

*Duplicate*

# 6342

**WIRE DRAG**

1217-2  
1217-2

Form 504  
Rev. April 1935  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

**DESCRIPTIVE REPORT**

~~XXXXXXXXXX~~ } **WIRE DRAG** 403  
Hydrographic } Sheet No. ~~1217-2~~

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State ~~Virginia, Maryland, New Jersey~~ Delaware

LOCALITY

Atlantic Coast, — offshore

~~Chincoteague Bay, Va. to~~  
Townsend Inlet to ~~off~~ Cape Henlopen  
~~Beach Haven Inlet, N. J.~~

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1938

CHIEF OF PARTY

Frank S. Borden

WIRE DRAG

# 6342

## DESCRIPTIVE REPORT

WIRE DRAG SHEETS Nos. 1, 2 AND 3.

Atlantic Coast, 1938

Frank S. Borden, Chief of Party,

Submitted by: S. B. Grenall.

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Note: This report covers three smooth sheets. The field work was originally plotted on five separate boat sheets but condensed to three sheets in smooth plotting by the use of inserts. The report will be submitted in triplicate so that a copy may be attached to each sheet for the review.

### FLOATING EQUIPMENT

The floating equipment consisted of the wire drag launches Marindin and Rodgers and one tender. During the early part of the season, one of the launches from the OCEANOGRAPHER was used as a tender; later, a motor surfboat was secured from the Coast Guard and the launch returned to the OCEANOGRAPHER.

### PERSONNEL

The personnel for the party was furnished jointly by the OCEANOGRAPHER and LYDONIA and consisted of four officers and eleven men. The officers were S. B. Grenall, H. & G. E.; F. E. Oleson, Mate; J. C. Bull, A. L. Wardwell and C. F. Chenworth, Aids. Mr. Chenworth relieved Mr. Oleson early in the season.

The crew were divided into the following classifications:  
1 Bos'n's Mate as Dragmaster, 1 radio operator-recorder, 2 engineers, 2 cooks, 5 seamen.

### SURVEY METHODS

Dual launch control was used throughout the season. All drag equipment was standard and all operations were carried on in accordance with the instructions in the manual "Construction and Operation of the Wire Drag and Sweep".

### CONTROL AND PROJECTIONS

The projections and control for the boat sheets were furnished by the OCEANOGRAPHER and LYDONIA. Part of the items were controlled by shore fixes and part by survey buoys planted and located by the OCEANOGRAPHER. Preliminary buoy locations were used on the boat sheets but adjusted buoy locations were available for the smooth sheets.

SMOOTH PLOTTING

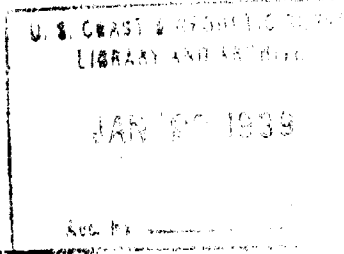
The reduction of records and smooth plotting has been done entirely by officers attached to the field party. Each item has been carefully reviewed and compared with the boat sheet and is taken up in a separate paragraph in the following discussion.

TIDE REDUCERS

All reducers for Sheet #1, except for Item #35, were from a portable automatic gage at the Coast Guard basin, Ocean City, Md. Reducers for Item #35 were from a gage at Assateague Anchorage.

Reducers for Sheets #3 and #4 were from the standard automatic gage at Atlantic City, New Jersey.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY



REG. NO.

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. ~~6342 W.D.~~ 403

REGISTER NO. H-6342 W.D.

State New Jersey - Delaware

General locality Atlantic Coast - Offshore

Locality ~~Cape May~~ Townsend Inlet to Cape Henlopen

Scale 1:40,000 Date of survey June - July, 1938

Vessel MARINDIN - RODGERS

Chief of Party Frank S. Borden

Surveyed by S. B. Grenell

Protracted by J. C. Bull

Soundings penciled by ---

Soundings in fathoms feet ---

Plane of reference M. L. W.

Subdivision of wire dragged areas by J. C. Bull

Inked by J. C. Bull

Verified by H. F. Stegman

Instructions dated March  
~~April 4~~ and May 14, 1938

Remarks: \_\_\_\_\_

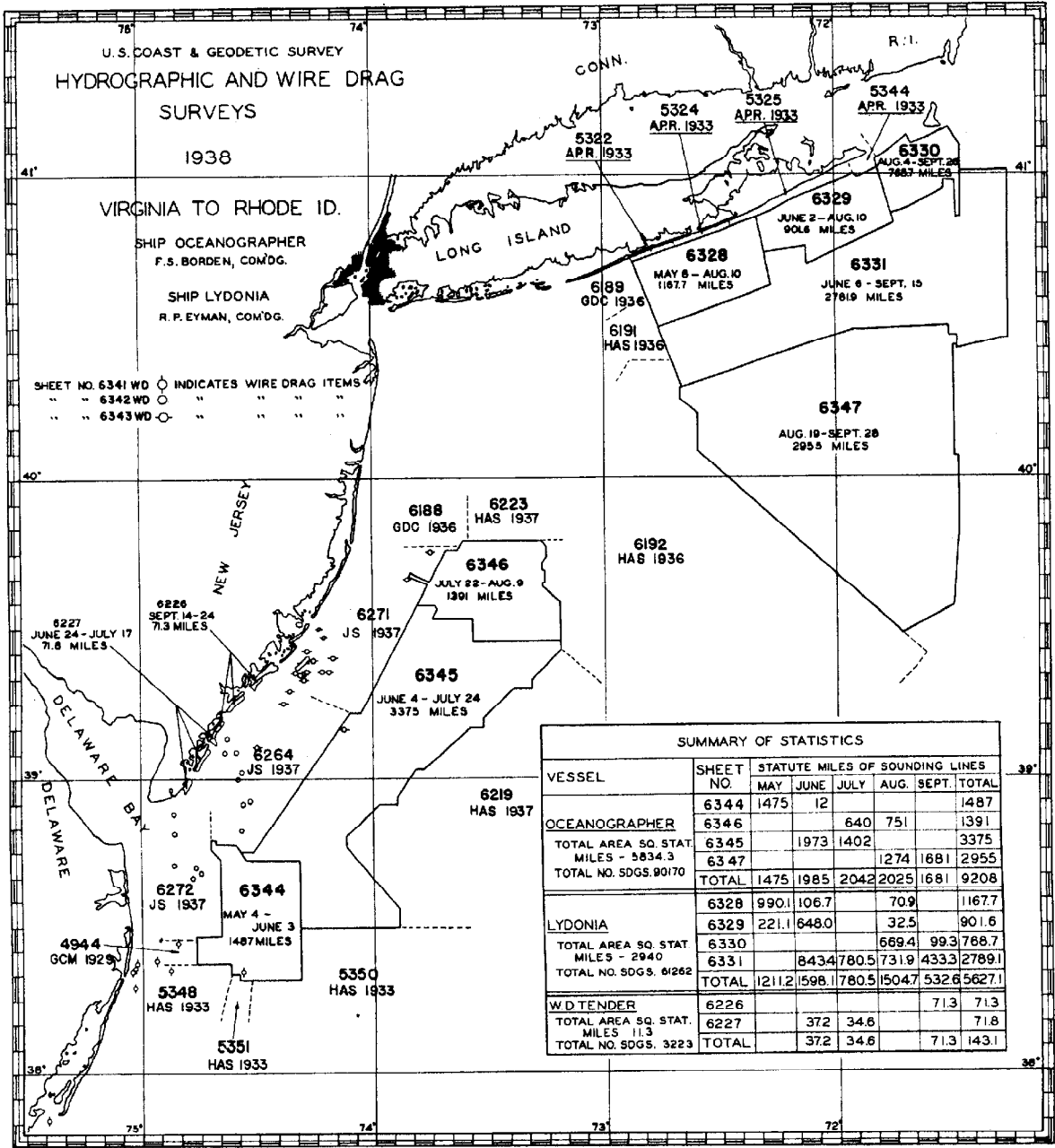
U.S. COAST & GEODETIC SURVEY  
 HYDROGRAPHIC AND WIRE DRAG  
 SURVEYS  
 1938

VIRGINIA TO RHODE ID.

SHIP OCEANOGRAPHER  
 F.S. BORDEN, COM'DG.

SHIP LYDONIA  
 R.P. EYMAN, COM'DG.

SHEET NO. 6341 WD ○ INDICATES WIRE DRAG ITEMS  
 " " 6342 WD ○ " " " "  
 " " 6343 WD ○ " " " "



SUMMARY OF STATISTICS

VESSEL	SHEET NO.	STATUTE MILES OF SOUNDING LINES					TOTAL
		MAY	JUNE	JULY	AUG.	SEPT.	
OCEANOGRAPHER	6344	1475	12				1487
	6346			640	751		1391
	TOTAL AREA SQ. STAT. MILES - 5834.3	6345		1973	1402		3375
	TOTAL NO. SDGS. 90170	6347				1274	1681
	TOTAL	1475	1985	2042	2025	1681	9208
LYDONIA	6328	990.1	106.7			70.9	1167.7
	6329	221.1	648.0			32.5	901.6
	TOTAL AREA SQ. STAT. MILES - 2940	6330			669.4	99.3	768.7
	TOTAL NO. SDGS. 61262	6331		843.4	780.5	731.9	433.3
	TOTAL	1211.2	1598.1	1780.5	1504.7	532.6	5627.1
W.D. TENDER	6226					71.3	71.3
	TOTAL AREA SQ. STAT. MILES 11.3	6227		37.2	34.6		71.8
	TOTAL NO. SDGS. 3223	TOTAL		37.2	34.6	71.3	143.1

SHEET No. 2. - 6342 W.D.

ITEM #10 1 - 20A

Wreck of the Steamer BECKWITH 1937. U. S. C. of E. reported wreck broken up in 1937. U. S. C. G. reported a small obstruction remaining with a least depth of 30 feet. Par. 3a(1),  
review.

A drag strip of effective depth of 28' hung on wreckage. A sounding of 20' MLW was secured at position 1a by the tender. This sounding was covered in two directions by a drag strip of 18' effective depth.

ITEM #11 11 - 18C; 1 - 23F; 1 - 27G; 1 - 22H

Wreck of a steamer reported in <sup>H.O. N. to M.</sup> ~~Chart Letter~~ No. 32, 1918. Par. 3a(2),  
review.  
An area of approximately 9 sq. mi. was dragged around the reported position of this wreck at effective depths from 53 to 61 feet with no grounding. There is a small holiday around the position of the Five Fathom Bank L. V. and marker buoy.

ITEM #12 1 - 18J; 1 - 21M; 1 - 23N

Wreck reported in H. O. Daily Memorandum #4471, Apr. 21, 1923. Par. 3a(3),  
review.  
An area of approximately 9 sq. mi. was dragged surrounding the reported position of the wreck at effective depths from 42 to 59 feet. There was no ground in this area.

ITEM #13 1 - 14E

The barge WAYNE sank in this position on May 25, 1932. The first drag strip of effective depth 38' hung on wreckage. The least depth obtained with the lead was 36' MLW; Pos. 1e. The second strip of effective depth 33' cleared the obstruction. The drag was then set down to effective depth 34' and hung at the Pos. 1e. Recommend that 34' be charted. Par. 3a(4),  
review.

ITEMS FROM H - 6272

- #1 9 - 12B 32' fathometer sounding covered at 42', no ground. Par. 3b(1), review.
- #2 1 - 6C 29' and 30' shoal covered at 28', no ground. Par. 3b(2).
- #3 13 - 23B 34' sounding and shoal ridge covered at 33', no ground. Par. 3b(3)
- #4 1 - 8B 34' sounding covered at 32' and 33', no ground. Par. 3b(4).
- #5 7 - 10C 33' sounding covered at 33', no ground. Par. 3b(5)

ITEMS FROM H - 6264

- #2 (see Item 12) 46' <sup>53</sup>charted sounding covered at 57', no ground. Par. 3c(1), review.

H - 6264 continued

#3 1 - 14P The 28' and 30' soundings (most southwesterly) could not be covered due to the presence of a great number of stakes from old fish traps broken off below the surface. There is now a fish trap on line with, and just inshore, from this position.

Par. 3c(2),  
review

The 29' sounding is covered at an effective depth of 27' with no ground.

The old, charted sounding of 27' is disproved and covered with a strip of effective depth 30' with no ground.

The 23' sounding on the ridge to the east is covered at an effective depth of 20' with no ground.

#4 12 - 19G The 28' ridge is covered at effective depth of 24'.

The 30' ridge is covered at effective depth of 23' with no ground on either line. There was a 5' swell running which gave a tested lift of 4', thus accounting for the shoalness of the drag strips. Weather conditions prevented further dragging of this area.

Par. 3c(3),  
review.

#5 1 - 11Q The ridge of Avalon Shoal was dragged to an effective depth of 25' with no ground. The end of the drag strip at Pos. 11Q was up against the marker buoy.

Par. 3c(4),  
review.

#7 1 - 4L The old, charted 36' sounding was disproved and covered at an effective depth of 42' with no ground.

Par. 3c(5),  
review.

EXTRA ITEM "A"

Local fishermen reported a wreck in this position. The drag hung on the first strip at 33' effective depth. The shoalest sounding obtained at the position of grounding was 38' on wreckage. The second strip hung at 29' on wreckage. This point was then covered at 27' and 28' effective depth with no ground. Recommend charting 29'.

Par. 3d,  
review.

HYDROGRAPHIC SURVEY NO. H-6342 W.D.

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 0 Vols., Wire Drag 2 Vols., Bomb     Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals ----

Landmarks for Charts (Form 567) ----

Statistics None

Approved by Chief of Party Report only

Recoverable Station Cards (Form 524) ----

Special Chart for Lighthouse Service -----  
(Circular Nov.30, 1933)

Hydrography: Total Days 15 ; Last Date July 26, 1938

Remarks \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H-6342 (1938) W.D.

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	..600. (estimated)
Number of positions checked	..114.
Number of positions revised	...0.
Number of soundings recorded & plotted	...5.
Number of soundings revised	...0.
Number of soundings erroneously spaced	.....
Number of signals erroneously plotted or transferred	..None.

Date: *March 31, 1939*

Verification by *H.F. Stegman*

Time: *14 1/2 hours*

Review by *J.A. McCormick, 4/10/39.*

Time: ~~21~~ *19* hrs.

## TIDE NOTE FOR HYDROGRAPHIC SHEET

March 14, 1939.

Division of Hydrography and Topography:

✓ Division of Charts: Attention Mr. E. P. Ellis.

Plane of reference

~~Tide Records~~ approved in  
2 volumes of ~~sounding~~ records for  
wire drag

HYDROGRAPHIC SHEET 6342

Locality Townsend Inlet to Cape Henlopen, New Jersey Coast.

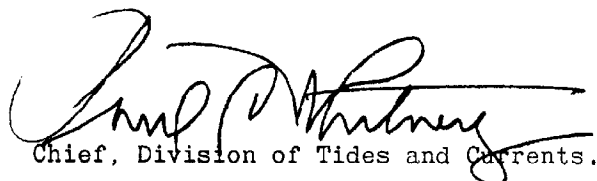
Chief of Party: F. S. Borden in 1938.

Plane of reference is mean low water reading

4.1 ft. on tide staff at Atlantic City  
15.8 ft. below B.M. 32

Height of mean high water above plane of reference is 4.1 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

## Remarks

## Decisions

	Remarks	Decisions
1		391747
2		387750
3		389749
4		387750
5		390747
6		389748
7		391747
8		390747
9		388748
10		389746
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
M 23-		

GEOGRAPHIC NAMES

Survey No. H-6342 W.D.

Name on Survey	Source										
	A.	B.	C.	D.	E.	F.	G.	H.	K.		
<u>Townsend Inlet</u>											1
<u>Cape Henlopen</u>											2
<u>Cape May</u>											3
<u>Rehoboth</u>											4
<u>N. Wildwood</u>											5
<u>Wildwood</u>											6
<u>Avalon</u>											7
<u>Hereford Inlet</u>											8
<u>McGrie Shoal</u>											9
<u>Five Fathom Bank</u>											10
											11
											12
											13
											14
											15
											16
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											25
											26
											27
											28

L. Heck 4/18/79

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
 DESCRIPTIVE REPORT  
~~PHOTOSTAT OF~~

} No. H-6342-W.D.  
 }  
 } ~~No. T~~

{ received Jan. 23, 1939  
 { registered Feb. 15, 1939  
 { verified  
 { reviewed  
 { approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
83	✓		See H-4341
88			
90			

RETURN TO

82	T. B. Reed
----	------------

✓ JBSOR

## Verification Report on H-6342 (1938) W.D.

### 1. CONDITION OF RECORDS

The records are neat and legible, and conform to the ✓ requirements of the Wire Drag Manual.

### 2. SHORELINE AND SIGNALS

This is an offshore survey and no shoreline is shown. ✓

Control consists of 3 point fixes on:

- a. Coastal triangulation stations. ✓
- b. Topo signal Mere (Standpipe, Strathmere N.J.) originating ✓ with T-5644.
- c. Navigational and Survey buoys located by the Oceanographer ✓ or by the Wire Drag party as noted in the indices of Vols. 1 and 2 of this survey.

### 3. JUNCTIONS WITH CONTEMPORARY SURVEYS

This survey consists of the <sup>investigation</sup> examination of several reported ✓ wrecks and shoals. There are no other wire drag surveys over the same area.

Soundings and groundings were transferred from H-6342 WD  
to the following hydrographic sheets:

H-4858 (1928) Location of wreck shown in green. ✓  
H-4875 (1928) " " " " " " " ✓  
H-6264 (1937) " " " and 28 foot shoal shown in green. ✓

#### 4. FIELD PLOTTING

Field plotting is satisfactory. ✓

Descriptions of navigational buoys used as signals were inked ✓  
on the sheet by the verifier.

The buoy at  $\phi-39^{\circ}-05.6$   $\lambda-74^{\circ}-34.6$  was not named on the  
smooth sheet, but was called signal "Bell" on the boat sheet and the name  
added on the smooth sheet by the verifier.

There is a signal "Bell" shown at  $\phi-39^{\circ}-02.0$   $\lambda-74^{\circ}-42.5$  It is apparent  
that this buoy was not the one noted in the records on Q day because  
the location as given in the paragraph above checks the location of  
the drag strips as determined by other fixes on shore signals. ✓

Respectfully submitted

Saral F. Stegman

Mar. 31, 1939

SECTION OF FIELD RECORDS

REVIEW OF HYDROGRAPHIC SURVEY NO. 6342 (1938) W.D. FIELD NO. 403

Townsend Inlet to Cape Henlopen, Atlantic Coast-offshore, New Jersey-Delaware.

Surveyed in June-July, 1938, Scale 1-40,000  
Instructions dated March 4 and May 14,  
1938 (OCEANOGRAPHER)

Wire Drag.

3 Point fixes on shore signals and  
buoys.

Chief of Party - F. S. Borden  
Surveyed by - S. B. Grenell  
Protracted by - J. C. Bull  
Subdivision of wire dragged area by - J. C. Bull  
Inked by - J. C. Bull  
Verified by - H. F. Stegman

1. Shoreline and Signals.

- a. No shoreline is shown.
- b. Topographic signal MERE originates with T-5644 (1935)
- c. Buoy positions originate with the present survey and with the traverse data used by the OCEANOGRAPHER to control the 1938 hydrography on H-6344, H-6345 and H-6346.

2. Junctions with Wire Drag Surveys.

The present survey consists of a series of independent investigations. There are no overlaps with similar work on other surveys.

3. Results of Survey.

a. Items called for in instructions of March 4, 1938.

- (1) Item 10 (Chart 1219). N. to M. 39 of 1937 reported the wreck of the Steamer Beckwith in latitude  $38^{\circ} 53.0'$ , longitude  $74^{\circ} 52.1'$ . A later report from the U. S. Engineers stated that the wreck had broken up and that only a small obstruction, probably the engine, projected about 5 feet above the bottom. A sounding of 20 feet was obtained on the wreck on the present survey. It was found approximately 0.1 mile southwest of the reported position and in depths of 31 to 34 feet on H-4875 (1928). The clearance depth was 18 feet.



- (2) Item 11 (Chart 1219). The wreck charted in latitude 38° 48.2', longitude 74° 33.4' originates with H. O. N. to M. 32 of 1918. The reported position falls in depths of 73 feet on H-6264 (1937). The surrounding area for a distance of 1½ miles on all sides was dragged with effective depths of 53 to 61 feet except in the immediate vicinity of Five Fathom Bank Light Vessel and marker buoy one mile to the southwest. The wreck symbol should be removed from the chart. *wreck removed  
mch 12/19  
jw 5/14/39*
- (3) Item 12 (Chart 1219). The P. D. wreck charted in Latitude 38° 55.3', Longitude 74° 32.0' originates with H. O. Daily memorandum No. 4471 of April 21, 1923, and falls in depths of 75 feet on H-6264 (1937). The reported position was cleared on the present survey with an effective drag depth of 59 feet and the surrounding area to a distance of ¾ to 1½ miles on all sides covered with effective depths of 42 to 59 feet depending on bottom depths as shown by H-6264 (1937). The wreck symbol should be removed from the chart. *removed from Ch 1219  
jw 5/14/39*
- (4) Item 13 (Chart 1217). The P. D. wreck charted in latitude 39° 05.5', longitude 74° 37.5' originates with chart letter 424 of 1932. The wreck was found on the present survey approximately 0.5 mile southwest of the charted position and in depths of 49 to 52 feet on H-6264 (1937). The drag grounded on the wreck with an effective depth of 34 feet and cleared it with 33 feet. The chart should be revised to agree with the survey results. ✓

b. Additional work on H-6272 (1937) Instructions of May 14, 1938.

- (1) Item 1 (chart 1219). A doubtful fathometer sounding of 32 feet in latitude 38° 43.0', longitude 74° 51.9' on H-6272 (1937) was disproved on the present survey with an effective drag depth of 42 feet. Surrounding depths on H-6272 are 53 to 63 feet. The 32 foot sounding has been removed from H-6272 and should not be charted. *53 charted  
mch 12/19  
jw 5/14/39*
- (2) Item 2 (chart 1219). The 29 foot depth (charted) in latitude 38° 41.5', longitude 74° 45.7' on H-4164 (1920) and the 30 foot depth 0.2 mile to the southwest on H-6272 (1937) were cleared on the present survey *30 charted  
mch 12/19  
jw 5/14/39*

with an effective drag depth of 28 feet. The 30 should be charted rather than the 29 because of probable changes in the interval between the hydrographic surveys.

- (3) Item 3 (chart 1219). The instructions called for additional development of 34 foot sounding charted in latitude  $38^{\circ} 39.9'$ , longitude  $74^{\circ} 47.8'$  from H-4164 (1920) and of shoal ridge immediately south-westward. The 34 was cleared on the present survey with an effective depth of 33 feet. The 35 foot depth charted one mile to the southwestward from H-4093 (1919) was not covered. The latter sounding is of dubious origin (see paragraph 7f, (3), review of H-6272) and does not warrant further investigation in view of the 35 obtained 0.6 mile to the northeast on H-6272 (1937). The 35 from H-4093 should be removed from the chart. The 34 from H-4164 (1920) should be retained as it falls near an undeveloped 38 on H-6272 (1937) and the drag merely proving non-existence of shoaler depths. *34 retained JW*
- (4) Item 4 (chart 1219). The 34 foot spot in latitude  $38^{\circ} 49.1'$ , longitude  $74^{\circ} 51.7'$  on H-6272 (1937) was cleared on the present survey with an effective drag depth of 33 feet, thus insuring non-existence of lesser depths. *34 retained on chart 1219 JW 5/14/39*
- (5) Item 5 (chart 1219). The 33 foot sounding in latitude  $38^{\circ} 40.8'$ , longitude  $74^{\circ} 44.9'$  on H-6272 (1937) was cleared on the present survey with an effective drag depth of 33 feet. *33 retained on chart 1219 JW*

c. Additional work on H-6264 (1937). Instructions of May 14, 1938.

- (1) Item 2 (chart 1219). The position of the 46 foot sounding charted in latitude  $38^{\circ} 54.7'$ , longitude  $74^{\circ} 33.5'$  from H-1696 (1886) was cleared on the present survey with an effective drag depth of 53 feet. The 46 should be removed from the chart. *Erased on chart 1219 5/14/39 JW*
- (2) Item 3 (chart 1217). Two 23 foot soundings in latitude  $39^{\circ} 07.6'$ , longitude  $74^{\circ} 36.0'$  on H-6264 (1937) were cleared with an effective depth of 20 feet on the present survey. The 29 foot sounding 0.8 mile to the southwest was cleared with 27 feet. The 28 and 30 foot soundings 1.2 miles to the southwest were not covered because of fish stakes. A check sounding of 28 feet was obtained, however. The position of the 27 foot sounding charted in latitude  $39^{\circ} 07.9'$ , longitude  $74^{\circ} 36.6'$

from H-1696 (1886), in 48-52 feet on H-6264 (1937), was cleared with an effective depth of 30 feet. The 27 should be removed from the chart. Investigation of the others is considered sufficient to insure that materially lesser depths do not exist in their vicinities.

- (3) Item 4 (chart 1217). The 28 foot sounding in latitude  $39^{\circ} 02.3'$ , longitude  $74^{\circ} 33.6'$  and the 30 foot sounding in latitude  $39^{\circ} 01.18$ , longitude  $74^{\circ} 32.8'$  on H-6264 (1937) were cleared on the present survey with effective depths of 24 and 23 feet respectively. As there was a five-foot swell running at the time, the effective depths are considered ample proof of non-existence of shoaler depths.
- (4) Item 5 (chart 1217). Avalon Shoal, with a least depth of 26 feet in latitude  $39^{\circ} 05.4'$ , longitude  $74^{\circ} 34.3'$  on H-6264 (1937), was dragged to an effective depth of 25 feet without grounding. The 23 foot depth now charted originates with chart letter 846 of 1936. It is considered disproved and should be removed from the charts.
- (5) Item 7 (chart 1217). The position of a 36 foot sounding charted in latitude  $39^{\circ} 00.0'$ , longitude  $74^{\circ} 33.6'$  from H-1696 (1896) was cleared on the present survey with an effective depth of 42 feet. The coverage is scant but, in view of the changeable nature of the area (see paragraph 7a (5), review of H-6264), further investigation is not considered necessary. The 36 should be removed from the chart.

d. Local information (chart 1219).

A wreck, reported by local fishermen, was located by the drag in latitude  $38^{\circ} 56.5'$ , longitude  $74^{\circ} 41.9'$ . The drag grounded at 29 feet and cleared at 28 feet in bottom depths of 45 to 46 feet on H-4858 (1929).

e. Aids to Navigation.

Navigational aids located on the present survey are in substantial agreement with the charts.

36  
removed  
from 1217  
JW

28 charted on  
chart 1219  
JW

4. Additional Field Work Recommended.

No additional work is recommended.

5. Reviewed by - J. A. McCormick, April 9, 1939.

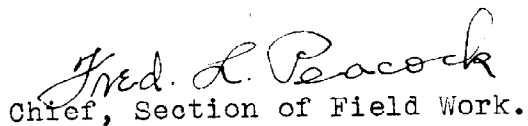
Inspected by - E. P. Ellis

Examined and approved:



T. B. Reed,  
Chief, Section of Field Records.

K.T. Adams  
Chief, Division of Charts.



Fred. L. Peacock  
Chief, Section of Field Work.



G. W. Wade  
Chief, Division of H. & T.

applied to drawing of chest	1217	April 24, 1939	J. G. L.
" " " " "	1219	May 19, 1939	J. G. L.
" " " " "	1218	Nov. 20, 1939	X. K.