7779

8150
8151

Diag. Cht. No. 77-3 & 78-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

# DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. CO-1349 Office No. H-7779

LOCALITY

State MARYLAND

General locality CHESAPEAKE BAY

Locality MANOKIN RIVER

1949

CHIEF OF PARTY

E. B. Latham

LIBRARY & ARCHIVES

DATE April 17, 1950

B-1870-1 (1)

7779

Form 537
(Ed. June 1946)

REG. NO. H-7779

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.

REGISTER No. H-7779

Field No. Co-1349

State MARYLAND

General locality ~~TANGIER SOUND~~ CHESAPEAKE BAY

Locality MANOKIN RIVER

Scale 1:10,000 Date of survey 20 JULY TO 26 SEPT. 1949

Instructions dated 28 FEB. 1949, SUPPLEMENTAL INSTRUCTIONS 29 MAR. 1949

Vessel COWIE

Chief of party ECTOR B. LATHAM

Surveyed by ECTOR B. LATHAM & W. ~~M.~~ F. DEANE

Soundings taken by ~~echo sounder~~, graphic recorder, hand lead, ~~wire~~ POLE

Fathograms scaled by SHIP PERSONNEL

Fathograms checked by " "

Protracted by M.E. NATTO

Soundings penciled by " " "

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~

REMARKS:

NOTES FOR DESCRIPTIVE REPORT

SHEET CO-1349 1/10,000

SURVEYED BY SHIP COWIE, 1949

A AUTHORITY:

Project CS 287, Amended Instructions dated 28 February, 1949, Amended 29 March, 1949.

B LIMITS AND DATES:

Manokin River, and approaches, from Lat. 38-04.5, Lon. 75-56.0 Eastward to junction with Sheet H-7778(1949) CO-1249 at Lon. 75-54.0. Northeastward to Lat. 38-07, Lon. 75-58.0 thence Northward to Lat. 38-08.2 thence Eastward to the East shore of Tangier Sound. Sheet covers the Manokin River Eastward to Lon. 75-50.5, but does not include Broad Creek H-7780(1949) (Sheet 1449) and Mine Creek H-7778(1949) (Sheet 1249) omitted from this sheet on account of limitation of sheet size. The survey of Laws Thorofare is carried as far North as Lat. 38-09.2.

First Hydrography was on 20 July and last day that work was done was on 26 September. Work was carried on concurrently on Sheets H-7780(1949) CO-1449, H-7781(1949) CO-1549 and H-7782(1949) CO-2149.

Junctions are made to Sheets H-7778(1949) CO-1249, H-7780(1949) 1449 and H-7782(1949) 2149.

C VESSEL AND EQUIPMENT:

Launch No. 102 and Hydrographic Ark. The COWIE was not used for Hydrography on this sheet. For speed(s), tactical diameter(s) etc., please see Report for Sheet H-7781(1949) CO-1549.

Submarine Signal Co. type 808 portable depth recorders, supplemented by hand lead and pole were used throughout.

D TIDE AND CURRENT STATIONS:

An auto portable tide gage was maintained in Teague Creek and used for reduction of soundings from 20 July until 25 August. On account of restricted entrance, time correction is applied throughout of minus 20 minutes, except for work inside Teague Creek on b and d days Ark (28 July and 4 August). Crisfield gage, plus 30 minutes was used on 6 September and 26 September.

Current Station No. 2 of INSTRUCTIONS was occupied from 1 to 4 August, pos. 38-05.2; 75-53.6. During this period one party worked in the field.

E SMOOTH SHEET: Disregard par. E. see Processing Office Addendum

Signals and Shore Line have been transferred to the Smooth Sheet by personnel of the ship COWIE. Mr. Merlyn E. Natto has been assigned the plotting of the sheet. Due to detachment of Officer personnel from the COWIE supervision of the plotting will be shared by the COWIE and the Norfolk Processing Office.

F CONTROL STATIONS:

Triangulation Station DEAL ISLAND CHURCH SPIRE falls within the limits of the Sheet and is used directly as a hydrographic signal, DEAL ISLAND COLORED CHURCH SPIRE could not be identified, and was not used. Station Saint Pierre was recovered (approximately) and the position recovered (which was within one meter of the triangulation position) was marked and used as a fixed topographic station.

Two graphic control sheets were used to locate hydrographic signals on this sheet and sheet H-7780(1949) CO-1449 $\underbrace{\text{(CO-49-F and G)}}_{\text{to be subsequently destroyed}}$. Triangulation stations appearing thereon and used for control are SOLOMONS LUMP LIGHTHOUSE, FAIRMONT CHURCH SPIRE. Topographic station MARSH was computed from a three point fix observed with a theodolite and was used as a fixed topo station to control the Graphic Control.

Triangulation control was spread very thin over the area of this sheet, topo stations Flat, Pop and Mom were transferred from other topo sheets and used to supplement the triangulation. The Graphic Control was carefully and painstakingly done and Hydrographic signals are believed to be satisfactorily located to control the hydrography.

G SHORE LINE AND TOPOGRAPHY: Disregard par. G. See Processing Office Addendum

Shore line has been adjusted to signals and fixes by personnel of the COWIE. In the vicinity of Signal "Vim" shore line has apparently undergone change since the pictures were taken and is transferred from the boat sheet supplemented by fixes and notes plotted on and applied to the smooth sheet.

H SOUNDINGS:

Depths have been measured with 808 Fathometers, hand lead and pole. Some heavy grass was encountered which indicated pole soundings. Bar checks have been taken as specified in INSTRUCTIONS and Hydrographic Manual, whenever weather conditions permitted good results. The corrections have been determined to be zero throughout the range of depths sounded and the time Hydrography was being done.

I CONTROL OF HYDROGRAPHY:

Standard method of three point fixes on shore objects employed throughout. "Boat Sheet Positions" are used only in areas of minimum importance in shoal estuaries. Boat Sheet Positions have been kept to a minimum.

J ADEQUACY OF SURVEY:

Survey is complete and adequate to supersede all previous surveys for charting purposes. No part of this sheet is inferior to any other part.

Junctions to contiguous hydrography appear entirely satisfactory from inspection of the boat sheets. No modern hydrographic survey exists in the area other than the concurrent sheets.

K CROSSLINES:

Crosslines and overlap exceed project INSTRUCTIONS due to channel lines and overlap of Launch - Ark. Depths at crossings appear satisfactory from inspection of Boat Sheet but further comment after smooth plotting is indicated. For further comment, please see paragraph "N".

L-M COMPARISON WITH PREVIOUS SURVEYS, CHART:

Preliminary Review Items:

21 - "Ruins of Structures, etc." 38-08.3; 75-51.4.

Expunge - only a few small stakes at h.w.l. remain which are too inconspicuous to warrant showing on the chart. (Review, par. 5.)

Oyster houses in Goose Creek have been located on G.C. Control Sheet CO-49-F, these "oyster houses" do not appear on the chart.

Oyster houses in Teague Creek can be located by reference to the boat sheet.

Oyster houses and crab pens have been located by Hydrographic methods in Wenona harbor.

appear on smooth sheet

Numerous 2 foot soundings on shoal, East around through Southwest from Piney Island, confirmed, and should be charted in positions shown in this survey.

"8" 38-06.0; 75-53.2 - Expunge, chart "7" 38-05.97; 75-53.~~39~~ 20.

"7" 38-06.6; 75-53.0 - Expunge, Chart "5", 38-06.56; 75-52.97.

"4" 38-07.0; 75-50.5 - The 4 foot sounding is correct, but "3"'s in the vicinity should be charted as representative of the controlling depth into Teague Creek. Note: Confirmed after smooth plotting.

"6" 38-07.4; 75-51.1 - Expunge, plot "5" at 38-07.3~~2~~7; 75-51.04 in lieu.

"2" 38-08.81; 75-55.7 - Expunge, plot "2" at 38-08.70; 75-55.69 as representative of the location of the controlling depth in this area. ~~1~~ several 1-ft. sdgs. in area

"3" 38-07.5; 75-57.5 - Expunge, plot "3" at 38-07.~~55~~ 47; 57-~~81~~ 48 as more critical.

"1" 38-07.7; 75-57.5 - Expunge, 2 feet was least depth found by developement (Confirmed after smooth plotting)

N DANGERS AND SHOALS:

"6" 38-06.8~~8~~2; 75-52.3~~1~~3 See "O" Coast Pilot Notes.

"6" 38-07.24; 75-51.~~91~~ 81 See "O" Coast Pilot Notes.

"4" 38-06.~~67~~ 60; 75-57.~~30~~ 20 - - - - - - - - - Charted (4) 3330 8/8/50

"2" 3 38-07.98; 75-57.97 ✓ chartered (3) 3330 R 8/50

~~"4" 38-07.22; 75-57.78~~ chartered (5) 3330 R "

"1" 38-06.~~18~~ 68; 75-55.6~~3~~ 2

Note "1" found by Launch No. 102 not confirmed by Ark development. The Launch "1" was arrived at by hitting bottom (3½ foot draft) and is believed to be a small pinnacle not discoverable by pole or fathometer sounding.

O COAST PILOT NOTES:

Reference United States Coast Pilot, Atlantic Coast, Section C, 1947 Edition, page 307, line 9 et seq. Line 12 - see Report on Sheet 1449 H-7780 (1949) for controlling depths above "Locust Point".

Add "The main channel is adequately buoyed and can be traversed by vessels drawing 25 feet as far as the red spar buoy at 38-06.1~~9~~ 4; 75-53.19. Above this point the controlling depth is 10 feet at M L W to a point East of Saint Pierre Island. Two Shoals having 6 foot depth (at 38-06.~~8~~ 3 6; 75-52.37 and 38-07.24; 75-51.~~31~~ 81) close to the channel are not buoyed and local knowledge is required for safe navigation. A black can buoy marks the end of an extensive shoal Southeast of Saint Pierre Island. Above Saint Pierre Island the controlling depth of 6 feet at M L W to Locust Point.

Line 20 "Little Deal Island Channel etc. "delete""is buoyed". Buoys are no longer maintained. Still in Light List - Retain on chart - Parsons 8/8/50

Line 22 - add Little Deal Island Harbor and the town of Wenona lies off Tangier Sound just North of the Manokin River. There is a lighted range. Controlling depth is 4 feet in entrance of channel and 2 feet inside.

ANCHORAGES:

During the progress of the survey the COWIE anchored at 38-06.2; 75-52.9, 15 feet of water, good holding ground but exposed from South around to Northwest, strong currents make the anchorage unsatisfactory especially with boats tied alongside.

Anchorage at 38-07.8; 75-50.85 was used during the survey of parts of this sheet and during the survey of sheet CO-1449. H-7780(1949) Anchorage is in 13 - 14 feet of water, good holding ground and reasonable protection. The COWIE also anchored in Tangier Sound, 38-06.9; 75-58.1 - 15 feet of water, good holding ground but exposed to every direction except East. This anchorage is at the junction of sheets 1349 and 2149.

TRIBUTARIES:

Mine Creek - reported on Sheet CO-1249.

Goose Creek is marked by Goose Creek lighted beacon and is rather extensively used by fishermen, crabbers and oystermen who live along it's bank. Note: Controlling depths after smooth plotting. (4 ft. can be drawn to crab pens on south bank of creek)

Teague Creek has controlling depth of 3 feet at M L W over the bar, and 4 feet inside. Channel is narrow and tortuous, local knowledge is required for safe navigation.

There is a crab house inside Teague Creek near which the tide gage was installed. It is used by local fishermen, crabbers and oystermen.

Fishing Creek is a wide shallow bay along the North shore. Little traffic was observed therein during the progress of the survey. It's banks are uninhabited.

Laws Thorofare offers passage into Deal Island. Controlling depth is 2 feet at mean low water through a narrow crooked channel between the mud flats. It is considerably used by local boatmen and there are a few habitations along it's Northwestern shore.

CURRENTS:

Current data should be supplied by the Division of Tides and Currents after evaluation of data observed at Current Station No. 2.

AIDS TO NAVIGATION:

Fixed aids to navigation are presently charted in their correct positions. Floating aids to be reported after smooth plotting. Review, par. 6 B.

Q LANDMARKS FOR CHARTS:

Aready reported on Form 567.

R GEOGRAPHIC NAMES:

All geographic names are presently, properly charted.

U-Y MISCELLANEOUS:

The position of several points located by graphic control were furnished the Maryland Conservation Department.

Respectfully submitted:

Ector B. Latham

Ector B. Latham,
Chief of Party.

H-7779 (1949)

# STATISTICS SHEET CO-1349

## Launch No. 102.

| Date | Pos. | Stat. mi. | HL & P | Bar Chk. | Letter |
|---|---|---|---|---|---|
| July 20 | 28 | 4.7 | | 1 | a |
| 25 | 130 | 26.2 | 14 | 2 | b |
| 26 | 238 | 48.9 | 43 | 2 | c |
| 27 | 245 | 50.1 | 28 | 1 | d |
| 28 | 230 | 51.5 | 20 | 2 | e |
| 29 | 97 | 20.9 | | 2 | f |
| Aug. 2 | 178 | 40.0 | 23 | 2 | g |
| 3 | 191 | 41.7 | 28 | 1 | h |
| 5 | 165 | 37.4 | 21 | 1 | j |
| 8 | 94 | 13.4 | 16 | 2 | k |
| 9 | 235 | 49.9 | | 2 | l |
| 10 | 247 | 50.5 | 22 | 2 | m |
| 11 | 98 | 19.9 | 4 | 2 | n |
| 16 | 41 | 6.7 | 3 | 2 | p |
| Total | 2217 | 461.8 | 222 | 24 | |

## Ark

| Date | Pos. | Stat. mi. | HL & P | Bar Chk. | Letter |
|---|---|---|---|---|---|
| July 27 | 80 | 10.6 | 435 | | a |
| 28 | 155 | 22.7 | 983 | | b |
| 29 | 91 | 13.8 | 964 | | c |
| Aug. 4 | 214 | 32.1 | 1499 | | d |
| 5 | 160 | 16.8 | 877 | | e |
| 8 | 127 | 22.1 | 894 | | f |
| 9 | 232 | 36.2 | 1496 | | g |
| 10 | 209 | 31.6 | 1325 | | h |
| 11 | 34 | 4.9 | 160 | | j |
| 17 | 12 | 1.6 | | | k |
| 25 | 115 | 17.8 | 1 | 2 | l |
| Sept. 6 | 92 | 16.1 | | 2 | m |
| 26 | 56 | 8.4 | | 2 | n |
| | 1577 | 234.7 | 8634 | 6 | |
| Total for sheet: | 3794 | 696.5 | 8856 | 30 | |

Area, sq. stat. mi. 24.6

LIST OF SIGNALS

To Accompany H-7779 (1949)

TRIANGULATION STATIONS

DEAL ISLAND CHURCH SPIRE, 1901-33

TOPOGRAPHIC SIGNALS

~~T-7127~~ (Co-F-49)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| AMO | BOG | DAY | EGG | FIX | GOO | IRE | LOT | PIE | SAD |
| ANT | BUM | DEW | ENT | FOB | GUM | JAY | MAN | POP | URN |
| ARP | CAN | ~~DID~~ | ERR | FUN | HAY | JOY | NOW | RAB | VIM |
| ART | CHIM | DIG | EST | GET | HUP | KAS | ONT | RAN | WOP |
| BET | CUD | DOG | FAD | GIP | INK | LIP | PAY | RUE | YEL |
| | | | | | | | | | ZAG |

~~T-7127~~ (Co-G-49)

| | | | | | |
|---|---|---|---|---|---|
| BAG | KIN | MID | NOR | SAY | WAR |
| COD DID | LAG | MOM | PIL | TOM | WIN |
| ELF | LEE | MUT | PIG | USE | YAK |
| EYE | LON | NIT | REB | VEX | ZUG |
| GAY | | | | | |

# FLOATING AIDS TO NAVIGATION

| NAME | LAT. | METERS | LONG. | METERS | DEPTH | POS. NO. | DATE |
|---|---|---|---|---|---|---|---|
| MANOKIN RIVER BUOY C7 | 38-07 | 604 ~~595~~ | 75-51 | 42 | 11½ | 70b(red) | 7/25/49 |
| PRICKLY POINT SHOAL BUOY 52A | 38-05 | 740 | 75-53 | 689 | 12½ | 123o(red) | 7/26/49 |
| PINEY ISLAND SHOAL BUOY S3 | 38-05 | 298 | 75-53 | 1125 | 17 | 129o(red) | 7/26/49 |
| LOWER THORO-FARE DREDGED CHANNEL BUOY S4 | 38-07 | 720 | 75-57 | 435 | 6½ | 188m(~~red~~) | 8/10/49 |
| LOWER THORO-FARE DREDGED CHANNEL BUOY S3 | 38-07 | 787 | 75-57 | 429 | 6½ | 189m(~~red~~) | 8/10/49 |
| MANOKIN RIVER BUOY S4 | 38-06 | 242 | 75-53 | 259 | 12½ | 17e(red) | 8/28/49 |
| PINEY ISLAND SHOAL UPPER BUOY S5 | 38-06 | 528 | 75-53 | 561 | 13½ | 18e(red) | 8/28/49 |
| LOWER THORO-FARE DREDGED CHANNEL BUOY 5 | 38-07 | 936 | 75-56 | 1265 | 5½ | 192 (purple) | 8/25/49 |

## UNOFFICIAL FLOATING AIDS

| NAME | LAT. | METERS | LONG. | METERS | DEPTH | POS. NO. | DATE |
|---|---|---|---|---|---|---|---|
| WHITE SPAR BUOY "A" | 38-05 | 107 | 75-53 | 1317 | 18½ | 128e(red) | 7/26/49 |

Largely superseded in N. to M. 18 & 33 (1950)

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-7779 (Field No. Co-1349)

SHORELINE AND CONTROL

Paragraphs E and G of the body of this report should be disregarded as all control and shoreline was transferred to the smooth sheet by personnel of the Norfolk Processing Office. The field party apparently gained an exaggerated idea of the amount of shoreline displacement, possibly due to boat sheet distortion and also to inaccurate transfer of topo signals from a 1:20,000 to a 1:10,000 scale. While it is obvious that some shoreline changes have occured, sufficient data is lacking to plot the minor changes accurately. Shoreline changes taken from the graphic control sheets are, in some instances, difficult to reconcile with air-photo compilations. Note shoreline changes, shown in red, at signals LOT, & ZAG. ~~& LIP~~. A major topo shift is indicated at Lat. 38-07.7 Long. 75-57.2. where the shoreline has been moved out as noted on the boat sheet,

SOUNDINGS

Pole soundings average from ½ to 1 foot deeper than fathometer soundings. (normal result in soft bottom)

Respectfully submitted,
Hugh L. Proffitt
Hugh L. Proffitt
Cartographer

Norfolk, Va.
3 April 1950

Approved & forwarded:
Earl O. Heaton
Earl O. Heaton
Supervisor, S.E. District

GEOGRAPHIC NAMES

Survey No. H-7779

| Name on Survey | A On Chart No. | B On previous survey No. | C On U. S. quadrangle Maps | D From local information | E On local Maps | F P. O. Guide or Map | G Rand McNally Atlas | H U. S. Light List | K | |
|---|---|---|---|---|---|---|---|---|---|---|
| Maryland | | | | | | | | | USGB | 1 |
| Tangier Sound | | | | | | | | | " | 2 |
| Manokin River | | | | | | | | | | 3 |
| Prickly Point | | | | | | | | | | 4 |
| Goose Creek | | | | | | | | | | 5 |
| Drum Point | | | | | | | | | | 6 |
| Drum Point Cove | | | | | | | | | | 7 |
| Teague Creek | | (location of tide gage) | | | | | | | | 8 |
| St. Pierre Point | | | | | | | | | | 9 |
| St. Pierre Island | | | | | | | | | | 10 |
| Broad Creek | | | | | | | | | | 11 |
| Letter Cove | | | | | | | | | | 12 |
| Fishing Creek | Letter Creek | | | | | | | | | 13 |
| Big Sound Creek | | | | | | | | | Lt. | 14 |
| Little Sound Creek | | | | | | | | | | 15 |
| Laws Gut | | | | | | | | | | 16 |
| Laws Thorofare | | | | | | | | | | 17 |
| Deal Island | | | | | | | | | USGB | 18 |
| Man Gut | | | | | | | | | | 19 |
| Straight Gut | | | | | | | | | | 20 |
| Lower Thorofare | | | | | | | | | | 21 |
| Little Deal Island | | | | | | | | | USGB | 22 |
| Webster Point | | | | | | | | | | 23 |
| Piney Creek | | | | | | | | | | 24 |
| | | | | | | | | | | 25 |
| | | | | | | | | | | 26 |
| | | | | | | | | | | 27 |

See chart 1224 and U.S.E. "Terrapin Sand Point", "Marion", "Monie", and "Deal Island" quadrangles for name placement or for additional approved names.

Names underlined in red are approved 4-24-50 L Heck

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7779

Records accompanying survey:

Boat sheets ..3...; sounding vols. 14....; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 8 envel.;

special reports, etc. ..............................................

................................................................

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

| | | |
|---|---|---|
| Number of positions on sheet | | 3794 |
| Number of positions checked | | 150 |
| Number of positions revised | | 5 |
| Number of soundings revised (refers to depth only) | | 157 |
| Number of soundings erroneously spaced | | 50 |
| Number of signals erroneously plotted or transferred | | ✓ |
| Topographic details | Time | 19 |
| Junctions | Time | 15 |
| Verification of soundings from graphic record | Time | 20 |

Verification by A. J. Hoffman Stirni 11 hrs. Total time 409 Date 2/13/50

Reviewed by J. A. Dinsmore Time 28 hrs. Date 30 Mar 1951

RHC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

# TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~ 25 April 1950

Division of Charts: R. H. Carstens

Plane of reference approved in
14 volumes of sounding records for

HYDROGRAPHIC SHEET 7779

Locality Manokin River, Chesapeake Bay, Maryland

Chief of Party: E. B. Latham in 1949
Plane of reference is mean low water, reading
2.6 ft. on tide staff at Teague Creek Entrance
3.3 ft. below B. M. 1 (1949)

3.6 ft. on tide staff at Crisfield
5.8 ft. below B. M. 9 (1942)

Height of mean high water above plane of reference is as follows:

Teague Creek Entrance = 2.1 feet
Crisfield = 1.8 feet

Condition of records satisfactory except as noted below:

E. C. McKay
Chief, ~~Division~~ Section of Tides ~~and Currents.~~

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. H-7779

FIELD NO. CO-1349

Maryland, Chesapeake Bay, Manokin River
Surveyed in July - September, 1949 Scale 1:10,000
Project No. CS-287

Soundings:

808 Fathometer
Hand lead
Pole

Control:

Sextant fixes on shore signals

Chief of Party - E. B. Latham
Survyed by - E. B. Latham and W. F. Deane
Protracted by - M. E. Natto
Soundings plotted by - M. E. Natto
Verified and inked by - A. J. Hoffman
Reviewed by - T. A. Dinsmore, 30 March 1951
Inspected by - R. H. Carstens

1. Shoreline and Signals

The shoreline originates with air-photographic surveys T-8133, T-8134, T-8150 and T-8151 of 1942. Shoreline revisions shown in red are from graphic control survey CO-49-F and the boat sheet of the present survey.

The signals are from graphic control surveys CO-49-F and CO-49-G which are designated for destruction after the surveys in this area have been verified and reviewed.

2. Sounding Line Crossings

Depths at crossings are in very good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

Except for minor irregularities, the bottom is fairly smooth. Shoal flats of varying extent are found throughout the area. A natural channel with depths ranging from 6-43 ft. extends southwestward from the northeastern limits of the survey.

4. Junctions with Contemporary Surveys

An adequate junction was effected with H-7780 (1949) on the northeast. The junction with H-7778 (1949) on the south will be considered in the review of that survey.

Project surveys on the west have not yet been received in this office.

5. Comparison with Prior Surveys

H-557 (1856) 1:40,000
H-707 (1859) 1:20,000
H-1447a (1878) 1:40,000
H-2611 (1902) 1:20,000
H-2616 (1901-02) 1:20,000

The surveys of the period 1901-02 provide the most complete prior coverage of the area under consideration. A comparison between the prior and present surveys reveals that depths along the axis of the natural channel of Manokin River have appreciably decreased. Examples of this shoaling are indicated in the following comparison:

| Prior Depth | Latitude | Longitude | Present Depth |
|---|---|---|---|
| 22 | 38° 07.70' | 75° 50.88' | 13 |
| 23 | 38° 07.33' | 75° 50.93' | 16 |
| 34 | 38° 06.57' | 75° 52.80' | 25 |
| 40 | 38° 06.05' | 75° 53.35' | 32 |

Except for the above changes, only minor differences of 1-2 ft. are noted between prior and present depths elsewhere in the area. Minor discrepancies in shoreline delineation are also noted between the prior and present surveys. These discrepancies are attributed largely to differences in interpretation of the high-water line in marshy areas.

The ruins of structure charted in lat. 38° 08.3', long. 75° 51.4', from T-2575 (1901-02) should be disregarded. Investigation during the present survey revealed no remains of the structure except a few small stakes at the high-water line.

The present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 1224 (Latest print date 1/18/51)
Chart 3330 (Latest print date 11/6/50)

A. Hydrography

Charted hydrography originates principally with the prior surveys of the period 1901-02 which need no further consideration. Several critical soundings have been charted from the present survey prior to verification and review.

The present survey entirely supersedes the charted hydrography.

B. Aids to Navigation

Inasmuch as most of the aids to navigation located on the present survey have been subsequently changed in designation or position, a comparison with the present chart would serve no useful purpose. The changes originated with H. O. Notice to Mariners Nos. 18 and 33 (1950).

C. Dredged Channels

Present survey depths in Lower Thorofare channel are from 1 to 3 ft. shoaler than the charted controlling depth of 7 ft. which originates with Chart Letter 754 (1950). The charted information is subsequent to and supersedes the present survey.

7. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.

b. The smooth plotting was generally good. However, while plotting in integers, the smooth plotter frequently converted 0.7 ft. into the next greater whole unit or 0.8 ft. into the next lesser unit.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

This is an excellent basic survey and no additional field work is required.

Examined and approved:

H. R. Edmonston
Chief, Nautical Chart Branch

H. Arnold Karo
~~Acting~~ Chief, Division of Charts

L. S. Hubbard
Chief, Section of Hydrography

W. M. Scaife
Chief, Division of Coastal Surveys

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-7779

## Record of Application to Charts

| DATE | CHART | CARTOGRAPHER | REMARKS |
|---|---|---|---|
| 4/21/50 | 1224 | H. F. Stegman | Before ~~After~~ Verification and Review Partially applied. (Added numerous critical depths) |
| 8/3/50 | 3330 | Riegari | Partially ~~Before~~ ~~After~~ Verification and Review added 3 shoal depths only. |
| 4-8-52 | 3330 | Earl M Brogonye | ~~Before~~ After Verification and Review Complete application of Hydro ✓3m |
| 11/4/52 | 555 | S.G. McGann | ~~Before~~ After Verification and Review |
| 12/9/52 | 1224 Reconst. | GHE | ~~Before~~ After Verification and Review |
| 2/26/64 | 77 | O. Svendsen | ~~Before~~ After Verification and Review |
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| | | | Before After Verification and Review |

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A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.