

11434

Diag. Cht. No. 1210-2.

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Shoreline
Field No.	Ph-142
Office No.	H-11434
LOCALITY	
State	Rhode Island
General locality	Rhode Island Sound
Locality	Stony Point to Sachuest Point
<u>1954-56</u>	
CHIEF OF PARTY	
L.F. Woodcock, Chief of Party	
W.F. Deane, Balto. District Office	
LIBRARY & ARCHIVES	
DATE	April 1962

USCOMM-DC 5087

11434

DATA RECORD

- 2 -

T-11434

Project No. (II): **Ph-142**

Quadrangle Name (IV):

Field Office (II): **New Bedford, Mass.**Chief of Party: **L. F. Woodcock**Photogrammetric Office (III): **Baltimore, Maryland**Officer-in-Charge: **William F. Deane**Instructions dated (II) (III): **18 August 1954**
8 June 1954 & 15 Sept. 1955Copy filed in Division of
Photogrammetry (IV)Method of Compilation (III): **Kelsh Plotter**Manuscript Scale (III): **1:10,000**Stereoscopic Plotting Instrument Scale (III): **1:4,000; 1:6,000**
(Pantograph ratio 2/5; 3/5)Scale Factor (III): **1.000**

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): **30 Aug 1960**

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): **NA 1927**Vertical Datum (III): **MHW**~~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 waterReference Station (III): **SAKONNET, 1932**Lat.: **41° 27' 37.129" (1145.4 m)** Long.: **71° 11' 22.621" (525.0 m)**

Adjusted

~~coordinates~~

Plane Coordinates (IV):

State: **Rhode Island**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.

SHORELINE

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

DATA RECORD

Field inspection by (II): **M. A. Stewart**
I. Y. Fitzgerald
W. M. Reynolds

Date: **July 1954**
July 1954
June-July 1954

Planetable contouring by (II): _____

Date:

Completion Surveys by (II): _____

Date:

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

1 May 1956, Photogrammetric (Kelsh)

Projection and Grids ruled by (IV): **Austin Riley**

Date: **10/8/54**

Projection and Grids checked by (IV): **Austin Riley**

Date: **10/8/54**

Control plotted by (III): **J. B. McDonald**

Date: **7/27/55**

Control checked by (III): **M. Keller**

Date: **7/27/55**

Radial Plot or Stereoscopic

Date:

Control extension by (III):

Stereoscopic Instrument compilation (III):
 Planimetry **J. C. Cregan**
E. L. Rolle
~~Contours~~

Date: **9/25/57**

~~Date:~~

Manuscript delineated by (III): **J. H. Glassner**
 (Scribing)

Date: **6/1/59**

Photogrammetric Office Review by (III): **J. D. McEvoy**

Date: **10/2/57**

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

Date: _____

Camera (kind or source) (III): C&GS Type "W", 6" focal length, and nine-lens.

PHOTOGRAPHS (III)					
Number	Date	Time E.S.T.	Scale	Stage of Tide	
54-W-938 thru 940	4/22/54	11:12	1:20,000	2.3'	above MLW
54-W-1160 thru 1162	"	13:32	"	0.7'	" "
54-W-1175 thru 1177	"	13:42	"	0.6'	" "
54-W-1184 thru 1186	"	13:55	"	0.5'	" "
56-W-425 thru 426	5/1/56	12:20	1:30,000	2.4'	" "
269 thru 270	"	09:50	"	1.9'	" "
43649 thru 43651			1:10,000	MLW	

Tide (III)
(From Predicted Tables)

Reference Station: Newport, R. I.
Subordinate Station: Sakonnet
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
-	3.5	4.4
0.9	3.3	4.1

Washington Office Review by (IV):

Date: 25 March 1960

Final Drafting by (IV):

Date:

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): 17

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

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 15

Recovered: 11

Identified: 11

Number of BMs searched for (II):

Recovered:

Identified:

Number of Recoverable Photo Stations established (III): 3

Number of Temporary Photo Hydro Stations established (III): None.

Remarks:

2. AREAL FIELD INSPECTION

This survey lies astride the mouth of the Sakonnet River. It covers the land area of Sakonnet and Sachuest Points.

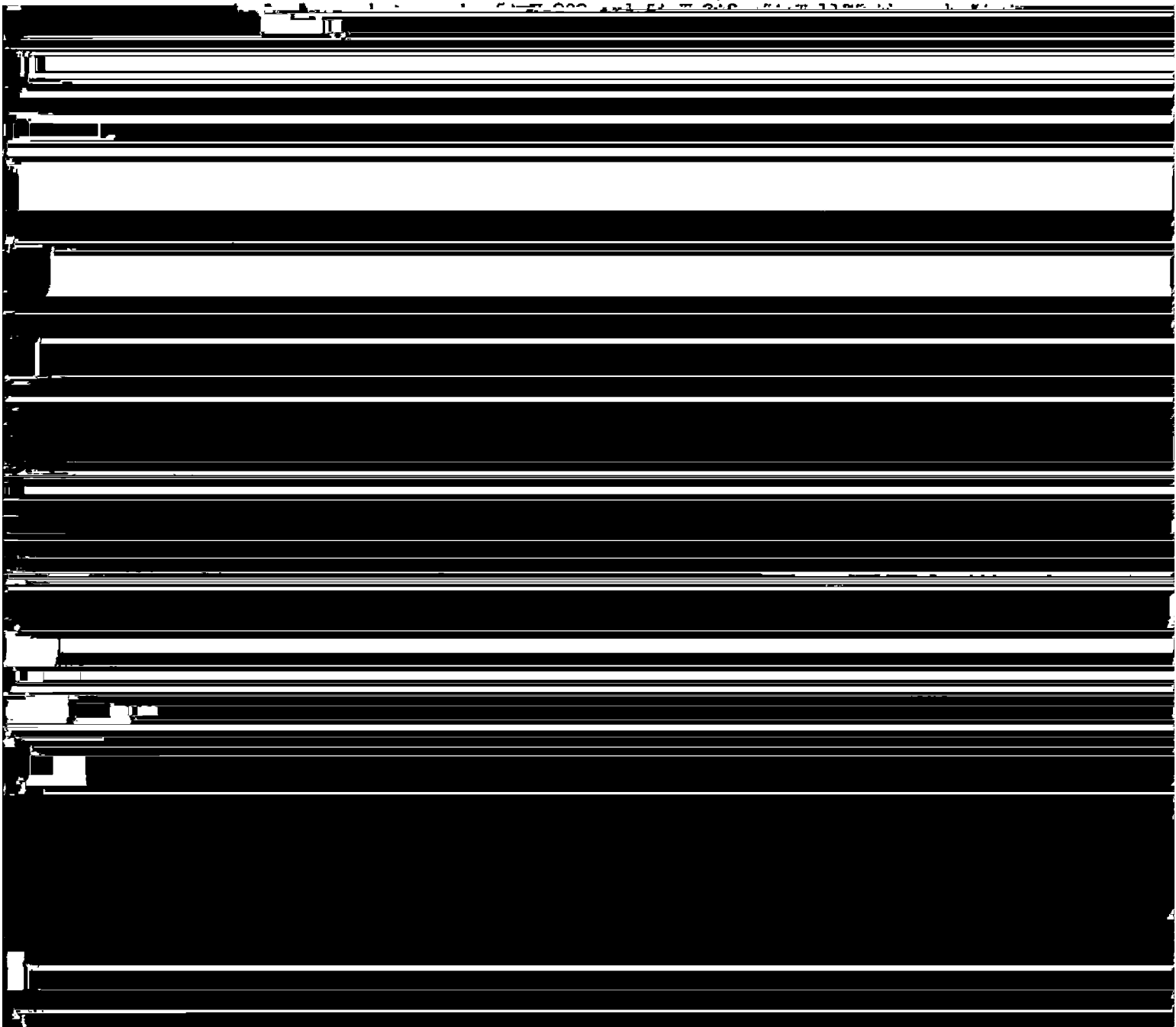
For a description of the area see Field Inspection Report for T-11430.

Field inspection is believed to be adequate and complete.

Photography was of good quality, of a recent date, and presented no difficulty in photographic interpretation.

SEE LETTER IN COMPLETION REPORT
AKH

Field inspection was performed on 1:10,000 scale ratio prints of



SUMMARY
PROJECT PH-182
TWENTY-FOUR

This project consists of 3 3/4' X 7 1/2', 1:10,000 scale shoreline maps. Three manuscripts T-11444, T-11448 and T-11449 were compiled by the Tampa District Office. The remainder were compiled by the Baltimore District Office.

The objective of the project was to provide shoreline and horizontal control data for contemporary hydrographic surveys and base maps for nautical charts.

It extends from the New Bedford, Connecticut area west to Old Saybrook along Block Island Sound and includes parts of Massachusetts, Rhode Island, and Connecticut.

Aerial photography was taken in the spring of 1954 with the "W" camera at 1:20,000 scale and supplemental nine-lens at 1:10,000 at low water. Some additional photography was flown in May 1956 for revision purposes.

Control was extended by stereoplanigraph and multiplex methods. Compilation was accomplished by Kelsh.

More stations were identified than necessary for this project. This was due to the fact that the original intentions were to extend horizontal control by radial line plot methods. Subsequent purchase of an additional first order bridging instrument reduced the need for the density of control. This item is the subject of supplemental instructions dated 15 September 1955, Paragraph 5. The field phase of control identification was initiated in June 1954.

The project is classified as Shoreline yet instructions to the field dated 8 June 1954, Paragraph 9 "Interior Inspection" states "the inland limits of inspection and delineation are the map limits".

- 2 -

Five contemporary hydrographic surveys dated 1956-57 have been completed in this area by visual hydrographic methods.

All sheets were scribed and transmitted to the Washington Office by

Final Review was completed by April 1960.

Submitted by:

A. K. Heywood

6. WOODLAND COVER

Adequately covered by the photographs.

7. SHORELINE AND ALONGSHORE FEATURES

The mean high water line was easily identified. It has been indicated by symbol on the photographs.

The area was visited and the low water line inspected at the time of two low waters. The approximate mean low water line has been indicated by symbol.

The foreshore is predominantly narrow and rocky. There are a few short stretches of steep sandy beaches chiefly across truncated bays. The foreshore along these sand beaches is relatively narrow and, of course, is sand.

All other shoreline features are adequately covered by the photographs.

SEE REVIEW REPORT AKA

8. OFFSHORE FEATURES

There are a number of rocks off Sakonnet Point. Most of these rocks are of a large size and will carry a mean high water line. The mean low water line in most instances will be synonymous with the mean high water line due to the steep slopes. Heights above water of these rocks were not determined because of rough water and small open skiffs.

There are no other offshore features.

9. LANDMARKS AND AIDS

One landmark, SILO, was recommended for charting. Form 567 was submitted.

~~Two~~ ^{ONE} aids to navigation exist. They are adequately covered by the photographs and Form 567.

10. BOUNDARIES, MONUMENTS AND LINES

There are none.

11. OTHER CONTROL

* Photo-hydro stations were selected and identified.

12. OTHER INTERIOR FEATURES

Adequately covered by the photographs.

* SUPPLEMENTAL INSTRUCTIONS
ADD TO THIS ITEM. AKA

13. GEOGRAPHIC NAMES

See "Special Report, Geographic Names, Project Ph-142."

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

Special Report, Geographic Names, Project Ph-142, to be forwarded at a later date.

Letter of Transmittal No. Ph-142-3, Form 567, Fixed Aids to Navigation, to be forwarded at a later date.

Letter of Transmittal No. Ph-142-4, Form 567, Landmarks for Charts, to be forwarded at a later date.

Letter of Transmittal No. Ph-142-5, Data, T-11434, forwarded to the Washington Office **AUG 6 1954**

Submitted
6 August 1954

Matthew A. Stewart
M. A. Stewart
Carto. Survey Aid

Approved & Forwarded

AUG 6 1954

Lorin F. Woodcock

Lorin F. Woodcock
Chief of Party

MAP T. 11434 PROJECT NO. Ph-142 SCALE OF MAP 1:10,000 SCALE FACTOR 1 of 2 sheets

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ν -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION		N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS	
				FORWARD	(BACK)	FORWARD	(BACK)	FORWARD	(BACK)	FORWARD	(BACK)
Big Chimney 1934	1/56 502/4	1927	41 29 16.464 71 08 45.421	507.9	1343.1	1851.0		Pricked direct			
Big Rock 1934	1/56 502/3	1927	41 28 25.800 71 09 20.053	795.9	1055.1	1851.0					
SS Big Rock 1934		"	41 28 71 09	806.1	1044.9	1851.0					
Chaple 1954	Make Topo card	"		479.1	913.1	1392.2		Pricked direct			
Cheatam's House North Gable 1917	1/99 502/3	"	41 29 47.857 71 11 49.483	1476.4	374.6	1851.0		Pricked direct			
Cor 2 1934	1/55 502/2	"	41 27 36.463 71 14 53.528	1147.8	243.9	1391.7					
East Rock, 1843	1/55 502/1	"	41 27 04.118 71 11 38.448	1124.9	726.1	1851.0		Pricked direct			
SS East Rock 1843		"		1242.3	150.2	1392.5					
Range, 1943	1/90 502/12	"	41 27 71 11	127.0	1724.0	1851.0					
Rich (USE), 1940	1/149 502/12	"	41 28 29.045 71 14 45.383	892.5	500.2	1392.7					
SS Rich (USE) 1940	Reject - Field Data inconsistent		41 28 29.593 71 10 32.135	113.1	1737.9	1851.0		Pricked direct			
				868.4	524.3	1392.7					
				896.0	955.0	1851.0					
				1053.0	339.2	1392.2					
				913.0	938.0	1851.0					
				745.6	646.6	1392.2					
						1851.0					
						1392.2					

1 FT. = 3048006 METER

COMPUTED BY: J. B. McDonald

DATE 27 July 1955

CHECKED BY: M. Keller

DATE 27 July 1955

M. 2389-12

MAP T-11434

PROJECT NO.....Ph-142.

SCALE OF MAP 10:10,000.

SCALE FACTOR

[illegible]

1 FT = 3048006 METER

COMPUTED BY: J. B. McDonald

DATE 29 July 1955

CHECKED BY: M. Keller

DATE 29 July 1955

M-2388.12

COMPILATION REPORT
Project Ph-142
T-11434

Photogrammetric Plot Report:

Models were held to horizontal control points and passpoints from Washington Office (stereoplanigraph) bridging.

31. DELINEATION

The Kelsh plotter was used for delineation on vinylite projection.

Field inspection was good.

Photographs taken in 1956 showing extent of hurricane damage have been received and changes have been made graphically. (425 through 427, 268 through 270, 235 through 237 and 380.)

32. CONTROL

Horizontal control was adequate. Vertical control is inapplicable.

33. SUPPLEMENTAL DATA

None.

34. CONTOURS AND DRAINAGE

Drainage is complete. Contours are inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS

All shoreline details are from field inspection which was thorough. Photographs taken in 1956 used for comparison and changes have been made.

Low water lines are based on field inspection from nine-lens photographs 43649 through 43651.

36. OFFSHORE DETAILS

Notes to hydrographer were submitted 3/30/56.

37. LANDMARKS AND AIDS

Forms 567 were submitted for one landmark, established by Kelsh Plotter, and one Aid.

* FIELD INSPECTION WAS NOT THOROUGH,
SEE REVIEW REPORT AND COMPLETION
REPORT FOR DETAILS.
DEK

38. CONTROL FOR FUTURE SURVEYS

The positions of three (3) recoverable topographic stations have been established by Kelsh Plotter and shown on the survey. No Forms 524 are submitted.

39. JUNCTIONS

Junctions have been made as follows:

To the east with T-11435.

To the West with T-11433.

To the north with T-11430.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment necessary.

41. through 45. - Inapplicable.

46. COMPARISON WITH EXISTING MAPS

U.S.G.S. 7½ minute quadrangle SAKONNET POINT R. I., scale 1:31,680; edition of 1942, reprinted 1946.

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 353, scale 1:40,000, published 5/26/52, revised 9/55.

Items to be applied to nautical charts immediately: None.

Items to be carried forward: None.

Respectfully submitted
2 October 1957

Joseph D. McEvoy

J. D. McEvoy
Carto. (Photo.)

Approved and forwarded

William F. Deane
William F. Deane,
CDR, USN
Baltimore District Officer

PHOTOGRAMMETRIC OFFICE REVIEW

T-11434

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

CONTROL STATIONS

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

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

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

CULTURAL FEATURES

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

BOUNDARIES

31. Boundary lines ☒ 32. Public land lines ☒

MISCELLANEOUS

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

40. Joseph D. McEary Henry P. Eshel
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:

48. GEOGRAPHIC NAME LIST

Aquidneck Island
Awashonks Pond

Breakwater Point
Briggs Beach
Briggs Point
Brownell Road

Church Cove
Church Point
Cormorant Reef
Cormorant Rock
Cullywaugh Rocks
Cutty Wow Rock

Dolphin Rock
Dundery Brook

East Island
Elisha Ledge

Flint Point
Flint Point Ledge

Halfway Rocks

Island Rocks

Long Pond

Old Bull

Quicksand Pond

*Rhode Island Sound
Round Pond

Sachuest
Sachuest Bay
Sachuest Beach
Sachuest Point
Sakonnet
Sakonnet Harbor
*Sakonnet Point
*Sakonnet River
*Schuyler Ledge
Ship Pond Cove
Sisson Brook
Stony Point

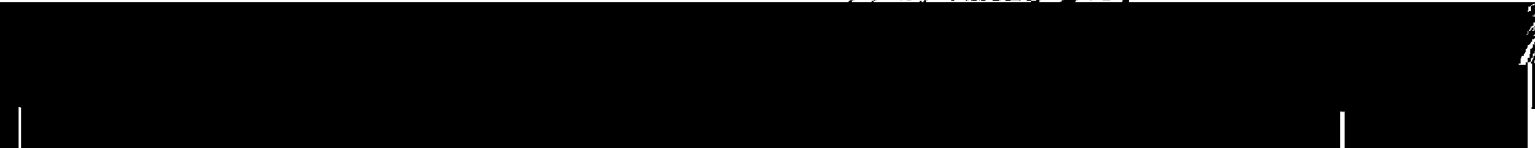
T-11434

Third Beach
Tunipus Beach
Tunipus Pond

Warren Point
Watch House Pond
West Island
Wilbour Woods
Woods Castle

* B.G.N. Decisions

George H. Bee
GEOGRAPHIC NAMES SECTION
29 MARCH 1960



REVIEW REPORT T-11434
SHORELINE
24 March 1960

62. Comparison with Registered Topographic Surveys

182	1:10,000	1844
183 bis	1:10,000	1844
1161	1:10,000	1870
3678	1:10,000	1917
5601	1:10,000	1934
5602	1:10,000	1934
6118 graphic control	1:10,000	1934

63. Comparison with Maps of Other Agencies

U.S.G.S.	Sakonnet Point, R.I.	31,680
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64. Comparison with Contemporary Hydrographic Surveys

The manuscript was compared with the unverified smooth sheet H-8366. As such, many of the following differences may be resolved as a result of verification.

This smooth sheet covers about half of the manuscript area. The portion east of Sakonnet River has no contemporary survey.

The photographs involved and their stages of tide at time of exposure are as follows:

43648 thru 43651 - @ MLW
54-W-1174 thru 54-W-1177 - @ .6' above MLW
54-W-938 thru 54-W-939 - @ 2.3' above MLW

The heights above datum of the rocks in the vicinity of Sakonnet Point were not given by field inspection due to "rough water and small open skiffs". It is recommended that where necessary, heights be taken from survey T-5601 (1936).

For the convenience of the hydrographic reviewer and the user of this portion of the review report, letter size copies of certain portions of the manuscript, where discrepancies exist, follow this page.

These copies are on ozalid paper with each discrepancy appropriately numbered and keyed to the following listing: 3

NUMBER

DIFFERENCE

COMMENTS

- | NUMBER | DIFFERENCE | COMMENTS |
|--------|--|--|
| 1 | None | Changed during review from rocks awash to small isles. Shown on T-5601 as isles 5' above MHW. |
| 2 | Rock awash or sunken rock. Either separate features or same feature with difference in position and symbolization. | Manuscript position checked during review. Not shown on old survey T-5601 (1934). Feature inspected on 54-W-1175 as rock. Hydro position 15' S.E. Position by sextant fix. Shown as sunken rock. |
| 3 | Either separate features or same feature with difference in position. | Manuscript position checked during review. Position agrees with T-5601 (1934). |
| 4 | Not verified on hydro sheet. | Feature office interpreted. Shown on 43649 only. Agrees in interpretation by analogy with rocks field inspected on this photo. |
| 5 | Same as 2 | Same as 2 |
| 6 | Same as 4 | Same as 4 |
| 7 | Shown awash on manuscript. Shown on hydro as sunken. | Office inspected. Not on T-5601 (1934) |
| 8 | Position of only one shown on hydro sheet. | Field inspected on 54-W-1175. Both are evident also on 43649. Most westerly shown on T-5601. |
| 9 | Not shown on hydro sheet. | Rock awash. Office inspected. Evident on both 54-W-1175 and 43649. |

NUMBER	DIFFERENCE	COMMENT
10	Not shown on H-8366.	Field inspected on 43649. Not evident on 54-W-1175. Outside limits of T-5601.
11	Manuscript shows rock awash symbol. Hydro sheet shows sunken rock about 15' S. of manuscript position.	Position checked during review using 54-W-1176. Rock is also shown on T-5601 (1936) but W. about 13'.
12	Not shown on hydro sheet.	Rock is very definite on 54-W-1176-77 and 43649. No field inspection on datum.
13	Difference in position and elevation between topo survey and hydro survey.	Checked hydro sextant position during review. Found to be in error. Replotted, now agrees with topo position. Elevation of hydro sheet will be used.

65. Comparison with Nautical Charts

353 1:40,000 19th Edition 10/58 1/25/60

Two offshore rocks at approximate Latitude $41^{\circ}27'52''$ and Longitude $71^{\circ}10'00''$ could not be seen on any of the available photography, the nine-lens of which was taken at low water.

These rocks are not to be found on T-5601 (1934) nor Graphic Control Survey 6118 (1934).

Not any of the submerged rocks shown on the chart are delineated on the manuscript.

Inshore rocks along the extent of Tunipus Beach are not shown on the manuscript due to poor photography i.e. sunspots, clouds, wave action.

Two rocks at approximate respective Latitudes $41^{\circ}27'25''$, $41^{\circ}27'30''$ and Longitudes $71^{\circ}10'33''$, $71^{\circ}10'31''$ are not delineated on the manuscript. They cannot be seen on the latest photography nor are they shown on T-5601 (1934) or Graphic Control Survey 6118 (1934).

66. Adequacy of Results and Future Surveys

Much of the offshore detail was revised or delineated during final review. This was necessary in part to incomplete field inspection and in part to incomplete or erroneous office delineation.

Considerable time was expended in this effort and a careful study was made of all available photographs and previous topographic surveys before additions or deletions were made.

The field inspection was incomplete in the following ways:

1. No inspection of offshore detail could be found of the area from Sakonnet Point north to the sheet limits.
2. Photograph 59-W-939 was chosen by the inspector for inspection of foreshore area. This photograph is cloudy, taken at 2.6' above MLW when a very sharp nine-lens over this area was available at exactly MLW. Use of the available photography was covered by project instructions.

66. Adequacy of Results and Future Surveys Continued

3. The above is true also of photo 54-W-1182 except it is not cloudy but of poor clarity.

4. Heights above water were not given on any of the offshore rocks. The field inspection report item 8 mentions that the heights of rocks in the area off Sakonnet Point were not given due to "rough water and small open skiffs". No mention is made of other areas.

5. Field inspection report item 7 says "the low water line was inspected at time of two low waters"; yet, much of the area no low water line is given.

The office delineation was erroneous or incomplete in the following ways:

1. Many images were office interpreted as rocks when they appeared on one photograph only. A check of several photos and use of copies of T-5601 (1934), T-5602 (1934) would have substantiated the image as a probable rock.

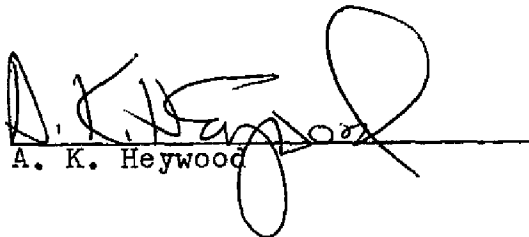
2. Foul lines were taken from field inspected photographs when the field inspected photograph was obviously in error.

3. Many offshore rocks were added during review. All of these rocks were readily apparent on the photographs, particularly the nine-lens prints. They also were confirmed by reference to previous surveys.

It is believed that the reviewed manuscript when coupled with the contemporary hydrographic survey will present an adequate and complete representation of offshore detail. A field edit is not recommended.

The survey in all other respects complies with project instructions and meets National Standards of Map Accuracy.

REVIEWED BY:


A. K. Heywood

APPROVED BY:

L. C. Lande
L. C. Lande
Chief, Review and Edit

L. F. Woodcock
L. W. Swanson
Asst. Chief, Photogrammetry Division

Marvin T. Paulson
Chief, Chart Division
Nautical

G. L. Mast
Chief, Coastal Surveys Division

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971).

T-III434

Record of Application to Charts

[illegible]

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.