordinate station	5	54

	Time	
	h.	m.
Low tide at Ref. Sta.	12	23
Time difference	0	00
Corrected time at Subordinate station	12	23

	h.	m.		feet		feet	Photo. No.
Time H. T. or L. T.	12	23	Ht. H. T. or L. T.	0.8	Feature bares		53-J-342
Required time	10	16	Tabular correction	2.1	Stage of tide above MLW		
Interval	2	07	Stage of tide above MLW	2.9	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		

Computed by JSChecked by WLD

30 Sept 1953

TIDE COMPUTATION

PROJECT NO. Ph- 114 T. 11160

Time and date of exposure 30 Sept 1953Reference station Portland, MaineSubordinate station Cape Porpoise, Me.Mean range 8.7

Date of field inspection

Ratio of ranges 1.0
Hw - 0.2

	Time		Height feet	Height x Ratio of ranges
	h.	m.		
High tide	4	43	7.7	7.5
Low tide	10	43	1.3	1.3
Duration of rise or fall	6	00		6.2

	Time	
	h.	m.
High tide at Ref. Sta.	4	43
Time difference		00
Corrected time at Subordinate station	4	43

	Time	
	h.	m.
Low tide at Ref. Sta.	10	43
Time difference		00
Corrected time at Subordinate station	10	43

	h.	m.		feet		feet	Photo. No.
Time H. T. or L. T.	10	43	Ht. H. T. or L. T.	1.3	Feature bares	1.0	53-J-196
Required time	10	15	Tabular correction	0.1	Stage of tide above MLW	1.4	
Interval		28	Stage of tide above MLW	1.4	Feature above MLW	2.4	
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		

M-2617-12

Computed by

115

Checked by

2 AUG 1953

TIDE COMPUTATION

PROJECT NO. Ph. 114 T. 1160

Time and date of exposure

Reference station

Subordinate station

Mean range

Date of field inspection

Ratio of ranges

	Time	
	h.	m.
High tide	12	31
Low tide	6	22
Duration of rise or fall	6 09	

	Height		Ratio of ranges
	feet	feet	
High tide	10.6	10.4	
Low tide	-1.5	-1.5	
Range of tide	11.9		

	Time	
	h.	m.
High tide at Ref. Sta.	12	31
Time difference		00
Corrected time at Subordinate station	12	31

	Time	
	h.	m.
Low tide at Ref. Sta.	6	22
Time difference		00
Corrected time at Subordinate station	6	22

	h.	m.		feet	Photo. No.
Time H. T. or L. T.	12	31	Feature bares	5.0	341
Required time	10	30	Stage of tide above MLW	7.4	
Interval	2	01	Feature above MLW	3.7	
Time H. T. or L. T.			Feature bares		
Required time			Stage of tide above MLW		
Interval			Feature above MLW		
Time H. T. or L. T.			Feature bares		
Required time			Stage of tide above MLW		
Interval			Feature above MLW		
Time H. T. or L. T.			Feature bares		
Required time			Stage of tide above MLW		
Interval			Feature above MLW		
Time H. T. or L. T.			Feature bares		
Required time			Stage of tide above MLW		
Interval			Feature above MLW		
Time H. T. or L. T.			Feature bares		
Required time			Stage of tide above MLW		
Interval			Feature above MLW		

M-2617-12

Computed by

115

Checked by

18 Sept 1953 ✓

TIDE COMPUTATION

PROJECT NO. PH-114, T. 11160

Time and date of exposure

Reference station

Subordinate station

Mean range

Date of field inspection

Subordinate station

Ratio of ranges

Ratio of ranges

	Time	
	h.	m.
High tide	6	03
Low tide	12	00
Duration of rise or fall	5	57

	Height		Ratio of ranges
	feet	ft.	
High tide	7.3	✓	7.1
Low tide	1.4	✓	1.4
Range of tide			5.7

	Time	
	h.	m.
High tide at Ref. Sta.	6	03
Time difference	0	00
Corrected time at Subordinate station	6	03

	Time	
	h.	m.
Low tide at Ref. Sta.	12	00
Time difference	0	00
Corrected time at Subordinate station	12	00

Time H. T. or L. T.	h.	m.
Required time	12	00
Interval	10	55
Time H. T. or L. T.	12	00
Required time	10	50
Interval	1	10
Time H. T. or L. T.	12	00
Required time	11	00
Interval	1	00
Time H. T. or L. T.		
Required time		
Interval		
Time H. T. or L. T.		
Required time		
Interval		

Ht. H. T. or L. T.	feet
Tabular correction	1.4
Stage of tide above MLW	0.4
Ht. H. T. or L. T.	1.4
Tabular correction	0.5
Stage of tide above MLW	1.9
Ht. H. T. or L. T.	1.4
Tabular correction	0.4
Stage of tide above MLW	1.8
Ht. H. T. or L. T.	
Tabular correction	
Stage of tide above MLW	
Ht. H. T. or L. T.	
Tabular correction	
Stage of tide above MLW	

Feature bares	Rock
Stage of tide above MLW	1.0
Feature bares	Rock
Stage of tide above MLW	1.9
Feature bares	Rock
Stage of tide above MLW	2.9
Feature bares	Rock
Stage of tide above MLW	3.0
Feature bares	Rock
Stage of tide above MLW	1.8
Feature bares	Rock
Stage of tide above MLW	4.8
Feature bares	Rock
Stage of tide above MLW	2.0
Feature bares	Rock
Stage of tide above MLW	1.8
Feature bares	Rock
Stage of tide above MLW	3.8
Feature bares	Rock
Stage of tide above MLW	
Feature bares	Rock
Stage of tide above MLW	
Feature bares	Rock
Stage of tide above MLW	

Photo. No.	53-5-194
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M-2617-12

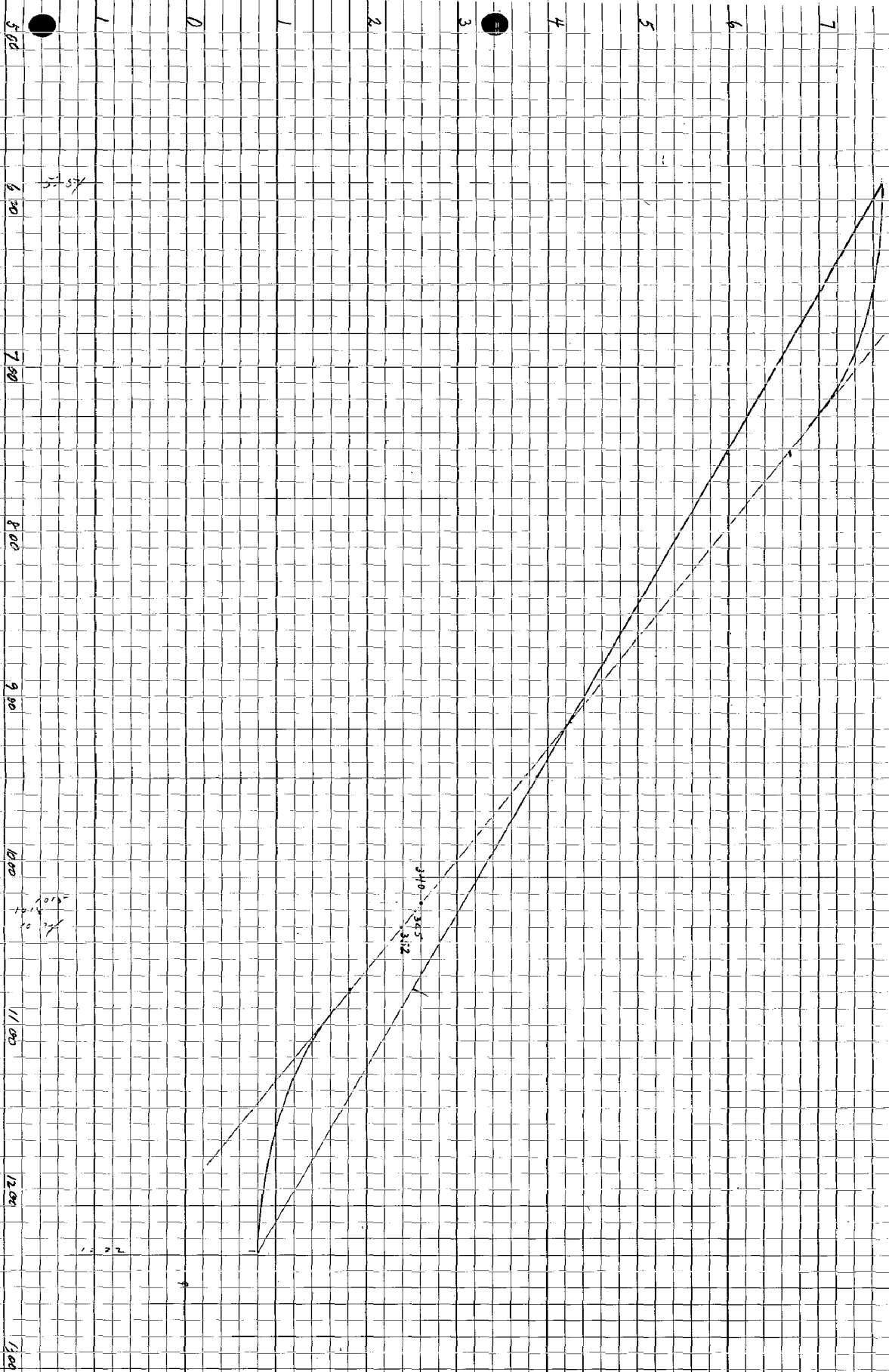
Computed by

Checked by

Ref. Sta. Portland
Sub. Sta. Cape Porpoise

T-11160

1.1
- 1.6
- 2.7



340 - 345
342

1.5

1.5
1.0
1.0

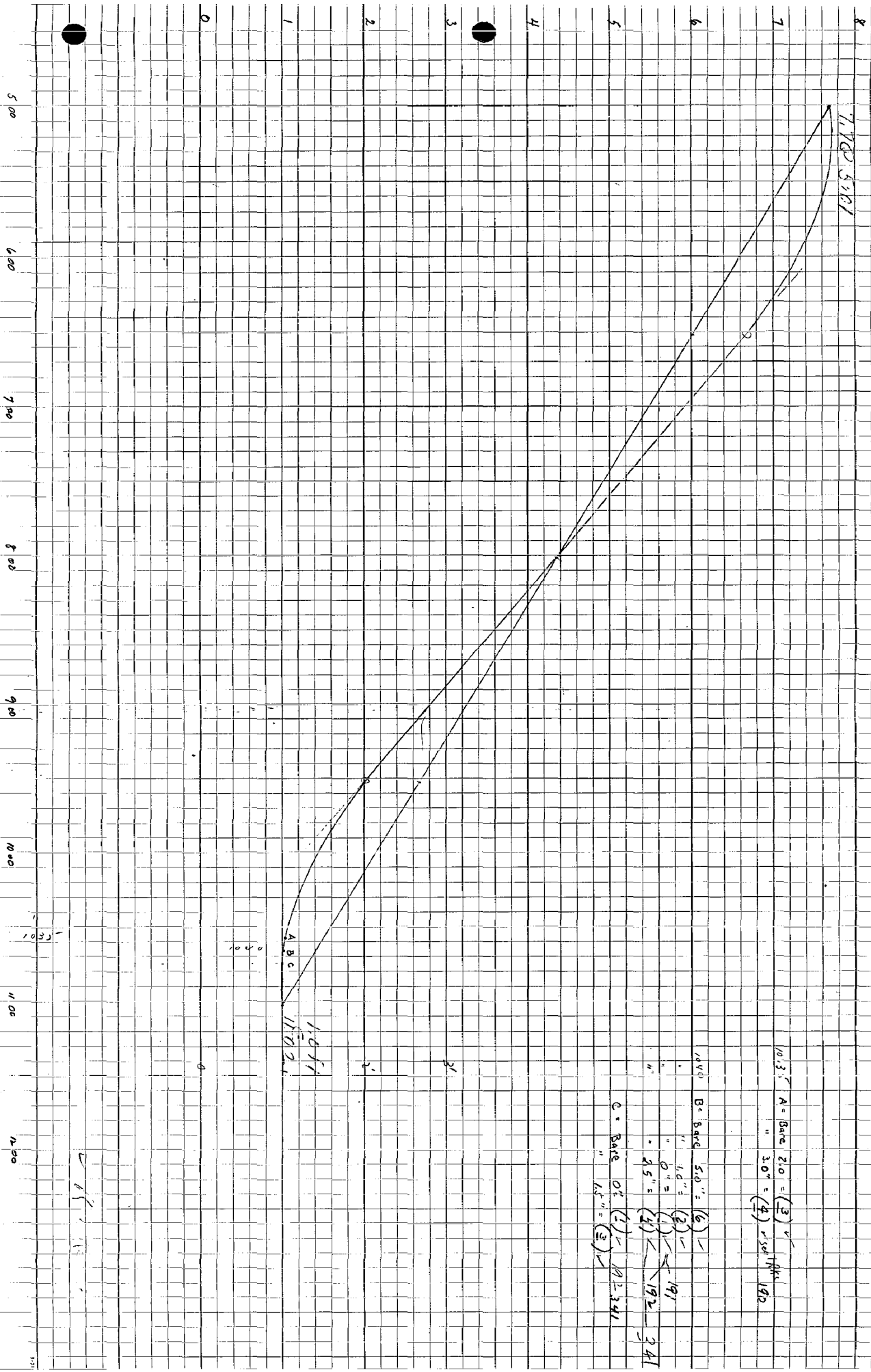
1.5

Sept 1, 1953 ✓

11160

Patented

Sub Sta Cape Porpoise Tides 8.71' Astro Range 1.0' HW - 0.2



$$10.3' \quad A = \text{Base } 2.0 = \left(\frac{3}{2}\right) \sqrt{191}$$

$$3.0'' = \left(\frac{4}{2}\right) \sqrt{192}$$

$$14.4'' \quad B = \text{Base } 5.0'' = \left(\frac{6}{2}\right) \sqrt{191}$$

$$0'' = \left(\frac{1}{2}\right) \sqrt{192}$$

$$2.5'' = \left(\frac{4}{2}\right) \sqrt{192}$$

$$C = \text{Base } 0.2'' = \left(\frac{2}{2}\right) \sqrt{192}$$

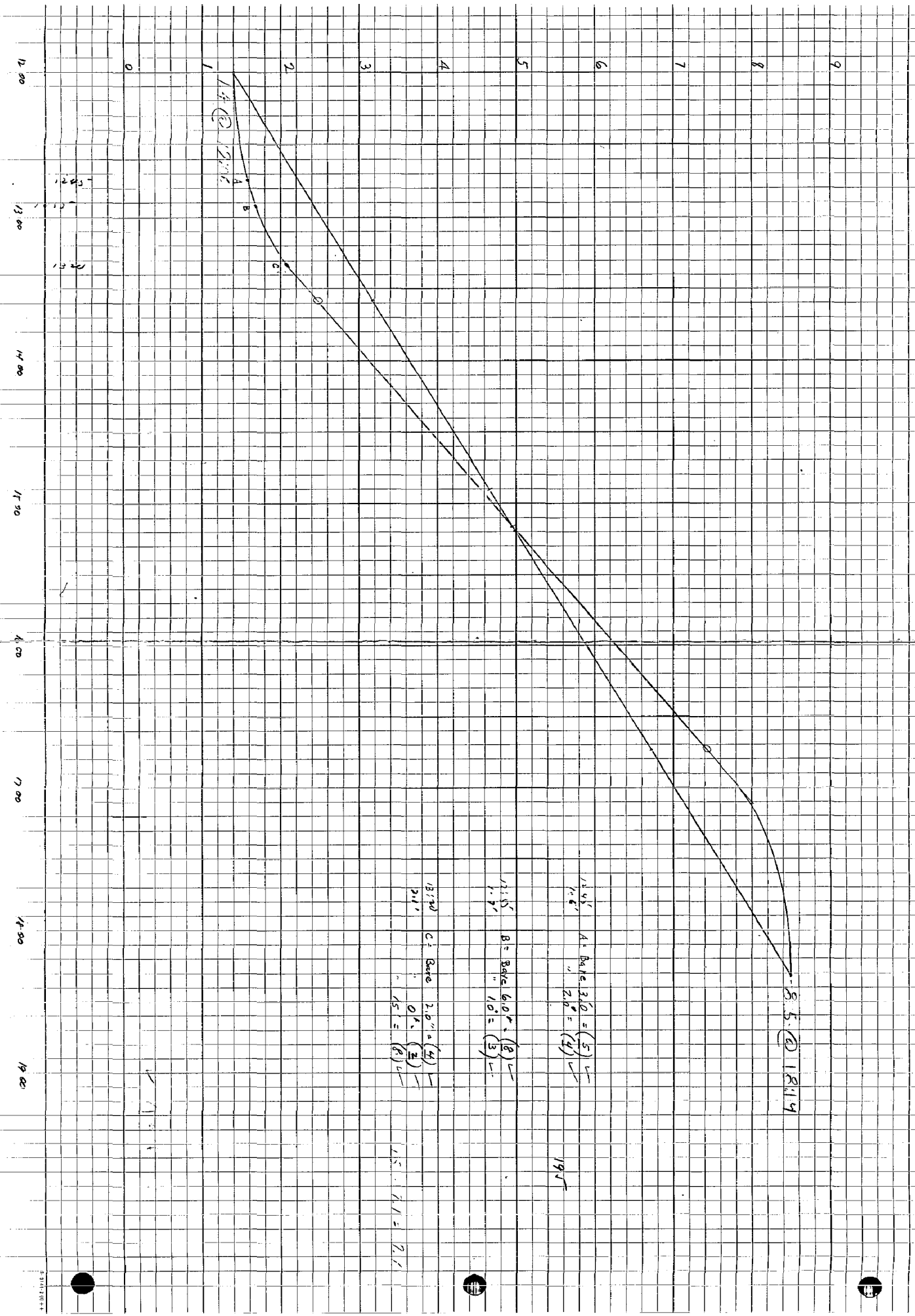
$$1.5'' = \left(\frac{3}{2}\right) \sqrt{192}$$

1.0 x 1.1

11.0 x 1.1

1.0 x 1.1

18 Sept 1943



$$1.5 \times 1.5 = 2.25$$

$$2.0 \times 2.0 = 4.0$$

$$3.0 \times 3.0 = 9.0$$

$$4.0 \times 4.0 = 16.0$$

$$5.0 \times 5.0 = 25.0$$

$$6.0 \times 6.0 = 36.0$$

$$7.0 \times 7.0 = 49.0$$

$$8.0 \times 8.0 = 64.0$$

$$9.0 \times 9.0 = 81.0$$

$$1.5 \times 2.0 = 3.0$$

$$2.0 \times 3.0 = 6.0$$

$$3.0 \times 4.0 = 12.0$$

$$4.0 \times 5.0 = 20.0$$

$$5.0 \times 6.0 = 30.0$$

$$6.0 \times 7.0 = 42.0$$

$$7.0 \times 8.0 = 56.0$$

$$8.0 \times 9.0 = 72.0$$

$$1.5 \times 3.0 = 4.5$$

$$2.0 \times 4.0 = 8.0$$

$$3.0 \times 5.0 = 15.0$$

$$4.0 \times 6.0 = 24.0$$

$$5.0 \times 7.0 = 35.0$$

$$6.0 \times 8.0 = 48.0$$

$$7.0 \times 9.0 = 63.0$$

$$1.5 \times 1.5 = 2.25$$

1.5

Review Report T-11160
Shoreline Map
18 November 1955

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 on the recommended 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- 761	1:10,000	1859	Cape Porpoise and Vicinity
T-1159	1:10,000	1870	Kennebunkport and Cape Porpoise to Hoyt Neck

T-11160 supersedes the older surveys for shoreline, planimetry, and culture for charting purposes.

63. Comparison with Maps of Other Agencies:

USE Biddeford, Maine, 1:25,000 1949

This is T-8520, C&GS, compiled from 1941 photographs. Except for contours, T-11160 supersedes the quadrangle for charting purposes.

64. Comparison with Contemporary Hydrographic Surveys:

No contemporary survey covers the area of T-11160.

65. Comparison with Nautical Charts:

1205 1:80,000 June 1950, corrected October 1954

The shoreline on the chart is from the Biddeford quadrangle and differs from T-11160, particularly that of the islands.

The charted overhead cable over Little River is not delineated on T-11160 because it was not located during field inspection.

66. Accuracy:

This map complies with project instructions and meets the National Standards of Accuracy.

Reviewed by:

Lena T. Stevens
Lena T. Stevens

APPROVED BY:

L C Lande
Chief, Review Section
Photogrammetry Division

L W Swanson
Chief, Photogrammetry Division

15 Aug 1958

mmg

Max Skelton
Chief, Nautical Chart Branch
Charts Division

[Signature]
Chief, Coastal Surveys Division

11161

SEE DESCRIPTIVE REPORT T-11157