

6226

9102

Additional work 1940

ALSO CONTAINS ADDITIONAL WORK ON H-6227 (1940)

NOV 25 1998

J.E.H.

6226

Additional work 1940

ALSO CONTAINS ADDITIONAL WORK ON H-6227 (1940)

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Hydrographic	} Sheet No.	6226
Hydrographic		6227

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
NOV 16 1940
L. S. A. SEC.

State New Jersey

LOCALITY

Corson Inlet

Townsend Inlet

1940

CHIEF OF PARTY

H. C. Warwick

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. XXXXXXXXXX

REGISTER NO. 6226 & 6227

State New Jersey

General locality Atlantic Ocean

Locality Off Corson Inlet & Townsend Inlet

Scale 1:20,000 Date of survey October, 19 40

Vessel M. V. GILBERT

Chief of Party H. C. Warwick

Surveyed by Ship's Officers

Protracted by C. E. Dennis

Soundings penciled by do

Soundings in ~~fathoms~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by

Inked by J. W. Vonasek

Verified by J. W. Vonasek

Instructions dated August 3, 19 40

Remarks:

DESCRIPTIVE REPORT

SHEETS NO. 6226 & 6227

NEW JERSEY COAST

CORSON INLET
TOWNSEND INLET

INSTRUCTIONS:

The hydrography on these two sheets was executed in accordance with the Director's Instructions to the Commanding Officer, Tender GILBERT dated August 3, 1939, reference 22-AB;1995 GI 1. ✓

LIMITS AND SCALE:

This survey consisted in investigation of shoals and development on two uncompleted sheets. The work was off Corson Inlet and Townsend Inlet, New Jersey Coast. The scale was 1:20,000. ✓

CONTROL:

The control on this sheet consisted of triangulation stations supplemented in part by hydrographic signals. ✓

SURVEY METHODS:

All soundings on this sheet were taken with the type 808 depth recorder. Frequent comparisons were made between the depth recorder and the Dorsey No. 1 fathometer; and the lead line and depth recorder. This was done to assure the correct operation of the depth recorder. ✓

A copy of the fathometer corrections is attached to this report. ✓

The sounding lines were controlled by sextant fixes on shore objects. ✓

TIDE REDUCERS:

The hourly heights of the standard gage at Atlantic City, New Jersey as furnished by the office were used in reducing the soundings. ✓

RESULTS:

Survey H-6226

1. The charted 38 foot sounding in latitude $39^{\circ}14.9'$, longitude $74^{\circ}29.4'$ was investigated. The least depth found was 47⁴⁶ feet. It is recommended that this sounding be removed from the chart. ✓
Remove 38 from chart.

2. The additional development as called for in paragraph 3a of the instructions was accomplished. The 41, 46 and 47 foot soundings in latitude $39^{\circ}14.0'$, longitude $74^{\circ}31.5'$ were investigated. A least depth of 46⁴⁴ feet was found. A least depth of 52⁵⁰ feet was found in the vicinity of the 42 foot sounding in latitude $39^{\circ}12.3'$, longitude $74^{\circ}32.2'$. A least depth of 45⁴³ feet was found in the vicinity of 34 foot sounding in latitude $39^{\circ}12.9'$, longitude $74^{\circ}33.2'$. It is felt that the least depths existing at the present time was found by this survey and it is recommended
Disregard old survey depths. ✓
Already removed from chart.

RESULTS, (Continued):

that the old soundings be removed from the chart.

3. The split lines designated in paragraph 3c were run. No shoaler depths were found by this party. ✓ ✓

4. The split lines designated in paragraph 3d and 3e were accomplished. This party did not find any shoaler depth than those of the previous survey. ✓ ✓

Survey H-6227

The additional work required on this sheet was accomplished. A shoal depth of 16 feet was found in latitude $39^{\circ}07.7'$, longitude $74^{\circ}41.05'$. No indication of any other shoaler depths than those found by the previous party were found. ✓ ✓

Respectfully submitted,

J. E. Waugh Jr.
J. E. Waugh Jr.,
Ensign, C&GS.

Approved and forwarded,

H. C. Warwick
H. C. Warwick,
Comd'g. MOTOR VESSEL GILBERT.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6226**

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

Number of positions on sheet	.757.
Number of positions checked	..18.
Number of positions revised	....5.
Number of soundings recorded	3118
Number of soundings revised	....11
Number of soundings erroneously spaced	...31
Number of signals erroneously plotted or transferred	....0.

Date: **2/7/41**

Verification by **J.W. Vonasek**

Time: **32 hrs.**

Review by **J.A. McCormick 2/17/41**

Time: **5 hrs.**

HYDROGRAPHIC SURVEY NO. H6226

Smooth Sheet One (original)

Boat Sheet Two (original)

Records; Sounding 4 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals No

Landmarks for Charts (Form 567) Yes

Statistics No

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) ----

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

Hydrography: Total Days ; Last Date

Remarks

TABLE NO. 1

DEPTH RECORDER CORRECTIONS

Depth fms.	Temp. C	Mean Temp.	Salinity pp/100	Mean Salinity	Factor	Cor'n fms.	Cor'n ft.
1	17.0		31.4				
5	17.0	17.0	31.4	31.4	+0.0042	+0.021	+0.13
10	17.2	17.1	31.5	31.4	+0.0044	+0.044	+0.26
15	17.2	17.1	31.5	31.5	+0.0045	+0.068	+0.41
20	17.2	17.2	31.5	31.5	+0.0047	+0.094	+0.56
25	17.2	17.2	31.5	31.5	+0.0047	+0.118	+0.71

TABLE NO. 2

DEPTH RECORDER CORRECTIONS

SHEET NOS. 6226, 6227

Date	Depth range	Correction's (in feet)
October 9-13	0 and greater	Temperature & Salinity ±0.0

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT PHOTOSTAT OF	}	No. H H6227 (Additional Work) No. T	{ received Nov. 16, 1940 registered Nov. 19, 1940 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			
88			
90			

RETURN TO

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

✓ TBR

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-6226 add'l wk 1940

Verified and Inked by *J. W. Vonasek*

Date *2/7/41*

1. The descriptive report was consulted and appropriate action taken. ✓
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude. ✓
3. All references to survey sheets mentioned in the descriptive report include the registry number and year. ✓
4. Geographic names of hydrographic features are in slanting lettering and of topographic features in vertical lettering. ✓
5. All items effecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken. ✓
6. All positions verified instrumentally were check marked in the sounding records. ✓
7. All critical soundings are clear and legible. ✓
8. The metal protractor has been checked within the last three months. ✓
9. The protracting and plotting of all bad crossings were verified. ✓
10. All detached positions locating critical soundings, rocks or buoys were verified. ✓
11. The boat sheet was compared with the smooth sheet. ✓
12. The spacing of soundings as recorded in the records was closely followed. ✓
13. The bottom characteristics were shown on outstanding shoals. ✓
14. The reduction and plotting of doubtful soundings were checked. ✓

15. The transfer of contemporary topographic information was carefully examined. ✓
 16. All junctions were transferred. ✓
 17. The notation "JOINS H " was added for all contemporary adjoining or overlapping sheets now registered. ✓
 18. The depth curves have been drawn to include the significant depths. ✓
 19. All triangulation stations and transfer of topographic and hydrographic signals were checked by the field party. ✓
 20. Heights of rocks were checked against range of tide. ✓
 21. Rocks transferred from topographic survey have a dotted curve where shown thereon. ✓
 22. Unnecessary pencil notes have been removed. ✓
 23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet. ✓
 24. The low water line and delineation of shoal areas have been properly shown (see letter of October 20, 1934). ✓
 25. Degree and minutes values and symbols have been checked. ✓
 26. Source of shoreline and signals (When not given in report).
 27. Depth curves were satisfactory ~~except as follows:~~
-

28. Sounding line crossings were satisfactory ~~except as follows:~~

29. Junctions with contemporary surveys were satisfactory ~~except as follows:~~

30. Condition of sounding records was satisfactory ~~except as follows:~~

31. The protracting was satisfactory ~~except as follows:~~

32. The field plotting of soundings was satisfactory ~~except as follows:~~

33. Notes to reviewer:

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6226 (1940 Add'l. Work)
FIELD NO. 202

New Jersey; Outside Coast; Absecon Inlet to Whale Beach
Surveyed in October 1940; scale 1:20,000
Instructions dated August 3, 1939 (GILBERT)

Soundings:

Control:


Type 808 Recorder

Three-point fixes on shore
signals

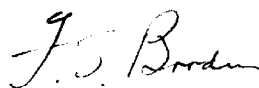
Chief of Party - H. C. Warwick
Surveyed by - H. C. Warwick
Protracted by - C. E. Dennis
Soundings plotted by - C. E. Dennis
Verified and inked by - J. W. Vonasek
Reviewed by - J. A. McCormick, February 17, 1941
Inspected by - H. R. Edmonston

Project instructions called for accomplishment of the several items of additional work recommended in Par. 10, review of H-6226 (1937). Repetition of the various items is unnecessary here as the original review with marginal annotations of the 1940 results is attached to the descriptive report. The 1940 work is very satisfactory. Soundings from old surveys which were retained on the charts because of wide development in 1937 can now be removed. It is interesting to note that the 1940 depths are substantially the same as those of 1937. The major accomplishment of the additional work has been the assurance, by closer development, that the depths obtained in 1937 were representative of the least in the area.

Examined and approved:



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



Chief, Division of Charts



Chief, Section of Hydrography



Chief, Division of
Coastal Surveys

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. 6226 Additional Work (1938)

REGISTER NO.

State New Jersey

General locality New Jersey Coast

Locality Absecon Inlet to Whale Beach

Scale 1:20,000 Date of survey September ~~1937~~ 1938

Vessel OCEANOGRAPHER

Chief of Party F. S. Borden

Surveyed by S. B. Grenell

Protracted by H. F. Stegman (Washington office)

Soundings penciled by H. F. Stegman (Washington office)

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

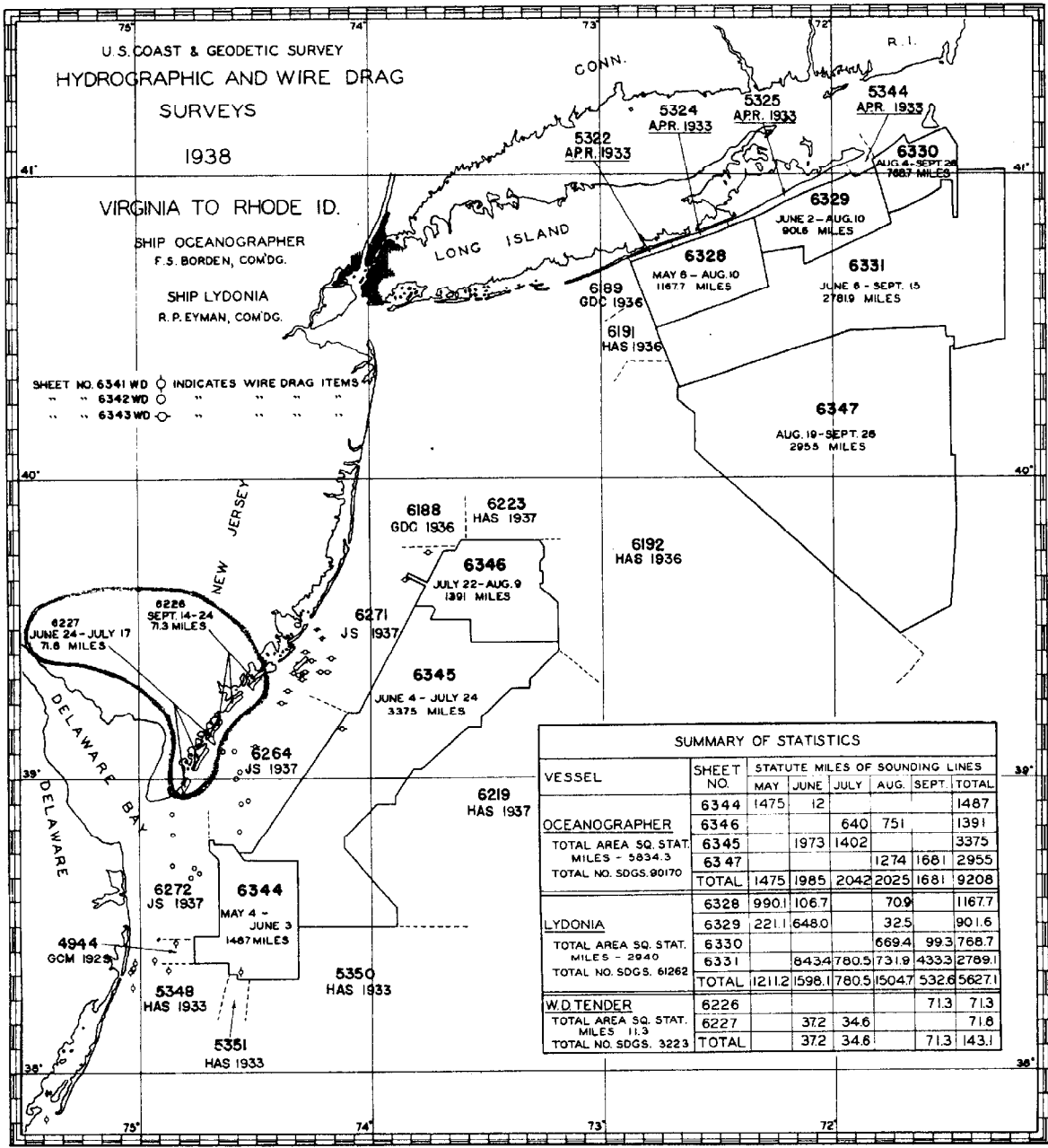
Subdivision of wire dragged areas by

Inked by G. F. Jordan

Verified by G. F. Jordan

Instructions dated March 4, 1938 ~~1937~~
May 20, 1938

Remarks:



SUMMARY OF STATISTICS

VESSEL	SHEET NO.	STATUTE MILES OF SOUNDING LINES					TOTAL
		MAY	JUNE	JULY	AUG.	SEPT.	
	6344	1475	12				1487
OCEANOGRAPHER	6346			640	751		1391
TOTAL AREA SQ. STAT. MILES - 5834.3	6345		1973	1402			3375
TOTAL NO. SDGS. 90170	6347				1274	1681	2955
	TOTAL	1475	1985	2042	2025	1681	9208
	6328	990.1	106.7		70.9		1167.7
LYDONIA	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	2789.1
	TOTAL	1211.2	1598.1	780.5	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

(Additional work, 1938)

6226

U. S. COAST & GEODETIC SURVEY
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Acc. No. _____

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

DESCRIPTIVE REPORT

~~Hydrographic~~ } Sheet No. ~~6226~~ & ~~6227~~
Hydrographic } *Additional Work 1938*

State New Jersey

LOCALITY
New Jersey Coast
~~Outer Coast, Wildwood N. J., to~~
Absacon Inlet to Whale Beach
~~Atlantic City, N. J. Hydrography~~
along the beach between inlets

1938

CHIEF OF PARTY
Frank S. Borden

U. S. GOVERNMENT PRINTING OFFICE

EP

(Additional work, 1938)
6226

DESCRIPTIVE REPORT

COVERING

ADDITIONAL HYDROGRAPHY

HYDROGRAPHIC SHEETS 6226 ~~6227~~

NOTE: Smooth plotting is to be done on the 1937 smooth sheets in the Washington Office. ✓

INSTRUCTIONS: Date: March 4, 1938; to Commanding Officers, OCEANOGRAPHER and LYDONIA; Supplemental Instructions Project HT-207, paragraph 2(b); paragraph 38.
 and May 25, 1938
 Also May 20, 1938
 Letters to OCEANOGRAPHER

PARTY ORGANIZATION: The hydrography on these two sheets was executed by the wire drag party at convenient times when the tide and weather were favorable. Sheet 6227 was executed with launch #82 (OCEANOGRAPHER) and sheet 6226 with the motor surfboat recently procured from the Coast Guard. The sounding party was organized as follows: S. B. Grenell, (in charge) right angle; A. L. Wardwell, left angle; J. C. Bull, plotting; C. F. Chenworth, recording. Leadsman were chosen from experienced personnel of the party. ✓

SURVEY METHODS: The usual procedure for launch hydrography was followed. The lines furthest inshore were run during the calmest weather and at half tide or better wherever possible. During even the calmest weather there was always some groundswell running and in the shoaler areas, where this swell humped up before breaking, the leadsman made allowances for swell when calling soundings. This reduction was carefully watched and checked by the anglers and recorder. ✓

The inshore lines were run as close as safety permitted to the breaker line and in most cases were well inside the six foot curve. ✓

The exceptions to this rule are noted on the boat sheets (in pencil) and in the records. Notes are also recorded giving the approximate distance from the breaker line.

LOCATION OF SIGNALS: In order to run the lines close inshore, it was necessary to out in additional signals for control. These signals were located by sextant cuts from the launch, recorded and indexed in the records. The location of these objects together with a short description of each have been listed in an abstract attached to this report. The geographic positions are given as scaled from the boat sheet.

It is recommended that the cuts be replotted on the smooth sheet for more accurate location before being used for plotting positions. ^{Signals replotted} in office.

TIDE REDUCERS: (Refer to paragraph 38 of the Instructions) After investigation of available tide gage sites, it was deemed impracticable to establish gages at Stone Harbor and Sea Island City. All reducers have been entered from the gage at Atlantic City, New Jersey for sheet 6227. Sheet 6226 was executed during the period when repairs were being made to the gage at Atlantic City, so reducers were furnished by the Washington Office from Sandy Hook, New Jersey and corrected for range and time in accordance with the accompanying letter of instruction (Reference 30-FLM, October 18, 1938).

UNUSUAL FEATURES: There were no unusual features worthy of note on sheet 6227.

On sheet 6226, along the stretch of beach just south of Ocean City, New Jersey, there are a series of bars running parallel with the beach line outside the calm weather breaker line. During the execution of the hydrography in this area, it was noted that the ground swell curled almost to the breaking point on these bars, flattened out again in the

narrow slough behind and then break suddenly on a steep shelf inshore. The line between positions 83a and 86a runs along one of these bars and the line 34b to 37b runs through the slough behind a bar. This latter line was barely outside the line of breakers along the steep shelf inshore.

JUNCTIONS: All junctions with previous surveys were excellent except for a few slight variations of one to two feet where the present work joined hydrography near the inlets executed by the Mikawe in 1937. The shoal areas adjacent to the inlets are constantly changing and for this reason the slight discrepancies are considered unimportant. The junctions with the deeper lines offshore are excellent with one exception: Positions 111c to 117c indicate a one to two foot shoaler depth than the hydrography of 1937. This can be partly explained by the fact that one foot was taken from many of the soundings by the leadsman to compensate for a heavy ground swell which was running at the time.


<u>STATISTICS:</u>	<u>SHEET NO.</u>	<u>POSITIONS</u>	<u>SDGS.</u>	<u>STAT. MI. HYDROG.</u>
	6227	304	1610	71.8
	6226	296	1613	71.3

Respectfully submitted,



S. B. Grenell, H&GE,
Officer in Charge.

Approved and Forwarded:



Frank S. Borden, Comdr. C&GS.,
Comd'g. Ship OCEANOGRAPHER.

SBG/B

ABSTRACT OF HYDROGRAPHIC SIGNALS
Located 1938.

Hydrographic Sheet 6227:

<u>Name</u>	<u>Latitude</u>	<u>meters</u>	<u>Longitude</u>	<u>meters</u>	<u>Description</u>
DUN	39 - 01	1452 (398)	74 - 46	818 (625)	Sandhill, unmarked
GAB	39 - 03	1206 (644)	74 - 45	000 (000)	Center gable ^{3 story} stone ho. N. end Stone Hbr.
HO	39 - 04	893 (957)	74 - 44	526 (917)	N. gab. small green roof house.
TRY	39 - 05	238 (1612)	74 - 43	1219 (223)	Center fishermans look-out stand, n.r.
SAND	39 - 07	1842 (8)	74 - 42	423 (1019)	sandhill, not recoverable.
NEW	39 - 10	989 (861)	74 - 40	725 (715)	S. gab. new green ho. most northerly group

Hydrographic Sheet 6226:

LONE	39 - 10	1488 (362)	74 - 40	363 (1077)	S. gab. shack
MID	39 - 11	442 (1408)	74 - 39	1271 (169)	center small wh. shack most northerly
DORM	39 - 11	817 (1033)	74 - 39	927 (513)	center dormer most ^S ly house of group
DAN	39 - 16	920 (930)	74 - 34	249 (1189)	NE corner dance pavilion
TWIN	39 - 16	1477 (373)	74 - 33	1016 (422)	southerly of two cupolas on 4 story hotel

The above positions are scaled from the boat sheets where the objects were plotted from three or more sextant cuts recorded and indexed in the sounding volumes.

Verifier's Report on H-6226 (1938) Addl. Wk.

1. This survey joins H-6226 (1937) on the shore side. ✓
 Junctions are made with H-6230 (1936-1937), H-62⁶²26 (1937).
 Junctions with these latter ^{were} good outside the 6 ft curve.
 A few soundings were deleted at the 6 ft curve on the older
 survey in order to draw this curve.
 H-6227 (1938) Addl. Wk. which joins this survey on the south
 has not been verified.

2. Additional Control for this survey are as follows

<u>Hyd. Signals</u>	<u>Topo. Sig.</u>	<u>Triang. Δ</u> Point
New	Pier - from CS 127M	Bank 1932 ✓
Lone	*Out - " CS 118M	
Mid	Pole - " T-5638	
Dorm		
Dan		
Twin		

3. This survey and plotting conform to the requirements
 of general instructions.

4. Remarks

- (a) Hydra. Sig. "New" comes from Sdg. Vol of H-6227 (1938) addl. wk. ✓
- (b) *A new lookout tower has been built, and there is a
 question as to continuance of present sig. "OUT." There
 are two hydro. cuts to the new lookout tower, given on pg 22
 of the Sdg. Vol. Cuts give weak intersection so not plotted. Signal "Out" was in
 existence at time of add'l work.
- (c) The smooth plotting was done in the Washington Office ✓
 by H.F. Stegman.

Dec. 22, 1938.

George F. Jordan

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. ~~H-6226~~ (Addl. wk. 1938)

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

Number of positions on sheet	.. 276 .
Number of positions checked	... ¹⁵ 26 ..
Number of positions revised	....4 .
Number of soundings recorded	..1613..
Number of soundings revised	....0.
Number of signals erroneously plotted or transferred	....0.

Date: *Dec. 22, 1938*

Verification by *G. F. JORDAN*

Time: *10½ hrs.*

Review by *J.A.M^c Cormick*, Dec. 29, 1938.

Time: *6½ hrs.*

LAC
HLC

TIDE NOTE FOR HYDROGRAPHIC SHEET

December 4, 1940

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. H. R. Edmonston.

Tide Reducers are approved in
4 volumes of sounding records for

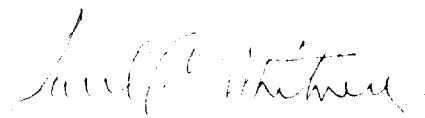
HYDROGRAPHIC SHEET 6226 Add. Wk.

Locality Corson Inlet, South Jersey Shore

Chief of Party: H. C. Warwick in 1940
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.

6226

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

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 202
Hydrographic }

State New Jersey

LOCALITY

New Jersey Coast
Whale Beach
Absecon Inlet to Serson Inlet

1937

CHIEF OF PARTY

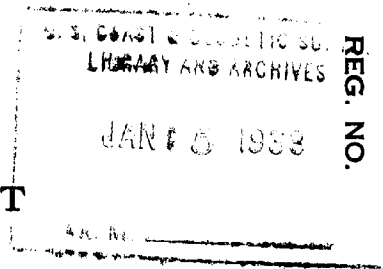
Roland D. Horne

U. S. GOVERNMENT PRINTING OFFICE

6226

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 202

REGISTER NO. H 6226

State New Jersey

General locality New Jersey Coast

Locality Absecon Inlet to ~~Corsica~~ Inlet.
Whale Beach

Scale 1/20,000 Date of survey August, 1937

Vessel GILBERT

Chief of Party Roland D. Horne

Surveyed by Roland D. Horne

Protracted by J. H. Brittain

Soundings penciled by J. H. Brittain

Soundings in ~~fathoms~~ feet

Plane of reference Mean low water

Subdivision of wire dragged areas by

Inked by C. F. McKenney

Verified by Ed. Stau

Instructions dated April 9, 1936, March 19, 1937, July 7, 1937.

Remarks:

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO. 202 H-6226

NEW JERSEY COAST

ABSECON INLET TO CORSON INLET

INSTRUCTIONS:

The work on this sheet was executed in accordance with the Director's Instructions to the Commanding Officers of the OCEANOGRAPHER, LYDONIA, and GILBERT, dated April 9, 1936, Supplemental Instructions to the Commanding Officer of the LYDONIA dated March 19, 1937 and Instructions to the Commanding Officers of the OCEANOGRAPHER, LYDONIA and GILBERT dated July 7, 1937.

LIMITS:

The work on this sheet consists of the hydrography along the New Jersey Coast from Absecon Inlet to about 2 miles south of Corson Inlet. It covers the area from approximately 1/2 mile off shore to about 4 miles off shore.

It joins the work of the U.S. Engineers at Absecon Inlet as shown on blueprint No. 29340, on the north, Field sheet No. 203 on the south and field sheet No. 402 of the LYDONIA on the east. It also joins the work of the Launch MIKAWA at Great Egg Inlet and Corson Inlet. The area inside the inshore limits of this sheet and between the inlets remains to be done.

SURVEY METHODS:

Soundings were taken with the Dorsey No. 1 fathometer except for a few shoal soundings on the inshore lines where the hand lead was used. Frequent comparisons were made between the fathometer and the lead line.

Control was by means of visual fixes on structures and signals located by triangulation and by topography. Some of the topographic signals were scaled from prints of topographic sheets furnished by the Office.

A copy of the computations of the fathometer corrections is appended hereto.

DISCREPANCIES:

Check lines were run across the work at frequent intervals. With the exception of the following, the crossings agreed within one foot or less:

Positions 43c to 44c (37 ft.) and 1g to 2g (35 ft.)

Positions 61h to 62h (42 ft.) and 78c to 79c (44 ft.)

Positions 121L to 122L (46 ft.) and 50e to 51e (48 ft.)

Positions 123L to 124L (33 ft.) and 45d to 46d (35 ft.)

In no case did the discrepancy exceed 2 feet.

STATISTICS

HYDROGRAPHIC SHEET NO. 202

Date	Day	Soundings			Positions	Mileage
		Fmr.	H.L.	Total		
Aug. 5	a	515	--	515	91	31.7
Aug. 6	b	839	--	839	145	44.4
Aug. 7	c	1094	50	1144	179	54.6
Aug. 8	d	387	--	387	52	18.7
Aug. 9	e	1296	--	1296	211	71.1
Aug. 10	f	967	--	967	151	41.2
Aug. 11	g	500	--	500	88	28.3
Aug. 17	h	1070	--	1070	161	59.8
Aug. 18	j	1014	27	1041	143	47.6
Aug. 19	k	551	64	615	128	33.8
Aug. 31	l	822 9055	-- 141	822 9196	131 1480	47.8 479.0

DANGERS:

No dangers were encountered within the area covered by this sheet.

COMPARISON WITH PREVIOUS SURVEYS:

The soundings on this sheet agree fairly close with those shown on chart 1217.

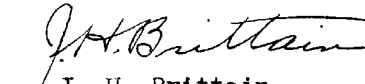
TIDAL NOTE:

Tide reducers for sheet 202 were obtained from the standard gage at Atlantic City, New Jersey.


In accordance with Instructions no time allowance or range differential was used.

The hourly heights were furnished by the Office, referred to a datum 4.1" below mean low water.

Respectfully submitted,


J. H. Brittain
Jr. H. & G. Engineer.

Approved and Forwarded:


Roland D. Horne
Comd'g Ship GILBERT.

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT PHOTOSTAT OF	}	No. H -6226 (Addl. Wk. 1938) No. H -6226	{ received Nov. 2, 1938 registered Nov. 26, 1938 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			
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90			

RETURN TO

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

✓ JBR

Summation of Fathometer Corrections.

Date 1937	Depth (feet)	Index Corr. (feet)	Vel. Corr. (feet)	Combined Corr. (feet)
7/1-7/30	0--78	-0.5	0.0	-0.5
8/4-8/9 "	0--27 28--78	-1.0 -1.0	0.0 + 0.5	-1.0 -0.5
8/10-8/24	0--78	-1.0	0.0	-1.0
8/31-9/1	0--23.5 24.0-57.0 57.5-107.0	-1.0 -1.0 -1.0	0.0 +0.5 +1.0	-1.0 -0.5 0.0
9/2-9/17	0---23.5 24.0-57.0 57.5-107.0 107.5-163.0	-1.5 -1.5 -1.5 -1.5	0.0 + 0.5 + 1.0 + 0.5	-1.5 -1.0 -0.5 -1.0
9/18-9/23	0---23.5 24.0--57.0 57.5-107.0 107.5-163.0	-1.0 -1.0 -1.0 -1.0	0.0 + 0.5 + 1.0 + 0.5	-1.0 -0.5 0.0 -0.5

Verification of Hydrographic Survey NO. 6226(1937) Field No. 202
 New Jersey Coast
 Absecon Inlet to Whale Beach
 Chief of Party R. D. Horne

1. Condition of Records.

In general, the records conform to the requirements of the Hydrographic Manual. ✓

The Descriptive Report is brief, but satisfactorily covers all matters of importance. ✓

In one or two cases where comparisons were made, the reductions for the fathometer were inadvertently applied to the lead line. For example of this error see page 21, volume 1. *noted in rev. p. 1*

The fish trap in Lat. $39^{\circ} 12.82'$ Long. $74^{\circ} 36.12'$ although noted in the sounding volumes was not shown on the smooth sheet. It has been shown with the usual symbol and note. ✓

The degree and minute marks were omitted on the projection; these have been added in the office. ✓

2. Shoreline and Control.

The shoreline and control are from the following Air Photographic surveys, Graphic control, and field sheets designated by letters. See also par. 8, this report. ✓

<u>Air Photographic</u>	<u>Graphic Control</u>
T-5637 (1936)	T-6503 a
T-5638 "	
T-5639 "	<u>Field No.</u>
T-5642 "	FF 1937 CS 127M
T-5644 "	GG 1937 CS 126M

3. Sounding Line Crossings.

Discrepancies in sounding line crossings are noted at the bottom of page one of the descriptive report. No additional discrepancies were found. ✓

4. Depth Curves.

The usual depth curves can be satisfactorily drawn. They have been left in pencil close to junctions to be made with other contemporary surveys. ✓

5. Aids to Navigation.

- (a) At position 82g, Lat. $39^{\circ} 12.77'$ Long. $74^{\circ} 35.94'$ (page 65, vol. 3) a note appears in the remarks column "Stand 000 with bell buoy." This bell buoy is apparently outside of the limits of this sheet and may be shown on the survey of Corson Inlet.
- (b) The buoys shown in approximate Lat. $35^{\circ} 16.6'$ Long. $74^{\circ} 13.3'$ were located by estimated distances from the sounding line between them. (Page 40, vol. 2).
- (c) The buoys in approximate Lat. $39^{\circ} 20.5'$ Long. $74^{\circ} 24.8'$ were located by estimated distances from position 1b and 2b. (Page 22, vol. 1).
- (d) The buoy in Lat. $39^{\circ} 18.64'$ Long. $74^{\circ} 23.54'$ was located by position 16b. (Page 25, vol. 1).

agrees closely with 3-pt. fix location on H-6262. not plotted. Horn.

also located on H-6230. will be disposed of in that rev. Horn.

6. Junctions with Contemporary Surveys.

The junction with H-6227 (1937) on the southwest is satisfactory. ✓

The junction with the two sections of this sheet is satisfactory. ✓

This sheet joins U. S. Engineer's surveys off Atlantic City. ✓

The junctions with other contemporary surveys will be considered in the verification of those sheets. ✓

7. Field Plotting.


The field plotting is satisfactory. ✓

8. Remarks.

The required number of comparisons were taken, but due to rough weather fixes for all of them were not obtained, consequently relatively few are shown on the sheet. ✓

Signals in green are spotted from topographic features on planimetric maps. ✓

Verified by,



Leo S. Straw

March 17, 1938.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6226**

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

Number of positions on sheet	1480
Number of positions checked	15
Number of positions revised	0
Number of soundings recorded	9337
Number of soundings revised	10
Number of signals erroneously plotted or transferred	0

Date: *Mar. 16, 1937*

Ink by *C. F. McKenney*

Verification by *[Signature]*

Review by *Harold W. Murray*

Ver. Cor. by *"*

Time: *62³/₄ hr*

Total *83¹/₄*

Time: *38³/₄ "*

1¹/₂ "

HYDROGRAPHIC SURVEY NO. H-6226

Smooth Sheet Yes

Boat Sheet Two

Sounding Records 5 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol.#1

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party No

Recoverable Station Cards (Form 524) None

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

Remarks HYDROGRAPHY

Total Days 11

Last Date Aug 31, 1937

Remarks

Decisions

1		<i>see T-5638</i>
2		<i>USGB decision</i>
3		<i>see T-5639</i>
4		<i>see T-5642</i>
5		<i>see T-5644</i>
6		<i>USGB decision</i>
7		<i>see T-5637</i>
8	<i>For Title Only</i>	<i>USGB decision</i>
9		
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GEOGRAPHIC NAMES

Survey No. H-6226

Name on Survey	Source										
	A.	B.	C.	D.	E.	F.	G.	H.	K.		
	On Chart No. 1217	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List			
<u>VENTNOR</u>	✓										1
<u>GREAT EGG INLET</u>	✓										2
<u>OCEAN CITY</u>	✓										3
<u>CORSON INLET</u>	✓										4
<u>Whale Beach</u>	✓										5
<u>ABSECON INLET</u>	✓										6
<u>ATLANTIC CITY</u>	✓										7
<u>New Jersey</u>	✓										8
											9
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											12
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	Names underlined in red approved										25
	by <u>JHE</u> on 1/26/38										26
											27

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT } No. H -6226
~~PHOTOSTAT OF~~ } ~~No. H -6226~~

{ received Jan. 5, 1938
 { registered
 { 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			
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25		<i>WBR</i>	<i>Sent memorandum</i>
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RETURN TO

82	C. K. Green
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WBR

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 15, 1937

Division of Hydrography and Topography:

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

Plane of reference

~~Tide Records~~ approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 3226

Locality Absecon Inlet to Whale Beach, N. J.

Chief of Party: R. D. Horne in 1937


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.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6226 FIELD NO. 202

Absecon Inlet to Whale Beach, New Jersey Coast, New Jersey
Surveyed in August 1937, Scale 1:20,000
Instructions dated April 9, 1936, Mar. 19 and July 7, 1937 (OCEANOGRAPHER)

Hand Lead and Dorsey Fathometer Soundings. 3 Point fixes on shore signals.

Chief of Party - R. D. Horne.
Surveyed by - R. D. Horne.
Protracted by - J. H. Brittain.
Soundings plotted by - J. H. Brittain.
Verified and inked by - C. F. McKenney and Leo S. Straw.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

- a. Latitude and longitude figures on the sheet were not accompanied by degree and minute symbols. These were added in the office.
- b. Several series of V. C. comparisons were incomplete in the sounding records in that the fathometer reduced soundings were not entered, the correction for tide and fathometer were not segregated and in some cases, such reductions as were made were not labeled Hand Lead or Fathometer. Several errors noted in the reductions and corrected in the office were probably due to confusion of one of the above factors.
- c. A number of V. C. comparisons were not plotted on the smooth sheet, being unaccompanied by a 3 pt. fix or too distant in point of time from the nearest recorded position.

The Descriptive Report is clear and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project except as follows:

- a. An additional cross line as well as the continuation of two others in the northern portion of the sheet and also in the area SE of Corson Inlet should have been run in order to comply with the requirement that cross lines be spaced 2 miles apart inside the 10 fathom curve.
- b. The area off Corson Inlet is characterized by numerous shoal spots and the present survey development consisting of sounding lines spaced 150 to 500 m. apart is insufficient to insure that the extent of and the least depth on these features have been obtained. (See paragraph 10, additional work, for further details).

3. Shoreline and Signals.

- a. The shoreline originates with 1936 planimetric maps T-5637, T-5638, T-5639, T-5642 and T-5644.
- b. The signals originate with graphic control sheet T-6503a (1935-36), and 1937 Correction Sheets CS126M and CS127M. Several signals shown in green were spotted from topographic features on planimetric sheet T-5644 (1936).

4. Sounding Line Crossings.

General agreement of sounding line crossings is within one foot, several two foot discrepancies in depths of 33 to 48, however, are listed in the Descriptive Report, page 1. (See paragraph 2, this review).

5. Depth Curves.

Within the limits of the survey, the usual depth curves may be satisfactorily drawn.

6. Junctions with Contemporary Surveys.

- a. The junction on the south with H-6227 (1937) is satisfactory.
- b. The junctions on the west with H-6262 (1937) and H-6230 (1936-37) and on the east with H-6264 (1937) and H-6271 (1937) will be considered in the reviews of those surveys.
- c. The junction with the U. S. Engineers survey of 1935-36, Blueprint 29340 in the vicinity of Absecon Inlet and Ventnor (authorized by verbal instructions) is satisfactory except that in the vicinity of latitude $39^{\circ} 19'$, longitude $74^{\circ} 26'$ the present survey depths vary 2 feet shoaler and indicate a general shoaling subsequent to the Engineers survey.
- d. The junction with other inshore field work in this area will be considered when it has been received from the field.

7. Comparison with Prior Surveys.

- a. H-116 (1843), scale 1:40,000.

This survey covers the entire area of the present survey. The hydrography consisting of widely spaced soundings and sounding lines controlled by shore signals spaced 2 to 5 miles apart is very sparse and an adequate comparison cannot be made with the present survey, particularly in the lumpy bottom area off Corson Inlet near the outer limit of the present survey. It is noted, however, that agreement of depths is good in some areas but in others, differences of 1 to 12 feet occur which are due to changes in some cases and displacement in position of sounding lines in others. None of the critical soundings

were indentified in the original records because of difficulty in identifying the sounding lines. Among the important differences noted are:

- (1) The 35 foot sounding (charted as 36, figure 5 on old survey not clearly legible) in latitude $39^{\circ} 17.8'$, longitude $74^{\circ} 26.4'$ falls in depths 1 fathom deeper on the present survey. The 35 is a single sounding on line. Other nearby depths on both surveys are in excellent agreement and since they show an unusually smooth bottom, it is probable that the 35 is a leadsmán's error of 1 fathom. For this reason, the 35 should be disregarded in future charting.
- (2) The following shoal soundings fall in deeper depths but close to undeveloped shoal indications on the present survey. They are in general single soundings on line, other soundings on which are in fair agreement with the present survey depths. Because the development here is insufficient to prove or disprove these shoal soundings, they are not being carried forward on the present survey but should be shown on the chart pending the results of a field examination.

1940 Addl. Work satisfactorily develops area.
Disregard old survey depths.

Sounding	Lat.	Long.	In present survey depths of	Near shoal indication of	1940 Depths
(a) 38 feet, charted	$39^{\circ} 14.9'$	$74^{\circ} 29.4'$	48-49 feet	48 feet	46 ft.
(b) 41, 46, and 47 feet	$39^{\circ} 14.0'$	$74^{\circ} 31.5'$	45-54 "	45 "	43 "
(c) 42 feet	$39^{\circ} 12.5'$	$74^{\circ} 32.2'$	52 "	46 "	46 "
(d) 34 feet	$39^{\circ} 12.9'$	$74^{\circ} 33.2'$	48-51 "	43 "	43 "

Except as noted in paragraph (2) above, the present survey bears out the essential features and should supersede this survey in future charting.

- b. H-101 (1844), H-670 (1859), H-1558 (1882-83), scales 1 to 300,000 and 1 to 400,000.

A few soundings from these surveys fall within the limits of the present survey and in view of the very small scales an adequate comparison cannot be made with the present survey. No soundings are charted from these surveys. The present survey adequately bears out the essential details on a considerably larger scale and should supersede these surveys in future charting.

- c. H-837 (1864) and H-2694 (1904), scales 1 to 10,000.

A few soundings from each of these surveys fall just within the limits of the present survey in the vicinity of Absecon Inlet. The development is too sparse and the common area too small to afford an adequate comparison. It is noted, however, that the depths on the 1864 survey are in close agreement in some spots

but others on the present survey show a deepening of 2 to 5 feet. The depths on the 1904 survey being later in point of time are in fair agreement with the present survey depths. The present survey should supersede these surveys in future charting.

(d) H-1696 (1886), scale 1 to 40,000.

This survey covers the present survey in the area southward of latitude $39^{\circ} 15'$. Sounding lines are in general so widely spaced that an adequate comparison cannot be made. It is noted, however, that the depths are generally borne out by the present survey except that small changes have taken place on the small shoal areas enclosed by the 30 foot curve off Corson Inlet. The present survey with its larger scale and greater detail should supersede this survey in future charting.

(e) T-2054 (1891) and H-2116 (1891), scales 1 to 20,000.

Of the above sheets, the topographic sheet is the basic sheet, the hydrographic sheet showing a portion of the position numbers and sounding lines but no soundings. They cover the vicinity of Great Egg Inlet including a narrow strip of inshore hydrography extending about 3 miles north and south of the inlet. The present survey depths generally vary 1 to 3 feet shoaler except in the vicinity of latitude $39^{\circ} 16.4'$, longitude $74^{\circ} 33.0'$ where the present survey shows a deepening of about 10 feet, the 1891 survey showing several 5 to 6 foot depths here. In view of the changes noted, the present survey should supersede these surveys in future charting.

(f) H-2695 (1904), scale 1 to 10,000.

This survey covers the vicinity of Great Egg Inlet. But a few soundings fall within the limits of the present survey and these are generally in good agreement except in the vicinity of latitude $39^{\circ} 16'$, longitude $74^{\circ} 33'$ where a few spots vary 1 to 4 feet deeper in some cases and shoaler in others. The present survey although on a smaller scale adequately covers the essential features and should supersede this survey in future charting.

8. Comparisons with Chart 1217 (New Print dated August 27, 1937).

a. Hydrography.

In the comparison with the chart, all the critical soundings charted were considered. These originate with surveys discussed in previous paragraphs of this review except the 4 soundings considered below. The source of these soundings could not be readily ascertained. It is noted, however, that they are charted on the 1st Edition of the chart in 1913 and are also shown on the then superseded Chart Standard 123 of 1908 except that the 39 is shown as 6 fathoms flat.

- (1) The 19 foot sounding in latitude $39^{\circ} 18.6'$, longitude $74^{\circ} 29.1'$ and the 28 approximately $3/4$ miles SE fall in depths of 25 to 26 and 33 feet respectively on the present survey. It is noted that both a 19 and a 28 are shown 1 mile due west on H-116 (1843) discussed in paragraph 7a, this review. It is probable that they are due to an error in compiling and should therefore be disregarded in future charting. The present survey shows very uniform depths here.
- (2) The 39 foot sounding in latitude $39^{\circ} 16.5'$, longitude $74^{\circ} 28.2'$ falls in depths of 46 feet, even bottom on the present survey. Since H-116 (1843) shows a line of 40 to 42 foot soundings running in a NE direction 0.2 miles NW of the charted 39, it is probable that the 39 originates with one of these 40's. This line, however, consistently varies 3 to 4 feet shoaler than the present survey depths. Because of these differences, both the shoal line and the charted 39 should be disregarded in future charting.
- (3) The 37 foot sounding in latitude $39^{\circ} 13.5'$, longitude $74^{\circ} 32.7'$ falls in depths of 53 feet on the present survey but near a shoal indication of 44 feet. Since additional field work is recommended in this area (see par. 10, this review), the 37 should be retained on the chart pending the results of this work at which time a final disposition will be made. 37 disapproved
by 1940
Addl. Wk.

b. Aids to Navigation.

The two buoys in latitude $39^{\circ} 20'$, longitude $74^{\circ} 25'$ and the two in latitude $39^{\circ} 17'$, longitude $74^{\circ} 31'$ were located approximately 360 to 570 m. SW of their charted positions which originate with LHN to M 49 and 24 of 1935 respectively. The former pair in either position satisfactorily mark the features intended (area covered by Blueprint 29340 of 1935-36, discussed in par. 6d, this review). The latter pair will be considered in relation to the hydrography on H-6230 (1936-37) in the review of that survey. The buoy in latitude $39^{\circ} 18.6'$, longitude $74^{\circ} 23.5'$ which falls outside the present survey limits was located 200 m. WSW of its charted position. The charted position originates with LHN to M 15 of 1935. The aid in either position satisfactorily ~~marks~~ the features intended.

9. Field Plotting.

Field pretracting and plotting were accurate and conform to the requirements of the Hydrographic Manual.

10. Additional Field Work Recommended.

The following additional work which has been outlined on the boat sheet is essential for the completion of the present survey.

- a. The 38 foot sounding discussed in paragraph 7a (2) (a), this review should be investigated and a definite recommendation made regarding its existence or non-existence. Least depth of 46 ft. obtained in 1940. 38 to be removed from chart.

- b. The area off Corson Inlet but near the outer limits of the present survey is characterized by an uneven bottom with numerous shoal indications surrounded by depths 1 to 9 feet deeper. The present survey development here consisting in general of sounding lines spaced 200 to 500 m. apart is insufficient and should be supplemented by additional split lines. Accomplished 1940.

- When the above is accomplished, particular attention should be given to a definite disposition of the shoal soundings discussed in paragraphs 7a (2) (b), (c), and (d), this review which fall in this area. Depths disproved 1940.

- c. Split lines are necessary in the vicinity of the latitude 39° 09.4', longitude 74° 36.0' to develop the 35 to 38 foot shoal depths shown here. No shoaler depths in 1940.

- d. Split lines are necessary on the shoal ridge extending from latitude 39° 09.8', longitude 74° 38.7' to latitude 39° 13.2', longitude 74° 33.7' to determine the extent of the several 29 to 32 foot shoal spots shown here. Do.

- e. Split lines are necessary on the shoal ridge in latitude 39° 09.7', longitude 74° 37.1' to insure that the 32 to 33 foot soundings shown here represent the least depth in this area. Do.

11. Note to Compiler.

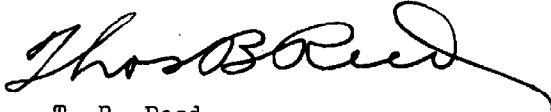
The compiler's attention is called to the shoal soundings discussed in paragraph 7a (2) and 8a (3), this review which should be shown on the chart pending the results of a field examination and at which time a final disposition will be made. See notes after these paragraphs. J.A.M. 2/17/41.

12. Superseded Prior Surveys.

Within the area covered, the present survey supersedes the following surveys for charting purposes:

H-116 (1843)	In part (except as noted in par. 7a (2)).	H-1696 (1886)	In part
		H-2054 (1891)	" "
H-101 (1844)	" "	(Hydrography only)	
H-670 (1859)	" "	H-2116 (1891)	In part
H-837 (1864)	" "	H-2694 (1904)	" "
H-1558 (1882-83)	" "		

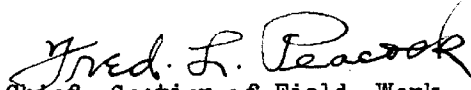
13. Reviewed by - Harold W. Murray, May 12, 1938.
Inspected by - A. L. Shalowitz.



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



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.

Applied to drawing of Chart 1217 - June 10, 1938 - J. Walker

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6226 ADD'L WORK(1938)FIELD NO.202

Absecon Inlet to Whale Beach, New Jersey Coast, New Jersey.

Surveyed in Sept. 1938, Scale 1:20,000

Instructions dated March 4, 1938 and letter

dated May 20, 1938 (OCEANOGRAPHER)

Hand Lead Soundings.

3 Point fixes on shore signals.

Chief of Party - F.S. Borden

Surveyed by - S. B. Grenell

Protracted by - H. F. Stegman

Soundings plotted by - H. F. Stegman

Verified and inked by - G. F. Jordan

1. Purpose of Additional Work.

The purpose of the additional work was to complete the inshore hydrography inside the 1937 work on H-6226 and to accomplish the additional development recommended in par. 10 of the review of the 1937 work.

2. Signals.

- a. Additional topographic signals originate with correction sheets CS 118 M and CS 127 M of 1937 and topographic map T-5638 (1932-35).
- b. Several hydrographic signals were located by fixes recorded in the additional work volumes for the present survey and for H-6227 (1937-38).

3. Office Work.

The smooth plotting of the additional work was done in the office, all additional signals being plotted from original data.

4. Results of Survey.

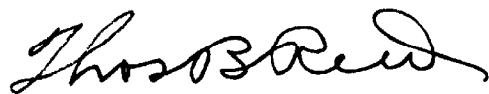
- a. The inshore hydrography was satisfactorily completed.
- b. Additional work recommended in par. 10 of the review of H-6226 (1937) and called for in the Director's letters of May 14, 20, and 25, 1938 was not accomplished. Accomplished 1940.

J.A.M.
2/17/41.

5. Reviewed by - J. A. McCormick, December 29, 1938.

Inspected by E. P. Ellis,


Examined and approved:



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



Chief, Division of Charts



Chief, Section of Field Work

Chief, Division of Hydrography
and Topography .

H6226 (add'l. Wk.) applied to ^{drawing of} chart 1217, April 1, 1939 J.G.H.

Applied to chart 826 April 18, 1939 KML[®]

" " " 827 June, 1939 BR.

Applied to chart 826-SC June 4 1963 Kennon

JAN 5 1938

6227

Form 804
Rev. April 1925

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Hydrographic~~ Sheet No. 203
Hydrographic

State New Jersey

LOCALITY

New Jersey Coast
Whale Beach
Corson Inlet to Hereford Inlet

193 7

CHIEF OF PARTY

Roland D. Horne

U. S. GOVERNMENT PRINTING OFFICE

6227

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
JAN 5 1938
REG. NO.
Acc. 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. 203

REGISTER NO. H 6227

State New Jersey

General locality New Jersey Coast

Locality Whale Beach
~~Cornor Inlet~~ to Hereford Inlet

Scale 1/20,000 Date of survey August-September, 1937

Vessel GILBERT

Chief of Party Roland D. Home

Surveyed by Roland D. Home

Protracted by J.H. Brittain

Soundings penciled by J.H. Brittain

Soundings in ~~fathoms~~ feet

Plane of reference Mean low water

Subdivision of wire dragged areas by

Inked by L.A. McGarr

Verified by L.A. McGarr

Instructions dated April 9, 1936 March 19, 1937, July 7 1937

Remarks:

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO. 203

NEW JERSEY COAST

CORSON INLET TO
HEREFORD INLET

INSTRUCTIONS:

The work on this sheet was executed in accordance with the Directors Instructions to the Commanding Officers of the OCEANOGRAPHERS, LYDONIA, and GILBERT, dated April 9, 1936, Supplemental Instructions to the Commanding Officer of the LYDONIA, dated March 19, 1937 and Instructions to the Commanding Officers of the OCEANOGRAPHER, LYDONIA, and GILBERT dated July 7, 1937. ✓

LIMITS:

The work on this sheet consists of the hydrography along the New Jersey Coast from a point about 2 miles south of Corson Inlet to Hereford Inlet. It covers the area from about 1/4 mile off shore to about 3 miles off shore at the northern end and about 2 miles off shore at the southern end. ✓

This sheet joins sheet 202 on the north, sheet 402 of the LYDONIA on the east, the work of the Launch MIKAWA at Hereford Inlet and sheet 4821 on the south. It also joins the work of the Launch MIKAWA at Townsend Inlet. The area inside the inshore limits of this sheet between the inlets remains to be done. ✓

SURVEY METHODS

All soundings on this sheet were taken with the Dorsey No. 1 Fathometer with the exception of a few shoal soundings on the inshore lines, where the hand lead was used. ✓

Frequent comparisons were made between the fathometer and lead line. ✓

Control was by means of visual fixes on structures and signals located by Triangulation and by Topography. Some of the Topographic signals were scaled from prints of Topographic sheets furnished by the office. ✓

A copy of the computations of the fathometer corrections is appended hereto. ✓

DISCREPANCIES

Check lines were run across the work at frequent intervals. With one exception the crossings agreed within one foot or less. This case is between 25d and 26d and 118f and 119f. A sounding of 20 feet on d day comes between soundings of 21 and 22 feet on f day. 21' on 20'. ✓

lat. 39° 01.7
long. 74° 45.7

and on
the shoal
at lat 39° 02.4
long 74° 38.1

DANGERS AND COMPARISON WITH PREVIOUS SURVEYS:

The only danger encountered on this sheet was in lat. 39° 07.4; long. 74° 38.1 where a minimum depth of 16 feet was obtained. This comes at the location of a charted depth of 15 feet. At this point a marker buoy was dropped and approximately one hour spent in drifting over the area, sounding with hand lead and fathometer. Fixes were taken and soundings recorded only on the shoalest soundings. The shoal covered an area approximately 150 meters in diameter.

See par. 8a(2),
review.

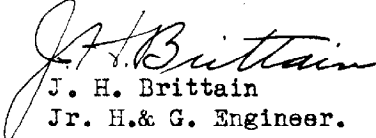
In general the soundings on this sheet agreed fairly close with those on chart no. 1217. ✓

TIDAL NOTE

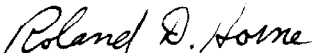
Tide reducers for sheet 203 were obtained from the standard gage at Atlantic City, New Jersey. In accordance with instructions no time allowance or range differential was used. ✓

The hourly heights were furnished by the office referred to a datum 4.1 feet below mean low water. ✓

Respectfully submitted,


J. H. Brittain
Jr. H. & G. Engineer.

Approved and forwarded:


Roland D. Horne
H. & G. Engineer,
Comd'g Ship GILBERT.

Summation of Fathometer Corrections.

Date 1937	Depth (feet)	Index Corr. (feet)	Vel. Corr. (feet)	Combined Corr. (feet)
7/1-7/30	0--78	-0.5	0.0	-0.5
8/4-8/9	0--27	-1.0	0.0	-1.0
"	28--78	-1.0	+0.5	-0.5
8/10-8/24	0--78	-1.0	0.0	-1.0
8/31-9/1	0--23.5	-1.0	0.0	-1.0
	24.0-57.0	-1.0	+0.5	-0.5
	57.5-107.0	-1.0	+1.0	0.0
9/2-9/17	0---23.5	-1.5	0.0	-1.5
	24.0-57.0	-1.5	+0.5	-1.0
	57.5-107.0	-1.5	+1.0	-0.5
	107.5-163.0	-1.5	+0.5	-1.0
9/18-9/23	0---23.5	-1.0	0.0	-1.0
	24.0--57.0	-1.0	+0.5	-0.5
	57.5-107.0	-1.0	+1.0	0.0
	107.5-163.0	-1.0	+0.5	-0.5

STATISTICS

HYDROGRAPHIC SHEET NO. 203

Date	Day	Soundings			Positions	Mileage
		Fmr.	H.L.	Total		
Aug. 19	a	882	--	882	136	42.7
Aug. 20	b	624	140	764	139	40.0
Aug. 21	c	580	--	580	104	34.5
Aug. 24	d	1024	13	1037	159	44.6
Aug. 31	e	397	--	397	76	18.7
Sept. 1	f	<u>467</u>	<u>189</u>	<u>656</u>	<u>129</u>	<u>34.6</u>
Totals		3974	342	4316	743	215.1

VERIFIER'S REPORT ON H6227(1937)

The records conform to the requirements of the Hydrographic Manual Instructions except that at the beginning of the work on each day no entry has ✓ been made as to what type of sounding apparatus had been used. The name of the leadman has been omitted where hand lead soundings were taken.

The shoreline shown on H 6227 has been transferred in this office from pantographic reductions of T-5644 (1936) T-5645 (1936), T-5646 (1936), and T-5647 (1936) See par. 3 review. The topographic signals originate with T-5644, T-5645, and T-5646. with plane table surveys GG and MM which have not been registered.

The agreement of soundings at crossings is ✓ exceptionally good.

The adjoining surveys are unfinished so that no junctions have been completed. So Junction with H-4821 (1928) on the South is satisfactory.

Leonard A. McSann
March 2, 1938.

Field Records Section (Charts).

H6227
HYDROGRAPHIC SHEET NO.

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

Number of positions on sheet	..743
Number of positions checked	....²⁵
Number of positions revised	....7
Number of soundings recorded	..4316
Number of soundings revised	....²
Number of signals erroneously plotted or transferred [—]

Date: *March 2, 1938*

Verification by *L.A. McGonn*.

Time: *36½ hours.*

Review by *J.A. McCormick, March 9, 1938.* Time: *16 hrs.*

HYDROGRAPHIC SURVEY NO. H-6227

Smooth Sheet Yes

Boat Sheet Yes

Sounding Records 3 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol.#1

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party No

Recoverable Station Cards (Form 524) None

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

Remarks HYDROGRAPHY

Total Days 6.....

Sept. 1, 1937

Remarks

Decisions

1		see T-5644
2		USGB decision
3		see T-5645
4		see T-5644
5		see T-5645
6		see T-5646
7		see T-5647
8	For Title Only	USGB decision
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. H-6227

Name on Survey	Source											
	A	B	C	D	E	F	G	H	K			
	On Chart No. 1217	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List				
<u>Whale Beach</u>	✓											1
<u>Ludlam Beach</u>	✓											2
<u>Townsend Inlet</u>	✓											3
<u>Sea Isle City</u>	✓											4
<u>Avalon</u>	✓											5
<u>Seven Mile Beach</u>	✓											6
<u>Hereford Inlet</u>	✓											7
<u>New Jersey</u>	✓											8
												9
												10
												11
												12
												13
												14
												15
												16
												17
												18
												19
												20
												21
												22
												23
	Names underlined in red approved										24	
	by <u>JHE</u> on 1/26/38										25	
												26
												27

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY }
 DESCRIPTIVE REPORT } No. H -6227
 PHOTOSTAT OF ~~PHOTO~~ } ~~No. T~~

{ received Jan. 5, 1938
 { registered Jan. 12, 1938
 { 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		<i>RR</i>	<i>sent memorandum</i>
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	C. K. Green
----	-------------

RR

200

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 15, 1938.

Division of Hydrography and Topography:

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

Plane of reference

~~Tide Records~~ approved in

3 volumes of sounding records for

HYDROGRAPHIC SHEET 6227

Locality Whale Beach to Hereford Inlet, N. J.

Chief of Party: R. D. Horne in 1937

Plane of reference is mean low water, reading

4.1 ft. on tide staff at

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.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6227 (1937) FIELD NO. 203

Whale Beach to Hereford Inlet, New Jersey Coast, New Jersey
Surveyed in Aug.-Sept. 1937, Scale 1:20,000
Instructions dated April 9, 1936 and July 7, 1937 (GILBERT);
March 19, 1937 (LYDONIA)

Hand Lead and
Dorsey Fathometer Soundings.

3 Point fixes on shore signals.

Chief of Party - Roland D. Horne.
Surveyed by - Roland D. Horne.
Protracted by - J. H. Brittain.
Soundings plotted by - J. H. Brittain.
Verified and inked by - L. A. McGarr.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

- a. The type of sounding apparatus used was not given on the first page of each day's work nor was the leadman's name given when soundings were obtained with the lead. (Par. 65).
- b. Several signals spotted from topographic features on planimetric maps were shown on the smooth sheet in red. The usual practice is to show spotted signals in a distinctive color (preferably green) in order to distinguish them from signals located by standard topographic methods, which are shown in red. The symbols and names were changed to green in the office.

The Descriptive Report is complete and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The survey satisfied the instructions for the project except that the shoal indications on the ridge extending about 2 miles north-eastward from latitude $39^{\circ} 08'$, longitude $74^{\circ} 40'8$ should have been developed. (See par. 10 this review.)

3. Shoreline and Signals.

- a. The shoreline originates with topographic maps (planimetric) T-5644 (1936), T-5645 (1936), T-5646 (1936) and T-5647 (1936).
- b. Topographic signals originate with the above topographic maps and with correction sheets CS 114 M (1937), CS 125 M (1937), including one supplementing, T-5644 (1936), which has not yet been received in the office.

- c. Signals in green on the present survey were spotted from topographic features on planimetric maps listed above.
- d. Hydrographic signals originate with the present survey, the cuts being listed in the index of volume 1 of the sounding records. Topographic locations were found for hydrographic signals "Tip" and "Cross" in latitude $39^{\circ} 08' 17''$, longitude $74^{\circ} 41' 19''$ on CS 114 M (1937). These two determinations differ slightly in position but, since the hydrography is not materially affected, the topographic determinations have been shown instead.

4. Sounding Line Crossings.

Agreement of sounding line crossings is satisfactory.

5. Depth Curves.

Within the area of the survey the usual depth curves may be satisfactorily drawn.

6. Junctions with Surveys.

- a. The junctions with H-6231 (1937) off Townsend Inlet and H-6236 (1937) off Hereford Inlet will be considered in the reviews of those surveys.
- b. The junction with Field Sheet No. 402 (1937) on the ~~sheet~~^{east} ~~sheet~~ will be considered when that sheet is received at the office.
- c. There are no contemporary surveys in the major portion of the inshore area. New surveys are, however, contemplated in this area in the near future.
- d. The junctions with H-4821 (1928) on the south and with H-6226 (1937) on the north are satisfactory.

7. Comparison with Prior Surveys.

a. H-116 (1843), 1:40,000.

This survey covers the entire area of the present survey. The control is based on shore signals spaced 2 to 5 miles apart and the development, consisting of a series of zig-zag lines, results in a very wide spacing of soundings. The agreement of depths with the present survey is fair in some places but poor in many others. No information from the 1843 survey is shown in the common area on the latest charts. The present survey, because of its closer development and more adequate control, should supersede H-116 (1843) for charting purposes.

b. H-1696 (1886), 1:40,000.

This sparsely covered survey covers the entire area of the present survey and is the basic survey for the present charting of the common area. Depths on the 1886 survey are, in general, in good agreement with those on the present survey.

Special mention is made of:

- (1). The 19-foot sounding (charted, charts 1217 and 3243) in latitude $39^{\circ} 01'8$, longitude $74^{\circ} 45'2$, on H-1696 (1886) resulted from a 2-fathom error in the plotting of a 31-foot sounding recorded in the sounding volumes at pos. 100 G. The 31 is in good agreement with the present survey depths. The 19 should be disregarded in future charting.
- (2). The 16-foot sounding (charted as 15 feet, see par. 82, this review) in latitude $39^{\circ} 07'5$, longitude $74^{\circ} 38'1$, falls in depths of 23 feet but is 170 m. north of a shoal area, with least depth of 16 feet on the present survey. Since both surveys show a shoal in this vicinity of like depth and extent, the difference in position is probably due to a shifting of the bottom. The present survey delineation should be used in future charting.

The present survey, because of its larger scale and closer development, should supersede H-1696 (1886) for charting purposes.

8. Comparison with Charts 1217 (New print dated August 27, 1937);
1219 (New print dated August 17, 1937);
3243 (New print dated December 10, 1937).

a. Hydrography.

Within the area of the present survey the charts are based on surveys discussed in the foregoing paragraphs. In making the comparison with the charts every sounding charted within the area of the present survey was considered.

- (1) The 17-foot depth in latitude $39^{\circ} 09'4$, longitude $74^{\circ} 40'0$, on chart 1217 first appeared on the edition of April 30, 1923 (Chart 1217). The preceding edition, that of July 5, 1922, shows a depth of $4\frac{1}{4}$ fathoms, identical in position with the 17 and originating with H-1696 (1886). The present survey shows depths of 19 to 23 feet in the vicinity. The 17 is undoubtedly the result of an error in the conversion of the $4\frac{1}{4}$ when the charts were re-compiled in feet

instead of fathoms and should be disregarded in future charting.

- (2) The 15-foot depth charted in latitude $39^{\circ} 07'15$, longitude $74^{\circ} 38'.1$, was shown as $2\frac{1}{2}$ fathoms on the early chart editions and originated with a 16-foot sounding on H-1696 (1886). When the charts were compiled in feet, the $2\frac{1}{2}$ was simply multiplied by 6 and became 15 feet. The 16-foot depth is verified on the present survey.

b. Aids to Navigation.

- (1) Positions determined on the present survey for the nun buoy in latitude $39^{\circ} 07'12$, longitude $74^{\circ} 38'12$, and lighted buoy "8" and whistle buoy "6" in latitude $39^{\circ} 00'17$, longitude $74^{\circ} 45'11$, fall 0.15 mile south, 0.2 mile southeast and 0.2 mile southeast of the charted positions. The charted positions originate with L.H.N. to M 36 (1932) and 21 (1936) and are based on distances and bearings to known features. The buoys in either position adequately mark the features intended.
- (2) The charted position of whistle buoy "4 A" in latitude $39^{\circ} 06'15$, longitude $74^{\circ} 40'18$, is in substantial agreement with the position determined on the present survey. Subsequent to the date of the present survey, however, this buoy was moved approximately 0.4 mile to the southwest (L.H.N. to M 41 of Oct. 1937) where it more adequately marks the entrance to Townsend Inlet.
- (3) The charted positions of all fixed aids in this area are in substantial agreement with the positions shown on the present survey and satisfactorily mark the features intended.

9. Field Plotting.

The field plotting is satisfactory.

10. Additional Field Work Recommended.

The following additional work is required in order to complete the survey:

- a. The narrow ridge (enclosed by the 30-foot curve) extending about 2 miles northeastward from latitude $39^{\circ} 08'$, longitude $74^{\circ} 40'18$, should be further developed with additional split lines. Such shoal depths or indications as were obtained here such as the 21's in latitude $39^{\circ} 09'11$, longitude $74^{\circ} 39'14$, and the two 18-foot spots in latitude $39^{\circ} 08'$, longitude $74^{\circ} 41'$, are generally surrounded by considerably deeper depths and there is no assurance that the present survey shows the prevailing least depths.

- b. When the inshore surveys are made, lines in the area overlapping the present survey should be run in such a manner as to split the inshore lines on the present survey.

11. Note to Compiler.

The compiler's attention is called to the following:

- a. Par. 7b(1), and 8a, this review, relative to certain incorrectly charted soundings.
- b. Par. 8b, this review, relative to the status of buoy 4 A in latitude 39° 06'5, longitude 74° 40'8.

12. Superseding Old Surveys.

Within the area covered the present survey supersedes the following old surveys for charting purposes:

H-116 (1843) in part.
H-1696(1886) in part.

13. Reviewed by - J. A. McCormick, March 9, 1938.

Inspected by - Harold W. Murray A.L.S.

Examined and approved:



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



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.

Applied to drawing of Chart 1217 - June 13, 1938 - J. Walby

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6227 ADD'L WORK(1938) FIELD NO.203

Whale Beach to Hereford Inlet, New Jersey Coast, New Jersey.
Surveyed in June-July, 1938, Scale 1:20,000
Instructions dated March 4, 1938 and letters of April 27 and
May 20, 1938 (OCEANOGRAPHER)

Hand Lead Soundings.

3 Point fixes on shore signals.

Chief of Party - F. S. Borden
Surveyed by - S. B. Grenell
Protracted by - H. F. Stegman
Soundings plotted by - H. F. Stegman
Verified and inked by - G. F. Jordan

1. Purpose of Survey.

The purpose of this additional work was to complete the inshore hydrography inside the limits of the 1937 work on H-6227 and to accomplish the additional development recommended in par. 10 of the review of H-6227 (1937).

2. Office Work.

Smooth plotting of the additional work was done in the office. This included the plotting and checking of additional hydrographic signals from the fixes recorded in the additional work volume.

3. Results of Survey.

The completion of the inshore hydrography is satisfactory. Adequate junctions were made with H-6226 (1937-38), H-6224 (1937), H-6231 (1937), H-6236 (1937), H-4821 (1928) and H-4870 (1928). A number of soundings from the last two were omitted in the overlap shown on the present work because of differences of 1 to 3 feet which are undoubtedly due to the changeable nature of the area. For the same reason, the present work also supersedes the overlapping portion of H-4859 (1928), the previous inshore survey south of HEREFORD INLET.

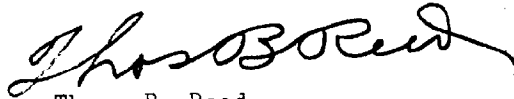
4. Additional Field Work Recommended.

The additional development recommended in par. 10 a of the review of H-6227 (1937) and authorized in the Director's letter of April 27, 1938 was not accomplished.

5. Reviewed by - J. A. McCormick, December 30, 1938.

Inspected by E. P. Ellis,

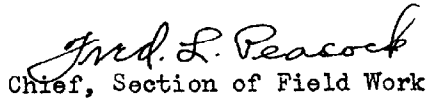
Examined and Approved:



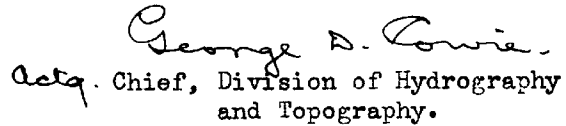
Thos. B. Reed
Chief, Section of Field Records



K.T. Adams
Chief, Division of Charts



Fred L. Peacock
Chief, Section of Field Work



Actg. Chief, Division of Hydrography
and Topography.

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6227 (1940 Additional Work) FIELD NO. 203

New Jersey Coast; Whale Beach to Hereford Inlet

Surveyed October, 1940

Scale 1:20,000

Instructions dated August 3, 1939 (GILBERT)

Soundings:
Type 808 Recorder

Control:
Three-point fixes on shore signals

Chief of Party - H. C. Warwick.
Surveyed by - Officers of M. V. GILBERT.
Protracted by - C. E. Dennis.
Soundings plotted by - C. E. Dennis.
Verified and inked by - G. B. Littlepage.
Reviewed by - J. A. McCormick, December 31, 1940.
Inspected by - H. R. Edmonston.

1. Results of Survey.

Additional development, recommended in par. 10a, original review of H-6227 (1937), was accomplished on the narrow ridge (enclosed by the 30 foot curve) extending about two miles northeastward from latitude 39°08', longitude 74°40.8'. Shoalest depth found was 17 feet in latitude 39°07.8', longitude 74°41.3' where the original work shows 18 feet. Also, depths of 18 feet were found in latitude 39°07.7', longitude 74°41.0' where the original work shows 20 to 23 feet. Otherwise, divergence from the original work is negligible.

2. Comment.

Protracting and plotting of additional work were accomplished in the Washington Office. The Descriptive Report is combined with that for H-6226 (1940 Additional Work), but all pertinent comment therein has been embodied in this review. The 1940 additional work is entirely satisfactory.

T. B. Reed

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

Examined and approved:

J. S. Bowen

Chief, Division of Charts.

Raymond F. Egan

Chief, Section of Hydrography.

G. H. Rude

Chief, Division of Coastal Surveys.

(date Sept. 10, 1938)

H-6227 (add'l. wk.) applied to drawing of chart 1217, J. G. L.
Applied to chart 8-27, June, 1939 K.P.

Add'l. Work 1940 applied to Cht. 1109 Oct. 29, 1940 K.P.

6227

Additional work 1940

FOR 1940 ADDITIONAL WORK ON H - 6227
SEE DESCRIPTIVE REPORT OF H-6226

6227

Additional work 1940

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6227**

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

Number of positions on sheet	.....
Number of positions checked	.....
Number of positions revised	.....
Number of soundings recorded	.....
Number of soundings revised	.....
Number of soundings erroneously spaced	.....
Number of signals erroneously plotted or transferred	.....

Date: 12/30/40

Verification by *[Signature]* Time: 6 1/2 hrs

Review by J.A. McCormick 12/31/40 Time: 2 hrs.

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H - 6227 (1945) add wk.

Verified and Inked by

R. H. H. H. H.

Date

12/30/45

1. The descriptive report was consulted and appropriate action taken. ✓
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude. ✓
3. All references to survey sheets mentioned in the descriptive report include the registry number and year. ✓
4. Geographic names of hydrographic features are in slanting lettering and of topographic features in vertical lettering. ✓
5. All items effecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken. ✓
6. All positions verified instrumentally were check marked in the sounding records. ✓
7. All critical soundings are clear and legible. ✓
8. The metal protractor has been checked within the last three months. ✓
9. The protracting and plotting of all bad crossings were verified. ✓
10. All detached positions locating critical soundings, rocks or buoys were verified. ✓
11. The boat sheet was compared with the smooth sheet. ✓
12. The spacing of soundings as recorded in the records was closely followed. ✓
13. The bottom characteristics were shown on outstanding shoals. ✓
14. The reduction and plotting of doubtful soundings were checked. ✓

15. The transfer of contemporary topographic information was carefully examined. ✓
 16. All junctions were transferred. ✓
 17. The notation "JOINS H " was added for all contemporary adjoining or overlapping sheets now registered. ✓
 18. The depth curves have been drawn to include the significant depths. ✓
 19. All triangulation stations and transfer of topographic and hydrographic signals were checked by the field party. ✓
 20. Heights of rocks were checked against range of tide. ✓
 21. Rocks transferred from topographic survey have a dotted curve where shown thereon.
 22. Unnecessary pencil notes have been removed. ✓
 23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet. ✓
 24. The low water line and delineation of shoal areas have been properly shown (see letter of October 20, 1934). ✓
 25. Degree and minutes values and symbols have been checked. ✓
 26. Source of shoreline and signals (When not given in report). ✓
 27. Depth curves were satisfactory ~~except as follows:~~
-

28. Sounding line crossings were satisfactory ~~except as follows:~~

29. Junctions with contemporary surveys were satisfactory ~~except as follows:~~

30. Condition of sounding records was satisfactory ~~except as follows:~~

31. The protracting was satisfactory ~~except as follows:~~

32. The field plotting of soundings was satisfactory ~~except as follows:~~

33. Notes to reviewer:

HYDROGRAPHIC SURVEY NO. H6227

Smooth Sheet One (original)

Boat Sheet One (original)

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

Descriptive Report Combined D.R. written for 6226 and 6227 add. wk.
No (see D.R. of Add'l. Wk. H-6226)

Title Sheet No

List of Signals No

Landmarks for Charts (Form 567) Yes

Statistics No

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) ----

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

Hydrography: Total Days ; Last Date

Remarks _____

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT PHOTOSTAT OF	}	No. H H6226 (No. H (Additional Work))	{ received Nov. 16, 1940 registered Nov. 20, 1940 verified reviewed approved
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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
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83			
88			
90			

RETURN TO

82	T. B. Reed
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✓ TBR

RAC
HAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

Division of Hydrography and Topography: December 4, 1940

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Tide Reducers are approved in
2 volumes of sounding records for

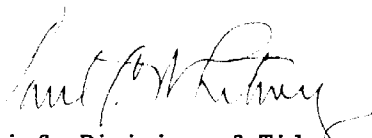
HYDROGRAPHIC SHEET 6227 Add. Wk.

Locality Off Townsend Inlet, New Jersey Coast.

Chief of Party: H. C. Warwick in 1940
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.

(Additional work, 1938)

6227

Duplicate
U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
NOV 2 1938
Acc. No. _____

6227 (Additional work, 1938)

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

DESCRIPTIVE REPORT

~~Hydrographic~~ } Sheet No. ~~5226~~ **6227**
Additional Work 1938

State New Jersey

LOCALITY
New Jersey Coast
~~Outer Coast, Wildwood N. J. to~~
Whale Beach to Hereford Inlet
~~Atlantic City, N. J. Hydrography~~
~~along the beach between inlets~~

193

CHIEF OF PARTY
Frank S. Borden

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. H-6227, Add'l Wk (1938)

REGISTER NO.

State New Jersey

General locality New Jersey Coast

Locality Wheale Beach to Heringford Inlet

Scale 1/20,000 Date of survey June-July, 1938 ~~1938~~

Vessel Oceanographer

Chief of Party F. S. Borden

Surveyed by S. B. Greneil

Protracted by H. F. Stegman (Washington Office)

Soundings penciled by H. F. Stegman (Washington Office)

Soundings in ~~YARDS~~ FATHOMS ~~FEET~~ FATHOMS

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by G. F. Jordan

Verified by G. F. Jordan

Instructions dated March 4, 1938, 192
Letters of April 27 and May 20, 1938.

Remarks:

DESCRIPTIVE REPORT
COVERING
ADDITIONAL HYDROGRAPHY
HYDROGRAPHIC SHEETS ~~6226~~ 6227

NOTE: Smooth plotting is to be done on the 1937 smooth sheets in the Washington Office.

INSTRUCTIONS: Date: March 4, 1938; to Commanding Officers, OCEANOGRAPHER and LYDONIA; Supplemental Instructions Project HT-207, paragraph 2(b); paragraph 38. Also Director's letters of April 27 and May 20, 1938.

PARTY ORGANIZATION: The hydrography on these two sheets was executed by the wire drag party at convenient times when the tide and weather were favorable. Sheet 6227 was executed with launch #82 (OCEANOGRAPHER) and sheet 6226 with the motor surfboat recently procured from the Coast Guard. The sounding party was organized as follows: S. B. Grenell, (in charge) right angle; A. L. Wardwell, left angle; J. C. Bull, plotting; C. F. Chewworth, recording. Leadsman were chosen from experienced personnel of the party.

SURVEY METHODS: The usual procedure for launch hydrography was followed. The lines furthest inshore were run during the calmest weather and at half tide or better wherever possible. During even the calmest weather there was always some groundswell running and in the shoaler areas, where this swell humped up before breaking, the leadsman made allowances for swell when calling soundings. This reduction was carefully watched and checked by the angleman and recorder.

The inshore lines were run as close as safety permitted to the breaker line and in most cases were well inside the six foot curve.

The exceptions to this rule are noted on the boat sheets (in pencil) and in the records. Notes are also recorded giving the approximate distance from the breaker line.

LOCATION OF SIGNALS: In order to run the lines close inshore, it was necessary to cut in additional signals for control. These signals were located by sextant cuts from the launch, recorded and indexed in the records. The location of these objects together with a short description of each have been listed in an abstract attached to this report. The geographic positions are given as scaled from the boat sheet. It is recommended that the cuts be replotted on the smooth sheet for more accurate location before being used for plotting positions.

TIDE REDUCERS: (Refer to paragraph 38 of the Instructions) After investigation of available tide gage sites, it was deemed impracticable to establish gages at Stone Harbor and Sea Island City. All reducers have been entered from the gage at Atlantic City, New Jersey for sheet 6227. Sheet 6226 was executed during the period when repairs were being made to the gage at Atlantic City, so reducers were furnished by the Washington Office from Sandy Hook, New Jersey and corrected for range and time in accordance with the accompanying letter of instruction (Reference 30-FLM, October 18, 1958).

UNUSUAL FEATURES: There were no unusual features worthy of note on sheet 6227.

On sheet 6226, along the stretch of beach just south of Ocean City, New Jersey, there are a series of bars running parallel with the beach line outside the calm weather breaker line. During the execution of the hydrography in this area, it was noted that the ground swell curled almost to the breaking point on these bars, flattened out again in the

narrow slough behind and then break suddenly on a steep shelf inshore. The line between positions 83a and 86a runs along one of these bars and the line 34b to 37b runs through the slough behind a bar. This latter line was barely outside the line of breakers along the steep shelf inshore.

JUNCTIONS: All junctions with previous surveys were excellent except for a few slight variations of one to two feet where the present work joined hydrography near the inlets executed by the Mikawa in 1937. The shoal areas adjacent to the inlets are constantly changing and for this reason the slight discrepancies are considered unimportant. The junctions with the deeper lines offshore are excellent with one exception: Positions 111c to 117c indicate a one to two foot shoaler depth than the hydrography of 1937. This can be partly explained by the fact that one foot was taken from many of the soundings by the leadsman to compensate for a heavy ground swell which was running at the time.

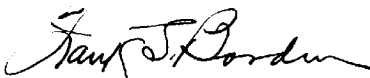
<u>STATISTICS:</u>	<u>SHEET NO.</u>	<u>POSITIONS</u>	<u>SDGS.</u>	<u>STAT. MI. HYDROG.</u>
	6227	304	1610	71.8
	6226	296	1613	71.3

Respectfully submitted,



S. B. Grenell, H&GE,
Officer in Charge.

Approved and Forwarded:



Frank S. Borden, Comdr. C&GS.,
Comd'g. Ship OCEANOGRAPHER.

SBG/B

4
ABSTRACT OF HYDROGRAPHIC SIGNALS
 Located 1938.

Hydrographic Sheet 6227:

<u>Name</u>	<u>Latitude</u>	<u>meters</u>	<u>Longitude</u>	<u>meters</u>	<u>Description</u>
DUN	39 - 01	1452 (398)	74 - 46	818 (826)	Sandhill, unmarked
GAB	39 - 03	1206 (644)	74 - 45	000 (000)	Center gable ^{3 story} stone ho. N. end Stone Hbr.
BO	39 - 04	898 (957)	74 - 44	528 (917)	N. gab. small green roof house.
TRY	39 - 05	238 (1612)	74 - 43	1219 (223)	Center fishermen look-out stand, N.R.
SAND	39 - 07	1842 (8)	74 - 42	423 (1019)	sandhill, not recoverable.
NEW	39 - 10	989 (861)	74 - 40	725 (715)	S. gab. new green ho. most northerly group

Hydrographic Sheet 6226:

LORE	39 - 10	1488 (362)	74 - 40	363 (1077)	S. gab. shack
MED MID	39 - 11	442 (1408)	74 - 39	1271 (169)	center small wh. shack most northerly
DORM	39 - 11	817 (1053)	74 - 39	927 (513)	center dormer most N'ly house of group
DAN	39 - 16	920 (930)	74 - 34	249 (1189)	NE corner dance pavilion
TWIN	39 - 16	1477 (378)	74 - 33	1016 (422)	southerly of two cupolas on 4 story hotel

The above positions are scaled from the boat sheets where the objects were plotted from three or more sextant cuts recorded and indexed in the sounding volumes.

Verifier's Report on H-6227, Add'l wk (1938)

1. Junctions

H-6226 (1937-1938), H-6231 (1937), H-4870 (1928) - Satisfactory ✓
junctions are made with these surveys.

H-6236 (1937) - A shoaling of 5ft south of the mouth of the inlet makes the junction of the 12ft curve indeterminate. This junction is passed to the reviewer for decision. ^{Adjusted} satisfactorily.

H-~~4834~~⁴⁸³¹ (1928)
A butt junction is made with this survey. General agreement is good. A shoal and a slough have developed in the latest survey, and only those soundings on H-~~4834~~⁴⁸³¹ which agree, have been inked. The 12ft. curve is to be ^{Completed.} completed by the reviewer.

H-4859 (1928)
No junction has been made with this sheet, as this survey covers the same area. Consideration is passed to the ^{Superseded.} reviewer.

H-6224 (1937)
The junction with this survey is confined to a small inshore area, which appears to be shallower on the present ^{Satisfactory} survey. The junction is not a fair comparison as this area is subject to change.

It is noted that a junction note is made on H-6224 with H-4870. No junction of soundings was made.

2. The control on the main sheet was augmented by the following hydrographic signals, -

New	H0	✓
Sand	Gab	
Try	Dun	

The control on the "sub-plan", which was plotted in this office is entirely by triangulation stations. Those plotted are

- △ Stone Harbor Standpipe 1928, 1932
- △ " " C. G. Cipola 1928, 1932
- △ North Wildwood Aluminum Tank, 1936
- △ Wildwood, Funchaser Pier, east Dome, 1928
- △ Wildwood, Convention Hall, White Dome, 1928
- △ Wildwood, Large Standpipe, 1932
- △ Cape May Naval Base Tank, 1927

3. The shoreline on the sub-plan was transferred from T-5647 ✓

4. The plotting and records conform to the requirements of general instructions.

5. Remarks,

(a) The smooth plotting of this additional work was done in the Washington Office by H. F. Stegman.

Dec. 29, 1938

George F. Jordan

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. ~~H-6227~~ (Addl. Wk. 1938)

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

Number of positions on sheet	<i>.304..</i>
Number of positions checked	<i>...15..</i>
Number of positions revised	<i>...0..</i>
Number of soundings recorded	<i>.1610..</i>
Number of soundings revised	<i>...0..</i>
Number of signals erroneously plotted or transferred	<i>...0..</i>

Date: *Dec. 29, 1938*

Verification by *G. F. Jordan*

Time: *28½ hrs*

Review by J. A. M^c Cormick, Dec. 30, 1938

Time: 5 hrs.

HYDROGRAPHIC SURVEY NO. H-6227 (Addl Wk. 1938)

Smooth Sheet Yes (Original One)

Boat Sheet Original One

Records; Sounding One Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet No

List of Signals Page 4 of D.R.

Landmarks for Charts (Form 567) Yes

Statistics Page 3 of D.R.

Approved by Chief of Party D. R. Approved

Recoverable Station Cards (Form 524) ----

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

Hydrography: Total Days 4 ; Last Date July 17, 1938

Remarks

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT PHOTOSTAT OR	}	No. H -6227 (Addl. Wk. 1938) No. X	}	received Nov. 2, 1938 registered Nov. 23, 1938 verified reviewed approved
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RETURN TO

82	T. B. Reed
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✓ TBR